

Trends in Foodborne Illness in the United States, 1996–2012

Documenting trends in foodborne illness—which illnesses are decreasing and which are increasing—is essential to the overall goal of reducing foodborne illness. FoodNet has been tracking trends in the most common infections transmitted through food since 1996.

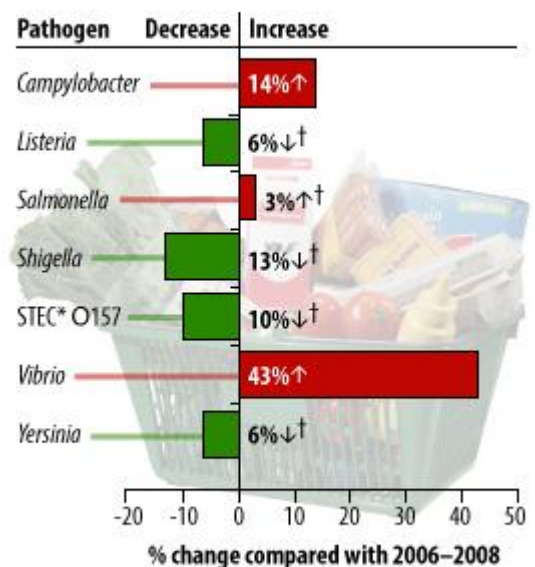
Each year, FoodNet reports on the changes in the number of people in the United States sickened with foodborne infections that have been confirmed by laboratory tests. This annual report card also lets CDC, its partners, and policy makers know how much progress has been made in reaching national goals for reducing foodborne illness.

Highlights of the 2012 FoodNet Data

Data from FoodNet, which monitors 15% of the US population, provide the best measure of trends in foodborne disease in the United States. Overall, the 2012 FoodNet data showed a lack of recent progress in reducing foodborne infections and highlight the need for improved prevention.

- FoodNet identified 19,531 laboratory-confirmed cases of infection.
 - The incidences of laboratory-confirmed *Campylobacter*, *Cryptosporidium*, *Salmonella*, Shiga toxin-producing *Escherichia coli* (STEC) O157 and non-O157, *Shigella*, and *Yersinia* infection were highest among children aged <5 years.
 - The incidences of *Listeria* and *Vibrio* infection were highest in adults aged ≥65 years.
- The incidences of laboratory-confirmed *Listeria*, *Salmonella*, Shiga toxin-producing *Escherichia coli* (STEC) O157, and *Yersinia* infection did not change significantly in 2012 compared with 2006–2008.
- *Campylobacter* was the second most common infection reported in FoodNet (14.3 cases reported per 100,000 population). Incidence of infection was 14% higher in 2012 compared with 2006–2008.
 - *Campylobacter* infections are usually self-limited, but may result in severe complications such as Guillain-Barré syndrome (a type of paralysis) and arthritis.
 - Exposures related to *Campylobacter* infection include consumption of undercooked poultry, raw milk, produce, and untreated water, and contact with young animals.
- *Vibrio* infections are rare (0.41 cases reported per 100,000 population). Incidence of *Vibrio* infection was 43% higher in 2012 compared with 2006–2008.
 - Some types of *Vibrio* infections are often serious.
 - Many *Vibrio* infections are acquired by eating raw oysters. These infections are most common during warmer months, when waters naturally contain more *Vibrio* organisms.
 - Infections can be prevented by thoroughly cooking oysters and by not exposing wounds to bodies of warm seawater.
- As a group, the incidence of infection with six key pathogens transmitted commonly through food (*Campylobacter*, *Listeria*, *Salmonella*, *E. coli* O157, *Vibrio*, and *Yersinia*) was not significantly different in 2012 than in 2006–2008.

Changes in incidence of laboratory-confirmed bacterial infections, US, 2012



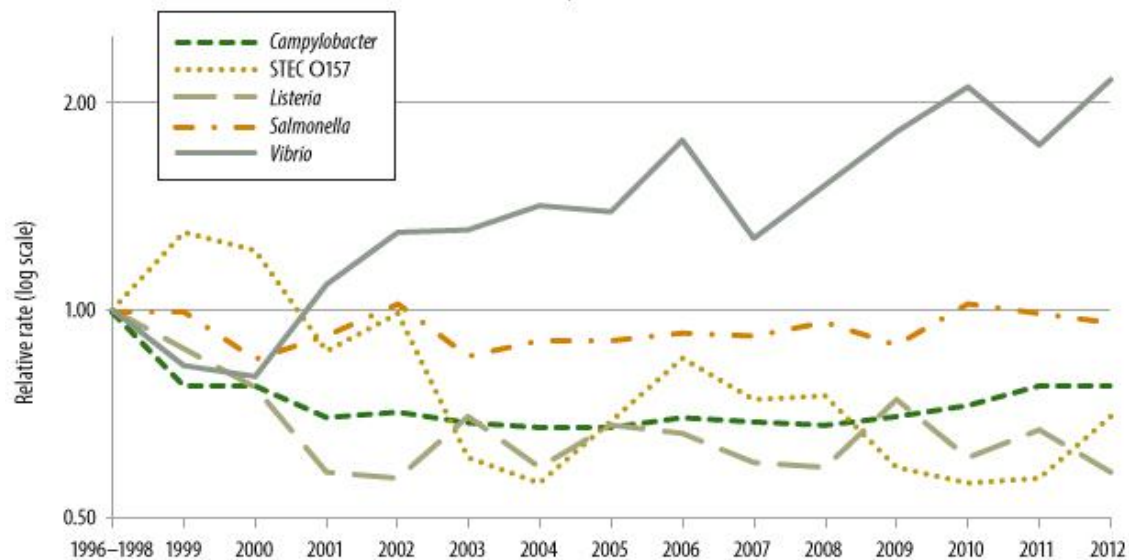
*Shiga toxin-producing *Escherichia coli*
†Not statistically significant

Long-term Trends

Comparison with the first three years of FoodNet surveillance (1996–1998) shows some clear changes:

- The incidence of infections caused by *Campylobacter*, *Listeria*, STEC O157, *Shigella*, and *Yersinia* has declined, mostly in the first few years.
- The overall incidence of *Salmonella* was unchanged, but the incidence of some types of *Salmonella* have increased while others have decreased.
- The incidence of *Vibrio* infection is now 116% higher.
- The overall incidence of infection with six key foodborne pathogens (*Campylobacter*, *Listeria*, *Salmonella*, STEC O157, *Vibrio*, and *Yersinia*) was 22% lower.

Relative rates of laboratory-confirmed infections with *Campylobacter*, STEC* O157, *Listeria*, *Salmonella*, and *Vibrio* compared with 1996–1998 rates, by year — Foodborne Diseases Active Surveillance Network, United States, 1996–2012†



* Shiga toxin-producing *Escherichia coli*.

† The position of each line indicates the relative change in the incidence of that pathogen compared with 1996–1998. The actual incidences of these infections cannot be determined from this graph. Data for 2012 are preliminary.

Recent Efforts and Next Steps

Most foodborne illnesses can be prevented. Some progress has been made in decreasing contamination of some foods and reducing illness caused by some pathogens. Recent efforts to reduce contamination of food and prevent these illnesses include:

- Establishment in 2011 of performance standards for *Campylobacter* contamination of whole broiler chickens in processing plants.
- Approval of more stringent time and temperature controls for oysters after harvest to prevent *Vibrio vulnificus* infections.
- The Food Safety Modernization Act of 2011: It gives FDA additional authority to regulate food facilities, establish standards for safe produce, recall contaminated foods, oversee imported foods, and which requires improvements in surveillance and response to outbreaks. It calls on CDC to strengthen surveillance and outbreak response.

More can be done. Determining where to target prevention efforts that will reduce foodborne infections requires continued collection of information to understand sources of infection, implementation of measures known to reduce food contamination, and development of new measures.