

Foodborne Illness Outbreak Surveillance in Washington



The Washington State Department of Health is responsible for surveillance, monitoring, and response to foodborne illness outbreaks. By doing this, we can:

- Quickly remove contaminated food products from stores, restaurants, and homes to limit additional spread
- Prevent further illness from spreading between people
- Correct food preparation practices to prevent contamination and spread of pathogens

What is a foodborne illness outbreak?

When two or more people get the same illness from the same contaminated food or drink, the event is called a **foodborne illness outbreak**. Not all recalls, alerts, and advisories result in an outbreak of foodborne illness. Outbreak detection and control can take several weeks. It requires collaboration across local, state and federal partners.

Foodborne outbreaks can occur for a variety of reasons, including contaminated ingredients, cross contamination between foods, contamination by a food handler, time or temperature mishandling after cooking, and improper cooking.

Foodborne outbreak investigation process

DETECTION

- One or more people start to feel ill
- Sick people visit a health care provider and give a sample — typically stool
- Health care provider labs test the sample to identify a pathogen
- Public health labs then test the sample again to identify the specific strain



HYPOTHESIS

- Interview sick people to learn about their exposures (food, water, animals) before their sickness
- Gather receipts for detailed food purchase records
- Review exposure information and look for common foods across cases with the same pathogen strain



TESTING

- Perform traceback: identify the lot numbers, distribution and origin of suspected foods
- Test suspected foods from homes, restaurants, or stores for the pathogen of interest
- Compare the food pathogen to the human illness pathogen



CONTROL

- Recall implicated foods from stores and restaurants
- Educate the public on steps to take to protect themselves
- Inspect facilities or restaurants to learn how the food was contaminated
- Take action to ensure similar contamination does not occur again



Fast facts about foodborne illness



Washington state typically has 30-60 outbreaks reported every year. Summer is the busiest season.



The CDC estimates that 48 million Americans — or 1 in 6 people — get sick from a foodborne illness each year.



Higher risk populations include children, travelers, adults older than 65, immunocompromised and pregnant people.

Food safety tips



COOK

Cook all foods, especially meat and poultry, to the correct temperature.



CHILL

Refrigerate perishable foods within two hours (one hour if 90°F or hotter).



CLEAN

Wash your hands, utensils and surfaces often. Use hot, soapy water.



SEPARATE

Keep raw meat separate from other foods when shopping and preparing.

Important foodborne pathogens

Salmonella

Incubation period:

6 hours - 6 days

Symptoms:

Diarrhea, fever, abdominal cramps, vomiting

Duration of illness:

4 - 7 days

Common foods:

- Eggs
- Poultry
- Unpasteurized milk or juice
- Contaminated fruits and vegetables



Norovirus

Incubation period:

12 hours - 48 hours

Symptoms:

Nausea, vomiting, abdominal cramping, diarrhea, fever, headache

Duration of illness:

1 - 3 days

Common foods:

- Shellfish
- Raw produce
- Foods handled by infected food worker



STEC*

*Shiga toxin producing *E. coli*

Incubation period:

2 - 6 days

Symptoms:

Bloody diarrhea, abdominal cramping, vomiting. Can lead to kidney issues (HUS).

Duration of illness:

5 - 10 days

Common foods:

- Leafy greens
- Beef
- Unpasteurized milk or juice



Listeria

Incubation period:

3 - 70 days (avg 3 wks)

Symptoms:

Fever, muscle aches, nausea, diarrhea. Pregnant people may have mild illness that leads to pregnancy complications.

Duration of illness:

Variable

Common foods:

- Unpasteurized milk
- Soft cheeses
- Deli meats

