



HEALTH IN ALL POLICIES: FOOD

Improve Food Safety

Food safety is a core public health issue. With today's far-reaching and complex food supply chain, there is an increasing need to find more effective solutions to better protect consumers by preventing food contamination. A Health in All Policies approach for food safety works best when there is a clear mandate for coordination and engagement with stakeholders inside and outside of government.

The U.S. Food Safety System

- Numerous federal, state, and local agencies share responsibilities for keeping the nation's food safety system performing at an optimal level. However, there are limitations to how these agencies can carry out their primary responsibilities in illness surveillance, outbreak response, and food safety regulation.¹
- Federal, state, territorial, tribal, and local regulatory agencies often work independently from one another and operate under different legislative authorities and standards. In some states, state health agencies (SHAs) do not oversee food safety activities, which is the sole responsibility of the federal government (FDA, USDA) or other state agriculture agencies, such as a state agriculture department.
- According to ASTHO's 2010 State Environmental Health Director's Survey, 77 percent of state environmental health programs performed at least one food protection activity, such as restaurant inspections or food recalls. However, the scope of food safety activities varies among SHAs.²

Organizational Structure of State and Local Food Safety Systems

State and local public health and agricultural agencies are the foundation of the nation's food safety system, with primary responsibility for illness surveillance, outbreak detection and response, food safety regulation, consumer education, and food service worker training. Because states are organized differently, the responsibility for outbreak investigation may fall on various agencies or levels of government.³

- In a **centralized** organizational structure, a SHA directly oversees local health departments and its employees conduct investigations at the local level.
- In a **decentralized** organizational structure, local governments directly operate health departments in their respective jurisdictions. These local health agencies conduct outbreak investigations and can request SHA involvement if the outbreak is severe, where technical or manpower assistance is needed, or if the outbreak crosses local jurisdictions.
- In a **shared** organizational structure, state and local governments jointly operate local health agencies. State and local agencies share responsibilities for outbreak investigations.
- In states with a **mixed** organizational structure, SHAs employ a system that incorporates both centralized and decentralized elements. Outbreak investigation responsibilities are unique to each jurisdiction.

Federal Food Safety Responsibilities



Food Safety Modernization Act: Bridging the gaps in collaboration

The Food Safety Modernization Act (FSMA), signed into law in January 2011, enables government agencies to better protect public health by strengthening the food safety system. FSMA aims to develop a sustainable, better coordinated prevention-oriented infrastructure. Under FSMA, there are several key authorities and mandates that focus on prevention, inspection and compliance, response, and imports.⁴

In addition, FSMA builds a formal system of collaboration among government agencies, recognizing that all food safety agencies need to work together in an integrated way to achieve public health goals. The following are examples of enhanced collaboration:

- **State and local capacity building:** FDA must develop and implement strategies to leverage and enhance state and local agencies' food safety and defense capacities. FSMA provides FDA with a new multi-year grant mechanism to facilitate investment in state capacity to more efficiently achieve national food safety goals. FSMA also directs CDC to increase state and local participation in national surveillance networks.⁴
- **Integrated Food Safety Centers of Excellence:** FSMA required CDC to designate five integrated food safety centers of excellence at SHAs (Colorado, Florida, Minnesota, Oregon, and Tennessee) and their academic partners to help other state and local health departments with training, evaluation, and consultation related to detecting and investigating foodborne disease outbreaks.
- **Foreign capacity building:** The law directs FDA to develop a comprehensive plan to expand foreign governments' and their industries' food safety capacities. One component of the plan is to help with training foreign governments and food producers on U.S. food safety requirements.⁴

- **Reliance on inspections by other agencies:** FDA is authorized to rely on other federal, state, and local agencies' inspections to meet its increased inspection mandate for domestic facilities. FSMA also allows FDA to enter into interagency agreements to leverage resources to inspect both domestic and foreign seafood.⁴
- **Additional partnerships with FDA:** Other stakeholders, such as state food safety agencies, are required to develop and implement a national agriculture and food defense strategy to establish an integrated consortium of laboratory networks and improve foodborne illness surveillance.⁴



Special Considerations for Multijurisdictional Outbreaks

Council to Improve Foodborne Outbreak Response (CIFOR)

- CIFOR is a multidisciplinary collaboration that includes representatives from local, state and federal agencies with expertise in epidemiology, environmental health, and laboratory science, as well as food industry representatives. This collaboration was organized to improve methods at the local, state, and federal levels to detect, investigate, control, and prevent foodborne disease outbreaks.

In 2009, CIFOR released guidelines to aid government agencies responsible for detecting, investigating, controlling, and preventing outbreaks of foodborne disease.⁵

- One of the chapters in CIFOR's "Guidelines for Foodborne Disease Outbreak Response" focuses on multijurisdictional outbreaks, which includes outbreaks in multiple states, multiple localities within a state, or outbreaks that involve multiple agencies. The guidelines establish criteria for integrating activities in multijurisdictional outbreaks.
- The response and steps to investigate an outbreak varies with the outbreak, surrounding circumstances, agencies involved, and available resources.
- Coordinating multijurisdictional outbreak investigations may require establishing a coordinating office to collect, organize, and disseminate investigation data.
- Depending on the scope and nature of the multijurisdictional event, the coordinating office may be located at a local or state health, food-regulatory agency, CDC, FDA, or USDA/Food Safety and Inspection Services.
- When deciding where to locate the coordinating office, the primary goal is to avoid interagency conflict about coordination that might distract from prompt conduct of the investigation.

Examples of integrated approaches outlined in the CIFOR guidelines include:

- Sharing information between public health and food regulatory agencies is critical to the effectiveness of multijurisdictional investigations.
- Identifying the source of a multijurisdictional outbreak is a collaborative process between local, state, and federal agencies and industry.
- Releasing public information about the outbreak should be coordinated with the lead investigating agency, when feasible.
- In some rare circumstances, setting up incident command systems (ICS) that guide outbreak responses within public health agencies. Historically, multijurisdictional foodborne disease outbreak investigations have not required formal ICS activation.

Major Multi-State Outbreaks in 2012-13

- **Salmonella Heidelberg infections**
Three hundred thirty-eight people across 20 states were infected with the outbreak strain of *Salmonella* Heidelberg linked to chicken products.^{*, 7}
- **Cyclospora cayetanensis infections**
Six hundred forty-three people across 25 states were infected with *Cyclospora* cayetanensis, a single-celled parasite that causes Cyclosporiasis. It was linked to a salad mix.⁸
- **Salmonella Bredeney infections**
Forty-two people across 20 states were infected with the outbreak strain of *Salmonella* Bredeney linked to peanut butter.⁹
- **Salmonella infections**
Two hundred sixty-one cases and three deaths across 24 states, caused by the outbreak of *Salmonella* typhimurium and *Salmonella* Newport infections linked to cantaloupes.¹⁰

¹ Johnson R. "The Federal Food Safety System: A Primer." Congressional Research Service. Available at: <http://www.fas.org/sfp/crs/misc/RS22600.pdf>. Accessed 1-9-2014.

² Association of State and Territorial Health Officials. "2010 State Environmental Health Directors Survey Results." Available at: <http://www.astho.org/Programs/Environmental-Health/State-Environmental-Health-Directors/Materials/2010-SEHD-Survey-Results-Fact-Sheet/>. Accessed 1-9-2014.

³ Association of State and Territorial Health Officials. "Anatomy of a Foodborne Illness Outbreak Investigation: A Primer." Available at: <http://www.astho.org/Environmental-Health/Food-Safety/Anatomy-of-a-Foodborne-Illness-Outbreak>. Accessed 1-9-2014.

⁴ FDA. "Background on the FDA Food Safety Modernization Act (FSMA)." Available at: <http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm239907.htm>. Accessed 1-9-2014.

⁵ Council to Improve Foodborne Outbreak Response. "Guidelines for Foodborne Disease Outbreak Response." Available at: <http://www.cifor.us/CIFORGuidelinesProjectMore.cfm>. Accessed 1-9-2014.

⁷ CDC. "Multistate Outbreak of Multidrug-Resistant *Salmonella* Heidelberg Infections Linked to Foster Farms Brand Chicken." Available at: <http://www.cdc.gov/salmonella/heidelberg-10-13/>. Accessed 1-9-2014.

⁸ CDC. "Cyclosporiasis Outbreak Investigations — United States, 2013 (Final Update)." Available at: <http://www.cdc.gov/parasites/cyclosporiasis/outbreaks/investigation-2013.html>. Accessed 1-9-2014.

⁹ CDC. "Multistate Outbreak of *Salmonella* Bredeney Infections Linked to Peanut Butter Manufactured By Sunland, Inc. (Final Update)." Available at: <http://www.cdc.gov/salmonella/bredeney-09-12/index.html>. Accessed 1-9-2014.

¹⁰ CDC. "Multistate Outbreak of *Salmonella* Typhimurium and *Salmonella* Newport Infections Linked to Cantaloupe (Final Update)." Available at: <http://www.cdc.gov/salmonella/typhimurium-cantaloupe-08-12/index.html>. Accessed 1-9-2014.