

Central Oregon Public Health Quarterly

Communicable Disease Update for Crook, Deschutes, and Jefferson Counties
2022: Quarter 3

24/7 Communicable Disease reporting lines:

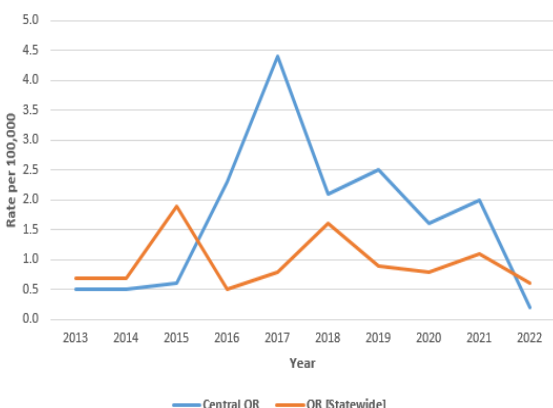
Crook County:
541-447-5165

Deschutes County:
541-322-7418

Jefferson County:
541-475-4456

Vibrio in Central Oregon

Vibrio Rates in Central Oregon & Statewide (2013-2022)



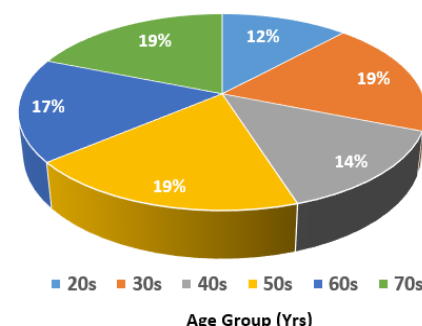
What is Vibrio?

- A genus of Gram-negative **aquatic bacterium** that occurs naturally in estuarine waters & occurs in high numbers in **molluscan shellfish**
- Infections more common in **warmer months**
- Can occur following **seafood consumption** or **open wound** exposure to salt or brackish water

Ages Impacted:

- While all age groups are susceptible to Vibrio infections, a higher proportion of **adults (age 30+)** in Central OR are impacted by Vibrio (see figure to right)

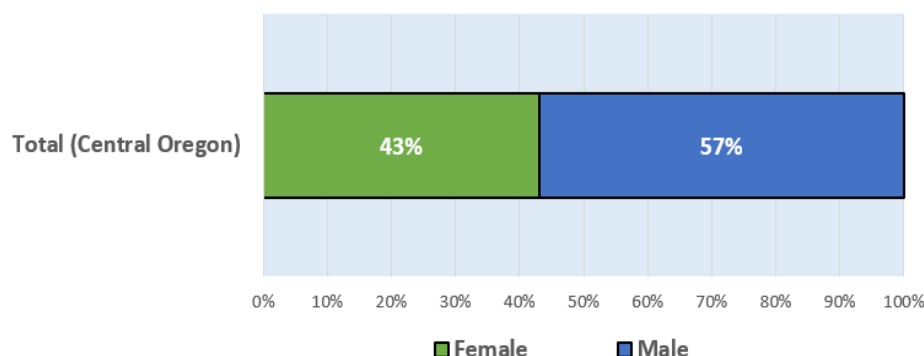
Central Oregon Percent of Vibrio Cases by Age Grouping, 2012-2022



Rates:

- From **2016-2021**, rates of Vibrio have been higher in Central OR compared to statewide rates
- In 2021, the rate of Vibrio in Central OR was **(2.0)** vs. **(1.1)** (statewide rate)

Central Oregon Percent of Vibrio Cases by Sex (n=46), 2012-2022



Sex Differences:

While both sexes can be affected by Vibrio, a slightly **higher percent of males (57%)** are affected by Vibrio compared to females (43%) in Central Oregon (see figure to left)

- Males may be at higher risk for contracting Vibrio infections due to their participation in behaviors that increase their risk (e.g. **recreational water activities & consumption of raw/undercooked seafood***)

*<https://sfamjournals.onlinelibrary.wiley.com/doi/10.1111/1462-2920.13955>

Vibrio Awareness

- **95%** of seafood related deaths in the US are from Vibrio*
- **Coastal warming** is leading to growing cases of Vibrio across the world
- In Central OR, the highest # of cases occur during the **summer months** (see fig. to right)

*<https://sfamjournals.onlinelibrary.wiley.com/doi/10.1111/1462-2920.13955>

Central Oregon Number of Vibrio Cases by Month, 2012-2022

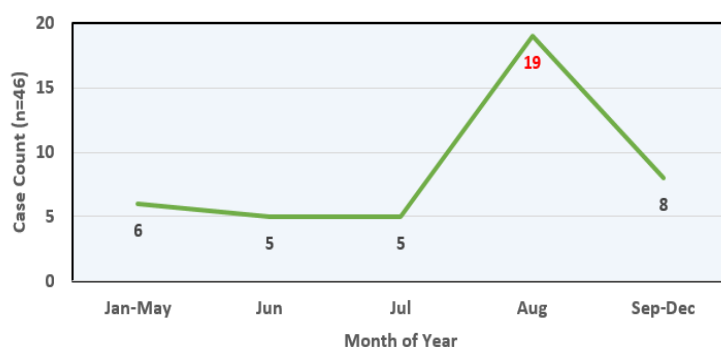
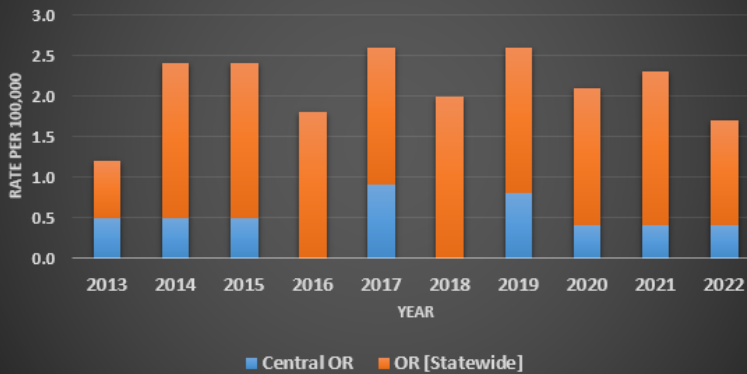


Figure above (raw oysters) from: <https://www.cdc.gov/vibrio/faq.html>

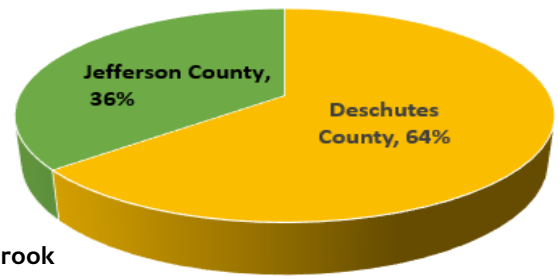
Tuberculosis Disease Rates in Central Oregon

Over the past ten years, there were 11 new active Tuberculosis (TB) cases diagnosed among Central Oregon residents with rates (per 100,000 population) ranging from 0.0 to 0.9.

Tuberculosis Disease Rates In Central Oregon & Statewide (2013-2022)*



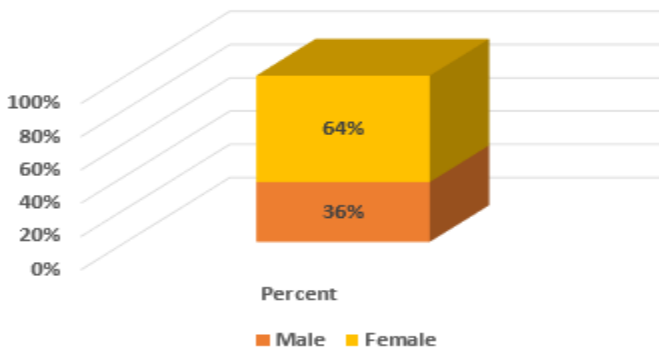
Percent of Active TB Cases Across Central Oregon by County, (2012-2022)*



0 cases in Crook County

■ Crook ■ Deschutes ■ Jefferson

Percent of Active TB Cases in Central Oregon by Sex (2012-2022)*



What is Tuberculosis (TB)?[^]

- An infectious disease usually caused by *Mycobacterium tuberculosis* bacteria
- Generally affects **lungs**, but other body parts can be impacted (e.g. **CNS, lymphatic sites, GI system**)
- Most infections show no symptoms (i.e. **latent tuberculosis**, not contagious) (~90-95%)
- **Typical symptoms include:** chronic cough with blood containing mucus; fever; night sweats; weight loss; fatigue; nail clubbing
- Historically referred to as '**consumption**' due to the weight loss associated with disease

[^]<https://www.who.int/news-room/fact-sheets/detail/tuberculosis>

*Cases for 2022 assessed as of 9/1/2022 & subject to change

What to know about TB

While rates of TB **remain low** in Central Oregon, it is important to understand **current risk factors for TB** along with current protocol for **screening & diagnosis** of active cases

Who is at risk?

HIV Positive

- Most important risk factor {globally} for developing active TB is concurrent HIV infection (**13% of those with TB are also infected with HIV**)
- For individuals co-infected with HIV, **~30%** develop active TB (vs. **~5-10%** who develop active disease without HIV)

Those on Certain Medications

- Use of certain *corticosteroids* & *infliximab* increases risk

Lifestyle Factors

- Alcoholism
- Diabetes Mellitus
- Silicosis
- Tobacco Smoking
- Recreational Drug Use

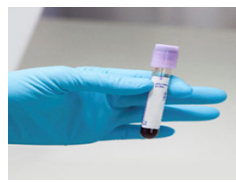


How do you screen for TB?

- **Two Primary Tests Used:**
 - TB skin test
 - **TB blood test [preferred]** {i.e. *interferon-gamma release assays* or *IGRAs*}
- **Two FDA approved blood tests include:**
 - QuantiFERON®-TB Gold Plus (QFT-Plus)
 - T-SPOT®.TB test (T-Spot)

★ Who to screen*

- Those exposed to someone with TB
- People from high-risk countries
- People who live in high-risk settings
- Health-care workers



*<https://www.cdc.gov/tb/topic/testing/tbtesttypes.htm>

Diagnosis of TB

- **[CAUTION]:** Diagnosing active TB based only on signs & symptoms is difficult
- **Key considerations:**
 - Those with **signs of lung disease** or **★ constitutional symptoms** lasting **>2 weeks**
 - **★** A chest X-ray & multiple sputum cultures for acid-fast bacilli
- **Making a definitive diagnosis:**
 - Identify *M. tuberculosis* in a clinical sample (e.g. sputum; pus; tissue biopsy)
 - **NOTE:** TB is a **slow growing** bacteria [culture process can take **2-6 weeks** (for blood or sputum cultures)}, thus, treatment is often begun before cultures are confirmed*

*<https://www.nice.org.uk/guidance/CG117>

Central Oregon Health Departments are actively involved in the control & prevention of TB. For additional TB information, see: <https://www.oregon.gov/oha/PH/DiseasesConditions/CommunicableDisease/Tuberculosis/Pages/index.aspx>