

Incidence of tuberculosis by county of residence: Oregon, 2000–2009

Tularemia

Tularemia, also known as rabbit or deerfly fever, has recently gained notoriety as a possible "category A" agent of bioterrorism. Tularemia is caused by *Francisella tularensis*, a hardy organism found in rodents, rabbits and squirrels; in ticks, flies and mosquitoes; and in contaminated soil, water and animal carcasses. Biovar type A, the most common type in North America, is highly virulent; as few as 10–50 organisms can cause disease.

General symptoms of tularemia include fever, malaise, myalgias, headache, chills, rigors and sore throat. Tularemia has six clinical forms, depending on portal of entry. Ulceroglandular tularemia is the most common form of the disease, accounting for 75% to 85% of naturally occurring cases. Other clinical forms include: pneumonic (pulmonary symptoms); typhoidal (gastral-intestinal symptoms and sepsis); glandular (regional adenopathy without skin lesion); oculoglandular (painful, purulent conjunctivitis with adenopathy); and oropharyngeal (pharyngitis with adenopathy).

Tularemia occurs throughout the United States. Persons become infected primarily through handling contaminated animals; the bite of infective deer flies, mosquitoes or ticks; direct contact with or ingestion of contaminated food, water or soil; or inhalation of infective aerosols. From 2000 to 2009, 20 cases of tularemia were reported in Oregon. Cases occurred in residents of 12 counties and were evenly spread across age groups. In 2008, there were four cases, in 2009, a single case. Tularemia by year: Oregon, 1988–2009



Vibriosis

Vibriosis is caused by infection with *Vibrio* bacteria. *Vibrio* is a species of bacteria that causes watery diarrhea, abdominal cramps, and fever. They are commonly found in coastal marine waters and, therefore, in filterfeeding shellfish, such as oysters (which, for this reason, should be eaten only when fully cooked). Some *Vibrio* species are more likely to cause wound infections (e.g., *V. alginolyticus*) after the skin is lacerated (for example, after shucking an oyster).

Non-cholera *Vibrio* infections were not nationally reportable until 2007 and not reportable in Oregon until 1998. Today, all *Vibrio* infections are nationally notifiable. *V. parahaemolyticus*, which occurs naturally in Pacific coastal waters, especially during warmer months, is by far the most common species diagnosed in Oregon. Case reporting is essential to the identification of contaminated shellfish beds and removal of these shellfish from the raw seafood market.

In the past several years, *Vibrio* infections have increased across the nation, and Oregon is following the same trend. It could be that we're getting better at surveilling for it, and it could be that with warmer temperatures there are just more opportunities for exposure. Oregon saw 12, then 18 laboratory confirmed cases, in 2008 and 2009, respectively. While the majority of cases in Oregon are attributed to *V. parahaemolyticus*, in 2008 there was an imported case of *V. cholerae* and a single case of *V. alginolyticus*. In 2009 there were two cases *V. alginolyticus*. The majority (80%) of cases occurred in males and most (83%) were 21-59 years old.