

## ***Escherichia coli* O157 and other Shiga toxin-producing *Escherichia coli* (STEC) infections**

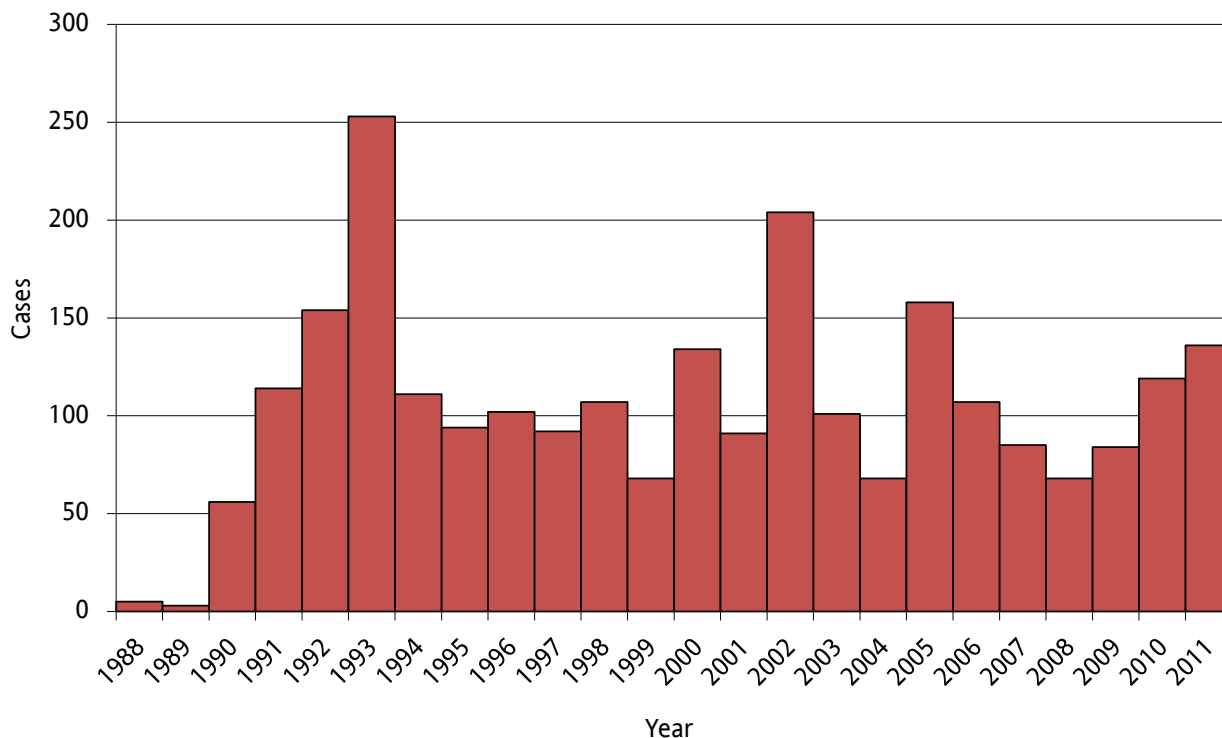
*Escherichia coli* O157 (O157) has become one of the most feared common causes of infectious diarrhea. Oregon has been the setting for many O157 outbreaks, and investigations of those outbreaks combined with the analysis of other surveillance information have contributed greatly to our understanding of this pathogen. Spread by the fecal-oral route, O157 has a number of animal reservoirs, the most important of which are ruminants, including cattle, goats, sheep, deer and elk. Transmission often occurs from consumption of contaminated food or water, as well as direct person-to-person spread and environmental exposures.

Mid-to-late summer is the peak season for *E. coli* O157 infections. The overall number of STEC cases has steadily increased from a low of 68 in 2008 to 136 in 2011. This trend is driven entirely by increasing recognition of non-O157 serotypes; the numbers for O157 infections specifically changed very little in the past four years (61 to 72 in 2008–2011; 69 in 2011). More labs are testing for the presence of Shiga toxin rather than just O157. Unfortunately, at the same time many labs are dropping culture-based methods, leaving clinicians (and epidemiologists) in the dark as to the specifics of the etiologic agent, and putting more of the diagnostic burden on the public health reference lab.

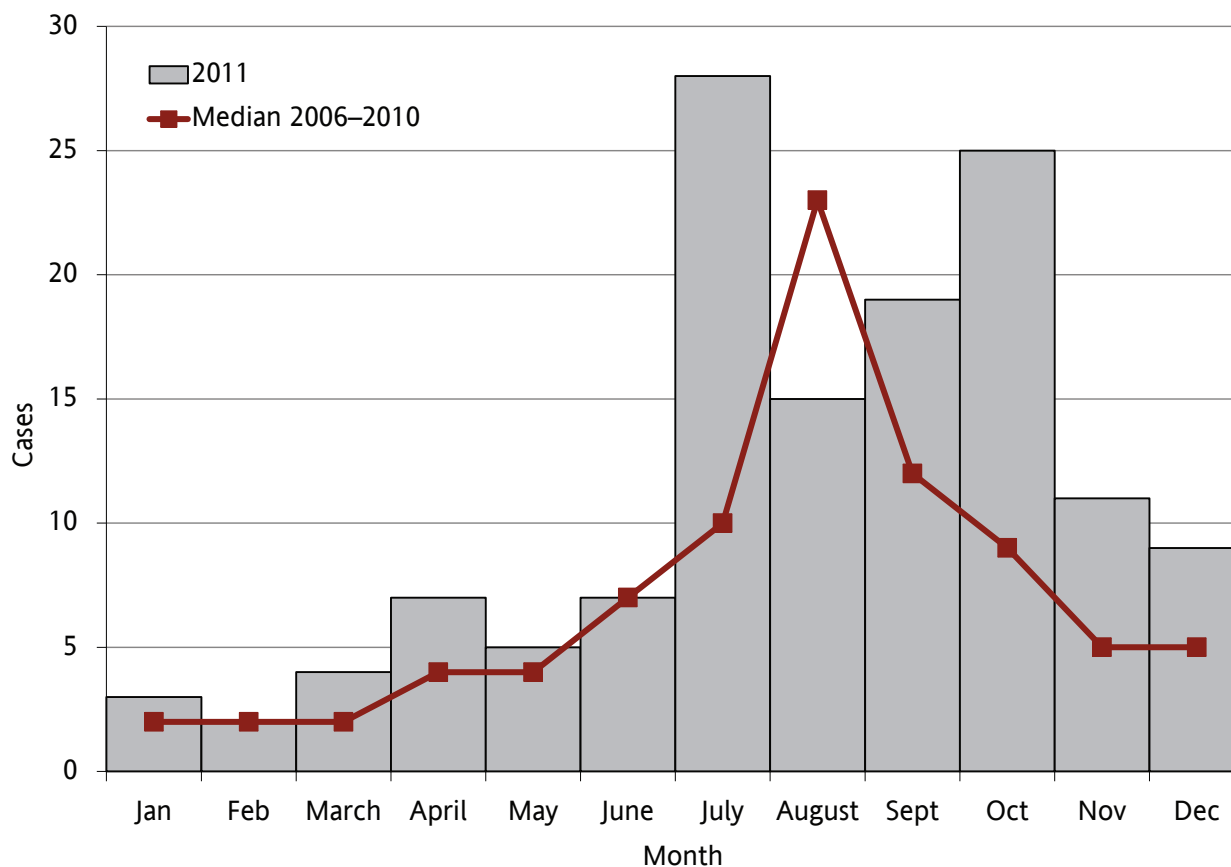
We investigated at least four clusters of O157 infections in 2011. Most were tiny ( $\leq 3$  cases). The most newsworthy outbreak involved 15 cases that were quickly traced to consumption of locally grown strawberries contaminated with deer feces. Two of the victims died.

In 2011, 59 (46%) of the lab-confirmed STEC infections reported comprised non-O157 serogroups. The most common in 2011 were O103 (N = 12), O111 (5) and O121 (2).

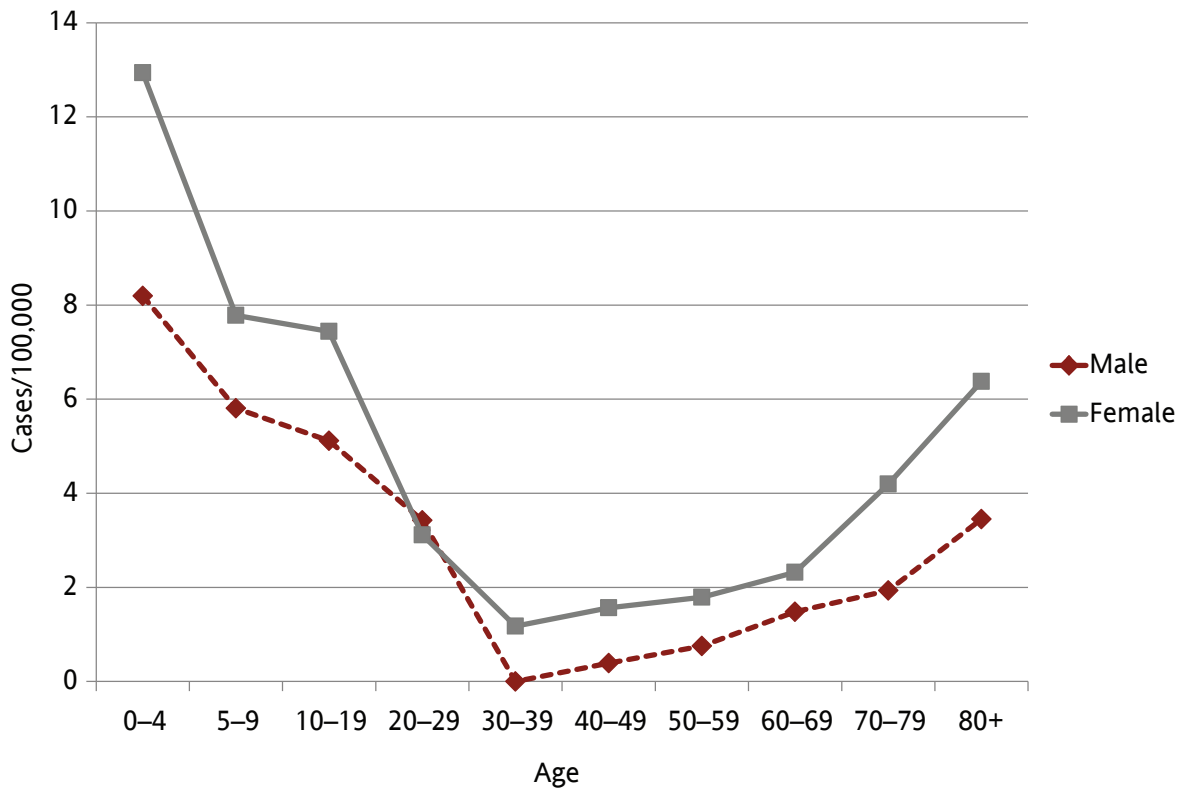
STEC infection by year: Oregon, 1988–2011



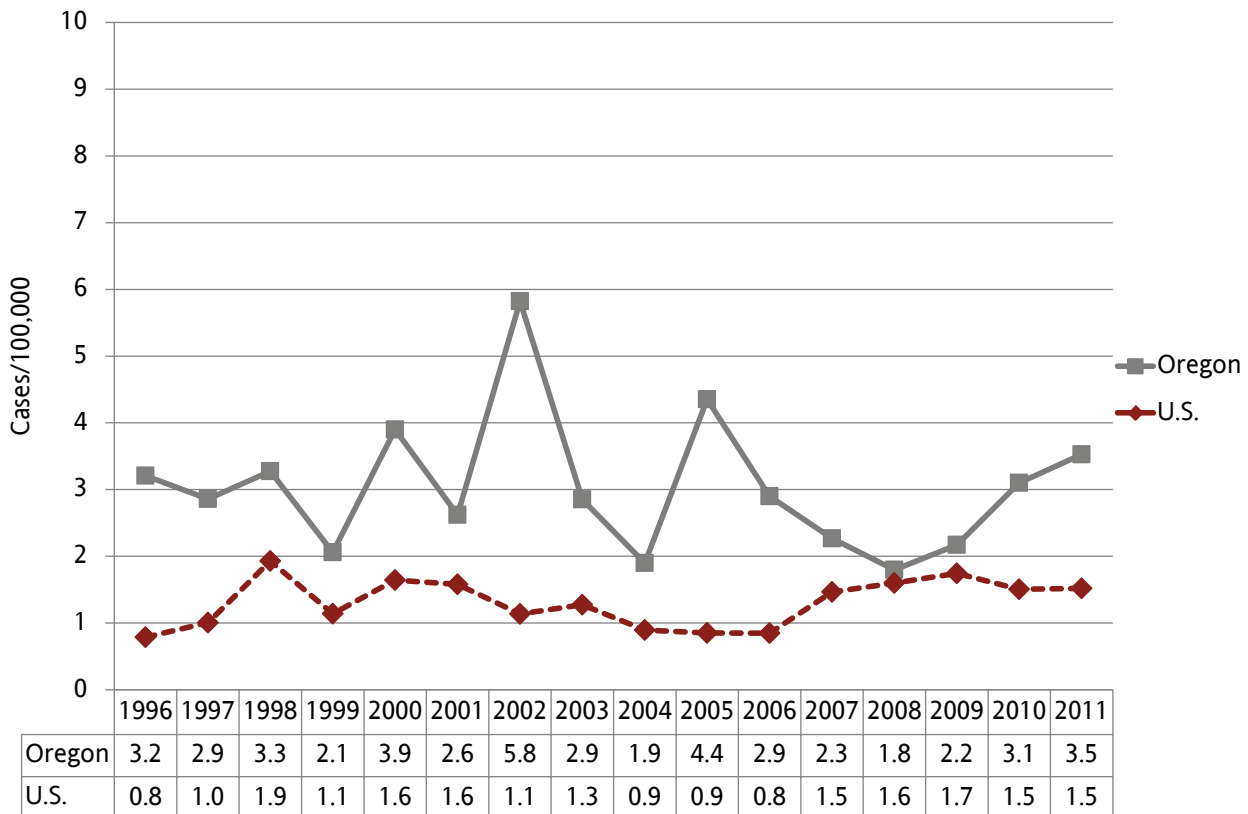
STEC infection by onset month: Oregon, 2011



Incidence of STEC infection by age and sex: Oregon, 2011



Incidence of STEC infection: Oregon vs. nationwide, 1996–2011



Incidence of STEC infection by county of residence: Oregon, 2002–2011

