



FOODFACTS

From the U.S. Food and Drug Administration

What You Should Know about

GOVERNMENT RESPONSE TO FOODBORNE ILLNESS OUTBREAKS

Local, state, and Federal government agencies share responsibility for dealing with foodborne disease outbreaks.



What Is a Foodborne Illness Outbreak?

When two or more cases of foodborne illness occur during a limited period of time with the same organism and are associated with either:

- the same food service operation, such as a restaurant, or
- the same food product,

public health authorities consider it an **outbreak**. There is, however, one exception: botulism. Because of the severity of the illness and the possibility that a source food may cause others to become seriously ill, a single case is considered an outbreak.



The Role of State and Local Health Agencies

Local and state health agencies are often the first to detect the occurrence of an outbreak and to begin an investigation. These public health agencies play two key roles in keeping food safe and spotting outbreaks of foodborne illness.

- **Inspection, assistance, and education.** Local health agencies inspect food service and food retail establishments, provide technical assistance to food facilities, and educate consumers about food safety. They are the frontline in protecting the public from foodborne illness associated with improper handling of food or poor hygienic practices in food service and food retail operations or at home.
- **Identifying outbreaks.** The agencies investigate cases of suspected foodborne illness, which may be reported to them by health-care providers, clinical laboratories, and/or affected persons or someone close to them.

State agencies also play a major part in identifying and investigating foodborne illness. Depending on the state, the departments of health, agriculture, and/or environment may be involved in collecting information about cases of foodborne illness (surveillance), investigation, and response.

State health departments typically receive and analyze routine disease surveillance reports, coordinate surveillance among the local health departments, and report cases of foodborne illness to the Federal **Centers for Disease Control and Prevention (CDC)**.

The Federal Role



Centers for Disease Control and Prevention

When CDC receives reports of foodborne illness outbreaks, the first step is to determine the extent of the outbreak by linking cases or clusters of foodborne illness that have been reported from different areas. To do this, the Federal government has created two tools: **FoodNet** and **PulseNet**. (See *Tools* at right.)



Food and Drug Administration

FDA becomes involved in an outbreak investigation when an outbreak has been identified and an FDA-regulated product is suspected as the cause. Except for raw meat and poultry and certain egg products, which are regulated by the U.S. Department of Agriculture (USDA), FDA regulates all foods, including dietary supplements and bottled water.

Once notified, FDA's primary concern is to eliminate the source of the outbreak using a specific notification process.

FDA Notification Process

1. Alert the public about which foods are causing illness, and ask the firm that produces them to remove them from the market.
2. Monitor recalls by the producers of illness-causing foods.
3. Identify how the food became contaminated — for example, on the farm, in processing, during shipment, or in storage.
4. Take necessary regulatory action, such as requiring changes in a food processing plant in which food became contaminated to eliminate the sources of contamination.
5. Evaluate all the information gathered in order to prevent similar problems in the future. This may involve changes in FDA's **good agricultural practices guidance** or **good manufacturing practices regulations** or **other regulatory tools**.

Foodborne Outbreak Tools

FoodNet is the Foodborne Diseases Active Surveillance Network, a collaborative project of CDC, FDA, USDA, and 10 states (California, Colorado, Connecticut, Georgia, Maryland, Minnesota, New York, New Mexico, Oregon, and Tennessee). *FoodNet* collects information on cases of foodborne disease and related data to help public health officials understand how foodborne illness outbreaks arise and spread in the U.S.

PulseNet is also a collaborative project between CDC, FDA, USDA, and state and some local health departments. It uses a national computer network to confirm outbreaks of foodborne illness and to link cases/clusters occurring in multiple states caused by the same pathogen.

Through *PulseNet*, public health laboratories across the country perform DNA "fingerprinting" on bacteria and exchange findings when outbreaks of foodborne disease occur. The network permits rapid comparison of these "fingerprint" patterns through an electronic database at CDC.

New Challenges in Responding to Outbreaks

Foodborne illness outbreaks appear to be increasing. Part of the reason is that because of increased surveillance and better detection methods, public health agencies are identifying more **multistate outbreaks** and linking sporadic cases from different states or regions that are caused by the same organism.

But beyond improvements in identifying outbreaks, public health agencies at every level — Federal, state, and local — face a host of new challenges in responding to foodborne illness. New disease-causing organisms have emerged, some spreading worldwide. Because of changes in food production and distribution methods, the ways foodborne disease can arise and spread are also changing, and the scope of outbreaks can be much larger than before. Multistate — and even multinational — occurrences are not uncommon.

Outbreaks are also happening over longer periods of time and often occur in widely separated areas, making them difficult to detect. Added challenges are the increasing consumer demand for food that is less processed, and the globalization of the food supply — making production/processing and distribution more complex — so that identifying the food source of an outbreak is more demanding.

