

Vibriosis

Vibriosis is caused by infection with bacteria from the *Vibrionaceae* family. This family of bacteria includes the species that causes cholera, and public health investigators typically distinguish between either cholera (infection with toxigenic *V. cholerae*) and other “vibriosis” (infection with any other *Vibrionaceae*, including those vibrios lately rechristened as “*Grimontia*”).

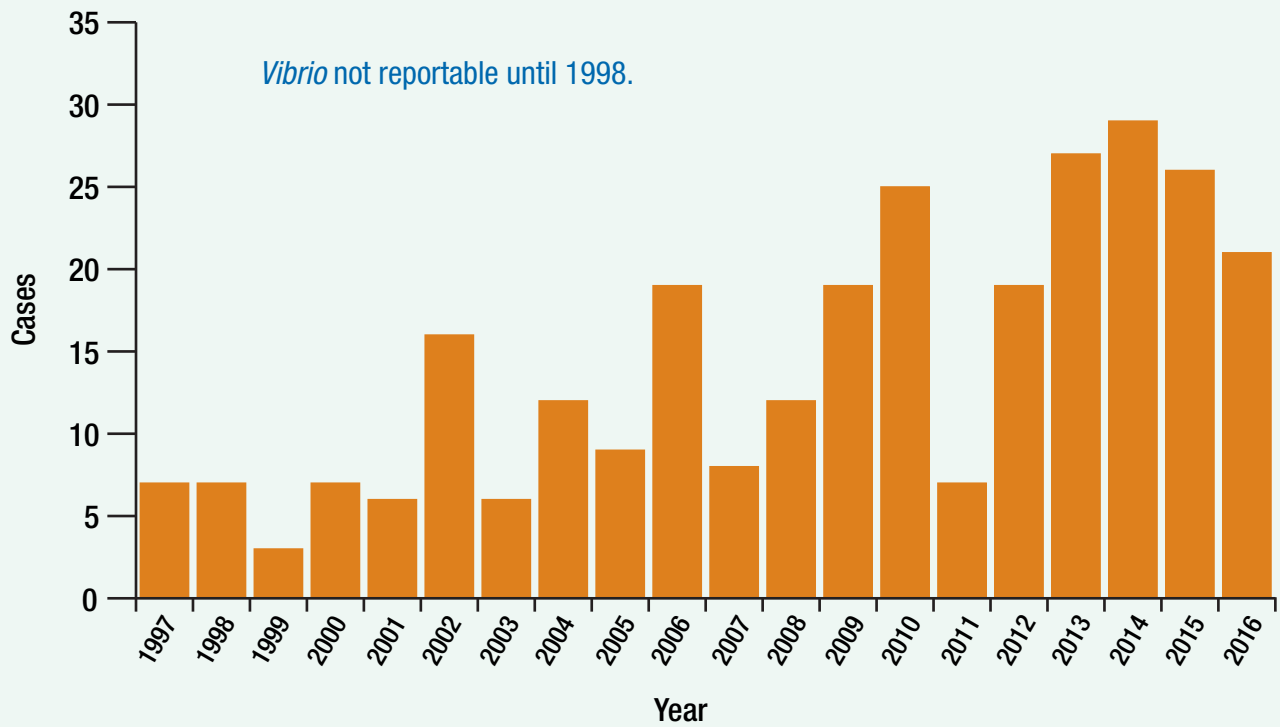
Commonly, vibriosis is acquired by eating raw or undercooked molluscan shellfish and presents as watery diarrhea, abdominal cramps and fever. In Oregon, *V. parahaemolyticus* is the most frequently reported species, as this pathogen is found naturally in the coastal waters and shellfish of the Pacific Northwest, especially during summer months. Non-foodborne infections with *Vibrio* species can also occur through contact with sea or brackish water (e.g., infection with *V. alginolyticus* after swimming with an open wound, or through a laceration while shucking an oyster). These types of infections can produce bullae, cellulitis, muscle pain, fever and sepsis.

Vibriosis was not reportable until 1998 in Oregon and 2007 nationwide. Today, all *Vibrio* infections are nationally notifiable. Case reporting is essential to the identification of contaminated shellfish beds and removal of these shellfish from the raw seafood market. In 2013, the CDC FoodNet Program estimated every reported case of *Vibrio* represented 142 people not diagnosed with the infection.

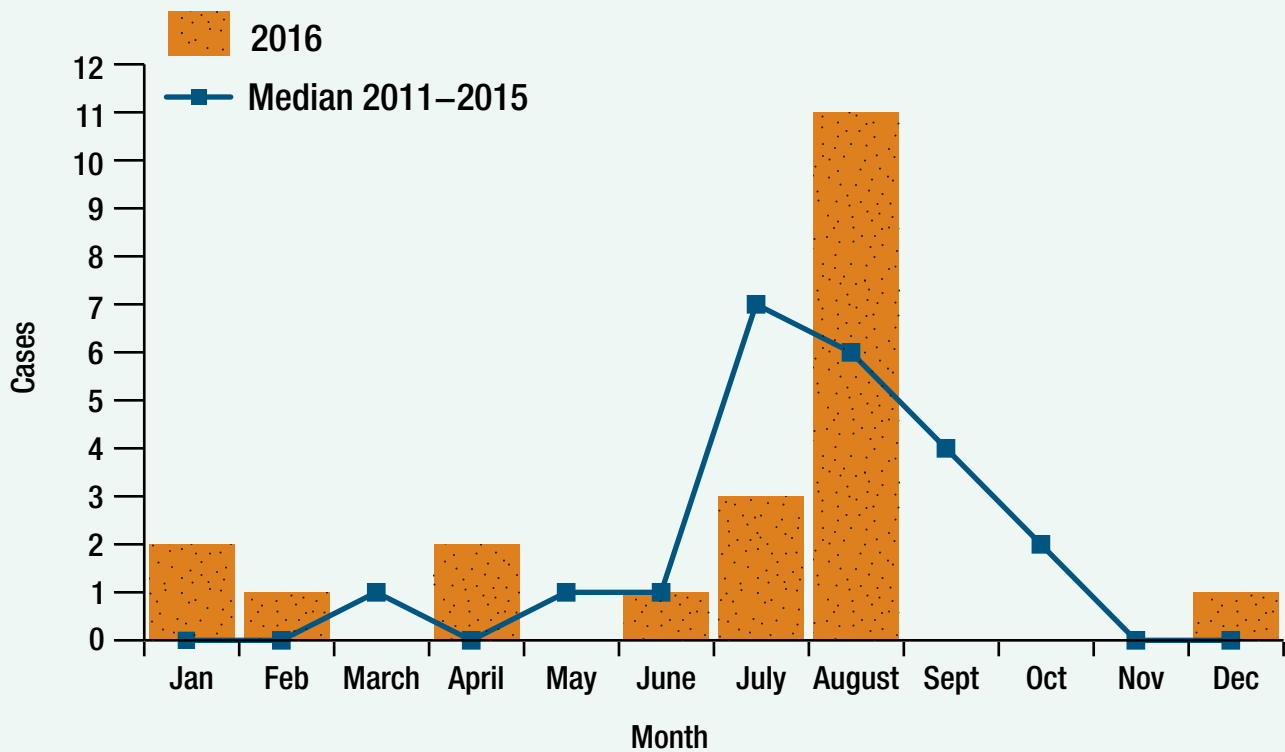
Nationally, reported rates of vibriosis have trended upwards in the past decade. Scientists now believe that *V. parahaemolyticus* is an indicator of climate change; the bug requires temperatures warmer than 59°F to grow and is proliferating in waters that had historically been too cool. With warmer water temperatures in the Pacific Northwest, we can expect more bacteria in the waters and more contamination of shellfish growing in these waters. Close regulation of oyster growers in this region, especially in Washington, has likely decreased the numbers of cases we’ve seen (by limiting exposure to shellfish when they are thought to be at high risk of *Vibrio* contamination).

In 2016, Oregon counted 21 reported confirmed or presumptive cases of vibriosis (both *Vibrios* and *Grimontia*), a decrease from the 26 cases reported in 2015. Males outnumbered females (14 males to seven females). The majority of cases reported continue to be *V. parahaemolyticus* (17), with one each of *V. alginolyticus* and *Grimontia hollisae* and two non-typed cases. No *V. mimicus* or *V. fluvialis* were reported in 2016.

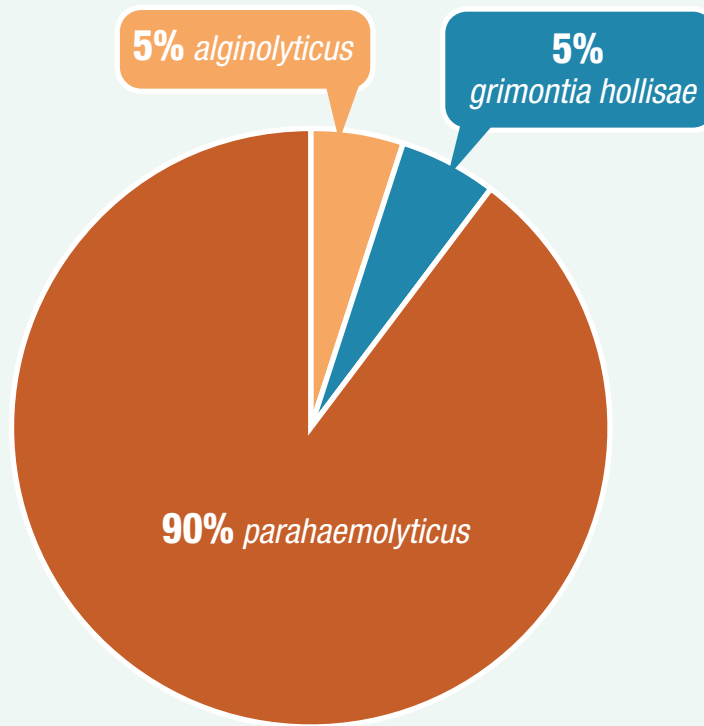
Vibrio infections: Oregon, 1997–2016



Vibriosis by onset month: Oregon, 2016



Vibriosis by species: Oregon, 2016



Prevention

- Avoid eating raw oysters or other raw shellfish.
- Cook shellfish (oysters, clams, mussels) thoroughly.
- Cook shellfish (oysters, clams, mussels) to an internal temperature of 145°F. If you don't have a food thermometer, shucked shellfish (clams, mussels and oysters without shells) become plump and opaque when cooked thoroughly, and the edges of the oysters start to curl. Shellfish in shells should open when cooked. Throw out shells that don't open during cooking.
- Uncooked spoiled seafood can have an ammonia odor. This odor becomes stronger after cooking. If you smell an ammonia odor in raw or cooked seafood, do not eat it.
- Read more:
 - › <https://www.fda.gov/food/resourcesforyou/consumers/ucm077331.htm>
 - › <https://www.fda.gov/food/foodborneillnesscontaminants/buystoreservesafefood/ucm255180.htm>