



# Family and Consumer Sciences Extension

## *Reducing the Risk of Foodborne Illness 2007*

### **Learning for Life**

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The University of Georgia Cooperative Extension

### ***The Problem***

- An estimated 76 million Americans become ill from foodborne illness each year, resulting in 325,000 hospitalizations and 5,000 deaths.<sup>1</sup> The Economic Research Service (ERS) estimates the cost of foodborne illness from five foodborne illnesses alone to be \$6.9 billion per year.<sup>2</sup>
- According to the USDA Economic Research Service, the estimated cost for a single case of salmonellosis is \$489, but this increases to \$9,840 for cases involving hospitalization. The economic burden to the U.S. for all foodborne salmonellosis is \$2.9 billion annually.<sup>3</sup> ERS estimates an annual cost of foodborne *E. coli* O157:H7 disease of \$445.9 million to society and foodborne *E. coli* non-O157 STEC disease costs \$329.7 million for a combined total of \$775.6 million.<sup>4</sup>
- In the latest data available from the CDC (2006), Georgia had the highest incidence of salmonellosis of all 10 sites monitored by CDC's Food Net system.<sup>5</sup>
- Infants, young children, the elderly and those with weakened immune systems are most at risk of serious complications. These may include kidney failure, seizures, strokes, heart complications and death.
- In an in-home study of consumer food handling practices, only 52% washed hands prior to food preparation, with less than 5% washing as recommended. Only 3% used a thermometer to determine doneness of a hamburger, with only 1% using it correctly. Chicken was undercooked 82% of the time, and other practices indicated a high rate of unsafe behaviors<sup>6</sup>.
- Food safety certification for foodservice workers became a statewide requirement in December 2007.
- Employee turnover rates are very high so there is a continuing need for these programs.

### ***Research-based Solutions***

- By identifying and controlling critical steps in food preparation, a high percentage of foodborne illness can be prevented.
- Food handler training programs improve knowledge of the causes of foodborne illness and recommended safe food handling practices.

### ***Extension's Role***

- Provide consistent, accessible food safety and sanitation education for foodservice employees and both youth and adult consumers.
- Provide education in safe food handling and implementation of HACCP (Hazard Analysis Critical Control Point) systems for foodservice managers; offer *ServSafe*<sup>®</sup> certification.
- Provide training that fulfills state requirements for employee training in the school nutrition program, personal care homes, child care facilities and other institutional settings.

### ***Extension's Contribution to Solving the Problem***

- More than 23,663 educational contact hours in food handler education were provided to 5,672 foodservice personnel. This includes 1,668 foodservice managers who received the *ServSafe*<sup>®</sup> manager training and 2,658 foodservice workers who received the *ServSafe*<sup>®</sup> employee training.
- 10,012 educational contact hours of food safety education were provided to 9676 consumers, families, and youth.
- Nearly 426 educational contact hours in home food preservation were provided to 82 program participants.
- Media was a major strategy for food safety and preservation education: 10 radio spots were broadcast to a listening audience of 208,000 people; and 42 newspaper columns were circulated to 600,000 readers.

### ***Impact on Georgians***

- Comparison of pre- and post-test evaluations indicated that on average foodservice employees who completed the *ServSafe*<sup>®</sup> food safety education program improved their knowledge with average scores

increasing from 68% to 90%. And, after the training, most participants indicated that they planned to implement recommended food handling practices if not already doing so. For example, over 94% of the participants indicated they will thaw foods in the refrigerator, in cold running water, or in the microwave right before cooking; 98% will follow recommended hand washing procedures; 98% will sanitize their cutting board; and 86% will use a food thermometer to decide if meat, poultry, egg dishes or fish are done before serving.

- Most foodservice managers who completed the *ServSafe*<sup>®</sup> manager training planned to implement recommended food handling practices in their food establishments if not already doing so. For example, 94% of the participants said that they will monitor that their employees check and record food temperatures regularly in cold and frozen storage; 97% plan to train and monitor employees on cleaning and sanitizing equipment and dishware; and 97% will train and monitor employees to recognize food spoilage and unsafe foods.
- Comparison of pre and post test evaluations indicated that participants in the general foodservice food safety training programs significantly improved their knowledge regarding important food safety practices, with average scores increasing from 79% to 87%. Overall, 99% of the participants rated these programs as either helpful or very helpful.

## Sources

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