Statewide Impact Statement:  Food Safety Education for Youth and Adults

Submitted By:  Judy A. Harrison, Ph.D., Professor and Extension Foods Specialist, Dept. of Foods and Nutrition, College of Family and Consumer Sciences

Summary:  UGA Cooperative Extension Family and Consumer Sciences and Georgia 4-H teach Georgia’s youth, parents, educators, child care providers and senior adults the importance of keeping food safe using four steps that are a part of the Fight BAC!, Be Food Safe and Food Safe Families Food Safety Education Campaigns:  Clean, Separate, Cook and Chill.

Situation:  In the U.S., per year, there are an estimated 48 million cases of gastrointestinal foodborne illnesses resulting in 128,000 hospitalizations, and 3,000 deaths.  Georgia ranks 9th in the nation with more than 2.5 million estimated cases per year.  A recent study estimates the total annual cost of foodborne illness in Georgia at $4.7 billion.  Average costs per case are $14,838 for E. coli O157:H7, $9,146 for Salmonella, $8,901 for Campylobacter and $7,227 for Yersinia.  Approximately half of reported foodborne illness cases occur in children under the age of 15 years.  There are more than 2 million children under age 15 in Georgia.  The risk of foodborne illness in children is higher due to lower body weight and underdeveloped immune systems.  Children have a higher risk of developing serious complications from foodborne illnesses than do adults.  Senior adults have a higher risk of illness and complications due to declining immune systems.  A recent observational study of consumer food handling behavior found that only 70% of consumers studied cooked hamburgers to the recommended consumer end-point of 160°F.  Only 4% used a thermometer to check burger doneness.  Only 13% knew the recommended internal temperature for safely cooking ground beef.  The average handwashing time observed was only 8 seconds; only 7% of the handwashing events met the recommended guideline of 20 seconds.  Potential cross-contamination was common, with an average of 43 events noted per household.

Response:  UGA Cooperative Extension Specialists and Agents in Family and Consumer Sciences, the Expanded Food and Nutrition Program (EFNEP) and 4-H implemented food safety education programs to teach safe food handling principles to youth, child care providers, parents, senior adults and other individuals.

Impact:  Statewide, 35 child care providers, 832 adults and 2,441 youth were reached with food safety education.  Through media outreach, an additional 270,000 contacts may have been reached with food safety messages.  Summary data from pre-tests and post-tests with convenience samples of program participants indicate that participants’ knowledge scores increased by an average of 24 points and 67% indicate intended changes to safe food handling behaviors including using food thermometers, not leaving perishable foods in the temperature danger zone for more than two hours, thawing foods properly, checking temperatures of food held for serving to groups, handling cold foods properly and improving handwashing and cleaning techniques.  As a part of the EFNEP program, an additional 3,613 individuals completed pre- and post-test food safety questions.  Of these, 66% demonstrated acceptable food safety practices regarding
thawing and storing foods properly at entry into the program. Following participation, 86% demonstrated acceptable food safety practices regarding thawing and storing foods properly.

**Public Value of this Program:**

- Increased knowledge of safe food handling and adoption of recommended food safety practices may help reduce the estimated 2.5 million cases of foodborne illness each year in Georgia.
- Prevention of these diseases may reduce absenteeism from schools and workplaces, thus resulting in better outcomes for schools and increased productivity for businesses.
- Prevention of foodborne diseases can result in substantial savings in health care costs and help to keep insurance costs lower for individuals and employers.