FNP focuses on nutrition education for low-income youths in Missouri

MU Extension offers two key nutrition programs for low-income Missourians.* This annual report highlights the successes during the past year of one of these programs, the Family Nutrition Program (FNP). FNP funds come from USDA, Food and Nutrition Services through Missouri’s food stamp program to MU Extension. The main focus of FNP is youths and the adults who support them. FNP nutrition educators work primarily in schools, helping students achieve lifelong health and fitness.

*FNEP (Family Nutrition Education Programs) is the term used to refer to MU Extension’s two key nutrition programs for low-income Missourians: The Family Nutrition Program (FNP) and the Expanded Food and Nutrition Education Program (EFNEP).

New and notable

Cathy Bailey, FNP Nutrition Program Associate, was recognized for her contributions in Henry County. Henry County University of Missouri Extension received the Friend of Education Award last spring for meritorious contributions to the Clinton School District. Programs cited for the award included nutrition classes provided by Cathy.

Candance Gabel served on the Cooperative State Research Education and Extension Service (CSREES), United States Department of Agriculture (USDA), Food and Nutrition Services (FNS) National Program Development Team. She also served on the National Food Stamp Nutrition Education Conference Planning Committee.

Welcome to Ellen Schuster, Associate State Nutrition Specialist, and Family Nutrition Education Program Curriculum and Staff Training Coordinator. Ellen brings more than 20 years of extension experience to her position, including seven years as a nutrition and food specialist with Oregon State University. Ellen is a registered dietician who has earned her MS in nutrition from the University of Massachusetts. She has written nutrition education materials used by over 40 states.
Food Power brings good food and physical activity to life for Missouri’s students. Food Power, developed by University of Missouri Nutritional Sciences Extension, is a powerful program that teaches students about nutrition, food safety and physical activity.

The program is made up of three key components: Food Power Adventure, a walk-through, interactive exhibit; Food Power Classroom Activities; and Food Power Digest, a newspaper for students. The program teaches healthy eating and physical activity behaviors to students in kindergarten through fifth grade. Food Power is a key part of the Family Nutrition Program, and often opens the door for further programming in participating schools.

Food Power Adventure, the walk-through, interactive exhibit features a nine-stop tour of how food is grown, packaged, and finally its trip through the body. At each station, a volunteer presenter engages the students in a 5-minute activity that teaches healthy behaviors. First, students visit a pizza farm. They learn that food from all five food groups is grown and raised on farms. Next, as assembly line workers, they add labels to milk cartons on a conveyor belt. They learn how to use the information on food labels.

In the cafeteria, students learn about a variety of foods. They select a food tag that is their ticket to discover what happens to the food they eat. They make a stop at the mouth station and pass through the esophagus tunnel on their way to the stomach station. There they learn that healthy food choices give them energy to grow and play. In the small intestine area, they learn what the main nutrients are in their foods. A hands-on experiment teaches them about nutrient absorption by villi.

After learning about the digestive process, students move on to the muscles station. They test their flexibility and feel their heart rates increase after exercise. They learn that healthy foods and exercise help the heart and other muscles. At the bones station, they add calcium-rich foods to a bone model to make it strong. They learn about the connection between exercise, calcium and healthy bones. Last, they learn about germs as they view their hands under a black light—that shows up the invisible ink germs stamped on their hands. They learn how to wash effectively to get rid of germs.

To effectively promote behaviors, nutrition education and learned healthy behaviors must be reinforced over time. Food Power Adventure prepares students for more in-depth nutrition education activities. Teachers carry out classroom activities that address each of the areas experienced in Food Power Adventure. Taste tests encourage students to try healthy foods like fruits and vegetables. To reinforce healthy behaviors, teachers work with students on setting goals for good health. Teachers have the opportunity to encourage students over time as students use calendars to keep track of their goals and behaviors. Along with the classroom activities, students receive the Food Power Digest, a newspaper. It has quizzes, recipes, and short, easy-to-read articles that address food, nutrition and physical activity in a fun way. Students take home the Food Power Digest and share what they have learned with their families. Students also learn how to apply their newly acquired knowledge to their daily lives. Teachers and parents report great success with the program. After Food Power Adventure, a teacher in southwest Missouri said, “You taught my students more in an hour than I could have taught them in a week and a half.” One parent reported that her son now asks for milk instead of soda pop at fast food restaurants. In the end, students understand that food is power, and that it gives them what they need for growing, playing, learning and good health.

### Teachers tell us about FNP’s value

Two thousand six hundred thirty-four (2,634) teachers gave us feedback.

- **98** percent want the program again.
- **97** percent said the program was excellent or good.
- **Most enjoyable** parts of the program: activities and tasting food!
- **98** percent (2,586 teachers) reported one or more changes in students after FNP.

#### Teacher changes reported by teachers

<table>
<thead>
<tr>
<th>Student changes</th>
<th>Percent of teachers who reported each type of student change</th>
</tr>
</thead>
<tbody>
<tr>
<td>More aware of nutrition</td>
<td>94%</td>
</tr>
<tr>
<td>Makes healthier meal and/or snack choices</td>
<td>58%</td>
</tr>
<tr>
<td>Eats breakfast more often</td>
<td>41%</td>
</tr>
<tr>
<td>More willing to try new foods</td>
<td>64%</td>
</tr>
<tr>
<td>Improved hand washing</td>
<td>82%</td>
</tr>
<tr>
<td>Improved food safety other than hand washing</td>
<td>32%</td>
</tr>
<tr>
<td>Increased physical activity</td>
<td>38%</td>
</tr>
</tbody>
</table>

#### Teachers’ changes (self-reported)

<table>
<thead>
<tr>
<th>Percentage of teachers who made each type of change</th>
<th>Of those who made the change, the percentage who model or talk about the change in front of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>83% more aware of nutrition</td>
<td>54%</td>
</tr>
<tr>
<td>77% made healthier meal and/or snack choices</td>
<td>47%</td>
</tr>
<tr>
<td>52% eat breakfast more often</td>
<td>26%</td>
</tr>
<tr>
<td>60% more willing to try new foods</td>
<td>32%</td>
</tr>
<tr>
<td>72% improved hand washing</td>
<td>46%</td>
</tr>
<tr>
<td>65% improved food safety other than hand washing</td>
<td>30%</td>
</tr>
<tr>
<td>58% increased physical activity</td>
<td>31%</td>
</tr>
<tr>
<td>67% make/offer healthier food choices for students</td>
<td></td>
</tr>
</tbody>
</table>
FNP educators share unique success stories

**Northwest Region**

A former student told an educator:  
"Do you know the one thing I remember most? ...how you taught us to wash our hands. I still do it that way, keep my hands out of the water and sing the ABCs song...[for sudsing long enough]."  
— Sue Robinson

**West Central Region**

As written by an early elementary student to an educator:  
"Dear Mrs. Zagar,  
Thank you for helping us be humble... I you to not act like broccoli or spining. But because of you I like them. Thak you so much. You are a angel."  
— Carol Zagar

**Central Region**

A first-grader's mother told me that her daughter was with her while shopping and when looking at some fruit said, "Mom, you need to start eating more fruit because they have Vitamin C in them and that is important for our body to be healthy."  
— Carol Iby

**Northeast Region**

While talking with students at lunch, I saw a first-grade student who was drinking 100 percent grape juice, and we talked about the differences in juice. The student's mother was there in the lunchroom because she is a teacher. She said that she learned about 100 percent juice from me when I taught FNP in her class, and now buys it.  
— Donna Haley

**East Central Region**

From a letter in response to FNP, from Ms. Beverly G. Phillips, Principal, Scruggs Accelerated Elementary School, St. Louis, Mo.:  
"To Whom It May Concern...Ms. Hall would enhance the academic achievement level of schools by being allowed to provide the quality programs that are offered by her department. Raise your students and staff's knowledge when you create an opportunity for Ms. Hall to infuse your curriculum."  
— Donna Hall

As written by an early elementary student to an educator:  
"Dear Mrs. Mudd,  
Thank you for teaching...I'm glad I no...the food pyramid...I sometimes sneak candy from the candy jar. Keep that a secret ok. P.S. the Pizza made of the English muffin was excellent."  
— Gidget Mudd

**Southwest Region**

After FNP lessons, a teacher told me she was eating better from the pyramid, and exercising. She and her students now start their day with marching exercises.  
— Barbara A. Cleaves

**Southeast Foohills Region**

A sixth-grade teacher told me that her class was having a party, and that the students decided to bring fruits and vegetables. She could not believe it because most kids want to have sweets, chips, and soda. She gave credit to the program for the change in kids' eating habits.  
— Valerie Kuczek

**Southeast Region**

A parent said that after my lessons her third-grade daughter came home and taught them about storing food properly and not leaving it out of the refrigerator. The parent said it really made an impact on them.  
— Linda Gill

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**FNP connects statewide**

Number of participants for FY 2004:  
211,048

Total direct educational contacts*:  
979,045

Indirect educational contacts (parent newsletters):  
193,858

Total educational contacts:  
1,372,903

Number of groups that participated:  
6,178

143 alternative or special education groups

296 groups outside of the school setting

Average number of visits per group:  
6

Number of youth participants, pre-K through grade 12:  
198,481 (94%)

Number of adult participants:  
12,567 (6%)

Participants per race/ethnicity:**

- Caucasian: 82%
- African American: 12%
- Native American: 0.5%
- Hispanic: 1%
- Asian: 0.5%
- Other: 2%

Participants per gender:

- Male: 48%
- Female: 52%

* (Number of participants in 1 group) x (number of visits for the group) / (educational contacts for 1 group).

Sum of educational contacts for all groups = total direct educational contacts.

** Race/ethnicity is estimated.

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**A taste of FNP**

Research tells us that kids can taste foods 10 or more times before they accept them. That’s why FNP offers tasting as a key part of the nutrition education experience. Kids tasted thousands of foods across the state. On the average, 94 percent of kids tasted the foods offered. The illustration above shows samples of what they tried.

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**Show-Me Nutrition curricula evaluation for grades 4-6 pre/post test**

Students in grades 4 through 6 who received the Show-Me Nutrition Curricula completed a pre- and a post-test with questions about how often they ate breakfast, how often they washed their hands before they ate, and how often they played actively. The pre-test was given before receiving the curriculum, and the post-test was given after the last lesson of the curriculum. A subset of responses was analyzed including 1,978 pre-tests and 1,479 post-tests. Post-test responses showed improvement in all three areas as follows.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answers</th>
<th>Percent of students who gave this answer on the pre-test</th>
<th>Percent of students who gave this answer on the post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>I eat breakfast.</td>
<td>Most days.</td>
<td>66%</td>
<td>70%</td>
</tr>
<tr>
<td>I wash my hands before I eat.</td>
<td>Most of the time.</td>
<td>60%</td>
<td>62%</td>
</tr>
<tr>
<td>I play actively.</td>
<td>Most days.</td>
<td>78%</td>
<td>82%</td>
</tr>
</tbody>
</table>
This map shows the number of participants contacted by FNP nutrition educators in Missouri counties.

FNP touches the lives of Missourians of all ages

Number of participants per grade level or age

- Pre-Kindergarten ............... 7,268
- Kindergarten ................. 19,782
- Combined Pre-K & K ........... 2,813
- Grade 1 ......................... 21,046
- Grade 2 ......................... 18,179
- Grade 3 ......................... 14,115
- Grade 4 ......................... 14,405
- Grade 5 ......................... 12,871
- Grade 6 ......................... 5,316
- Combined Grades 1-6 ........... 62,760
- Grade 7 ......................... 3,194
- Grade 8 ......................... 2,824
- Grade 9 ......................... 1,144
- Grade 10 ....................... 396
- Grade 11 ....................... 620
- Grade 12 ....................... 558
- Combined Grades 7-12 .......... 10,990
- Ages 19-64 ................. 11,976
- Ages 65-65+ .................... 391

**Total participants: 211,048**

Participants, pre-K—grade 12: 198,481 (94%)
Adult participants: ............... 12,567 (6%)

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