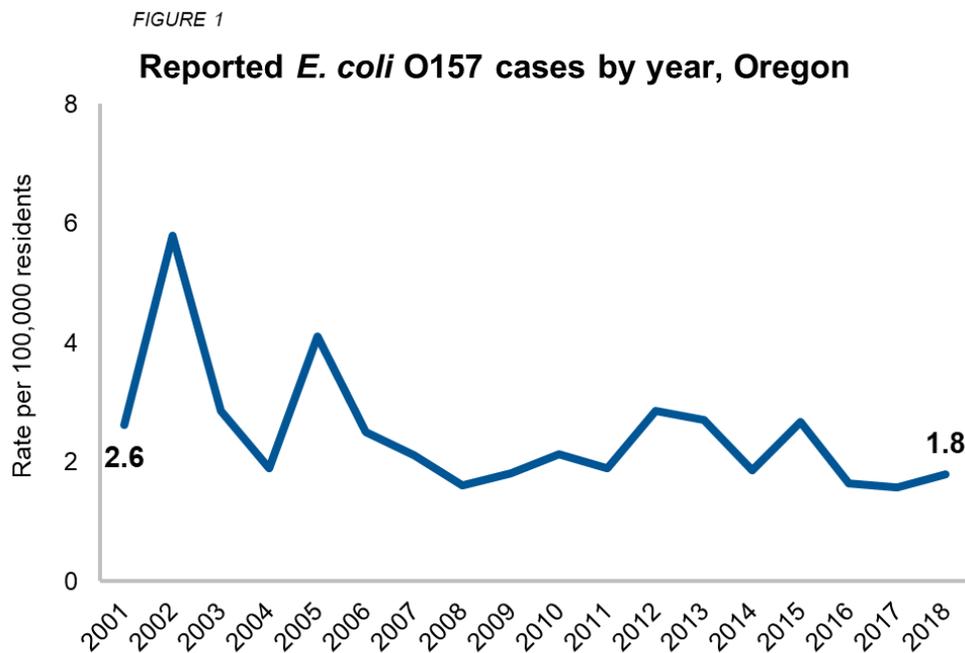


Communicable Disease Control

Escherichia coli O157 incidence

E. coli O157 is a bacterial infection that causes bloody diarrhea, fever, and abdominal cramps, typically for several days. It is one of many shiga toxin-producing *E. coli* (STEC) serotypes, and the most likely to result in severe morbidity in the form of hemolytic uremic syndrome (HUS). Spread by the fecal-oral route, STEC has a number of animal reservoirs, the most important of which are ruminants: cattle, goats, sheep, deer, elk, etc. Transmission often occurs from consumption of contaminated food or water, as well as direct person-to-person spread and environmental exposures. Nationally, *E. coli* O157 is the most commonly reported shiga toxin-producing *E. coli* serotype. Laboratory typing allows us to identify even small outbreaks. Major efforts by U.S.D.A. and F.D.A. to control this infection have been implemented. Hazard Analysis and Critical Control Point (HACCP) practices focus on documenting and controlling risks during food processing and commercial food preparation, as well as efforts to control water and other potential environmental sources of infection.

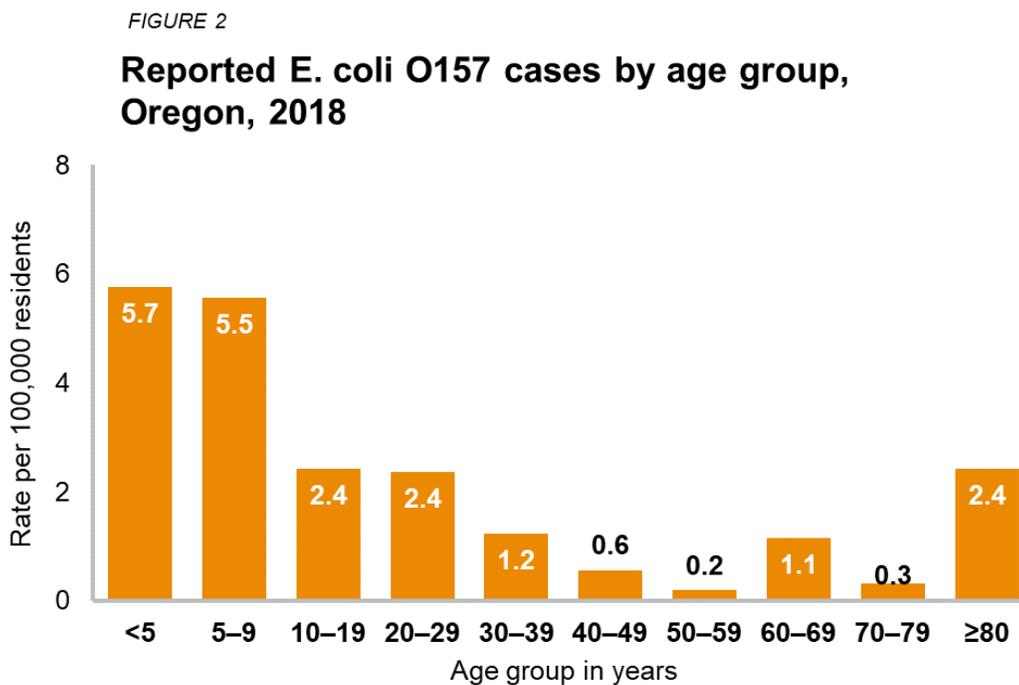
During 2018, the rate of infection increased from 2017 (Figure 1); 74 cases of *E. coli* O157 (1.8 per 100,000 Oregon residents) were reported.



Source: Oregon Reportable Diseases Database

With the arrival of culture independent diagnostic tests, national data cannot distinguish the O157 serotype from other STEC infections. For all STEC infections, Oregon, has more than twice the rate (7.6 per 100,000) compared to the U.S. (2.7 per 100,000).

E. coli O157 infection occurs most frequently among infants and young children (Figure 2). The rate of infection among males was similar (1.8 per 100,000) than females (1.7 per 100,000). There were no statistically significant differences by race/ethnicity.



Source: Oregon Reportable Diseases Database

Significant effort to reduce *E. coli* O157 contamination in beef and other commercially distributed products (unpasteurized milk products) and steps to protect newly identified sources of infection such as sprouts, cheese, flour, spinach, and green onions have reduced the incidence of O157 infection, however, consistent public health surveillance and identification of other risk factors are needed to control this infection.

Additional Resources: [STEC disease details](#)

About the Data: Case data come from Oregon’s reportable diseases database known as “Orpheus.” Cases include culture-confirmed *E. coli* O157. The population numbers, by age group, needed for the rate calculations come from Portland State University’s Population Research Center. Rates by race use OPHAT National Center for Health Statistics estimates.

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Date Updated: September 6, 2019

[Oregon State Health Profile](#)

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