

Infectious diseases have been tracked by mandatory reporting since 1907, increasing from 16 to over 50 notifiable diseases. This Health Status Update, focusing on enteric infections, is the first in a series on infectious disease trends in Utah.

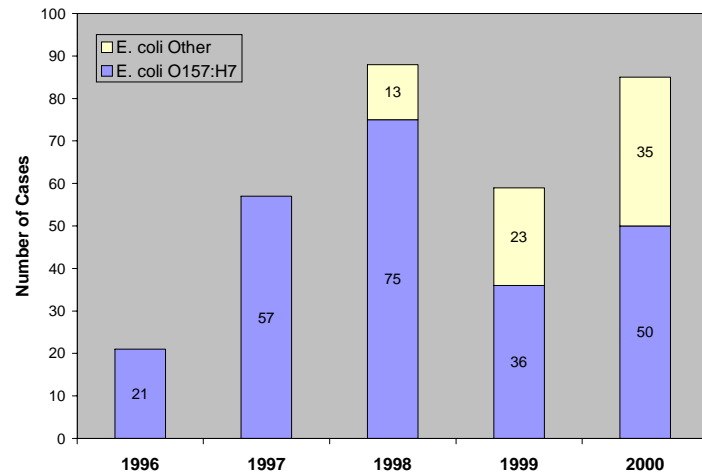
Enteric or gastrointestinal infections, especially infectious diarrhea, are among the most common debilitating infectious diseases. Enteric diseases afflict people of all ages and are the leading cause of childhood death in the developing world.

E. Coli

Escherichia coli (*E. coli*) and more specifically O157:H7, is a common cause of bloody diarrhea and serious complications such as hemolytic uremic syndrome (HUS) (Figure 1). The increase in cases from 1996 to 1997 and the increase in cases caused by non-O157:H7 strains is partly due to enhanced surveillance. Most cases and outbreaks are due to undercooked, contaminated food. Prevention should focus on careful preparation of food and good personal hygiene, including hand washing.

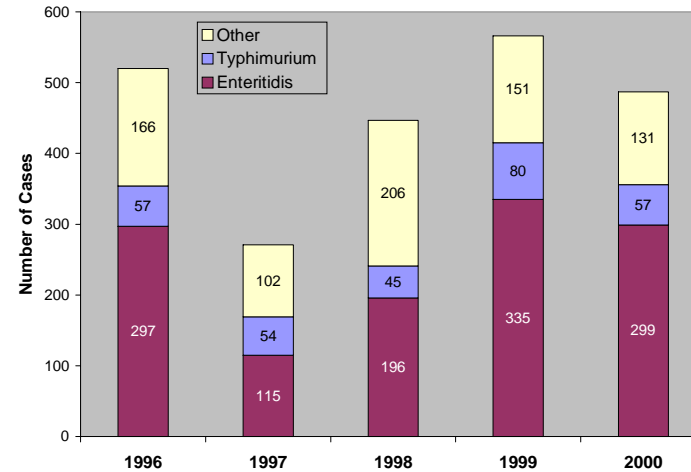
Escherichia coli (E. coli)

Figure 1. Reported cases of *E. coli* by year and strain type, Utah 1996-2000.



Salmonella

Figure 2. Reported cases of *Salmonella*, by year and serotype, Utah 1996-2000.



Salmonella

Salmonella species can cause severe diarrhea and a range of other complications. In 1999, Utah's rate of reported *Salmonella* was higher than the U.S. rate (Figure 4). In recent years, *Salmonella enteritidis* (SE), commonly associated with undercooked eggs, has been the most common type reported in Utah (Figure 2).

During 2001, we have seen fewer cases of SE and more of *Salmonella typhimurium* and other serotypes. Recent outbreaks of *Salmonella* have been linked to eating melons. As with all produce, the outer surface of melons should also be washed before cutting. (<http://www.cfsan.fda.gov/~lrd/tpproduc.html>)

Shigella

Shigellosis can cause bloody diarrhea in addition to fever and cramps. Humans are the main reservoir and spread is from person to person or by fecal contamination of food or water. Hand

washing is the most important prevention measure. Utah's *Shigella* rates have decreased over the past five years (Figure 3).

Campylobacter

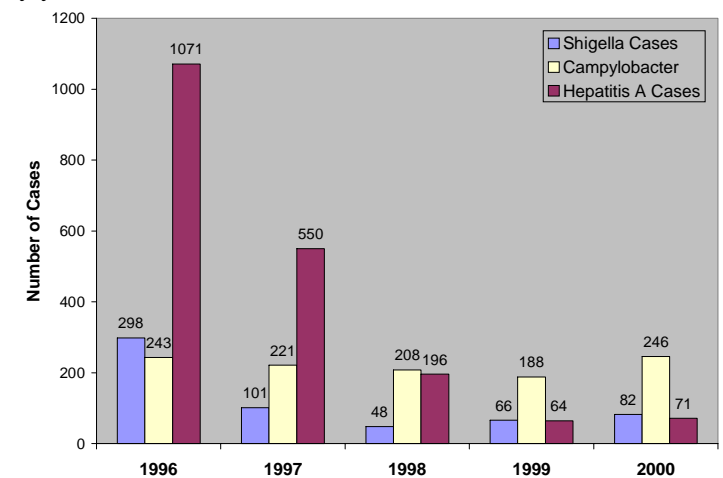
Campylobacter is the most common bacterial cause of diarrheal illness in the United States (Figure 3). Most cases are associated with handling or eating raw or undercooked poultry, though larger outbreaks are usually related to unpasteurized dairy products or contaminated water. In 2000, 15% of Utah's *Campylobacter* cases involved a high school football team who drank untreated water from an irrigation tap.

Hepatitis A

Hepatitis A, one of several viruses causing liver inflammation, is spread by the fecal-oral route from a person with hepatitis A (often asymptomatic) or through contaminated food and water. Good personal hygiene and proper sanitation can help prevent the spread of hepatitis A. Hepatitis A has decreased steadily

Shigella, Campylobacter and Hepatitis A

Figure 3. Reported cases of *Shigella*, *Campylobacter* and hepatitis A by year, Utah 1996-2000.



over the past five years in Utah after the introduction of hepatitis A vaccine and education and prevention efforts (Figure 3).

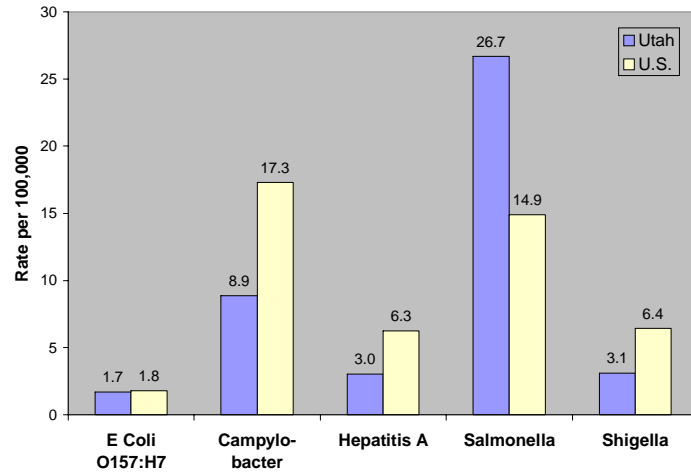
Conclusion:

Death rates due to infectious diseases have declined, but many become ill each year due to enteric illnesses. Modern sanitation has made these illnesses less common, but changes in food production and increasing dependence on food from parts of the world without adequate sanitation have produced new challenges for preventing these illnesses.

Prevention and control of enteric diseases require ongoing surveillance, analyses and investigations to detect new means of transmission, and prompt responses to outbreaks. Surveillance depends on the cooperation of physicians, laboratories and other health care providers and facilities. Control of enteric diseases requires changes in personal behavior, such as hand washing and proper food preparation, as well as regulation of food production and other environmental measures.

Utah and U.S. Rates

Figure 4. Rates per 100,000 persons of reported enteric diseases, Utah and United States, 1999.



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