



# *Impact*

*An Evaluation of Minnesota Extension Service Programs*

## ***Expanded Food and Nutrition Education Program***

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*The key to successful programming is evaluation. What are the costs? What are the benefits? Should programs be supported, changed, or terminated? To find answers to these questions, the Minnesota Extension Service regularly evaluates existing programs. This paper is one of a series reporting the results of such evaluations.*

## Summary

The impact of the Expanded Food and Nutrition Education Program (EFNEP), a federal program for low-income families implemented in Minnesota by the Minnesota Extension Service, was evaluated by comparing nutrition-related knowledge, attitudes, and behavior of persons who participated in the program with those who did not. Results were mixed. Participation in the program was found to be positively correlated with several measures including knowledge of nutrition, goal-setting, and appropriate intake of some foods. However, participants did not appear to differ from nonparticipants in intake of some other foods, attitudes toward nutrition, or in food- and nutrition-related skills.

From the study it is clear that EFNEP does contribute generally to improving the food-related skills, knowledge, and behavior of the low-income families that participate in the program.

***The researchers noted improvements in skills that could "move homemakers toward independence from programs like EFNEP"***

Since 1969, low-income families in Minnesota have received help in improving their nutrition knowledge and practices through the federal Expanded Food and Nutrition Education Program (EFNEP). The program employs nutrition education assistants (NEAs) trained by the Minnesota Extension Service to teach others in small groups or on a one-to-one basis about nutrition, meal planning, goal setting, food management, food sanitation and safety, food buying, and food preparation.

In the decade and a half of its existence EFNEP obviously made some difference in the lives of the families it reached. NEAs reported that the homemakers they worked with were eager to learn about nutrition and seemed to be putting into practice the things they were taught. But program planners needed to know more. What exactly does EFNEP achieve? Does it change attitudes, knowledge, or behavior—or all three? Are the teaching

methods appropriate for meeting the program's goals?

Answers to these questions would provide valuable guidance for future EFNEP efforts. So in 1983, extension contracted with the University of Minnesota's School of Public Health to undertake a scientific evaluation of the program.

## Does EFNEP Make a Difference?

The EFNEP impact study was developed and carried out by two researchers in the School's Program in Public Health Nutrition, Phyllis Fleming and Patricia Splett. The researchers based their study on a plan used to evaluate California's EFNEP program. Between November 1983 and March 1984, persons with limited income in Hennepin and Ramsey counties\* interested in participating in EFNEP were given the opportunity to take part in the study.

The 476 families who agreed to participate were interviewed and given a "pretest" that evaluated their nutrition knowledge, attitudes, and practices, and then were split into two groups. Members of one group received the EFNEP education; the others were put on a waiting list for six months. At the end of that time the 265 families who were still available and willing were interviewed again and given another test. The researchers were then able to compare before and after scores within each group and between the groups to pin down what changes during the six months could be attributed to EFNEP participation.

## The Answer: Yes—and No

Improved knowledge of nutrition, appropriate intake of dairy products and fruits/vegetables, more goal-setting, and success in meeting goals were found to be significantly higher in the group that received EFNEP education. However, the two groups did not appear to be different in appropriate intake of protein foods and breads and cereals, attitudes toward nutrition, or in food- and nutrition-related skills. But the researchers point out that

\*These counties were selected for the study because they contain relatively large numbers of the target population (low-income homemakers).

## Reaching Across Cultures: EFNEP and Southeast Asians

In a corollary to the main EFNEP impact study, researchers separately evaluated the program's impact on 161 Southeast Asian immigrant families who received EFNEP assistance between October 1983 and June 1984.

They found that before EFNEP, the families experienced poor nutrition, a lack of awareness of the relationship between food and health, communication limitations that made food shopping difficult, and trouble using American appliances.

The families were generally highly motivated to participate in EFNEP. A followup study showed improved eating habits and nutrition knowledge and skills.

Recommendations of the evaluators indicated that there be better documentation of needs for these services and increased delivery to meet the needs; increased emphasis on nutrition for pregnant and nursing mothers in training NEAs who work with Southeast Asians; and continued close contact with other agencies serving Southeast Asians so that appropriate referrals can be made.

In an interesting sidelight, the researchers found that Southeast Asian NEAs seemed able to handle a larger caseload than other EFNEP NEAs. Also, Southeast Asian homemakers graduated from EFNEP six months sooner than other Ramsey County homemakers.

it's hard to draw a conclusion about this second group of findings.

"There were obviously areas of success," they wrote in their report. "Whether the areas in which no positive change was found can be labeled failure is less clear." The lack of apparent effect, they say, *could* be due to a lack of influence on the part of EFNEP in those areas. But it also could be related to the kinds of questions that were used, or the fact that many of those surveyed in the pretest were not available for the post-test.

The researchers concluded, therefore, that EFNEP does indeed make a difference in many areas. They particularly pointed to a positive effect on goal-setting and success in meeting goals as beneficial, "since these are generalizable skills and experiences which may move low-income homemakers toward independence from programs like EFNEP."

In the course of the study, the researchers made an unexpected discovery. Their initial review of the data suggested that families receiving both EFNEP education and federal Women, Infants and Children (WIC) program assistance (supplemental food) fared even better than the average EFNEP participant. Further analysis confirmed the observation.

"Participation in WIC does appear to enhance the positive effects of EFNEP participation," they concluded. This

suggests that the best way to improve nutrition in low-income families is to provide both access to supplemental food and education on how to select and use it.

## But What Does This Mean for EFNEP?

The impact study shows that EFNEP is effective and should be continued as a means of promoting good nutrition in low-income families.

It also points out a number of things that can be done to improve the program. Among the researchers' suggestions:

- make goal-setting and meeting goals a central part of the program by emphasizing these in NEA training;
- use demonstrations and field trips to improve gains in nutrition-related skills;
- use a variety of diverse indicators to measure homemakers' success;
- coordinate EFNEP and WIC for the greatest impact on nutrition in target families.

"It's good to have proof that EFNEP is accomplishing many of the things it set out to do," concludes Shirley Baugher, assistant dean for extension, home economics. "But it is equally helpful to get a good idea of where we can constructively alter the program. This study provides valuable suggestions for ways we can better help families improve their nutrition knowledge and practices."

***Conclusion: EFNEP is effective and should be continued as a means of promoting good nutrition in low-income families.***



### **About the Research Team**

The EFNEP impact study was conducted under contract to the University of Minnesota School of Public Health. The researchers were Phyllis Fleming, Ph.D., associate director, and Patricia Splett, MPH, instructor, Program in Public Health Nutrition.

Additional information on the details of the evaluation research methods and results are available in an unpublished study by Patricia Splett and Phyllis Fleming, "EFNEP Impact Study: EFNEP Services in Hennepin and Ramsey County; EFNEP Services to Southeast Asians in Ramsey County." Contact Ellen Schuster, 167 Food Science and Nutrition Building, University of Minnesota, St. Paul, MN 55108, for more information.

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