

# Expanded Food and Nutrition Education Program

United States Department of Agriculture  
Cooperative State Research, Education, and  
Extension Service



**FY 2002  
Program Impacts**

## EFNEP Expanded Food and Nutrition Education Program

**T**he Expanded Food and Nutrition Education Program (EFNEP) is a unique program that currently operates in nearly 800 counties throughout the 50 states and in the territories of American Samoa, Guam, Micronesia, Northern Marianas, Puerto Rico, and the Virgin Islands.<sup>1</sup> EFNEP is designed to assist low-income audiences in acquiring the knowledge, skills, attitudes, and changed behavior necessary for nutritionally sound diets, and to contribute to their personal development and the improvement of the total family diet and nutritional well-being.

EFNEP targets two primary audiences: low-income youth and low-income families with young children. In Fiscal Year 2002, EFNEP reached 405,533 youth and 163,032 adults; approximately 598,135 family members were indirectly reached through the adult participants.

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<sup>1</sup>Data from all states/territories are represented, with the exception of U.S. Virgin Islands.

### EFNEP Serves Those in Greatest Need

Poor health disproportionately affects minority and low-income U.S. populations. EFNEP focuses heavily on minority populations. In 2002, of the total EFNEP audience 32% were Hispanics, 29% were African Americans, 2% were Native Americans, and 3% Asian or Pacific Islanders. Recent studies have found the anomaly that people who are most food insecure (i.e., are missing meals because they do not have enough money to purchase food, or are worried about running out of food) are at greater risk for obesity than those who are food secure. This finding may relate to the feast-and-famine scenario. The women may run out of food near the end of the month, and then overeat highly palatable foods once resources become available. This binge-and-restriction cycle can disrupt metabolic patterns and internal cues of satiety, leading over time to increases in body weight. The integrated curriculum taught in EFNEP helps to reach a high-risk audience with the skills they need to reduce their risk, including balancing their food resources to last throughout the month.



<http://www.reeusda.gov/f4hn/efnep/efnep.htm>

### Who Are EFNEP Families?

- 75% of EFNEP families receive federal food assistance at entry; EFNEP helped 9% more receive this assistance at exit.
- 34% of the enrolled families have income at or below 50% of the poverty level.
- As shown in figure 1, 66% of the families are from minority groups.

### How Is EFNEP Taught?

EFNEP is delivered as a series of lessons, often over several months, by paraprofessionals and volunteers, many of whom are indigenous to the target population. The hands-on, learn-by-doing approach allows the participants to gain the practical skills necessary to make positive behavioral changes. In 2002, 2,300 paraprofessionals along with 34,941 volunteers delivered an average of 9 lessons to EFNEP adult participants. Staff and volunteers met with 15,484 youth groups for 196,930 hours of EFNEP instruction at 97,407 different group meetings. With more than 1,122 full-time equivalent (FTE) staff devoted to EFNEP, 79% of that time was spent on adult participants.

For the majority of the adult participants (78%), delivery was by way of a group environment, 16% one-to-one instruction, 5% a combination of the two instructions, and 1% through a different type of instruction (i.e., telephone,

mailings, etc.). Sixty-six percent (66%) of adult participants completed the program, and 20% are continuing the program in the year 2003. Through EFNEP, participants learn self-worth—that they have something to offer their families and society.

### Ethnicity of EFNEP Participants

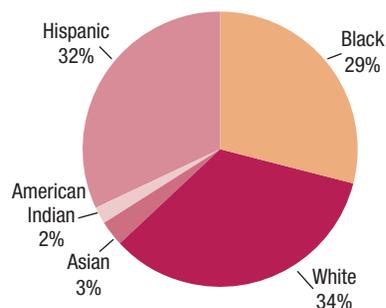


Figure 1

The delivery of EFNEP to youth takes on various forms. EFNEP provides education at schools as an enrichment of the curriculum, in after-school care programs, and through 4-H EFNEP clubs, day camps, residential camps, community centers, neighborhood groups, and home gardening workshops. See figure 2 for a breakdown of youth delivery methods. In addition to lessons on nutrition, food preparation, and food safety, youth topics may also include fitness, avoidance of substance abuse, and other health-related topics.

### Youth Program Delivery Methods

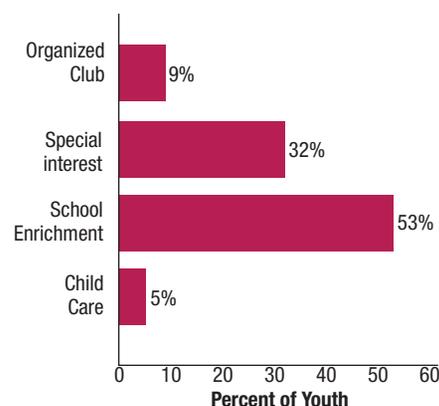


Figure 2

### How Are Accomplishments Measured?

#### Adult Component

Data from the EFNEP Evaluation/Reporting System are used to measure food practices and dietary improvements. Ten key food-related practices were measured at entry into EFNEP and upon graduation. These behavioral changes translate into significant improvements in daily living skills. Results based on data from 105,290 graduates show that:

- 83% improved in one or more food resource management practices (i.e., plans meals, compares prices, does not run out of food, or uses grocery lists);

- 88% improved in one or more nutrition practices (i.e., makes healthy food choices, prepares foods without adding salt, plans meals, reads nutrition labels, or has children eat breakfast); and
- 67% improved in one or more of the food safety practices (i.e., thawing and storing foods properly).

As figure 3 indicates, when participants first enrolled in the program, only 4% followed the desirable practices for all 10 indicators. At the end of the program, 27% had achieved this goal. These practices were measured based on entry and exit assessment of four indicators of Food Resource Management (FRM), five indicators of Nutrition Practices (NP), and two indicators of Food Safety (FS).

### Homemakers With Desirable Practices

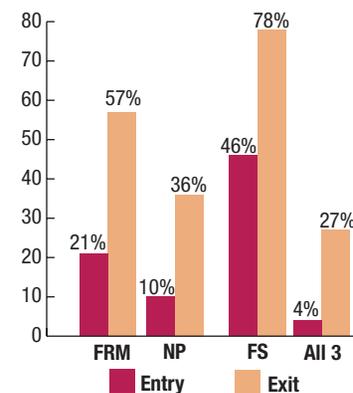


Figure 3

In addition to the 10 key food related practices that focused on food resource management, nutrition practices, and food safety, states also have the option of selecting from 141 additional questions that measure behavior in the following areas: attitude/barriers, cooking attitude, food preparation, healthy lifestyle, knowledge, locus of control, money management, nutrition attitude, parenting, personal development, physical fitness, pregnancy, personal relationship, stages of change, food security, and other needs.

*Some of the results from these questions include:*

### Nutrition Practices

- 41% (3,256 of 7,878 participants) now eat low-fat foods instead of high-fat foods;
- 41% (5,815 of 14,227 participants) now eat whole wheat bread;
- 51% (3,341 of 6,591 participants) now often offer 5 servings of fruits and vegetables to their family to eat each day;
- 38% (5,525 of 14,605 participants) less often drink regular soda every day.

### Food Safety

- 59% (80 of 136 pregnant women) are preventing listeria by heating hot dogs, lunch meats, cold cuts, and deli meats until steaming hot.

### Money Management

- 52% (3,933 of 7,608 participants) now use a written spending plan or budget;
- 42% (330 of 785 participants) now often set aside money for occasional bills;
- 45% (2,857 of 6,314 participants) now less often spend money on unplanned purchases.

### Dietary Changes

The dietary intake of six key nutrients that are often limited in the diets of low-income audiences—protein, iron, calcium, Vitamin A, Vitamin C, and Vitamin B6—are also measured. As figure 4 illustrates, intake levels for each nutrient increased as a result of participation in EFNEP.

There were also substantial improvements in the intake of food to meet the recommendations of the Food Guide Pyramid. As figure 5 illustrates, mean number of servings for each of the five groups improved. Servings increased as follows: .9 in the Breads & Cereals group, .7 in the Fruit group, 1 in the Vegetable group, .5 in the Calcium/Dairy group, and .4 servings in the Meats & Alternatives group.

At entry, only 20.5% of the 107,693 graduates measured had a diet that provided even half the recommended number of servings from

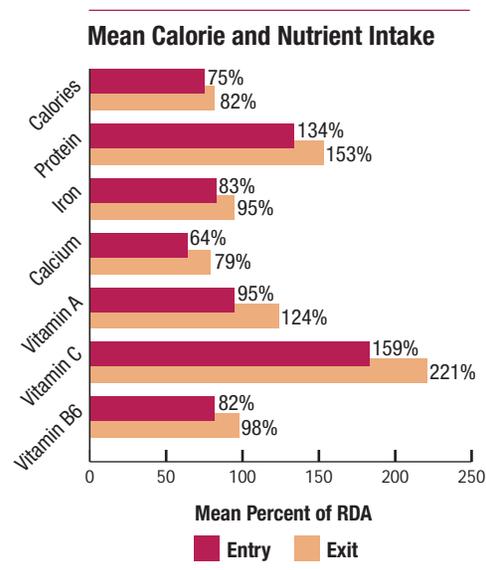


Figure 4

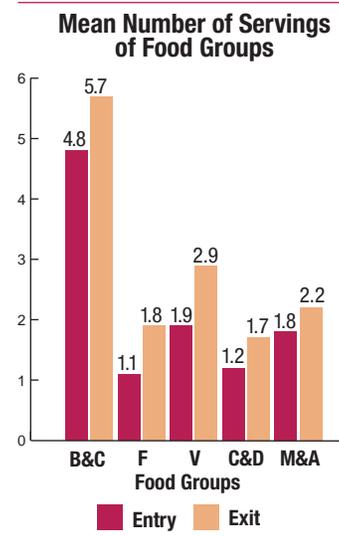


Figure 5

each of the food groups. At exit, 51.3% of the participants had achieved this minimal level of intake. Ninety-three percent (93%) showed positive change in at least one food group at exit.

### Youth Component

Data from the EFNEP Evaluation/Reporting System are also used to measure food practices and dietary improvements for youth. Four key impact indicators were measured at entry into EFNEP and upon graduation. Results based on data from 348,798 youth from 15,387 youth groups show that:

- 74% of 85,137 youth from 3,762 groups now eat a variety of foods;
- 76% of 100,731 youth from 4,346 groups increased their knowledge of the essentials of human nutrition;
- 65% of 72,320 youth from 3,124 groups increased their ability to select low-cost, nutritious foods; and
- 74% of 90,610 youth from 4,155 groups improved practices in food preparation and safety.

### EFNEP Changes Behavior

An independent study by the Produce for Better Health Foundation assessed how federal programs were addressing the gap between the current consumption patterns of fruits and vegetables and the recommended levels of intake. They found that EFNEP is by far the most effective federal program in increasing consumption of fruits and vegetables. EFNEP has demonstrated that effectively administered and well-funded nutrition education programs focusing on fruits and vegetables can make an impact. Latest data show positive and statistically significant behavioral changes, including a change in vegetable consumption of one serving and almost a doubling in the percent of graduates consuming three or more servings of vegetables per day. For fruits, average servings per day increased by 0.7 servings. The total increase for both fruits and vegetables was 1.7 servings.

EFNEP has also been successful in collaborating with other agencies/organizations to increase its impact on youth. Throughout the country, EFNEP has collaborated with school systems, day care centers, boys and girls clubs, and other youth-oriented organizations to make a difference in the lives of youth. As a result, youth develop self-esteem, learn new food-related skills, and learn to work cooperatively in groups.

### EFNEP Affects Each Participant in a Unique Way

*Some statements from EFNEP participants include:*

In eastern Indiana, an EFNEP participant comments, "EFNEP helped me to gain the confidence to get my GED. It was a long, hard process, but with the confidence I gained from EFNEP, I made it. After I earned my GED, I decided to go to college and am now enrolled in Ivy Tech, studying to become an LPN."

### EFNEP Saves Money

Multiple cost-benefit analyses highlight the value of EFNEP. A Virginia study found that for every \$1 invested in EFNEP, \$10.64 in benefits from reduced health care costs can be expected. An Iowa study showed \$8.03 in benefits; a consortium of six Midwestern states found \$8.82; and a smaller state, Oregon, had \$3.63 in benefits. Another study in Tennessee looked at food expenditures and found that for every \$1 spent to implement EFNEP, \$2.48 is saved on food expenditures. This reduces the need for emergency food assistance and saves money for other necessities.

In southern Indiana, an EFNEP participant comments, "My 3-year-old daughter loves the 'wash your hands song.' She tells everyone she runs into to wash their hands after they 'potty'—she said 'Mom, I have to go wash my hands because she (the EFNEP Assistant) says so.'"

In South Carolina, one participant comments, "My life has changed since meeting Ms. Rosa (EFNEP Assistant). Ms. Rosa taught our family life skills class some basic nutrition knowledge. Since receiving this nutrition information, it personally has improved the quality of life for me and my family."

In Michigan, another participant comments, "I now thaw my meat in the refrigerator and I don't keep my food on the stove past the two-hour limit."

In Oregon, comments from graduates include, "I eat breakfast every day and dinner every night, when I used to never eat but one

meal a day"; "I changed to 2% milk, sweet potatoes, spinach, carrots, and peas, and I read labels"; "I am trying to eat right and stay healthy, when before I didn't care at all what I ate or if I ate at all."

### In Addition, EFNEP Builds Personal Success:

- In Iowa, Kristal, a young single parent expecting her third child, requested assistance from EFNEP after being referred from the Nest program. Her main areas of concern were nutrition, learning to breast-feed, and feeding her children nutritious foods. They focused on adequate nutrition for Kristal and her two-year-old daughter, nausea and depression, and the underweight of her second child. Weekly food recalls were completed and scored to assess nutrition. They reflected a lack of fruit and vegetable intake, inappropriate feeding behaviors, and inconsistent

eating schedules. The nutrition assistant continued to work with Kristal on eating according to the Pyramid guidelines and meal planning. After the birth of Kristal's healthy baby girl, she became more interested in physical activity and she chose to breast-feed for the first time. Kristal has come a long way with the help of EFNEP.

- In Michigan, one homemaker was very busy going to classes and getting a family off to school every morning. She thought that there was no time to plan evening meals ahead of time, so she often thawed meats in the sink or microwave just before preparation. At the end of our series, she wrote that she had planned a week's worth of menus; therefore, she knew ahead of time what was planned for supper and would thaw the meat in the refrigerator the night before. She said that planning menus helps her family to eat a more balanced diet and they are happy because meals are not only nutritious but on time.

- In Arizona, a doctor referred his patient to a nutrition class. The patient had overmedicated herself with diet pills. She had reached the point of liver damage. The patient needed information on portion control, understanding labels, and balancing food choices to eat more healthy foods. The patient just graduated and reported after two months a 10-pound weight loss without diet pills. She reports her knowledge is much more comprehensive and useful to her.

- In Nebraska, a single mom with two children was recently diagnosed with multiple sclerosis. She is lactose intolerant and wasn't drinking any dairy products or taking any dietary supplements. After meeting with an EFNEP nutrition assistant for three months, she now drinks soy milk to get the recommended milligrams of calcium per day. She said, "Signing up with EFNEP was the best thing I could have done for me and my family. I have learned that all foods are important and that I can get calcium from a variety of foods, and that calcium is not just in dairy products. As a result of EFNEP, I believe my family and I are eating healthier."

- In California, county program staff are expanding local networks to include groups and agencies not previously served. Some college campuses are also cooperating with EFNEP, providing dietetic interns and undergraduate and graduate students to work with youth EFNEP participants. EFNEP in turn provides the training they need to teach nutrition education and to work with young people. California State University at Long Beach, CSU Pomona, CSU Northridge, CSU San Bernardino, University of Southern California Medical Center, University of California, San Francisco Nursing Program, UCLA Affiliates, Charles Drew Hospital, Loma Linda University, and UC Davis are all involved.
- EFNEP in Texas has been collaborating with the Houston Independent School District (HISD) recently through the Office of Adolescent and Family Life. EFNEP has provided food and nutrition education to the Opportunities for Parenting Teens (OPT) grant and to the Pregnancy, Education, and Parenting (PEP) program. In addition to the standard EFNEP curriculum, they used a nutrition curriculum designed for pregnant teens (STARTSMART).

- A young mother in North Carolina was referred to EFNEP by the Department of Social Services because she had a two-year old daughter who weighed only 20 pounds. On the first visit, the program assistant learned from the mother that the child was eating only two meals a day and drinking diet cola from a bottle. The program assistant went over the Food Guide Pyramid for Children with the mother and suggested what and how much a 2-year-old child should be eating. The program assistant also recommended that the mother sign up the child for WIC and provided the phone number of the local WIC office. On the next visit, the mother informed the program assistant that she had signed up for WIC and that the child was now drinking milk instead of diet cola. She was also now feeding the child 4-5 times a day. On her last visit to the doctor, the child had gained three pounds.

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