

The Food Safety Unit

2004-2005 Annual Report

The Unit

- Brenda Halbrook Director
- Marion Hinners Food Safety Specialist
- Margaret Venuto Epidemiologist
- Audrina Lange Food Safety Specialist
- Carmen Nordlund Secretary

Vision:

To eliminate all food safety hazards in foods provided through the USDA nutrition assistance programs.

Mission:

To increase awareness, visibility, and impact of food safety on USDA nutrition assistance programs and assure that FNS programs are represented in the wider federal and State food safety community.

Highlights of this Report

- Food safety education founded on data collection and analysis
 - Created databases on school foodborne illness and commodity food problems of public health concern
- Innovative initiatives in the past 15 months:
 - ➤ Rapid alert and notification system
 - School food safety programs based on Hazard Analysis and Critical Control Point principles
 - ➤ Food defense (or Bioterrorism) training and tools for FNS nutrition assistance programs
- Partnering with USDA agencies and other private and governmental agencies to promote food safety in FNS nutrition assistance programs
- FSU and FNS gained credible standing and recognition at the national level in food safety

INTRODUCTION

The Food Safety Unit (FSU) was established in November 2004 to serve as a focal point for cross-agency food safety initiatives at the Food and Nutrition Service (FNS) and to emphasize the Department's commitment to food safety and food safety education for operators and recipients of FNS nutrition assistance programs.

VISION, MISSION, and GOALS

The FSU created vision and mission statements supportive of making food safety an integral part of FNS nutrition assistance programs. This document outlines the variety of activities and initiatives of the FSU from November 2004 to January 2006 that achieve these goals:

 Primary Goal: Provide food safety education to FNS constituents and manage commodity food safety issues.

DATA INFORM FOOD SAFETY EDUCATION ACTIVITIES

The FNS FSU monitors and ensures the safety of food distributed to schools and provides food safety education on topics relevant to school foodservice settings. Data are gathered that highlight patterns and trends unique to school settings. Incidence and prevalence patterns in school settings are gathered from both Agency and national surveillance systems. Key data sources include the Complaint Component of the FNS Electronic Commodity Ordering System (ECOS), FSIS Consumer Complaint Monitoring System (CCMS), CDC's Electronic Foodborne Outbreak Reporting Systems (eFORS), and CDC's Foodborne Diseases Active Surveillance Network (FoodNet).

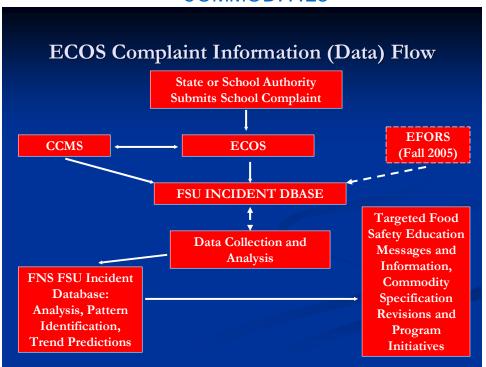
Data analyses include examination of characteristics of foodborne disease in school settings; magnitude/number of cases and outbreaks by foodborne pathogen/etiology/illnesses; implicated foods or food vehicles; and spatial and temporal (GIS) relationships.

With these tools, targeted food safety education materials can be developed for school foodservice personnel, to increase greater public and media awareness, influence policy decisions, and coincide with the food safety goals of Healthy People 2010.

The FSU has a website on the FNS Home Page and a mailbox at:

foodsafety@fns.usda.gov

FOOD SAFETY DATA and USDA DONATED COMMODITIES



The flowchart on the previous page shows which agencies monitor food safety complaints; how information is shared among agencies; the action taken by each entity; data analyses and interpretation, and ultimately the production of targeted food safety education information and messages.

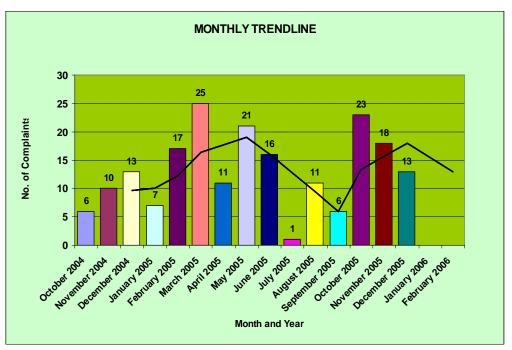
When a food safety problem affects USDA commodities, the FSU manages all hold and recall activities and must collaborate with regulatory agencies, FDA and FSIS, and the procurement agencies, Agricultural Marketing Service and Farm Service Agency.

Rapid Alert and Notification System

The FSU identified a need and initiated the Rapid Alert (RAS), which is an integral part of ECOS that allows electronic tracking and two-way communication with States and recipient agencies. With RAS, FNS can send emergency food safety information, such as hold and recall announcements to States. Eventually, RAS will reach the school level and the FSU will receive confirmation that the recalled food was sequestered and removed from school foodservice. Ultimately, the two-way web-based RAS will allow local school food service authorities to communicate a food safety problem or concern to headquarters, thereby serving as a potential sentinel source of information regarding the overall safety of the food supply.

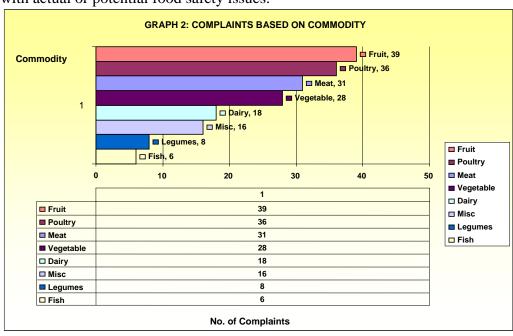
DATA ANALYSES, GRAPHS, AND INTERPRETATION

Graph 1. Monthly Trendline Based on the Number of Complaints. This bar graph represents the number complaints by month over a specific timeframe that serves as an historical baseline for prediction of the number of complaints in the future. These data are useful in observing seasonal variation and patterns to determine which months tend to be most frequently associated with potential food safety issues. These data also can provide clues as to what food safety education gaps exist. This information can indicate what association there may be between seasons, or times of the year, and potential food safety issues, thus indicating when and on what subjects, food safety education efforts are most needed. As more data are gathered, these relationships will become apparent.



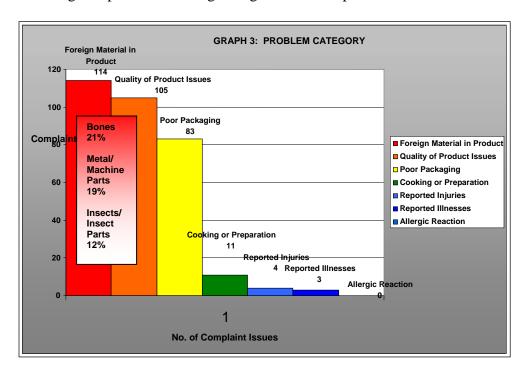
Graph 1

Graph 2. Complaints Based on Commodity. The bar chart below represents the number of complaints based on specific commodity. Note that the highest number of complaints is associated with commodity fruit (39), while the lowest number of complaints is associated with commodity fish (6). These data are useful in determining which commodities are most associated with actual or potential food safety issues.



Graph 3. Number of Complaints Based on Problem Category. This bar chart represents the number of complaints based on the problem category or the food safety trigger for potential food safety issues. Note that the highest number of complaints is associated with Foreign Material in Product (114

complaints) and the lowest number of complaints is associated with Cooking and Preparation (11 complaints). Reported illnesses and injuries were even lower and there were no allergic reactions. The proportion of complaints are expressed as percentages of complaints based on the specific details of a problem category or the food safety trigger of a potential food safety issue. Note that the highest number of complaints is associated with Bones (21%) followed by Metal/Machine Parts (19%) and Insects/Insect Parts (12%). These percentages represent a cumulative count of isolated incidents that involves any foreign material in product. These data are useful in determining recurring complaints involving foreign material in product.



FOOD SAFETY EDUCATION

Providing food safety education to program operators and recipients requires partnerships with many agencies and organizations, such as the Food Safety and Inspection Service (FSIS), Centers for Disease Control and Prevention (CDC), the National Food Service Management Institute (NFSMI), and the Food and Drug Administration (FDA). Two major education initiatives during 2005 were the development of:

- Guidance for School Food Authorities on School Food Safety Programs Based on HACCP Principles and
- Food defense awareness training

Guidance on School Food Safety Programs based on HACCP Principles

The Child Nutrition and WIC Reauthorization Act of 2004 requires that all schools participating in the National School Lunch (NSLP) and School Breakfast (SBP) programs have a food safety program based on Hazard Analysis Critical Control Point (HACCP) principles. The FSU facilitated the

development for the FNS Child Nutrition Division of the "Guidance for School Food Authorities: Developing a School Food Safety Program Based on the Process Approach to HACCP Principles," which was issued in June, 2005 and is posted on the FNS web site:

http://www.fns.usda.gov/cnd/CNlabeling/Food-Safety/HACCPGuidance.pdf

FSU worked with FDA to adapt the Process Approach to HACCP as the basis for the guidance, which was developed with input from a comprehensive group of stakeholders for school meals including: School Food Authorities, State Departments of Education, State and local health departments, FSIS, FDA, CDC, NFSMI, the School Nutrition Association and the National Environmental Health Association.

Food Defense

FNS conducted food defense training for FNS-specific program operators in 8 locations around the country and at three subsequent FNS Regional Office meetings. State and local nutrition assistance program operators learned how their organizations could be a target of bioterrorism, and why it is necessary to develop a plan to prevent and/or successfully respond to an attack. In addition, the FNS guidance document, "A Biosecurity Checklist for School Foodservice Programs," assists schools in developing a food defense management plan.

The FSU also collaborates with the USDA Office of Homeland Security by participating in the Strategic Partnership Program on Agroterrorism (SPPA) initiative with the FSIS, the Department of Homeland Security (DHS), the Federal Bureau of Investigation (FBI), state agencies and private industry. The purpose of SPPA is to develop mitigation strategies to reduce the threat of, or prevent a bioterrorism attack on, the nation's food supply by identifying vulnerabilities in the agricultural sector. FSU participated in an assessment of a central kitchen in North Carolina that will result in a comprehensive report on key vulnerabilities and potential mitigation strategies to defend against agroterrorism in school food service operations.

RECOGNITION AT THE NATIONAL LEVEL - LIAISON and OUTREACH

Over the last 15 months, the FSU established a credible reputation that resulted in invitations to speak at national and state conferences and meetings. FNS food safety activities rose from internal Agency recognition to intra- and inter-departmental levels and to the national level of the food safety community.

- Member Institute of Medicine/National Academy of Sciences Food Forum
- Member FSIS Foodborne Disease Investigations Branch extramural team
- Member Nutrition and Food Safety Education Task Group (hosted by the International Food Information Council)

FNS Food Defense Training Sites

- Dallas, TX
- Atlanta, GA
- Alameda, CA
- Philadelphia, PA
- Boston, MA
- Boulder, CO
- Chicago, IL
- Washington, DC

Food Safety Education Partners

- NFSMI
- CDC
- FSIS
- FDA
- AMS

- Member FDA Healthy People 2010 committee on food safety
- Member Interagency Risk Assessment Consortium
- Member USDA Food Safety Risk Assessment Committee
- Chair National Coalition for Food Safe Schools
- Member Conference for Food Protection Council II (Administration, Education and Certification)
- Member Conference for Food Protection Council 1 Food Recovery/Food Defense Committee
- Member Federal Food Safety Coalition (FFSC) and Chair of the FFSC Training Subcommittee
- Member of the CDC FoodNet Interventions Work Group
- Founding member of a Food Safety Subsection of the Food and Nutrition Section of the American Public Health Association
- Strategic Partnership Program Agroterrorism (SPPA) Initiative Partner
- Member ESRI Federal GIS User Group
- Food Emergency Response Network (FERN) Partner

PRESENTATIONS

- November 2004, Accepted speaker American Public Health Association National Conference
- November 2004, Invited speaker* Capital Area Food Protection Association quarterly meeting
- November 2004, Invited speaker* Maryland's Montgomery County Public School's training for 600 school food service staff
- April 2005, Invited speaker* ACDA Meeting
- April 2005, Invited speaker* CSFP Conference
- June 2005, Invited speaker* National Environmental Health Association Conference
- July 2005, Accepted speaker School Nutrition Association Annual Conference
- July 2005, Invited speaker* Society for Nutrition Education National Conference, July 2005
- August 2005, Accepted speaker International Association for Food Protection
- September 2005, Accepted speaker FNS National Nutrition Education Conference
- Food Defense Training 2004 2005, 8 locations nationwide
- 2005 Regional Office Meetings, Invited speaker*: MWRO, NERO, MPRO, MARO
- December 2005, Invited speaker* SNA Biannual State Directors' Meeting

^{*} Indicates organizations that asked the FSU to provide a speaker for the meeting.

FUTURE DIRECTIONS

- Proactive approach to food safety in the National School Lunch Program and other FNS nutrition assistance programs
- Lead on constituent education on avian influenza and any ensuing human-to-human pandemic
- GIS analyses and event mapping of complaints by commodities, distribution sites, schools, vendors, season or time of the year, processing/manufacturing plant, state/region, current events (natural disaster, environmental issues, etc.), establishment/school/central kitchen).
- Conduct a needs assessment based on trend analyses of complaints in order to determine food safety education gaps.
- Periodic review of complaint data to prompt any necessary discussions with the procurement agency(ies).
- School food safety program 'how-to' video
- Develop food safety training to address risk areas and how to elicit behavior change
- Develop a best practices document for a school food safety program
- Analyze data on the impact of certified food safety managers
- Develop and conduct food defense table top exercises for State agencies and School Food Authorities
- Partner with ACDA and FERN laboratories to integrate school food safety/defense into emergency preparedness plans
- Integrate school food defense and the new school food safety program requirements with the Food Safe Schools Action Guide team approach
- Investigate the potential use of Radio Frequency Identification (RFID) technology and tracking and launch pilot project involving warehouse facilities and do a feasibility study on a select number of sites for full-scale implementation.