

Trends in Foodborne Illness, 1996–2010

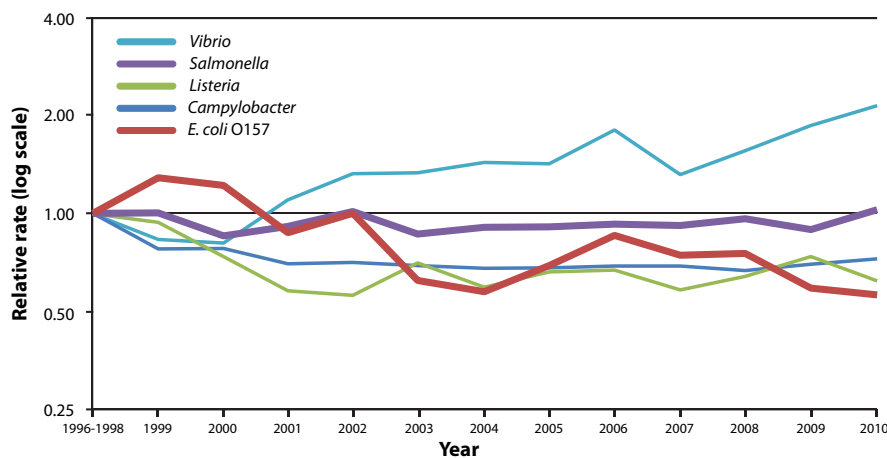
Documenting trends in foodborne illness—which illnesses are decreasing and which are increasing—is essential to the overall goal of reducing foodborne illness. According to [FoodNet](#), America's report card for food safety that tracks trends, some foodborne illnesses have dropped significantly, but [infections caused by one of the most common germs—*Salmonella*—have not declined.](#)

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 made in reaching [national goals](#) for reducing foodborne illness.

This year's report (released in [CDC's Morbidity and Mortality Weekly Report \[MMWR\]](#)) summarizes 2010 data from *FoodNet* and provides the best measure of trends in foodborne disease from 1996–2010. It confirms that [Salmonella](#) infection has not declined in 15 years, but also shows that progress has been made in reducing several foodborne infections, for example:

- Infection caused by a common type of *E. coli* (Shiga toxin–producing *Escherichia coli* O157), known as [E. coli O157](#) has declined significantly (Figure 1). In fact, it was the only one of the nine infections tracked to reach the 2010 national health objective target.
- As a group, infections caused by six key pathogens in 2010 were 23% lower, including
 - » [Campylobacter](#) (27% decrease)
 - » [Listeria](#) (38% decrease)
 - » [E. coli O157](#) (44% decrease)
 - » [Shigella](#) (57% decrease)
 - » [Yersinia](#) (52% decrease)

FIGURE 1. Relative rates of laboratory-confirmed infections with *Campylobacter*, *E. coli* O157, *Listeria*, *Salmonella*, and *Vibrio*, compared with 1996–1998 rates, by year
 --- Foodborne Diseases Active Surveillance Network, United States, 1996–2010¹



¹ Data are preliminary.

* Foodborne Diseases Active Surveillance Network, referred to as FoodNet, is a surveillance system that collects information from sites in 10 states (Connecticut, Georgia, Maryland, Minnesota, New Mexico, Oregon, Tennessee, and selected counties in California, Colorado, and New York) about diseases that are caused by organisms commonly transmitted through food. FoodNet intensively seeks out every laboratory confirmed case of illness caused by 7 bacteria and 2 parasites in a catchment area that represents 15% of the US population (46 million Americans). It is designed to detect everyone in the 10 sites who went to their doctor's office, had a sample tested, and was diagnosed with one of these infections.



FoodNet^{*}, America's report card for food safety, provides the data necessary for measuring progress in foodborne disease prevention.



Highlights of the 2010 FoodNet report card, continued



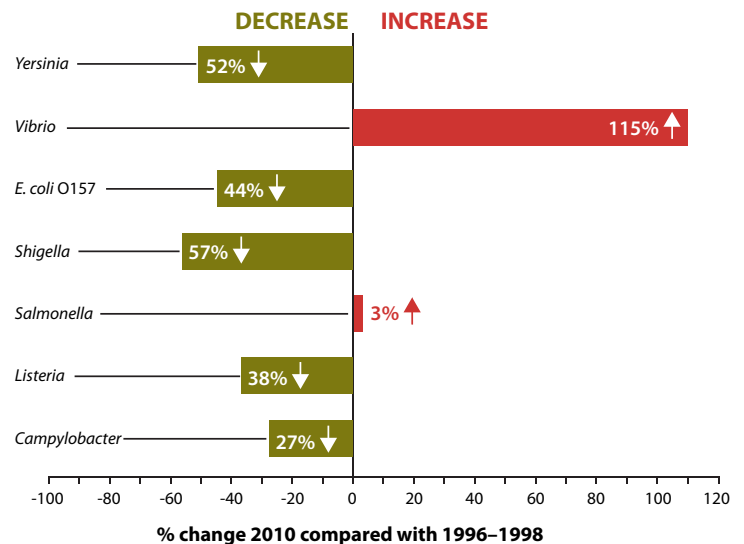
The FoodNet 2010 data showed a lack of progress in reducing infections caused by *Salmonella* and *Vibrio*.

- *Salmonella* was the most common infection (1.2 million U.S. illnesses annually) and the most common cause of hospitalization and death tracked by FoodNet.
 - » Infections have actually increased since 2006–2008 (Figure 1).
 - » In 2010, the incidence of *Salmonella* was nearly three times the 2010 national health objective target.
 - » *Salmonella* can contaminate a wide range of foods. There are many different types of *Salmonella*, and each type tends to have different animal reservoirs and food sources, making control challenging.
- Incidence was higher for *Vibrio* infection (115% increase).
 - » *Vibrio* infections are rare, but often serious, and are caused by eating contaminated seafood or exposing an open wound to seawater. Continued *Vibrio* illnesses highlight the lack of implementation of available control measures.

Overall, the FoodNet 2010 report shows a downward trend in foodborne infections, which is due, at least in part, to:

- Enhanced knowledge about preventing contamination. [PulseNet](#), the national molecular subtyping network for foodborne bacterial pathogens, can detect widely dispersed outbreaks and has greatly improved the detection and investigation of multistate outbreaks.
- Cleaner slaughter methods, microbial testing, and better inspections in ground beef processing plants.
- Regulatory agency prohibition of contamination of ground beef with *E. coli* O157 (resulting in 234 beef recalls since *E. coli* O157 was declared an adulterant in ground beef in 1994).
- Improvements in the [FDA model Food Code](#).
- Increased awareness in food service establishments and consumers' homes of the risk of consumption of undercooked ground beef.

Figure 2. Changes in incidence of laboratory-confirmed bacterial infections, United States, 2010 compared with 1996–1998¹



¹ Data are preliminary.

Other important pathogens transmitted commonly through food (e.g., [norovirus](#), [Clostridium perfringens](#), and [Toxoplasma](#)) are not tracked in FoodNet because tests to detect them are not generally available for clinical laboratories. Many of the control measures that would decrease illness caused by pathogens tracked in FoodNet would also decrease illnesses caused by pathogens not tracked presently.