



# Family and Consumer Sciences Extension

—*Reducing the Risk of Foodborne Illness in Children 2005*

## Learning for Life

The University of Georgia Cooperative Extension

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### ***The Problem***

- An estimated 76 million Americans become ill from foodborne illness each year, resulting in 325,000 hospitalizations and 5,000 deaths (source: 1). The Economic Research Service (ERS) estimates the cost of foodborne illness from the five major foodborne illnesses at \$6.9 billion per year, \$2.3 billion of that in children under age 10 (source: 2).
- Young children are more at risk for foodborne illness and serious complications: blood poisoning, kidney disease, seizures, strokes, heart complications, death (source: 2).
- ERS estimated costs for a single case requiring hospitalization is \$13,117 for salmonellosis, \$11,200 for *E. coli* O157:H7 and a staggering \$922,583 for listeriosis (source: 3).
- According to the Georgia County Guide 2005, the estimated total number of children below age nine was 1,301,451 in Georgia in 2004.
- There are approximately 3,000 licensed child care centers, over 6,500 registered family child care homes and 2,000 informal caregivers in Georgia (source: 4).
- Over 1.5 million meals are served daily in Georgia as a part of the school nutrition program (source: 6).

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

- Food handler training programs help to acquaint child care providers, teachers, children and parents with the seriousness and the causes of foodborne illness.
- By controlling the major contributing factors (improper cooling, inadequate cooking, time lapse between preparation and serving, infected persons handling food, contaminated raw foods or ingredient), a high percentage of foodborne illnesses could be prevented.

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

- Teach child care providers the importance of cleanliness in food handling.
- Teach child care providers about hazards that can occur at various stages during storing, preparing and serving foods and steps to take to eliminate hazards.
- Provide training that fulfills state requirements for licensure and enables Georgians not only to maintain jobs, but also to provide safer environments for children in their care.
- Teach children and parents four steps to keeping food safe - clean, separate, cook, and chill.

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

- Nearly 1,600 contact hours of food safety education were provided to 336 child care providers.
- More than 8,300 contact hours of food safety education were provided to 1,331 school food service employees.
- *The Smart Kids Fight BAC!*<sup>®</sup> food safety program provided nearly 1,000 contact hours of education to 2,122 elementary school children.

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

- Child care providers who participated in the *Smart CareGivers Fight BAC!*<sup>®</sup> food safety education program significantly improved their knowledge and learned to follow recommended food handling practices. Of the child care providers who participated in the *Smart Care Givers Fight BAC!*<sup>®</sup> program, 92% improved their food handling knowledge and 83% improved food safety practices.

- Of the child care providers who completed the *ServSafe*<sup>®</sup> Employee Training, 97% improved their food safety knowledge and planned to follow recommended food handling practices. For example, 94% planned to check food temperatures with a thermometer to see if their refrigerator keeps food at or below 41 degrees Fahrenheit.
- Additionally, the child care providers who completed the *ServSafe*<sup>®</sup> employee food safety program, emphasized their preparedness to secure the safety of food served to children. For instance, after training, a participant said, “*I’m going to start cleaning and sanitizing more often. Start checking the children’s milk.*”
- Comparison of pre and post-test evaluations indicates that the elementary school children who participated in the *Smart Kids Fight BAC!*<sup>®</sup> program significantly improved their food safety knowledge related to all four basic food safety principles: cleaning, preventing cross contamination, cooking, and chilling. Most of the children learned recommended food safety practices, for example, 95% of the children learned the correct method to clean their hands before touching foods.

## **Sources**

- 1) Mead, P.S., et al. (1999). Food-Related Illness and Death in the United States. *Emerging Infectious Diseases*, Vol. 5 (5): 607-625.
- 2) Buzby, J.C. ERS. (2001). Children and Microbial Foodborne Illness. *FoodReview*. Vol. 24 (2): 32-37.
- 3) Economic Research Service. <http://www.ers.usda.gov/data/foodborneillness/>. Accessed 11/04.
- 4) National Child Care Information Center, <http://nccic.acf.hhs.gov/statedata/statepro/georgia.html#demographic> Accessed 11/28/05.
- 5) Georgia Dept. of Education, <http://www.doe.k12.ga.us/schools/nutrition/about.asp> Accessed 11/28/05.

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