

Food Protection Management Program

<http://foodsafety.tamu.edu>

Relevance

Each year, foodborne diseases cause an estimated 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths. Populations most vulnerable to foodborne disease include pregnant women, the elderly, the very young, individuals with a chronic disease, and those with weakened immune systems.

Foodborne diseases are linked to numerous bacterial, viral, and parasitic pathogens. According to the Centers for Disease Control and Prevention, over 250 different types of foodborne diseases have been described. Common symptoms of foodborne disease include nausea, vomiting, diarrhea, abdominal cramping, fever, and headache. These symptoms are dependent on the type and amount of microbe ingested.

In 2000, the U.S. Department of Agriculture Economic Research Service estimated that the medical, productivity loss, and premature death costs related to five foodborne pathogens totaled \$6.9 billion annually. The specific foodborne pathogens used in this estimation included *Campylobacter*, *Salmonella*, *E. coli* O157, *E. coli* non-O157 STEC, and *Listeria monocytogenes*.

More than half of all foodborne illnesses is attributed to improper food handling in restaurants. Because almost half of our food dollars are spent on food prepared outside the home, food safety is a top concern among consumers. Therefore,

food safety education is a critical prevention component for reducing the risk for foodborne diseases.



Response

To meet the need for quality food safety education in Texas retail food establishments, the Food Protection Management (FPM) program was developed. Accredited by the Department of State Health Services, this program prepares food service workers to sit for the state Certified Food Manager exam. One component of FPM is the Certified Food Manager program. Using the curriculum *Food Safety: It's Our Business*, this program is conducted at the county level by Extension agents. Educational lessons and activities of the program focus on the following areas:

- enhanced use of temperature control measures in food service, such as thermometer use, time and temperature control, safe internal cooking and holding temperatures, thawing procedures, and general storage temperatures;
- increased adoption of proper hygiene and handwashing practices of food service employees and managers;
- increased adoption of practices to avoid cross-contamination, such as proper storage, washing and sanitizing of utensils and equipment between use, and employee hygiene practices; and
- increased adoption of pest management practices to keep insects, rodents, and other disease-causing pests under control.

Results

During 2008, more than 1,500 food service employees participated in the FPM program. More than 90 percent of participants successfully passed the Certified Food Manager exam.

A statewide survey of 353 participants was conducted to measure the extent that specific behavioral changes were being made as a result

of completing the FPM program. Results found a significant increase in the adoption of selected behaviors, as illustrated in the table shown below.

FPM also has a high rate of customer satisfaction. Participants in 2008 rated the FPM program an average of 1.1 out of a possible score of 5 (a score of 1 = completely satisfied; a score of

5 = not at all satisfied). In addition, more than 62 percent of respondents identified FPM as their first exposure to Texas AgriLife Extension Service, suggesting that this program is enabling Extension to reach audiences that might otherwise not have the opportunity to benefit from Extension education programs.

Behavior	% of participants who practiced this behavior "always" before FPM	% of participants who practiced this behavior "always" after FPM
Disposing of potentially hazardous foods that have not been eaten after 7 days	78	86
Frequency of using a thermometer to determine the doneness of food	45	72
Frequency of date marking all ready-to-eat refrigerated potentially hazardous foods	54	76
Frequency of cleaning equipment, utensils, and food contact surfaces used for preparing potentially hazardous foods every 4 hours	61	85

In August 2008, a second component of the FPM program was launched. *Food Safety: It's in Your Hands* is an accredited food handler's course offered by county agents. The 2-hour course focuses on reducing cross contamination and time/temperature abuse as well as personal hygiene. This course is also available online at <http://foodsafetyonline.tamu.edu>.

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