

Food Safety Month: Raising Awareness to Promote Public Health

Every year, an estimated one in six Americans (or 48 million people) get sick, 128,000 are hospitalized, and 3,000 die from eating contaminated food (CDC). Through August, we have seen five foodborne illness outbreaks in peaches, onions, bagged salad, mushrooms, and sprouts. The FDA and USDA Food Safety Inspection Service (FSIS) recognize September as food safety month in order to increase awareness and decrease illnesses.

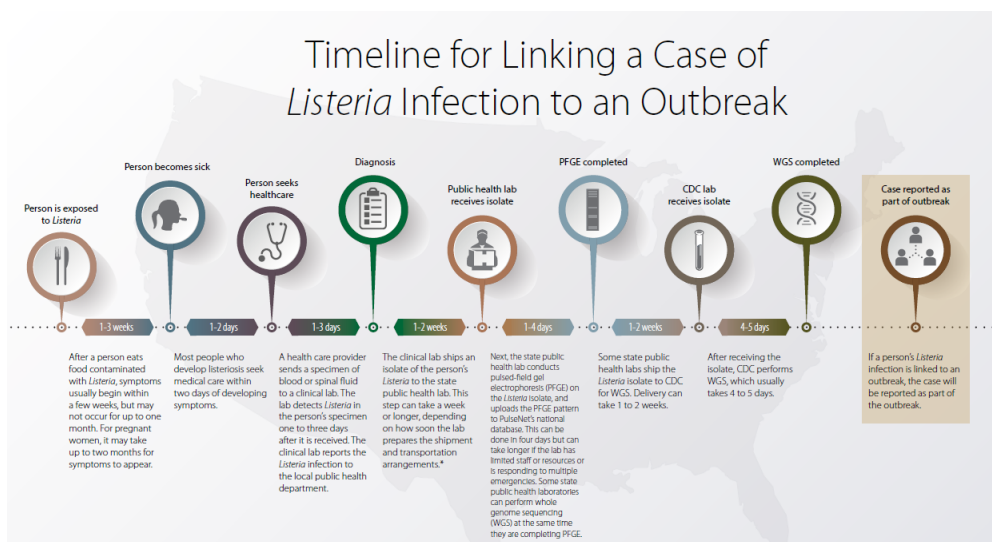
Norovirus

Norovirus is the leading cause of foodborne illness in the US, costing over \$2 billion annually. Norovirus is particularly problematic for seniors (65+) and children under the age of five. In fact, one child in 110,000 will die from norovirus before they reach their 5th birthday. Norovirus symptoms, due to heightened case counts November – April, are often confused with Influenza or “stomach flu.” These are not related and the misconception remains a barrier to consumer understanding of the illness.

Norovirus illnesses and outbreaks are largely preventable. Similar to the current pandemic, outbreaks are seen in Healthcare Settings, Restaurants and Catered Events, schools and Child Care Centers and Cruise Ships, and stem from a lack of handwashing, improper food preparation methods. On Cruise Ships, 90% of all diarrheal disease stems from Norovirus. Foods commonly associated with outbreaks are leafy greens, fresh fruits, and shellfish.

Salmonella, Campylobacter, E. coli, and Listeria Monocytogenes

These common pathogens, although less prevalent than norovirus, can be associated with high death-rate outbreaks. Listeriosis, the illness caused by *Listeria* can kill up to 20% of those who get infected, as outbreaks typically occur in vulnerable populations such as senior citizens and the immunocompromised. According to the CDC, by the time a consumer is notified of an outbreak, the source of the outbreak may have been on store shelves and consumed repeatedly for over a month.



(Fig. 1 CDC)

Industry Role

Given that foodborne illness outbreaks can cost upwards of \$4 million dollars—an amount that would bankrupt many firms—food producers must invest in food safety at every level from seed to salad bowl. Industry firms are responsible for building and executing a strong food safety plan and culture that bolsters employee hygiene, preventive monitoring, cleaning and sanitation, and continuous improvement. Under the FDA New Era of Smarter Food Safety, manufacturers should be prepared to adopt new technologies and protocols to improve efficiencies and decrease outbreaks.

Consumer Prevention

Consumers play a large role in reducing foodborne illness. Below are some steps from the FDA you can take to reduce your risk of acquiring a foodborne illness:

- Before eating, rinse fresh fruits and vegetables under running tap water, including those with skins and rinds that are not eaten. Scrub firm produce with a clean produce brush. For canned goods, remember to clean lids before opening.
- When unpacking groceries, refrigerate or freeze meat, poultry, eggs, seafood and other perishables—like berries, lettuce, herbs, and mushrooms—within two hours of purchasing.
- Regularly clean and sanitize kitchen counters using a commercially available disinfectant product or a DIY sanitizing solution with 5 tablespoons (1/3rd cup) unscented liquid chlorine bleach to 1 gallon of water or 4 teaspoons of bleach per quart of water. **WARNING:** Do not use this solution or other disinfecting products on food.
- Always keep in mind the [basic 4 food safety steps](#) — Clean, Separate, Cook, and Chill.

About PathogenDx Enviro^x-F

At PathogenDx, we are delivering a new approach to Environmental Monitoring based on our Microarray technology that allows detection of multiple bacteria to occur in a single test. Because of the high sensitivity of our platform, samples also do not need to be enriched—allowing for single shift results for all targets.

To learn more about the PathogenDx approach to Food Safety during Food Safety Month, please reach out to us at 800-641-5751 or email us at info@pathogendx.com.