

Oregon's 2021 Selected Reportable Communicable Disease Summary

Data current as of March 2023; data are provisional and subject to change.

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Cases by Year

Cases by County


Low incidence

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Introduction

About communicable disease data


Oregon law specifies diseases of public health importance that diagnostic laboratories and health care professionals must report to local public health authorities. This report reflects reporting laws in effect for 2021 with the exception of COVID-19, the data for which can be found on another series of dashboards.  In general, local public health officials investigate reports of a communicable disease to characterize the illness and collect demographic information about the case, to identify possible sources of the infection, and to take steps to prevent further transmission. Basic information about each case is entered into a central database. In some cases (e.g., *Salmonella* infection), laboratories are required to forward bacterial isolates to the Oregon State Public Health Laboratory for subtyping. Together, these epidemiologic and laboratory data constitute our communicable disease surveillance system. This report summarizes data from 2021 and trends from recent years.

Note, however, that reportable disease data have many limitations. First, for most diseases, reported cases represent but a fraction of the true number. The most important reason for this is that many patients — especially those with mild disease — do not present themselves for medical care. Even if they do, the health care professional might not order a test to identify the causative microorganism. The reader may be scandalized to learn that not every reportable disease gets reported as the law requires. Cases are “lost” to surveillance along each step of the path from patient to physician to laboratory to public health department. In the case of salmonellosis, for example, reported cases are estimated to account for approximately 3% of the true number.



Introduction

Second, cases that do get reported are a skewed sample of the total. More severe illnesses (e.g., meningococcal disease) are more likely to be reported than milder illnesses. Infection with hepatitis A virus is more likely to cause symptoms (and those symptoms are more likely to be severe) in adults than in children. Testing is not random. Clinicians are more likely to test stool from children with bloody diarrhea for *E. coli* O157 than to test stool from adults with bloody diarrhea. Health care professionals may be more inclined to report contagious diseases such as measles — where the public health importance of doing so is obvious — than to report non-contagious diseases such as Lyme disease. Outbreaks of disease or media coverage about a particular disease can greatly increase testing and reporting rates. Despite these limitations, reportable disease data remain valuable in a variety of ways. They help identify demographic groups at higher risk of illness. They allow analysis of disease trends and identify outbreaks of disease.

Cases are assigned to the county of residence at the time of the report — not to the county in which the case received medical care, or the county where the exposure to infection occurred. Incidence is annualized by the date of record, which is the same as the onset date unless otherwise noted. For chronic hepatitis and Lyme disease, report date to the local health authority is used for counting purposes. Case counts include both confirmed and presumptive cases. For additional information on case definitions, see the Oregon Investigative Guidelines available online. 

Population estimates for crude rate calculations by county, sex and age group were obtained from the Population Research Center at Portland State University. Population estimates by race and ethnicity were obtained from the American Community Survey's five-year estimates. Estimates of the population in the United States were obtained from the Census Bureau's Annual Population Estimates. Using rates instead of case counts allows for comparisons between populations of different sizes — e.g., United States versus Oregon. Rates are usually reported as cases per 100,000 persons per year.




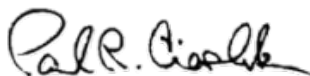
Introduction

However, if the population in which the rate is calculated is very small (e.g., in Oregon “frontier” counties), a case or two might mean the difference between a rate of zero and a very high rate. To compensate for this, some of our maps and rates by age show an average rate over multiple years of data. Even with multi-year aggregation, for some conditions the case counts remain small.

With all this in mind, we present the 2021 Oregon reportable communicable disease summary. We present 20 years of case counts whenever possible. For most diseases, you will find case counts by year, aggregate case counts by month to demonstrate any seasonal trends, incidence by age and sex, incidence in Oregon compared to national incidence over the past 20 years, incidence by race and ethnicity, and incidence by county. When appropriate, additional data on subtypes or risk factors for infection are included. At the end of this report is a tally of disease outbreaks investigated during 2021, a summary of enhanced data on gastroenteritis outbreaks, a summary table of statewide case counts over the past 20 years, counts of lower-incidence conditions, and disease totals by county.

The reader will note declines, in some instances dramatic, in case counts for many diseases during 2020. To a significant degree, these declines may be explained by milder cases of illness having a lower likelihood of seeking health care and associated testing. However, it is also likely that the precautions taken to reduce the spread of COVID-19 in our communities, including masking, avoidance of gathering and closure of businesses, reduced the transmission of many other pathogens as well.

We hope that you will find these data useful. If you have additional questions, please call our epidemiology staff at 971-673-1111 or email OHD.ACDP@odhsoha.oregon.gov. 



Paul R. Cieslak, MD
Medical Director, Communicable Diseases and Immunizations

Campylobacteriosis



Campylobacteriosis is caused by the gram-negative bacterium *Campylobacter*. It is characterized by acute onset of diarrhea, vomiting, abdominal pain, fever and malaise. Symptoms generally occur within two to five days of infection.

Campylobacteriosis is the most common bacterial enteric infection reported in Oregon. It is of worldwide epidemiologic importance due to the fecal-oral route of infection and the wide variety of wild and domestic animals that can serve as reservoir hosts. Many cases are thought to result from eating raw or undercooked meat (in particular, poultry) or through cross-contamination of uncooked or ready-to-eat foods such as salad or prepared fruit. People can also get infected through contact with dog or cat feces.

In 2021, 1,090 cases were reported among Oregon residents. The incidence among children <5 years of age (46.8 per 100,000) exceeds that of other age groups. The incidence in West Coast states has been higher than that in the country. Infections occur year-round in Oregon, with peak incidence in the summer months.

Most illnesses are sporadic, but outbreaks have been associated with undercooked meat (often chicken), unpasteurized milk, or direct contact with animals or untreated water.

Fifteen outbreaks of campylobacteriosis involving Oregon residents were investigated from 2010–2021: 10 foodborne, one from animal contact, one person-to-person and three where mode of transmission was not determined; two of these outbreaks (both foodborne) were reported in Oregon in 2021. Proper food handling and water treatment, along with careful attention to safe food handling and handwashing, are the keys to prevention.

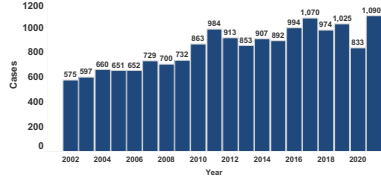
Prevention

- Use one cutting board for raw meat and a separate cutting board for fresh fruit, vegetables and other foods.
- Thoroughly clean all cutting boards, countertops and utensils with soap and hot water after preparing foods of animal origin.
- Wash hands with soap and hot water before preparing food, after handling foods of animal origin and after contact with pet feces.
- Thoroughly cook all products of animal origin, especially poultry products.
- Do not drink unpasteurized (raw) milk or untreated surface water.
- Make sure persons with diarrhea thoroughly wash their hands with soap and warm water after using the bathroom.



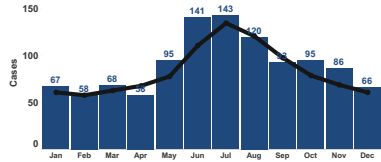
Case counts of campylobacteriosis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

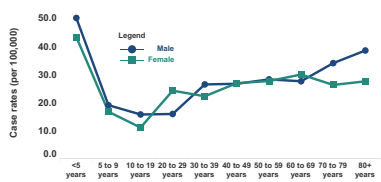


Case counts of campylobacteriosis by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

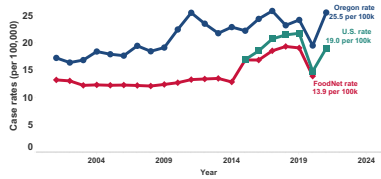


Case rates of campylobacteriosis by age and sex: Oregon, 2021.



Case rates of campylobacteriosis in Oregon vs nationwide, 2001 to 2021.

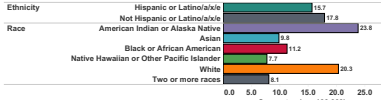
Campylobacteriosis became nationally notifiable in 2015. The increased case rate reported by FoodNet in 2015 coincides with a change to include cases identified via culture-independent diagnostic testing. U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; BIRTH: Final Data for 2021 from National vital Statistics Reports; Oregon data sources: ODHSA; Portland State University's annual population estimates; Oregon's vital statistics birth data; FoodNet data sources: Foodborne Diseases Active Surveillance Network; Census Bureau's Annual Population Estimates as of July 1st of each year.

Case rates of campylobacteriosis by reported race and ethnicity: Oregon, 2012 to 2021.

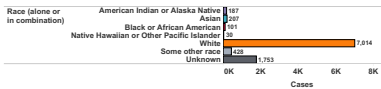
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



†Note: Rates based on small case counts (<5 cases) might be unstable.

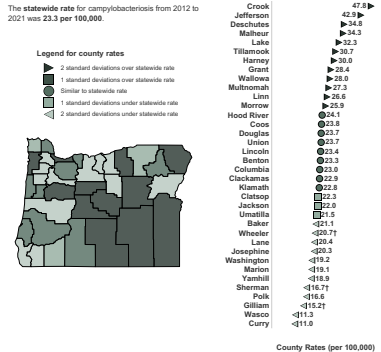
Case counts of campylobacteriosis by reported race and ethnicity: Oregon, 2012 to 2021.

Race alone or in combination means cases may be counted in all races that apply.



Case rates of campylobacteriosis by county of residence: Oregon, 2012 to 2021.

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Carbapenem-resistant Enterobacterales (CRE)

The Enterobacterales are a large order of Gram-negative bacilli found in the human gastrointestinal tract. This group of bacteria were previously referred to as the family *Enterobacteriaceae*. Taxonomic reclassification divided the family *Enterobacteriaceae* into seven distinct families under the order Enterobacterales. Commonly encountered species include *Escherichia coli*, *Klebsiella* spp. and *Enterobacter* spp. Carbapenem-resistant Enterobacterales (CRE) are not susceptible to carbapenem antibiotics. They are broadly categorized based on the mechanism of their resistance as carbapenemase producers (CP-CRE) and non-carbapenemase producers.

Carbapenems are broad-spectrum antibiotics typically used to treat severe health care-associated infections (HAIs) caused by highly drug-resistant bacteria. Currently available carbapenems include imipenem, meropenem, ertapenem and doripenem. Although related to the β -lactam antibiotics, carbapenems retain antibacterial activity in the presence of most β -lactamases, including extended-spectrum β -lactamases (ESBLs) and extended-spectrum cephalosporinases (e.g. AmpC-type β -lactamases). Loss of susceptibility to carbapenems is a serious problem because few safe treatment alternatives remain against such resistant bacteria.

Infections caused by CRE occur most commonly among people with chronic medical conditions through use of invasive medical devices such as central venous and urinary catheters, frequent or prolonged stays in health care settings or extended courses of antibiotics. CP-CRE are most concerning and have spread rapidly across the nation and around the globe, perhaps because carbapenemases can be encoded on plasmids that are easily transferred within and among bacterial species.

In December 2011, CRE bacterial isolates became reportable in Oregon. The CRE case definition has gone through major changes over the years, which is reflected in the big changes in case numbers from year to year. In 2013, the definition was non-susceptible (intermediate or resistant) to all carbapenems tested and resistant to any third generation cephalosporins tested. The definition was then revised in 2014 to non-susceptible to any carbapenem, excluding ertapenem, and resistant to all third

Prevention

Think "**NICE**" if you encounter CRE:

- **Notify** the county health department, pertinent clinical groups and your antibiotic stewardship program that CRE has been spotted.
- **Intervene** in all cases with core infection control activities: hand hygiene, contact precautions, private rooms and optimized environmental cleaning. Reduce unnecessary antibiotics and use of invasive devices. Additionally, for CP-CRE, screen patient contacts as well as cohort staff and patients.
- **Communicate** CRE infection or colonization status to the receiving facility upon patient transfer.
- **Educate** patients, staff and visitors about CRE.



Carbapenem-resistant Enterobacterales (CRE)




generation cephalosporins tested. A CDC study found this definition to be too insensitive in picking up carbapenemase producers. The current definition, which changed July 1, 2015 is Enterobacterales with resistance to any carbapenem antibiotic. This definition is simpler and aligned with the CDC's definition.

The Oregon State Public Health Laboratory offers specialized testing to determine whether reported CRE are carbapenemase producers, and the Oregon Public Health Division's HAI program performs detailed investigation of any reported cases.

One-hundred fifty one new cases of CRE infection or colonization were reported among Oregon residents in 2021. One-hundred-twenty five (83%) of these cases were ≥ 60 years of age, median age was 73, and 83 (55%) were female. Urine was the most common source (74%) and *Enterobacter cloacae* accounted for 48% of all isolates. Annual CRE case counts have changed little since 2016.

Between 2010 and 2021, there were 40 CP-CRE cases among Oregon residents: 16 *Klebsiella pneumoniae* carbapenemase (KPC), 15 New Delhi metallo- β -lactamase (NDM), 6 oxacillinase-48 (OXA-48), 1 imipenemase metallo- β -lactamase (IMP) and 2 with both NDM and OXA-48. Twenty-three (58%) of the CP-CRE were from patients with histories of health care exposure in other states or out of the United States.

Unlike much of the rest of the country, CP-CRE remain rare in Oregon. We have instituted enhanced surveillance and prevention efforts and established the Drug-Resistant Organism Prevention and Coordinated Regional Epidemiology (DROP-CRE) Network, a statewide network to rapidly detect, respond to and prevent CRE. For more information, including our CRE toolkit, please see our webpage on Carbapenem-resistant Enterobacterales. 

Prevention

Think "**NICE**" if you encounter CRE:

- **Notify** the county health department, pertinent clinical groups and your antibiotic stewardship program that CRE has been spotted.
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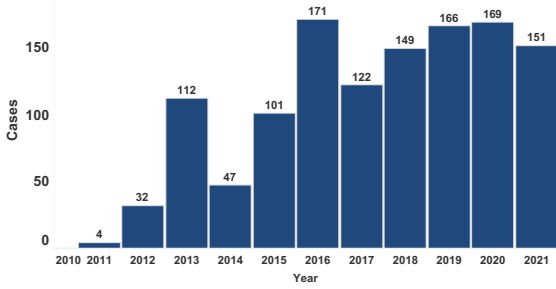


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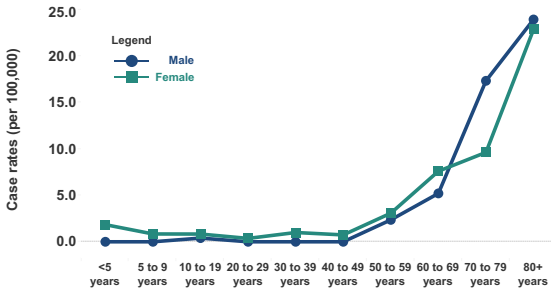
Data current as of March 2023; data are provisional and subject to change.

Case counts of carbapenem-resistant Enterobacteriales (CRE) by year: Oregon, 2011 to 2021.

Infection by CRE became reportable in December 2011. Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



Case rates of carbapenem-resistant Enterobacteriales (CRE) by age and sex: Oregon, 2021.



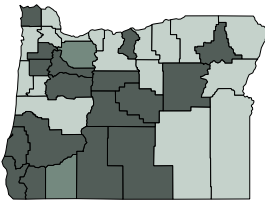
Case rates of carbapenem-resistant Enterobacteriales (CRE) by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for carbapenem-resistant Enterobacteriales (CRE) from 2012 to 2021 was 3.0 per 100,000.

Legend for county rates

- ▶ 2 standard deviations over statewide rate
- 1 standard deviations over statewide rate
- Similar to statewide rate
- 1 standard deviations under statewide rate
- ◀ 2 standard deviations under statewide rate



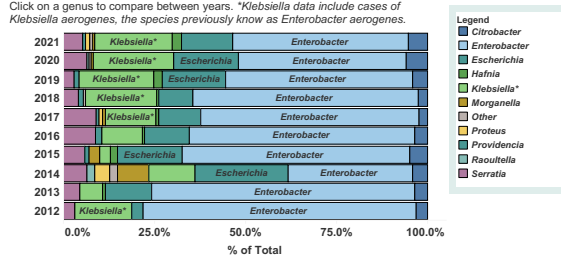
Sherman	▶ 6.8
Grant	▶ 5.6
Jefferson	▶ 5.4
Douglas	▶ 5.4
Josephine	▶ 4.6
Klamath	▶ 4.6
Polk	▶ 4.5
Marion	▶ 4.2
Deschutes	▶ 4.1
Crook	▶ 4.0
Curry	▶ 3.9
Coos	▶ 3.9
Clatsop	▶ 3.8
Union	▶ 3.7†
Lake	▶ 3.6
Yamhill	▶ 3.4
Linn	▶ 3.1
Jackson	● 2.9
Clackamas	■ 2.7
Columbia	◀ 2.5
Lincoln	◀ 2.4
Multnomah	◀ 2.4
Lane	◀ 2.4
Tillamook	◀ 2.3
Umatilla	◀ 2.3
Wasco	◀ 2.3
Washington	◀ 1.8
Benton	◀ 1.8
Harney	◀ 1.4†
Baker	◀ 1.2†
Morrow	◀ 0.8†
Hood River	◀ 0.8†
Gilliam	◀ 0.1
Malheur	◀ 0.1
Wallowa	◀ 0.1
Wheeler	◀ 0.1

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

Carbapenem-resistant Enterobacteriales (CRE) cases by genus: Oregon, 2012 to 2021.

Click on a genus to compare between years. *Klebsiella data include cases of Klebsiella aerogenes, the species previously known as Enterobacter aerogenes.



Chlamydia

Chlamydia is a sexually transmitted infection caused by the bacterium *Chlamydia trachomatis*. Any person can get chlamydia through vaginal, anal, or oral sex. The majority of infections are asymptomatic and go unrecognized without routine screening. When present, symptoms can include painful urination, vaginal discharge, and pelvic pain. Untreated infections can cause pelvic inflammatory disease (PID) and infertility or tubal (ectopic) pregnancy in people assigned female at birth.

Chlamydia testing is done on urine or swabs of the genitals, rectum, or throat. Chlamydia can be cured with antibiotic treatment. Because chlamydia is a bacterial infection, anyone can be reinfected if exposed again after completing treatment.

Chlamydia is the most common reportable illness in Oregon aside from COVID-19. During 2021, 15,601 cases of chlamydia were reported in Oregon, and cases occurred in all 36 Oregon counties. The COVID-19 pandemic severely impacted health services across Oregon and the COVID-19 mitigation protocol limited the capacity to conduct routine STI screening. The last decade has seen a steady rise in number of Oregon cases. However, Oregon's rate remains below the national average.

Reported rates of chlamydia are twice as high in people assigned female at birth compared to people assigned male at birth. People 20–29 years of age experience the highest rates of chlamydia. Chlamydia rates are high in Black/African American and Hispanic or Latino people. The reasons for these racial and ethnic disparities are complex and result from generations-long systemic inequities.

Prevention

- Use condoms consistently and correctly during anal and vaginal or front sex.
- Get tested for HIV, syphilis, gonorrhea, chlamydia and hepatitis C regularly.
- Talk openly with sex partners about HIV and other sexually transmitted infections and the importance of regular testing.
- If diagnosed with an STI, abstain from sex until completing treatment and symptoms have resolved.
- Use HIV pre-exposure prophylaxis, or PrEP, to prevent HIV infection.
- If you inject drugs, use a new, sterile syringe every time and visit your local syringe service program for sterile supplies, HIV/Hep C testing, naloxone, and other resources.




Chlamydia



Inequities in chlamydia are multifactorial and driven by social determinants of health, such as discrimination, poverty, inadequate health care access, educational inequalities, and stigma. Instead of focusing on individual-level risk factors and interventions, moving upstream to systems-level solutions is key. It is critical to understand that higher chlamydia rates are not caused by race, ethnicity, gender, or sexual orientation, but by the social, economic, and environmental contexts that are more likely to affect certain groups and that create barriers to optimal sexual health.

Research indicates that information about differences in chlamydia rates must be strategically crafted and implemented with authentic community engagement. Authentic community engagement has the capacity to develop solutions to address health inequities. So as not to further harm communities burdened by other social and health inequities, strength-based approaches are critical to public health programs designed to prevent chlamydia and maximize sexual well-being. Addressing health inequities from the underlying root is critical to reducing STD rates.

Data are provisional and subject to change based on data current as of date. Find more detailed data on chlamydia on Oregon's HIV, STD and TB dashboards. 

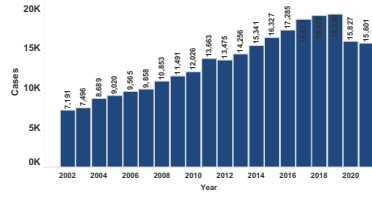
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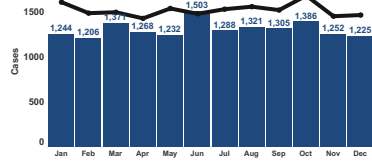
Case counts of chlamydia by year: Oregon, 2002 to 2021.

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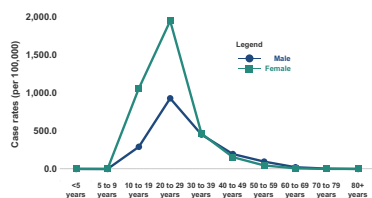


Case counts of chlamydia by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

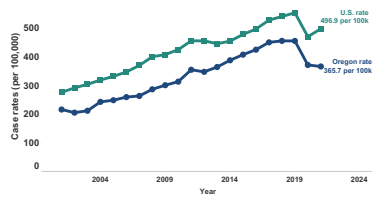


Case rates of chlamydia by age and sex: Oregon, 2021.



Case rates of chlamydia in Oregon vs nationwide, 2001 to 2021.

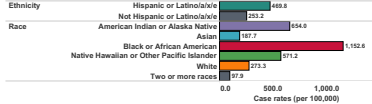
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: National Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly), Census Bureau's Annual Population Estimates as of July 1st of each year. Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Oghesa, Portland State University's annual population estimates. Oregon's vital statistics birth data. **Footnote:** Data sources: **Footnote:** Disease Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of chlamydia by reported race and ethnicity: Oregon, 2012 to 2021.

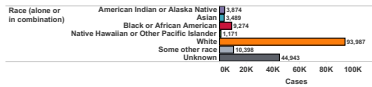
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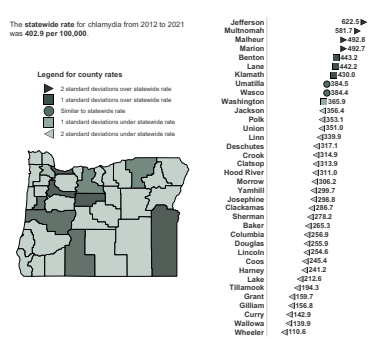
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Case rates of chlamydia by county of residence: Oregon, 2012 to 2021.

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Coccidioidomycosis

Valley fever, also called coccidioidomycosis, is an infection caused by a fungus, *Coccidioides*, found in soil. There are two main types of the fungus that cause valley fever: *Coccidioides immitis* and *Coccidioides posadasii*. Approximately 60% of *Coccidioides* infections are asymptomatic. Symptomatic cases typically present with a mild respiratory syndrome characterized by non-productive cough, shortness of breath, fatigue, night sweats, myalgias and, occasionally, a rash (erythema nodosum or erythema multiforme) between one and three weeks after the individual breathes in the spores. The typical pulmonary infection is self-limiting and clinically indistinguishable from other community-acquired pneumonias.

Immunocompromised patients — e.g., persons with solid organ transplants, human immunodeficiency infection (HIV), lymphoma, or those receiving immunosuppressive therapy such as high-dose steroids or anti-TNF medications — have a higher morbidity and mortality rate than the general population. Some populations — including pregnant women, people living with diabetes, racial groups (specifically individuals who identify as Black or Filipino) and immunocompromised persons — are at elevated risk for severe illness.

Coccidioides lives in soil in areas of low rainfall, high summer temperatures and moderate winter temperatures. Unusually wet years lead to large blooms in the soil, while subsequent dry spells kick up the spores and render them airborne. *Coccidioides* is common in the Southwestern United States, including Arizona and Central California, part of Mexico and Central and South America. *Coccidioides immitis* has been found in soils of south-central Washington just across the Columbia River from Oregon. At this time, it is unknown if coccidioidomycosis is established in Oregon soil.

Prevention

- Regrettably, there are no practical methods for preventing exposure to *Coccidioides* in areas where it is common.
- People at higher risk (immunocompromised, pregnant) should avoid breathing in large amounts of dust if they are in these areas. They should also avoid activities that involve close contact with dirt or dust, such as gardening, yard work and digging.
- Patients with coccidioidomycosis can be helped with early diagnosis and treatment with antifungal drugs.

Coccidioidomycosis



Establishing a diagnosis of coccidioidomycosis may be challenging in humans and animals, and multiple tests including cytology, histopathology, culture and serology may be necessary. A chest X-ray can aid in the diagnosis; pulmonary lesions and hilar lymphadenopathy may be identified in humans and animals with respiratory disease. Isolates from potentially locally acquired cases (human or animal) of coccidioidomycosis should be sent to the Oregon State Public Health Laboratory.

Coccidioidomycosis became a reportable condition in Oregon in 2015.

In 2021, 34 cases of coccidioidomycosis were reported. Sixty-five percent (22) were in males and the median age was 70 years.

Most infections resolve without treatment, but patients should be monitored to document resolution. Patients with disseminated disease should be treated with antifungal therapy.

Coccidioidomycosis is not usually considered communicable from person to person; however, at least two cases of zoonotic transmission have been documented. In a recent report, a veterinary assistant developed a localized infection with osteomyelitis as the result of a bite from a cat with disseminated coccidioidomycosis. Another zoonotic case apparently acquired coccidioidomycosis by inhaling endospores during the necropsy of a horse with disseminated infection.

Prevention

- Regrettably, there are no practical methods for preventing exposure to *Coccidioides* in areas where it is common.
- People at higher risk (immunocompromised, pregnant) should avoid breathing in large amounts of dust if they are in these areas. They should also avoid activities that involve close contact with dirt or dust, such as gardening, yard work and digging.
- Patients with coccidioidomycosis can be helped with early diagnosis and treatment with antifungal drugs.

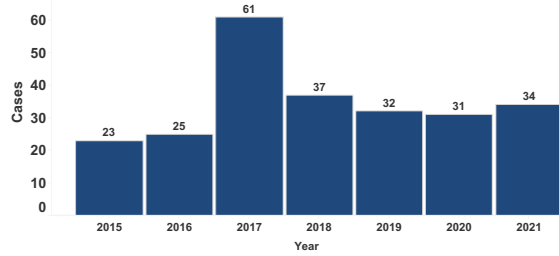


Oregon's 2021 Selected Reportable Communicable Disease Summary

Data current as of March 2023; data are provisional and subject to change.

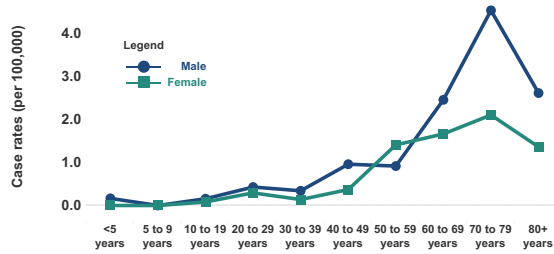
Case counts of coccidioidomycosis by year: Oregon, 2015 to 2021.

Coccidioidomycosis became reportable in 2015. Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



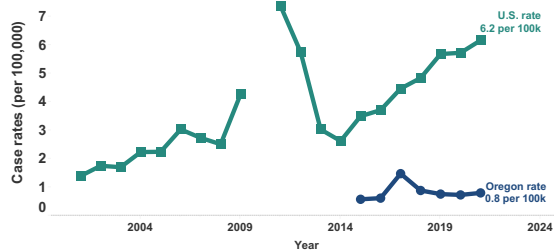
Case rates of coccidioidomycosis by age and sex: Oregon, 2017 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Case rates of coccidioidomycosis in Oregon vs nationwide, 2001 to 2021.

Coccidioidomycosis became reportable in Oregon in 2015. National case counts were not reported in 2010. U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Oryxus; Portland State University's annual population estimates; Oregon's vital statistics birth data; FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

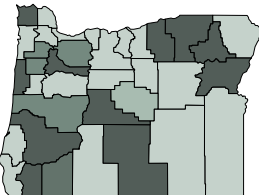
Case rates of coccidioidomycosis by county of residence: Oregon, 2017 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for coccidioidomycosis from 2017 to 2021 was 0.9 per 100,000.

Legend for county rates

- ▲ 2 standard deviations over statewide rate
- 1 standard deviations over statewide rate
- Similar to statewide rate
- 1 standard deviations under statewide rate
- ▲ 2 standard deviations under statewide rate



Lake	2.5†
Deschutes	2.3
Douglas	1.8
Marion	1.7
Lincoln	1.6†
Morrow	1.6†
Union	1.5†
Josephine	1.4
Umatilla	1.2
Baker	1.2†
Clatsop	1.0†
Jackson	1.0
Polk	1.0†
Lane	1.0
Clackamas	0.9
Yamhill	0.9
Crook	0.9†
Jefferson	<0.8†
Hood River	<0.8†
Tillamook	<0.8†
Wasco	<0.7†
Coos	<0.6†
Washington	<0.6
Klamath	<0.6†
Multnomah	<0.5
Linn	<0.5†
Benton	<0.4†
Columbia	<0.0†
Curry	<0.0†
Gilliam	<0.0†
Grant	<0.0†
Harney	<0.0†
Malheur	<0.0†
Sherman	<0.0†
Wallowa	<0.0†
Wheeler	<0.0†

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

Cryptococcosis




Cryptococcus neoformans has long been identified in humans with immunosuppressive conditions, especially AIDS. Before 1999, *Cryptococcus gattii* (*C. gattii*) infection seemed to be mainly limited to the tropics. During 1999, *C. gattii* began appearing in animals and humans on Vancouver Island in British Columbia, Canada.

Beginning in 2004, it started appearing among mainland British Columbia residents who had no exposure to Vancouver Island. In December 2004, a case of human *C. gattii* infection was reported in Oregon, associated with an outbreak on Vancouver Island and in mainland British Columbia. Infection by *Cryptococcus* became officially reportable in Oregon Aug. 19, 2011.

Fifty-four cases occurred among Oregon residents in 2021. The most common infection was *C. neoformans* (18), followed by *C. albidus* (15), *C. gattii* (4), *C. terreus* (4), *C. uniguttulatus* (3) and *C. laurentii* (2). Forty-seven of 54 (87%) of the reported cases were diagnosed by culture.

Studies from British Columbia and elsewhere showed a median incubation period of six to seven months, with a range between two and 13 months. In addition to testing human specimens and animals, environments where animals are infected with *C. gattii* are also tested to localize the environmental reservoirs (they travel less than humans). The bottom line is *C. gattii* appears to be established in Oregon soil and serves as a source of infection.

There is no potential for zoonotic transmission.

Healthy persons appear to be at low risk. Most infections are among immunocompromised or chronically ill persons. Over the last few years, detection of cryptococcal infection has changed from culturing the organism to using the cryptococcal antigen, making it impossible to further our knowledge of the epidemiology of *Cryptococcus gattii*. Treatment with extended use of antifungal agents (six months or longer) is recommended. For current treatment information, see guidelines published by the Infectious Disease Society of America. 

Prevention

- Regrettably, practical methods for preventing cryptococcosis have not been identified.
- Patients with cryptococcosis can be helped with early diagnosis and treatment with antifungal drugs.

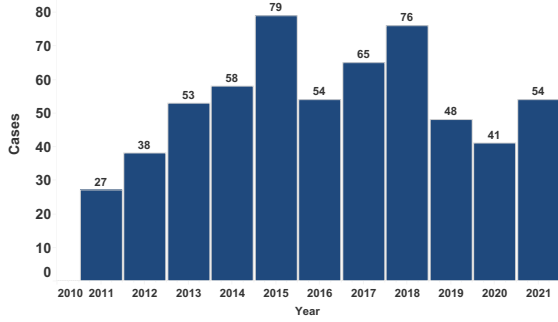


Oregon's 2021 Selected Reportable Communicable Disease Summary

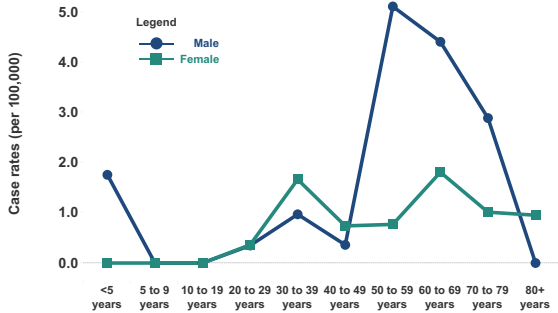
Data current as of March 2023; data are provisional and subject to change.

Case counts of cryptococcosis by year: Oregon, 2011 to 2021.

Cryptococcosis became reportable in 2011. Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

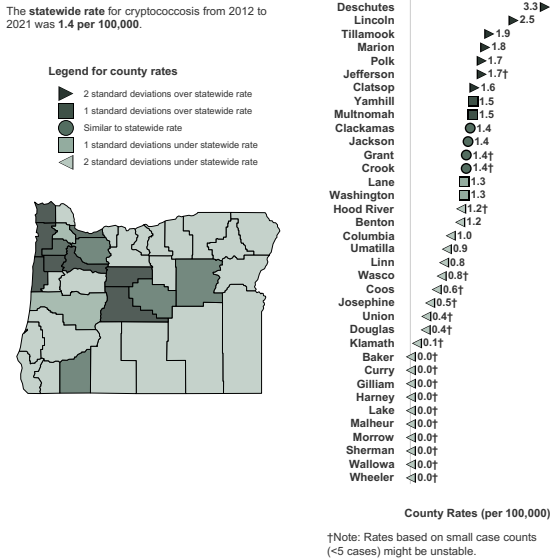


Case rates of cryptococcosis by age and sex: Oregon, 2021.



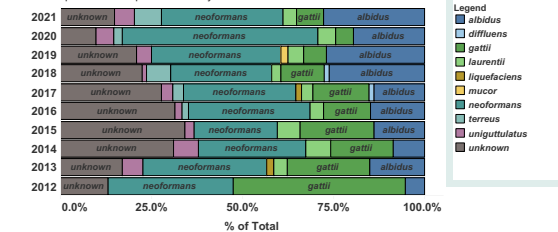
Case rates of cryptococcosis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Cryptococcosis cases by species: Oregon, 2012 to 2021.

Click on a species to compare between years.



Cryptosporidiosis



Cryptosporidiosis in humans results from infection with protozoal parasites of the genus *Cryptosporidium* — most commonly *C. hominis* or *C. parvum*. Symptomatic infections are characterized by watery diarrhea and abdominal cramps. Many animals serve as reservoirs for *Cryptosporidium* and various protozoal species exist. Many of the species are not known to cause human illness. The most common source of infection is exposure to recreational water.

Symptoms typically resolve in one to four weeks in immunocompetent persons, but infections in immunocompromised persons can be difficult or impossible to cure. Studies suggest the prevalence of cryptosporidiosis among young children, particularly those in large childcare facilities, is surprisingly high. There are no symptoms for many of these infections.

Oregon recorded a large drop in infection rates in 2020, mirroring national trends. In 2021 case counts increased but not nearly as much as in earlier years. The 2021 rate was 2.9 per 100,000 persons, down from 6.0 in 2019. Oregon incidence of *Cryptosporidium* still remains slightly higher than the national rate (2.8 per 100,000 persons). Cases occur year-round although the incidence is still highest in summer months, coincident with increases in exposure to recreational water.

Rapid cartridge (ImmunoSTAT) tests and culture-independent diagnostic testing for *Cryptosporidium* might be playing a role in the apparent increase in incidence beginning in the early millennium. Many facilities are now using polymerase chain reaction (PCR) panels, which detect *Cryptosporidium* among other pathogens. These tests are superior to the rapid cartridge tests. In 2021, 125 cases were reported. All cases are routinely investigated to identify the source of infection. No outbreaks were identified in 2021. Treatment with an antiprotozoal agent has been shown effective in persons with a normal immune response; however there are no proven effective treatments in immunocompromised hosts.

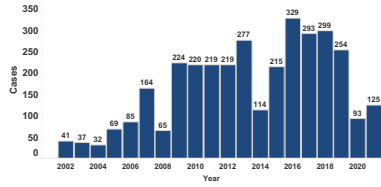
Prevention

- Wash hands carefully and frequently with soap and warm water, especially after going to the bathroom, changing diapers or touching livestock. Supervise hand-washing of toddlers and small children after they use the toilet.
- Do not work or attend daycare, serve or prepare food or work in health care while ill with diarrhea.
- Refrain from recreational water activities (pools, hot tubs, splash pads) for two weeks after symptoms from a bout of cryptosporidiosis subside.
- Do not drink untreated surface water.



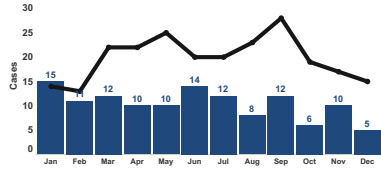
Case counts of cryptosporidiosis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

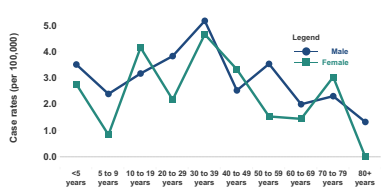


Case counts of cryptosporidiosis by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

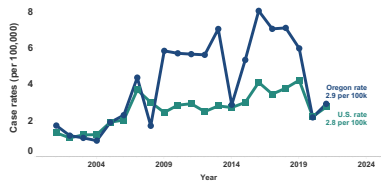


Case rates of cryptosporidiosis by age and sex: Oregon, 2021.



Case rates of cryptosporidiosis in Oregon vs nationwide, 2001 to 2021.

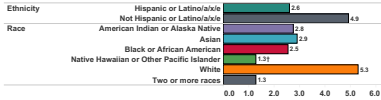
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National vital Statistics Reports; Oregon data sources: Oryzoon, Portland State University's annual population estimates, Oregon's vital statistics birth data; FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population Estimates as of July 1st of each year.

Case rates of cryptosporidiosis by reported race and ethnicity: Oregon, 2012 to 2021.

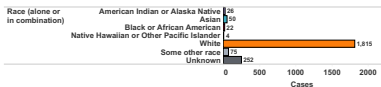
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

Case counts of cryptosporidiosis by reported race and ethnicity: Oregon, 2012 to 2021.

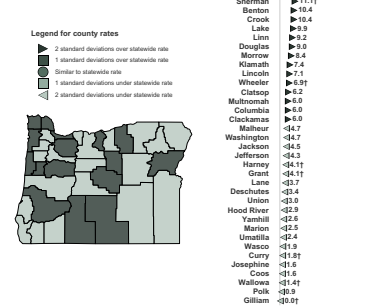
Race alone or in combination means cases may be counted in all races that apply.



Case rates of cryptosporidiosis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for cryptosporidiosis from 2012 to 2021 was 5.4 per 100,000.



County Rates (per 100,000)

(Note: Rates based on small case counts (<5 cases) might be unstable.)

Dengue fever

Dengue is a mosquito-borne viral infection. It is caused by a *Flavivirus* (the same genus as West Nile, Zika and yellow fever viruses). There are four serotypes, identified as DENV 1–4. The disease is limited primarily to the tropics and subtropics, although imported cases occasionally occur.

Symptom severity ranges from subclinical, asymptomatic infections to high fever, headache, muscle aches and rash. A subset of patients may develop hemorrhagic fever, with bleeding and shock. Treatment for dengue is supportive. In May 2019, a vaccine against dengue was approved in the United States. It is recommended in children 9–16 years of age with previous laboratory-confirmed DENV infection who live in areas where dengue is common — including American Samoa, Puerto Rico, the U.S. Virgin Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau.

There is no evidence of transmission here in Oregon. The typical vectors, *Aedes albopictus*, *Aedes japonicus* and *Aedes aegypti*, are not native to Oregon, although there have been reports of all three species in California.

There was one case in an Oregon resident in 2021 who had a history of recent travel to an area where dengue is endemic.

Prevention

Primary prevention measures are geared toward avoiding mosquito bites when visiting areas where dengue is circulating:

- Use mosquito repellent.
- Wear long sleeves, long pants, shoes and socks when out and about.
- Avoid outdoor activities at dawn, dusk and early evening, when more mosquitoes are out.
- Check screens on doors and windows where you are staying to make sure they are intact.
- Sleep under a treated mosquito net when nighttime exposure to mosquitoes could occur.
- Additionally, persons acutely ill with dengue should avoid exposure to domestic mosquitoes. (We don't want to find out the hard way that local species can harbor and transmit the virus, after all.)

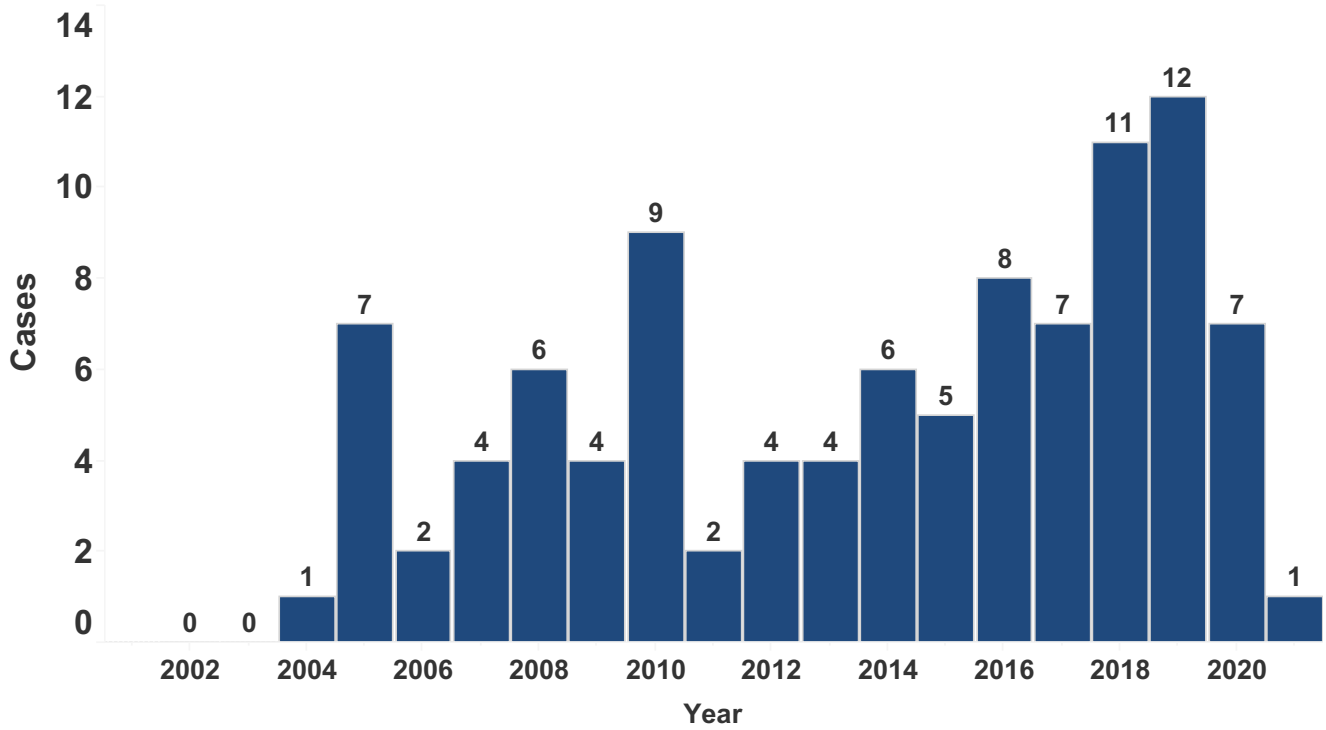


Oregon's 2021 Selected Reportable Communicable Disease Summary

Data current as of March 2023; data are provisional and subject to change.

Case counts of dengue fever by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.





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

Escherichia coli O157 (O157) is one of the most dreaded causes of infectious gastroenteritis. Bloody diarrhea is a hallmark of this pathogen, but the real danger is post-diarrheal hemolytic uremic syndrome (HUS). Oregon has been the setting for many O157 outbreaks, and the investigations of those outbreaks, combined with the analysis of other surveillance data, has contributed greatly to our understanding of this pathogen. Spread by the fecal-oral route, O157 has several 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. Mid-to-late summer is the peak season for O157 infections.

With increasing deployment of diagnostic kits that identify Shiga toxin-producing *E. coli* (rather than O157 per se) comes an appreciation of the significant role that other STEC play as human pathogens. In the United States (and in Oregon), O26, O45, O103, O111, O121 and O145 are the most common "other" serogroups of the enterohemorrhagic *E. coli*, making up approximately half of the reported cases. O157 infections are much more likely to result in HUS than is infection by other STEC.

The incidence of STEC infections in Oregon has generally been higher than that of the United States as a whole. Over the past 10 years, the number of O157 cases reported statewide has ranged between 41 and 111 annually. After climbing to a peak of 2.9 cases per 100,000 persons in 2012, rates began declining. In 2021, the rate of 1.9 per 100,000 persons was up from the 2020 rate of 1.0 per 100,000.

Prevention

- Wash hands with soap carefully and frequently, especially after going to the bathroom, changing diapers or touching livestock. Supervise hand washing of toddlers and small children after they use the toilet.
- Do not work or attend daycare, serve or prepare food or work in health care while ill with diarrhea.
- Practice safe food handling. Rinse raw produce thoroughly under running tap water; separate uncooked meats from vegetables, cooked foods, and ready-to-eat foods; and cook meat to the proper temperatures.
- Do not drink raw milk and do not eat foods that have unpasteurized milk in them.





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

As for the non-O157 serogroups, those case counts have increased steadily from single digits in 2007 and 2008 to a peak of 149 confirmed cases in 2019. Of the 212 confirmed STECs serotyped in 2021, 82 were O157; 130 were non-O157, including O26 (40), O103 (13), O121 (10), O111 (9), and 23 other serogroups. The remaining 81 STEC cases in 2021 were not serotyped.

Oregon residents were associated with one multi-state STEC outbreak in 2021. The outbreak was determined to be foodborne, with a suspected vehicle of cake mix. Three other outbreaks investigated in 2021 were also foodborne, with suspected items of goat cheese, leafy greens, and unknown item. Due to the frequency of STEC outbreaks associated with leafy greens, the FDA are proposing new rules for pre-harvest agricultural water testing.

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.

Much of the heavy lifting for prevention must be done upstream, with plans to minimize contamination of crops and processing equipment. 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.

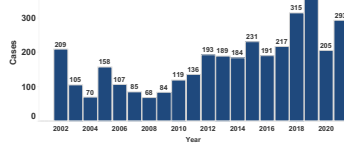
Prevention

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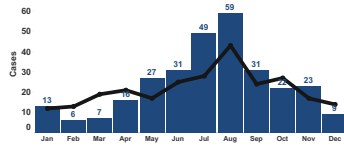


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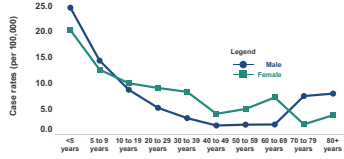
Case counts of STEC infections by year: Oregon, 2002 to 2021.
Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



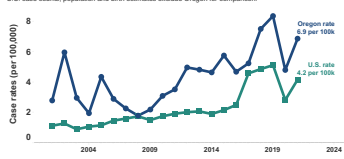
Case counts of STEC infections by month: Oregon, 2021.
Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.



Case rates of STEC infections by age and sex: Oregon, 2021.

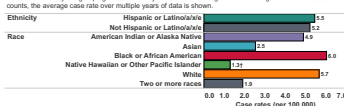


Case rates of STEC infections in Oregon vs nationwide, 2001 to 2021.
U.S. case counts, population and birth estimates exclude Oregon for comparison.



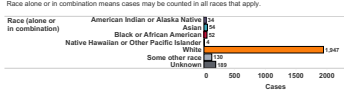
U.S. data source: National Notifiable Infectious Diseases and Conditions, CDC (weekly, annual, weekly). Census Bureau's Annual Population Estimates as of July 1st of each year. Birth Data for 2021 from National Vital Statistics System, Oregon data source: ODHHS, Portland State University's annual population estimates. Oregon's vital statistics birth data. FoodNet data source: FoodNet Database, Active Surveillance Network, Centers for Disease Control and Prevention estimates as of July 1st of each year.

Case rates of STEC infections by reported race and ethnicity: Oregon, 2012 to 2021.

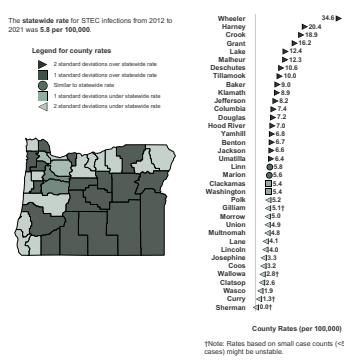


†Note: Rates based on small case counts (<5 cases) might be unstable.

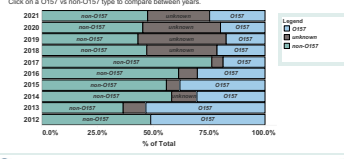
Case counts of STEC infections by reported race and ethnicity: Oregon, 2012 to 2021.



Case rates of STEC infections by county of residence: Oregon, 2012 to 2021.
Due to low case counts, the average case rate over multiple years of data is shown.



Escherichia coli cases by O157 vs non-O157 type: Oregon, 2012 to 2021.





Extrapulmonary nontuberculous mycobacterial disease (NTM)

Oregon surveillance for extrapulmonary nontuberculous mycobacterial disease (NTM) started in January 2014. Case reporting identifies outbreaks and potential sources of transmission. Other objectives of reporting are to prevent further transmission, identify epidemiologic trends and educate the exposed persons about signs and symptoms of the disease.

NTM are environmental organisms, usually associated with water and soil; there are more than 169 different species identified. Disease-causing *Mycobacterium* species frequently identified in the United States include: *M. avium* complex (MAC), *M. marinum*, *M. abscessus*, *M. chelonae*, *M. fortuitum*, *M. kansasii* and *M. xenopi* (in certain regions).

Extrapulmonary NTM disease presents as cutaneous, bone, joint, lymph node or central nervous system disease. These soft tissue infections cause purplish nodules that drain and may ulcerate or scar.

Cutaneous infections present as nodules or ulcers and typically result from either:

- Direct inoculation during trauma
- Surgical or medical procedures
- Exposures to whirlpool baths, or
- Settings such as nail salons or tattoo procedures.

Lymphadenitis occurs most in otherwise healthy children, usually <5 years of age. Lymph node disease results in large, reddened and tender nodes, which can drain or ulcerate.

Prevention

- For surgical procedures, follow infection prevention best practices, which include following sterilization guidelines and not using tap water or ice in the operating room.
- Avoid dusts from potting soil.
- Adequately clean baths in nail salons.
- Tattoo ink should be diluted with sterile water.



Extrapulmonary nontuberculous mycobacterial disease (NTM)



Generally, disseminated extrapulmonary disease occurs in immunocompromised patients (e.g., HIV, cancer, transplant and others). Symptoms include cough, fatigue, weight loss, fever and night sweats.

Treatment is based on the species identified and the site of infection. For the immunocompetent, infections are usually curable with a two to three drug regimen for two to six months, depending on site of infection. Susceptibility testing of the organism determines the appropriate antibiotic treatment. For those with disseminated disease, cure is difficult to achieve without restoration of the immune system.

During 2021, 37 cases of extrapulmonary NTM were reported among Oregon residents, yielding an annual incidence of 0.87 cases per 100,000 population. The median case age was 59 (range 1–92) years; and 16 (43.2%) were female. Tissue and wound cultures accounted for 17 (46%) of the cases, followed by blood (5 cases or 13.5%). *M. avium* complex was the most frequently reported species (13 cases or 35%) followed by *M. chelonae* (8 cases or 22%).

Prevention

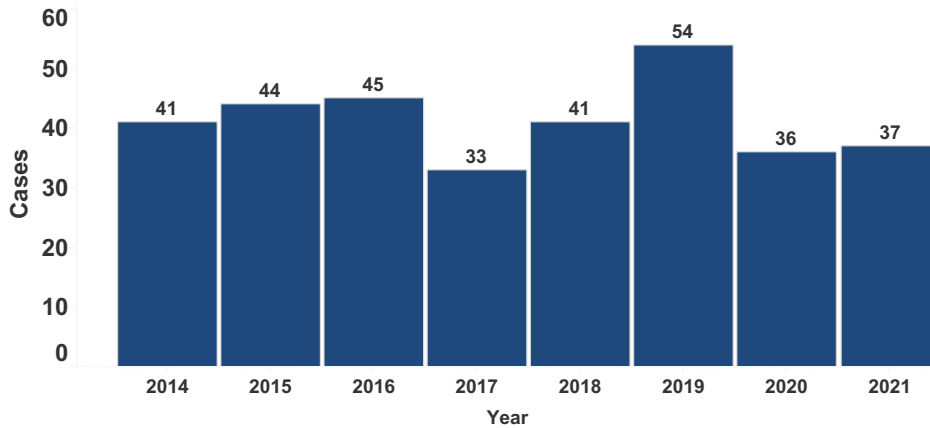
- For surgical procedures, follow infection prevention best practices, which include following sterilization guidelines and not using tap water or ice in the operating room.
- Avoid dusts from potting soil.
- Adequately clean baths in nail salons.
- Tattoo ink should be diluted with sterile water.

Oregon's 2021 Selected Reportable Communicable Disease Summary

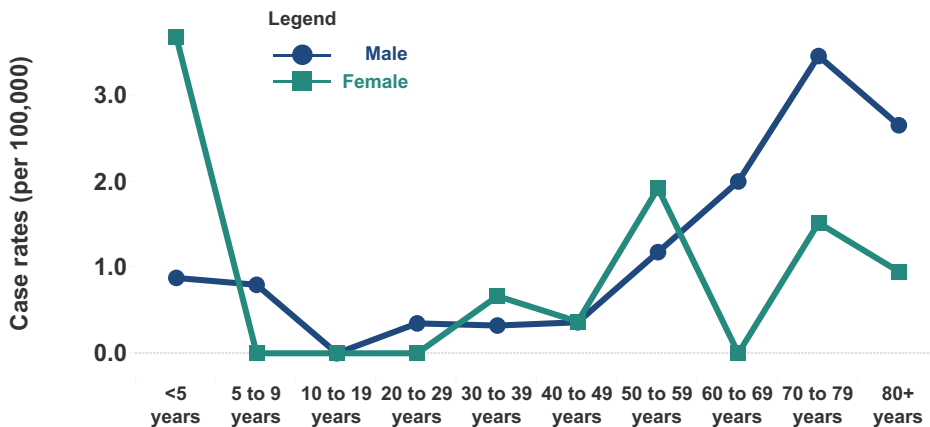
Data current as of March 2023; data are provisional and subject to change.

Case counts of extrapulmonary nontuberculous mycobacterial disease (NTM) by year: Oregon, 2014 to 2021.

Extrapulmonary NTM became reportable in 2014. Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

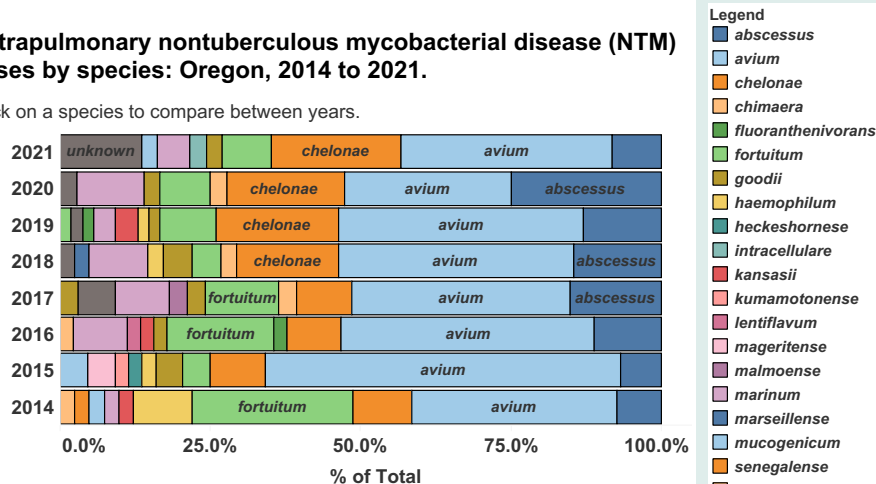


Case rates of extrapulmonary nontuberculous mycobacterial disease (NTM) by age and sex: Oregon, 2021.



Extrapulmonary nontuberculous mycobacterial disease (NTM) cases by species: Oregon, 2014 to 2021.

Click on a species to compare between years.



Giardiasis



Giardia intestinalis, the flagellated protozoan originally named *G. lamblia*, is the most commonly identified parasitic pathogen in the United States. Children in daycare and their close contacts are at greatest risk, as are backpackers and campers (from drinking unfiltered, untreated water), persons drinking from shallow wells, travelers to disease-endemic areas and men who have sex with men.

Giardia cysts can be excreted in the stool intermittently for weeks or months, resulting in a protracted period of communicability. Transmission occurs when as few as 10 cysts are ingested through person-to-person or animal-to-person contact, or by ingesting fecally contaminated water or food. Because most human cases follow person-to-person transmission, identification and treatment of giardiasis as well as management of individuals' contacts should prevent further spread of infection.

Most *Giardia* infections occur without symptoms. When symptomatic, patients report chronic diarrhea, steatorrhea, abdominal cramps, bloating, frequent loose and pale, greasy stools, fatigue and weight loss.

In 2021, the reported incidence of giardiasis in Oregon remained elevated compared to the rest of the United States, with 8.1 cases per 100,000 persons. However, cases of giardiasis have been slowly declining in Oregon since 2010. During 2021, 99% of cases were reported as "sporadic"; 1% were transmitted among household members. Persons aged 70–79 years had the highest incidence in 2021, with 12.2 cases per 100,000 population, followed by persons aged 30–39 years with a rate of 10.7. The elevated incidence from 2012–2021 observed among cases who identify as Black is reflective of universal screening of refugees arriving in Oregon from Africa. Rates of infection tend to be higher in the summer months with transmission related to outdoor activities in or near untreated water.

Giardiasis is treatable, though treatment fails 10% of the time. Treatment failure, however, is not thought to indicate resistance. A repeat course of the same or another medication may work.

Prevention

- Wash hands with soap carefully and frequently, especially after going to the bathroom, changing diapers or after touching livestock. Supervise hand washing of toddlers and small children after they use the toilet.
- Do not work or attend daycare, serve or prepare food or work in health care while ill with diarrhea.
- Refrain from recreational water activities (pools, hot tubs, splash pads) for two weeks after symptoms from a bout of giardiasis subside.
- Do not drink untreated surface water.



[Return to table of contents.](#)

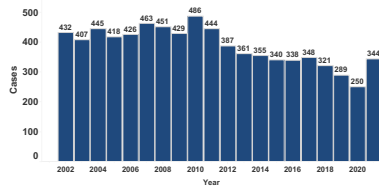
[View charts.](#)



Oregon's 2021 Selected Reportable Communicable Disease Summary
 Data current as of March 2023; data are provisional and subject to change.

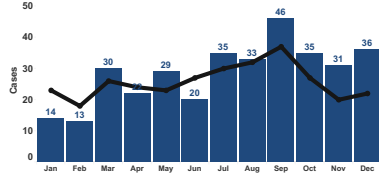
Case counts of giardiasis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

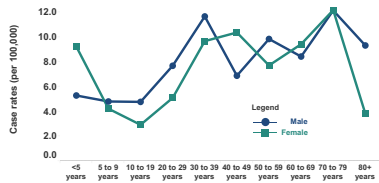


Case counts of giardiasis by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

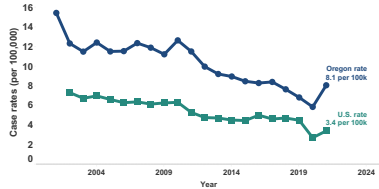


Case rates of giardiasis by age and sex: Oregon, 2021.



Case rates of giardiasis in Oregon vs nationwide, 2001 to 2021.

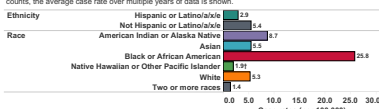
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: National Notifiable Infectious Diseases and Conditions, CDC (Weekly (annual, weekly), Census Bureau's Annual Population Estimates as of July 1st of each year, Births: Final Data for 2021 from National Vital Statistics Reports, Oregon data sources: ODHSA, Portland State University's annual population estimates, Oregon's vital statistics birth data, FoodNet state resources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of giardiasis by reported race and ethnicity: Oregon, 2012 to 2021.

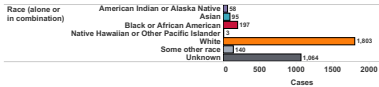
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

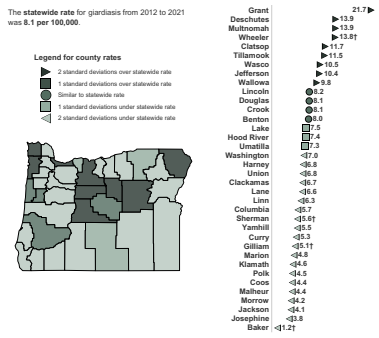
Case counts of giardiasis by reported race and ethnicity: Oregon, 2012 to 2021.

Race alone or in combination means cases may be counted in all races that apply.



Case rates of giardiasis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

Gonorrhea

Gonorrhea is a sexually transmitted infection caused by the bacterium *Neisseria gonorrhoeae*. Any person can get gonorrhea through vaginal, anal, or oral sex. People assigned male at birth are more likely than people assigned female at birth to experience gonorrhea symptoms. Symptoms can include painful urination, penile or vaginal discharge, bleeding between periods, and pelvic pain. Untreated infections can cause significant and costly complications and lead to impaired fertility. Gonorrhea can also be transmitted to an infant during childbirth.

Gonorrhea testing is done on urine or swabs of the genitals, rectum, or throat. Gonorrhea can be cured with antibiotic treatment. Since gonorrhea is a bacterial infection, anyone can be reinfected if they are exposed again after completing treatment.

The incidence of gonorrhea in Oregon increased from 107 cases per 100,000 people in 2016 to 146 cases per 100,000 people in 2021. Black/African American people in Oregon experience high rates of gonorrhea. The reasons for these high rates are complex and result from generations-long systemic inequities. The disparities in gonorrhea rates cannot be attributed to an individual's behavior alone. During 2021, people aged 20–29 years were at highest risk of acquiring gonorrhea. While increasing, the rate of gonorrhea in Oregon remains lower than the national average. In 2021, diagnoses of gonorrhea decreased because COVID-19 mitigation protocols limited the capacity to conduct routine STI screening.



Prevention

- Use condoms consistently and correctly during anal and vaginal or front sex.
- Get tested for HIV, syphilis, gonorrhea, chlamydia and hepatitis C regularly.
- Talk openly with sex partners about HIV and other sexually transmitted infections and the importance of regular testing.
- If diagnosed with an STI, abstain from sex until completing treatment and symptoms have resolved.
- Use HIV pre-exposure prophylaxis, or PrEP, to prevent HIV infection.
- If you inject drugs, use a new, sterile syringe every time and visit your local syringe service program for sterile supplies, HIV/Hep C testing, naloxone, and other resources.




Gonorrhea



Inequities in gonorrhea are multifactorial and driven by social determinants of health, such as discrimination, poverty, inadequate health care access, educational inequalities, and stigma. Instead of focusing on individual-level risk factors and interventions, moving upstream to systems-level solutions is key. It is critical to understand that higher gonorrhea rates are not caused by race, ethnicity, gender, or sexual orientation, but by the social, economic, and environmental contexts that are more likely to affect certain groups and that create barriers to optimal sexual health.

Research indicates that information about differences in gonorrhea rates must be strategically crafted and implemented with authentic community engagement. Authentic community engagement has the capacity to develop solutions to address health inequities. So as not to further harm communities burdened by other social and health inequities, strength-based approaches are critical to public health programs designed to prevent gonorrhea and maximize sexual well-being. Addressing health inequities from the underlying root is critical to reducing STD rates.

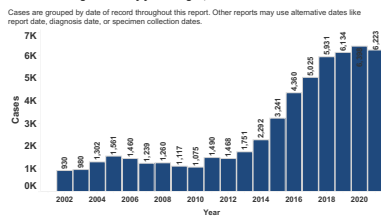
Data are provisional and subject to change based on data current as of date. Find more detailed data on gonorrhea on Oregon's HIV, STD and TB dashboards. 

Prevention

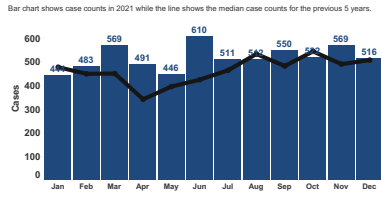
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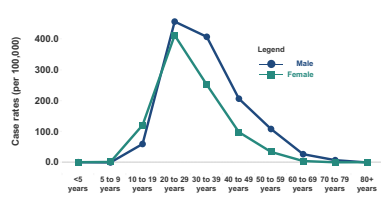
Case counts of gonorrhoea by year: Oregon, 2002 to 2021.



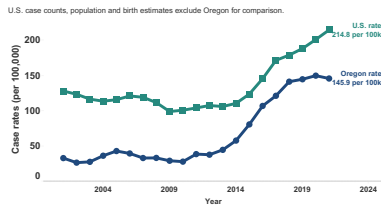
Case counts of gonorrhoea by month: Oregon, 2021.



Case rates of gonorrhoea by age and sex: Oregon, 2021.

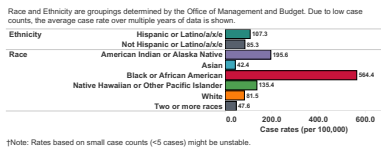


Case rates of gonorrhoea in Oregon vs nationwide, 2001 to 2021.



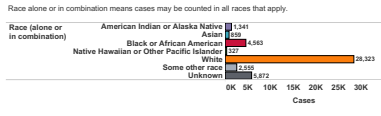
U.S. data sources: National Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports; Oregon data sources: Oregon, Portland State University's annual population estimates; Oregon's vital statistics birth data; FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of gonorrhoea by reported race and ethnicity: Oregon, 2012 to 2021.

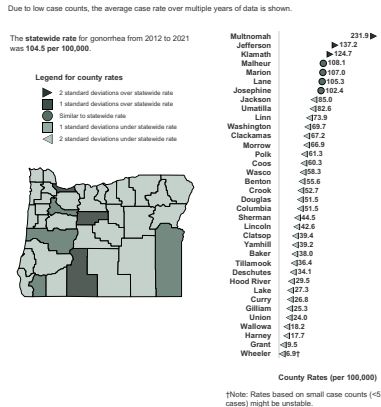


(Note: Rates based on small case counts (<5 cases) might be unstable.)

Case counts of gonorrhoea by reported race and ethnicity: Oregon, 2012 to 2021.



Case rates of gonorrhoea by county of residence: Oregon, 2012 to 2021.



Haemophilus influenzae infection

Until the advent of an effective vaccine against *Haemophilus influenzae* serotype b (Hib) organisms, *H. influenzae* was the leading cause of bacterial meningitis in children <5 years of age in Oregon and elsewhere. It plummeted in the rankings, and *Streptococcus pneumoniae* is now in the lead. In 2021, there were two cases of Hib reported, both in children <5 years of age. Previously, the last reported Hib case in a child <5 years of age was in 2013. Appropriate use of conjugate vaccine will help ensure Hib infection remains minimal well into the future. All sterile-site *H. influenzae* isolates must be sent to the Oregon State Public Health Laboratory for additional typing.

Thirty-one cases of invasive *H. influenzae* disease (IHiD, all serotypes) occurred in 2021. With the decline in invasive Hib disease in children, there has been increased recognition of nonserotype b and nontypeable cases in persons >5 years of age, especially among those ≥65 years of age. In 2021, 58% of cases were nontypeable, 6% were identified as serotype e, 3% were identified as serotype f, 13% were serotype a, 6% were serotype b, and the remaining cases were not serotyped. The burden of IHiD in 2021 was highest among those 0–4 years of age (2 per 100,000 persons), followed by those >65 years of age (1 per 100,000 persons) and then those 35–64 years of age (1 per 100,000 persons). *Haemophilus influenzae* is treated with antibiotics. Ninety-three percent of cases were hospitalized. There were eight deaths related to IHiD infection.

Prevention

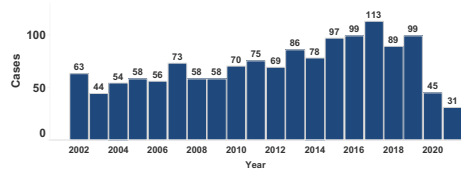
- Vaccinate all children against Hib at 2 months, 4 months, 6 months, and 12–15 months of age.
- Cover your cough and wash your hands.
- Close contacts of Hib cases can be treated prophylactically to prevent infection.



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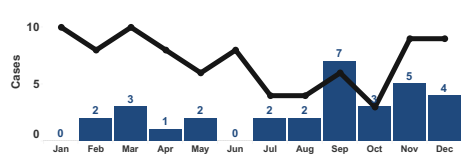
Case counts of *Haemophilus influenzae* by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

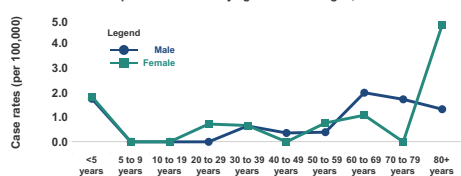


Case counts of *Haemophilus influenzae* by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

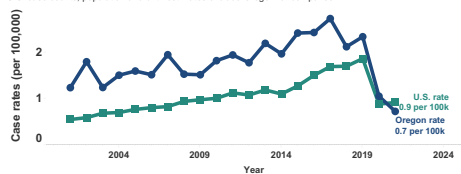


Case rates of *Haemophilus influenzae* by age and sex: Oregon, 2021.



Case rates of *Haemophilus influenzae* in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



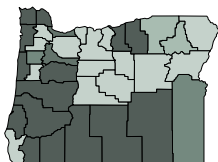
U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Opiheus, Portland State University's annual population estimates, Oregon's vital statistics birth data. FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of *Haemophilus influenzae* by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for *Haemophilus influenzae* from 2012 to 2021 was 2.0 per 100,000.

- Legend for county rates**
- ▲ 2 standard deviations over statewide rate
 - 1 standard deviations over statewide rate
 - Similar to statewide rate
 - 1 standard deviations under statewide rate
 - △ 2 standard deviations under statewide rate



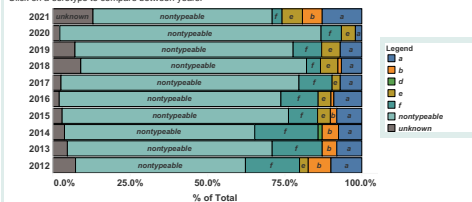
Harney	5.51
Gilliam	5.11
Lake	5.01
Morrow	3.31
Josephine	3.3
Linn	2.8
Klamath	2.8
Columbia	2.7
Lincoln	2.7
Clatsop	2.6
Jackson	2.5
Douglas	2.4
Lane	2.3
Tillamook	2.3
Coos	2.2
Marion	2.1
Multnomah	2.1
Polk	2.0
Malheur	1.9
Umatilla	1.9
Union	1.9
Clackamas	<1.8
Jefferson	<1.71
Deschutes	<1.6
Yamhill	<1.5
Grant	<1.47
Curry	<1.37
Baker	<1.21
Washington	<1.2
Wasco	<1.11
Benton	<1.0
Crook	<0.97
Hood River	<0.47
Sherman	<0.07
Wallowa	<0.07
Wheeler	<0.07

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

***Haemophilus influenzae* cases by serotype: Oregon, 2012 to 2021.**

Click on a serotype to compare between years.



Acute hepatitis A



Hepatitis A is a liver disease caused by the hepatitis A virus, which infects humans through fecal-oral transmission. Hepatitis A can occur in situations ranging from isolated cases of disease to statewide outbreaks. However, since the licensure of the hepatitis A vaccine in 1995–1996, rates of infection have declined nationally as well as in Oregon, which had been one of the higher-incidence states. Most cases in Oregon are “sporadic” and occur mainly in persons who travel outside the United States. Oregon has seen small clusters of hepatitis A infections among injection drug users and adults in custody. In 2019, Oregon saw a cluster of five hepatitis A cases in a high-risk population reporting injection drug use and unstable housing in Central Oregon. Multiple local vaccination clinics were set up to provide vaccination to this high-risk population. Hepatitis A vaccine was offered to local shelters, soup kitchens, and adults in custody in a local county jail. No clusters were observed in 2021.

In 2021, Oregon logged 14 cases of acute hepatitis A. Historically, most hepatitis A cases reported foreign travel during their exposure period and their infection was acquired abroad. However, in 2021, only four of the 14 cases (28.6%) reported foreign travel, likely due to travel restrictions during the COVID-19 pandemic. Four cases (28.6%) reported injection drug use, and four (28.6%) were contacts of known cases. Two (14.2%) reported houselessness. The age groups most affected were people in their 40s and 50s, who accounted for 43% of cases. Fifty-seven percent of cases were hospitalized; no deaths were reported.

Prevention

- Vaccinate all children starting at 1 year of age against hepatitis A.
- Provide catch-up vaccinations to all unvaccinated children and adolescents, and to adults with risk factors for hepatitis A, such as:
 - people who use drugs
 - people who are houseless, and
 - people who engage in high-risk sexual practices with multiple partners or men who have sex with men.
- Provide post-exposure prophylaxis (vaccine or in some cases, immune globulin) to close contacts of people with acute hepatitis A.
- Wash hands with soap and warm water carefully and frequently, especially after going to the bathroom, after changing diapers, and before preparing food or beverages.
- Support hand washing of toddlers and small children after they use the toilet.
- Do not work or attend daycare, serve, or prepare food, or work in health care while ill with diarrhea.
- Seek medical treatment for symptoms associated with acute hepatitis (nausea, vomiting, diarrhea, jaundice or yellow skin or eyes, stomach pain, pale stools, dark urine).
- Do not take any acetaminophen-based products (i.e., Tylenol) if symptomatic with hepatitis.

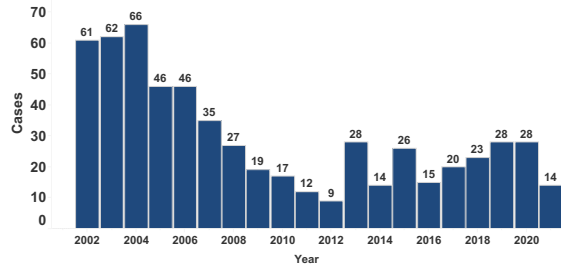


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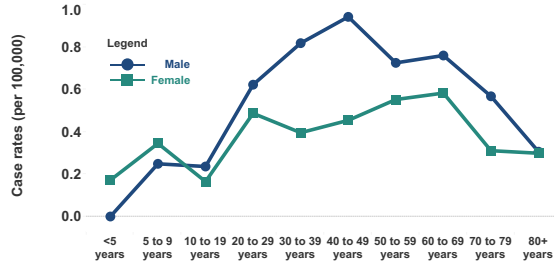
Case counts of acute hepatitis A by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



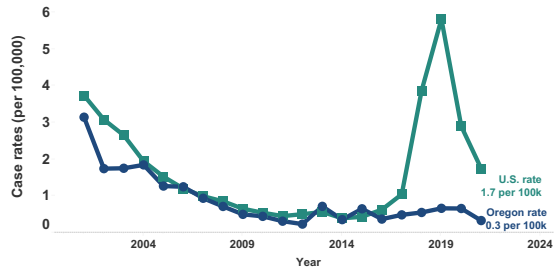
Case rates of acute hepatitis A by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Case rates of acute hepatitis A in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Oryxus, Portland State University's annual population estimates, Oregon's vital statistics birth data, FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

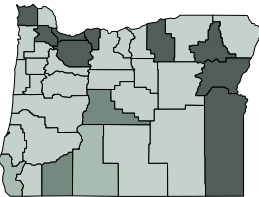
Case rates of acute hepatitis A by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for acute hepatitis A from 2012 to 2021 was 0.5 per 100,000.

Legend for county rates

- ▶ 2 standard deviations over statewide rate
- 1 standard deviations over statewide rate
- Similar to statewide rate
- ◐ 1 standard deviations under statewide rate
- ◁ 2 standard deviations under statewide rate



Malheur	▶▶ 3.5†
Morrow	▶▶ 1.7†
Baker	▶▶ 1.2†
Union	▶▶ 1.1†
Hood River	▶▶ 0.8†
Clackamas	▶▶ 0.8
Clatsop	▶▶ 0.8†
Washington	▶▶ 0.7
Multnomah	▶▶ 0.6
Jackson	● 0.5
Deschutes	● 0.5
Klamath	◐ 0.4†
Curry	◐ 0.4†
Jefferson	◐ 0.4†
Tillamook	◐ 0.4†
Lane	◐ 0.4
Umatilla	◐ 0.4†
Benton	◐ 0.3†
Polk	◐ 0.2†
Marion	◐ 0.2
Lincoln	◐ 0.2†
Columbia	◐ 0.2†
Douglas	◐ 0.2†
Yamhill	◐ 0.1†
Coos	◐ 0.0†
Crook	◐ 0.0†
Gilliam	◐ 0.0†
Grant	◐ 0.0†
Harney	◐ 0.0†
Josephine	◐ 0.0†
Lake	◐ 0.0†
Linn	◐ 0.0†
Sherman	◐ 0.0†
Wallowa	◐ 0.0†
Wasco	◐ 0.0†
Wheeler	◐ 0.0†

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

Acute hepatitis B



Hepatitis B is a vaccine-preventable viral disease of the liver that occurs when the virus of an infected person passes (through blood, semen or saliva) into the bloodstream of a non-immune person.

Percutaneous or permucosal exposures take place:


- When hypodermic needles are shared
- When blood splashes into an eye
- During sex
- By biting
- From lapses in hygiene involving glucometer and other fingerstick devices to test blood sugar levels
- From breaches in infection control in health care settings, and
- When a baby is born whose mother is a hepatitis B carrier.

Acute hepatitis B virus (HBV) is not spread through food or water, sharing eating utensils, breastfeeding, hugging, kissing, hand holding, coughing or sneezing.

HBV infection (diagnosed by the presence in serum of immunoglobulin M antibody to the hepatitis B core antigen [IgM anti-HBc] or hepatitis surface antigen [HBsAg]) usually, but not always, causes jaundice. Some infections are mild, even asymptomatic, and may go undetected. Hepatitis B has been preventable by vaccination since 1982 and, to promote universal vaccination and hence protection, was added to the recommended childhood immunization schedule in 1992 with the series starting at birth. Vaccines can provide protection in 90%–95% of healthy persons. Depending on the product used, vaccine can be given safely to infants, children and adults in two to three doses over a period of four-six months.

Prevention

- Vaccinate all newborns against hepatitis B and complete the three-dose series
- Provide catch-up vaccinations to all unvaccinated or under-vaccinated children and adolescents
- Vaccinate all adults aged 19–59 years and adults aged 60 years and over with risk factors for HBV or who wish to be vaccinated
- Provide post-exposure prophylaxis (vaccine or in some cases, immune globulin) to close contacts of people with acute hepatitis B.
- Health care and laboratory workers should use universal precautions and best practices to prevent needlestick injuries.
- Persons who are sexually active can:
 - Use condoms properly each time they have sex and limit the number of partners.
- Persons who inject drugs can:
 - Avoid sharing needles or works with others, use clean needles and works each time, and purchase new & sterile needles from pharmacies.
 - Learn more about harm reduction supplies in your area.
- People with acute hepatitis B should not share personal care items such as razors or toothbrushes.
- Seek medical treatment for symptoms associated with acute hepatitis (nausea, vomiting, diarrhea, jaundice, stomach pain, pale stools, dark urine).
- Do not take any acetaminophen-based products (i.e., Tylenol) if symptomatic with acute hepatitis.

Harm reduction supplies with Save Lives Oregon: 

Acute hepatitis B




Nationwide, the successful integration of hepatitis B vaccine into the immunization schedule has contributed to a 90% decline in the incidence of acute hepatitis B in the U.S. Currently, the incidence is lowest for people under age 20 years and highest in people aged 40–49 years. The most common routes of transmission include sexual contact, particularly among men who have sex with men (MSM), injection drug use, and health care-associated procedures. Due to continued transmission in adults too old to have been vaccinated as children, the CDC recently recommended vaccination against hepatitis B for all adults aged 19–59 years and any adult ≥ 60 years seeking protection.

In Oregon, annual rates of infection dropped dramatically in the decade following routine vaccination of infants; the annual average number of cases was 21 in the period of 2018–2021 in Oregon.

Local health departments reported 20 acute cases in 2021. Seventy-five percent of cases were interviewed. Among interviewed cases, the most commonly reported risk factor was a history of injection drug use. No risk factor was identified for 33% of cases. Sixty-five percent of the cases were male. The majority of cases (70%) were in the 40–59 year age group. Ten cases (50%) were hospitalized, with one death reported. There were no outbreaks in Oregon of acute hepatitis B in 2021.

Prevention

- Vaccinate all newborns against hepatitis B and complete the three-dose series
- Provide catch-up vaccinations to all unvaccinated or under-vaccinated children and adolescents
- Vaccinate all adults aged 19–59 years and adults aged 60 years and over with risk factors for HBV or who wish to be vaccinated
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- Do not take any acetaminophen-based products (i.e., Tylenol) if symptomatic with acute hepatitis.

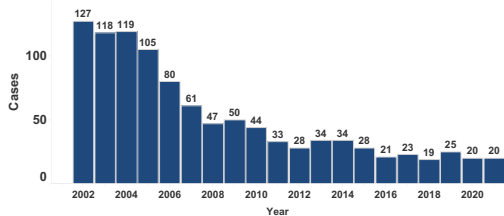
Harm reduction supplies with Save Lives Oregon: 



Oregon's 2021 Selected Reportable Communicable Disease Summary
 Data current as of March 2023; data are provisional and subject to change.

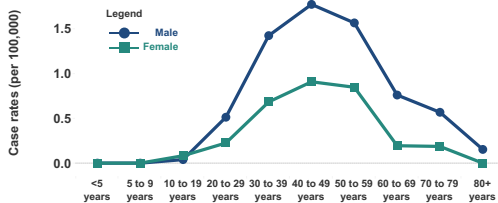
Case counts of acute hepatitis B by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



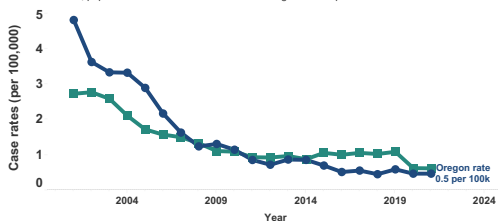
Case rates of acute hepatitis B by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Case rates of acute hepatitis B in Oregon vs nationwide, 2001 to 2021.

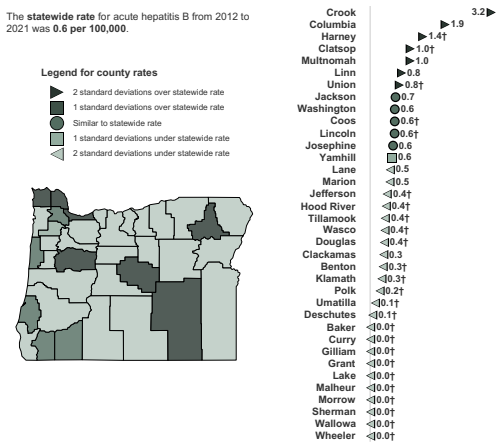
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly), Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Orpheus, Portland State University's annual population estimates, Oregon's vital statistics birth data, FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of acute hepatitis B by county of residence: Oregon, 2012 to 2021.

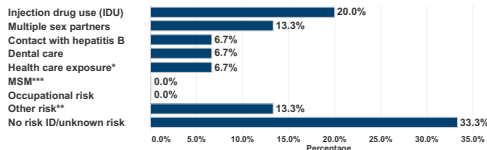
Due to low case counts, the average case rate over multiple years of data is shown.



†Note: Rates based on small case counts (<5 cases) might be unstable.

Risk factors for acute hepatitis B among interviewed cases: Oregon, 2021.

Risk factors are mutually exclusive.



*Health care exposures include transfusions, infusions, dialysis, surgery.
 **Other risks include shared needles, tattoo, piercings, other blood exposure.
 ***MSM stands for men who have sex with men.

Chronic hepatitis B



Persons with chronic hepatitis B are known as “chronic carriers” — a state of infection defined by the persistence of hepatitis B surface antigen (HBsAg) in the blood for more than six months. The likelihood of becoming a chronic carrier varies by age at infection. Fewer than 6% of acutely infected adults in the United States become carriers, compared to 25% (with HBeAg-negative moms) to 90% (with HBeAg-positive moms) of children infected in early childhood or during birth. Perinatal infection can be prevented by prompt administration of hepatitis B immune globulin (HBIG) and initiation of the three-dose hepatitis B vaccination series. This perinatal intervention is widely practiced in the United States — all states have federal funding for perinatal hepatitis B prevention programs. This is not true in other parts of the world, particularly Asia and sub-Saharan Africa, where the prevalence of chronic hepatitis B is higher. Chronic carriers are at greater risk of developing life-threatening diseases (e.g., chronic active hepatitis, cirrhosis or liver cancer) decades later. Carriers will continue to transmit hepatitis B until vaccine-induced immunity is nearly universal.

Recommendations and strategies to prevent new cases include the following: routinely vaccinating all infants at birth, screening all pregnant women for hepatitis B, administering HBIG in addition to hepatitis B vaccine to infants born to HBsAg-positive mothers, and ensuring all infants complete the hepatitis B vaccine series. Combined, the three-dose hepatitis B vaccine series and HBIG are nearly 95% effective in preventing hepatitis B disease in children born to HBV-infected mothers. In 2021, there were no cases of perinatal hepatitis B identified in Oregon.

In 2021, there were 375 newly reported carriers in Oregon, an increase from the 294 reported in 2020. Forty-two percent of these were women, who tend to be diagnosed earlier than men, perhaps due to prenatal screening. Among women of child-bearing age, 36% were pregnant. A large majority, 73% of cases who reported their country of birth, were born outside of the United States. Those born in Asia and the Pacific Islands, including China, Vietnam, and Philippines, made up 76% of those cases born internationally. Chronic carriers are not reportable in many states, so a table comparing Oregon to the rest of the United States is not provided.

Prevention

- Get vaccinated & vaccinate all newborns against hepatitis B.
- Screen all pregnant women for hepatitis B. Infants born to hepatitis B-positive mothers should receive hepatitis immunoglobulin along with vaccine at birth.
- Persons who are sexually active can:
 - Limit the number of partners.
 - Use condoms properly from start to finish when having sex.
- Persons who inject drugs can:
 - Avoid sharing needles or works with others.
 - Use only clean needles and works.
 - Purchase new, sterile needles from pharmacies.
- Use universal precautions and best practices to prevent needlestick injuries.
- Chronic carriers should not share personal care items such as razors or toothbrushes.
- Investigate cases, including the identification of unvaccinated contacts to encourage vaccination.

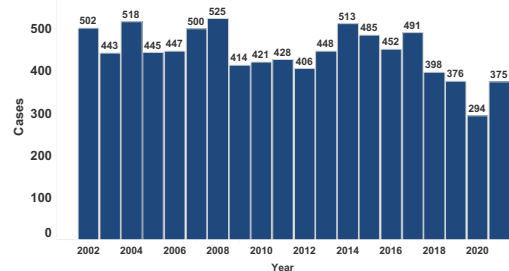


Oregon's 2021 Selected Reportable Communicable Disease Summary

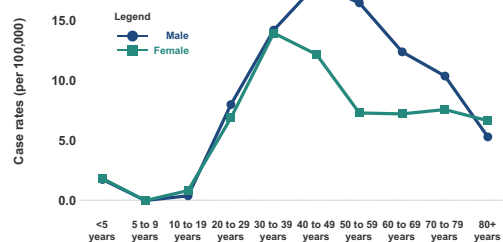
Data current as of March 2023; data are provisional and subject to change.

Case counts of chronic hepatitis B by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

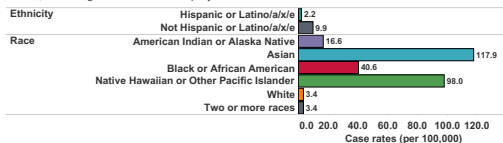


Case rates of chronic hepatitis B by age and sex: Oregon, 2021.



Case rates of chronic hepatitis B by reported race and ethnicity: Oregon, 2012 to 2021.

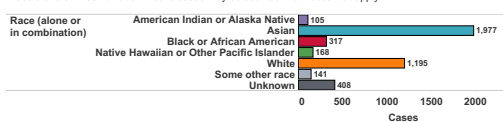
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



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Case counts of chronic hepatitis B by reported race and ethnicity: Oregon, 2012 to 2021.

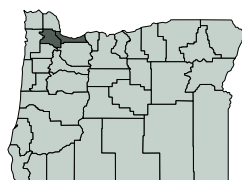
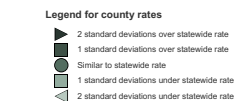
Race alone or in combination means cases may be counted in all races that apply.



Case rates of chronic hepatitis B by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for chronic hepatitis B from 2012 to 2021 was 10.3 per 100,000.



Multnomah	21.7
Washington	15.7
Clackamas	<18.6
Marion	<18.6
Benton	<17.4
Lane	<16.8
Tillamook	<16.1
Curry	<15.7
Coos	<15.5
Josephine	<15.5
Hood River	<15.3
Polk	<15.3
Douglas	<15.2
Gilliam	<15.1
Wasco	<14.9
Columbia	<14.9
Malheur	<14.7
Jackson	<14.7
Union	<14.5
Morrow	<14.2
Lincoln	<14.2
Clatsop	<14.1
Crook	<14.1
Baker	<13.6
Deschutes	<13.4
Linn	<13.4
Klamath	<13.4
Yamhill	<13.3
Jefferson	<13.0
Umatilla	<12.9
Wallowa	<12.8
Harney	<11.4
Grant	<10.0
Lake	<10.0
Sherman	<10.0
Wheeler	<10.0

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

Hepatitis C



Hepatitis C virus (HCV) is a bloodborne infection that may cause both acute and chronic hepatitis C. The most common signs and symptoms of acute hepatitis C include jaundice, fatigue, dark urine, abdominal pain, loss of appetite and nausea. Acute hepatitis C cases are underreported because 80% are asymptomatic, and laboratories cannot distinguish between acute and chronic HCV infection. Most people do not experience acute hepatitis C infection symptoms and many people with chronic hepatitis C have few symptoms for the first 10 to 15 years after infection. Chronic hepatitis C can lead to liver damage and sometimes death due to cirrhosis and liver cancer. In the United States, an estimated 2.0–2.8 million people are chronically-infected with HCV.

Historically, approximately 15%–25% of persons were believed to resolve their acute infection without complications. However, more recent data suggest that spontaneous clearance might be as high as 46%, with higher rates of clearance among those who are younger, female, symptomatic at the time of initial infection, and not co-infected with hepatitis B virus (HBV). The course of chronic liver disease progresses slowly without symptoms or physical signs in most persons during the first 20 years or more following infection. Approximately 5%–25% of persons with chronic HCV will develop cirrhosis over 10–20 years, and those with cirrhosis have a 1%–4% annual risk for hepatocellular carcinoma (HCC). New, highly effective hepatitis C treatments can cure more than 95% of people living with hepatitis C and successful hepatitis C treatment can slow or stop liver disease progression.

Annual deaths in the U.S. related to hepatitis C peaked in 2014, and then slowly declined, likely due to the advent and increased use of highly effective direct-acting antiviral agents. Factors associated with HCV-related deaths included chronic liver disease, HBV co-infection, alcohol-related conditions, and HIV co-infection. Between 2016 and 2020 in the U.S., the highest rates were seen in American Indian and Alaska Native people, followed by Black and African American people.

Prevention

- Health care and laboratory workers should use universal precautions and best practices to prevent needlestick injuries.
- Persons who inject drugs can:
 - Avoid sharing needles or works with others.
 - Use clean needles and works each and every time.
 - Learn more about harm reduction supplies in your area.
 - Purchase new, sterile needles from pharmacies.
 - Seek medication-assisted-treatment for opioid use disorder, or harm reduction services for stimulant use disorder to prevent further transmission.
- Persons who are sexually active can:
 - Limit blood-to-blood contact with your partner during sex.
 - Use condoms properly each and every time you have sex if engaged in rough or unlubricated sex.
- Seek medical care to help eliminate the virus from your body, prevent chronic liver disease and prevent transmission to others.
- Do not take any acetaminophen-based products (i.e. Tylenol).

Harm reduction supplies with Save Lives Oregon: 

Treatment or services with PRIME+: 



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Hepatitis C

Mirroring national trends, deaths attributed to HCV in Oregon also began to fall after peaking in 2014 at 550 deaths; between 2016–2020, the average number of deaths was 460. Still, in 2020, Oregon's hepatitis C mortality rate of 7.3 deaths per 100,000 population was just over twice the national rate.

Some of the state's highest chronic hepatitis C rates are in rural areas. There is no vaccine for hepatitis C and no post-exposure prophylaxis. Hepatitis C is spread from one person to another primarily by percutaneous exposure to human blood; most infections are due to illegal injection drug use. Uncommonly, the virus can also be transmitted through sexual contact and from infected mothers to their infants at the time of birth. The risk for perinatal HCV transmission is approximately 6%. If the mother is co-infected with HIV, the risk for perinatal infection increases to approximately 11%. Since the adoption of routine blood donor screening in 1992, HCV is transmitted less than one time for every 2 million units of blood transfused. Cases can occur in health care settings, most commonly due to improper reuse of syringes or multidose vials.


Acute hepatitis C

On average during 2011–2020, there were 25 acute hepatitis C cases reported annually in Oregon. In 2021, 30 cases were reported. Twenty-three (76.7%) of the cases were 20–39 years of age, and 13 (43.3%) were female. Fourteen cases (46.7%) were hospitalized. Among interviewed cases (n=11), injection drug use remains the predominant risk factor reported (54.5%), followed by history of multiple sex partners (18.2%). There were no health care-associated acute hepatitis C cases in 2021.



Prevention

- Health care and laboratory workers should use universal precautions and best practices to prevent needlestick injuries.
- Persons who inject drugs can:
 - Avoid sharing needles or works with others.
 - Use clean needles and works each and every time.
 - Learn more about harm reduction supplies in your area.
 - Purchase new, sterile needles from pharmacies.
 - Seek medication-assisted-treatment for opioid use disorder, or harm reduction services for stimulant use disorder to prevent further transmission.
- Persons who are sexually active can:
 - Limit blood-to-blood contact with your partner during sex.
 - Use condoms properly each and every time you have sex if engaged in rough or unlubricated sex.
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- Do not take any acetaminophen-based products (i.e. Tylenol).

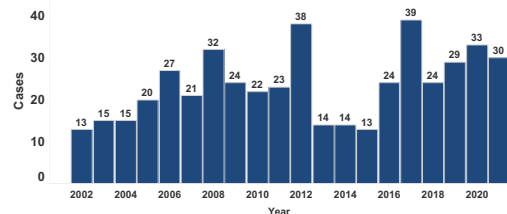
Harm reduction supplies with Save Lives Oregon: 
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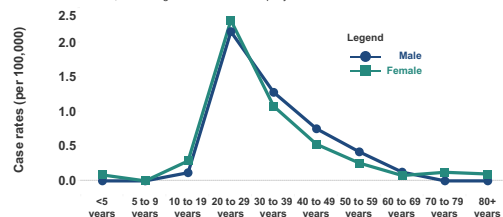
Case counts of acute hepatitis C by year: Oregon, 2002 to 2021.

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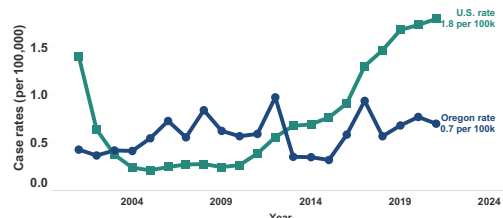
Case rates of acute hepatitis C by age and sex: Oregon, 2012 to 2021.

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Case rates of acute hepatitis C in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.

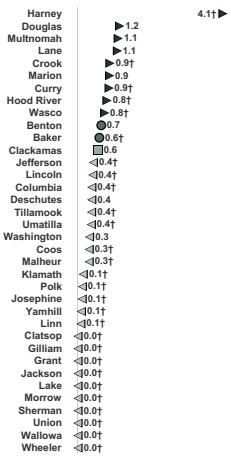


U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: ODHHS, Portland State University's annual population estimates, Oregon's vital statistics birth data, FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of acute hepatitis C by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

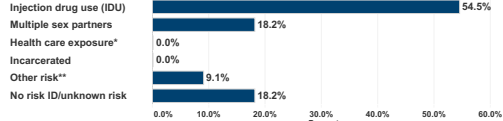
The statewide rate for acute hepatitis C from 2012 to 2021 was 0.6 per 100,000.



County Rates (per 100,000)
†Note: Rates based on small case counts (<5 cases) might be unstable.

Risk factors for acute hepatitis C among interviewed cases: Oregon, 2021.

Risk factors are mutually exclusive.



*Health care exposures include transfusions, infusions, dialysis, surgery.
**Other risks include shared drugs, needles/syringes, tattoos, piercings, other blood exposure.
***MSM stands for men who have sex with men.

Hepatitis C





Hepatitis C virus (HCV) is a bloodborne infection that may cause both acute and chronic hepatitis C. The most common signs and symptoms of acute hepatitis C include jaundice, fatigue, dark urine, abdominal pain, loss of appetite and nausea. Acute hepatitis C cases are underreported because 80% are asymptomatic, and laboratories cannot distinguish between acute and chronic HCV infection. Most people do not experience acute hepatitis C infection symptoms and many people with chronic hepatitis C have few symptoms for the first 10 to 15 years after infection. Chronic hepatitis C can lead to liver damage and sometimes death due to cirrhosis and liver cancer. In the United States, an estimated 2.0–2.8 million people are chronically-infected with HCV.

Historically, approximately 15%–25% of persons were believed to resolve their acute infection without complications. However, more recent data suggest that spontaneous clearance might be as high as 46%, with higher rates of clearance among those who are younger, female, symptomatic at the time of initial infection, and not co-infected with hepatitis B virus (HBV). The course of chronic liver disease progresses slowly without symptoms or physical signs in most persons during the first 20 years or more following infection. Approximately 5%–25% of persons with chronic HCV will develop cirrhosis over 10–20 years, and those with cirrhosis have a 1%–4% annual risk for hepatocellular carcinoma (HCC). New, highly effective hepatitis C treatments can cure more than 95% of people living with hepatitis C and successful hepatitis C treatment can slow or stop liver disease progression.

Annual deaths in the U.S. related to hepatitis C peaked in 2014, and then slowly declined, likely due to the advent and increased use of highly effective direct-acting antiviral agents. Factors associated with HCV-related deaths included chronic liver disease, HBV co-infection, alcohol-related conditions, and HIV co-infection. Between 2016 and 2020 in the U.S., the highest rates were seen in American Indian and Alaska Native people, followed by Black and African American people.

Prevention

- Promote universal hepatitis C screening:
 - At least once in a lifetime for all adults.
 - During each pregnancy.
 - For all people with risk factors such as history of injection drug use or HIV
 - For personnel after needlesticks, sharps, or mucosal exposures to HCV-positive blood
 - For children born to mothers with HCV infection
- Health care and laboratory workers should use universal precautions and best practices to prevent needlestick injuries.
- Avoid further liver damage by getting vaccinated against hepatitis A and B.
- Persons who inject drugs can:
 - Avoid sharing needles or works with others.
 - Purchase new, sterile needles from pharmacies and use each and every time.
 - Learn more about harm reduction supplies in your area.
 - Seek medication-assisted-treatment for opioid use disorder, or harm reduction services for stimulant use disorder to prevent further transmission.
- Persons who are sexually active can:
 - Limit blood-to-blood contact with your partners during sex.
 - Use condoms properly each and every time you have sex if engaged in rough or unlubricated sex.
- Seek hepatitis C treatment to eliminate the virus from your body, to prevent chronic liver disease and prevent transmission to others.
- Do not take any acetaminophen-based products (i.e. Tylenol).

Harm reduction supplies with Save Lives Oregon: 
Treatment or services with PRIME+: 



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Hepatitis C

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Some of the state's highest chronic hepatitis C rates are in rural areas. There is no vaccine for hepatitis C and no post-exposure prophylaxis. Hepatitis C is spread from one person to another primarily by percutaneous exposure to human blood; most infections are due to illegal injection drug use. Uncommonly, the virus can also be transmitted through sexual contact and from infected mothers to their infants at the time of birth. The risk for perinatal HCV transmission is approximately 6%. If the mother is co-infected with HIV, the risk for perinatal infection increases to approximately 11%. Since the adoption of routine blood donor screening in 1992, HCV is transmitted less than one time for every 2 million units of blood transfused. Cases can occur in health care settings, most commonly due to improper reuse of syringes or multidose vials.

Chronic hepatitis C


In Oregon, 3,848 chronic hepatitis C cases were reported in 2021, for a rate of 90.2 per 100,000, more than twice the national average of 40.7 per 100,000 from 2020 (most recent national data available). Oregon males were affected more commonly than females (107.1 per 100,000 for males, 72.0 per 100,000 in females), and 43% of cases were reported among people aged 50–69 years. These numbers are likely an underestimate of true case rates as most infections are asymptomatic and, therefore, not diagnosed or reported to public health.



Prevention

- Promote universal hepatitis C screening:
 - At least once in a lifetime for all adults.
 - During each pregnancy.
 - For all people with risk factors such as history of injection drug use or HIV
 - For personnel after needlesticks, sharps, or mucosal exposures to HCV-positive blood
 - For children born to mothers with HCV infection
- Health care and laboratory workers should use universal precautions and best practices to prevent needlestick injuries.
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Harm reduction supplies with Save Lives

Oregon: 

Treatment or services with PRIME+: 



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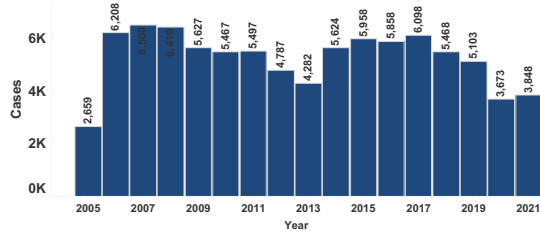


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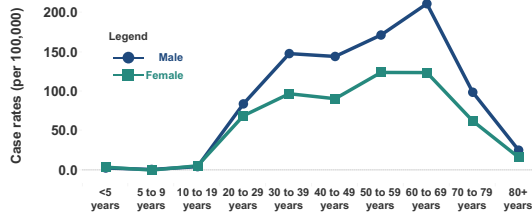
Data current as of March 2023; data are provisional and subject to change.

Case counts of chronic hepatitis C by year: Oregon, 2005 to 2021.

Chronic hepatitis C became reportable in July 2005. Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

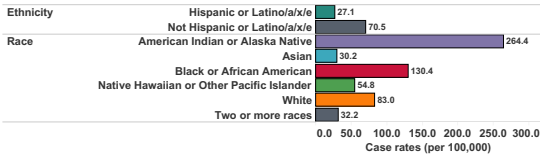


Case rates of chronic hepatitis C by age and sex: Oregon, 2021.



Case rates of chronic hepatitis C by reported race and ethnicity: Oregon, 2012 to 2021.

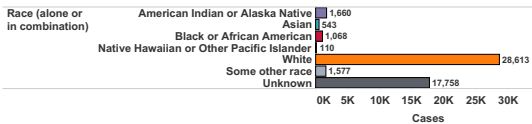
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



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Case counts of chronic hepatitis C by reported race and ethnicity: Oregon, 2012 to 2021.

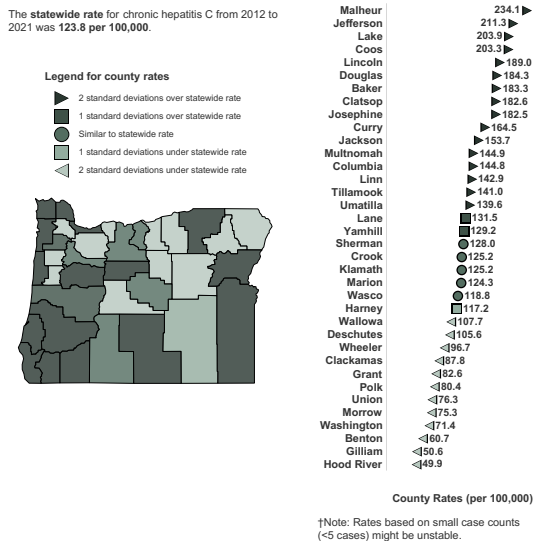
Race alone or in combination means cases may be counted in all races that apply.



Case rates of chronic hepatitis C by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for chronic hepatitis C from 2012 to 2021 was 123.8 per 100,000.



†Note: Rates based on small case counts (<5 cases) might be unstable.

HIV

HIV (*human immunodeficiency virus*) is a virus that attacks cells that help the body fight infection, making a person more vulnerable to other infections and diseases. It is spread by contact with certain bodily fluids of a person with HIV, most commonly during unprotected sex (sex without a condom or HIV medicine to prevent or treat HIV), or through sharing injection drug equipment.

The data collected by the HIV Program and presented in this summary describe inequities in HIV infection, prevention, and care in Oregon. The root cause of these inequities is the systematic denial of rights and opportunities for optimal health for tribal and Black, Indigenous, and non-Black people of color (BIPOC) and LGBTQIA+ communities. This denial of rights and opportunities for optimal health are reflected in the social, economic, and environmental contexts that put tribal, BIPOC, and LGBTQIA+ communities at risk for HIV and poorer HIV-related outcomes.

HIV data for 2020–2021 should be interpreted with caution due to the impact of the Coronavirus Disease 2019 (COVID-19) pandemic on access to HIV testing and care-related services. Incidence (new HIV diagnoses) estimates may be lower due to a significant decline and potential delays in HIV testing during the COVID-19 pandemic and HIV prevalence (the number of people living with HIV) estimates may be lower due to a decrease in HIV diagnoses (as above) and an increase in deaths due to COVID-19 among people living with HIV.

Unless otherwise specified, references in this summary to males (or men) or females (or women), refer to the assigned sex at birth. Centers for Disease Control and Prevention (CDC) uses assigned sex at birth with the transmission category to describe the most likely way a person was infected. People assigned male at birth who have sex with other people assigned male at birth (MSM) is a category which includes transgender women and gay, bisexual, and other men who have sex with men.

From 1981 to 2021, 11,097 Oregon residents were diagnosed with HIV. At the end of 2021, 8,044 people were living with diagnosed HIV in Oregon and we estimate that another 1,087 persons were living with HIV in Oregon but have not yet been diagnosed. In 2021, 201 new cases of HIV were diagnosed, down from a 5-year average of 209 newly diagnosed cases per year.

Prevention

- Use condoms consistently and correctly during anal and vaginal or front sex.
- Get tested for HIV, syphilis, gonorrhea, chlamydia and hepatitis C regularly.
- Talk openly with sex partners about HIV and other sexually transmitted infections and the importance of regular testing.
- Take HIV pre-exposure prophylaxis, or PrEP, to prevent HIV infection before exposure.
- Use HIV post-exposure prophylaxis, or PEP, to prevent HIV infection soon after a possible exposure.
- If you inject drugs, use a new, sterile syringe every time and visit your local syringe service program for sterile supplies, HIV/Hep C testing, naloxone, and other resources.
- Know that people living with HIV on effective HIV treatment with an undetectable viral load cannot transmit HIV to sexual partners.




HIV

Overall, the rate of new HIV diagnosis decreased over the last ten years, but it remains high among men aged 25–34 years living in urban zip codes. The number of men newly diagnosed who reported having had sex with other men decreased from 203 to 127, 2012–2021. However, the number of people newly diagnosed with HIV who reported injecting drugs increased from 11 to 28 people during the same period. The rate of new HIV diagnosis increased over the last ten years among American Indian/Alaska Native people. The rate of new HIV diagnoses remains high among male Black/African Americans.

Late-stage HIV infection (AIDS) occurs when the body's immune system is badly damaged because of the virus. Late HIV diagnoses, or HIV diagnoses that are concurrent with or followed by an AIDS diagnosis within 90 days, were most common among people 45 years of age and older (42% of new HIV diagnoses are late), American Indian/Alaska Native (33%) and Asian (35%) people, males who inject drugs (42%), people with heterosexual risk for HIV (37%), and people residing in frontier zip codes in Oregon (40%).

HIV medicine reduces the amount of HIV in the body (viral load) to a very low level, which keeps the immune system working and prevents illness. This is called viral suppression. A person living with HIV who is on treatment and is virally suppressed cannot transmit HIV through sex. Viral suppression was lowest among people 25–34 years of age (69%), American Indian/Alaska Native (68%), males who used injection drugs (64%), people residing in rural (71%) and frontier (58%) zip codes, people diagnosed in inpatient/emergency (68%) or corrections (57%) facilities, and those experiencing homelessness or unstable housing (49%). The percentage of people with HIV surviving at least 10 years after diagnosis was lower among: people who inject drugs, people living in rural zip codes, people diagnosed in inpatient/emergency facilities, people who had a CD4 count less than 200 cells/mm³ at diagnosis, and people not virally suppressed within 90 days of diagnosis.

Data are provisional and subject to change based on data current as of date. Find more detailed data on HIV on Oregon's HIV, STD and TB dashboards. 

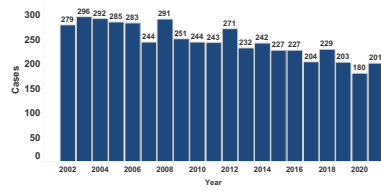
Prevention

- Use condoms consistently and correctly during anal and vaginal or front sex.
- Get tested for HIV, syphilis, gonorrhea, chlamydia and hepatitis C regularly.
- Talk openly with sex partners about HIV and other sexually transmitted infections and the importance of regular testing.
- Take HIV pre-exposure prophylaxis, or PrEP, to prevent HIV infection before exposure.
- Use HIV post-exposure prophylaxis, or PEP, to prevent HIV infection soon after a possible exposure.
- If you inject drugs, use a new, sterile syringe every time and visit your local syringe service program for sterile supplies, HIV/Hep C testing, naloxone, and other resources.
- Know that people living with HIV on effective HIV treatment with an undetectable viral load cannot transmit HIV to sexual partners.



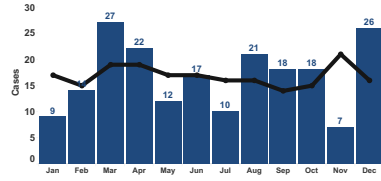
Case counts of HIV by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

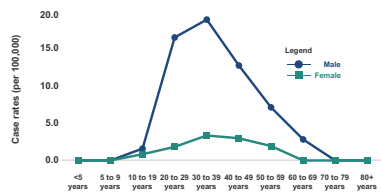


Case counts of HIV by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

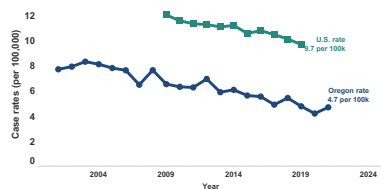


Case rates of HIV by age and sex: Oregon, 2021.



Case rates of HIV in Oregon vs nationwide, 2001 to 2021.

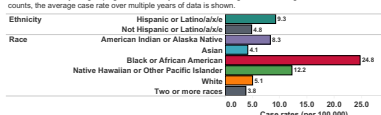
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: National Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births Final Data for 2021 from National Vital Statistics Reports; Oregon data sources: OHSU, Portland State University's annual population estimates, Oregon vital statistics birth data; FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of HIV by reported race and ethnicity: Oregon, 2012 to 2021.

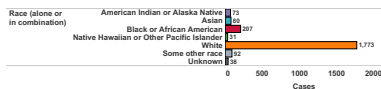
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

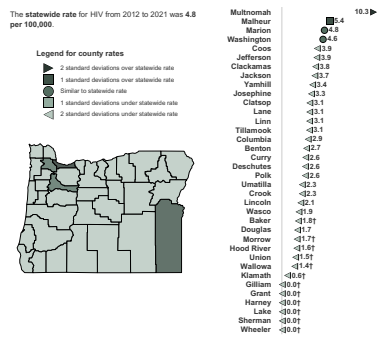
Case counts of HIV by reported race and ethnicity: Oregon, 2012 to 2021.

Race alone or in combination means cases may be counted in all races that apply.



Case rates of HIV by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

Legionellosis

Legionellosis is usually an acute respiratory tract infection that begins two to 14 days after exposure to *Legionella* spp. Signs of the disease can include a high fever, chills and cough, in addition to headache and muscle aches. Symptoms are similar to those seen in other forms of pneumonia, so the diagnosis is rarely obvious and can be difficult to make. Available confirmatory diagnostic tests include urine antigen detection, polymerase chain reaction (PCR), direct fluorescent antibody staining and culture.

"Pontiac fever," a milder illness associated with *Legionella* bacteria, is characterized by fever and muscle aches without pneumonia. It typically occurs a few hours to two days after exposure.

Legionella bacteria are found naturally in the environment, usually in water, and grow best in warm conditions such as hot tubs, cooling towers, hot water tanks, large plumbing systems or the air-conditioning systems of large buildings. They are transmitted by inhalation of aerosolized water or soil infected with the bacteria. Person-to-person transmission does not occur.

Risks for infection include older age, smoking, chronic lung disease (e.g., emphysema), renal insufficiency, diabetes and immune deficiency. Death occurs in 10%–15% of cases; a substantially higher proportion of fatal cases occur during outbreaks in hospitals or other health care facilities. Infections are treated with antibiotics.

Legionellosis became officially reportable in Oregon in 2001 and nationally in 2009. Rates of reported illness have increased each year nationally. In Oregon, rates of reported illness were increasing until a decline from 2015 to 2018. It is uncertain whether the increase in cases until 2015 represents increased awareness and testing, increased susceptibility of the population, increased *Legionella* in the environment or a combination of factors. In 2019, Oregon saw a dramatic increase in reported cases. The cause of the rise is unknown; however, increases in older persons and those with underlying

Prevention

- Not smoking can lower your chances of developing Legionnaires' disease if you are exposed to *Legionella* bacteria.
- Persons at increased risk of infection may choose to avoid high-risk exposures, such as being in or near a hot tub.
- Prevent water conditions that allow *Legionella* to grow by doing the following:
 - Maintain and clean cooling towers and evaporative condensers twice yearly, and periodically use chlorine.
 - Maintain domestic water heaters at 60°C (140°F) and water temperature at 50°C (122°F) or higher at the faucet.
 - Don't allow water to stagnate. Large water-storage tanks exposed to sunlight can produce warm conditions favorable to growth of *Legionella*. Flushing infrequently used water lines will help alleviate stagnation.



Legionellosis



disease, aging plumbing infrastructure, and increased testing, detection and reporting may have played a role. Although there was a slight decrease in reported cases in 2020, case counts remain high in 2021.

In 2021, 73 cases of legionellosis were reported among Oregonians; 92% were hospitalized, and eight died. Fifty-five percent of cases were male and 81% of cases were >50 years of age. The rate of legionellosis among Oregonians has historically been lower than the national rate and that trend continues in 2021 with 2.6 cases per 100,000 reported nationally compared to 1.7 per 100,000 in Oregon. There were two outbreaks of legionellosis reported during 2021. Due to an increasing number of cases in recent years, the CDC has developed a water management toolkit for building owners and managers. Facilities receiving Medicare/Medicaid funds must now have a water management plan. Effective water and infrastructure management and better testing protocols can prevent *Legionella* outbreaks.

Prevention

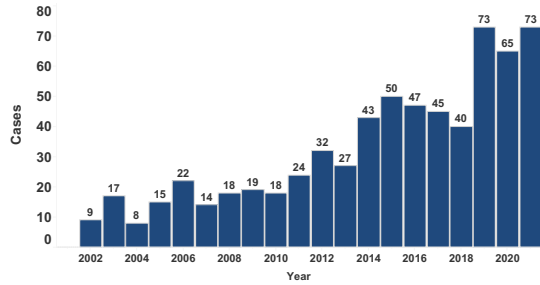
- Not smoking can lower your chances of developing Legionnaires' disease if you are exposed to *Legionella* bacteria.
- Persons at increased risk of infection may choose to avoid high-risk exposures, such as being in or near a hot tub.
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Oregon's 2021 Selected Reportable Communicable Disease Summary
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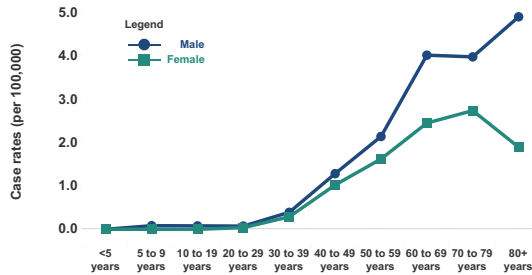
Case counts of legionellosis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



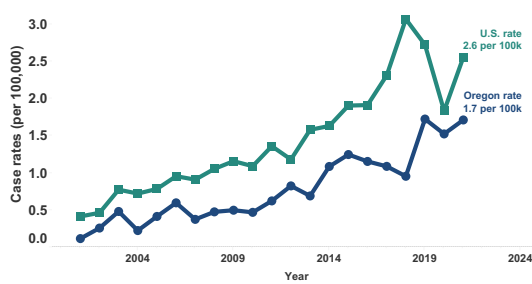
Case rates of legionellosis by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Case rates of legionellosis in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Orpheus, Portland State University's annual population estimates, Oregon's vital statistics birth data, FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

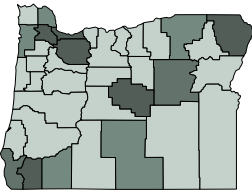
Case rates of legionellosis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for legionellosis from 2012 to 2021 was 1.2 per 100,000.

Legend for county rates

- ▲ 2 standard deviations over statewide rate
- 1 standard deviations over statewide rate
- Similar to statewide rate
- 1 standard deviations under statewide rate
- ◁ 2 standard deviations under statewide rate



Multnomah	1.9▲
Crook	1.5▲
Clackamas	1.5▲
Washington	1.4▲
Josephine	1.4▲
Wallowa	1.4▲
Grant	1.4▲
Curry	1.3▲
Umatilla	1.3●
Lake	1.2●
Jackson	1.2●
Columbia	1.2●
Tillamook	1.1▲
Yamhill	1.0
Lincoln	1.0
Clatsop	1.0▲
Klamath	1.0
Lane	1.0
Polk	1.0
Malheur	0.9▲
Deschutes	0.9
Jefferson	0.9▲
Coos	0.8
Linn	0.6
Marion	0.6
Baker	0.6▲
Douglas	0.5
Wasco	0.4▲
Union	0.4▲
Benton	0.1▲
Gilliam	0.0▲
Harney	0.0▲
Hood River	0.0▲
Morrow	0.0▲
Sherman	0.0▲
Wheeler	0.0▲

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

Listeriosis

Listeriosis is a bacterial infection that may present as an influenza-like illness with high fever, headache and muscle aches; as a gastrointestinal illness; or as an invasive disease with sepsis or meningitis. In pregnant women, listeriosis may cause miscarriages or stillbirths. The case fatality rate of invasive listeriosis is as high as 30% in infants infected prenatally and in non-pregnant adults.

Most cases of listeriosis are “sporadic” rather than part of outbreaks. However, several large outbreaks have been associated with consumption of contaminated foods. It is important to track the incidence of this disease to identify such outbreaks, and to identify high-risk groups. The rate is higher among pregnant women, newborns, the elderly and immunocompromised persons. Cooking food properly is the most important means of prevention. When listeriosis is diagnosed, treatment with antibiotics should be instituted promptly.

In 2021, 18 cases were reported. All but two cases were hospitalized (89%) and there were six deaths (33%). Nearly all cases of listeriosis were observed in individuals aged 59–89 (78%); one case was observed in an infant.

Prevention

- Practice safe food handling. Rinse raw produce thoroughly under running tap water; separate uncooked meats and poultry from vegetables, cooked foods and ready-to-eat foods; cook meat and poultry to the proper temperatures.
- Do not drink raw milk and do not eat foods that have unpasteurized milk in them.
- Higher-risk persons (pregnant women, immunocompromised and elderly):
 - Avoid eating hot dogs, luncheon meats, cold cuts and other deli meats unless they are heated.
 - Do not eat soft cheese such as feta, queso fresco, Brie or Camembert unless it is labeled as made with pasteurized milk.
 - Do not eat refrigerated smoked seafood unless it is contained in a cooked dish such as a casserole.

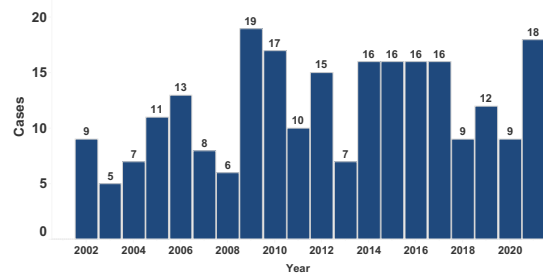


Oregon's 2021 Selected Reportable Communicable Disease Summary

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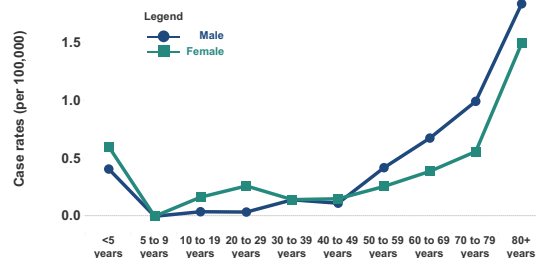
Case counts of listeriosis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



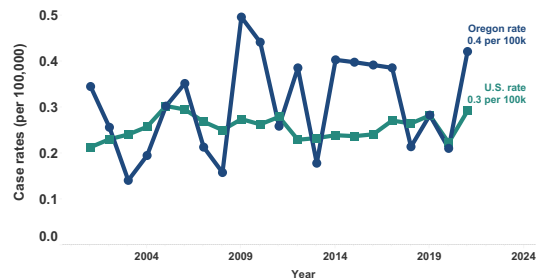
Case rates of listeriosis by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Case rates of listeriosis in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Orpheus, Portland State University's annual population estimates, Oregon's vital statistics birth data, FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

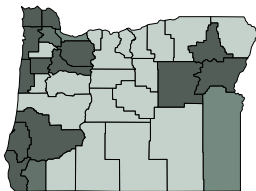
Case rates of listeriosis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for listeriosis from 2012 to 2021 was 0.3 per 100,000.

Legend for county rates

- 2 standard deviations over statewide rate
- 1 standard deviations over statewide rate
- Similar to statewide rate
- 1 standard deviations under statewide rate
- 2 standard deviations under statewide rate



Grant	1.4†
Curry	>=0.9†
Lincoln	>=0.8†
Tillamook	>=0.8†
Coos	>=0.6†
Baker	>=0.6†
Clackamas	>=0.6
Clatsop	>=0.5†
Douglas	>=0.5
Columbia	>=0.4†
Marion	>=0.4
Union	>=0.4†
Polk	>=0.4†
Washington	0.4
Josephine	0.4†
Multnomah	0.3
Maiheur	0.3†
Lane	<=0.2
Jackson	<=0.2
Linn	<=0.2†
Umatilla	<=0.1†
Yamhill	<=0.1†
Deschutes	<=0.1†
Benton	<=0.0†
Crook	<=0.0†
Gilliam	<=0.0†
Harney	<=0.0†
Hood River	<=0.0†
Jefferson	<=0.0†
Klamath	<=0.0†
Lake	<=0.0†
Morrow	<=0.0†
Sherman	<=0.0†
Wallowa	<=0.0†
Wasco	<=0.0†
Wheeler	<=0.0†

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

Lyme disease




Lyme disease is a tick-borne zoonotic disease caused by the spirochete *Borrelia burgdorferi*. The first manifestation in approximately 60% of patients appears as a red spot or bump that expands slowly with clearing in the middle, forming a ring or “target,” or a bull’s eye sometimes with multiple similar lesions. This distinctive skin lesion is called “erythema migrans.” In most cases, the tick must be attached for 36–48 hours or more before the Lyme disease bacterium can be transmitted. Most humans are infected through the bites of immature ticks called nymphs. Nymphs are tiny (less than 2 mm) and difficult to see, which is why they may be attached for many hours without being detected. Nymphs feed during the spring and summer months. The incubation period for Lyme disease ranges from three to 30 days after tick exposure; however, the early stages of the illness may be asymptomatic, and the patient may later develop systemic symptoms and joint, neurologic or cardiac problems in varying combinations during a period of months to years. Infections are treated with antibiotics.

Currently, increasing recognition of the disease is redefining areas where ticks may carry *B. burgdorferi*; Lyme disease cases have been reported in 49 states, and in Ontario and British Columbia, Canada. Related borrelioses have been found in Europe, the former Soviet Union, China and Japan.

During 2021, 74 cases of Lyme disease were reported in Oregon. The median age was 41 years of age. Thirty-seven (50%) cases were female. The highest numbers of reported cases by residence were in Jackson County (12), Josephine (8) and Multnomah (9). Since 2015, we have identified an upward trend in the number of cases reported with Lyme disease. This could be related to greater local interaction with ticks in the environment as well as acquiring the infections from out-of-state areas where Lyme disease is more prevalent.

Prevention

- Avoid exposure to ticks. Wear long sleeves, long pants and socks when outdoors.
- Check yourself, your children and your pets for ticks. Be especially vigilant after spending time in wooded or grassy areas. Remove a tick as soon as possible with tweezers. Gently grasp the tick near its head or mouth. Don't squeeze or crush the tick, but pull carefully and steadily.
- Use insect repellents when you go outdoors. Repellents containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane, 2-undecanone products provide longer-lasting protection. To optimize safety and effectiveness, use repellents according to the label instructions.
- For more information about these products, please visit this EPA site. 
- Do your best to tick-proof your yard. Clear brush and leaves where ticks live. Keep woodpiles in sunny areas.



[Return to table of contents.](#)

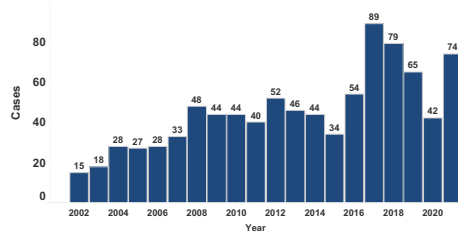
[View charts.](#)



Oregon's 2021 Selected Reportable Communicable Disease Summary
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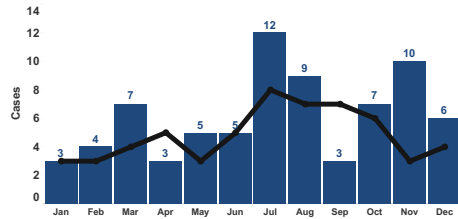
Case counts of Lyme disease by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



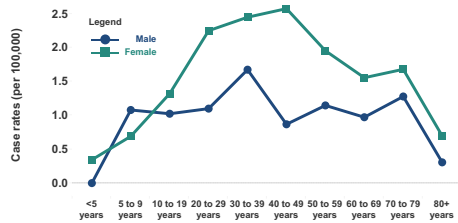
Case counts of Lyme disease by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.



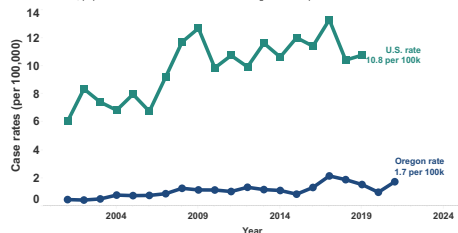
Case rates of Lyme disease by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Case rates of Lyme disease in Oregon vs nationwide, 2001 to 2021.

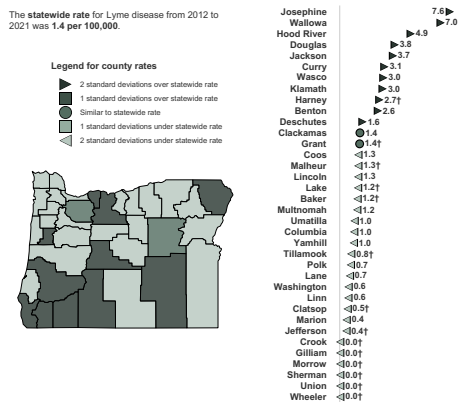
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Bites: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: OryHealth, Portland State University's annual population estimates, Oregon's vital statistics birth data, FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of Lyme disease by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



†Note: Rates based on small case counts (<5 cases) might be unstable.



Malaria

Worldwide, malaria is one of the most devastating of the communicable diseases, causing perhaps 1–2 million deaths annually, in addition to an enormous burden of disability and medical costs. It is caused by parasites of the genus *Plasmodium* transmitted among humans by *Anopheles* mosquitoes. While transmission has not been documented in Oregon for decades, malaria is reported every year in our state; all cases have resulted from exposures outside the United States. *Anopheles* mosquitoes capable of transmitting malaria live in Oregon, so local transmission remains a theoretical possibility — albeit one we don't lose much sleep over.

Eleven cases of malaria were reported among Oregonians in 2021; eight had been to Africa. *Plasmodium falciparum*, the most deadly species and the most common worldwide, was confirmed in three cases. Oregon surveillance data contribute to the national database, which informs recommendations for prevention and treatment.

Competent advice about behavioral and chemical interventions can reduce risk to travelers, but refugees and other immigrants may carry long-harbored infections.

Prevention

- Understanding the current situation with malaria in one's travel destinations is essential. Consult with a travel medicine expert or, if nothing else, read the country-by-country assessment online from the CDC. 
- When traveling to an area where malaria is transmitted:
 - Because *Anopheles* mosquitoes feed at night, minimize your risk of getting bitten by sleeping under an insecticide-impregnated mosquito net or in an air-conditioned room (or both!).
 - If out and about at night, wear long-sleeved shirts and pants and use topical mosquito repellents.
 - Chemoprophylaxis (antimalarial medicine) provides the backstop you need when bite prevention is imperfect – as it always is.
 - Many effective medicines are available in the United States, and even more elsewhere. Weighing their relative merits and side effect can be complex; consult a travel expert for individualized advice. Don't wait until the last minute; most drugs should be started before and continued after the likely exposure period. 

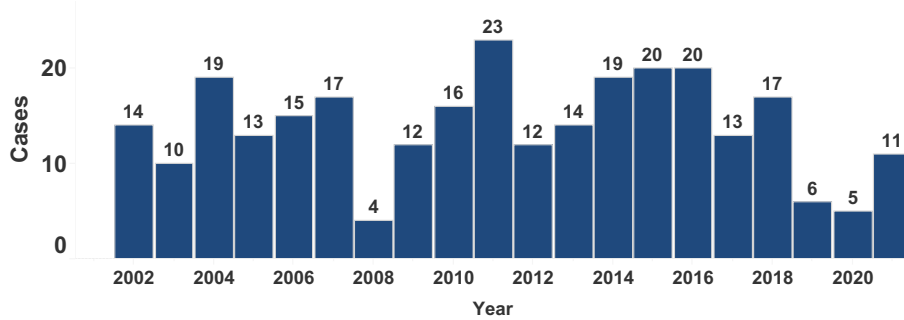


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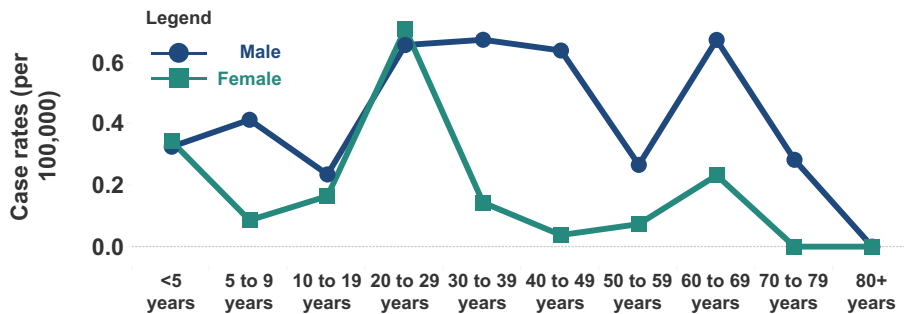
Case counts of malaria by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



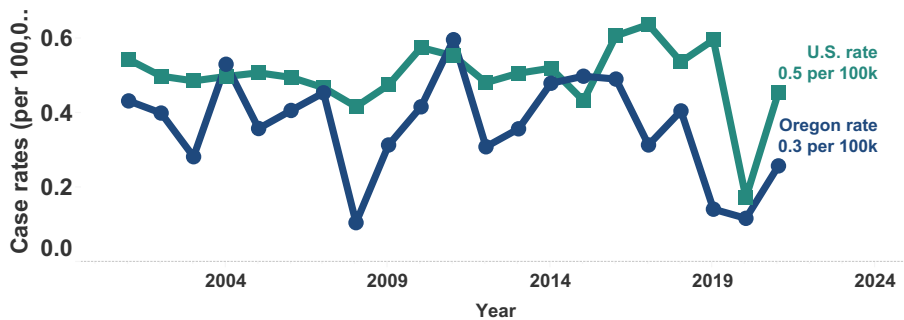
Case rates of malaria by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



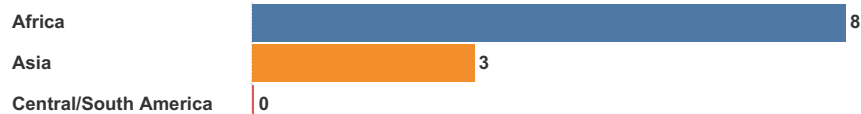
Case rates of malaria in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Orpheus, Portland State University's annual population estimates, Oregon's vital statistics birth data. FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Malaria cases by continent of acquisition: Oregon, 2021



Measles

Measles is an acute, highly communicable viral illness known for its red, blotchy rash. The rash starts on the face and then spreads widely over the body. It is preceded by a febrile prodrome that includes cough, coryza and conjunctivitis; photophobia and Koplik spots in the mouth also sometimes appear.

Detection of measles ribonucleic acid (RNA) by polymerase chain reaction (PCR) and detection of measles-specific immunoglobulin M (IgM) antibody are the most common methods for confirming measles infection (in a patient who has not recently been immunized). Treatment is supportive; there is no antiviral therapy for measles.

A focus on increasing vaccination among preschool children by following the 1989 recommendation for two doses of measles, mumps and rubella (MMR) vaccine resulted in a dramatic reduction in measles in the United States. In Oregon, two doses of measles-containing vaccine have been required for entry into kindergarten since 1998. In 2021 about 95% of K–12 kids had received two doses. Measles vaccination is also required for children attending childcare facilities and for students in post-secondary educational institutions in Oregon.

Since 2004, 56 cases have been reported in Oregon; 31 of these were imported and the remaining 25 were linked to imported cases. Most imported cases originated in Asia or Europe and included both Oregon citizens traveling abroad and persons visiting Oregon from other countries. The median age of cases has been 12.5 years (range, 6 months–49 years) since 2004. Forty-four (79%) cases were unvaccinated; seven were vaccinated; the vaccination status of three could not be documented; one was too young to be vaccinated; and one had a medical contraindication to vaccination.

Prevention

- Vaccinate:
 - One dose for preschool-age children >12 months of age and for most adults born during or after 1957; a second dose for school-age children and for adults at high risk of measles exposure (e.g., health care personnel, international travelers and students at post-high school educational institutions).
 - Post-exposure vaccination can prevent or lessen illness if given within 72 hours of exposure.



Measles

No cases of measles were reported in Oregon in 2021. In 2019, Oregon had four outbreaks of measles and one case of measles that was not part of an outbreak, totaling 28 cases. This is the most cases the state has seen since 1991. All cases were unvaccinated.

Though measles is highly infectious, the risk of exposure to measles in Oregon remains low. Sustaining high levels of vaccination is important to limit the spread of measles from imported cases and to prevent it from becoming re-established as an endemic disease in the United States.



Prevention

- Vaccinate:
 - One dose for preschool-age children >12 months of age and for most adults born during or after 1957; a second dose for school-age children and for adults at high risk of measles exposure (e.g., health care personnel, international travelers and students at post-high school educational institutions).
 - Post-exposure vaccination can prevent or lessen illness if given within 72 hours of exposure.

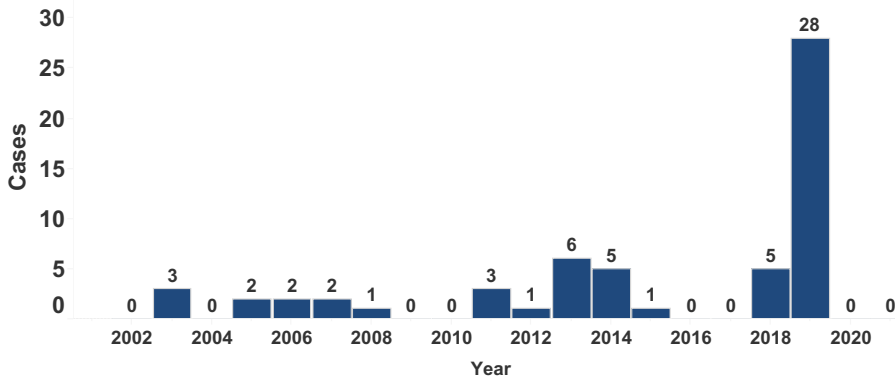


Oregon's 2021 Selected Reportable Communicable Disease Summary

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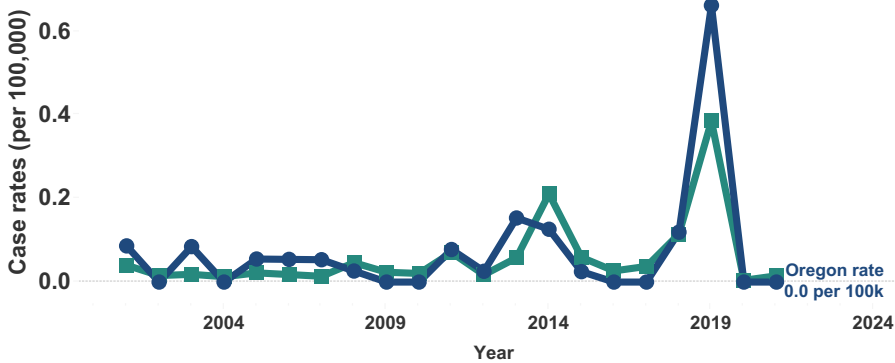
Case counts of measles by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



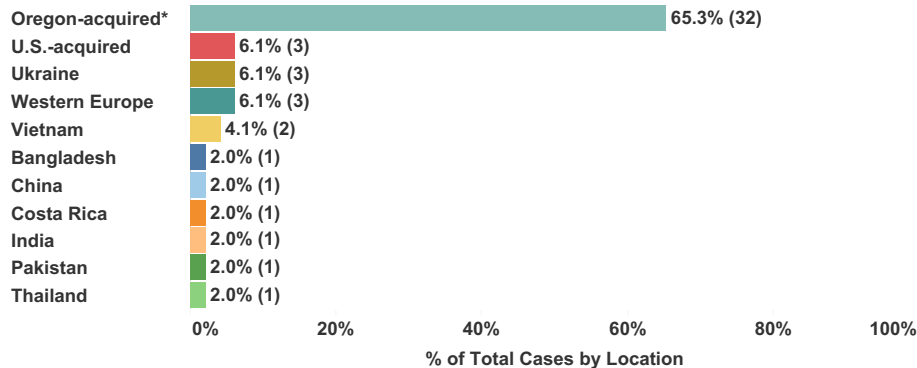
Case rates of measles in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Orpheus, Portland State University's annual population estimates, Oregon's vital statistics birth data. FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Measles by location of importation: 2012 to 2021



*Many cases that are acquired in Oregon or elsewhere in the United States are linked to imported measles cases from another country.

Meningococcal disease

Reported cases of invasive meningococcal infections, including sepsis and meningitis, have declined from the hyperendemic levels seen in 1993–1997 attributable to a clonal strain of serogroup B *Neisseria meningitidis*. Respiratory secretions and droplets continue to be shared among Oregonians and predispose us to secondary cases.

In 2021, there were 6 reported cases of meningococcal disease in Oregon, compared to zero in 2020. The dramatic decline in reported cases is likely due to the COVID-19 pandemic. Social distancing and mask adherence helped reduce the spread of COVID and other respiratory pathogens. All cases were hospitalized and 2 deaths were reported.

From the early 1990s through 2011, serogroup B predominated in Oregon but, for the past several years, other serogroups have been more prominent. In 2016, 43.5% of cases were serogroup B; serogroup C accounted for 48% of cases; 2017, 40% of cases were serogroup B; serogroup C accounted for 52% of cases; 2018, 7% of cases were serogroup B; serogroup C accounted for 71% of cases; 2019, 9% of cases were serogroup B; serogroup C accounted for 64% of cases; 2021, 50% of cases were serogroup C; 17% were serogroup B. Meningococcal disease is treated with intravenous antibiotics.

Advisory Committee on Immunization Practices (ACIP) recommends routine vaccination with quadrivalent (contains antigens from serogroups A, C, Y and W-135) meningococcal conjugate vaccine for all persons 11–21 years of age.

Meningococcal vaccine is also recommended for persons 2 months to 55 years of age who are at increased risk for the disease due to complement deficiency, travel to or residence in a country where meningococcal disease is hyperendemic or epidemic, or inclusion in a defined risk group during a community or institutional outbreak.

Prevention

- Vaccinate to prevent illness from serogroups A, C, Y, W-135 per ACIP guidelines.
- Vaccinate to prevent illness from serogroup B per ACIP guidelines.
- Identify and recommend prophylaxis of close contacts of confirmed and presumptive cases.
- Avoid exposing children to tobacco smoke. These behaviors have been associated with an increased risk of invasive meningococcal disease in children.



Meningococcal disease



In October 2014, the Food and Drug Administration (FDA) licensed the first serogroup B meningococcal vaccine (MenB-FHbp, Trumenba®). FDA approved this vaccine for use in people 10–25 years of age as a three-dose series. On Jan. 23, 2015, FDA licensed a second serogroup B meningococcal vaccine (MenB-4C, Bexsero®). FDA approved this vaccine for use in people 10–25 years of age as a two-dose series.

MenB vaccination is now recommended for those ≥ 10 years of age with complement deficiencies, anatomic or functional asplenia, microbiologists who have contact with *N. meningitidis*, and others at increased risk during a serogroup B outbreak. MenB vaccine may also be administered to adolescents and young adults 16–23 years of age to provide short-term protection against most strains of serogroup B meningococcal disease.

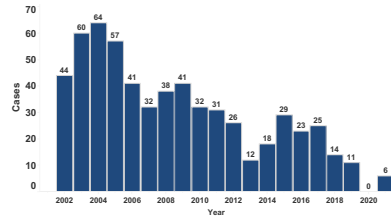
Prevention

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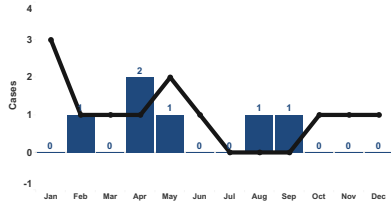
Case counts of meningococcal disease by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



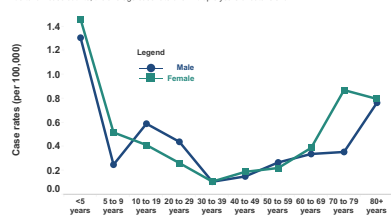
Case counts of meningococcal disease by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.



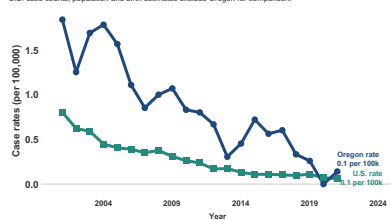
Case rates of meningococcal disease by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Case rates of meningococcal disease in Oregon vs nationwide, 2001 to 2021.

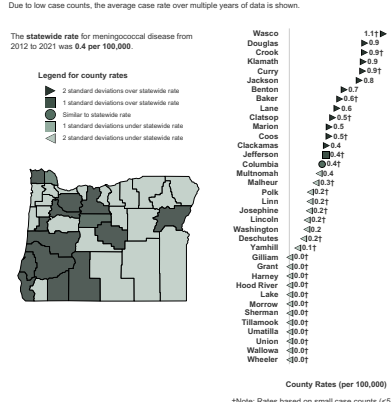
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: ODHHS, Portland State University's annual population estimates, Oregon's vital statistics birth data. Footnote: Data sources: Foodborne Diseases Active Surveillance Network, Centers Bureau's Annual Population estimates as of July 1st of each year.

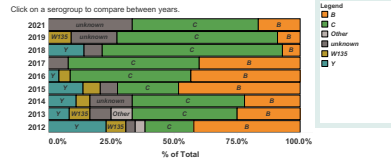
Case rates of meningococcal disease by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Meningococcal disease cases by serogroup: Oregon, 2012 to 2021.

Click on a serogroup to compare between years.



Mumps

Mumps is an acute viral illness characterized by fever and swelling of the salivary glands, typically the parotids. Transmission is generally through respiratory droplets or through direct contact with nasal secretions. Laboratory diagnosis of mumps in highly vaccinated populations is challenging. Studies have shown negative serologic tests in a person with true mumps as well as a negative RT-PCR if the buccal swab is collected more than three days after parotitis onset. To increase the likelihood of detecting mumps, collecting both serum and buccal swab is recommended from all patients with suspected mumps.

Once an almost universal childhood infection, mumps incidence decreased in the United States with routine childhood vaccination. Reporting of this vaccine-preventable viral infection was discontinued in Oregon in 1981 but, prompted by outbreaks, re-established July 1, 2006.

Four cases were reported in Oregon during 2021. Because as many as 20% of mumps virus infections are asymptomatic, and nearly 50% are associated with nonspecific or primarily respiratory symptoms (with or without parotitis), mumps infections are significantly underreported.

In 2017, 67 cases were reported in Oregon. A total of 39 cases were outbreak-related. Among 25 cases <19 years of age, 15 were up to date on vaccination. Outbreaks can still occur in highly vaccinated communities, particularly in close-contact settings. Two doses of the vaccine are 88% effective at protecting against mumps; one dose is 78% effective. The driving forces for the outbreaks might be a combination of the imperfect vaccine effectiveness, waning immunity, and the intensity of exposure. Still, high vaccination coverage helps limit the size, duration and spread of mumps cases. Also, because of vaccination, complications of mumps (e.g., meningitis, orchitis) have been substantially reduced. Mumps remains endemic, and vaccination is the best prevention.

Prevention

- One dose of vaccine (as MMR) for all children at 12–15 months of age.
- A second dose (as MMR) for school-age children and for adults at high risk of mumps exposure (e.g., health care personnel, international travelers and students at post-high school educational institutions.
- One dose of vaccine (as MMR) for all other persons born during or after 1957 who are not at high risk of mumps exposure.

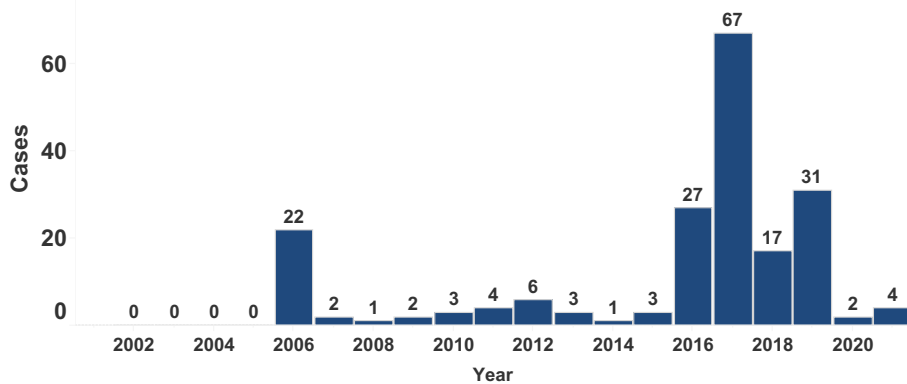


Oregon's 2021 Selected Reportable Communicable Disease Summary

Data current as of March 2023; data are provisional and subject to change.

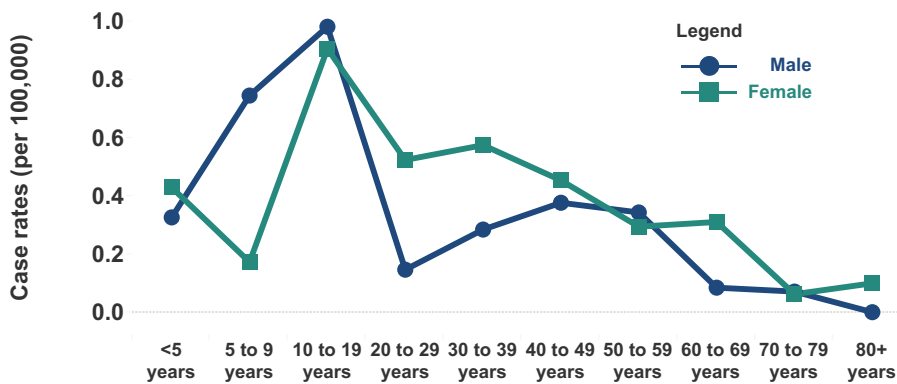
Case counts of mumps by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



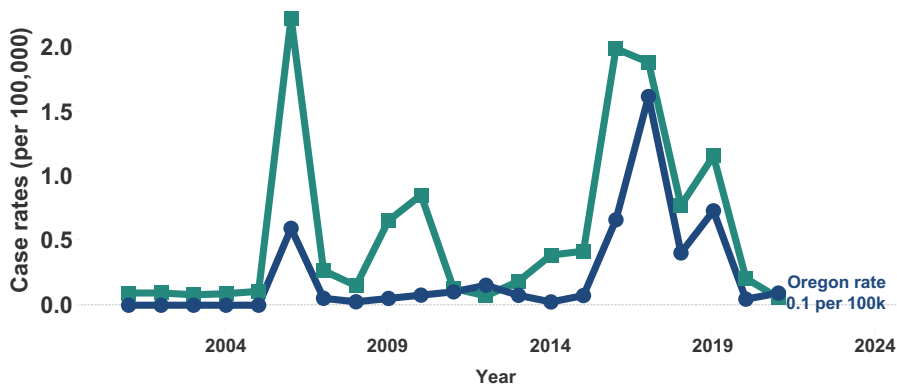
Case rates of mumps by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



Case rates of mumps in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. **Oregon data sources:** Orpheus, Portland State University's annual population estimates, Oregon's vital statistics birth data. **FoodNet data sources:** Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Pertussis

Pertussis is a highly contagious, acute respiratory infection caused by the bacterium *Bordetella pertussis*. It is transmitted from person to person through contact with respiratory secretions (i.e., droplet transmission). The disease is most severe in infants and young children, many of whom suffer the intense fits of coughing that may end with an inspiratory “whoop.” Although the disease is generally less severe in older persons, any infected person can transmit the disease to other susceptible persons, including unimmunized or incompletely immunized infants.


Despite high childhood immunization coverage, pertussis remains endemic in the United States, with epidemics every few years. In 2012, Oregon experienced a pertussis epidemic with the most cases (910) seen in a single year since 1953.

During 2013–2021, 3,020 cases have been reported here — an average of 335 per year. In 2021, there were 3 reported cases of pertussis in Oregon. Because pertussis often goes undiagnosed, it is likely that the actual number of cases greatly exceeds the number reported.

Infants with pertussis are also the most likely to suffer complications and death. Since 2013, 57 (22%) of the 261 infants diagnosed with pertussis in Oregon have been hospitalized.

Vaccination of pregnant women so they can develop antibodies to pertussis and pass them to their babies before birth, has proved highly effective in preventing pertussis in infants — particularly those too young to be vaccinated. For these reasons, women should receive Tdap during each pregnancy, preferably at 27–36 weeks gestation, to protect their newborns. Vaccination of health care workers is also strongly encouraged. Children need a series of five DTaP vaccinations before kindergarten, starting at two months of age. Although vaccine-induced immunity wanes over time, previously published Oregon data have demonstrated that at any age, the

Prevention

- Immunization is the best way to prevent pertussis.
- All women should receive a Tdap vaccine during the 27th through 36th week of *each* pregnancy, preferably during the earlier part of this time period.
- Cover your cough and wash your hands.
- Keep babies away from anyone who is coughing.
- Refer to the immunization schedules from the Advisory Committee on Immunization Practices (ACIP) for more information. 



Pertussis


the risk of pertussis is higher among the unvaccinated.

Immunity wanes with time, so adolescents and adults need a Tdap booster dose, both to protect themselves and to avoid spreading it to vulnerable infants. All persons ≥ 10 years of age who have not already received Tdap are advised to get a single dose.

Since 2010, with funding from the Centers for Disease Control and Prevention, Oregon launched the Metropolitan Area Pertussis Surveillance (MAPS) project, with enhanced surveillance for pertussis in Clackamas, Multnomah and Washington counties. Each reported case is investigated extensively and standardized data are collected. These data help guide regional and national public health policy.



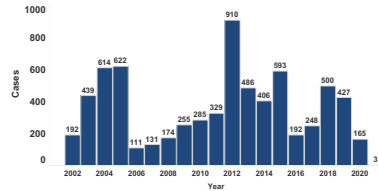
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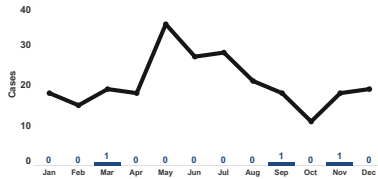
Case counts of pertussis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

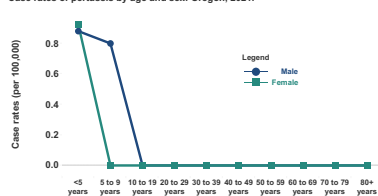


Case counts of pertussis by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

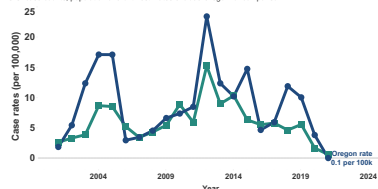


Case rates of pertussis by age and sex: Oregon, 2021.



Case rates of pertussis in Oregon vs nationwide, 2001 to 2021.

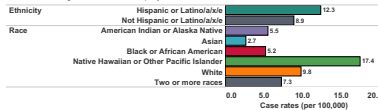
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: National Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Birth, Final Data for 2021 from National Vital Statistics Reports; Oregon data sources: OHPH, Portland State University's annual population estimates, Oregon vital statistics birth data; FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of pertussis by reported race and ethnicity: Oregon, 2012 to 2021.

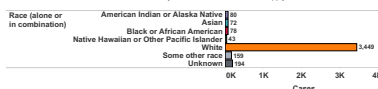
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

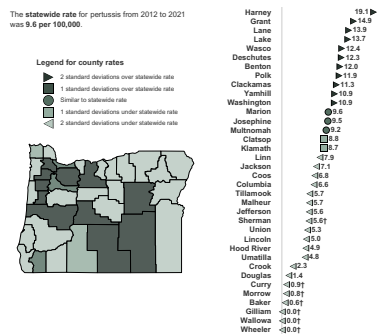
Case counts of pertussis by reported race and ethnicity: Oregon, 2012 to 2021.

Race alone or in combination means cases may be counted in all races that apply.



Case rates of pertussis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

Q fever

Q fever is a bacterial infection caused by *Coxiella burnetii*. It can result in acute or chronic illness in humans. It is usually acquired through inhalation of barnyard dust or aerosols contaminated with bacteria from the placentas, body fluids or excreta from infected animals. The bacteria can become airborne and travel for miles. The primary reservoirs are cattle, sheep and goats. Infection may also result from consumption of unpasteurized milk. Veterinarians and sheep, goat and dairy farmers are most at risk.

A host of symptoms can accompany acute Q fever; they include high fever, severe headache, malaise, myalgia, chills, sweats, nausea, vomiting, dry cough, diarrhea, abdominal pain and chest pain. Most people recover from acute Q fever, but some (<5%) develop chronic illness, which often manifests as endocarditis. People with valvular heart disease, pregnant women and people with compromised immune systems are at risk for chronic Q fever after an acute infection. Chronic infection can be treated with long courses of antibiotics.

Q fever reports are rare in Oregon. There were four cases of Q fever reported in Oregon in 2021. Nationally, the number of cases outside of Oregon in 2021 was 188.



Prevention

- Barns and laboratories housing potentially infected animals should have restricted access, and holding facilities for sheep should be located away from populated areas.
- Appropriately dispose of placenta, birth products, fetal membranes, and aborted fetuses at facilities housing sheep and goats.
- Use only pasteurized milk and milk products.

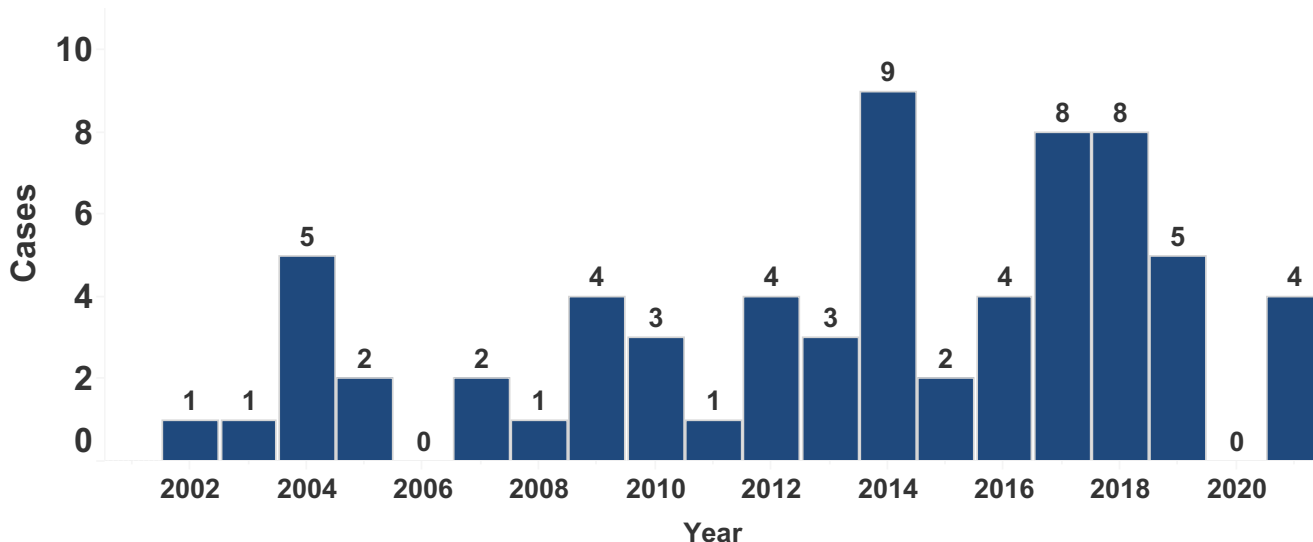


Oregon's 2021 Selected Reportable Communicable Disease Summary

Data current as of March 2023; data are provisional and subject to change.

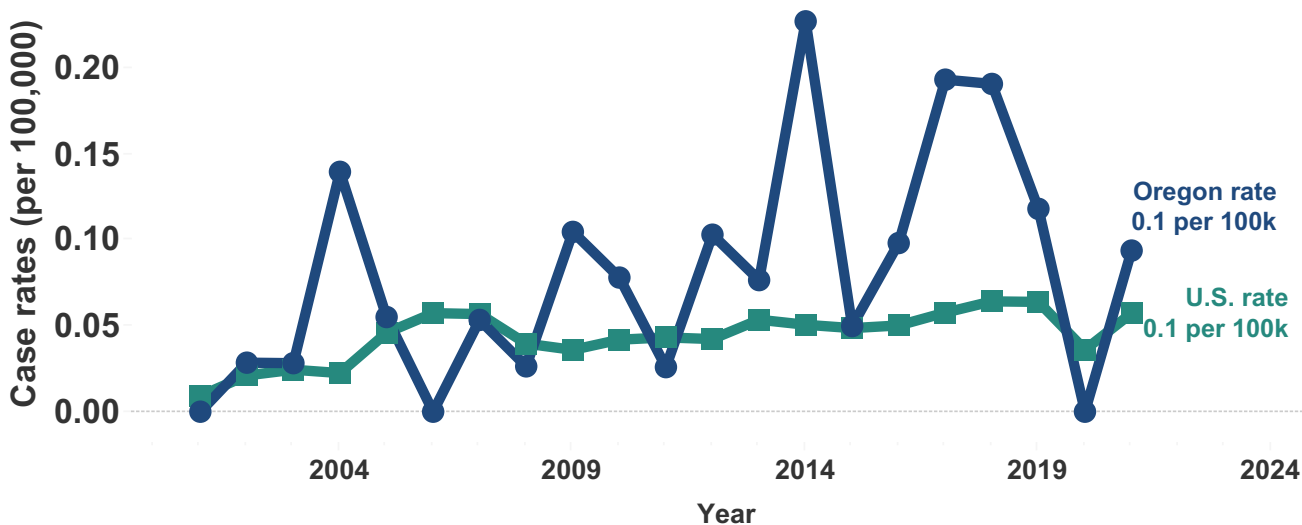
Case counts of Q fever by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



Case rates of Q fever in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. **Oregon data sources:** Orpheus, Portland State University's annual population estimates, Oregon's vital statistics birth data. **FoodNet data sources:** Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Rabies

Rabies is an acute infection of the central nervous system caused by a neurotropic rhabdovirus of the genus *Lyssavirus*. All mammals, including humans, are susceptible to rabies. In humans, rabies causes a rapidly progressive and fatal encephalomyelitis. The incubation period in humans is usually 2–12 weeks, but there have been documented incubation periods as long as seven years. Bites from infected animals constitute the primary route of transmission. Transplanted organs, including corneas from patients with undiagnosed rabies, have also caused infection in recipients.

The Pacific Northwest is considered to be free of terrestrial rabies. In Oregon, the main reservoir of rabies is bats. Mammals like foxes and cats may encounter rabid bats, acquire the infection and can transmit it to humans. Since 2000, 8% of the bats tested in Oregon have been positive for rabies. This, of course, is not a random sample of Oregon's bats; rather it represents bats that were neurologically impaired enough to have bitten humans or their pets, and then to have been captured. Any contact between a bat and a human should be evaluated carefully and immediately. All potential human exposures should result in a call to a local public health department office. Testing of an exposing mammal involves killing the animal, removing the head, and sending it to a laboratory for special staining and microscopic examination of brain tissue. Oregon State University's Veterinary Diagnostic Laboratory is the only Oregon laboratory testing animals for rabies exposure. The Oregon State Public Health Laboratory no longer tests animal for rabies.

In 2021, 17 bats tested positive for rabies. Lane county reported 4 followed by Deschutes and Douglas counties with 2 rabies-positive bats each. Oregon has identified two rabies-positive cats; one in 2015 and one in 2017. Bat rabies variant continues to be responsible for all rabies-positive wildlife cases in Oregon. This implies that there may have been a greater interaction between rabid bats and other wildlife in the state. Despite the low rate, it is important to remember we can only protect pets' health and, in turn, human health through vaccination.

Prevention


- Keep rabies vaccinations up to date for all pet cats, ferrets and dogs.
- Maintain control of pets by keeping cats and ferrets indoors and keeping dogs under direct supervision.
- Spay or neuter pets to help reduce the number of unwanted pets that may not be properly cared for or vaccinated regularly.
- Call animal control to remove stray animals from your neighborhood because these animals may be unvaccinated or ill.
- Do not handle wildlife, especially bats and foxes.
- Seek medical attention immediately if you are bitten by a bat, fox, or stray cat in Oregon.

Rabies

Rabies in humans is 100% preventable through prompt appropriate medical care, beginning with thorough cleaning of the wound. Persons not previously immunized for rabies who are exposed to a rabid animal should be given human rabies immune globulin (HRIG), with as much as possible infiltrated into and around the bite wound(s), and the rest administered intramuscularly. They should also receive four doses of rabies vaccine, one each on days 0, 3, 7 and 14.

Before 2008, a five-dose vaccine regimen was recommended. However, review of serologic and case data indicated four doses of vaccination in combination with HRIG elicited a protective immune response and a fifth dose of vaccine provided no additional benefit.

Though bats are the reservoir for rabies in Oregon, canine rabies still accounts for most human rabies cases worldwide. Travelers to rabies-enzootic countries should be warned to seek immediate medical care if they are bitten by any mammal.

Additional information and an algorithm for assessment of rabies risk are available on the Communicable Disease website. 

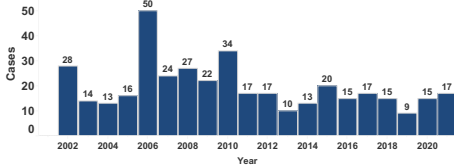
Prevention

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- Seek medical attention immediately if you are bitten by a bat, fox, or stray cat in Oregon.

Oregon's 2021 Selected Reportable Communicable Disease Summary
 Data current as of March 2023; data are provisional and subject to change.

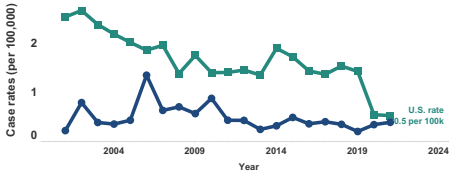
Case counts of animal rabies by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



Case rates of animal rabies in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



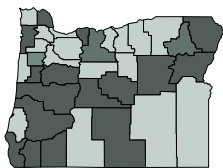
U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Birme. Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: Orython, Portland State University's annual population estimates, Oregon's vital statistics birth data. FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Case rates of animal rabies by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for animal rabies from 2012 to 2021 was 0.4 per 100,000.

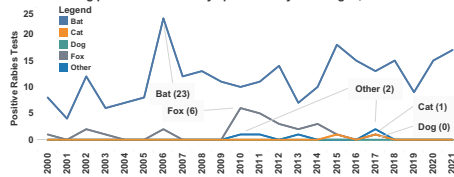
Legend for county rates
 2 standard deviations over statewide rate
 1 standard deviation over statewide rate
 Similar to statewide rate
 1 standard deviation under statewide rate
 2 standard deviations under statewide rate



County	County Rates (per 100,000)
Grant	6.8
Lake	3.7
Benton	1.8
Josephine	1.4
Wallowa	1.4
Tillamook	1.1
Crook	0.9
Linn	0.9
Curry	0.9
Hood River	0.9
Deschutes	0.7
Baker	0.6
Lane	0.6
Jackson	0.6
Douglas	0.5
Columbia	0.4
Wasco	0.4
Union	0.4
Polk	0.4
Marion	-0.3
Lincoln	-0.2
Yamhill	-0.2
Clackamas	-0.2
Coos	-0.2
Washington	-0.1
Multnomah	-0.1
Clatsop	-0.0
Gilliam	-0.0
Harney	-0.0
Jefferson	-0.0
Klamath	-0.0
Malheur	-0.0
Morrow	-0.0
Sherman	-0.0
Umatilla	-0.0
Wheeler	-0.0

County Rates (per 100,000)
 *Note: Rates based on small case counts (<5 cases) might be unstable.

Animals testing positive for rabies by species and year: Oregon, 2000 to 2021.



Animals rabies testing in Oregon, 2000 to 2021 (number of positive/total tested).

	Bat	Cat	Dog	Fox	Other
Grand Total	258/3,201	21/500	0/767	27/166	5/800
2021	17/174	0/63	0/20	0/0	0/32
2020	15/203	0/72	0/35	0/2	0/25
2019	9/188	0/90	0/29	0/1	0/44
2018	15/205	0/87	0/27	0/1	0/32
2017	13/188	1/110	0/35	1/4	2/36
2016	15/211	0/77	0/33	0/0	0/31
2015	18/219	1/89	0/39	1/4	0/37
2014	10/148	0/79	0/39	3/7	0/31
2013	7/193	0/90	0/36	2/34	1/53
2012	14/203	0/79	0/37	3/28	0/45
2011	11/143	0/86	0/32	5/44	1/61
2010	10/104	0/67	0/41	6/15	1/48
2009	11/117	0/73	0/27	0/1	0/42
2008	13/128	0/58	0/23	0/3	0/53
2007	12/153	0/80	0/33	0/1	0/26
2006	23/126	0/72	0/26	2/4	0/41
2005	8/83	0/100	0/48	0/1	0/23
2004	7/88	0/105	0/42	0/2	0/27
2003	6/61	0/75	0/36	1/5	0/39
2002	12/134	0/102	0/27	2/4	0/29
2001	4/59	0/67	0/46	0/1	0/41
2000	8/73	0/79	0/56	1/4	0/4

*Other includes 1 positive goat in 2010, 1 positive coyote in 2011 and 2013, and 1 each positive coyote and skunk in 2017.
 Note: Due to positive goats and foxes from 2010 to 2014 there was enhanced surveillance among fox populations from 2010 to 2012 and among other animal populations in 2011.

Salmonellosis

Salmonellosis is a bacterial illness characterized by acute abdominal pain, diarrhea and often fever that usually begins one to five days after exposure. Excretion of *Salmonella* may persist for several days or even months beyond the acute phase of illness. Antibiotics are not needed by most patients (the exceptions being those at high risk of invasive infection), and they may increase the duration of excretion.

A wide range of domestic and wild animals can serve as reservoirs of *Salmonella*, including poultry, swine, cattle, rodents, iguanas, tortoises, turtles, snakes, young poultry (e.g., baby chicks), dogs and cats. Most human infections are thought to come from consumption of fecally contaminated food or water, but other environmental exposures may be hard to document and, therefore, underreported. Raw or undercooked produce and products of animal origin — such as eggs, milk, meat and poultry — have been implicated as common sources of animal and human salmonellosis. Person-to-person transmission of salmonellosis is well documented, although it occurs less commonly than with other infections, such as *Escherichia coli* O157. The incidence of reported infection is highest among people between age 20 to 69 years with the largest number of cases reported in their 50s.

In 2021, there were 336 nontyphoidal salmonellosis cases in Oregon; 292 had lab-confirmed isolates, from which 66 different *Salmonella* serotypes were identified. Of approximately 2,500 known serotypes, only about 200 are detected in the United States in any given year. In Oregon, *S. Enteritidis* and *S. Typhimurium* have historically been the most common serotypes, comprising 18% and 12% of all lab-confirmed nontyphoidal *Salmonella* isolates in 2021, respectively. The largest outbreak of salmonellosis reported included 8 cases who had contact with baby poultry. Eighty percent of cases were sporadic, 9% were associated with an outbreak, and 4% had documented transmission within a household.

Fifteen outbreaks of salmonellosis were investigated in 2021, which accounted for 39 Oregon cases. Five outbreaks were classified as foodborne, 10 as associated with animal contact.

Prevention

- Cook poultry, ground beef and eggs thoroughly.
- Do not eat or drink food containing raw eggs or raw (unpasteurized) milk.
- If you are served undercooked meat, poultry or eggs in a restaurant, send it back to the kitchen for further cooking.
- Wash hands, kitchen work surfaces and utensils with soap and warm water immediately after they have been in contact with raw meat or poultry.
- Be particularly careful with foods prepared for infants, the elderly and the immunocompromised.
- Wash hands with soap and warm water after handling reptiles, birds or baby chicks, and after contact with pet feces.
- Avoid direct or even indirect contact between reptiles (turtles, iguanas, other lizards, snakes) and infants or immunocompromised persons.
- Don't work with raw poultry or meat and an infant (e.g., feeding or changing diaper) at the same time.



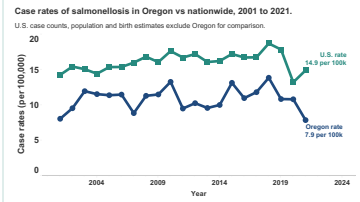
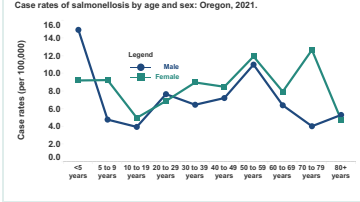
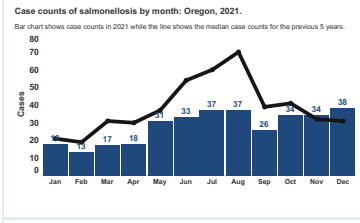
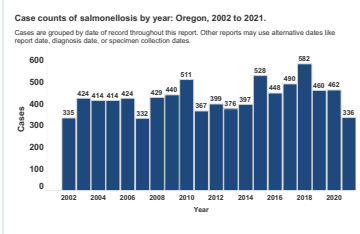
[Return to table of contents.](#)

[View charts.](#)

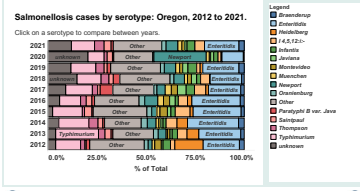
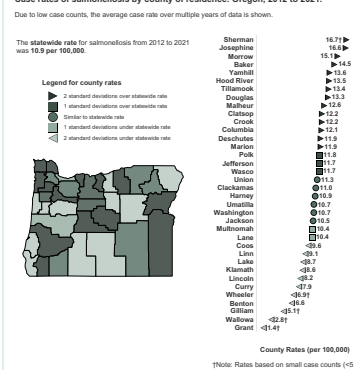
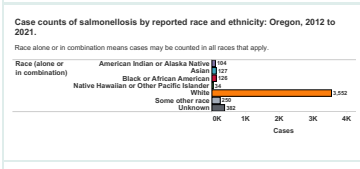
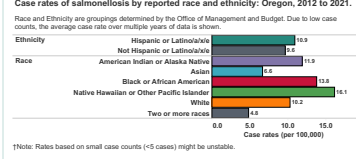


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Date current as of March 2023; data are provisional and subject to change.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Report; Oregon data sources: ODHSA, Oregon State University's annual population estimates, Oregon's vital statistics birth data, FoodNet data sources: FoodNet Disease Active Surveillance Network, Central Survey's Annual Population Estimates as of July 1st of each year.



Shigellosis

Shigellosis is an acute bacterial infection characterized by (sometimes bloody) diarrhea, vomiting, abdominal cramps and, often, fever. In Oregon, shigellosis is typically caused by *S. sonnei* or *S. flexneri*. The other species — *S. boydii* and *S. dysenteriae* — are more common in developing countries. Humans are the only known reservoir. Shigellosis is transmitted from person to person, and just a few organisms can cause illness. The incidence of shigellosis typically peaks in late summer and fall. Treatment reduces duration of illness and, importantly, the period of communicability. However, the organism has become resistant to many antibiotics used for empiric therapy; for example, high levels of resistance to ampicillin and trimethoprim/sulfamethoxazole have been found in Oregon. Testing for antibiotic susceptibility is important for treatment.

Outbreaks in daycare centers are common, mainly due to the poor hygienic practices of small children. Houseless populations in Oregon also experience outbreaks of shigellosis more frequently. Hand washing is the most important means of prevention.

After an historic low of 50 cases in 2014, the number of cases jumped to 113 in 2015; 101 in 2016; 128 in 2017; 289 in 2018; 160 in 2019, 192 in 2020 and 122 in 2021. Of these 122 cases, 38 were *S. flexneri* and 24 were *S. sonnei*. The species of *Shigella* is not known for many cases due to the use of culture-independent diagnostic testing.

The rate of shigellosis has historically been highest among children 1–4 years of age. Incidence rates shifted away from this trend in 2021 to people in their 30s, with males accounting for 73% of the total cases reported. Six percent of the cases reported in 2021 were in males that were houseless. Thirty percent of the cases required hospitalization.

Prevention

- Wash hands with soap and warm water carefully and frequently, especially after going to the bathroom or after changing diapers and before preparing food or beverages.
- Properly dispose of soiled diapers.
- Disinfect diaper changing areas after using them.
- Keep children with diarrhea out of child care settings.
- Supervise hand washing of toddlers and small children after they use the toilet.
- Do not prepare food for others while ill with diarrhea.
- Avoid swallowing water from ponds, lakes or untreated pools.



Shigellosis

There are clear racial disparities in the incidence of shigellosis in Oregon during the past decade, with individuals identifying as Native Hawaiian or Other Pacific Islander (9.7 per 100,000), as Black or African American (5.9 per 100,000) and as Hispanic or Latino (5.1 per 100,000) experiencing a relatively higher burden of disease.

No outbreaks of shigellosis were reported in 2021.



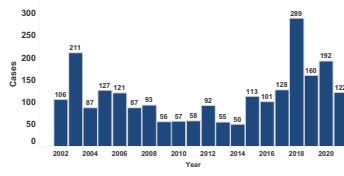
Prevention

- Wash hands with soap and warm water carefully and frequently, especially after going to the bathroom or after changing diapers and before preparing food or beverages.
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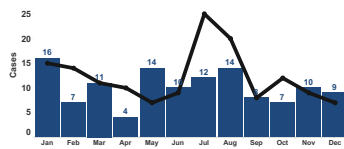
Case counts of shigellosis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

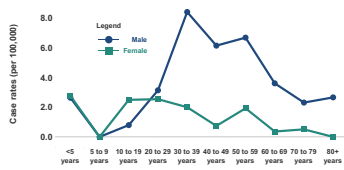


Case counts of shigellosis by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

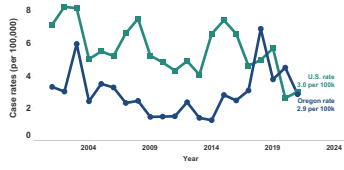


Case rates of shigellosis by age and sex: Oregon, 2021.



Case rates of shigellosis in Oregon vs nationwide, 2001 to 2021.

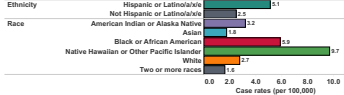
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: National Notifiable Infectious Diseases and Conditions, CDC (annual, weekly); Central Bureau's Annual Population Estimates as of July 1st of each year; BIRTH: Final Data for 2021 from National Vital Statistics Reports, Oregon data from the Oregon Health Division's annual surveillance estimates; Oregon's vital statistics data from the Pacific States and the Foodborne Disease Active Surveillance Network, Central Bureau's Annual Population estimates as of July 1st of each year.

Case rates of shigellosis by reported race and ethnicity: Oregon, 2012 to 2021.

Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

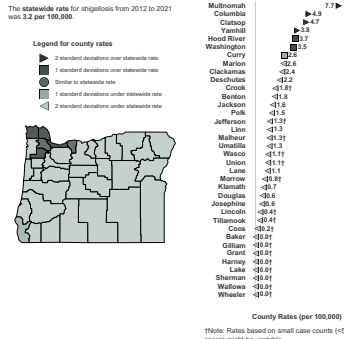
Case counts of shigellosis by reported race and ethnicity: Oregon, 2012 to 2021.

Race alone or in combination means cases may be counted in all races that apply.



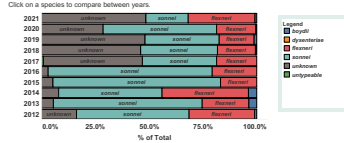
Case rates of shigellosis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



(Note: Rates based on small case counts (<5 cases) might be unstable.)

Shigellosis cases by species: Oregon, 2012 to 2021.



Syphilis



Syphilis is a sexually transmitted infection caused by the bacterium *Treponema pallidum*. Any person can get syphilis through vaginal, anal, or oral sex. Individuals may have symptoms including skin lesions, a rash, and flu-like symptoms in the primary and secondary stages of syphilis. Syphilis can also affect the nervous system and cause changes in vision and hearing at any stage of infection. If untreated, syphilis can lead to serious problems affecting many parts of the body after many years. Individuals with syphilis are also at increased risk of acquiring HIV.

Syphilis is mainly detected through blood tests. Syphilis can be cured with antibiotic treatment. Because syphilis is a bacterial infection, anyone can be reinfected if exposed again after completing treatment.

Most cases of syphilis in the United States are among men who have sex with men. Oregon's primary and secondary syphilis cases predominately occurred among people assigned male at birth, with many occurring among men who have sex with other men. While still relatively low, rates of primary and secondary syphilis among people assigned female at birth have increased rapidly from 0.6 cases per 100,000 in 2013 to 13.5 cases per 100,000 in 2021. The COVID-19 pandemic impacted sexual health services across Oregon limiting the capacity to conduct routine STI screening; nonetheless, syphilis diagnoses continue increasing. In 2021, Oregon ranked 8th in the nation for primary and secondary syphilis among people assigned female at birth. The rate of persons who inject drugs diagnosed with primary and secondary syphilis has increased from 0.1 cases per 100,000 in 2010 to 2.4 cases per 100,000 in 2020. Before 2020, Oregon's rates of syphilis were almost as high as rates of syphilis at the national level. In 2021, Oregon ranked 9th in the nation for primary and secondary syphilis. People living in Oregon counties along the I-5 corridor experience the highest rates of syphilis. Black/African American, American Indian/Alaska Native, Native Hawaiian/Pacific Islander and Hispanic or Latino people experience high rates of syphilis. The reasons for different rates are driven by social determinants of health and inequalities.

Prevention


- Use condoms consistently and correctly during anal and vaginal or front sex.
- Get tested for HIV, syphilis, gonorrhea, chlamydia and hepatitis C regularly.
- Talk openly with sex partners about HIV and other sexually transmitted infections and the importance of regular testing.
- If diagnosed with an STI, abstain from sex until completing treatment and symptoms have resolved.
- Use HIV pre-exposure prophylaxis, or PrEP, to prevent HIV infection.
- If you inject drugs, use a new, sterile syringe every time and visit your local syringe service program for sterile supplies, HIV/Hep C testing, naloxone, and other resources.



Syphilis

Inequities in syphilis are multifactorial and driven by social determinants of health, such as discrimination, poverty, inadequate health care access, educational inequalities, and stigma. Instead of focusing on individual-level risk factors and interventions, moving upstream to systems-level solutions is key. It is critical to understand that higher syphilis rates are not caused by race, ethnicity, gender, or sexual orientation, but by the social, economic, and environmental contexts that are more likely to affect certain groups and that create barriers to optimal sexual health.

Research indicates that information about differences in syphilis rates must be strategically crafted and implemented with authentic community engagement. Authentic community engagement has the capacity to develop solutions to address health inequities. So as not to further harm communities burdened by other social and health inequities, strength-based approaches are critical to public health programs designed to prevent syphilis and maximize sexual well-being. Addressing health inequities from the underlying root is critical to reducing STD rates.

Data are provisional and subject to change based on data current as of date. Find more detailed data on syphilis on Oregon's HIV, STD and TB dashboards 



Prevention

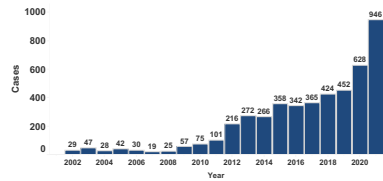
- Use condoms consistently and correctly during anal and vaginal or front sex.
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- Talk openly with sex partners about HIV and other sexually transmitted infections and the importance of regular testing.
- If diagnosed with an STI, abstain from sex until completing treatment and symptoms have resolved.
- Use HIV pre-exposure prophylaxis, or PrEP, to prevent HIV infection.
- If you inject drugs, use a new, sterile syringe every time and visit your local syringe service program for sterile supplies, HIV/Hep C testing, naloxone, and other resources.



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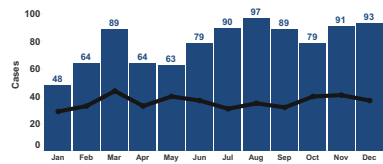
Case counts of primary & secondary syphilis by year: Oregon, 2002 to 2021.

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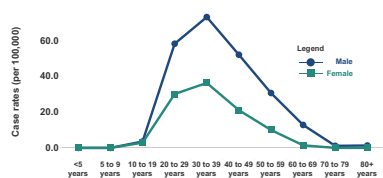


Case counts of primary & secondary syphilis by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

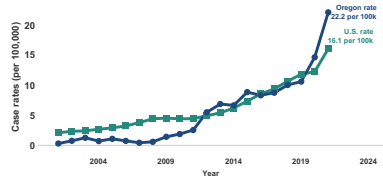


Case rates of primary & secondary syphilis by age and sex: Oregon, 2021.



Case rates of primary & secondary syphilis in Oregon vs nationwide, 2001 to 2021.

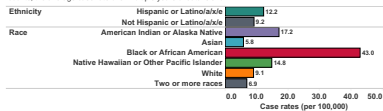
U.S. case counts, population and birth estimates exclude Oregon for comparison.



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Case rates of primary & secondary syphilis by reported race and ethnicity: Oregon, 2012 to 2021.

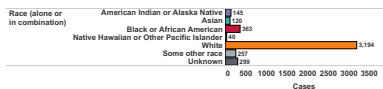
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



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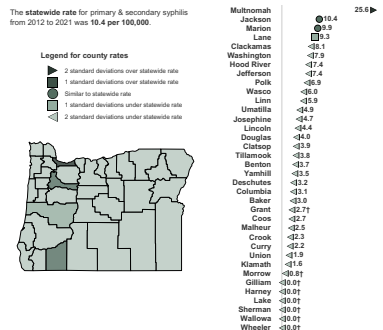
Case counts of primary & secondary syphilis by reported race and ethnicity: Oregon, 2012 to 2021.

Race alone or in combination means cases may be counted in all races that apply.



Case rates of primary & secondary syphilis by county of residence: Oregon, 2012 to 2021.

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Congenital Syphilis



Congenital syphilis (CS) is fetal infection caused by untreated syphilis during pregnancy. Congenital syphilis can lead to stillbirth, infant death, and serious birth defects including problems affecting the nervous system. A baby born with CS doesn't always have symptoms at birth but may develop serious problems without treatment. Babies who do not get treatment for CS and develop symptoms later can die from syphilis.

Syphilis is detected through blood tests. Pregnant people should be tested for syphilis at the first prenatal visit, early in the third trimester, and at delivery. Syphilis in pregnancy can be cured with antibiotic treatment. Because syphilis is a bacterial infection, anyone can be reinfected if exposed again after completing treatment.

Oregon has experienced a steep increase in syphilis among people assigned female at birth. Consequently, CS cases have also increased. In 2013, there were no cases of CS reported to the Oregon Health Authority (OHA). In 2021, there were 27 reported CS cases. In 2021, Oregon had the 17th highest CS rate in the nation, with 66 cases per 100,000 live births. Black/African American, American Indian/Alaska Native, Native Hawaiian and Pacific Islander, and Hispanic/Latina/o/x pregnant people were disproportionately more likely to deliver an infant diagnosed with CS. These disparities are a reflection of differential access to quality sexual health care and result from generations-long systemic inequities. Almost 50% of pregnant people who delivered an infant diagnosed with CS did not receive prenatal care more than 45 days prior to delivery. Housing and substance use are two factors that increase the risk for syphilis and can impede prenatal care. About half of the pregnant people who delivered an infant with CS were houseless or unstably housed. About 40% had a history of injection drug use, with most of them using methamphetamine or heroin.

Prevention

- Get tested for syphilis at the first prenatal visit, early in the third trimester, and at delivery.
- Get tested for HIV, syphilis, gonorrhea, chlamydia and hepatitis C regularly.
- Talk openly with sex partners about HIV and other sexually transmitted infections and the importance of regular testing.
- If diagnosed with an STI, abstain from sex until completing treatment and symptoms have resolved.
- Use HIV pre-exposure prophylaxis, or PrEP, to prevent HIV infection.
- If you inject drugs, use a new, sterile syringe every time and visit your local syringe service program for sterile supplies, HIV/Hep C testing, naloxone, and other resources.




Congenital Syphilis



Inequities in congenital syphilis are multifactorial and driven by social determinants of health, such as discrimination, poverty, inadequate health care access, educational inequalities, and stigma. Instead of focusing on individual-level risk factors and interventions, moving upstream to systems-level solutions is key. It is critical to understand that higher congenital syphilis rates are not caused by race, ethnicity, gender, or sexual orientation, but by the social, economic, and environmental contexts that are more likely to affect certain groups and that create barriers to optimal sexual health.

Research indicates that information about differences in congenital syphilis rates must be strategically crafted and implemented with authentic community engagement. Authentic community engagement has the capacity to develop solutions to address health inequities. So as not to further harm communities burdened by other social and health inequities, strength-based approaches are critical to public health programs designed to prevent congenital syphilis and maximize sexual well-being. Addressing health inequities from the underlying root is critical to reducing STD rates.

Data are provisional and subject to change based on data current as of date. Find more detailed data on congenital syphilis on Oregon's HIV, STD and TB dashboards. 

Prevention

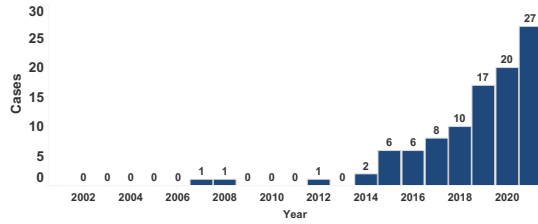
- Get tested for syphilis at the first prenatal visit, early in the third trimester, and at delivery.
- Get tested for HIV, syphilis, gonorrhea, chlamydia and hepatitis C regularly.
- Talk openly with sex partners about HIV and other sexually transmitted infections and the importance of regular testing.
- If diagnosed with an STI, abstain from sex until completing treatment and symptoms have resolved.
- Use HIV pre-exposure prophylaxis, or PrEP, to prevent HIV infection.
- If you inject drugs, use a new, sterile syringe every time and visit your local syringe service program for sterile supplies, HIV/Hep C testing, naloxone, and other resources.



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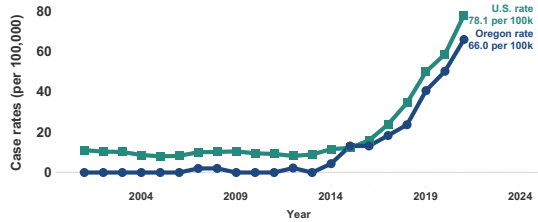
Case counts of congenital syphilis by year: Oregon, 2002 to 2021.

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Case rates of congenital syphilis in Oregon vs nationwide, 2001 to 2021.

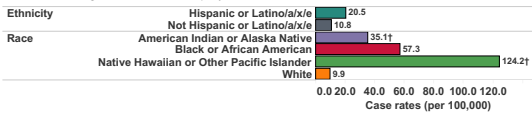
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Case rates of congenital syphilis by reported race and ethnicity: Oregon, 2012 to 2021.

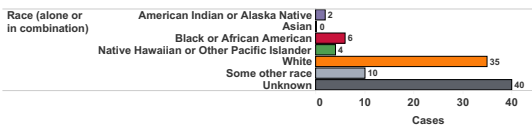
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



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Case counts of congenital syphilis by reported race and ethnicity: Oregon, 2012 to 2021.

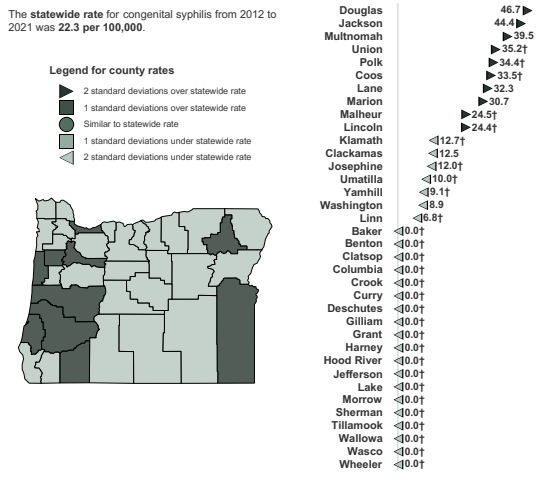
Race alone or in combination means cases may be counted in all races that apply.



Case rates of congenital syphilis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for congenital syphilis from 2012 to 2021 was 22.3 per 100,000.



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Tuberculosis



Tuberculosis (TB) is an ancient disease that was once a leading cause of death in the United States. Although TB disease is highly curable, without proper treatment it can be fatal. TB is still a major cause of disease and death in many parts of the world; until 2020 when the COVID-19 pandemic set in, TB caused more deaths worldwide than any other infectious disease.

TB is caused by the bacterium *Mycobacterium tuberculosis* and is transmitted through airborne exposure. TB bacteria are spread by respiratory droplets when a person with infectious TB disease in the lungs coughs, sneezes, or talks. People nearby may inhale the airborne droplets and become infected. Although TB is infectious, it is not easy to catch. Most TB infections happen in the home or workplace where people spend many hours together in close proximity. TB is not spread on contaminated surfaces, in food or drink, or by sharing toothbrushes or kissing. Not everyone infected with TB becomes sick and as a result, two TB-related conditions exist: latent TB infection (LTBI) and TB disease.

Most people who are infected with TB bacteria do not immediately become sick. This is called latent TB infection (LTBI). Even though TB bacteria are living in the lungs, the body's immune system prevents the bacteria from multiplying or spreading. People with LTBI have no symptoms, don't feel sick, and can't spread TB to others. People with LTBI may go on to develop TB disease unless treated with medication to prevent disease. LTBI can be diagnosed using a skin test or a blood test.

Some people who are infected with TB bacteria develop TB disease soon after becoming infected while others may get sick months or years later. Some will never get sick. TB disease develops when the immune system can't keep the TB bacteria under control. People with weakened immune systems have a much higher risk of developing TB disease than other people.

Prevention

- People at risk for tuberculosis should be tested for latent TB infection (LTBI).
- People who have been diagnosed with LTBI should discuss treatment options with their health care provider to prevent progression from latent infection to TB disease.




Tuberculosis



TB disease most often affects the respiratory system and causes symptoms like a prolonged cough, fever, night sweats, weight loss, and hemoptysis (coughing up blood). TB can also affect nearly any other part of the body; lymph nodes (where it is sometimes known as scrofula), brain (where it can cause meningitis), eyes, bones, skin or joints (known as Pott's disease when in the spine) are just some examples.

Once infected with TB bacteria, people who are most at risk for developing TB disease generally fall into two categories: people who have recently been infected and people who have weakened immune systems. People who have recently been infected are often close contacts of a person with infectious TB disease, people who have recently moved from areas of the world with high rates of TB, children under the age of 5 who have a positive TB test, and people living or working in congregate settings like prisons, homeless shelters, or nursing homes. People who may have weakened immune systems include babies and young children, people living with HIV, people who inject drugs, or people who take medications that suppress the immune system.

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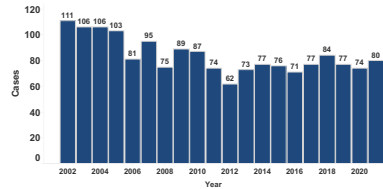
Prevention

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- People who have been diagnosed with LTBI should discuss treatment options with their health care provider to prevent progression from latent infection to TB disease.

Oregon's 2021 Selected Reportable Communicable Disease Summary
 Data current as of March 2023; data are provisional and subject to change.

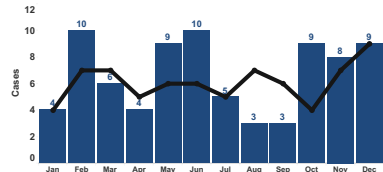
Case counts of tuberculosis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

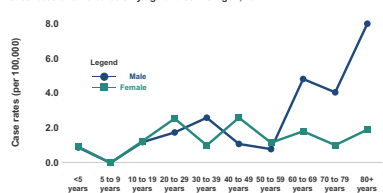


Case counts of tuberculosis by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

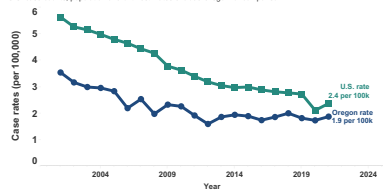


Case rates of tuberculosis by age and sex: Oregon, 2021.



Case rates of tuberculosis in Oregon vs nationwide, 2001 to 2021.

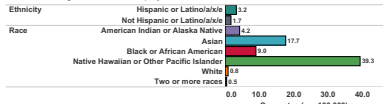
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year. Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: ODHHS, Portland State University's annual population estimates, Oregon's vital statistics birth data. FoodNet data sources: Foodborne Disease Active Surveillance Network, Census Bureau's Annual Population Estimates as of July 1st of each year.

Case rates of tuberculosis by reported race and ethnicity: Oregon, 2012 to 2021.

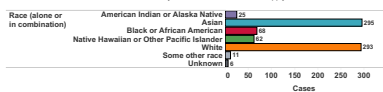
Race and Ethnicity are groupings determined by the Office of Management and Budget. Due to low case counts, the average case rate over multiple years of data is shown.



†Note: Rates based on small case counts (<5 cases) might be unstable.

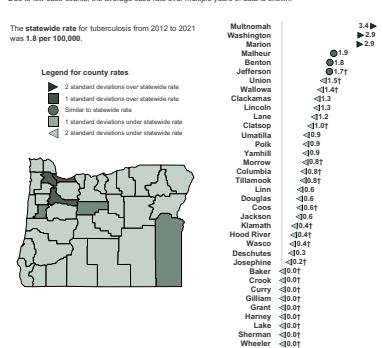
Case counts of tuberculosis by reported race and ethnicity: Oregon, 2012 to 2021.

Race alone or in combination means cases may be counted in all races that apply.



Case rates of tuberculosis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



†Note: Rates based on small case counts (<5 cases) might be unstable.

Tularemia

Tularemia, also known as rabbit or deer-fly fever, is considered a “category A” agent of potential bioterrorism. It is caused by *Francisella tularensis*, a hardy organism found in rodents, rabbits and squirrels; in ticks, deer flies and mosquitoes; and in contaminated soil, water and animal carcasses. The organism is remarkably infective; as few as 10–50 organisms can cause disease.

Tularemia occurs throughout the United States, though it is most commonly reported from Arkansas, Missouri, Oklahoma, and other Great Plains states. People get 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. *Francisella tularensis* is highly infectious when grown in culture and can be a risk to microbiology laboratory workers. For potentially exposed workers, management options include a “fever watch” or antimicrobial prophylaxis.

Disease onset is usually sudden, and includes fever, malaise, myalgia, headache, chills, rigors and sore throat. Tularemia has six clinical forms, depending on the bacterium’s portal of entry. Ulceroglandular tularemia is the most common form of the disease, accounting for 75%–85% of naturally occurring cases.

Other clinical forms include pneumonic (pulmonary symptoms); typhoidal (gastrointestinal symptoms and sepsis); glandular (regional adenopathy without a skin lesion); oculoglandular (painful, purulent conjunctivitis with adenopathy); and oropharyngeal (pharyngitis with adenopathy).

Oregon had two cases in 2021.

Prevention

- Use precautions when hiking, hunting, camping or working outdoors:
 - Use insect repellents containing 20%–30% DEET, picaridin or IR3535.
 - Wear long pants, long sleeves and long socks to keep ticks and deer flies off your skin.
 - Remove attached ticks promptly with fine-tipped tweezers.
 - Don’t drink untreated surface water.
 - Don’t run over sick or dead animals (or *any* animals for that matter) with a lawn mower.
- If you hunt, trap or skin animals:
 - Use gloves when handling animals, especially rabbits, muskrats, prairie dogs and other rodents.
 - Cook game meat thoroughly before eating.
- Laboratory workers should use precautions when working with suspect cultures:
 - Procedures that manipulate cultures and might produce aerosols or droplets should be done under biosafety level 3 conditions.

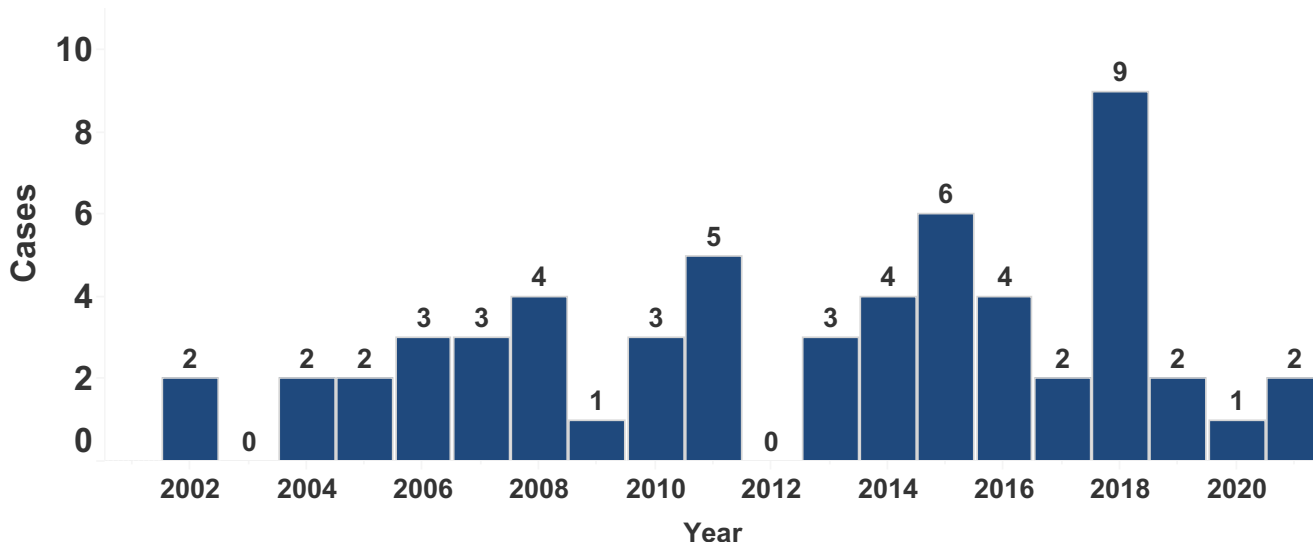


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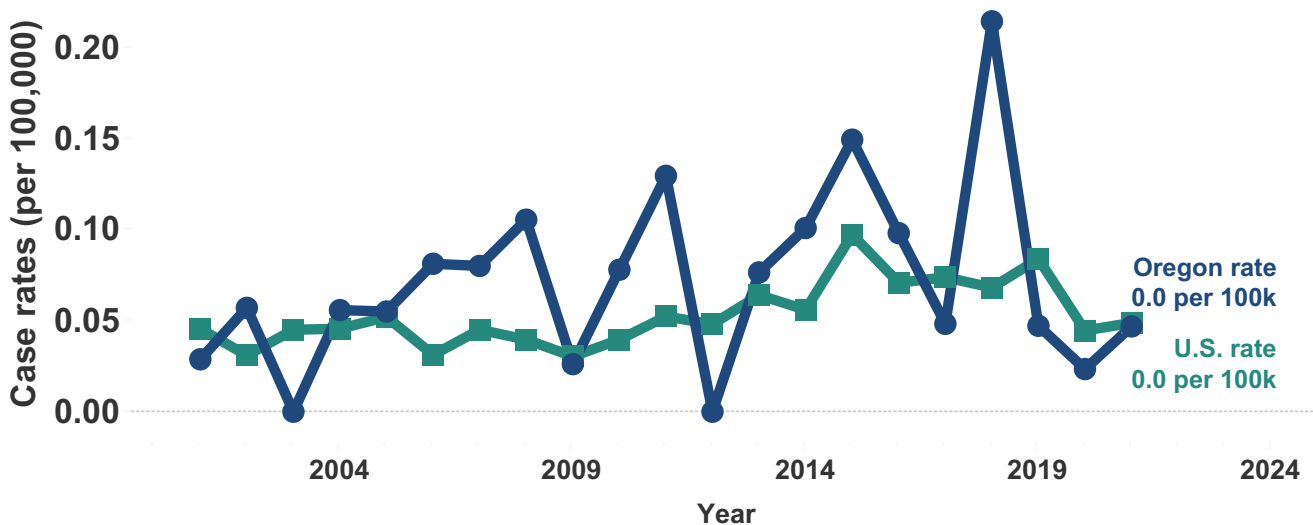
Case counts of tularemia by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



Case rates of tularemia in Oregon vs nationwide, 2001 to 2021.

U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. **Oregon data sources:** Orpheus, Portland State University's annual population estimates, Oregon's vital statistics birth data. **FoodNet data sources:** Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

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.

Prevention

- Avoid eating raw oysters or other raw shellfish.
- 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 from the FDA on selecting and serving fresh and frozen seafood safely  and on safe food handling. 



Vibriosis



Four foodborne outbreaks occurred in Oregon in 2021. All were associated with consumption of raw oysters. Unlike other enteric pathogens such as *Salmonella* or Shiga toxin-producing *E.coli*, molecular typing is less likely to identify outbreaks, as the *Vibrio* species found in the Pacific Northwest are genetically similar. Case interviews and exposure histories are more helpful in identifying clusters of illness.

In 2021, Oregon counted 45 cases of vibriosis. Males outnumbered females (27 to 18). One third of these cases were initially detected from a polymerase chain reaction (PCR) test. Not all of the increase in cases can be attributed to changes in culture independent diagnostic testing, however, as 36 of the 45 cases in 2021 were culture confirmed.

The number of non-typed cases reported in 2021 (9) was similar to recent years. The rest of the cases were *V. parahaemolyticus* (31), non-O1/O39 *V. cholerae* (2), *V. fluvialis*(2), and *V. alginolyticus* (1).



Prevention

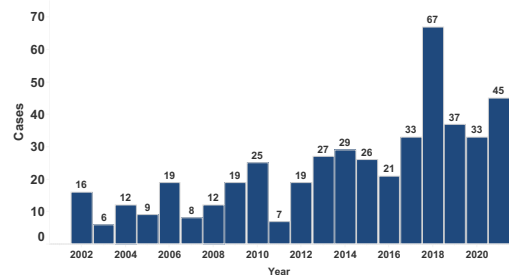
- Avoid eating raw oysters or other raw shellfish.
- Cook shellfish (oysters, clams, mussels) to an internal temperature of 145°F. If you don't have a food thermometer, shucked shellfish (clams, mussels and oysters without shells) become plump and opaque when cooked thoroughly, and the edges of the oysters 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 from the FDA on selecting and serving fresh and frozen seafood safely  and on safe food handling. 

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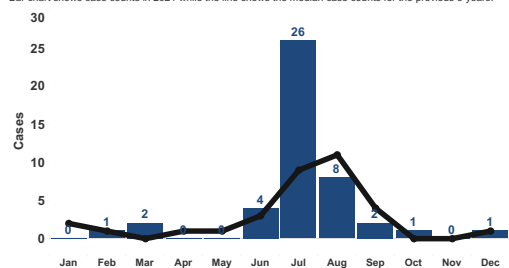
Case counts of vibriosis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.

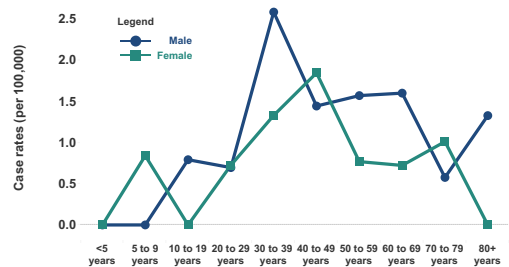


Case counts of vibriosis by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.

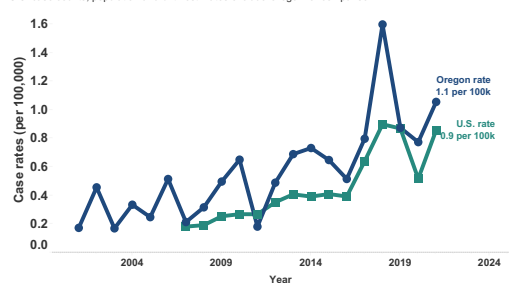


Case rates of vibriosis by age and sex: Oregon, 2021.



Case rates of vibriosis in Oregon vs nationwide, 2001 to 2021.

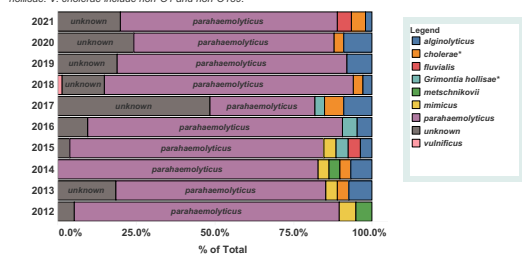
U.S. case counts, population and birth estimates exclude Oregon for comparison.



U.S. data sources: Nationally Notifiable Infectious Diseases and Conditions, CDC Wonder (annual, weekly); Census Bureau's Annual Population Estimates as of July 1st of each year; Births: Final Data for 2021 from National Vital Statistics Reports. Oregon data sources: ODHHS, Portland State University's annual population estimates, Oregon's vital statistics birth data, FoodNet data sources: Foodborne Diseases Active Surveillance Network, Census Bureau's Annual Population estimates as of July 1st of each year.

Vibriosis cases by species: Oregon, 2012 to 2021.

Click on a species to compare between years. **Grimontia hollisae* is formerly *V. hollisae*. *V. cholerae* include non-O1 and non-O139.



West Nile virus

West Nile virus (WNV) first appeared in the United States on Long Island in 1999 and then moved westward across the country. In Oregon, the first indigenous case was reported in 2004. West Nile virus is a mosquito-borne *Flavivirus* that affects both animals and humans. Corvid birds (crows, ravens, jays, magpies) are the reservoir; humans and other animals are considered “dead-end” hosts — i.e., they may be infected and develop symptoms, but they do not transmit the infection further. Of human beings infected, only approximately one in five will have any symptoms at all — typically flu-like symptoms such as fever, headache and muscle aches. However, approximately one in 150 infected persons will have symptoms of central nervous system infection that may include neck stiffness, stupor, disorientation, tremors, convulsions, muscle weakness, paralysis and coma.

The risk of getting West Nile virus in Oregon has been low. Though most cases were in those aged 20–50 years, those >50 years of age have the highest risk of developing serious illness.

Incidence is highest in the summer months.

In 2021, five presumptive human cases of West Nile virus occurred in Oregon. In addition, 75 mosquito pools and 8 horses and 2 birds tested positive for WNV infection.

Prevention

- Avoid mosquito bites:
 - Use insect repellents when you go outdoors. Repellents containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane-3,8-diol products provide longer-lasting protection. To optimize safety and effectiveness, repellents should be used according to the label instructions.
 - When weather permits, wear long sleeves, long pants and socks when outdoors.
 - Take extra care during peak mosquito-biting hours.
 - Mosquito-proof your home:
 - Install or repair screens on windows and doors to keep mosquitoes outside. Use your air conditioning, if you have it.
 - Reduce the number of mosquitoes around your home by regularly emptying standing water from flowerpots, gutters, buckets, pool covers, pet water dishes, discarded tires and birdbaths.
 - Report dead birds to local authorities.

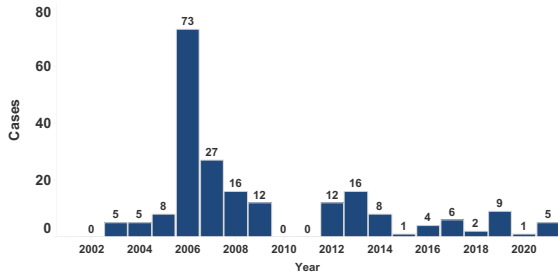


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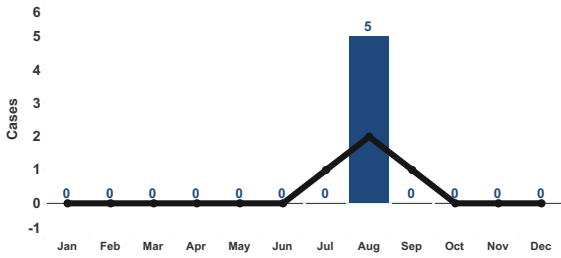
Case counts of West Nile virus by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



Case counts of West Nile virus by month: Oregon, 2021.

Bar chart shows case counts in 2021 while the line shows the median case counts for the previous 5 years.



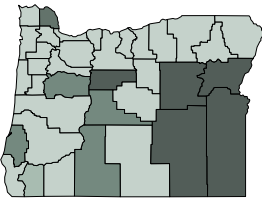
Case rates of West Nile virus by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for West Nile virus from 2012 to 2021 was 0.2 per 100,000.

Legend for county rates

- ▶ 2 standard deviations over statewide rate
- 1 standard deviations over statewide rate
- Similar to statewide rate
- 1 standard deviations under statewide rate
- ▶ 2 standard deviations under statewide rate

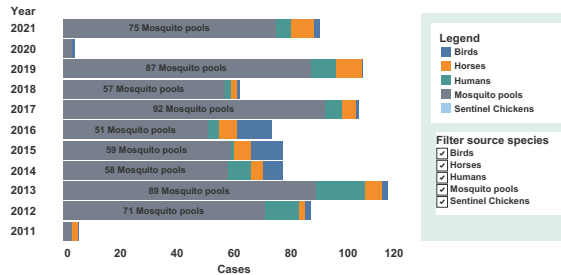


Malheur	10.4
Harney	8.2
Baker	1.4†
Grant	4.2
Jefferson	0.4†
Columbia	0.2†
Deschutes	0.2†
Linn	0.2†
Cook	0.2†
Klamath	0.1†
Josephine	0.1†
Benton	<0.1†
Lane	<0.1†
Clackamas	<0.0†
Jackson	<0.0†
Multnomah	<0.0†
Clatsop	<0.0†
Crook	<0.0†
Curry	<0.0†
Douglas	<0.0†
Gilliam	<0.0†
Hood River	<0.0†
Lake	<0.0†
Lincoln	<0.0†
Marion	<0.0†
Morrow	<0.0†
Polk	<0.0†
Sherman	<0.0†
Tillamook	<0.0†
Umatilla	<0.0†
Union	<0.0†
Wallowa	<0.0†
Wasco	<0.0†
Washington	<0.0†
Wheeler	<0.0†
Yamhill	<0.0†

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

Confirmed cases of West Nile Virus infection by species and year: Oregon, 2011 to 2021.



Source: Oregon State University Veterinary Laboratory and Oregon State Public Health Laboratory.

Yersiniosis



Yersiniosis is a bacterial infection characterized by diarrhea (sometimes bloody), vomiting and abdominal pain. The main reservoir for *Yersinia* is the pig.

Transmission occurs by the fecal-oral route through contaminated food and water, or through contact with infected people or animals. Infection is most often caused by eating raw or undercooked pork contaminated with *Yersinia enterocolitica*. Preventive measures include cooking food thoroughly, avoiding cross-contamination with raw foods of animal origin and washing hands after handling food.

The annual number of yersiniosis cases in Oregon increased notably in 2013 and has remained high in recent years. The increase in cases spans all age and sex categories. The most common species is *Y. enterocolitica*. In 2021, there were 57 cases among Oregon residents. All cases were sporadic; no outbreaks were reported. Of the 32 cases with known species, the majority were *Yersinia enterocolitica* (24); other identified species were *Y. intermedia* (3), *Y. pseudotuberculosis* (3), and *Y. kristensenii* (2). The species is unknown for the remaining 25 cases due to the diagnosis of patients solely through culture-independent diagnostic testing (CIDT).

Infection with *Yersinia pestis*, also known as “plague,” is counted separately from other cases of yersiniosis.

Prevention

- Avoid eating raw or undercooked pork.
- Consume only pasteurized milk or milk products.
- Wash hands with soap and warm water before eating and preparing food, after contact with animals and after handling raw meat.
- After handling raw chitterlings (chitlins), clean hands and fingernails scrupulously with soap and water before touching infants or their toys, bottles or pacifiers.
- Prevent cross-contamination in the kitchen; use separate cutting boards for meat and other foods. Carefully clean all cutting boards, countertops and utensils with soap and hot water after preparing raw meat.
- Dispose of animal feces in a sanitary manner.

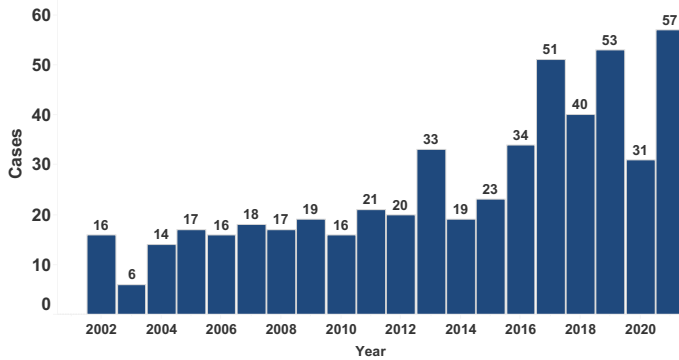


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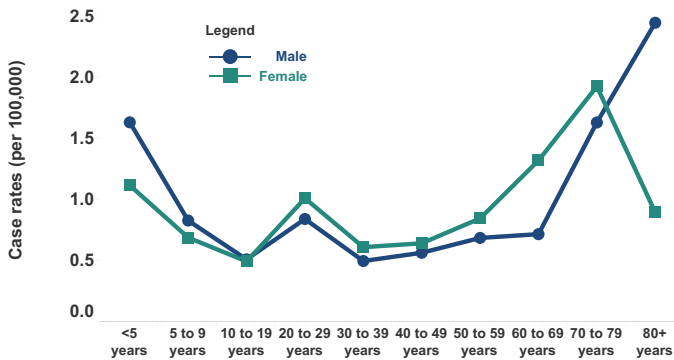
Case counts of yersiniosis by year: Oregon, 2002 to 2021.

Cases are grouped by date of record throughout this report. Other reports may use alternative dates like report date, diagnosis date, or specimen collection dates.



Case rates of yersiniosis by age and sex: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.



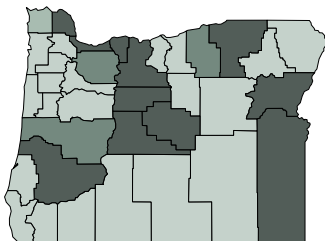
Case rates of yersiniosis by county of residence: Oregon, 2012 to 2021.

Due to low case counts, the average case rate over multiple years of data is shown.

The statewide rate for yersiniosis from 2012 to 2021 was 0.9 per 100,000.

Legend for county rates

- ▲ 2 standard deviations over statewide rate
- 1 standard deviations over statewide rate
- Similar to statewide rate
- 1 standard deviations under statewide rate
- ▼ 2 standard deviations under statewide rate



Crook	2.3▶
Hood River	2.0▶
Deschutes	1.8▶
Jefferson	1.7†
Multnomah	1.4▶
Douglas	1.4▶
Malheur	1.3†
Baker	1.2†
Columbia	1.2▶
Wasco	1.1†
Umatilla	1.0▶
Clackamas	0.9●
Lane	0.9●
Morrow	0.8†
Clatsop	0.8†
Coos	<0.6†
Lincoln	<0.6†
Marion	<0.6
Josephine	<0.6
Benton	<0.5
Washington	<0.5
Curry	<0.4†
Jackson	<0.4
Linn	<0.4
Yamhill	<0.4†
Union	<0.4†
Klamath	<0.3†
Polk	<0.2†
Gilliam	<0.0†
Grant	<0.0†
Harney	<0.0†
Lake	<0.0†
Sherman	<0.0†
Tillamook	<0.0†
Wallowa	<0.0†
Wheeler	<0.0†

County Rates (per 100,000)

†Note: Rates based on small case counts (<5 cases) might be unstable.

Disease Outbreaks



Oregon state and local health departments investigated 121 acute and communicable disease outbreaks in 2021. Up from 106 investigated in 2020. This number does not include the myriad outbreaks of COVID-19 investigated across Oregon in 2021. Outbreaks in 2021 were the result of multiple modes of disease transmission: twenty outbreaks were foodborne, 86 were due to person-to-person transmission, 10 were due to animal contact, primarily back yard poultry and two waterborne *Legionella* outbreaks occurred, and one tick-related investigation.

Outbreaks of gastroenteritis were the most common, accounting for 78% (94) of all reported outbreaks in 2021. Foods contaminated with a variety of *Salmonella*, *Campylobacter* and shiga toxin-producing *Escherichia coli* made folks ill at a variety of venues. Almost every outbreak reinforces the tried-and-true public health mantras of "wash your hands" and "cover your cough."

Unlike previous years, respiratory outbreaks accounted for far fewer of the total reported. There were 19 respiratory outbreaks, accounting for 16% of the total, the most commonly reported type of pathogen was respiratory syncytial virus, accounting for 58% (11) of respiratory outbreaks investigated in 2021. Unlike previous years, no outbreaks of influenza were reported.

Fifty-eight (48%) outbreaks investigated in 2021 were lab-confirmed. This is lower relative to recent years, likely due to limited outbreak investigation resources during the COVID-19 pandemic. Forty percent (37) of gastroenteritis outbreaks had disease-causing agents identified, the most common being caliciviruses (norovirus and sapovirus), and disease-causing agents were identified in 79% (15) of respiratory outbreaks.

As of May 1, 2019 the Oregon State Public Health Laboratory (OSPHL) discontinued testing for norovirus in long-term care facilities experiencing outbreaks of noro-like illness. OSPHL can test for sapovirus, astrovirus and rotavirus when stool specimens are norovirus-negative.



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Outbreaks in Oregon, 2021

<i>Astrovirus</i>	2	<i>Respiratory syncytial virus infection</i>	11
<i>Borrelia hermsii</i>	1	<i>Rhinovirus</i>	1
<i>Campylobacter jejuni</i>	2	<i>Salmonella Ealing</i>	1
<i>Candida auris</i>	1	<i>Salmonella Enteritidis</i>	3
<i>Coxsackievirus</i>	3	<i>Salmonella Hadar</i>	1
<i>Cyclospora</i>	1	<i>Salmonella I 4,[5],12:i:-</i>	1
<i>E. coli (EPEC), norovirus GII</i>	1	<i>Salmonella Indiana</i>	1
<i>E. coli (STEC) O26</i>	1	<i>Salmonella Infantis</i>	2
<i>E. coli (STEC) O121</i>	1	<i>Salmonella Muenchen</i>	1
<i>E. coli (STEC) O157</i>	1	<i>Salmonella Newport</i>	1
<i>E. coli (STEC) O157:H7</i>	2	<i>Salmonella Oranienburg</i>	1
<i>Haemophilus influenzae</i>	1	<i>Salmonella Poona</i>	1
<i>Hepatitis A</i>	1	<i>Salmonella Typhimurium</i>	1
<i>Klebsiella pneumoniae</i>	1	<i>Salmonella Uganda</i>	1
<i>Legionella pneumophila</i>	2	<i>Scabies</i>	1
<i>Norovirus</i>	11	<i>Vibrio parahaemolyticus</i>	4
<i>Norovirus GI</i>	1	<i>Unknown</i>	43
<i>Norovirus GII</i>	1		
<i>Norovirus unknown</i>	12		

Gastrointestinal (GI) Outbreaks

Of the 94 gastroenteritis outbreaks investigated in 2021, person-to-person transmission was responsible for 65 outbreaks, 19 outbreaks were foodborne and ten were due to animal contact, mostly backyard poultry exposure. Six poultry associated *Salmonella* outbreaks were reported. The CDC is focusing efforts on the poultry industry and reduction of *Salmonella* among hatcheries. Forty-eight person-to-person outbreaks occurred in institutional cohorts, especially among those in long-term care facilities (LTCFs). Thirteen exposures occurred in school or childcare.

A variety of pathogens were implicated in the 20 foodborne outbreaks investigated in 2021. Unpasteurized (raw) milk was responsible for two outbreaks, raw oysters for four, a single case in a multi-state outbreak of *Salmonella* was from beef. An outbreak of *E. coli* O157 in the Pacific Northwest was associated with consumption of leafy greens. One national outbreak of *E. coli* O121 had a suspected food vehicle of flour or baking mix; Oregon had a single case. Two cases of hepatitis A were determined to be foodborne. Nine foodborne outbreaks remained unsolved as no specific food vehicle could be identified by investigators despite an investigation into the source.

In 2013, the case definition of a norovirus outbreak was modified to be more in line with national standards. Some outbreaks previously classified as indeterminate were reclassified as suspect norovirus. The new classification includes outbreaks where classic norovirus symptoms were observed, but a positive specimen was not documented.



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Gastrointestinal outbreaks by disease: Oregon, 2011 to 2021.

	Year									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Astrovirus	0	0	0	0	1	3	0	1	0	
Campylobacter	1	2	0	6	0	0	2	1	0	
Clostridium difficile	0	0	0	0	2	0	1	0	0	
Cryptosporidium	1	0	2	2	0	3	0	0	1	
Cyclospora	0	0	0	0	0	0	0	0	0	
E. coli (STEC)	7	7	4	6	4	2	4	7	5	
E. coli other	0	0	0	0	0	0	0	0	1	
Giardia	0	1	1	0	0	0	1	0	0	
Hepatitis A	0	0	0	0	0	1	1	0	0	
Listeria	0	0	0	0	1	0	0	0	2	
Norovirus	Confirmed	64	101	102	81	79	73	88	67	45
	Suspect	13	28	36	54	25	39	49	32	51
Rotavirus	0	0	0	0	4	3	7	2	2	
Salmonella	11	10	16	10	13	11	13	14	14	
Sapovirus	1	4	2	3	2	6	4	5	1	
Scombroid poisoning	0	0	0	0	0	2	0	0	1	
Shigella	1	2	3	1	2	0	1	3	4	
Vibrio	0	0	4	1	0	1	0	2	1	
Yersinia	0	0	1	0	1	0	0	0	0	
Unknown	29	35	44	46	38	52	40	42	58	
Grand Total	128	190	215	210	172	196	211	176	186	

Oregon's 2021 Selected Reportable Communicable Disease Summary

Data current as of March 2023; data are provisional and subject to change.



Cases by Year	Cases by County	Low Incidence
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Selected communicable disease case counts by year: Oregon 1999 and onward

	1999	2000	2001	2002	2003	2004	2005	2006
<i>Campylobacteriosis</i>	599	568	599	575	597	660	651	652
<i>Carbapenem-resistant Enterobacterales (CRE)</i>								
<i>Chlamydia</i>	0	0	7,500	7,191	7,496	8,689	9,020	9,565
<i>Coccidioidomycosis</i>								
<i>Cryptococcosis</i>								
<i>Acute hepatitis A</i>	249	165	109	61	62	66	46	46
<i>Acute hepatitis B</i>	125	124	167	127	118	119	105	80
<i>Acute hepatitis C</i>	26	18	15	13	15	15	20	27
<i>Chronic hepatitis B</i>	493	482	566	502	443	518	445	447
<i>Chronic hepatitis C</i>							2,659	6,208
<i>Congenital syphilis</i>	0	0	0	0	0	0	0	0
<i>Cryptosporidiosis</i>	35	23	60	41	37	32	69	85
<i>Dengue fever</i>	0	1	2	0	0	1	7	2
<i>Escherichia coli O157 and other shiga toxin-producing Escherichia coli (STEC) infections</i>	68	136	97	209	105	70	158	107
<i>Extrapulmonary nontuberculous mycobacterial disease (NTM)</i>								
<i>Giardiasis</i>	794	672	536	432	407	445	418	426
<i>Gonorrhea</i>	0	0	1,145	930	980	1,302	1,561	1,460
<i>Haemophilus influenzae infection</i>	53	33	43	63	44	54	58	56
<i>HIV</i>	0	0	269	279	296	292	285	283
<i>Legionellosis</i>	1	1	4	9	17	8	15	22
<i>Listeriosis</i>	17	6	12	9	5	7	11	13
<i>Lyme disease</i>								

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Oregon's 2021 Selected Reportable Communicable Disease Summary

Data current as of March 2023; data are provisional and subject to change.



Cases by Year	Cases by County	Low Incidence
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Selected Oregon communicable disease case counts by county of residence, 2021

	Baker	Benton	Clackamas	Clatsop	Columbia
<i>Campylobacteriosis</i>	35	213	932	86	
<i>Carbapenem-resistant Enterobacterales (CRE)</i>	2	16	119	15	
<i>Chlamydia</i>	440	4,050	11,666	1,212	1
<i>Coccidioidomycosis</i>	1	2	20	2	
<i>Cryptococcosis</i>	0	11	59	6	
<i>Cryptosporidiosis</i>	114	95	245	24	
<i>Escherichia coli O157 and other shiga toxin-producing Escherichia coli (STEC) infections</i>	15	61	221	10	
<i>Giardiasis</i>	2	73	273	45	
<i>Gonorrhea</i>	63	508	2,735	152	
<i>Haemophilus influenzae infection</i>	2	9	72	10	
<i>Acute hepatitis A</i>	2	3	33	3	
<i>Acute hepatitis B</i>	0	3	14	4	
<i>Chronic hepatitis B</i>	6	68	351	16	
<i>Acute hepatitis C</i>	1	6	23	0	
<i>Chronic hepatitis C</i>	304	555	3,573	705	
<i>HIV</i>	3	25	153	12	
<i>Legionellosis</i>	1	1	60	4	
<i>Listeriosis</i>	1	0	23	2	
<i>Lyme disease</i>	2	24	56	2	

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Oregon's 2021 Selected Reportable Communicable Disease Summary

Data current as of March 2023; data are provisional and subject to change.



Cases by Year	Cases by County	Low Incidence
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Selected low incidence disease case counts by year: Oregon 2012 to 2021.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<i>Babesiosis</i>	0	0	1	5	2	5	2	2	4	3
<i>Borrelia miyamotoi</i>	0	0	0	0	0	0	1	0	0	0
<i>Botulism</i>	6	4	1	3	3	4	5	1	2	3
<i>Brucellosis</i>	0	2	1	0	1	3	4	0	0	1
<i>Colorado tick fever</i>	1	0	1	0	1	0	5	4	1	2
<i>Cyclosporiasis</i>	1	0	1	0	1	2	2	5	0	14
<i>Dengue</i>	4	4	6	5	8	7	11	12	7	1
<i>Ehrlichiosis</i>	0	0	0	1	3	1	0	0	0	0
<i>Hantavirus</i>	2	1	1	0	1	1	1	0	2	0
<i>Leishmaniasis</i>	0	1	0	0	0	1	2	3	0	0
<i>Leptospirosis</i>	0	0	2	0	2	2	6	2	2	2
<i>Malaria</i>	12	14	19	20	20	13	17	6	5	11
<i>Mosquito (Non WNV)</i>	0	0	0	0	1	0	0	0	0	0
<i>Plague</i>	2	0	0	2	0	0	0	0	0	0
<i>Q fever</i>	4	3	9	2	4	8	8	5	0	4
<i>Rickettsia</i>	1	2	2	5	7	5	4	3	0	2
<i>Rubella</i>	0	1	0	0	0	0	0	0	0	0
<i>Taeniasis</i>	5	2	3	4	3	2	3	3	4	1
<i>Tetanus</i>	0	1	0	1	0	2	1	0	0	0
<i>Tick paralysis</i>	0	0	0	0	0	1	0	0	0	1
<i>Tularemia</i>	0	3	4	6	4	2	9	2	1	2
<i>West Nile virus</i>	12	16	8	1	4	6	2	9	1	5
<i>Zika</i>	0	0	3	0	54	8	2	1	0	0

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