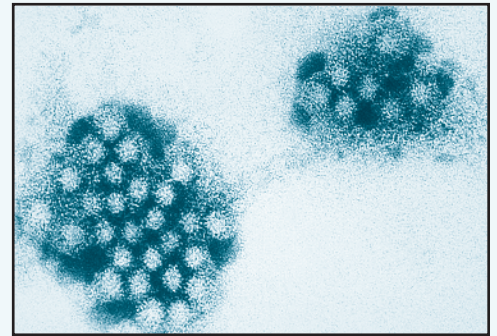
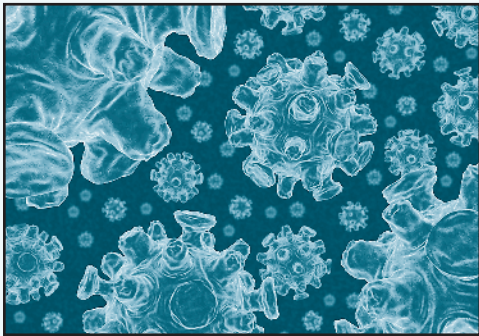


Selected Reportable Communicable Disease Summary 2006 State of Oregon



**2006 State of Oregon
Selected Reportable
Communicable Disease Summary**

**Oregon Public Health Division
Office of Disease Prevention and Epidemiology
Acute and Communicable Disease Program
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*If you need this publication in an alternate format,
please call the Acute and Communicable Disease Program
at 971-673-1111.*

January 2008

About surveillance data

Oregon law specifies diseases of public health importance that must be reported to local public health authorities by diagnostic laboratories and health care professionals.¹ In general, for reported communicable diseases there follows an investigation by local public health officials 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 forwarded to the Oregon Public Health Division. 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”; data from 2006 and trends from recent years are summarized in this report.

But caveat lector! Disease surveillance 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 may 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 only about 3 percent of the true number.²

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 they are to test stool from adults with bloody diarrhea. Health care professionals may be more inclined to report contagious diseases like tuberculosis — where the public health importance of doing so is obvious — than they are to report non-contagious diseases like Lyme disease.

1 Oregon Administrative Rules, chapter 333, division 18. Available at <http://oregon.gov/DHS/ph/acd/oars/div18.shtml#018-0015>.

2 Chalker RB, Blaser MJ. A review of human salmonellosis: III. Magnitude of *Salmonella* infection in the United States. *Rev Infect Dis* 1988; 10:111-24.

Outbreaks of disease or media coverage about a particular disease can greatly increase testing and reporting rates.

In 2006, population estimates for rate calculations were obtained from the Center for Population Research at Portland State University (www.pdx.edu/prc). Using rates instead of case counts allows for comparisons between populations of different sizes — e.g., U.S. versus Oregon. Rates are usually reported as cases per 100,000 persons per year. However, if the population in which the rate is calculated is very small (e.g., in “frontier” counties in Oregon), 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 showing rates by county give an average over five years of data or report case counts per county. Even with this aggregation, for some conditions, the number of cases remains small. In addition, the rates presented are not adjusted for age due to the small number of cases in each age group.

Also keep in mind that 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.

Even with these limitations, surveillance data are valuable in a variety of ways. They help to identify demographic groups at higher risk of illness. They allow analysis of disease trends and identify outbreaks of disease.

With this in mind, we present this communicable disease summary. For most of the diseases, we include figures showing case counts by year for the past 10 years; aggregate case counts by month to demonstrate any seasonal trends; incidence by age and sex; incidence in Oregon as compared to national incidence over the past 10 years; and incidence by county. Where appropriate, subtyping data are included. At the end of the booklet you will find a brief tally of disease outbreaks reported in the past year, disease totals by county, and a summary table of statewide case counts over the past 20 years.

We hope that, with all their limitations, you will find these data useful. If you have additional questions, please call our epidemiology staff at 971-673-1111 or e-mail ohd.acdp@state.or.us.



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Manager, Acute and Communicable Disease Prevention

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AIDS and HIV infection

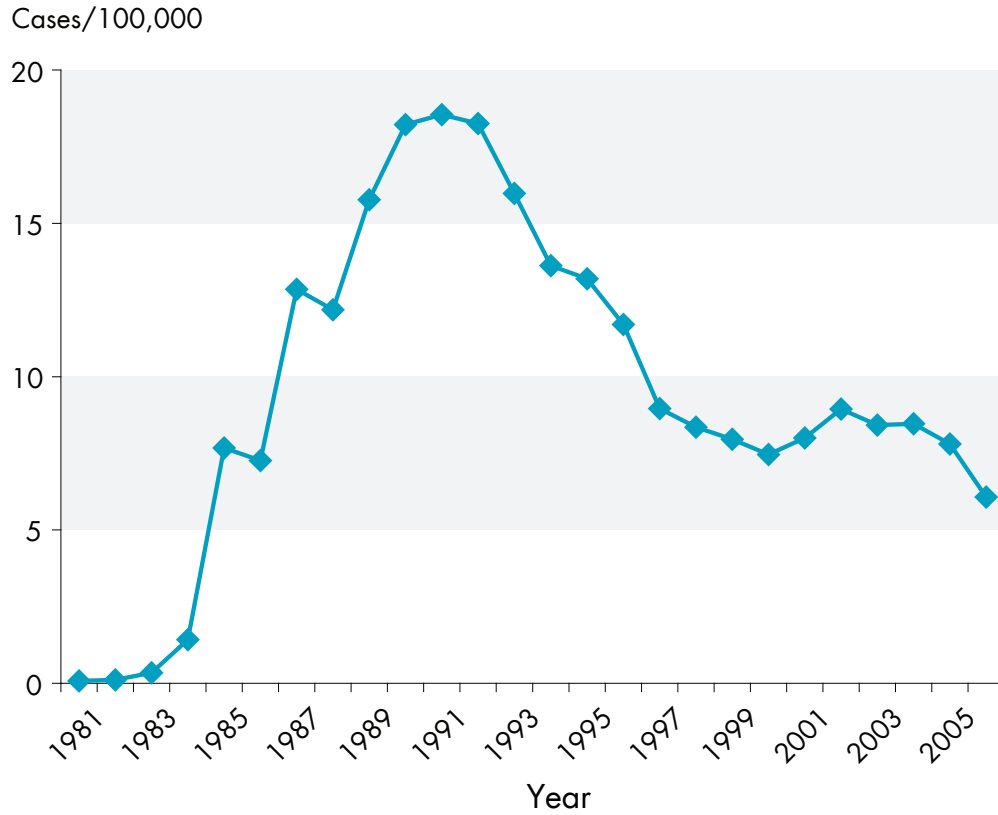
Human immunodeficiency virus (HIV) is spread by having sex, sharing injection drug equipment, or receiving a transfusion or transplant from an infected person. It can be spread from mother to fetus or infant at the time of delivery or by breastfeeding. Rarely, it is also spread by inadvertent exposure to bodily fluids of an infected person such as a contaminated needle stick in a health care worker. The acquired immunodeficiency syndrome (AIDS) represents the late stage of HIV infection, indicated by either low CD4 (immune system) lymphocyte counts or by an opportunistic infection indicative of poor immune system functioning. Although there is no cure for HIV infection, treatment can prolong and enhance the quality of life.

HIV infection can be prevented by abstaining from sex outside of a monogamous relationship with an uninfected partner and by not injecting recreational drugs. Those who are sexually active outside of a mutually monogamous relationship or who inject drugs can protect themselves by using a condom when engaging in sexual activity and by not sharing injection drug equipment. Pregnant women who are infected with HIV can minimize transmission of infection to their fetus by taking medication during pregnancy and by refraining from breastfeeding. Caesarean section may also prevent transmission when the mother's infection is not well controlled.

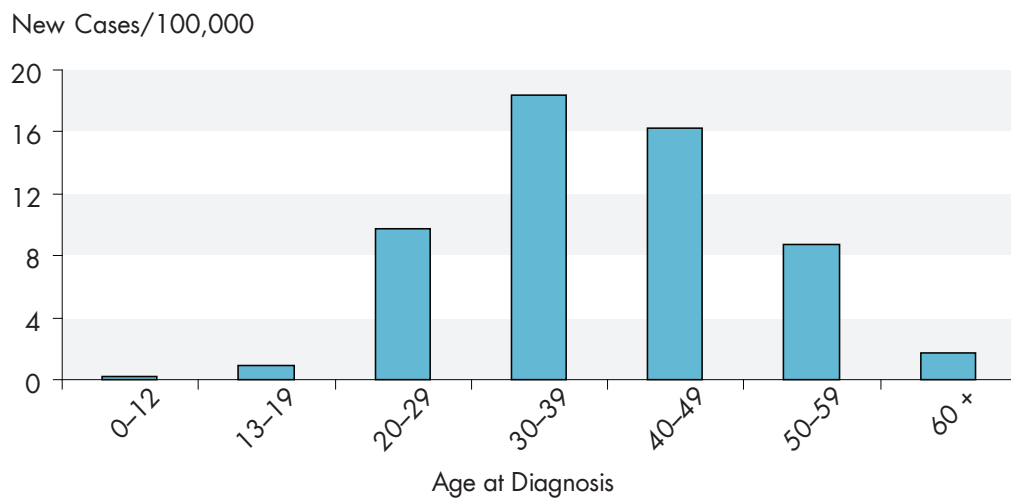
From 1981 through 2006, 6,040 persons were diagnosed with AIDS in Oregon; 3,168 of whom died. Men accounted for 92% of cases. Most AIDS cases were white (5,123, 85%) with 326 (5%) African Americans, 449 (7%) Hispanics, 53 (1%) Asians, and 67 (1%) Native Americans reported. The majority of HIV occurred among white males, though rates (per 100,000 population) were highest among African American males. Of the 7,940 HIV infection cases diagnosed in Oregon between 1981 and 2006, 50 were cumulative pediatric cases.

In 2006, 270 cases of HIV/AIDS were diagnosed, 44% of which had AIDS as their first diagnosis or had progressed from HIV to AIDS within 12 months. HIV infection (as opposed to AIDS) became reportable in Oregon October 1, 2001.

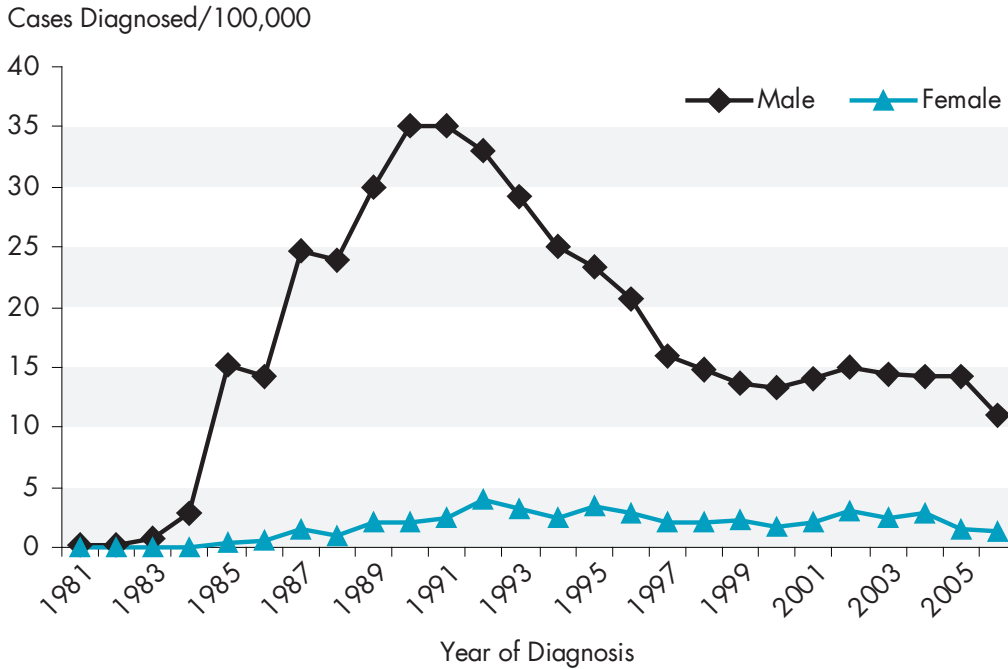
Incidence of HIV or AIDS by year of diagnosis - Oregon, 1981–2006



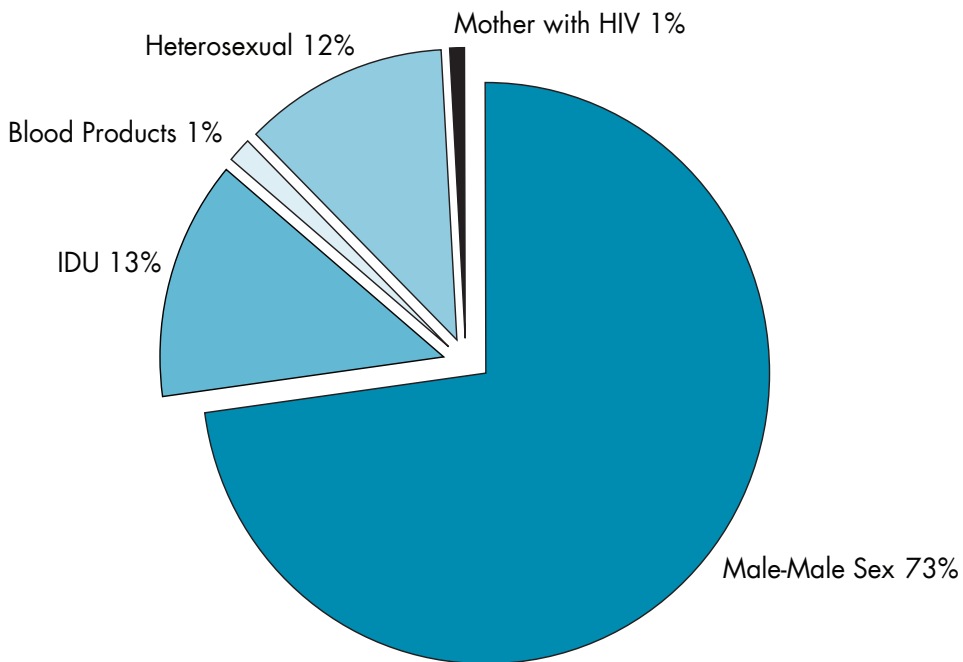
Incidence of HIV or AIDS by age at first diagnosis - Oregon, 2002–2006



New HIV or AIDS incidence by year and sex at first diagnosis - Oregon, 1981–2006

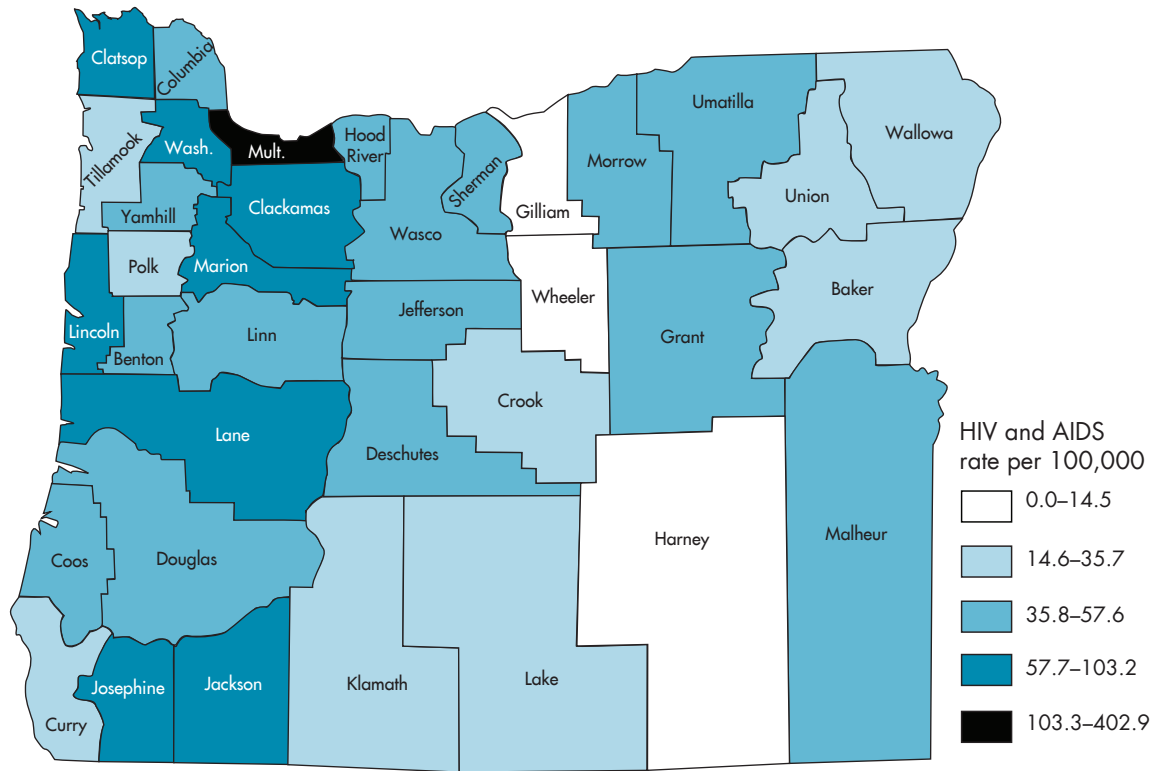


Factors in HIV disease diagnosis - Oregon, 2002–2006



IDU: Injection drug use

Persons living with HIV or AIDS by county of residence - Oregon, 2006



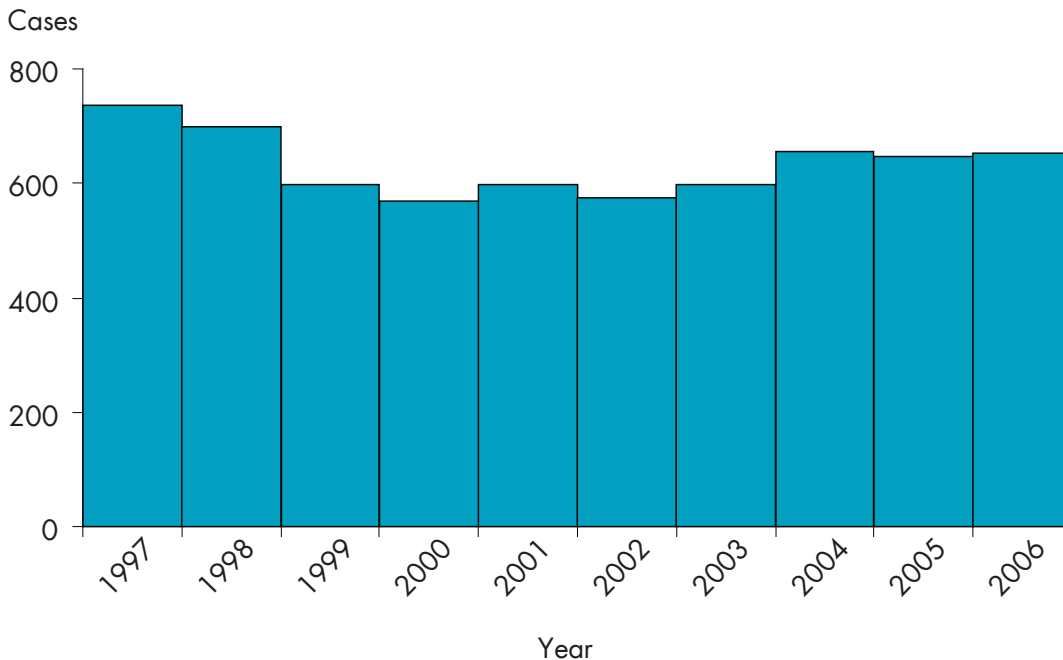
Campylobacteriosis

Campylobacteriosis is caused by a Gram-negative bacterium. Characterized by acute onset of diarrhea, vomiting, abdominal pain, fever and malaise; it is the most common bacterial enteric infection reported. It is of worldwide epidemiologic importance due to the fecal-oral route of infection and the extensive reservoir of the organism in both wild and domestic animals.

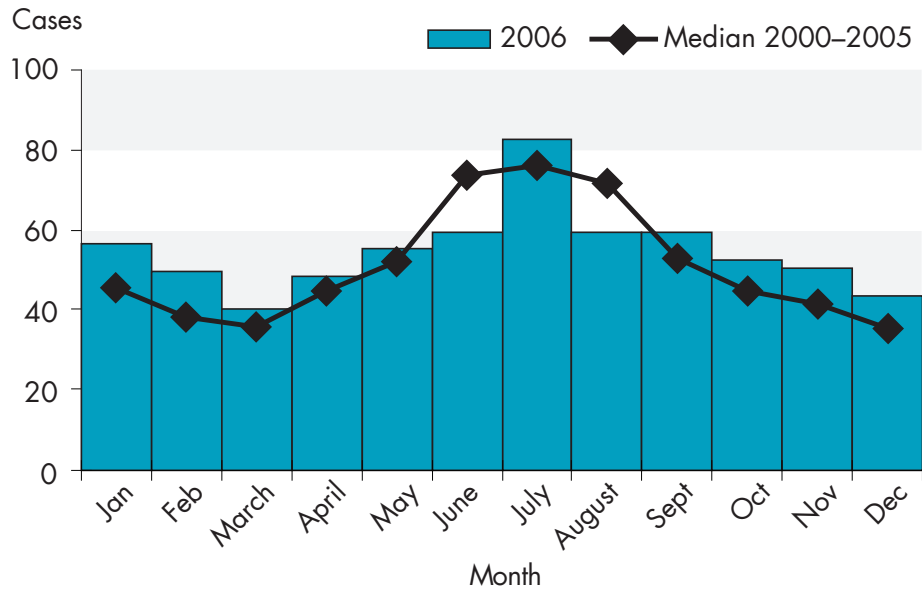
Most illnesses are sporadic, but outbreaks may be associated with undercooked meat (often chicken), unpasteurized milk, and direct contact with animals or non-chlorinated water. Infections occur year-round in Oregon, with peak incidence in the summer months. Proper food handling and water treatment, along with good hygienic practices (hand washing!) are keys to prevention.

Since 1997, eight outbreaks of campylobacteriosis have been investigated: three foodborne, two waterborne, two from animal contact, and one of unknown etiology. In 2006, an outbreak occurred at a luncheon; 12 persons were affected.

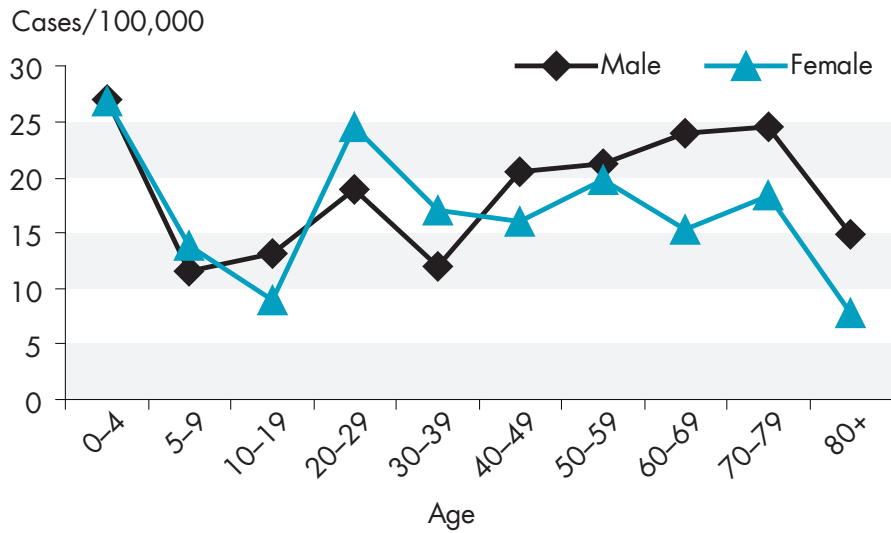
Campylobacteriosis by year - Oregon, 1997–2006



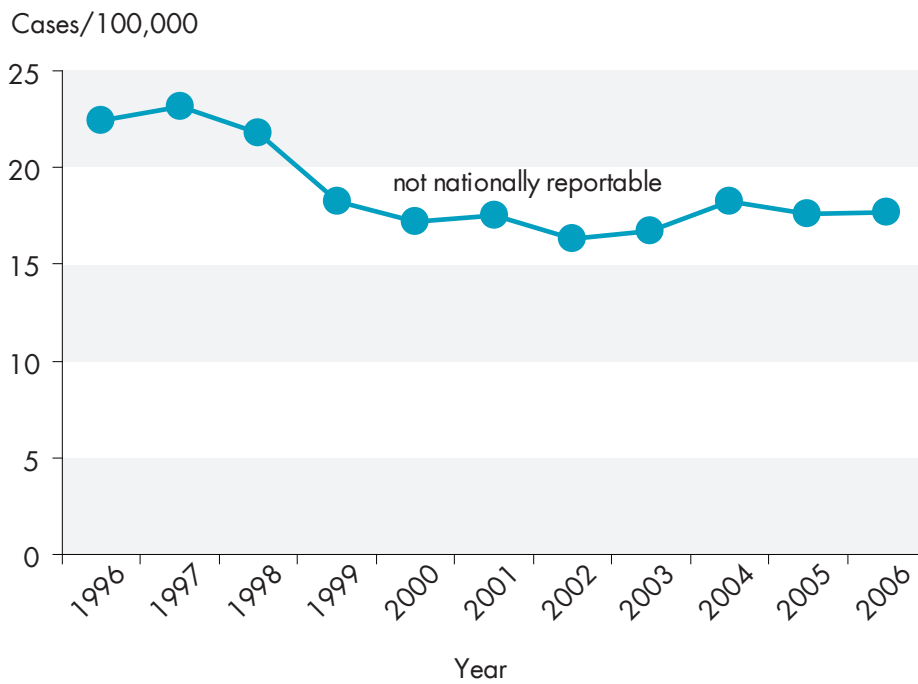
Campylobacteriosis by report month - Oregon, 2006



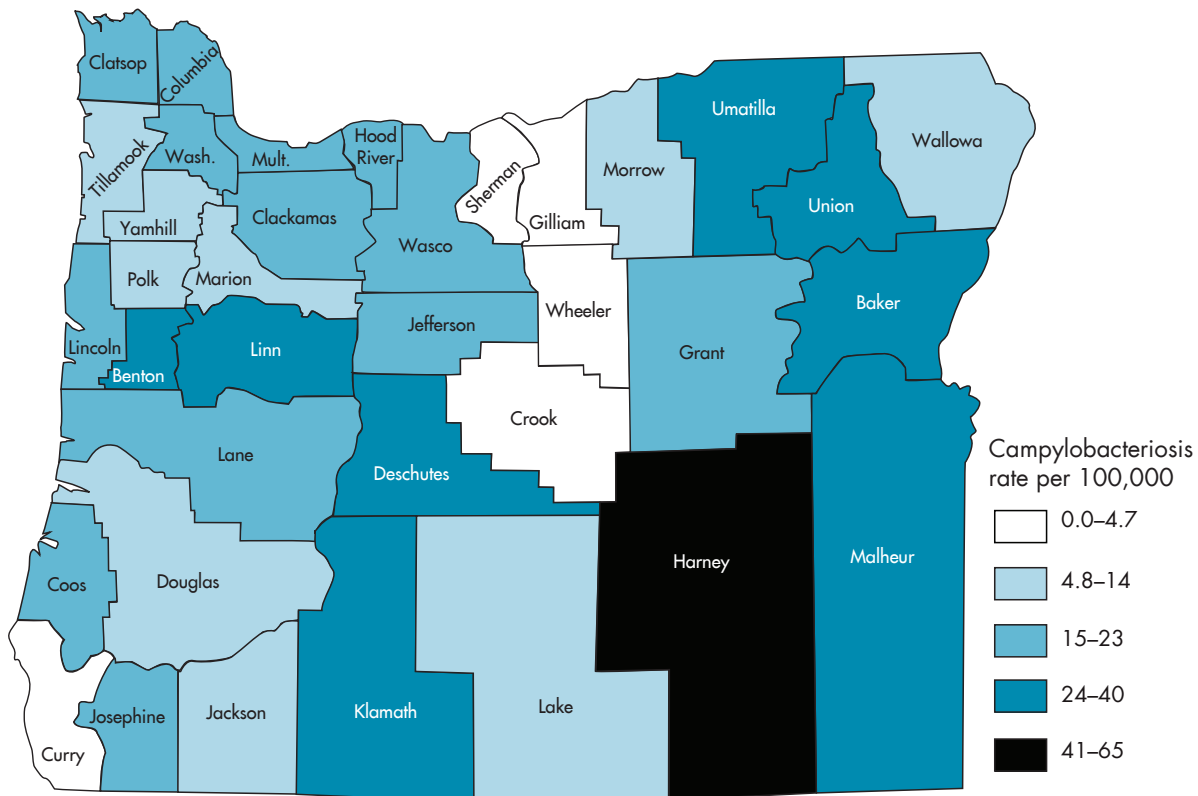
Incidence of campylobacteriosis by age and sex - Oregon, 2006



Incidence of campylobacteriosis Oregon vs. nationwide - Oregon, 1997–2006



Incidence of campylobacteriosis by county of residence - Oregon, 2006

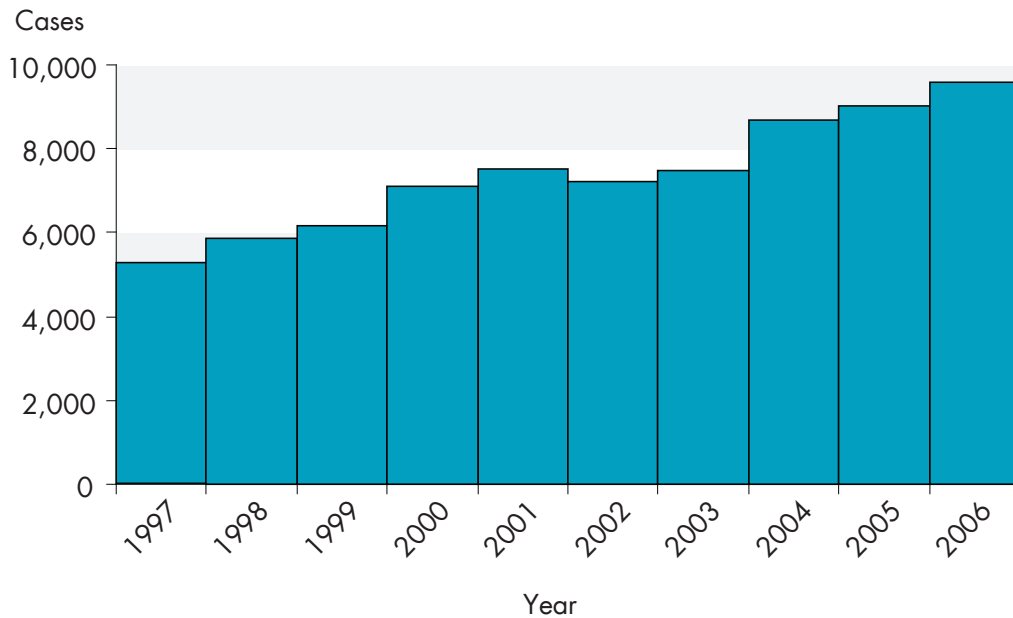


Chlamydia

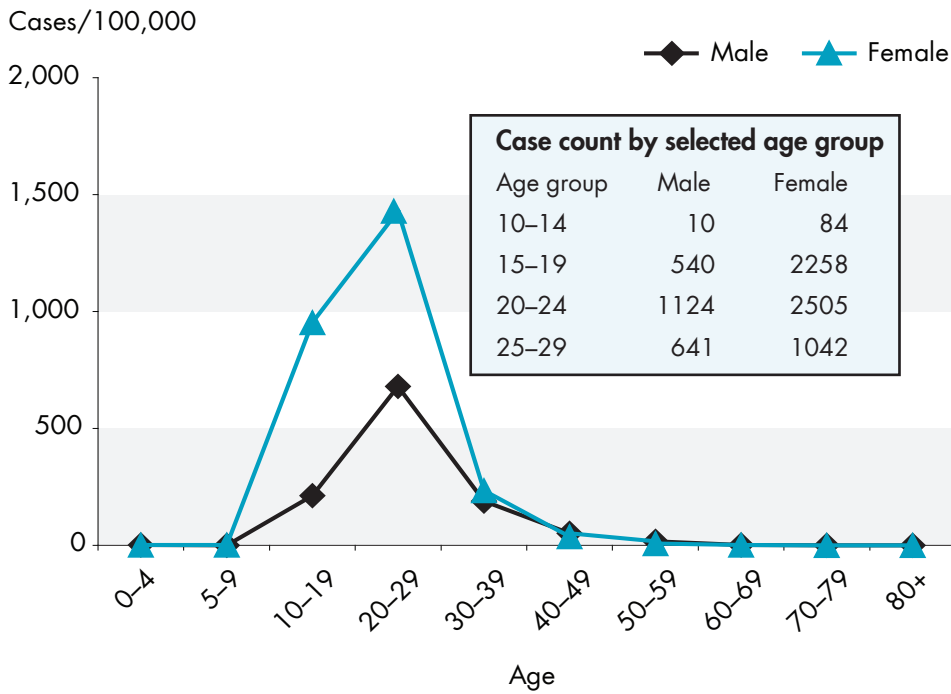
Chlamydia trachomatis is Oregon's most commonly reported pathogen. In 2006, there were 9,578 cases reported, an increase of 6.2% from 2005. The highest rates of infection occur among women in the 15–24 year age group. As with gonorrhea and syphilis, chlamydial infections are transmitted by vaginal, rectal and oral sexual contact. Chlamydia may be prevented by abstaining from sexual contact or only having sex with one uninfected sex partner. Those who are sexually active outside of a mutually monogamous relationship can lower their risks of infection by using a condom when engaging in sexual activity.

Chlamydial infections are likely to be silent, with neither men nor women having symptoms. However, reproductive health complications, especially among women, may lead to infertility and an increased risk of tubal pregnancy.

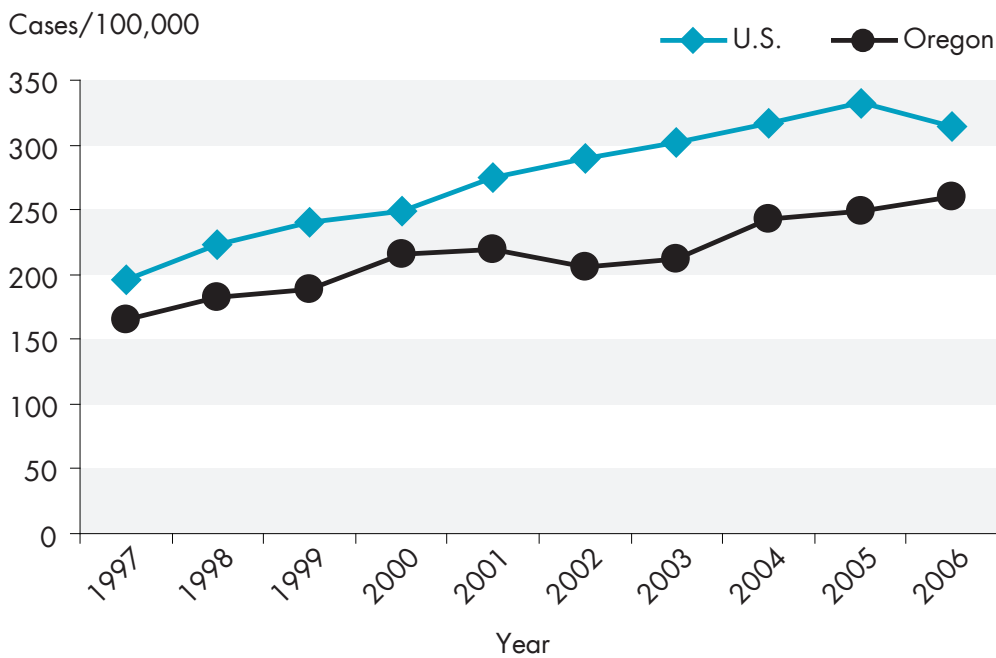
Chlamydia by year - Oregon, 1997–2006



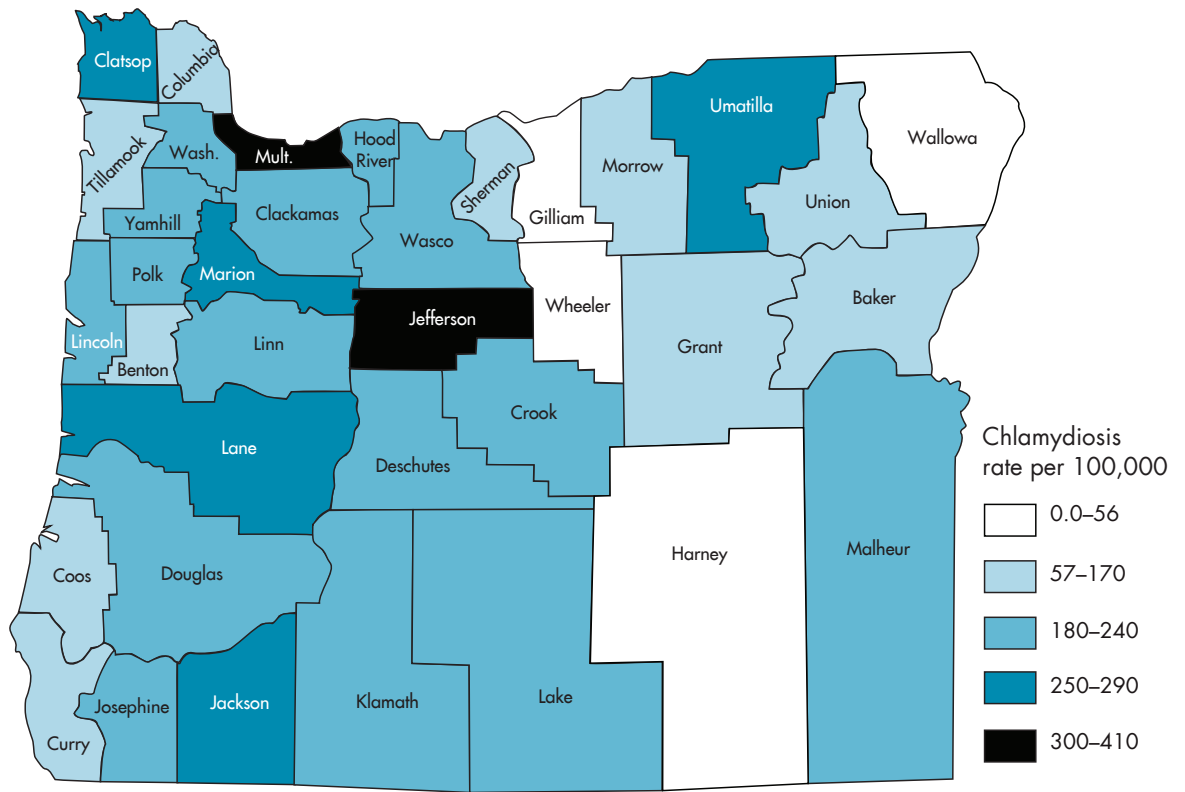
Incidence of chlamydia by age and sex - Oregon, 2006



Incidence of chlamydia - Oregon vs. nationwide, 1997-2006



Incidence of chlamydia by county of residence - Oregon, 2006

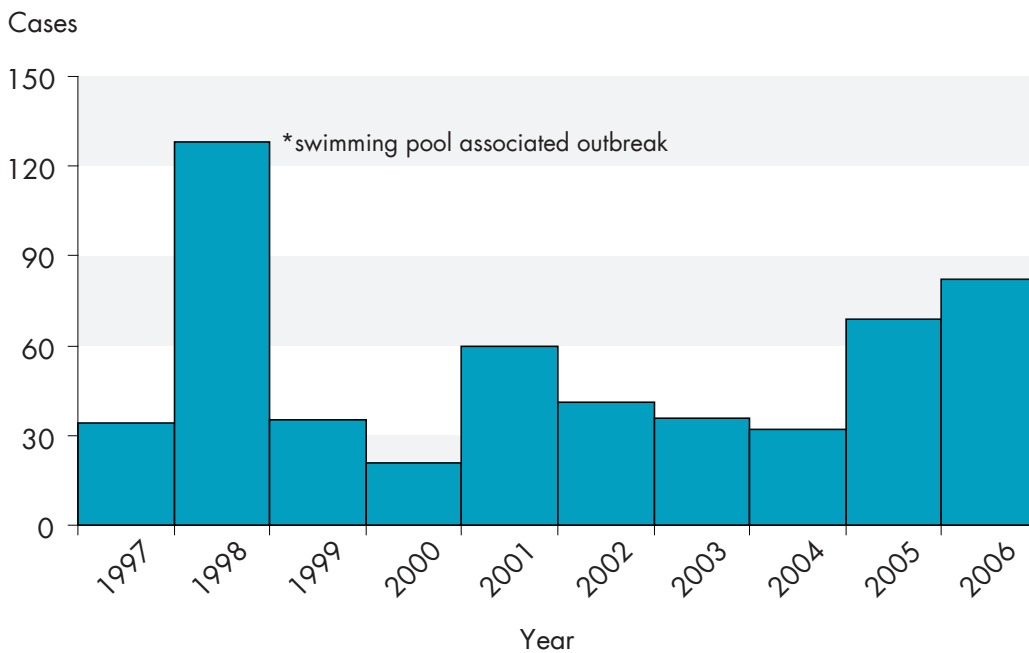


Cryptosporidiosis

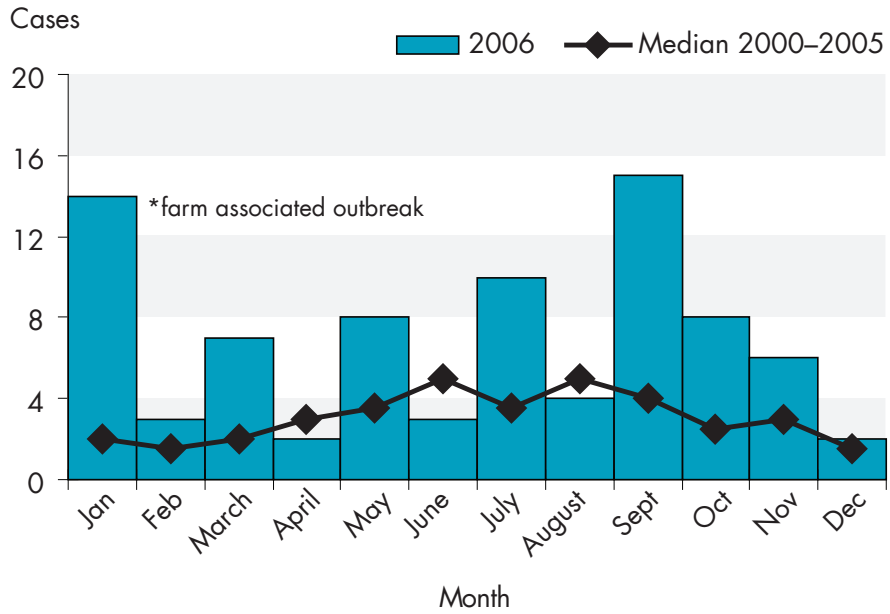
Cryptosporidiosis in humans results from infection with protozoal parasites in the genus *Cryptosporidium* — most commonly *C. hominis* or *C. parvum*. Symptomatic infections are characterized by watery diarrhea and abdominal cramps. Symptoms typically resolve in one–four weeks in immunocompetent persons. Infections can be difficult to control among the immunocompromised. Studies suggest that the prevalence of cryptosporidiosis among young children, particular those in large child care facilities, is surprisingly high. Many of these infections are asymptomatic.

Given the number of asymptomatic and undiagnosed infections, surveillance data can be difficult to interpret. However, these data have been used to identify a number of outbreaks over the years, most commonly associated with child care or water (both drinking and recreational). In 2006, a small outbreak (nine cases) was identified among members of a farm family who were caring for sick calves.

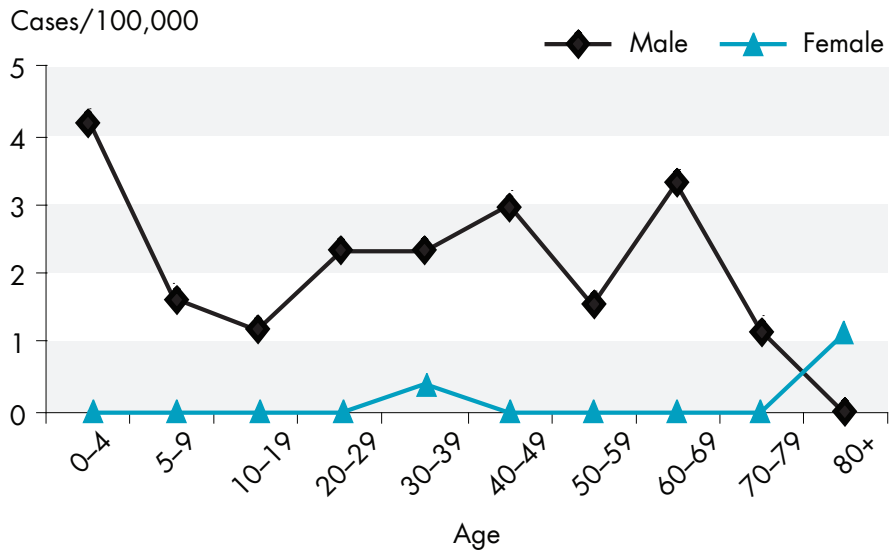
Cryptosporidiosis by year - Oregon, 1997–2006



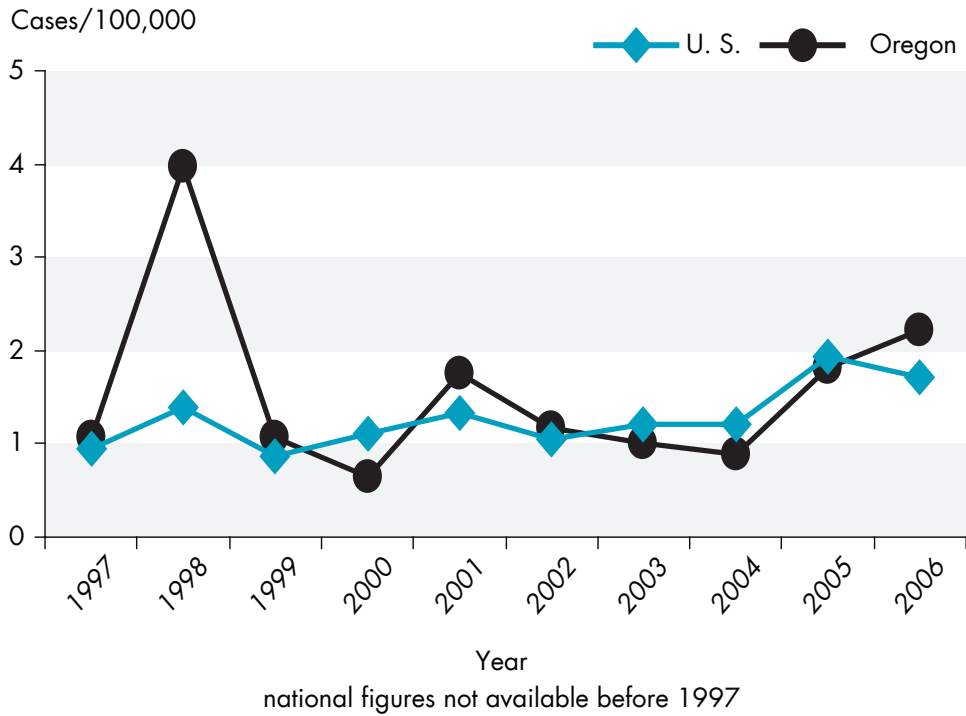
Cryptosporidiosis by onset month - Oregon, 2006



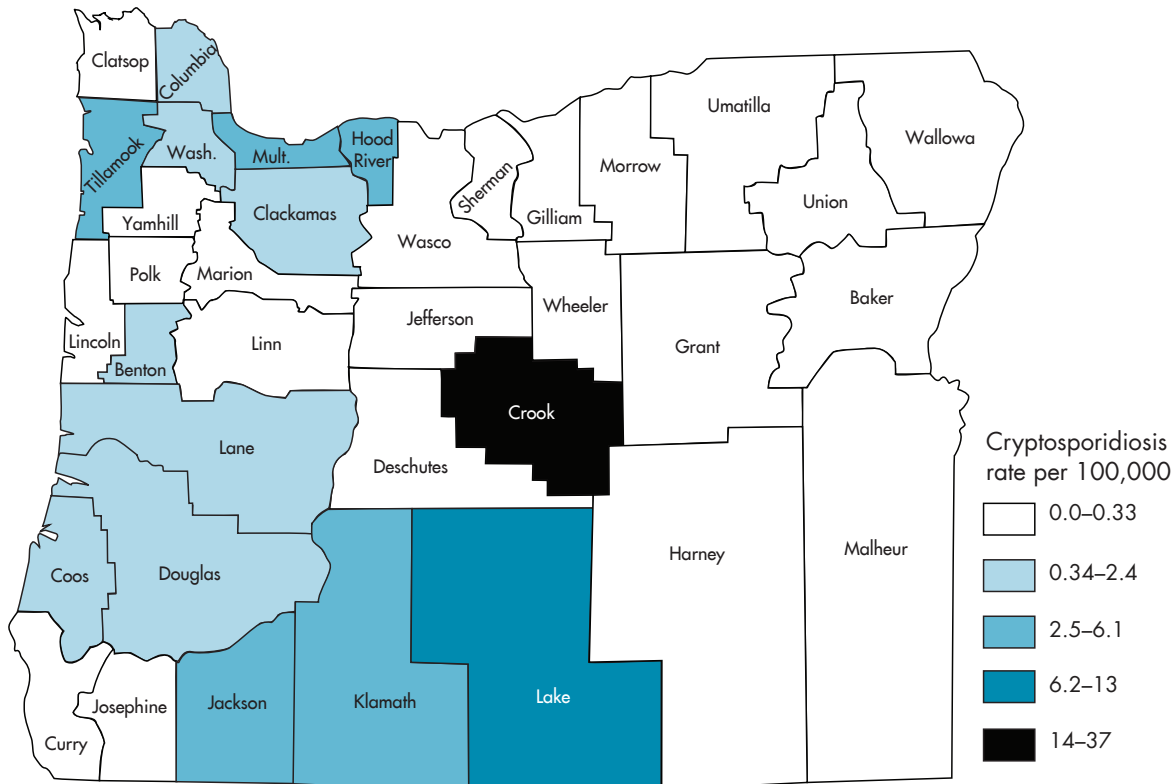
Incidence of cryptosporidiosis by age and sex - Oregon, 2006



Incidence of cryptosporidiosis - Oregon vs. nationwide, 1997–2006



Incidence of cryptosporidiosis by county of residence - Oregon, 2006



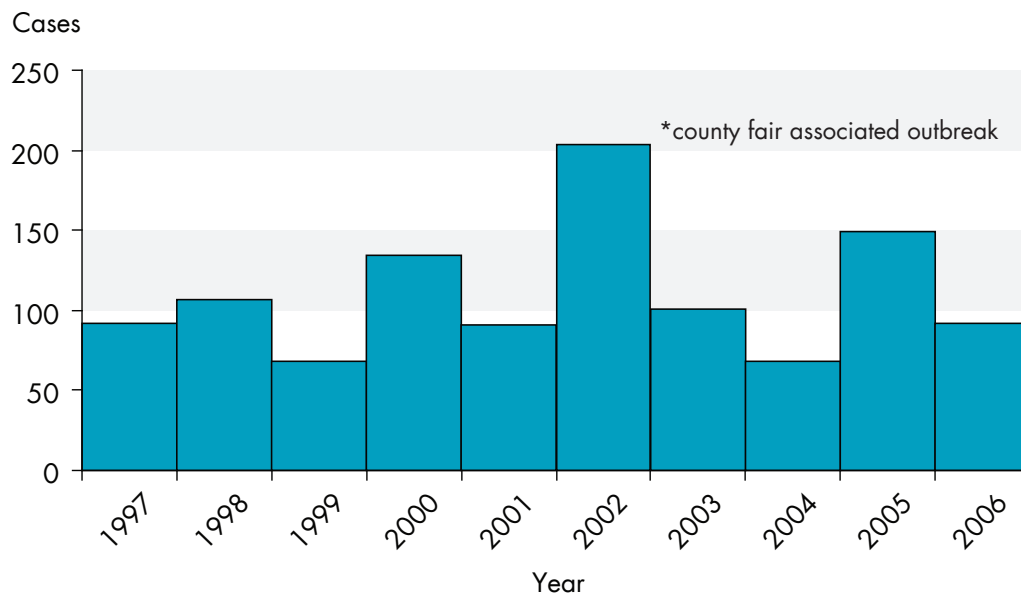
Escherichia coli O157 infection

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

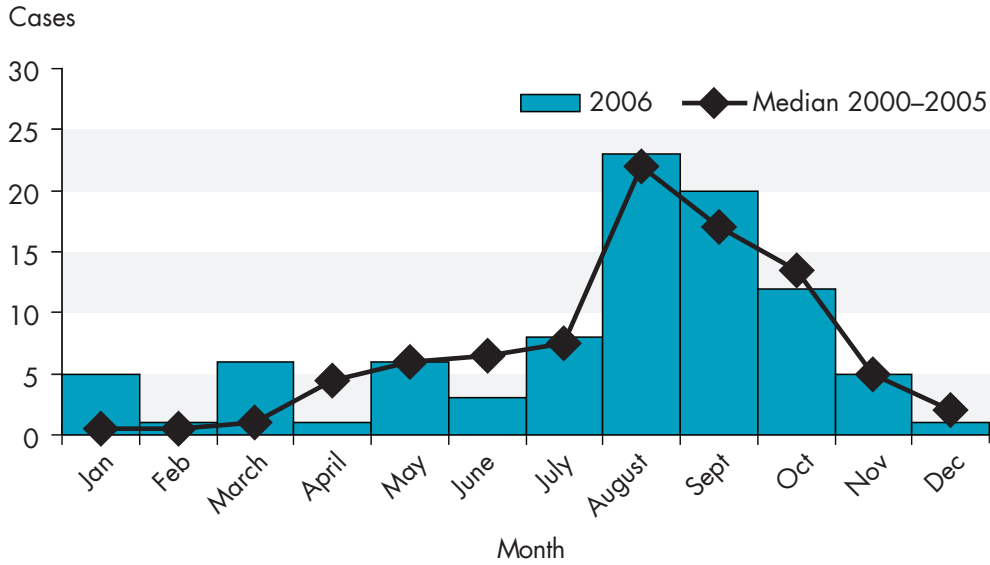
After a spike in 2005 of 149 cases, the yearly total fell back to a more typical 92 reports for 2006 — a phenomenon known as “regression to the mean.” nationwide, however, reported case counts drifted upwards for the second year in a row.

We identified five O157 outbreaks in 2006. These included a small cluster at a Portland sushi restaurant — specific source uncertain, but possibly daikon radish sprouts; a small cluster associated with visiting a county fairgrounds; another restaurant outbreak traced to salad; and a three-person blip affecting adult women in the Portland area that proved impossible to figure out. And oh, yes, there was a good-sized national outbreak (five Oregon cases) involving spinach. Summer sees more outbreaks of *E. coli* than other seasons.

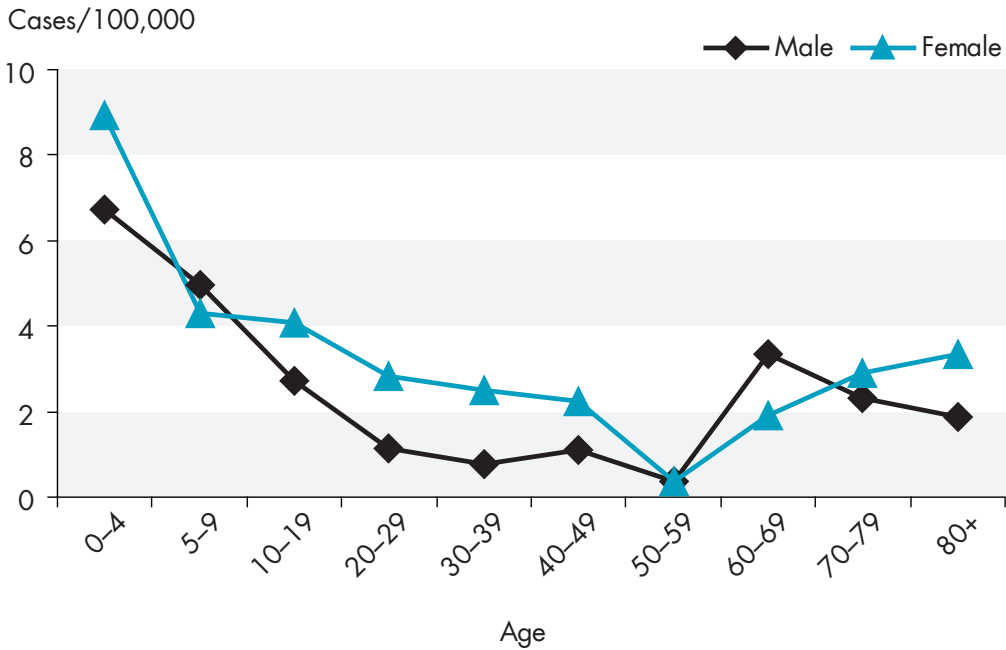
E. coli O157 infection by year - Oregon, 1997–2006



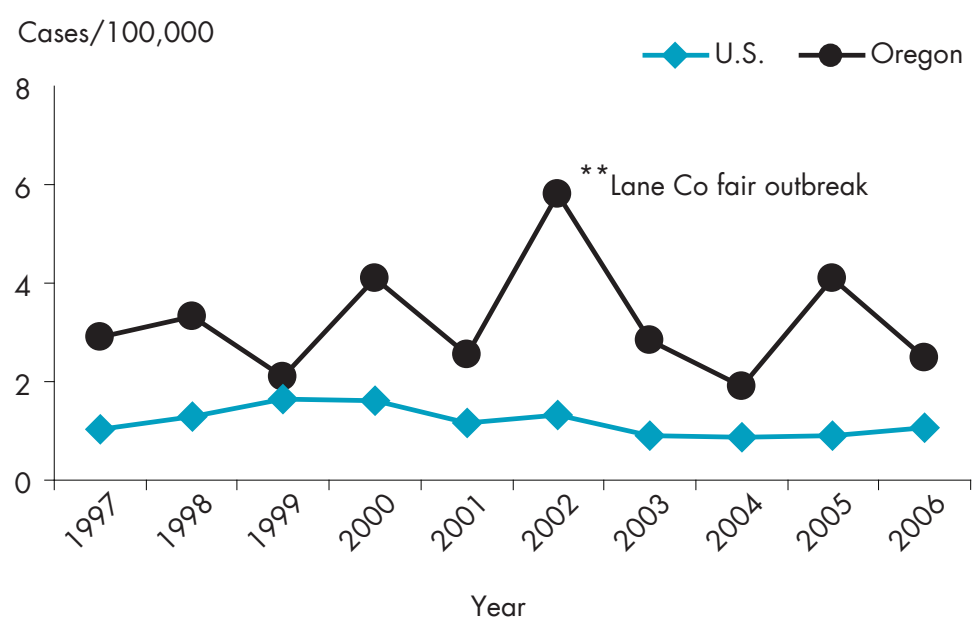
E. coli O157 infection by onset month - Oregon, 2006



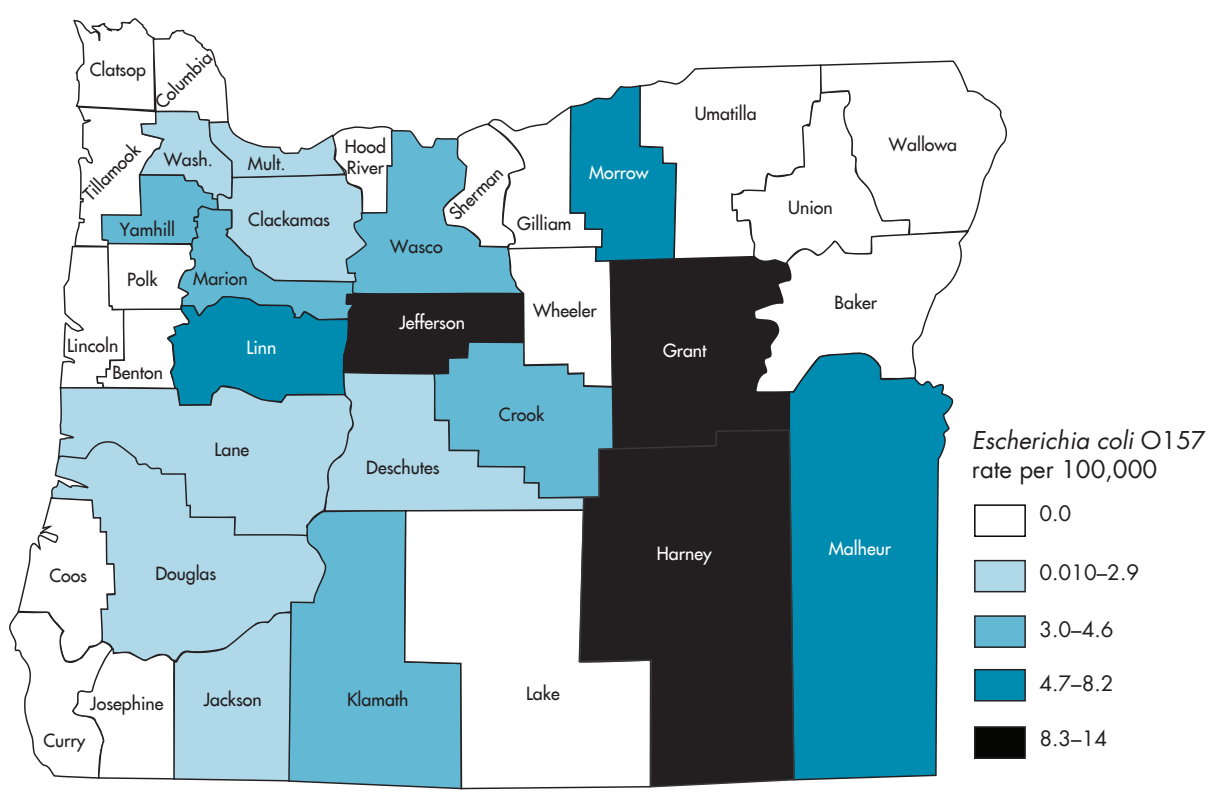
Incidence of *E. coli* O157 infection by age and sex - Oregon, 2006



Incidence of *E. coli* O157 infection - Oregon vs. nationwide, 1997–2006



Incidence of *E. coli* O157 infection by county of residence - Oregon, 2006



Giardiasis

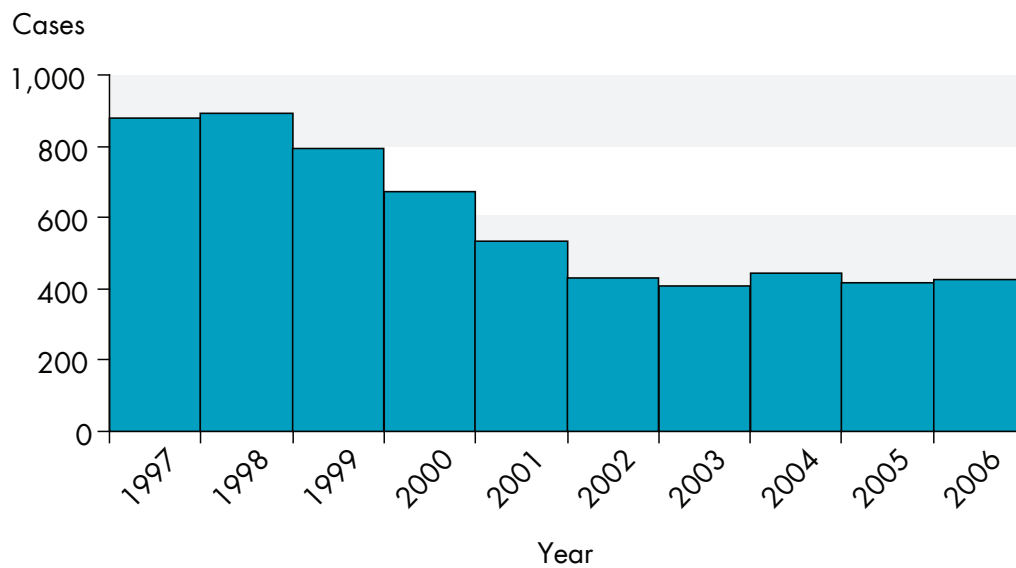
Giardia intestinalis, the flagellated protozoan originally named *G. lamblia*, is the most commonly identified parasitic pathogen in the U.S. Children in day care and their close contacts are at greatest risk, as are backpackers and campers (by drinking unfiltered, untreated water), persons drinking 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 cysts (as few as 10) are ingested through person-to-person or animal-to-person contact, or by ingestion of fecally contaminated water or food.

The majority of *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.

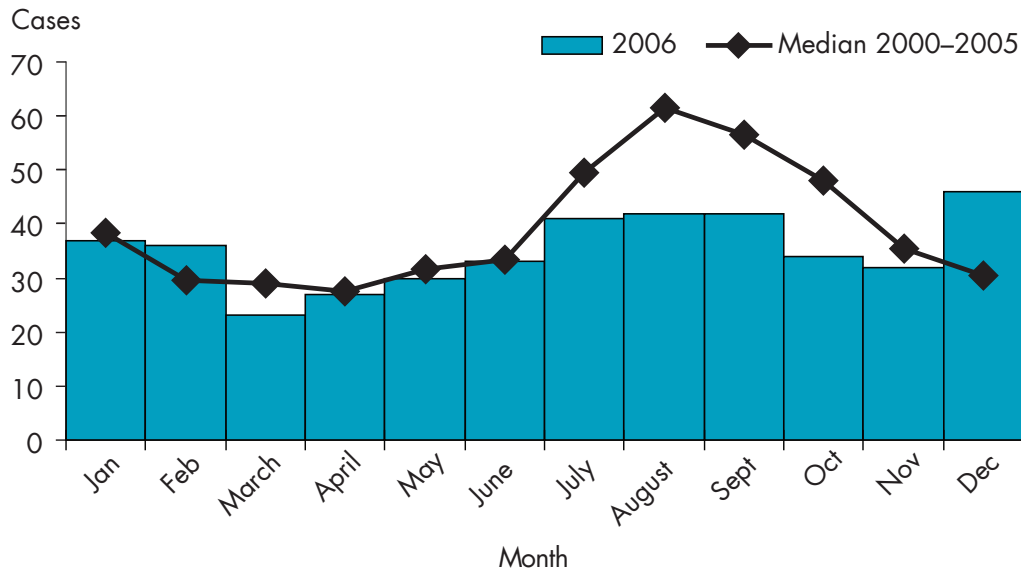
In 2006, the reported incidence of giardiasis in Oregon was nearly twice that of the rest of the U.S., with 11.5 cases per 100,000 population. Most 2006 cases were reported as sporadic or household-associated; however, an outbreak at a day-care center in Coos County resulted in six cases. Children less than 5 years of age continue to have the highest incidence, with 34 cases/100,000. Rates of infection tend to be higher in the summer months with transmission related to outdoor activities in or near untreated water.

Prevention depends upon good personal hygiene (hand washing!) and avoiding consumption of fecally contaminated water. Travel warnings on water quality should be heeded.

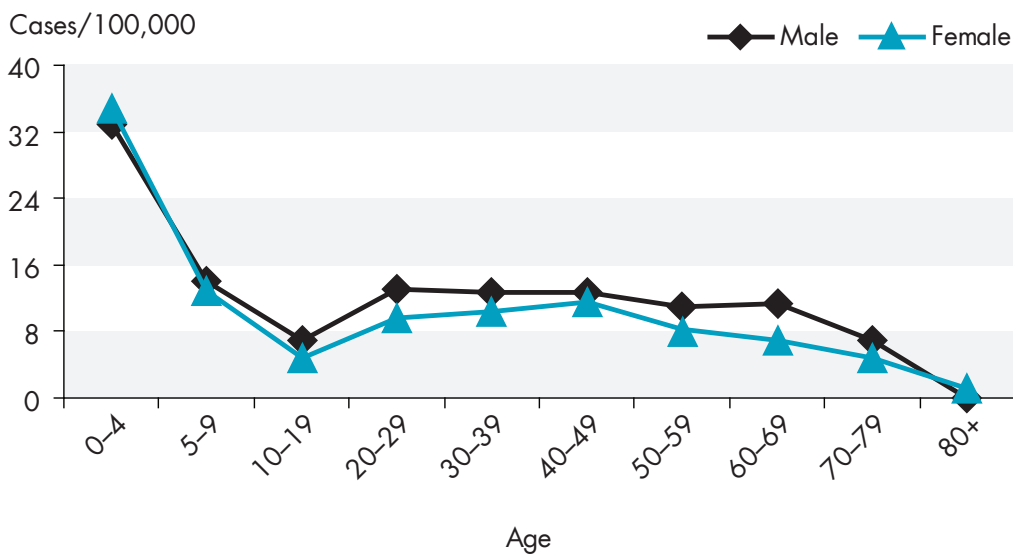
Giardiasis by year - Oregon, 1997-2006



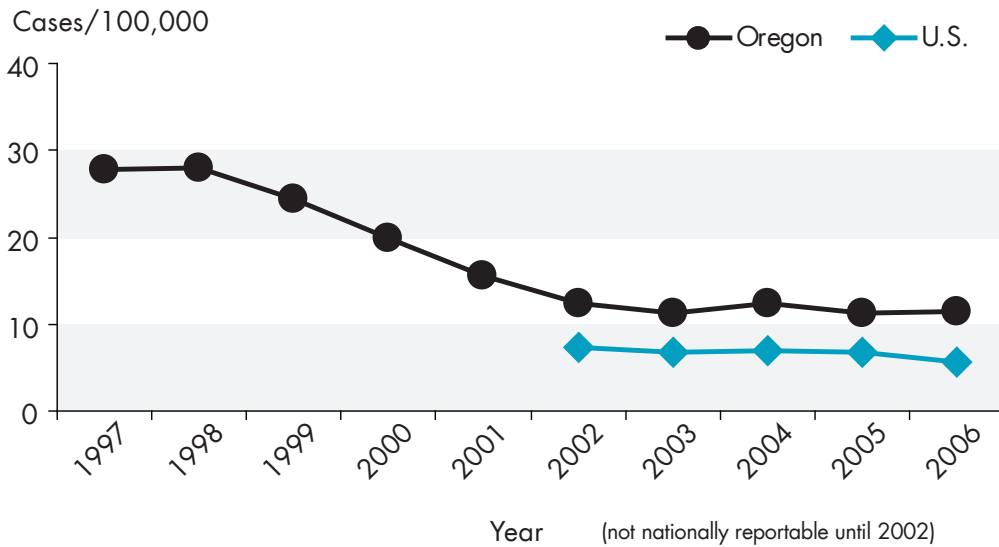
Giardiasis by onset month - Oregon, 2006



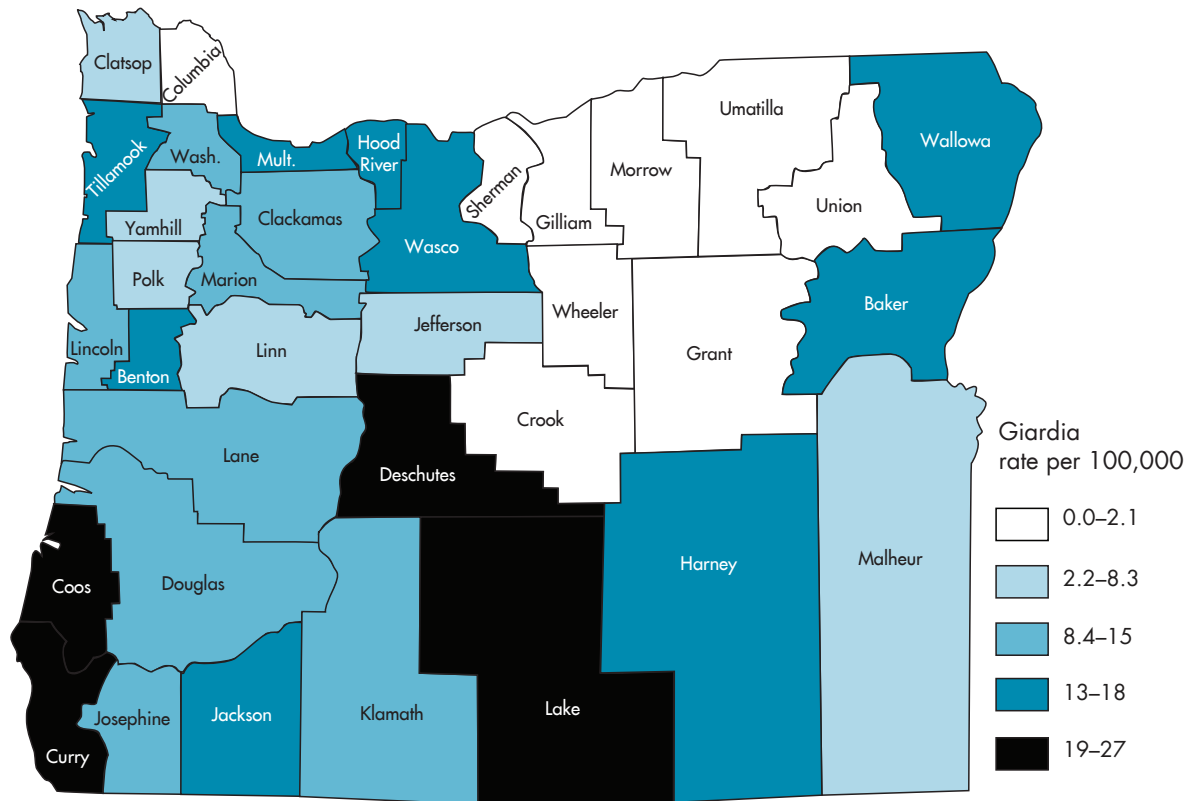
Incidence of giardiasis by age and sex - Oregon, 2006



Incidence of giardiasis - Oregon vs. nationwide, 1997-2006



Incidence of giardiasis by county of residence - Oregon, 2006

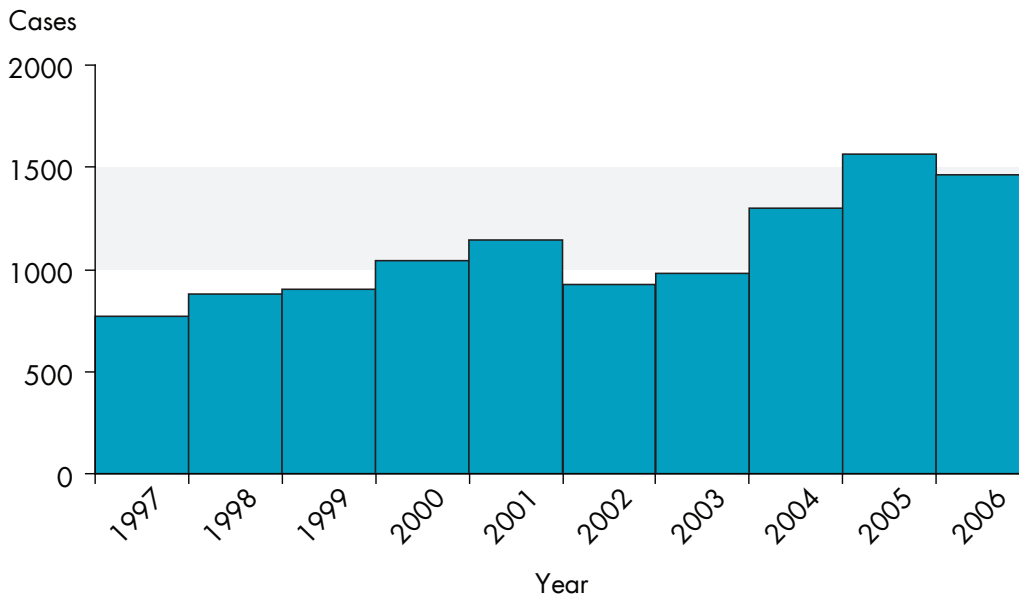


Gonorrhea

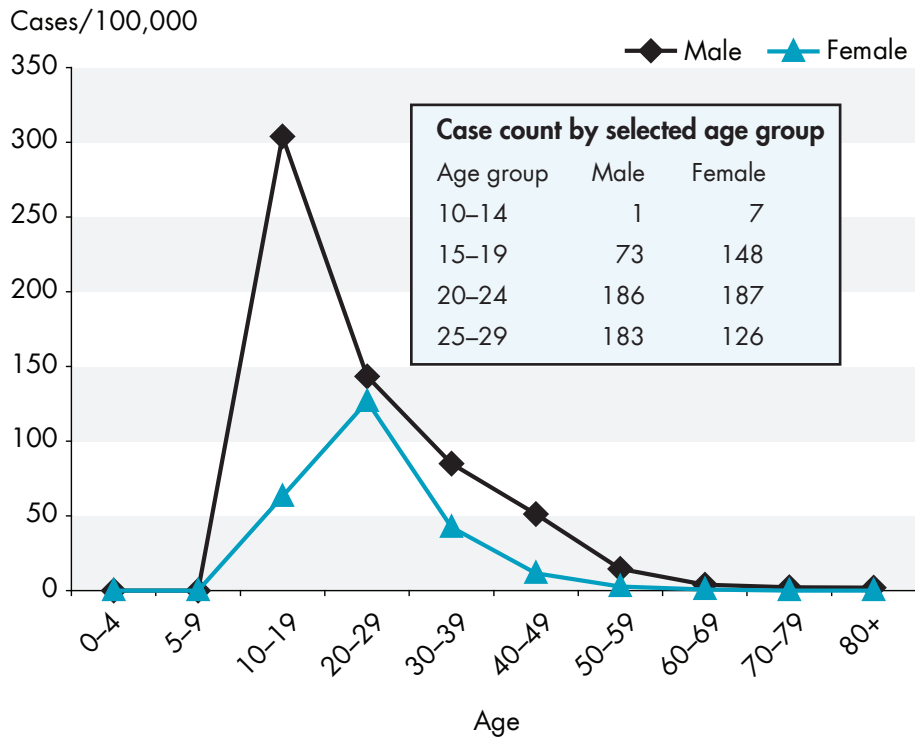
Gonorrhea, caused by the Gram-negative bacterium *Neisseria gonorrhoeae*, is easily transmitted from person to person through vaginal, rectal and oral sexual contact. Gonorrhea can be prevented by abstaining from sexual contact or only having sex with one uninfected sex partner. Those who are sexually active outside of a mutually monogamous relationship can lower their risks of infection by using a condom when engaging in sexual activity.

If untreated, gonococcal infections cause a variety of health problems for men, women and infants. The major complications of gonorrhea are infertility and tubal pregnancies among women. Recent sex partners of persons infected with gonorrhea should be evaluated and treated for gonorrhea. The 1,460 gonorrhea cases reported in 2006 represent a decrease of 6.6% from the 1,562 cases reported in 2005.

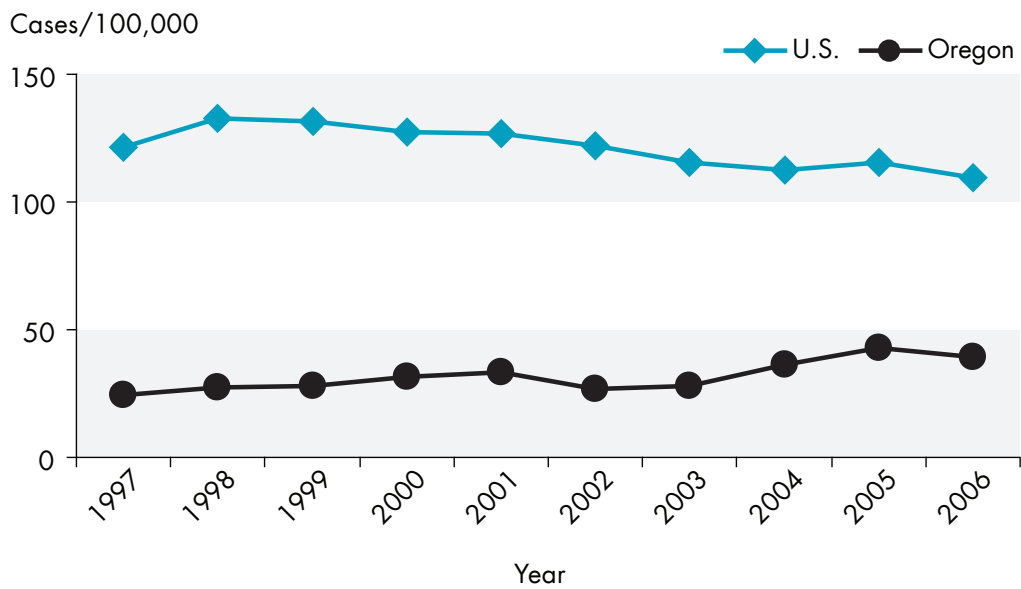
Gonorrhea by year - Oregon, 1997–2006



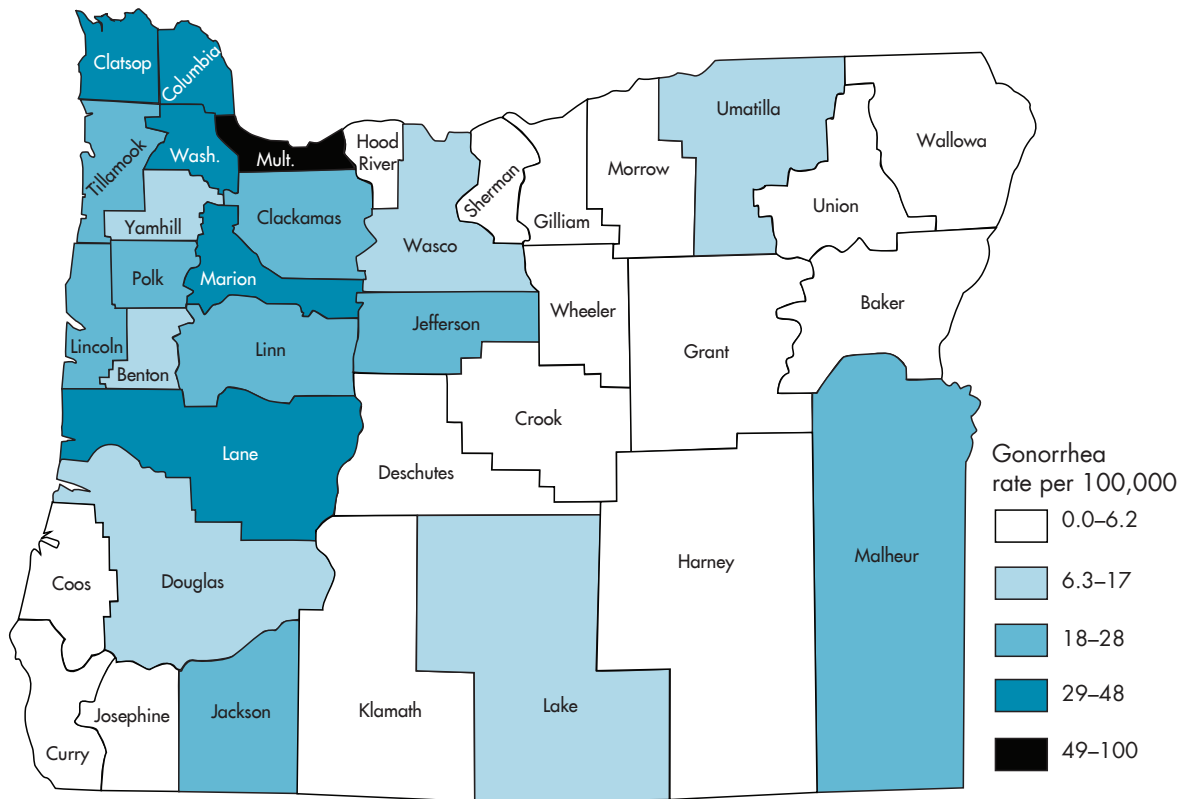
Incidence of gonorrhea by age and sex - Oregon, 2006



Incidence of gonorrhea - Oregon vs. nationwide, 1997-2006



Incidence of gonorrhea by county of residence - Oregon, 2006

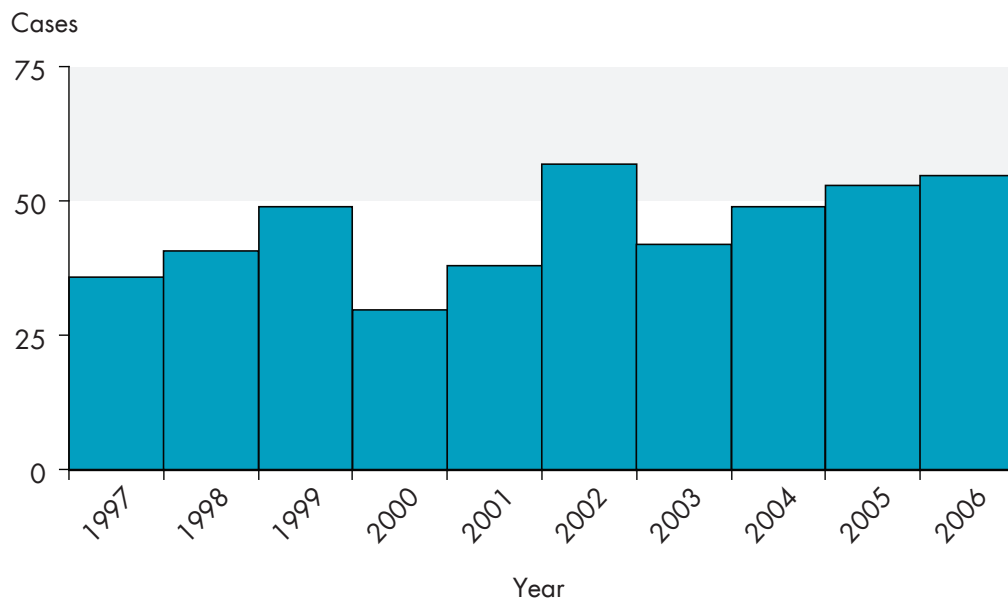


Haemophilus influenzae

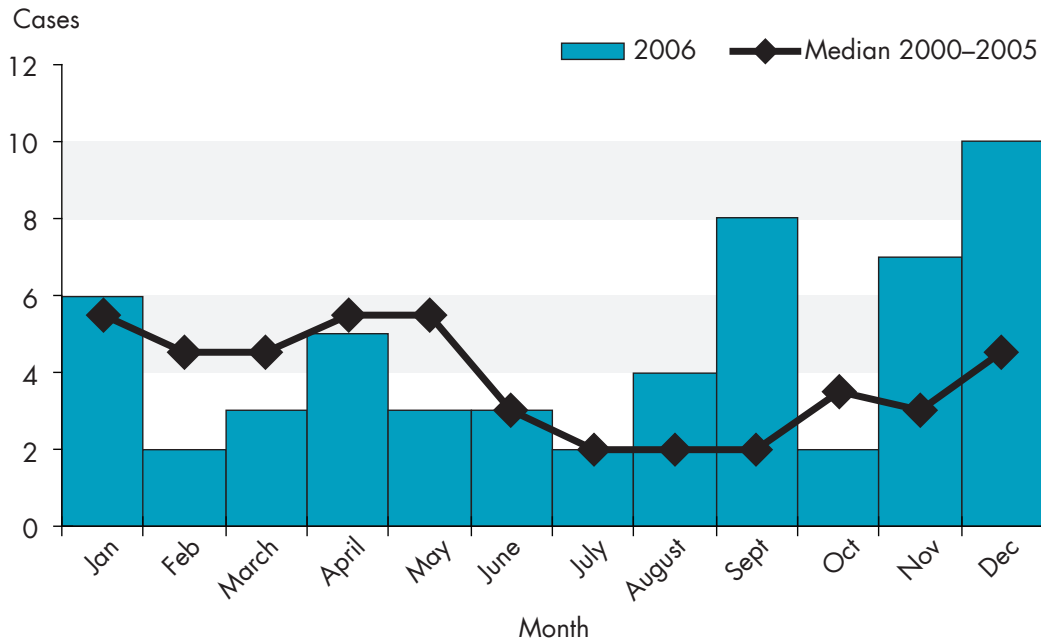
Until the advent of an effective vaccine against serotype b (Hib) organisms, *Haemophilus influenzae* was the leading cause of bacterial meningitis in children under 5 years of age in Oregon and elsewhere. Today it is well down the listing, with *Streptococcus pneumoniae* now in the lead. In Oregon, Hib was cultured from normally sterile body fluids in one fully immunized child in 2006, the first such case since 1999. Appropriate utilization of conjugate vaccine will help to ensure that Hib occurrence 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. In 2006, 70% of cases were non-typeable, 15% were identified as serotype f, 4% were serotype b — including the case mentioned — and the remainder were other serotypes.

Peak incidence occurs in late winter and early spring. The majority of cases in 2006 were among those aged 50 and over.

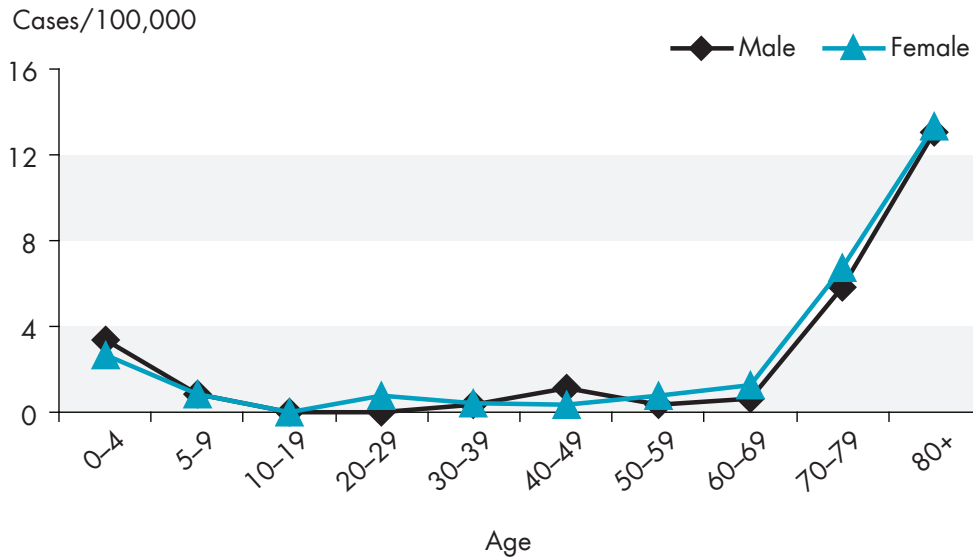
H. influenzae by year - Oregon, 1997–2006



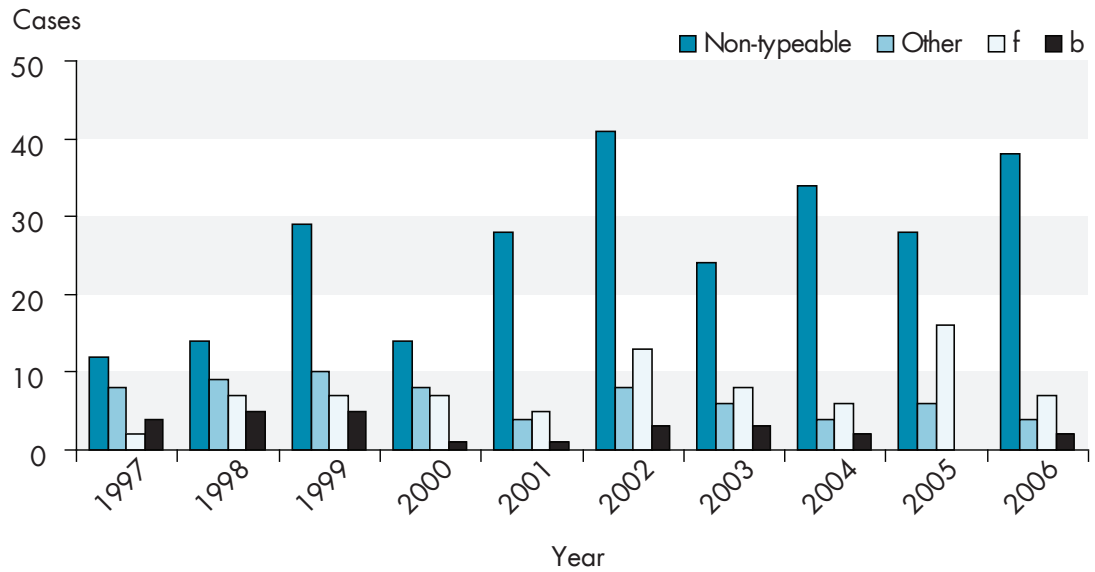
H. influenzae by onset month - Oregon, 2006



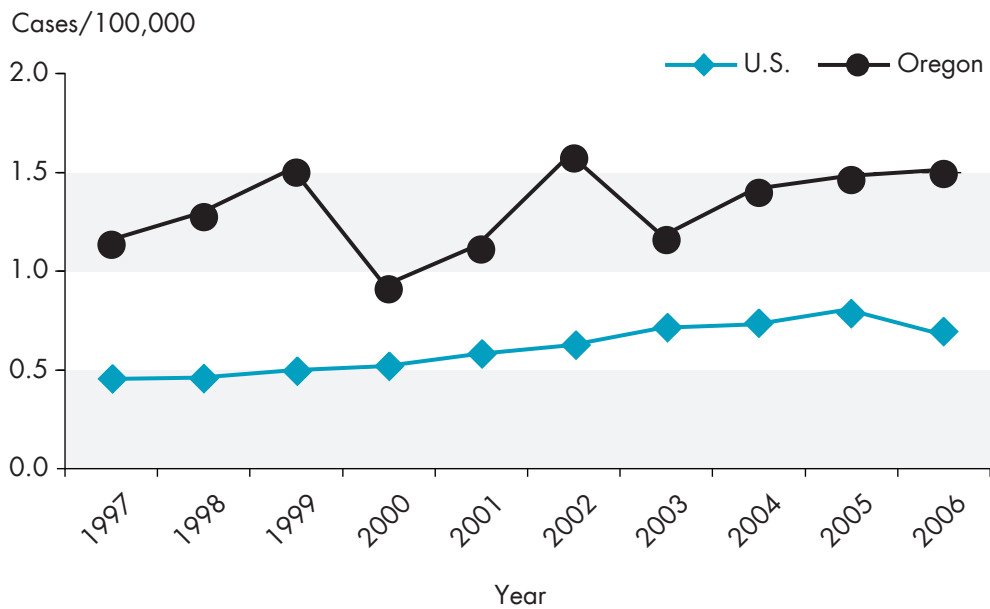
Incidence of H. influenzae by age and sex - Oregon, 2006



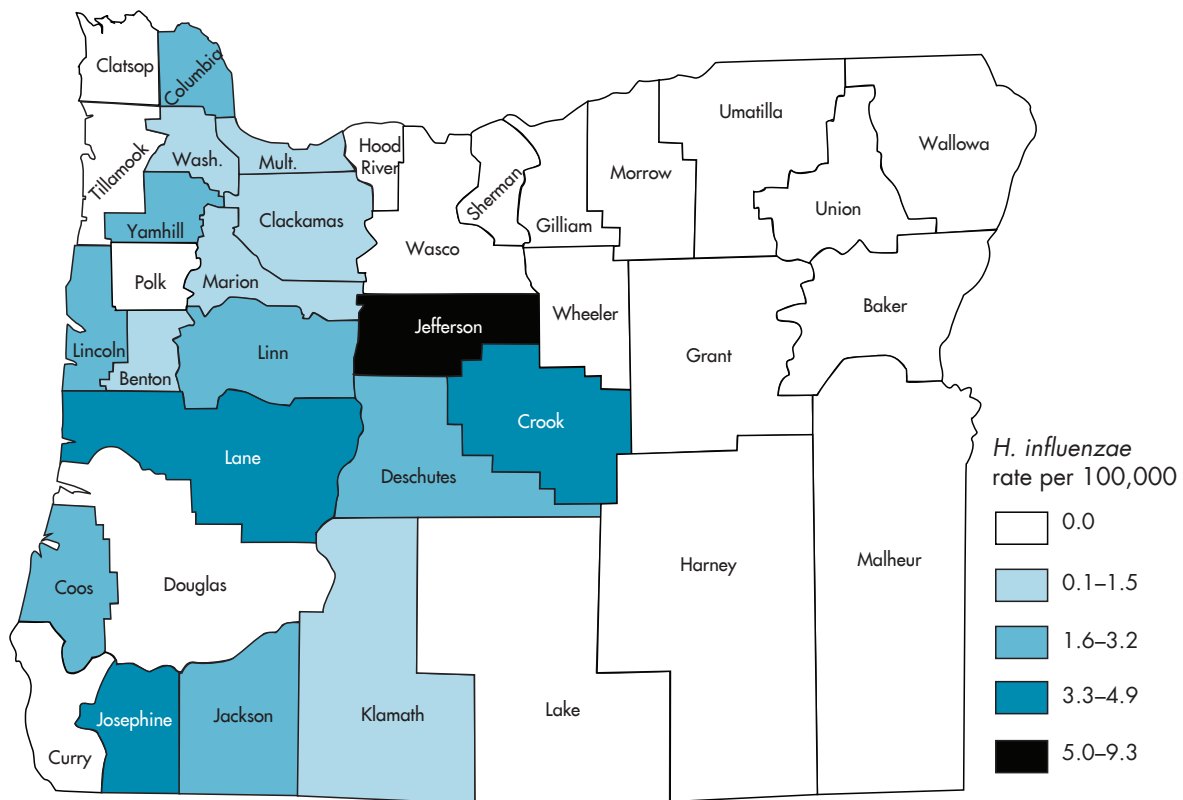
H. influenzae by serotype and year - Oregon, 1997–2006



Incidence of *H. influenzae* - Oregon vs. nationwide, 1997–2006



Incidence of *H. influenzae* by county of residence - Oregon, 2006



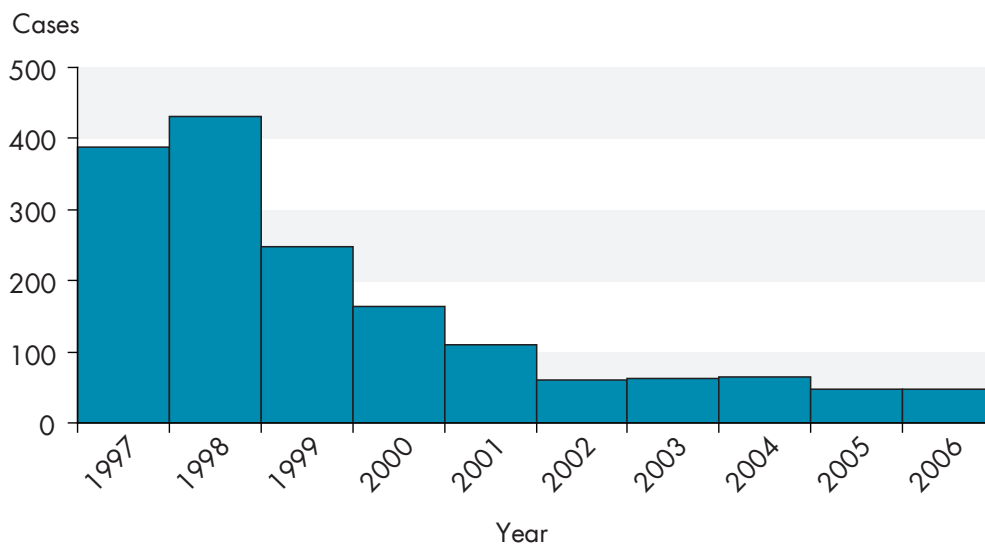
Hepatitis A

Hepatitis A is a liver disease caused by the hepatitis A virus, which infects humans via fecal-oral transmission. In Oregon, hepatitis A can occur in situations ranging from isolated cases of disease to statewide outbreaks.

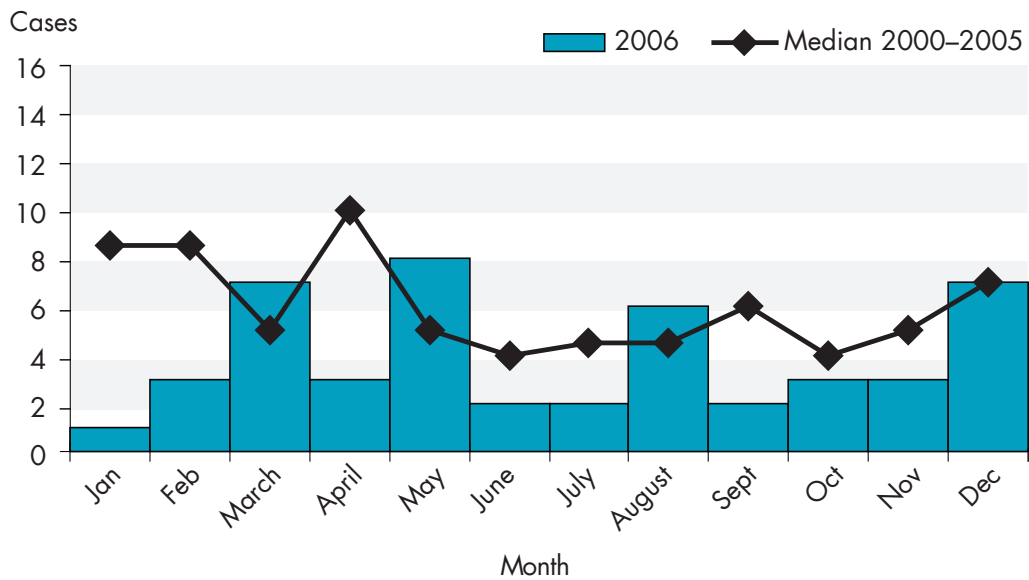
Good personal hygiene and proper sanitation can help prevent hepatitis A. Vaccines are recommended for long-term prevention of hepatitis A in all Oregon children 1 year of age and older, as well as for adults in high-risk groups. Immune globulin is available for short-term prevention of hepatitis A in persons of all ages.

In 2006, Oregon logged 47 cases of acute hepatitis A. Three outbreaks were recorded. The first involved six cases who apparently acquired the infection from an infected food handler. The second outbreak of 2006 was due to foreign travel, with three cases acquired internationally. The third outbreak, with five confirmed cases, was found among a cluster of injection drug users with a recent history of incarceration. Sixteen (34% of the 47 cases were acquired by venturing outside of Oregon to countries with high rates of hepatitis A. Persons who place themselves at elevated risk should receive a dose of hepatitis A vaccine as soon as travel is considered. Completion of the hepatitis A vaccination series (administered according to the licensed schedule) is recommended for long-term protection.

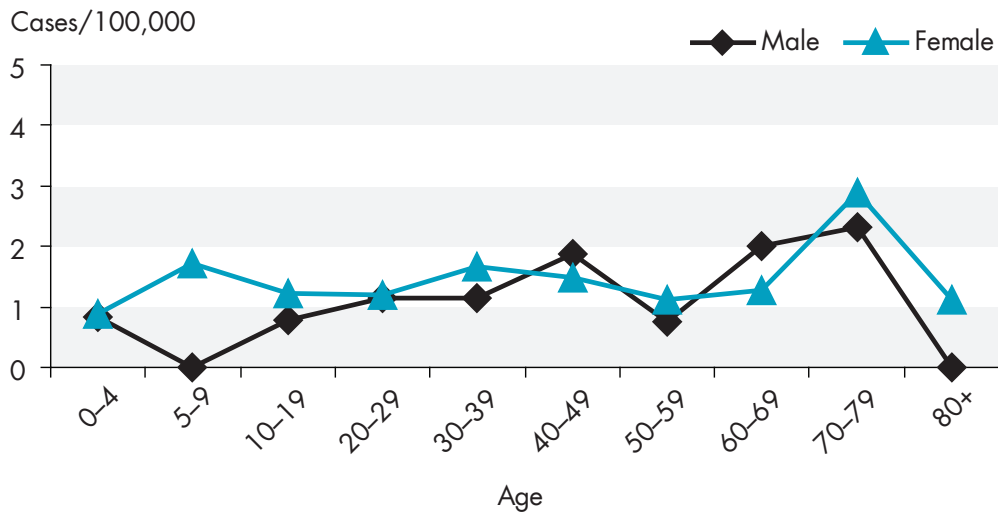
Hepatitis A by year - Oregon, 1997–2006



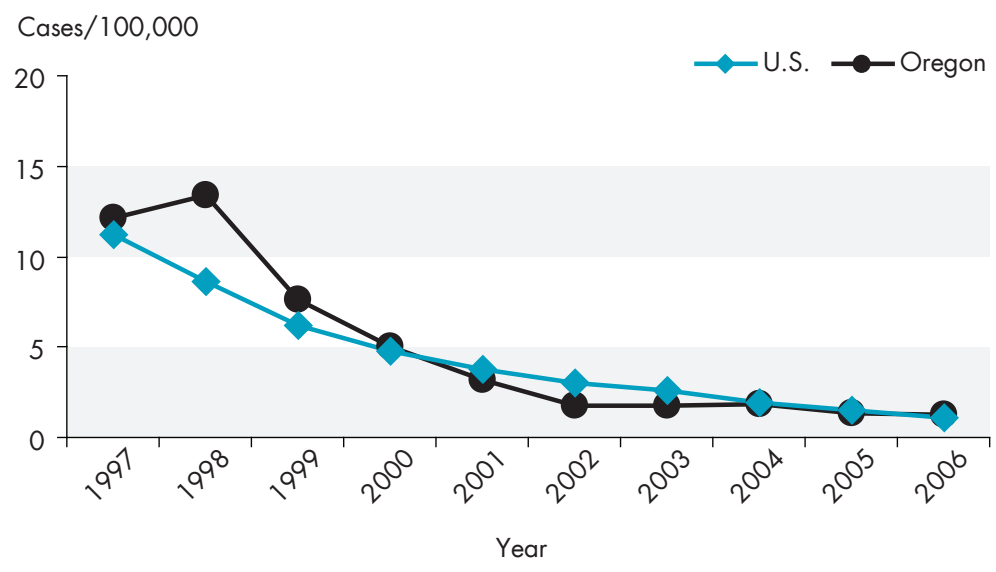
Hepatitis A by onset month - Oregon, 2006



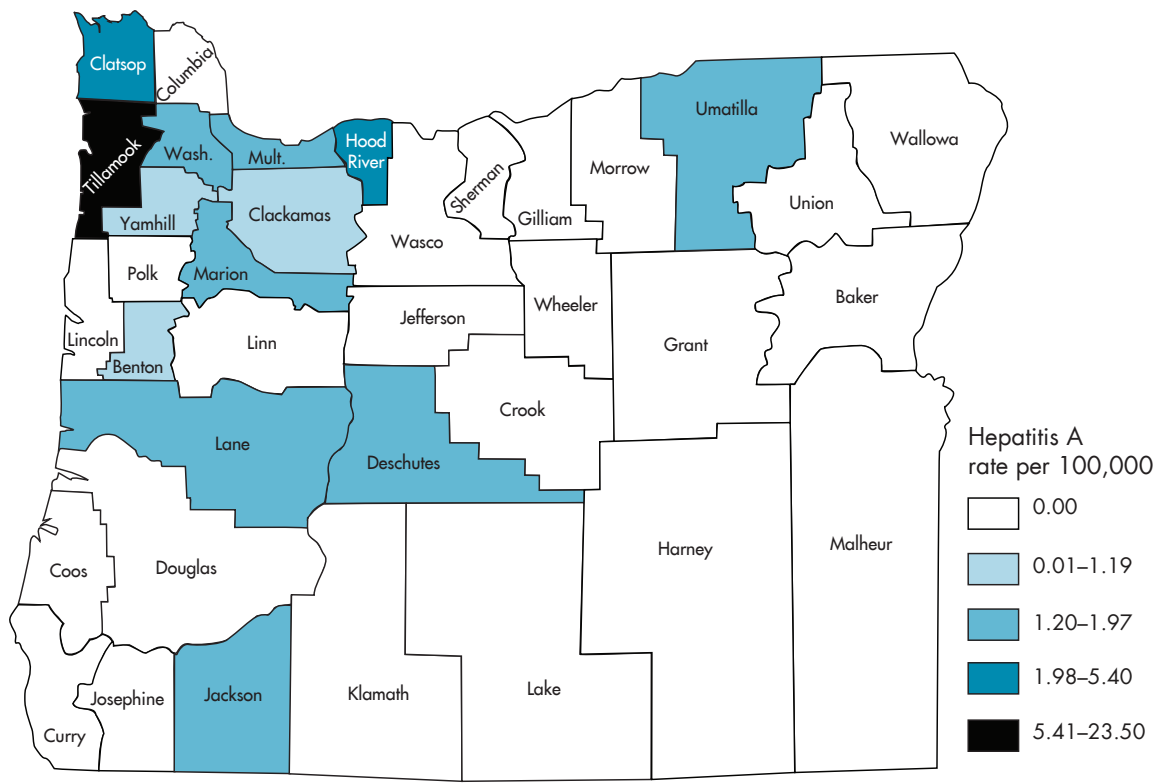
Incidence of hepatitis A by age and sex - Oregon, 2006



Incidence of hepatitis A - Oregon vs. nationwide, 1997-2006



Incidence of hepatitis A by county of residence - Oregon, 2006



Acute hepatitis B

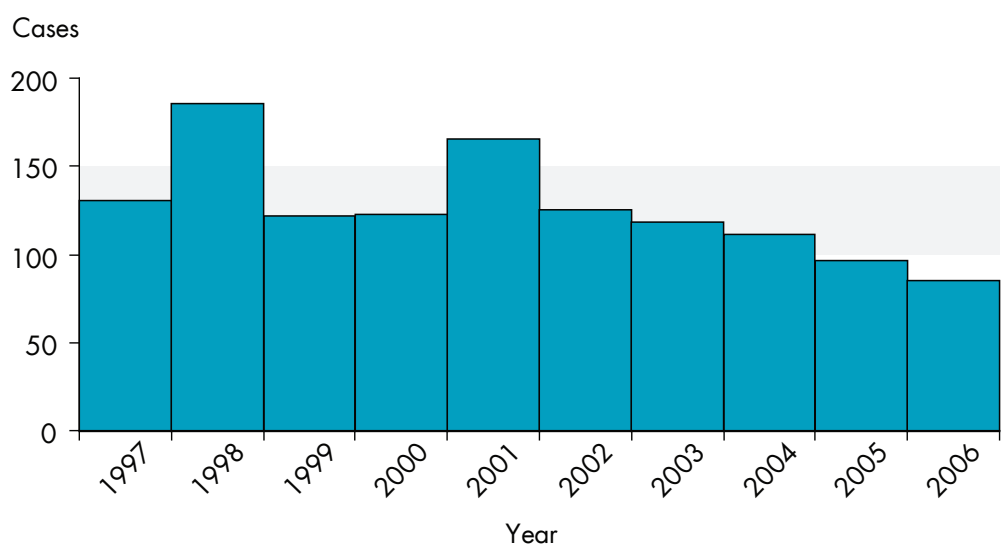
Hepatitis B is a vaccine-preventable viral disease of the liver that occurs when the virus of an infected person passes (through blood, semen or saliva) into the blood stream of a non-immune person. Percutaneous or permucosal exposures take place when hypodermic needles are shared, when blood splashes into an eye, during sex, by biting, when improperly sterilized injection devices are used for tattooing, body piercing and acupuncture, and when the baby of a mother who is a hepatitis B carrier is being born.

Acute hepatitis B virus infection (diagnosed by the presence in serum of IgM antibody to the hepatitis B core antigen [IgM anti-HBc]) usually, but not always, causes jaundice. Some infections are mild, even asymptomatic, and may go undetected. Hepatitis B has been vaccine-preventable 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.

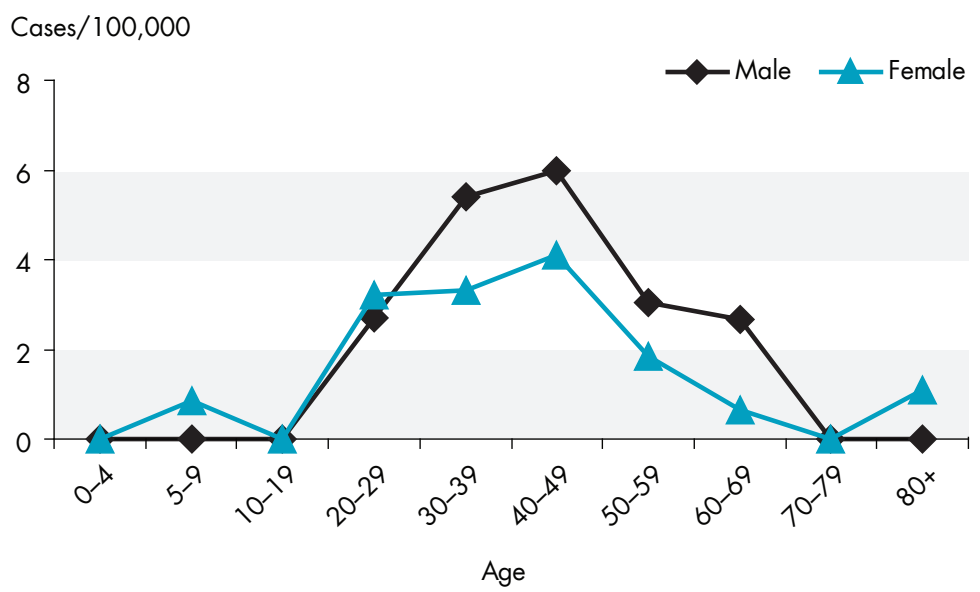
Acute hepatitis B continues to decline in Oregon — a decline that started here after the hepatitis B vaccine was licensed in 1982.

Local health departments investigated and reported 86 acute cases in 2006. Fifty-eight percent of the cases were male. Risk factors reported by cases included men who have sex with men (18%), and multiple heterosexual partners (9%). The number of cases reporting injection drug use increased in 2006 (32%) from 2005 (28%). No risk factors were either identified or were unknown in 31% of cases in 2006.

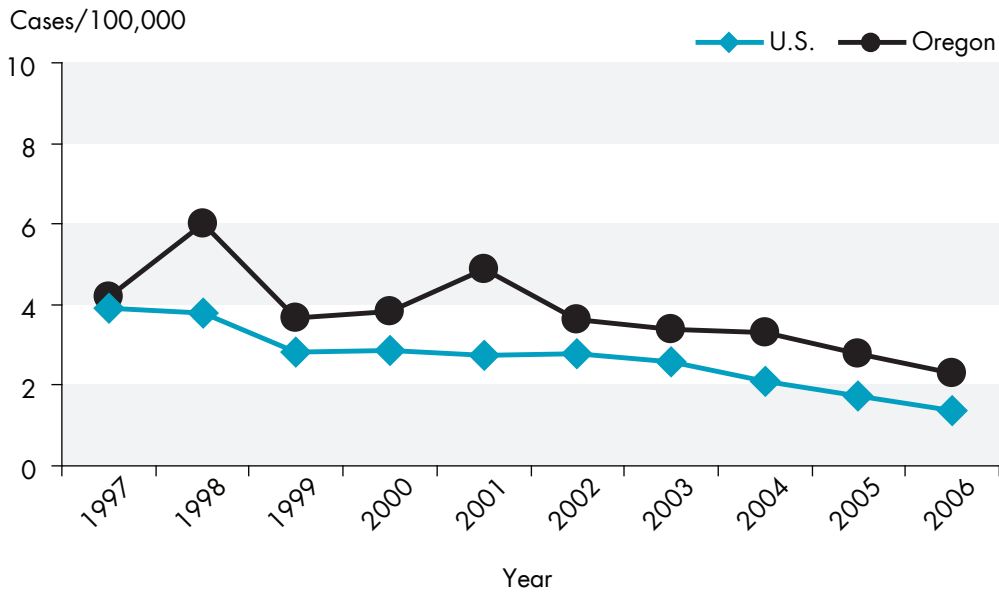
Acute hepatitis B by year - Oregon, 1997-2006



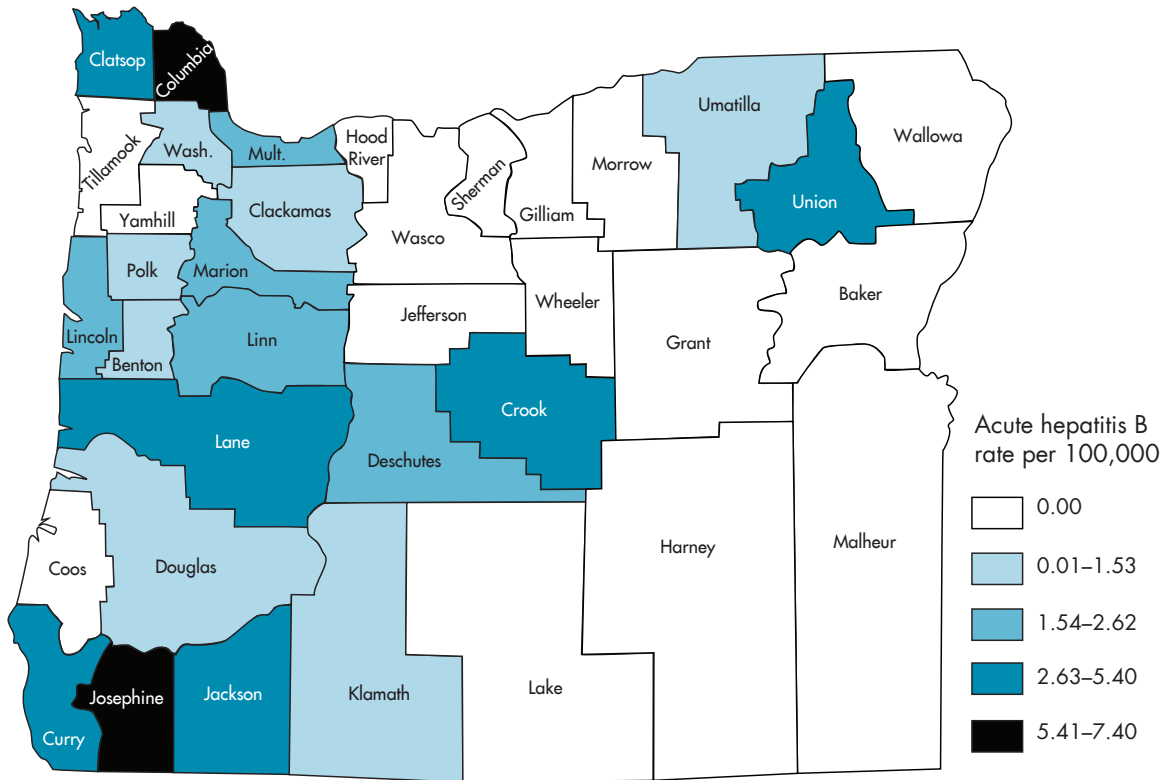
Incidence of acute hepatitis B by age and sex - Oregon, 2006



Incidence of acute hepatitis B - Oregon vs. nationwide, 2006



Incidence of acute hepatitis B by county of residence - Oregon, 2006



Chronic hepatitis B

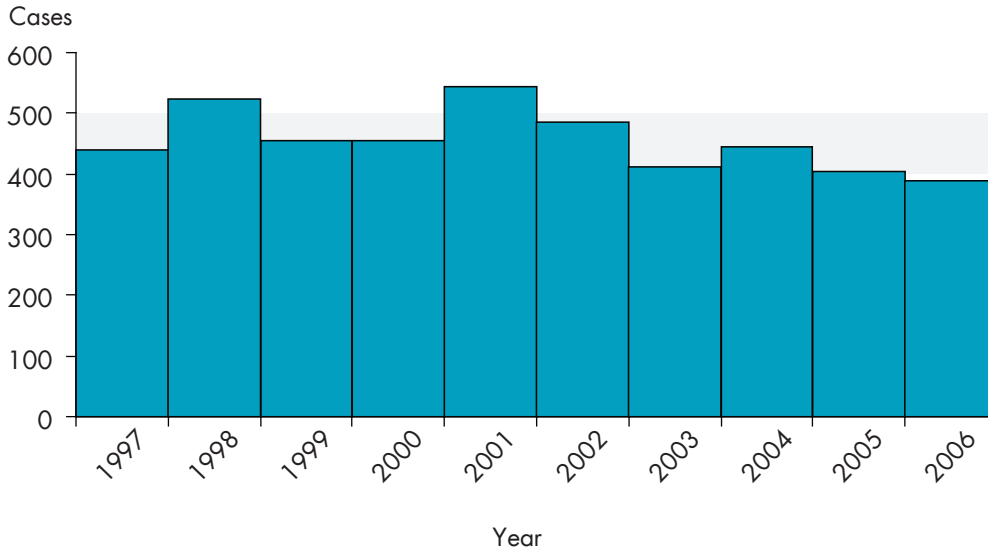
Persons with chronic hepatitis B are known as “chronic carriers” — a state of infection defined by the persistence of hepatitis B surface antigen (HBsAg) in the blood for more than six months. The likelihood of becoming a chronic carrier is affected by the age at the time of infection. Fewer than 6% of acutely infected adults in the U.S. 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 and initiation of the three-dose hepatitis B vaccination series. This perinatal intervention is widely practiced in the U.S. — all states have federal funding for perinatal hepatitis B prevention programs — but not in other parts of the world, particularly Asia and sub-Saharan Africa, where the prevalence of chronic hepatitis B is higher to begin with. In Oregon, 43% of chronic carriers were born in hepatitis-B-endemic countries. Chronic carriers are at greater risk of developing life-threatening diseases (e.g., chronic active hepatitis, cirrhosis or liver cancer) decades later. Carriers will sustain transmission of hepatitis B in the U.S. until vaccine-induced immunity is nearly universal.

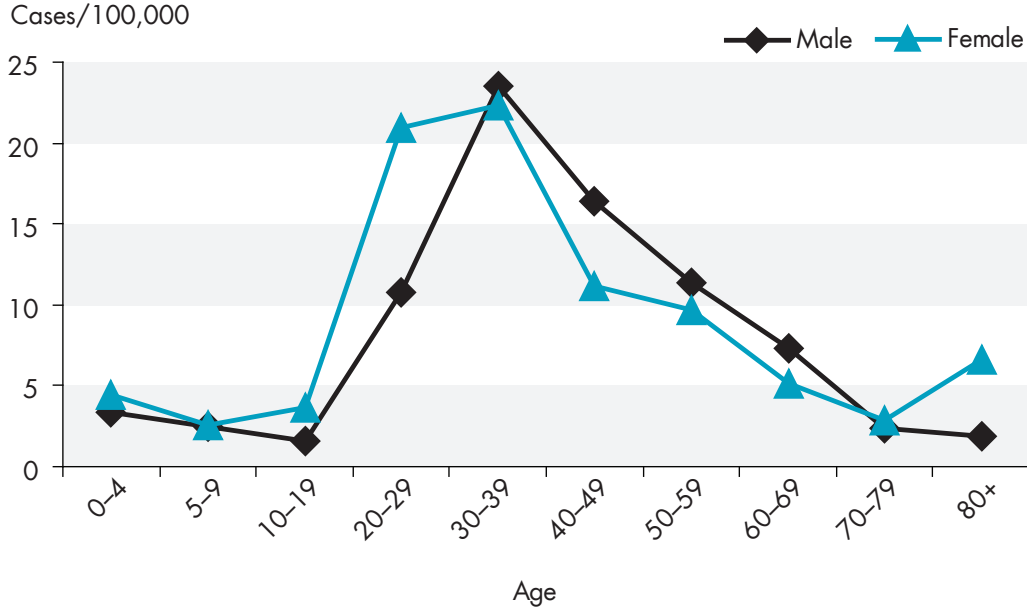
New recommendations and strategies to prevent new cases include routinely vaccinating all infants at birth, screening of all pregnant women for hepatitis B, administration of hepatitis B immune globulin (HBIG) in addition to hepatitis B vaccine to infants born to HBsAg-positive mothers, and ensuring that all infants complete the hepatitis B vaccine series.

In 2006, there were 394 newly reported carriers and, as in the past, they were older than acute cases and close to evenly distributed between men and women. Women, however, are diagnosed earlier than men, perhaps due to pre-natal screening. No U.S.-born perinatal cases were reported in 2006. Chronic carriers are not reportable in many of the U.S. states, so a table comparing Oregon to the rest of the U.S. is not given.

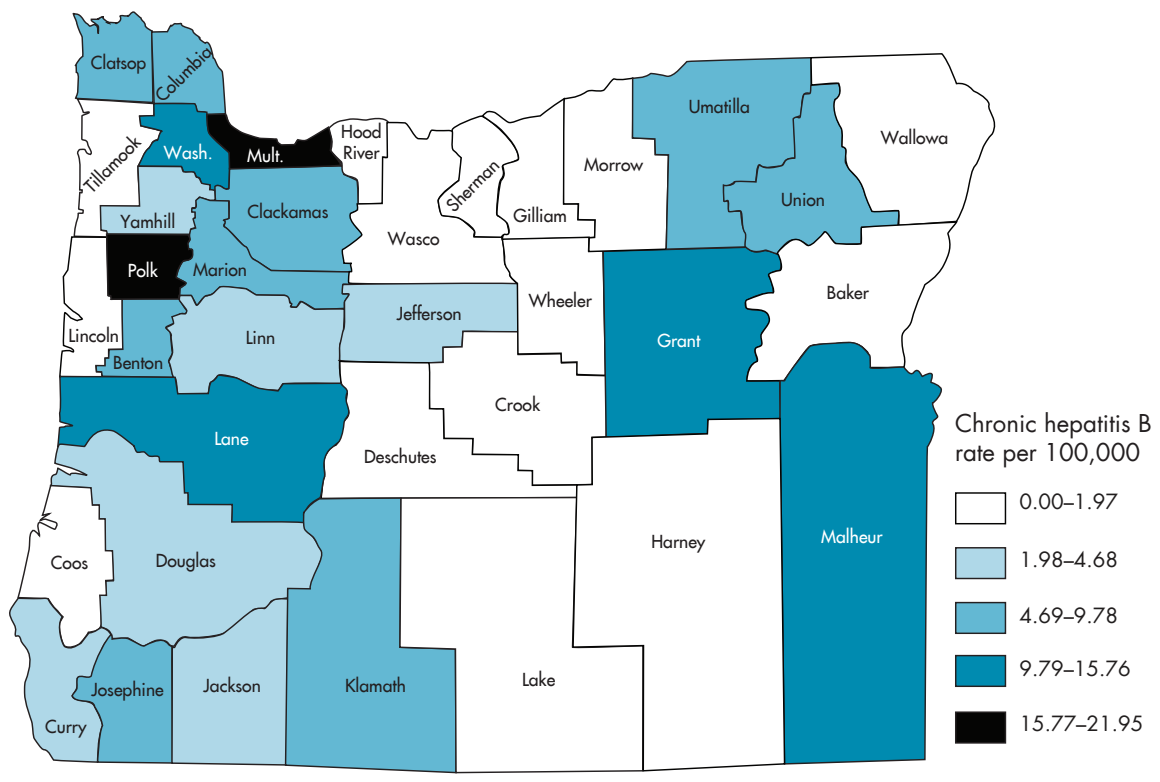
Chronic hepatitis B by year - Oregon, 1997-2006



Incidence of chronic hepatitis B by age and sex - Oregon, 2006



Incidence of chronic hepatitis B by county of residence - Oregon, 2006



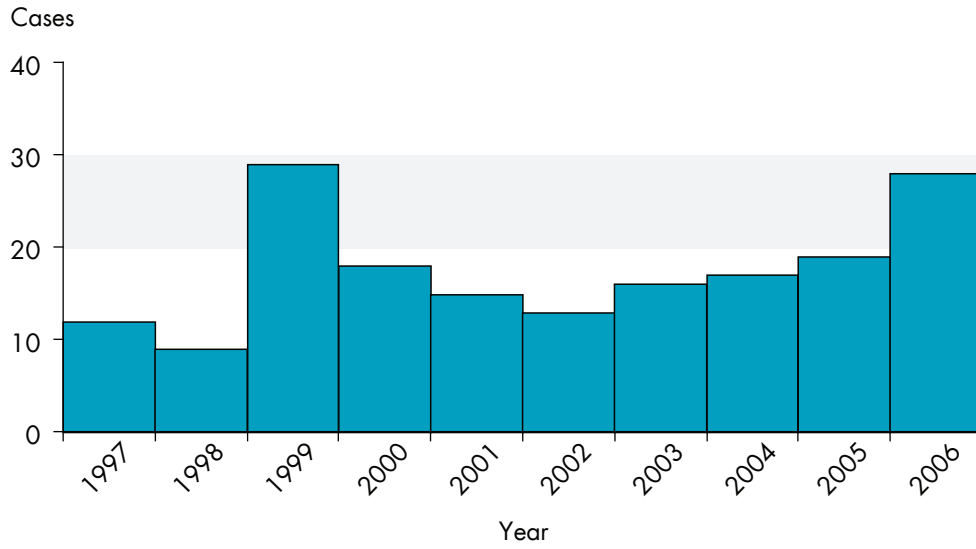
Hepatitis C

Infection with hepatitis C virus (HCV) causes acute and chronic hepatitis C disease. HCV is found in the blood of persons who have the disease. The most common signs and symptoms of hepatitis C include: jaundice, fatigue, dark urine, abdominal pain, loss of appetite and nausea. However, 80% of persons who are infected are asymptomatic. Hepatitis C cases are underreported due to the fact that most persons are asymptomatic and the lack of laboratory testing for acute HCV infection. Hepatitis C can lead to liver damage and sometimes death due to liver breakdown. Nearly 4.1 million persons in the U.S. have been infected with hepatitis C, of whom 3.2 million are chronically infected. Chronic liver disease develops in up to 70% of chronically infected persons. Hepatitis C infection is the leading indication for liver transplant. Currently, 8,000 to 10,000 persons die each year in the U.S. from hepatitis C. There is no vaccine for hepatitis C.

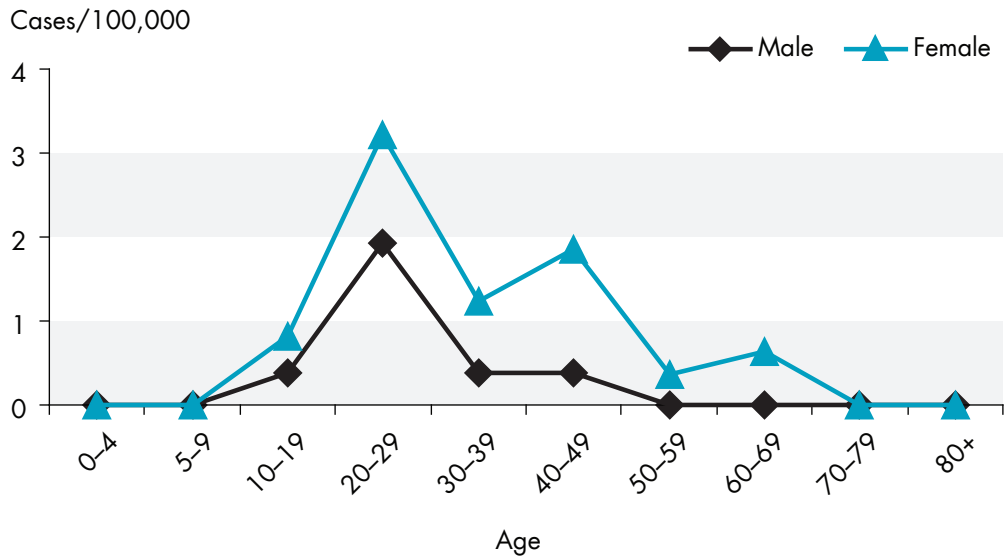
Hepatitis C is spread from one person to another primarily by direct contact with human blood. Most infections are due to illegal injection drug use. The virus can also be transmitted through sexual contact and from infected mothers to their infants at the time of birth. The risk for perinatal HCV transmission is about 4%. If the mother is coinfecting with HIV, the risk for perinatal infection increases to about 19%. Since the adoption of routine blood donor screening in 1992, transfusion-associated cases now occur less than one per 2 million units of blood transfused.

On average, from 1997–2005, there were 17 acute hepatitis C cases reported per year in Oregon. In 2006, 28 were cases reported. In 61% of the cases, patients were less than 40 years of age, and 71% of all cases were female. By far, the most commonly reported risk factor was injection drug use, at a whopping 67% of cases. High-risk sex was reported in 8% of cases. Four percent of cases had no identifiable risk factor.

Acute hepatitis C by year - Oregon, 1997-2006



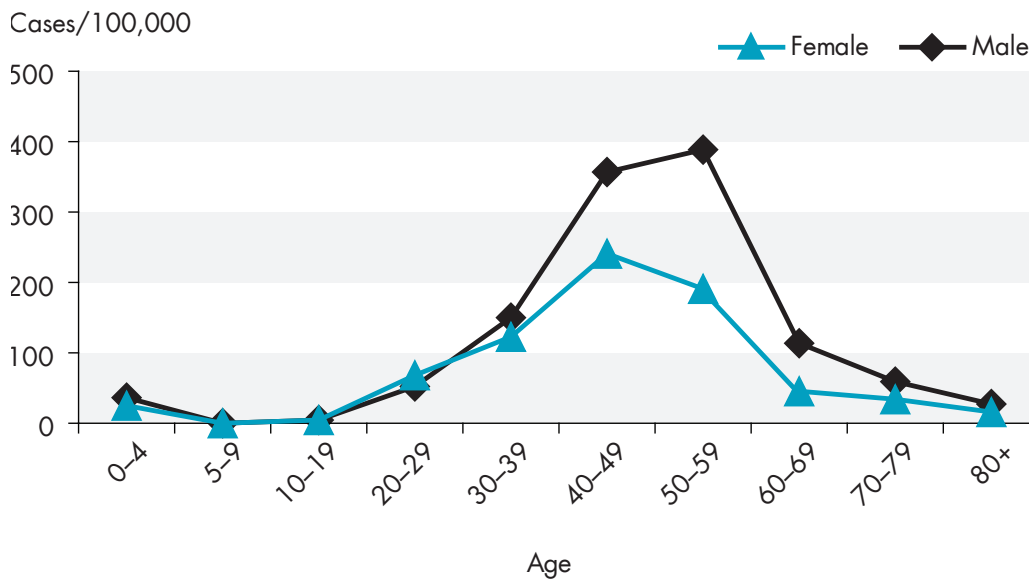
Acute hepatitis C by age and sex - Oregon, 2006



Chronic hepatitis C

Chronic hepatitis C was reportable in Oregon as of July 1, 2005. In 2006, 6,392 chronic hepatitis C cases were reported. These data include all Oregon counties. Preliminary analyses of these data show that infection in males (58%) is higher than females, and in those aged 40–60. These numbers are likely an underestimate of the true incidence as most infections are asymptomatic, and therefore are not diagnosed or reported to public health.

Chronic hepatitis C by age and sex - Oregon, 2006



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 head and muscle aches. Since symptoms are similar to those seen in other forms of pneumonia, the diagnosis is rarely obvious and can be difficult to make. Available diagnostic tests include direct fluorescent antibody staining, culture, polymerase chain reaction on sputum, and urine antigen detection.

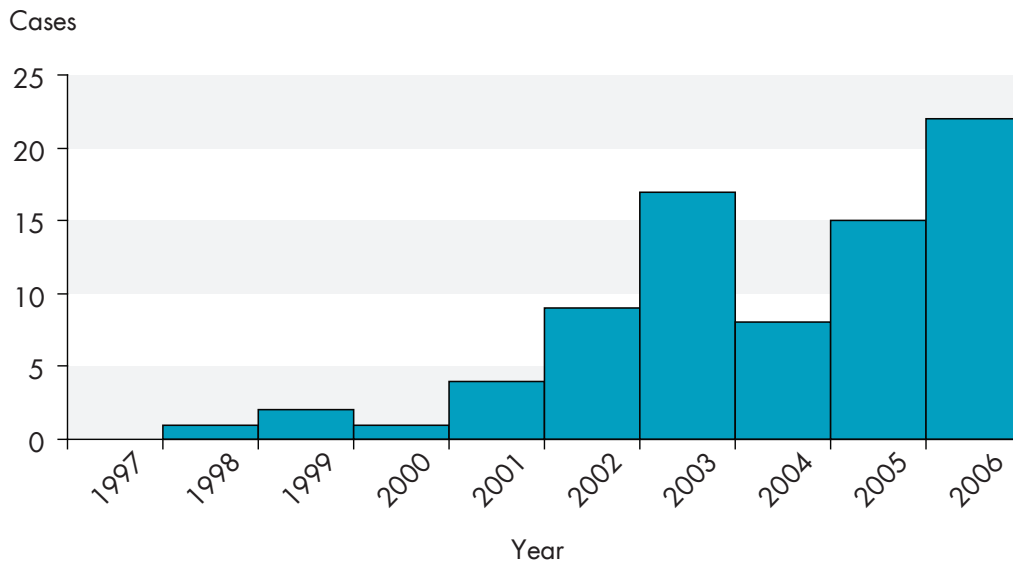
“Pontiac Fever,” a milder illness associated with *Legionella* bacteria, is characterized by fever and myalgias without pneumonia. It typically occurs a few hours to two days after exposure.

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. Person-to-person transmission does not occur.

Risks for infection include older age, smoking, chronic lung disease (like emphysema), renal insufficiency, diabetes and immune deficiency. Death occurs in 10% to 15% of cases: a substantially higher proportion of fatal cases occur during nosocomial outbreaks.

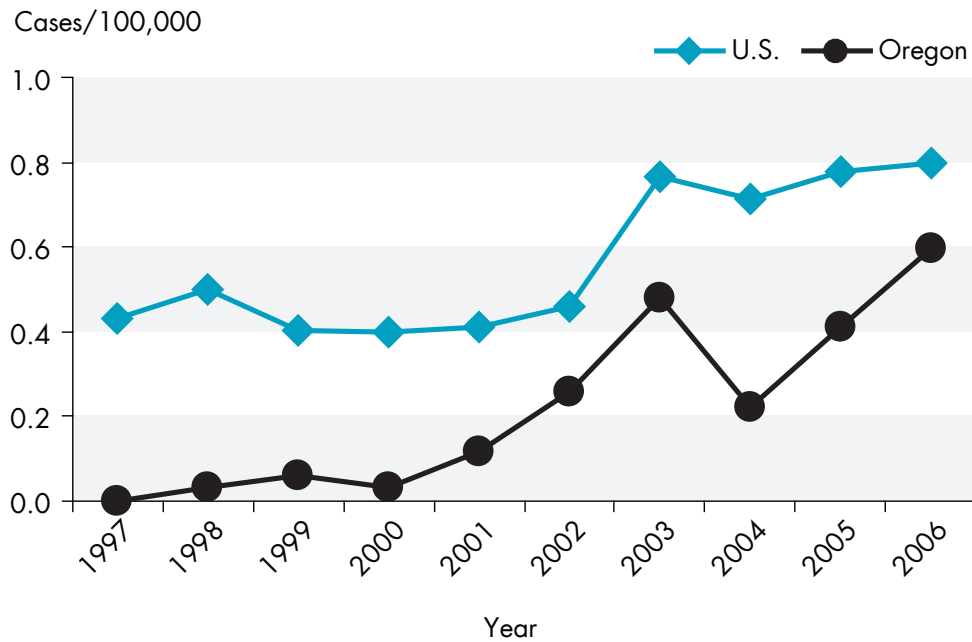
Legionellosis became “officially” reportable in Oregon in 2001. In 2006, 22 cases of legionellosis were reported among Oregonians. All but three cases were hospitalized and one died. Three cases were linked to an exposure during a motel outbreak in Illinois.

Legionellosis by year - Oregon, 1997–2006



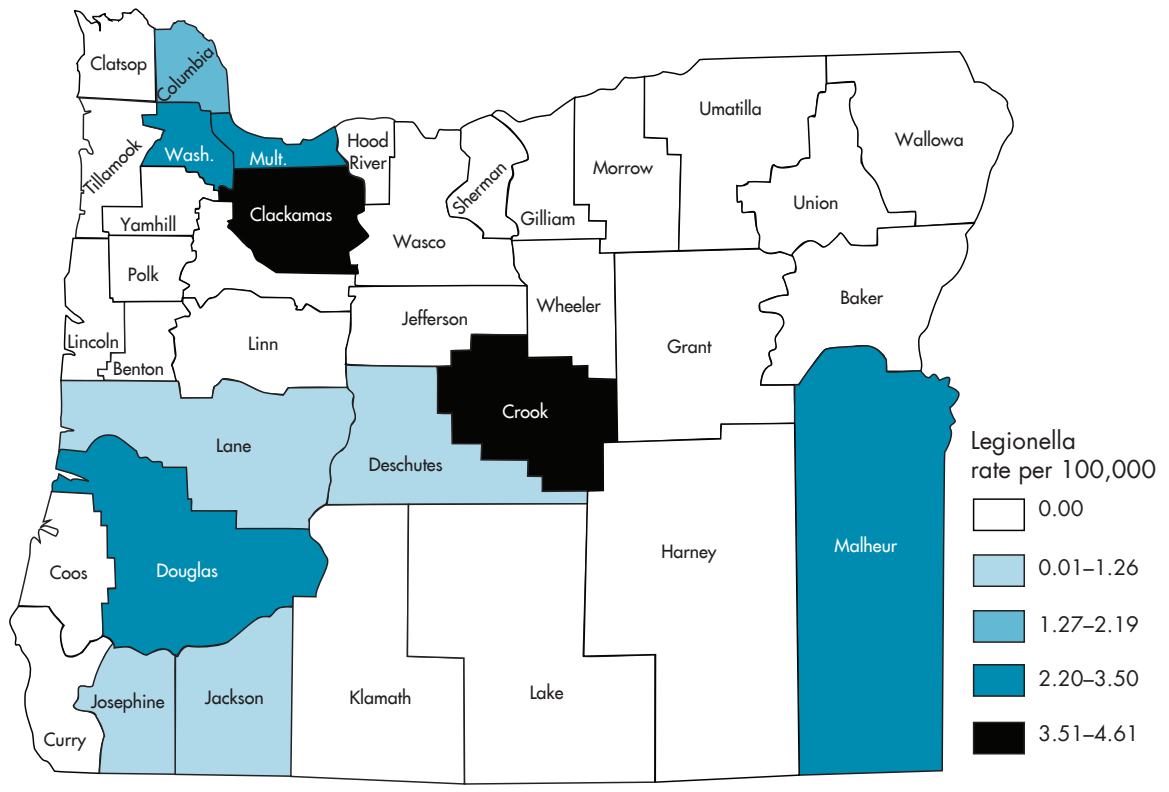
Not officially reportable in Oregon until 2001

Incidence of legionellosis - Oregon vs. nationwide, 1997–2006



Not officially reportable in Oregon until 2001

Incidence of legionellosis by county of residence - Oregon, 2002–2006



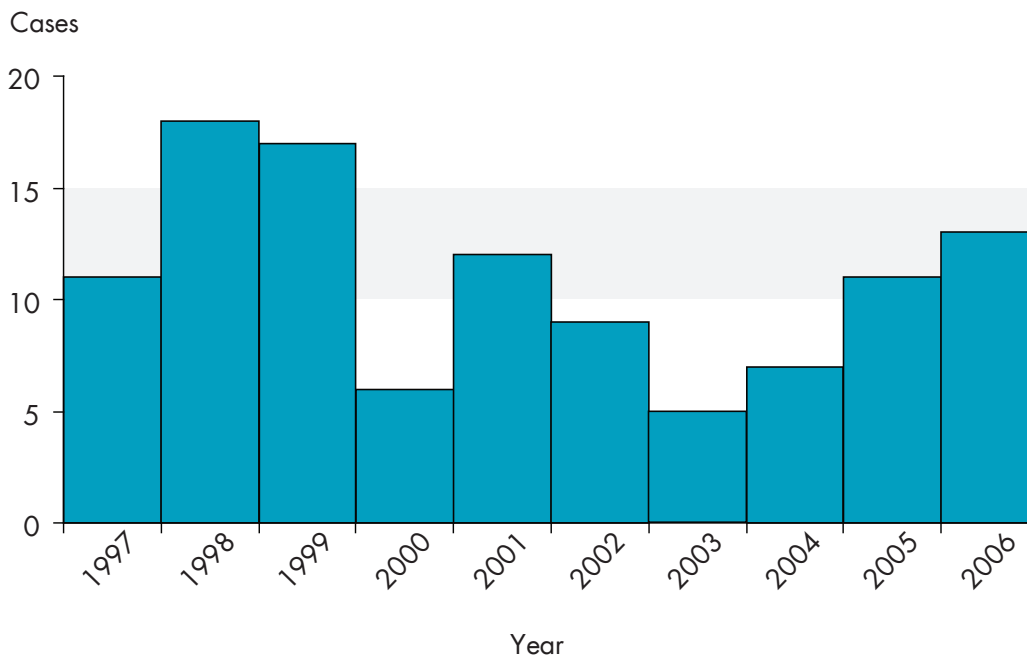
Listeriosis

Listeriosis is a bacterial infection that may present as influenza-like illness with high fever, headache and myalgias; as a gastrointestinal illness or 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.

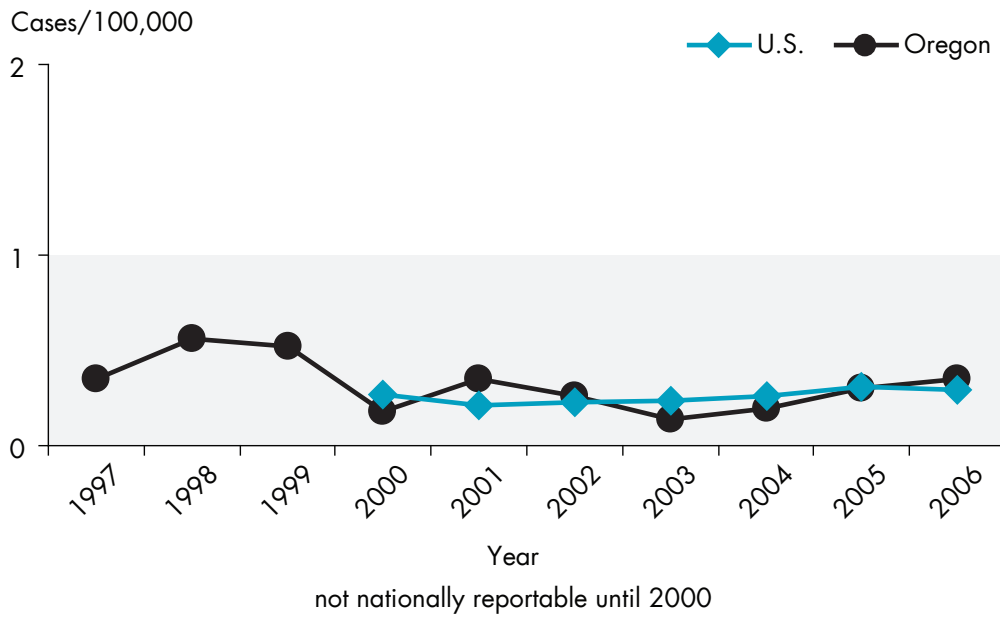
Most cases of listeriosis are sporadic rather than epidemic. However, several large outbreaks have been associated with consumption of contaminated foods. It is important to track the incidence of this disease to identify such outbreaks, as well as to identify high risk groups. The rate is higher among 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.

The incidence increased slightly from 11 cases in 2005 to 13 cases in 2006. There was an outbreak (three cases) associated with pasteurized sheep milk cheese.

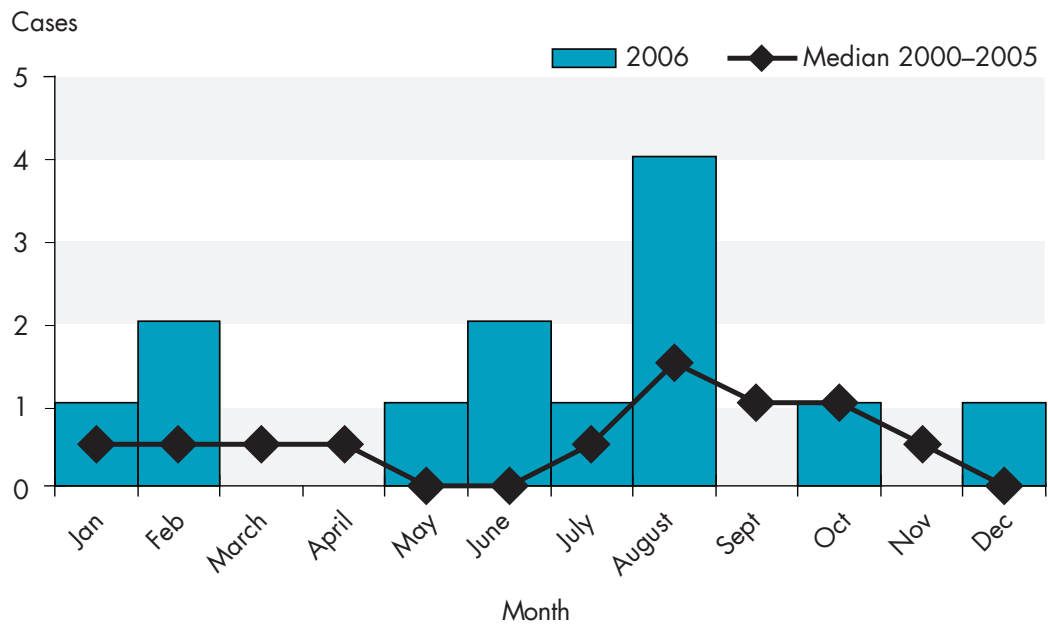
Listeriosis by year - Oregon, 1997–2006



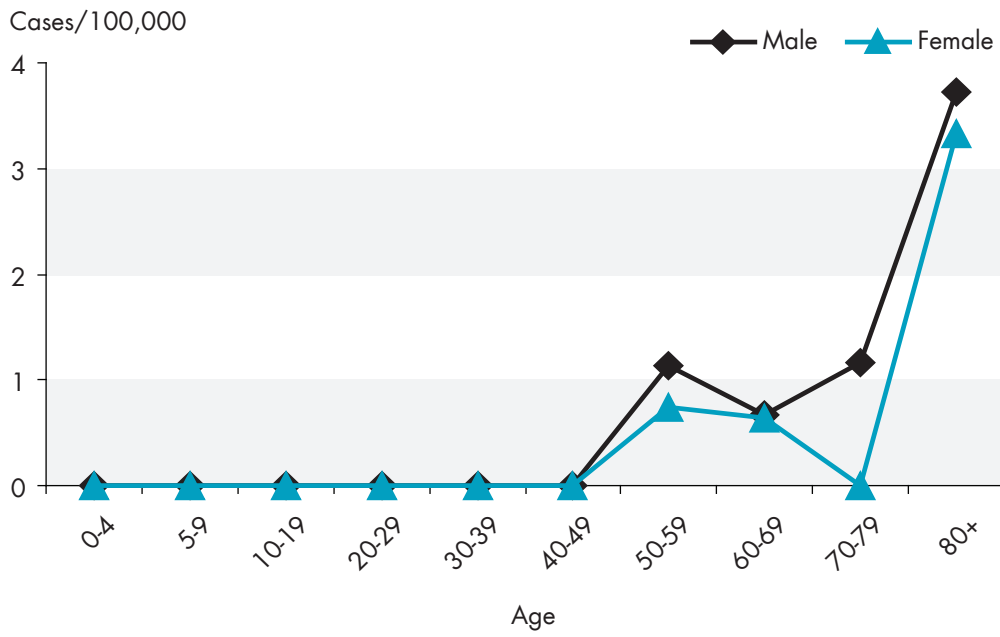
Incidence of listeriosis - Oregon vs. nationwide, 1997-2006



Listeriosis by onset month - Oregon, 2006



Listeriosis by age and sex - Oregon, 2006



Lyme disease

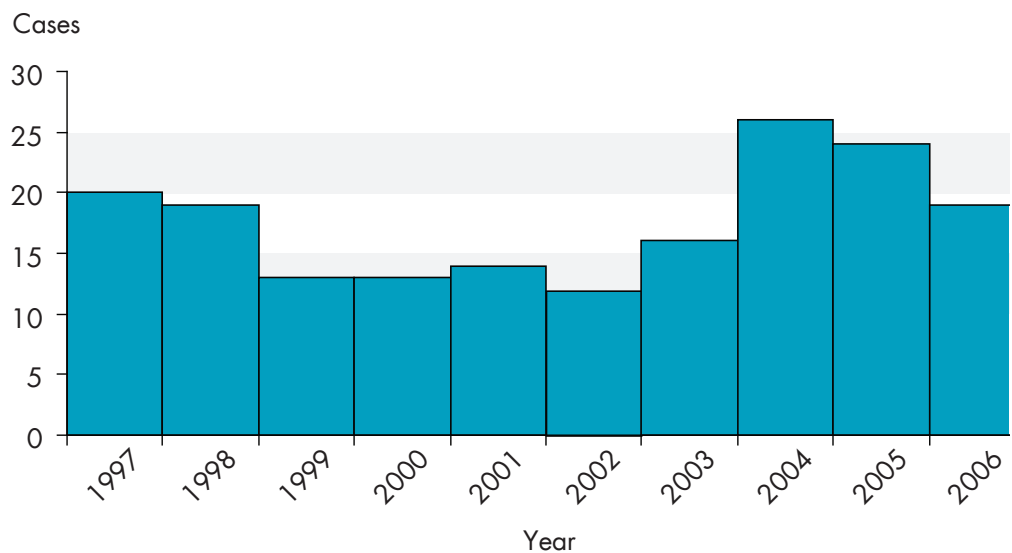
Lyme disease is a tick-borne zoonotic disease caused by the spirochete *Borrelia burgdorferi*. The first manifestation in about 60% of patients appears as a red macule or papule that expands slowly in an annular manner, sometimes with multiple similar lesions. This distinctive skin lesion is called erythema migrans. The incubation period for Lyme disease ranges from three to 32 days after tick exposure; however, the early stages of the illness may be asymptomatic, and the patient may later develop systemic symptoms and rheumatologic, neurologic or cardiac involvement in varying combinations over a period of months to years.

Currently, increasing recognition of the disease is redefining enzootic areas for *B. burgdorferi*; Lyme disease cases have been reported in 47 states, and in Ontario and British Columbia, Canada. Elsewhere, related borrelioses have been found in Europe, the former Soviet Union, China and Japan.

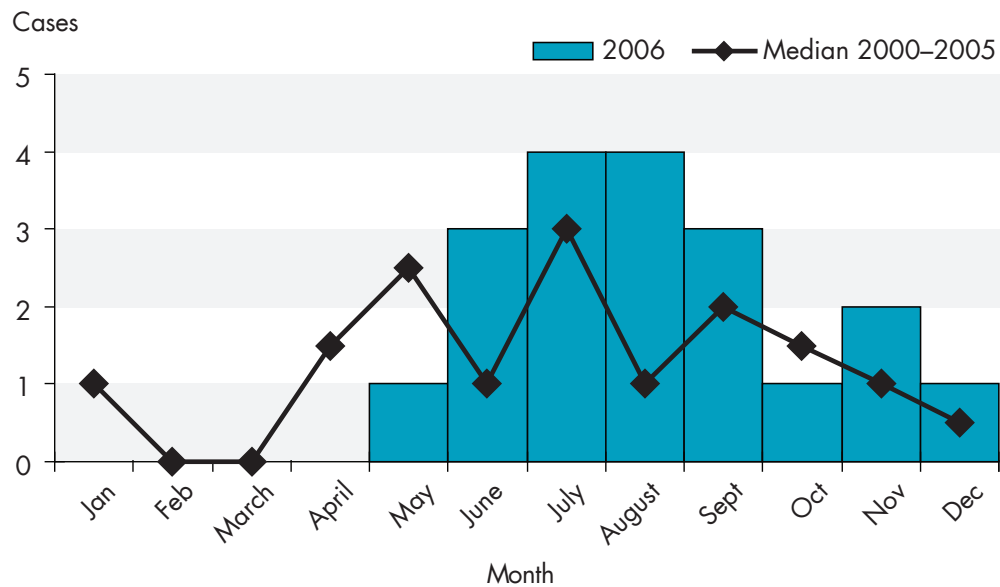
In 1997–1998, a tick identification and *Borrelia* isolation study was conducted by the CDC and the Oregon Department of Human Services in Deschutes, Josephine and Jackson counties. No ticks from Deschutes County were identified as carrying *Borrelia* in this study. The organism was isolated in 3% of *Ixodes pacificus* ticks tested.

During 2006, 19 cases were reported in Oregon. The median age was 43 years. Twelve (63%) of the cases occurred between May and August. Seventeen (89%) of the cases resided west of the Cascades.

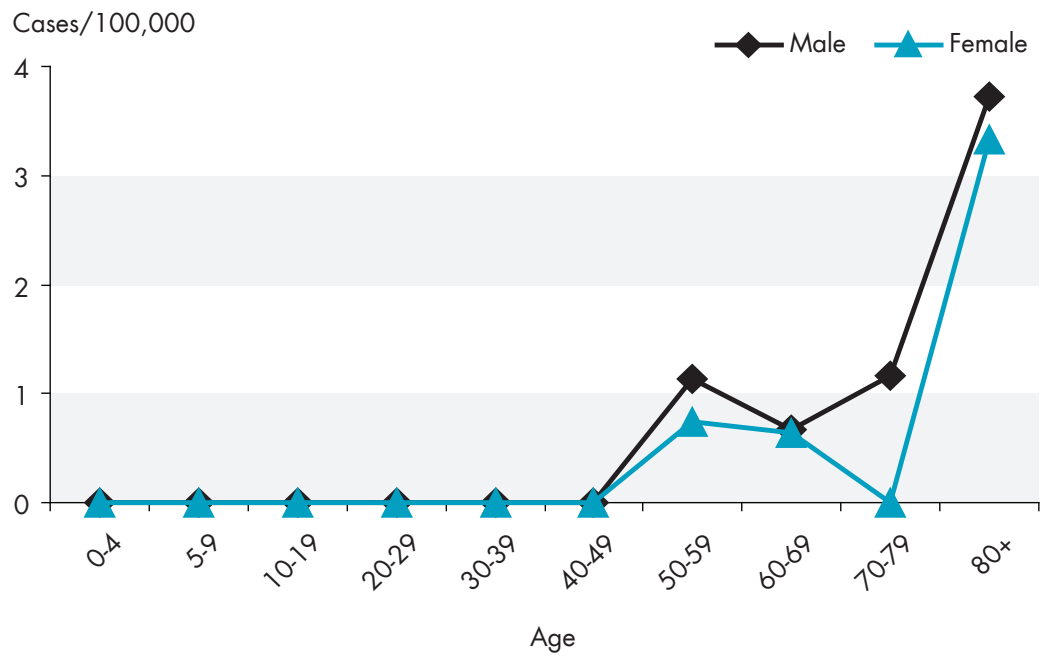
Lyme disease by year - Oregon, 1997–2006



Lyme disease by onset month - Oregon, 2006



Incidence of Lyme disease by age and sex - Oregon, 2006

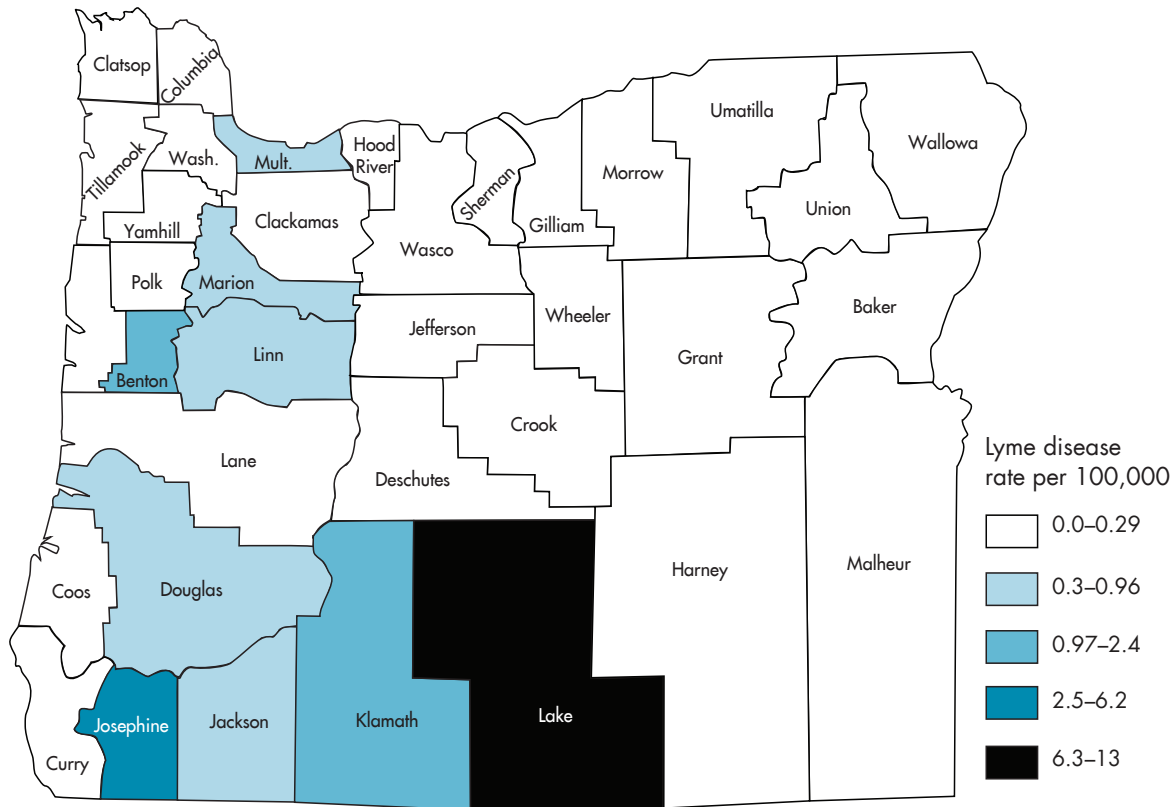


Incidence of Lyme disease - Oregon vs. nationwide, 1997-2006



Incidence of Lyme disease by county of residence* - Oregon, 1995–2006

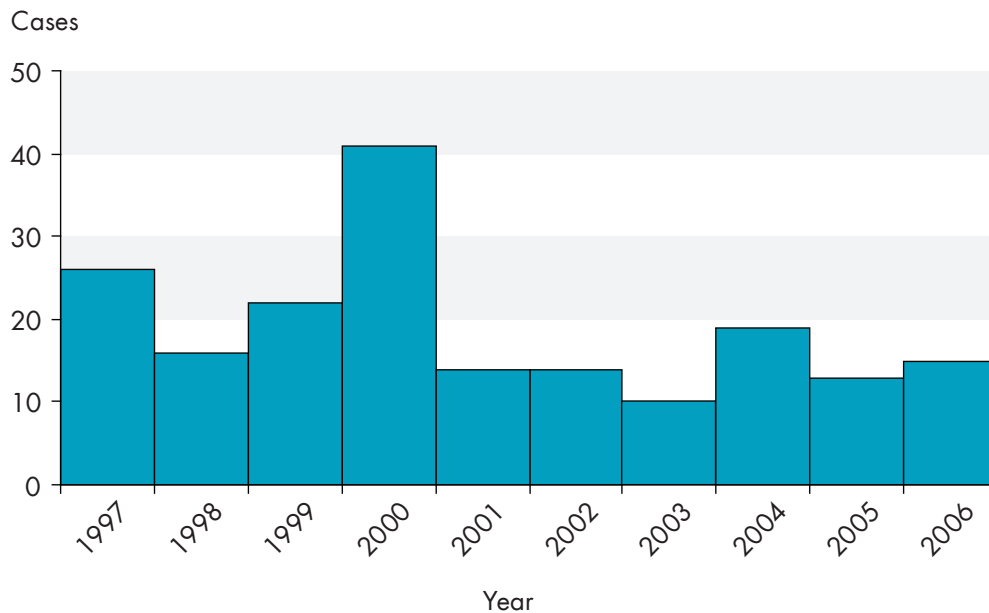
*not necessarily county of acquisition



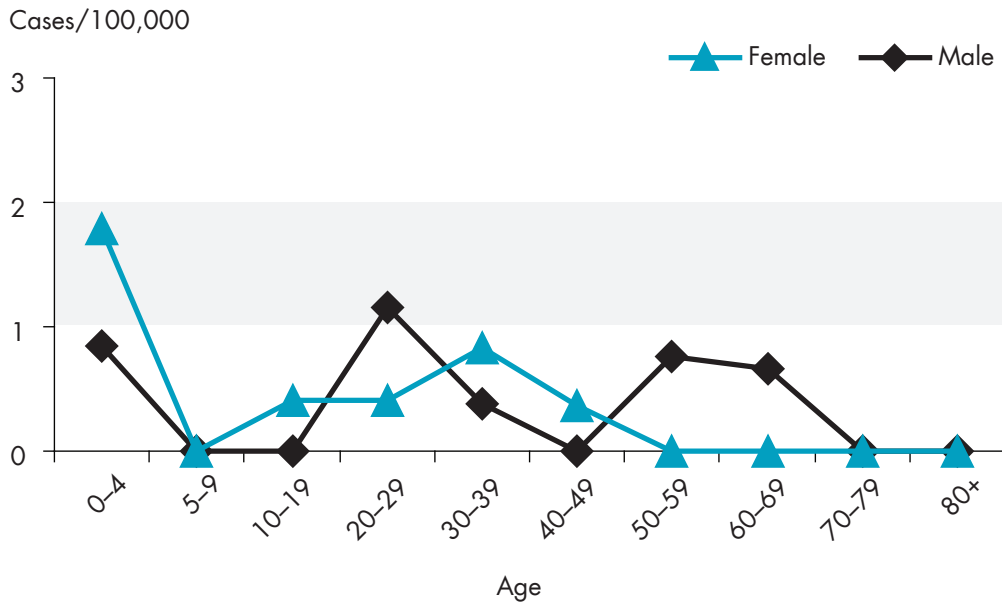
Malaria

Worldwide, malaria is one of the most devastating of the communicable diseases, causing perhaps 1–2,000,000 deaths annually, not to mention an enormous burden of disability and medical costs. While transmission has not been documented in Oregon for decades, malaria is reported every year in our state — all cases resulting from exposures outside the United States. Competent anopheline mosquitoes are resident in Oregon, so limited local transmission remains a theoretical possibility. Rates in Oregon are similar to the national average. Oregon surveillance data are contributed to the national database, which is used to tailor recommendations for prophylaxis and treatment. *Plasmodium falciparum* (the most severe of the four human parasite species) was the most commonly reported flavor in 2006.

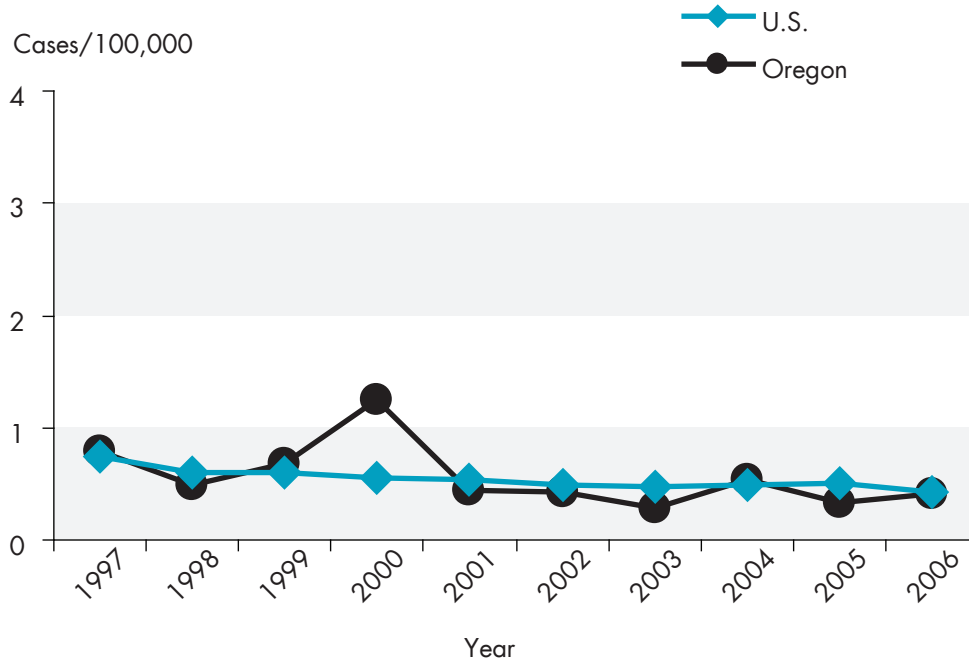
Malaria by year - Oregon, 1997–2006



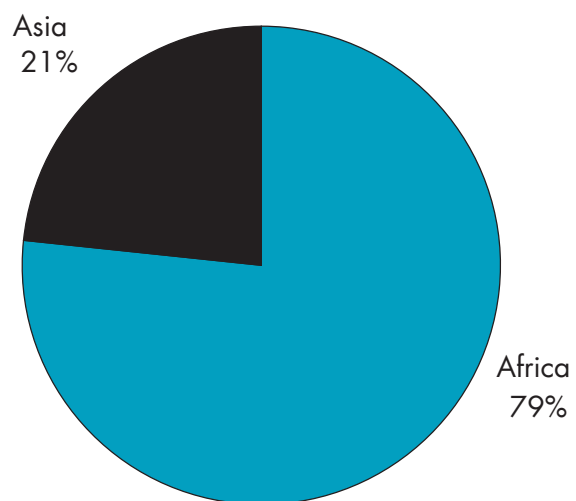
Incidence of malaria by age and sex - Oregon, 2006



Incidence of malaria - Oregon vs. nationwide, 1997-2006



Malaria by continent of acquisition - Oregon, 2006

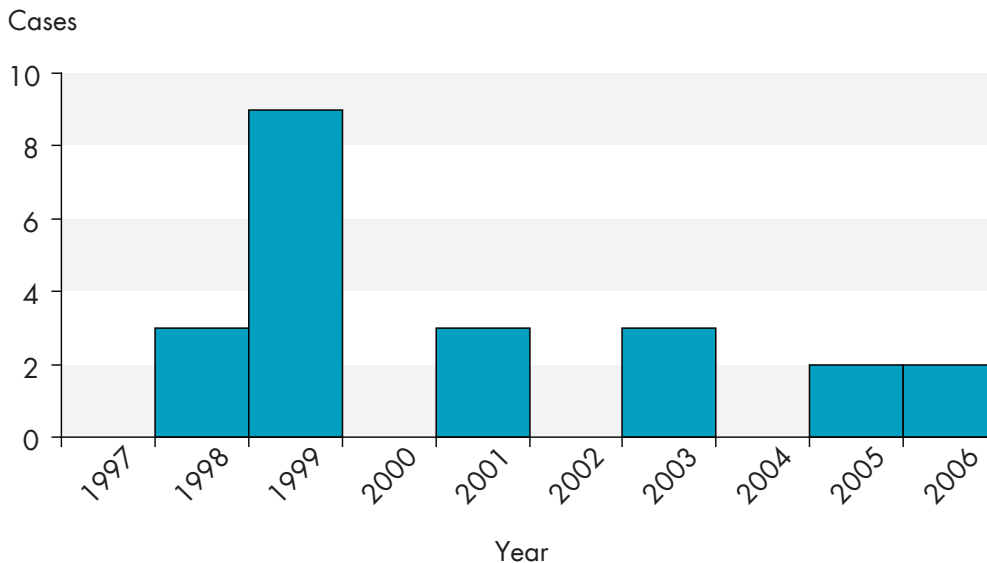


Measles

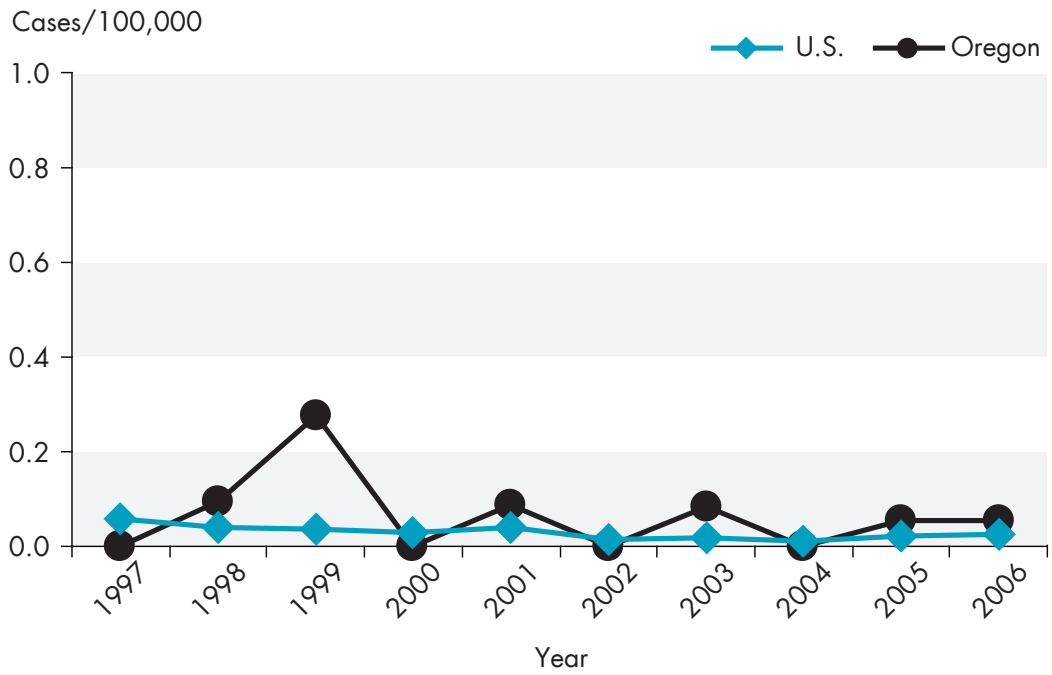
Measles is an acute, highly communicable viral illness, known for its red, blotchy rash that starts on the face and then becomes generalized. The rash is preceded by a febrile prodrome that includes cough, coryza and conjunctivitis, and sometimes photophobia and Koplik spots. Diagnosis is confirmed by the presence of serum IgM antibodies (in a patient who has not recently been immunized).

Measles is no longer endemic in the United States. However, cases are occasionally imported; in 2006, cases in Oregon were imported from Asia and Africa. No indigenous cases were reported in 2006, and the risk of exposure to measles in Oregon remains low. Sustaining high levels of vaccination is important to limit spread of measles from imported cases and to prevent it from becoming re-established as an endemic disease in the United States.

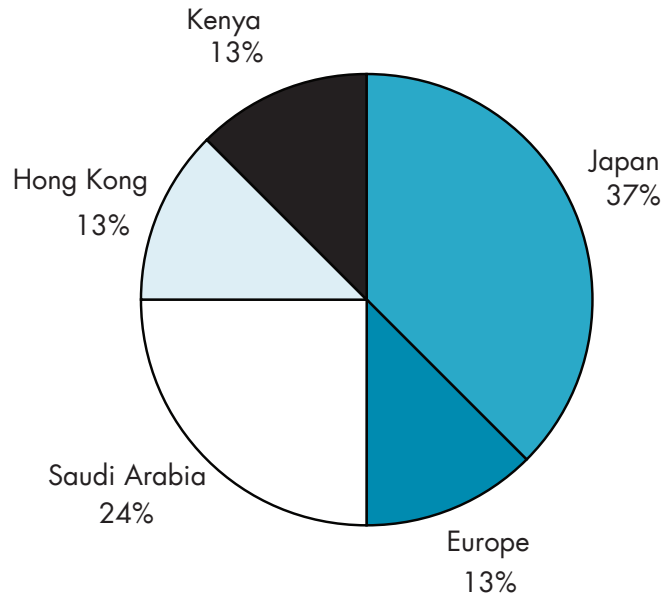
Measles by year - Oregon, 1997–2006



Incidence of measles - Oregon vs. nationwide, 1997-2006



Oregon measles cases by country of importation, 1997-2006

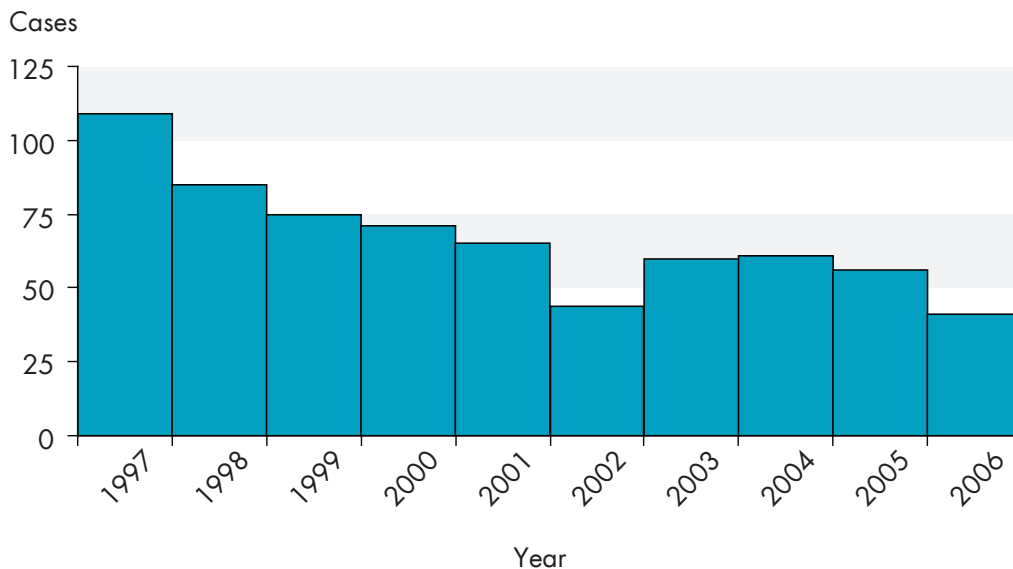


Meningococcal disease

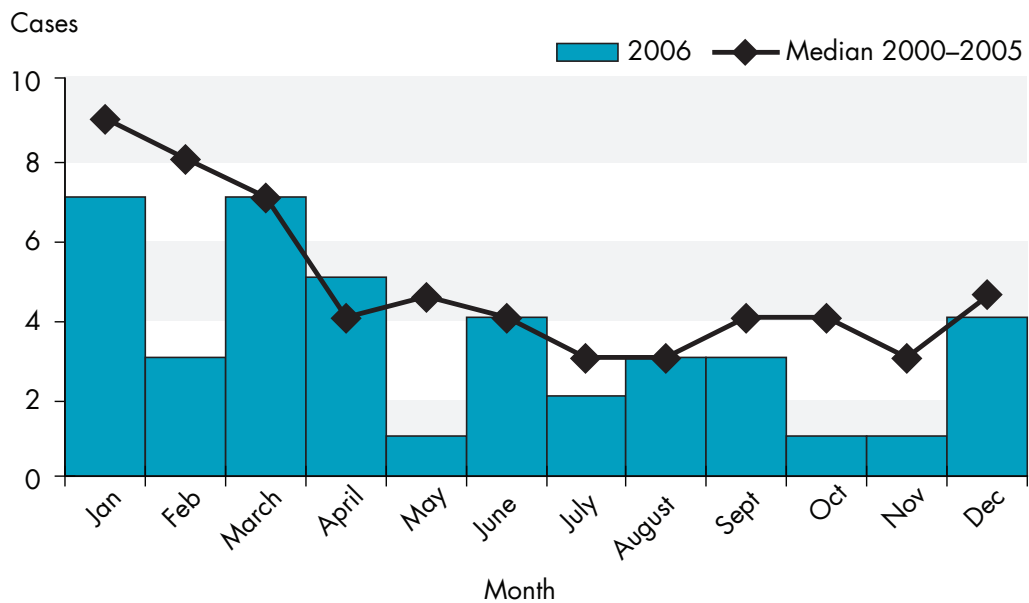
Reported cases of invasive meningococcal infections, including sepsis and meningitis, have declined from the hyperendemic levels seen in 1993–1997 to those observed prior to the advent of the enzyme-type 5 (ET5) strain of serogroup B. Respiratory secretions and droplets continue to be shared among Oregonians and predispose secondary cases.

In 2006, 41 cases of meningococcal disease were reported, a 17 year low. Though the trend in Oregon is one of decline, we continue to have higher rates than the nation. The highest majority of illness in Oregon has been caused by serogroup B organisms, but in 2006 they were only 36% of all Oregon isolates. December through March shows an increase in meningococcal activity, with the highest rates of disease occurring among infants. Higher rates are also seen in those aged 10–19 years and in persons over 70 years. Though a new conjugate vaccine (Menectra) for adolescents and young adults was licensed in 2006, this vaccine does not protect against serogroup B disease.

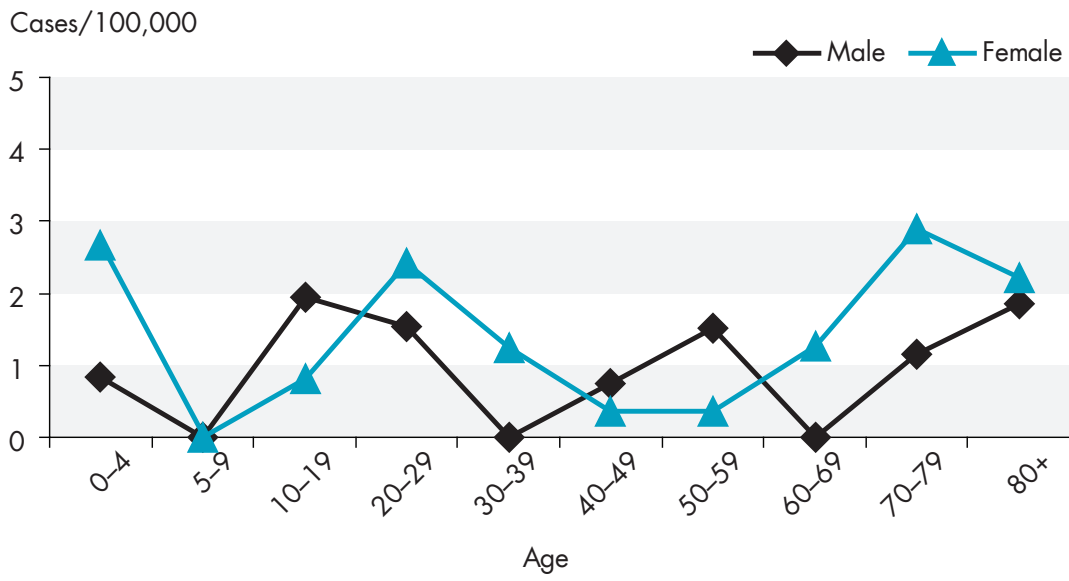
Meningococcal disease by year - Oregon, 1997–2006



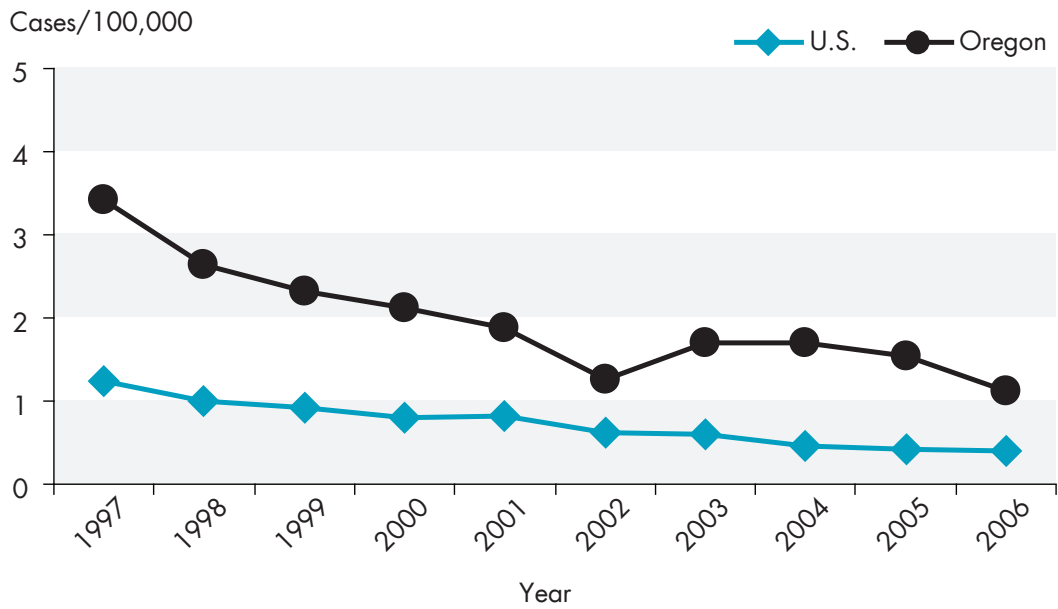
Meningococcal disease by onset month - Oregon, 2006



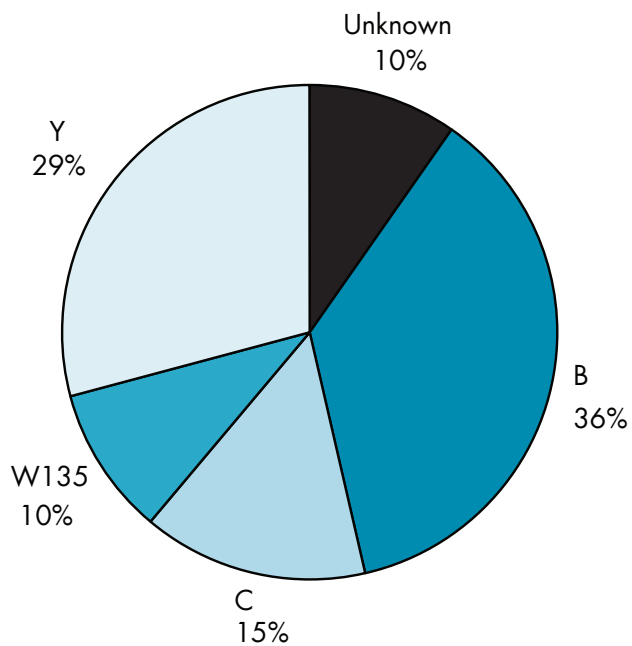
Incidence of meningococcal disease by age and sex - Oregon, 2006



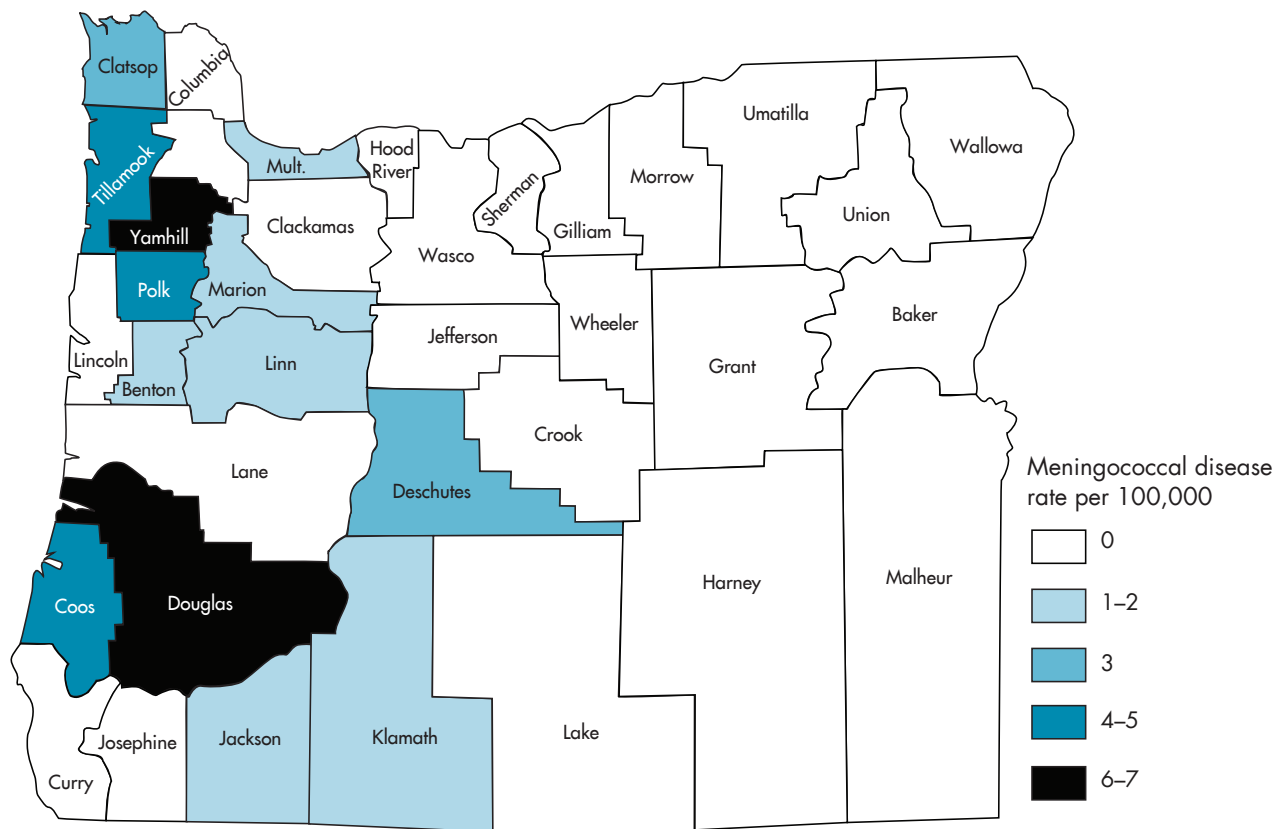
Incidence of meningococcal disease - Oregon vs. nationwide 1997–2006



Meningococcal disease by serogroup - Oregon, 2006



Incidence of meningococcal disease by county of residence - Oregon, 2006



Mumps

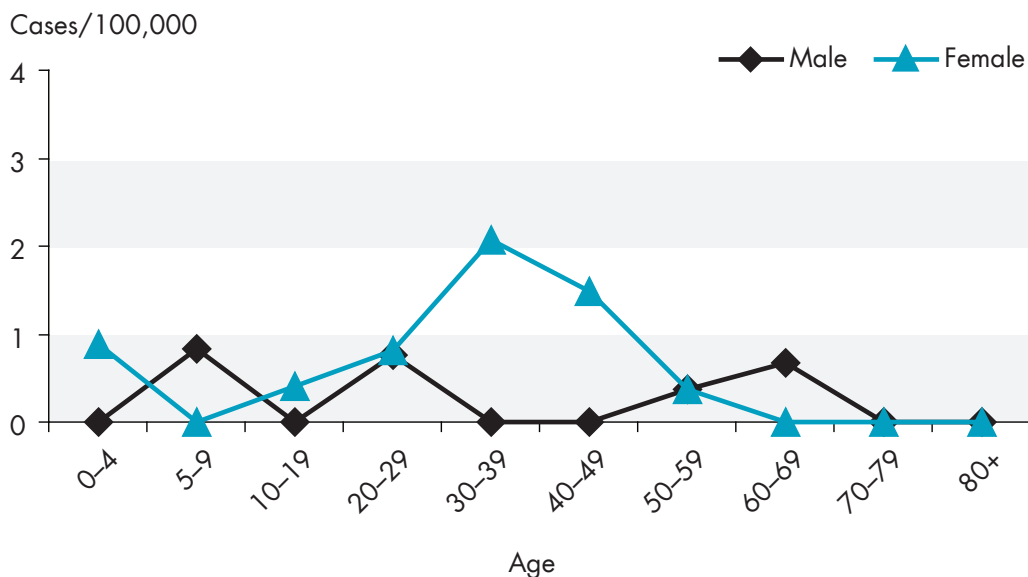
Mumps is an acute viral illness characterized by fever and swelling of the salivary glands, typically the parotids. Transmission is generally airborne through respiratory droplets or through direct contact with nasal secretions.

Reporting of this vaccine-preventable, viral infection was discontinued in Oregon in 1981. Once an almost universal childhood infection, mumps incidence decreased in the U.S. with routine childhood vaccination. Mumps reporting was re-established in Oregon July 1, 2006; prompted by outbreaks of illness among both vaccinated and unvaccinated persons. Nineteen cases of mumps were reported in 2006; 12 were residents of Lane County. The age of affected patients ranged from 4 to 69 years; the median age was 35 years.

Because as many as 20% of mumps infections are asymptomatic, and nearly 50% are associated with non-specific or primarily respiratory symptoms (with or without parotitis), mumps infections are significantly underreported.

In response to the 2006 nationwide mumps outbreak, the Advisory Committee on Immunization Practices (ACIP) recommendations for prevention and control of mumps were updated with vaccination remaining the cornerstone of prevention.

Incidence of mumps by age and sex - Oregon, 2006

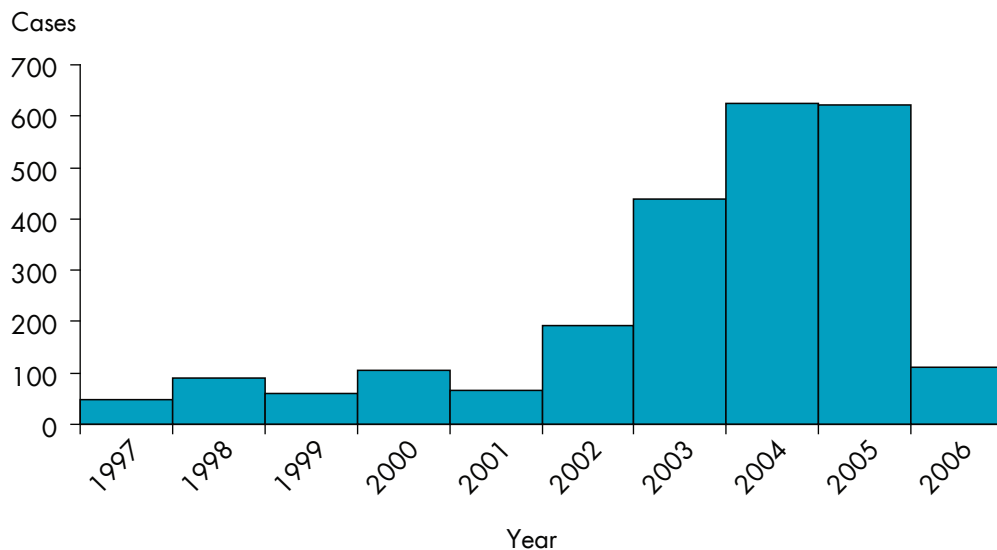


Pertussis

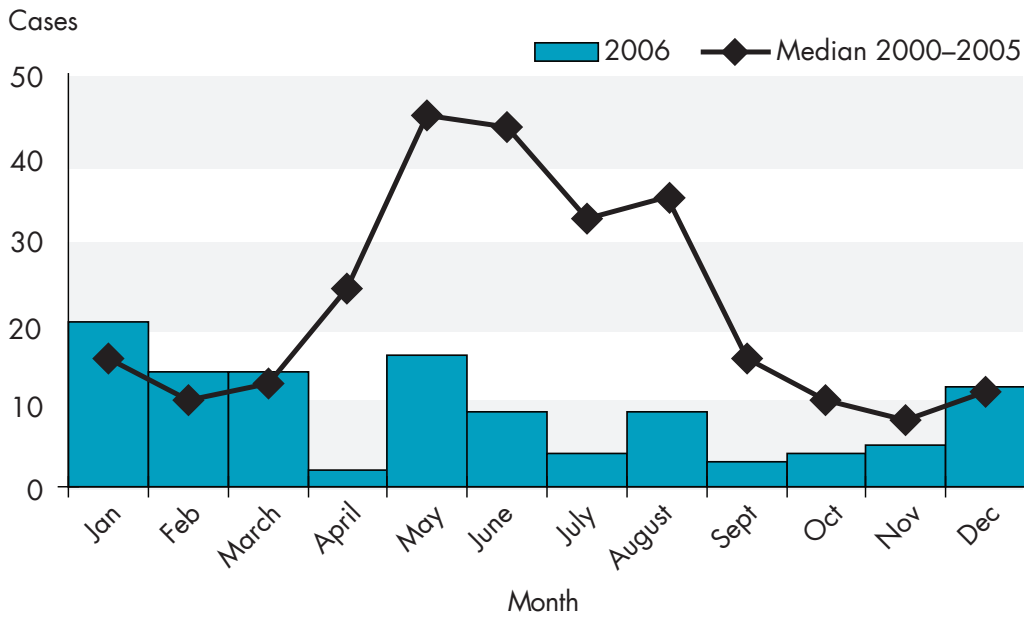
Pertussis is a highly contagious acute bacterial infection of the respiratory tract attributable to *Bordetella pertussis*. It is transmitted from person to person through contact with respiratory secretions (droplet transmission). Illness presents as an irritating cough that gradually becomes paroxysmal, and >50% of cases develop the characteristic inspiratory “whoop.” In 2004, reported cases reached the highest level since 1959. Although down considerably from levels seen in 2004 and 2005, pertussis transmission continued in 2006. Because pertussis often goes undiagnosed in adolescents and adults, it is likely that the actual number of cases greatly exceeds the number reported.

In Oregon, most hospitalizations and all deaths from pertussis are reported in infants aged < 6 months, but substantial morbidity occurs in other age groups. “Adolescents,” included in the 10- to 19-year-old group, have high documented rates, and Oregon has seen a number of large and disruptive outbreaks among middle school and high school students. Pertussis vaccine, available for adolescents and adults as “Tdap” should provide some immunity to the disease for all of us older kids. Health care workers in particular are encouraged to get a dose.

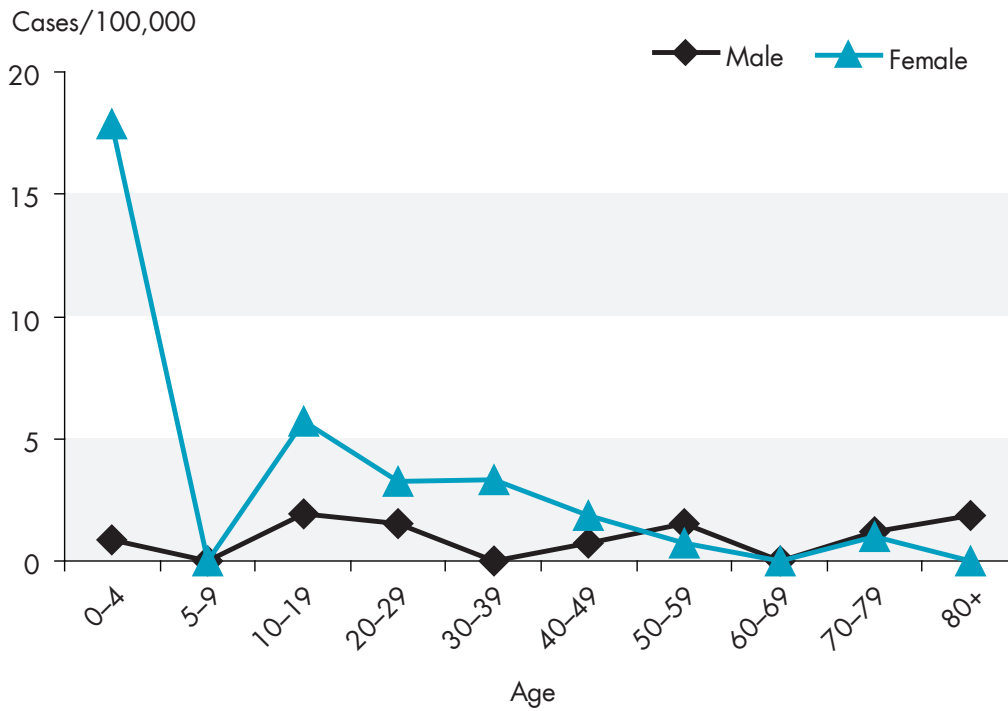
Pertussis by year - Oregon, 1997–2006



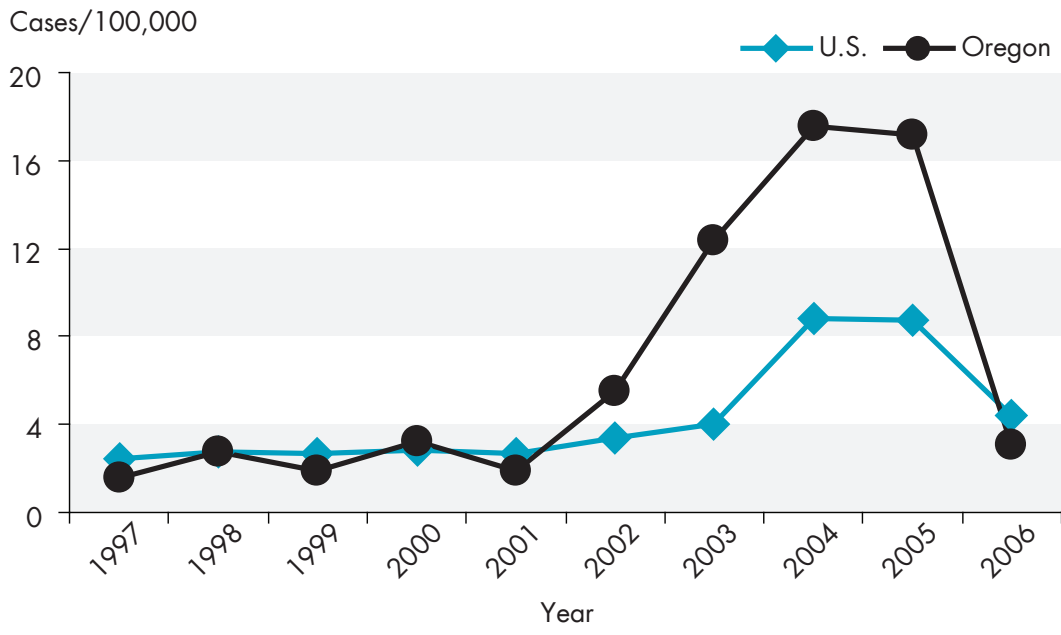
Pertussis by onset month - Oregon, 2006



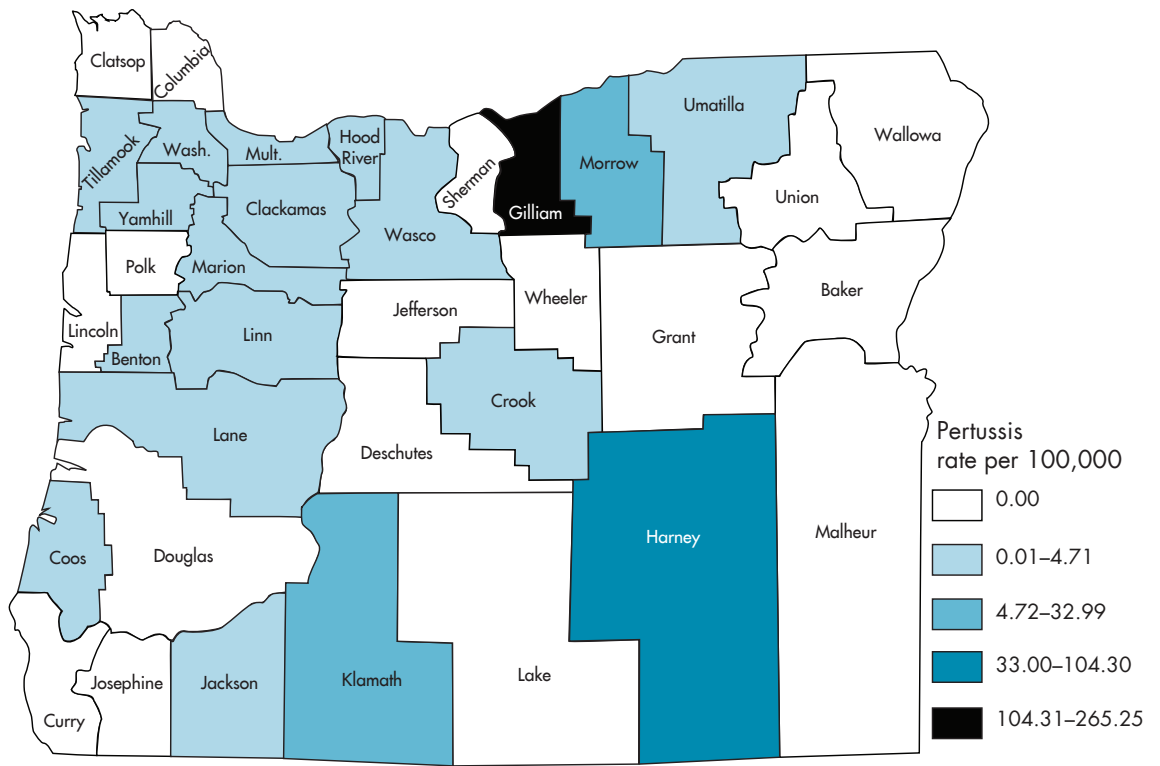
Incidence of pertussis by age and sex - Oregon, 2006



Incidence of pertussis - Oregon vs. nationwide 1997-2006



Incidence of pertussis by county of residence - Oregon, 2006



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 two to 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 and corneas from patients with fatal, undiagnosed rabies have also caused infection in recipients.

Though terrestrial rabies of raccoons is prevalent in the Eastern U.S., in Oregon, the main sources are bats and animals that come in contact with rabid bats (foxes and cats). An average of 10% of the bats that are tested in Oregon, are positive for rabies. This is not a random sample of all bats, but generally ones that have come in contact with humans or other mammals. Human exposures to bats should be carefully evaluated in a timely manner.

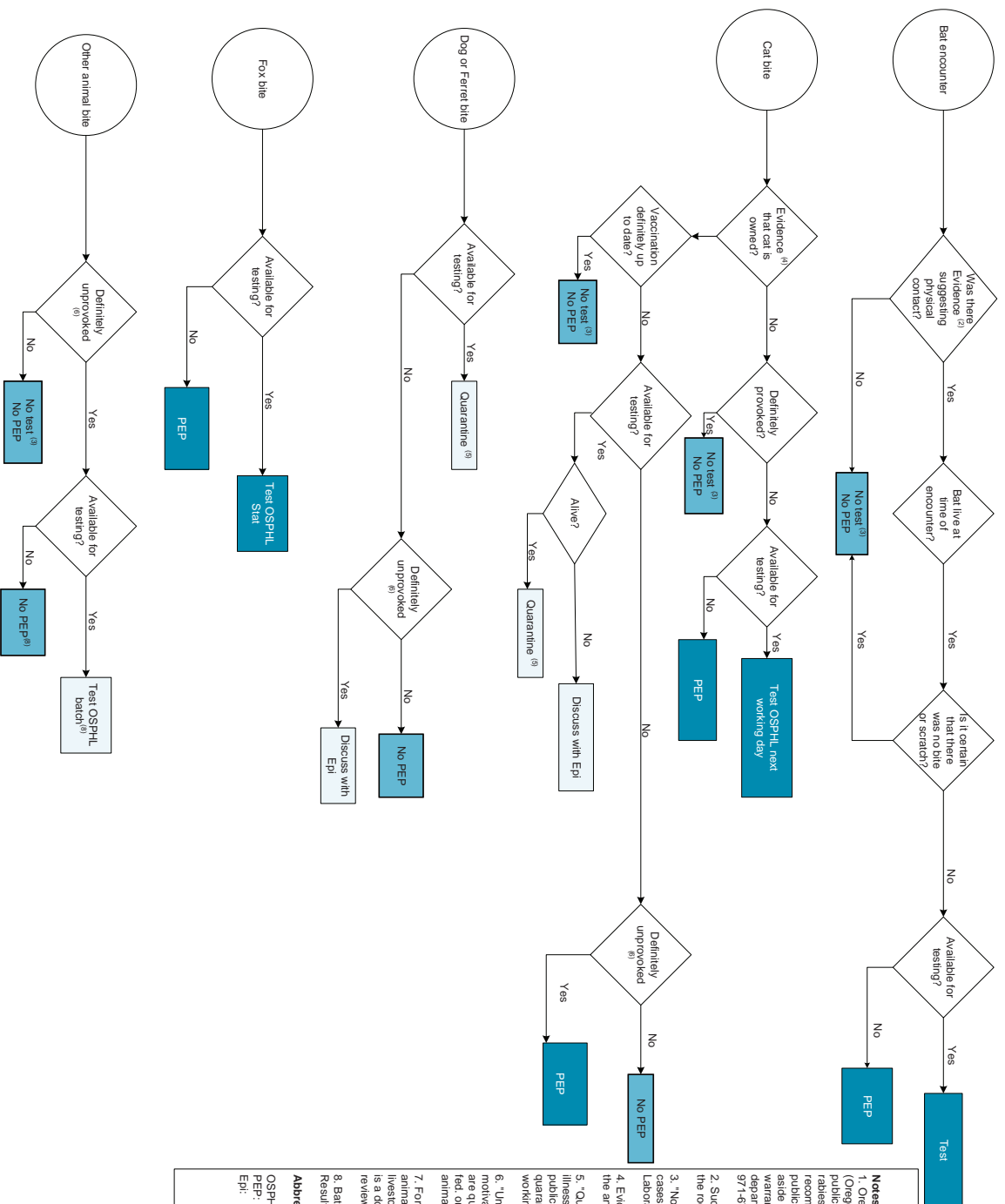
When there is human exposure, testing for rabies should be done at the Oregon State Public Health Laboratories. For animal-to-animal exposures, testing is done at Oregon State University.

Persons not previously immunized for rabies who are exposed to a rabid animal should obtain human rabies immune globulin (HRIG) infiltrated at the site of the bite and five doses of rabies vaccine, one each on days 0, 3, 7, 14 and 28.

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

An algorithm to follow for assessment of rabies risk is provided.

Algorithm for Prevention of Rabies After Animal Encounters in Oregon ⁽¹⁾



Notes

- Oregon law mandates reporting of any bite of a human being by any other mammal (Oregon Administrative Rule 333-018-0015[5] [C]); such report should be made to the local public health authority for the jurisdiction in which the patient resides. Decisions about rabies PEP are the purview of the clinician attending the patient; although these recommendations regarding the need for rabies PEP represent the best judgment of state public-health officials, they are not binding on clinicians. Clinicians should be advised that, aside from concern about rabies, prophylaxis against tetanus or bacterial infection might be warranted, depending on the nature of the wound and the animal involved. Local health department personnel are advised to call Acute and Communicable Disease Prevention at 971-673-1111 with specific questions regarding application of these guidelines.
- Such evidence might include, e.g., a young child's waking up, crying, with a bat found in the room.

3. "No Test" means that the animal will not be tested at OSPHL, at state expense. In such cases, the animal may be tested at the Oregon State University Veterinary Diagnostics Laboratory (541-737-3281) at private expense.

4. Evidence of ownership might include, e.g., presence of collar or previous appearances of the animal in a neighborhood.

5. "Quarantine" means confining a dog, cat or ferret for 10 days to observe for signs of illness after biting a human being. The nature of the confinement is determined by the local public health authority. If the animal develops neurological illness, during the period of quarantine, it should be euthanized and its head shipped to OSPHL for testing within one working day.

6. "Unprovoked" implies that in the context of the situation there was no obvious alternative motivation for the animal to bite. A good history is essential. In practice, unprovoked bites are quite rare. Examples of provocation would include being hit by a car, being handled, fed, or caged; being cornered in a garage, having a jogger run past your yard or crowding animal's space, etc.

7. For purposes of determining need for rabies PEP, wolf/hybrids are considered wild animals and not dogs. Wolf-dog hybrids that bite or otherwise expose persons, pets, or livestock should be considered for euthanasia, and rabies examination. Whether an animal is a dog or a wolf-dog hybrid must be determined by a licensed veterinarian, subject to review by the State Public Health Veterinarian or designee (OR 333-019-40022).

8. Batch testing for rabies is generally done at OSPHL on Mondays and Wednesdays. Results are available the following day.

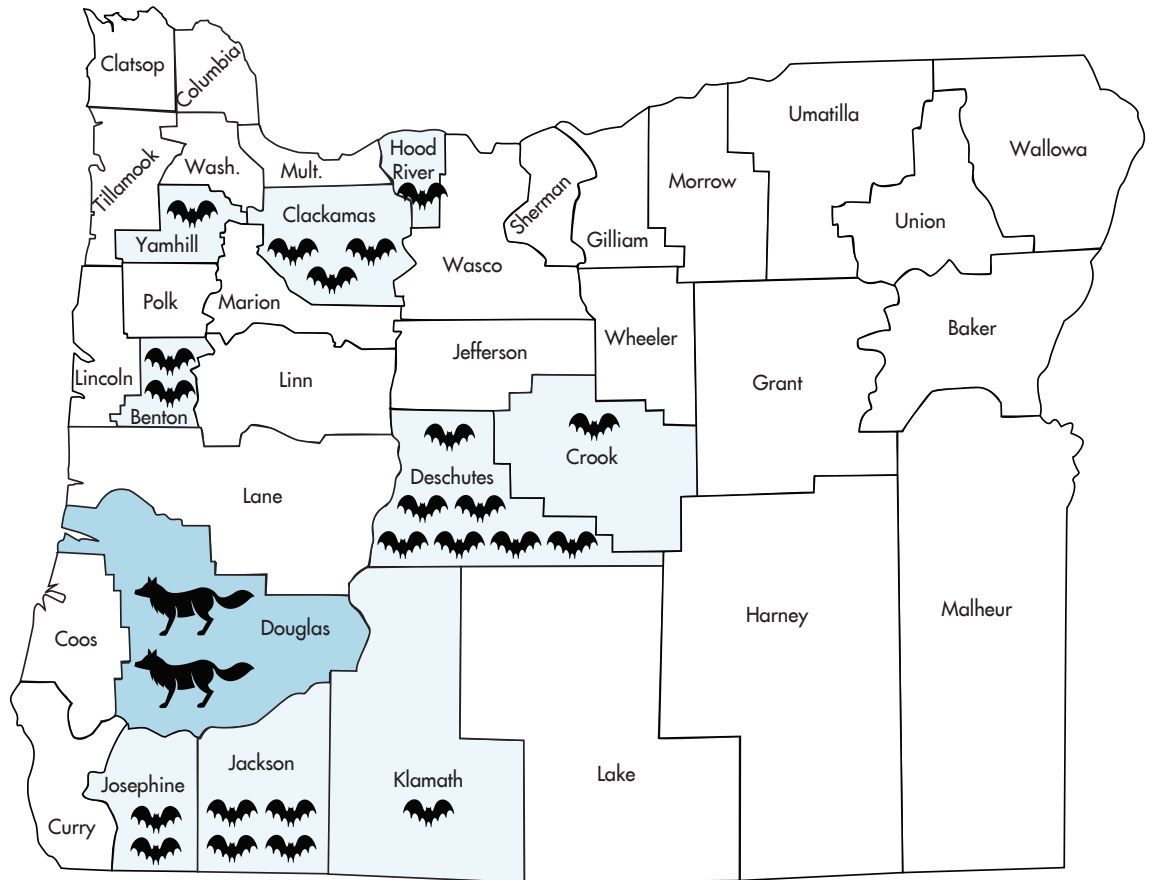
Abbreviations

- OSPHL: Oregon State Public Health Laboratory (503-693-4100)
 PEP: Post-Exposure Prophylaxis against rabies
 Epi: Epidemiologist at the Oregon Department of Human Services; Weekdays, nights and weekends 971-673-1111

Rabies tests in Oregon, 1990–2006 (number of positive/number tested)

| Year | Bat | Cat | Dog | Fox | Other Animals |
|-----------|----------|--------|---------|-------|---------------|
| 1990 | 1/29 | 0/61 | 0/34 | 0/1 | 0/14 |
| 1991 | 4/40 | 1/85 | 1/54 | 1/4 | 0/19 |
| 1992 | 2/29 | 0/98 | 0/54 | 0/4 | 0/54 |
| 1993 | 2/43 | 1/96 | 0/34 | 4/10 | 0/59 |
| 1994 | 10/47 | 0/88 | 0/58 | 3/7 | 0/78 |
| 1995 | 3/47 | 0/98 | 0/61 | 5/5 | 0/159 |
| 1996 | 3/48 | 0/51 | 0/33 | 0/5 | 0/58 |
| 1997 | 14/116 | 1/83 | 0/52 | 0/6 | 0/45 |
| 1998 | 6/95 | 0/95 | 0/56 | 0/3 | 0/49 |
| 1999 | 11/115 | 1/95 | 0/45 | 0/1 | 1/47 (Cow) |
| 2000 | 8/73 | 0/79 | 0/56 | 1/4 | 0/4 |
| 2001 | 4/59 | 0/67 | 0/46 | 0/1 | 0/41 |
| 2002 | 12/134 | 0/102 | 0/27 | 2/4 | 0/29 |
| 2003 | 6/61 | 0/75 | 0/36 | 1/5 | 0/39 |
| 2004 | 7/88 | 0/105 | 0/42 | 0/2 | 0/27 |
| 2005 | 8/83 | 0/100 | 0/48 | 0/1 | 0/23 |
| 2006 | 23/126 | 0/72 | 0/26 | 2/4 | 0/41 |
| Totals | 124/1233 | 4/1450 | 1/765 | 19/67 | 1/786 |
| 1990–2006 | (10%) | (0.3%) | (0.11%) | (28%) | (0.1%) |

Rabies-positive animals by county - Oregon, 2006



Salmonellosis

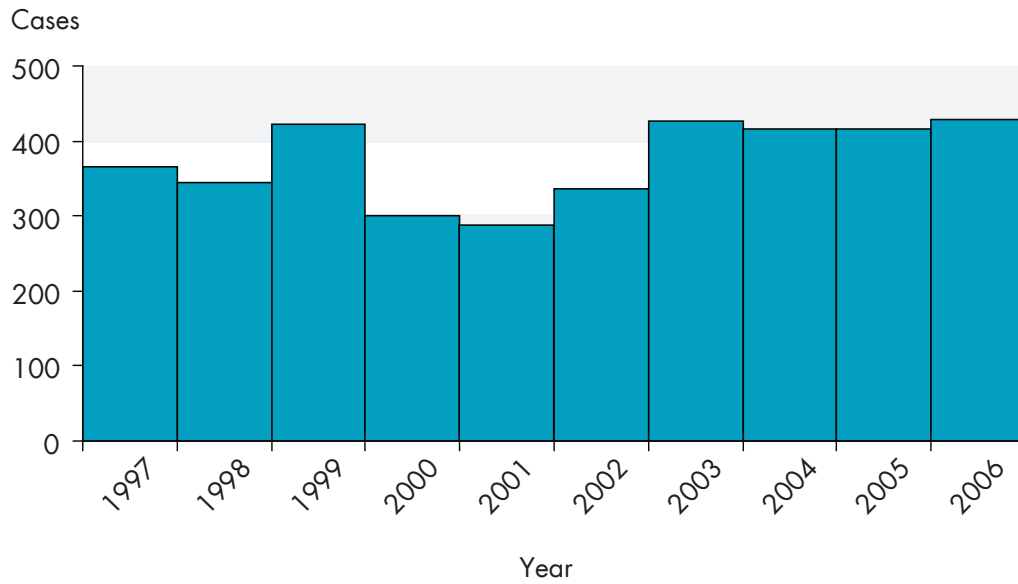
Salmonellosis is a bacterial illness characterized by acute abdominal pain, diarrhea, and often fever that begins 12 hours to five days after infection. In cases of enterocolitis, fecal excretion usually persists for several days or weeks beyond the acute phase of illness; antibiotics generally have no effect on the illness and, in fact, may increase the duration of excretion of organisms.

A wide range of domestic and wild animals are carriers of *Salmonella*, including poultry, swine, cattle, rodents, iguanas, tortoises, turtles, terrapins, young poultry, dogs and cats. The majority of human infections are thought to result from the ingestion of fecally contaminated food or water. Undercooked or raw products of animal origin such as eggs, milk, meat, and poultry have been implicated as common sources of human salmonellosis. More recently, produce (cantaloupe, alfalfa sprouts) has been a common source of infection. Though uncommon, person-to-person spread can occur in humans — via patients, convalescent carriers and, especially, mild and unrecognized cases. The incidence of infection is highest in infants and young children.

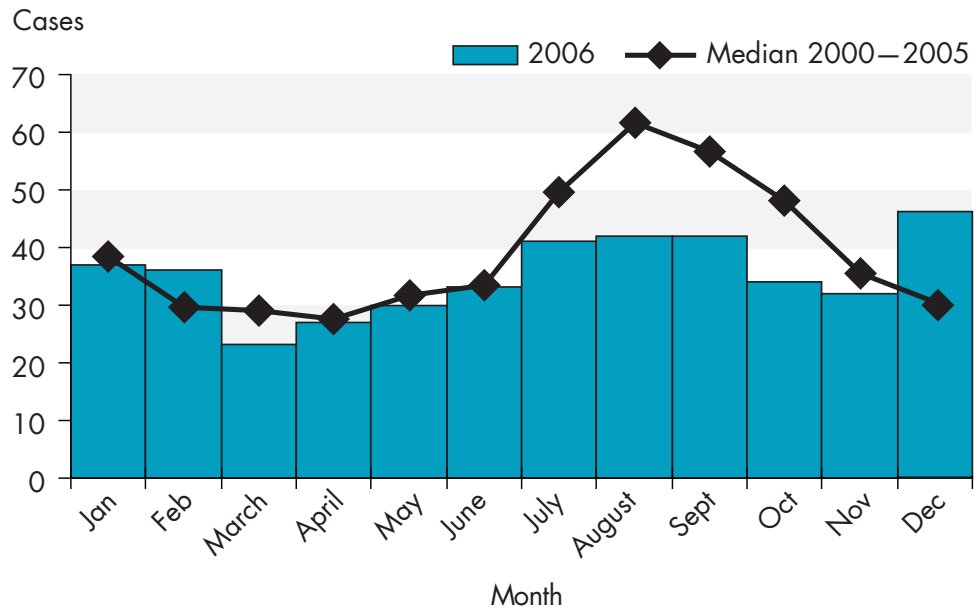
Of approximately 2,500 known serotypes, only about 200 are detected in the U.S. in any given year. In Oregon, *S. Typhimurium* and *S. Enteritidis* are the two most commonly reported.

In 2006, 11 outbreaks of salmonellosis were investigated in Oregon. Of those, five were confirmed to be foodborne, three were related to animal contact, and in three the source of the *Salmonella* could not be determined.

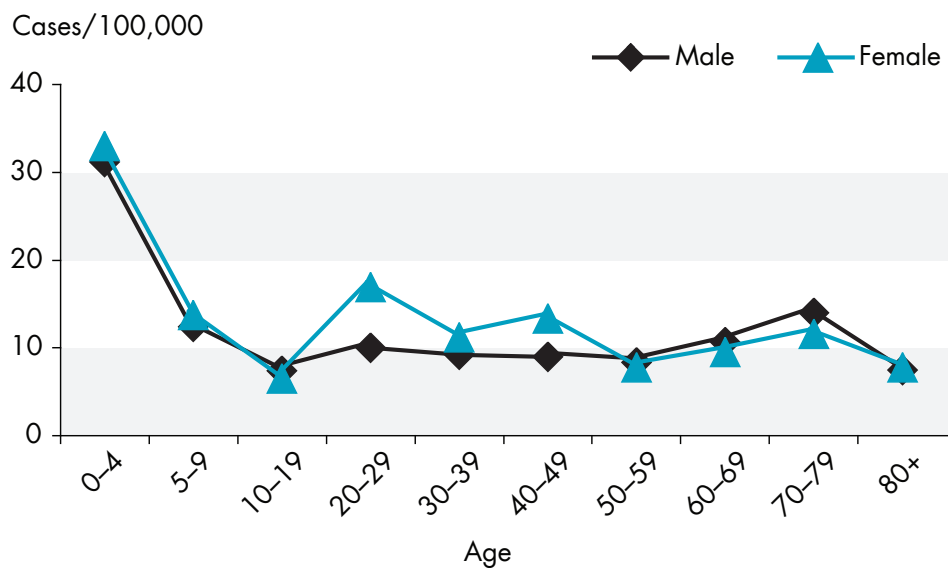
Salmonellosis by year - Oregon, 1997–2006



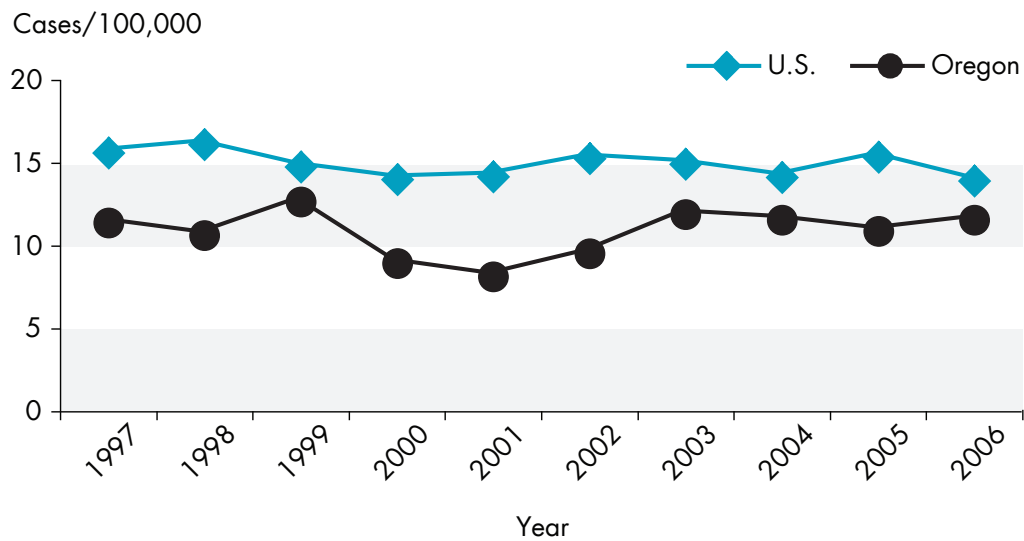
Salmonellosis by onset month - Oregon, 2006



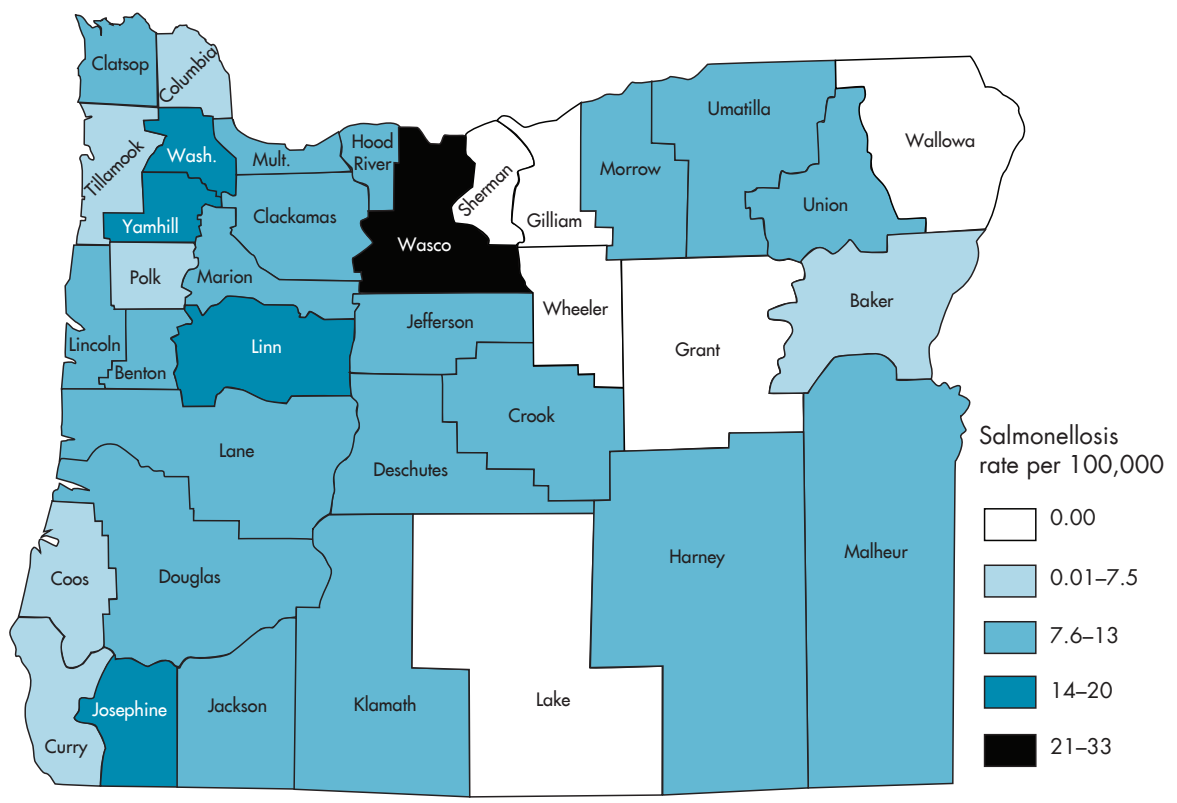
Incidence of salmonellosis by age and sex - Oregon, 2006



Incidence of salmonellosis - Oregon vs. nationwide, 1997-2006



Incidence of salmonellosis by county of residence - Oregon, 2006



Selected* *Salmonella* by serotype - Oregon, 2006

| | 2002 | 2003 | 2004 | 2005 | 2006 | | 2002 | 2003 | 2004 | 2005 | 2006 |
|-------------|------|------|------|------|------|------------------|------|------|------|------|------|
| Abony | 0 | 0 | 0 | 0 | 1 | Montevideo | 17 | 16 | 15 | 15 | 13 |
| Agona | 4 | 8 | 7 | 0 | 8 | Muenchen | 10 | 5 | 7 | 8 | 8 |
| Altona | 0 | 0 | 0 | 0 | 1 | Muenster | 0 | 2 | 2 | 2 | 2 |
| Amager | 0 | 0 | 3 | 0 | 2 | Newport | 31 | 38 | 14 | 17 | 16 |
| Apapa | 1 | 0 | 0 | 0 | 1 | Nottingham | 0 | 0 | 0 | 0 | 1 |
| Bareilly | 0 | 0 | 0 | 0 | 2 | Ohio | 0 | 2 | 0 | 9 | 5 |
| Benin | 0 | 0 | 0 | 0 | 1 | Oranienburg | 12 | 13 | 6 | 8 | 5 |
| Berta | 0 | 0 | 0 | 0 | 2 | Panama | 2 | 4 | 1 | 2 | 1 |
| Braenderup | 4 | 1 | 2 | 1 | 11 | Paratyphi A | 1 | 2 | 0 | 0 | 5 |
| Colindale | 1 | 0 | 0 | 0 | 1 | Paratyphi B | 0 | 0 | 0 | 0 | 1 |
| | | | | | | Paratyphi B var. | | | | | |
| Derby | 0 | 0 | 0 | 0 | 2 | Java | 8 | 7 | 17 | 20 | 7 |
| Dublin | 1 | 3 | 3 | 3 | 3 | Poona | 7 | 3 | 4 | 0 | 4 |
| Enteritidis | 48 | 78 | 60 | 86 | 74 | Reading | 3 | 1 | 3 | 0 | 1 |
| Hadar | 9 | 6 | 3 | 5 | 5 | Saintpaul | 18 | 36 | 16 | 7 | 10 |
| Havana | 0 | 1 | 2 | 0 | 1 | Schwarzengrund | 1 | 0 | 1 | 0 | 1 |
| Heidelberg | 27 | 12 | 37 | 51 | 19 | Senftenberg | 3 | 1 | 2 | 1 | 3 |
| Infantis | 1 | 2 | 10 | 5 | 7 | Stanley | 4 | 5 | 2 | 5 | 11 |
| Irumu | 0 | 0 | 0 | 0 | 1 | Tennessee | 1 | 0 | 1 | 1 | 2 |
| Javiana | 3 | 3 | 1 | 4 | 5 | Thompson | 1 | 2 | 1 | 6 | 9 |
| Kingabwa | 0 | 0 | 0 | 0 | 2 | Typhimurium | 67 | 79 | 85 | 84 | 90 |
| Litchfield | 0 | 0 | 2 | 0 | 2 | Virchow | 1 | 0 | 0 | 1 | 2 |
| Lomalinda | 0 | 1 | 0 | 0 | 1 | Weltevreden | 0 | 2 | 0 | 1 | 1 |
| London | 0 | 1 | 0 | 0 | 1 | Worthington | 1 | 0 | 0 | 0 | 1 |
| Mbandaka | 0 | 1 | 2 | 0 | 3 | Other serotype | 49 | 72 | 87 | 74 | 58 |
| Molade | 0 | 1 | 0 | 0 | 1 | Unknown | 16 | 32 | 34 | 16 | 22 |
| Monschau | 0 | 0 | 0 | 0 | 1 | Total | 335 | 424 | 415 | 417 | 424 |

*must have at least one case reported in 2006, other serotypes not listed might have been reported in previous years

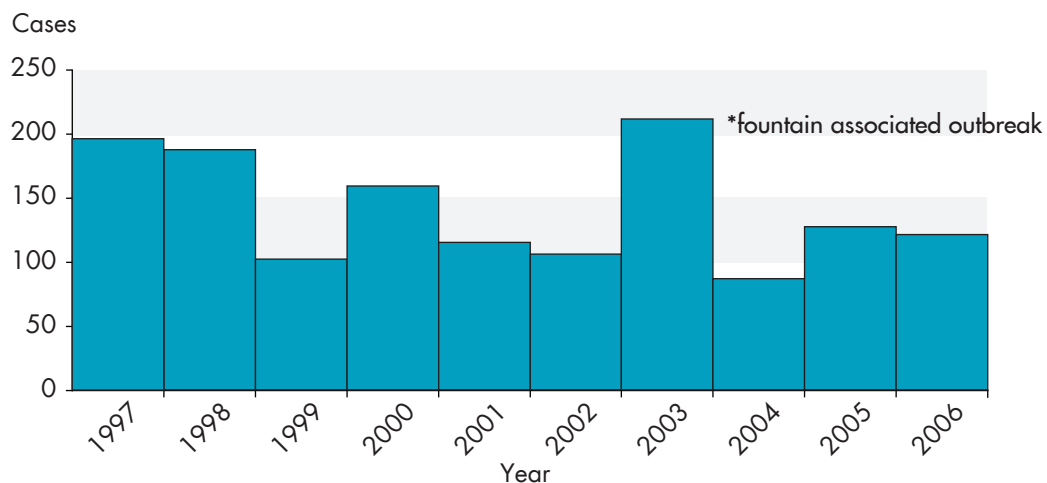
Shigellosis

Shigellosis is an acute bacterial infection characterized by (sometimes bloody) diarrhea, vomiting, abdominal cramps and, often, fever. Humans are the only known reservoir. It is transmitted from person to person, and just a few organisms can cause illness. It is important to track the incidence of this disease to see trends and to detect outbreaks. The rate is higher among children 1–4 years of age. The incidence of shigellosis usually increases in late summer and fall.

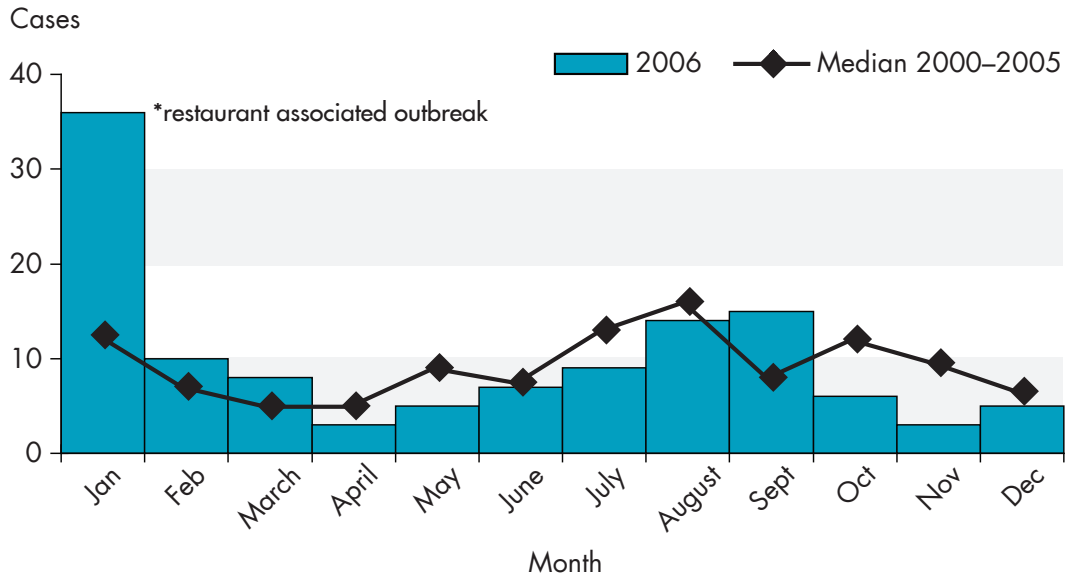
Outbreaks in day-care centers are common, mainly due to the poor hygienic practices of small children. Hand washing is the most important means of prevention. Treatment reduces duration of illness, but the organism has become resistant to many antibiotics used for empiric therapy. Testing for antibiotic susceptibility is important for treatment.

The number of cases in 2006 was similar to that in 2005. A large cluster of cases in January 2006 was due to a restaurant-associated outbreak. In addition, there was a single day-care outbreak.

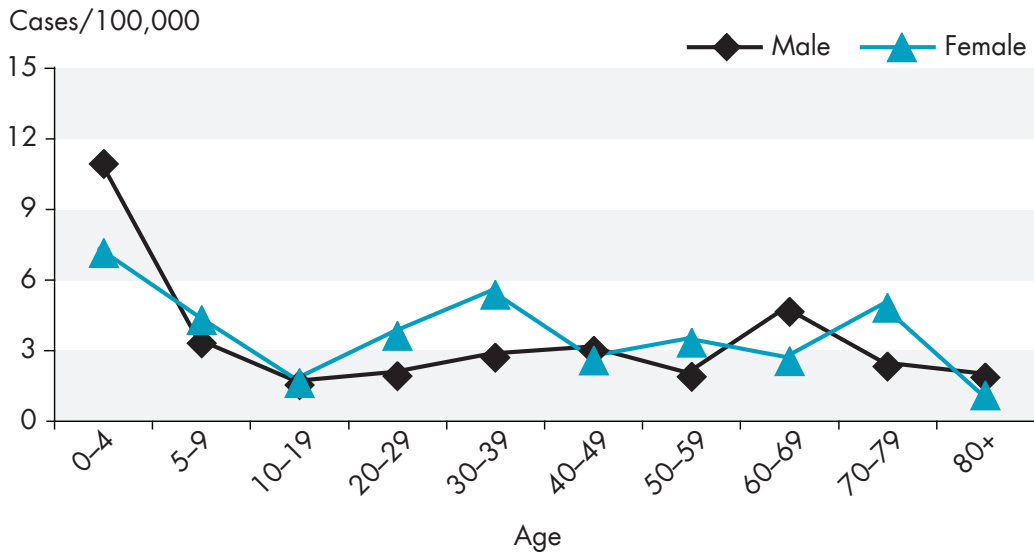
Shigellosis by year - Oregon, 1997–2006



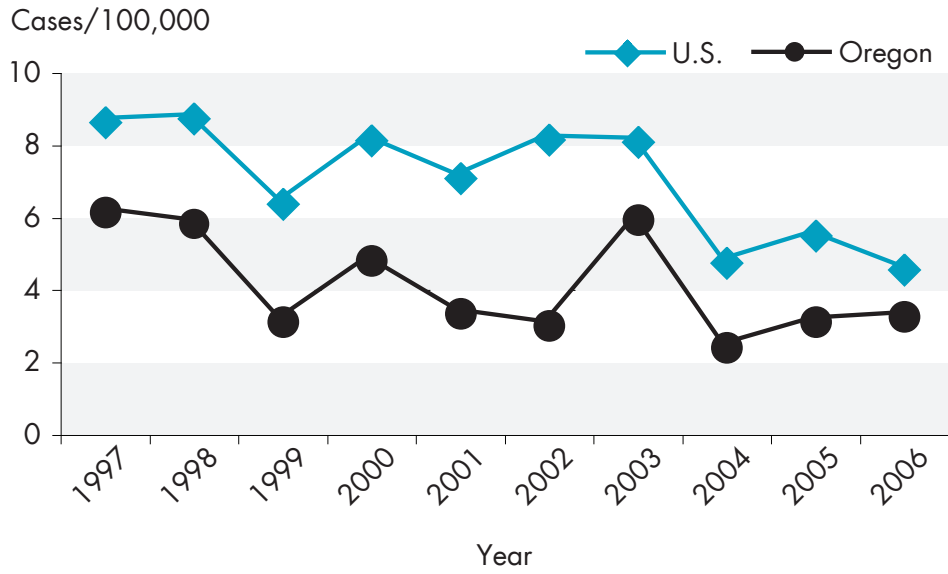
Shigellosis by onset month - Oregon, 2006



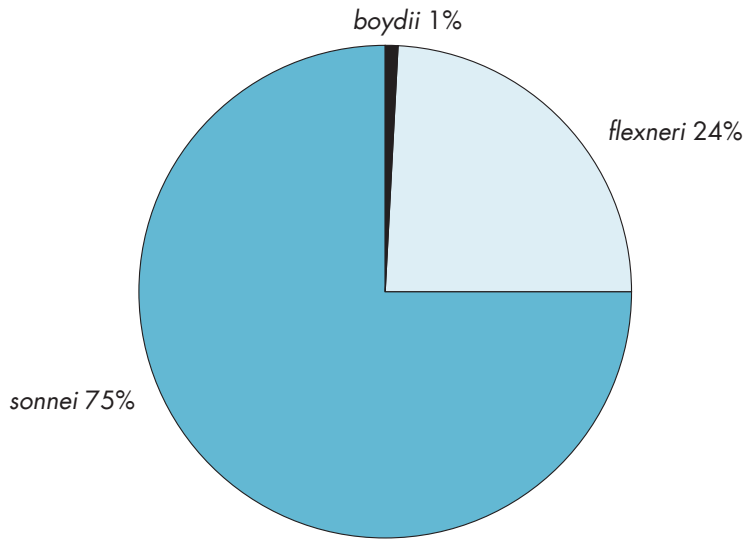
Incidence of shigellosis by age and sex - Oregon, 2006



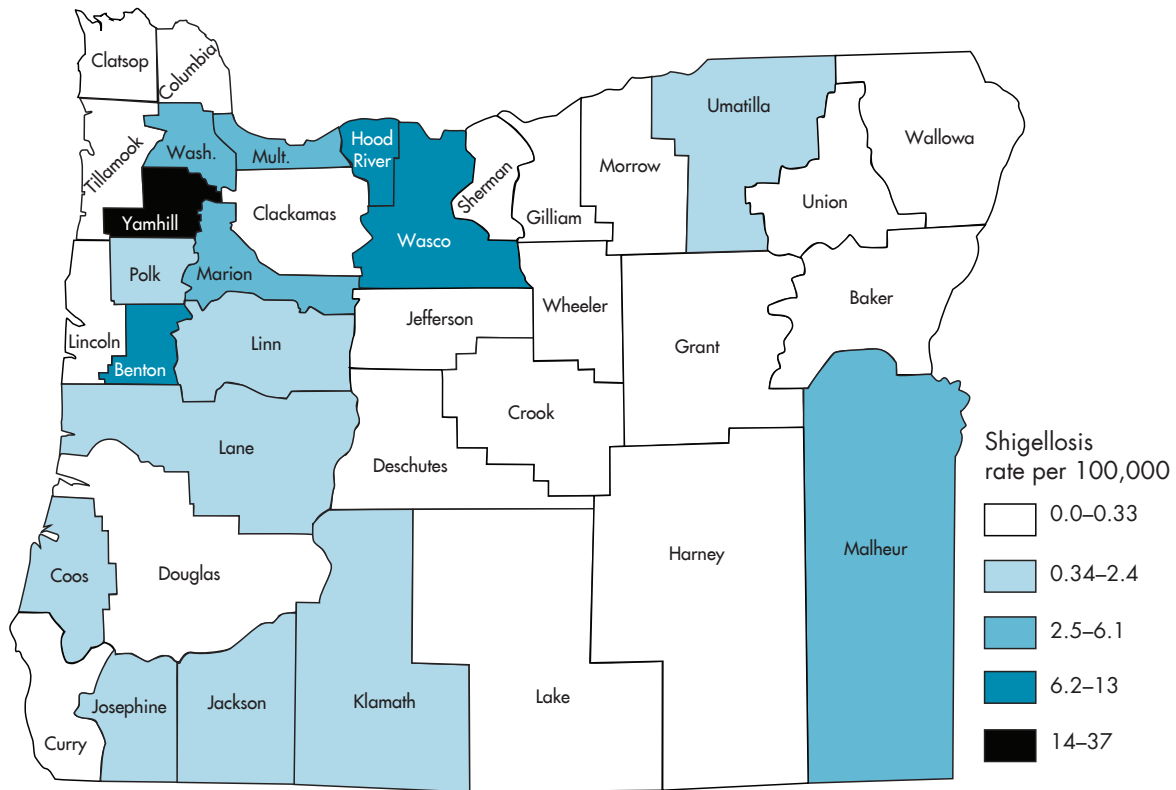
Incidence of shigellosis - Oregon vs. nationwide, 1997-2006



Shigellosis by species - Oregon, 2006



Incidence of shigellosis by county of residence - Oregon, 2006



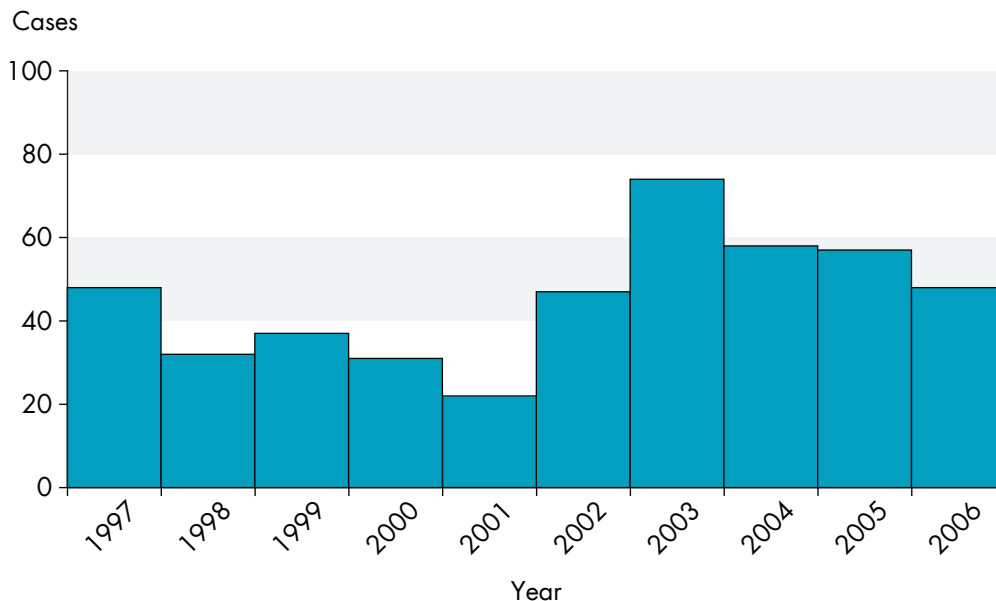
Early syphilis

Syphilis is a sexually transmitted disease of protean manifestation caused by the spirochete *Treponema pallidum*. Early syphilis cases represent an aggregate of primary, secondary and early latent cases of less than one year's duration. The 48 early syphilis cases reported in 2006 reflect a nine-case decrease (16%) compared to the 57 cases reported during 2005. The majority of the early syphilis cases reported during 2006 were among men who have sex with men. The infection may be transmitted among sex partners during the primary and second stages.

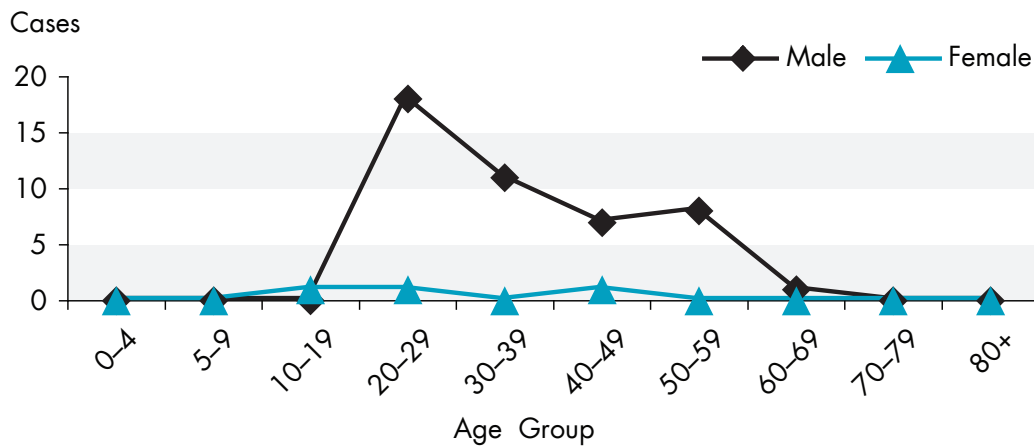
Syphilis is transmitted via vaginal, rectal or oral sexual contact. Syphilis can be prevented by abstaining from sex or only having sex with one uninfected sex partner. Those who are sexually active outside of a mutually monogamous relationship can lower their risks of infection by using a condom when engaging in sexual activity.

It is important to identify and treat persons with early syphilis to prevent late complications, such as brain and heart damage, and to prevent congenital infections. Moreover, persons with primary or secondary syphilis more easily acquire and transmit HIV. An effective way to limit the spread of syphilis is to evaluate and treat recent sex partners of persons with early syphilis.

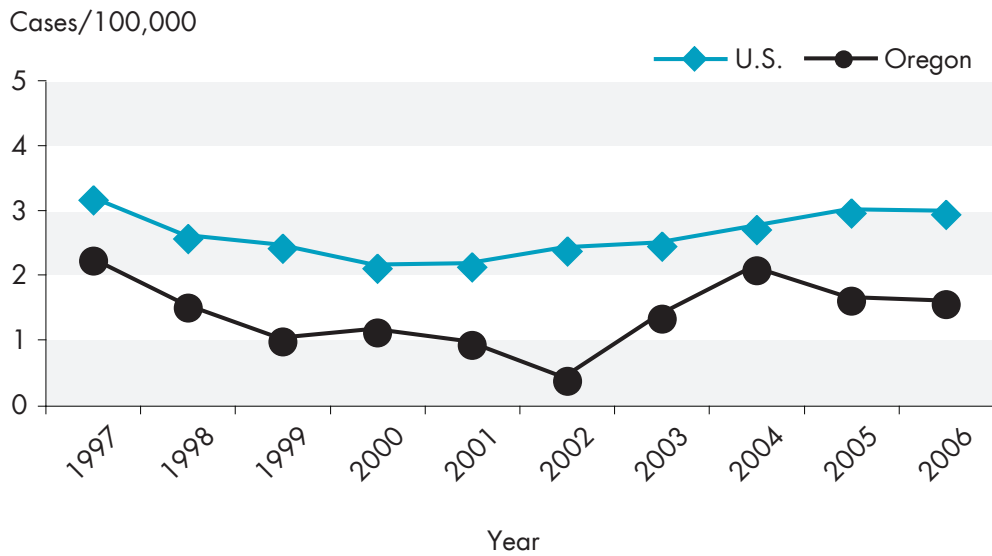
Early syphilis by year - Oregon, 1997–2006



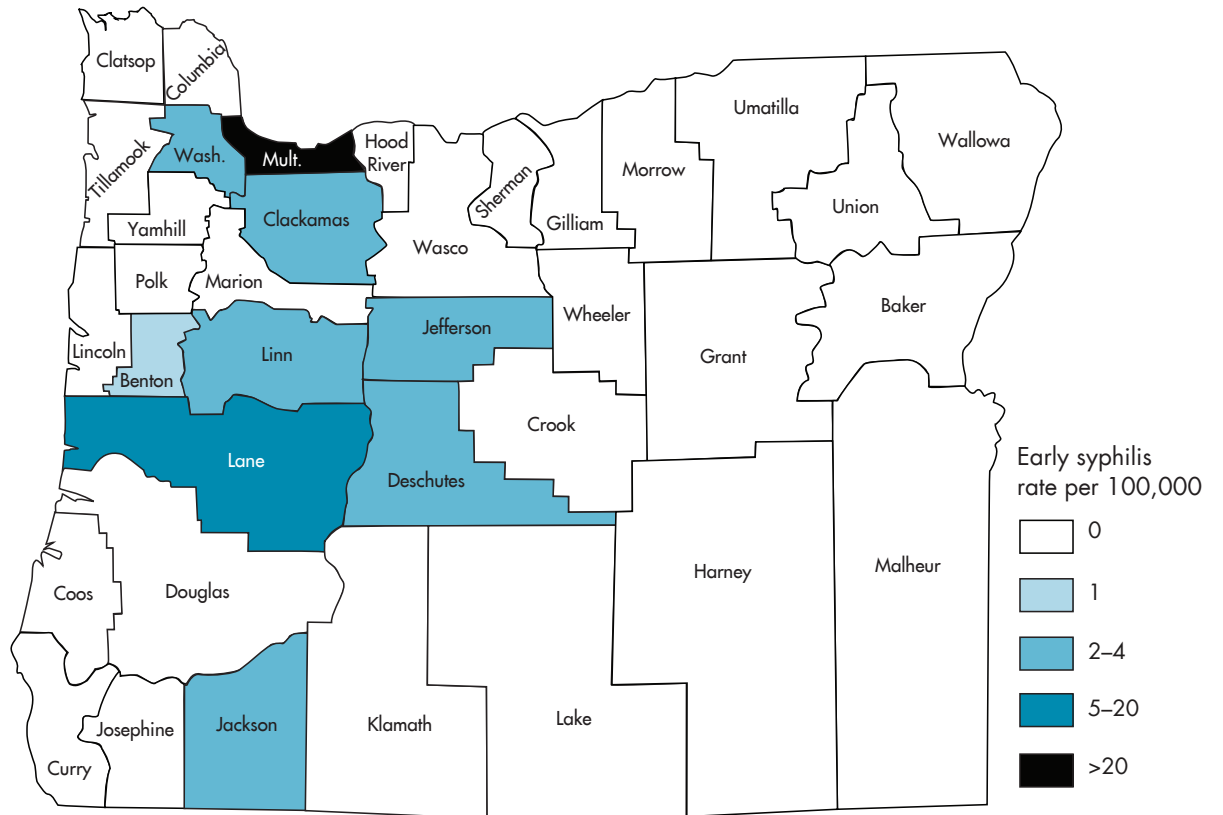
Incidence of early syphilis by age and sex - Oregon, 2006



Incidence of early syphilis Oregon vs. nationwide - Oregon, 2006



Cases of early syphilis by county of residence - Oregon, 2006



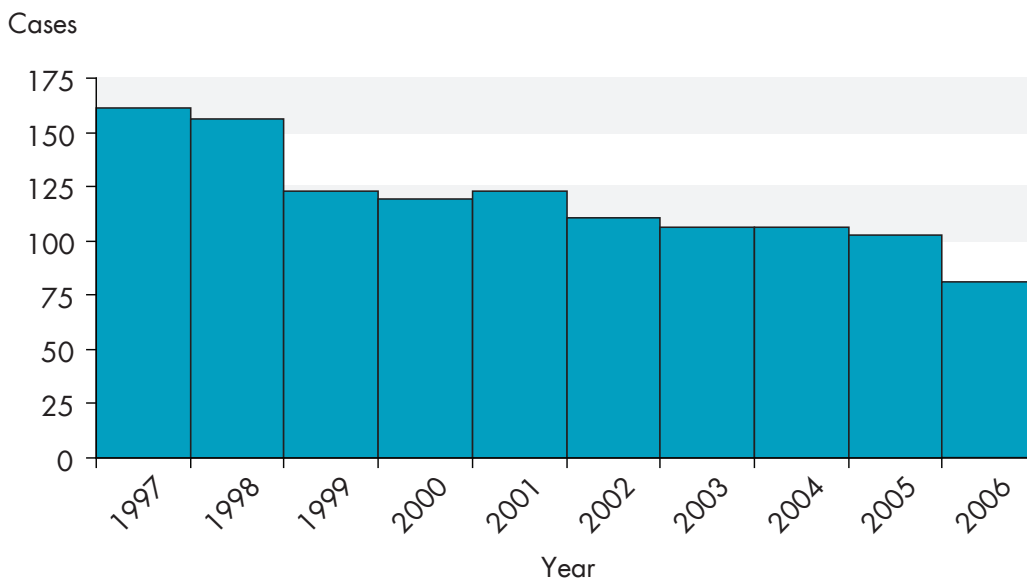
Tuberculosis

Tuberculosis (TB) is a communicable disease caused by *Mycobacterium tuberculosis*. The most common site for active TB disease is the lung; however, TB can occur in any organ in the body. TB is spread when a person develops active pulmonary or laryngeal TB, coughs the bacteria into the air, and another person inhales the bacteria into their lungs.

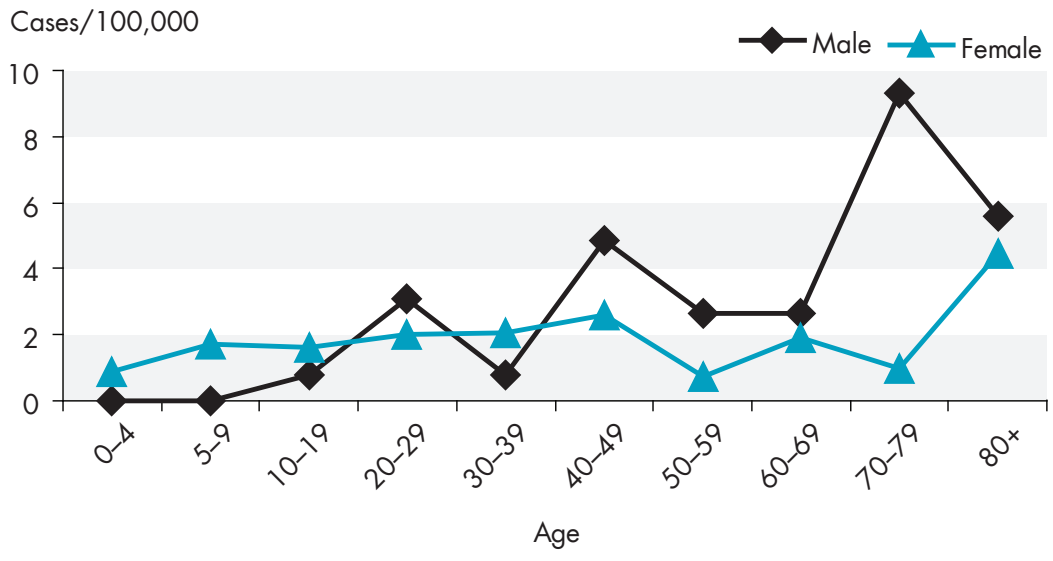
TB is preventable, treatable and curable. TB can be prevented by diagnosing and treating persons with active TB disease; and by identifying and treating persons with “latent” TB infection, who, if untreated, are likely to develop active TB disease. Reporting of TB ensures that cases are treated and that contacts are identified and offered preventive antibiotics. The standard initial treatment for active TB in Oregon includes four drugs: INH, rifampin, pyrazinamide, and ethambutol pending susceptibility testing. Multidrug-resistant tuberculosis is a form of tuberculosis that is resistant to two or more of the standard TB drugs and requires treatment with second-line drugs.

The incidence rate of TB has been declining over the past decade. In 2006, a total of 81 cases of active TB disease were verified in Oregon, for a rate of 2.2 cases per 100,000 residents. This rate meets the Healthy Persons 2000 Goal of <3.5/100,000.

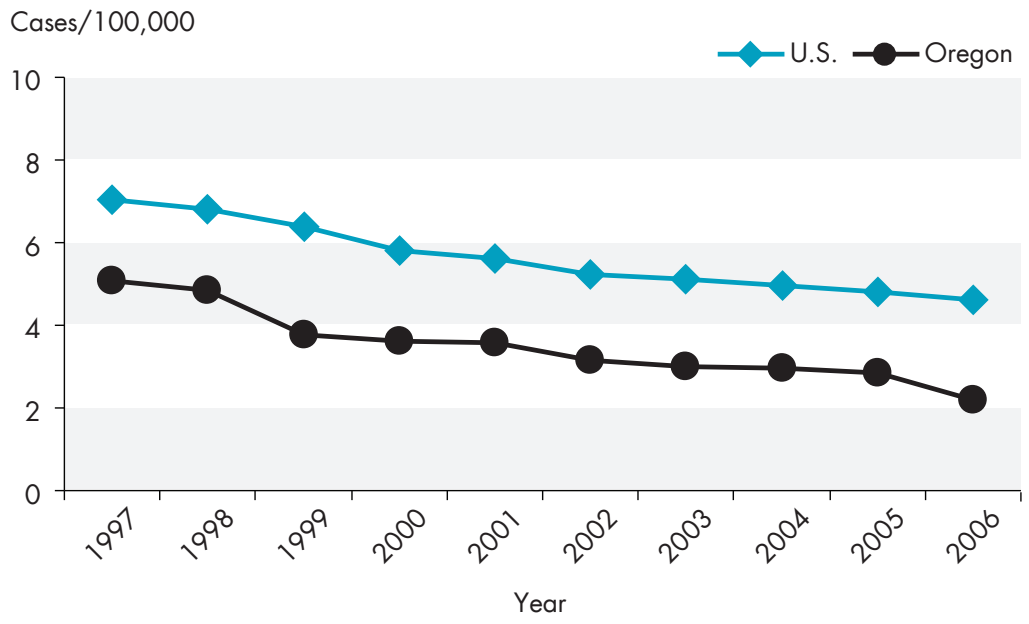
Tuberculosis by year Oregon 1997–2006



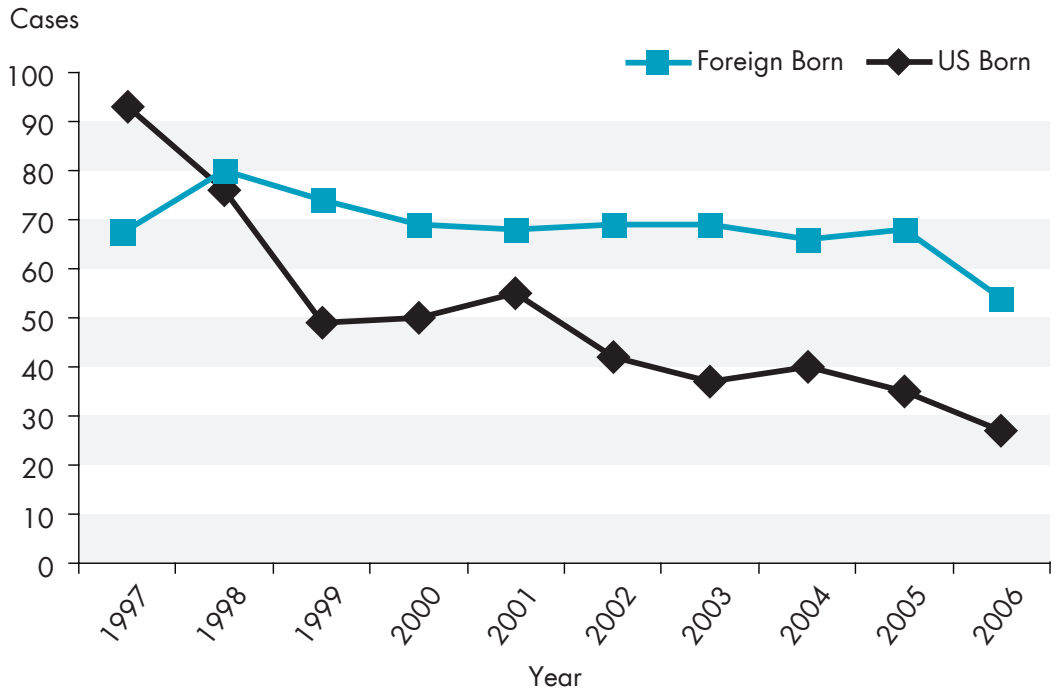
Incidence of tuberculosis by age and sex - Oregon, 2006



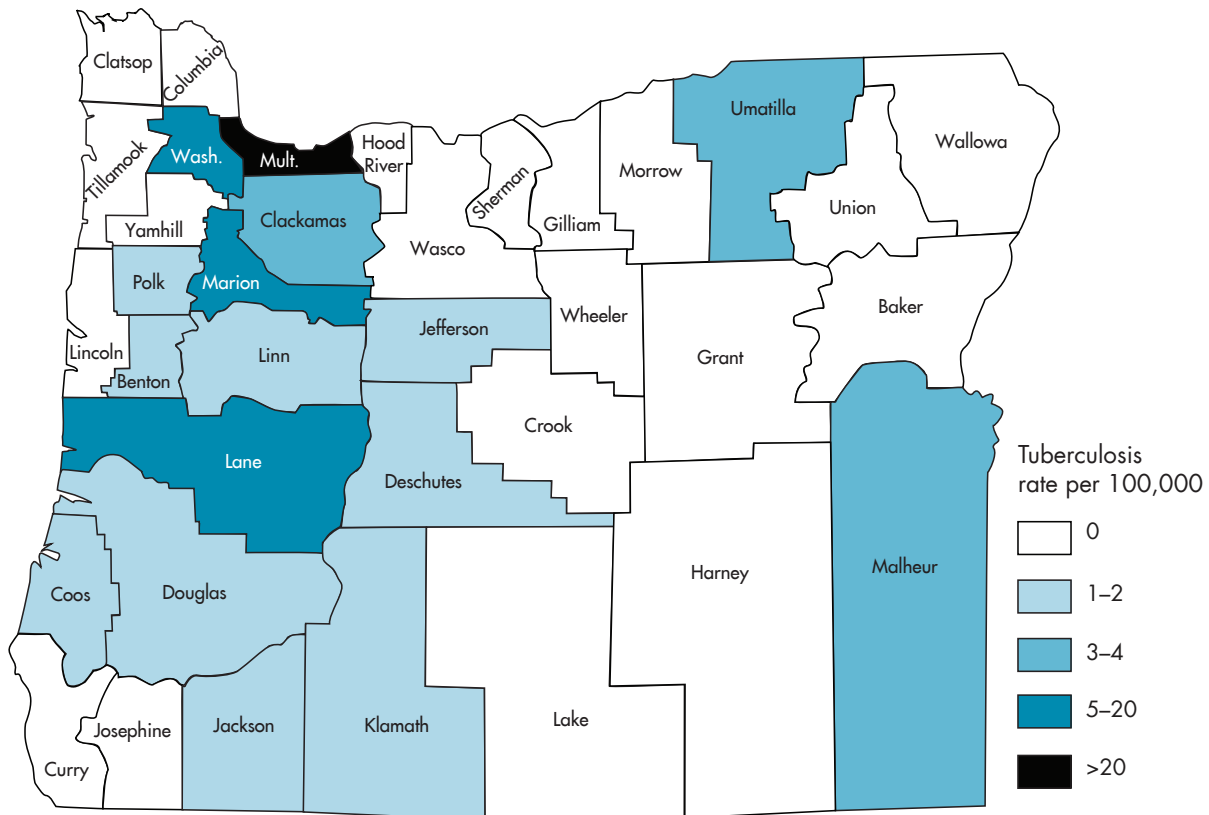
Incidence of tuberculosis - Oregon vs. nationwide, 1997-2006



Tuberculosis by country of origin - Oregon, 1997-2006



Cases of tuberculosis by county of residence - Oregon, 2006



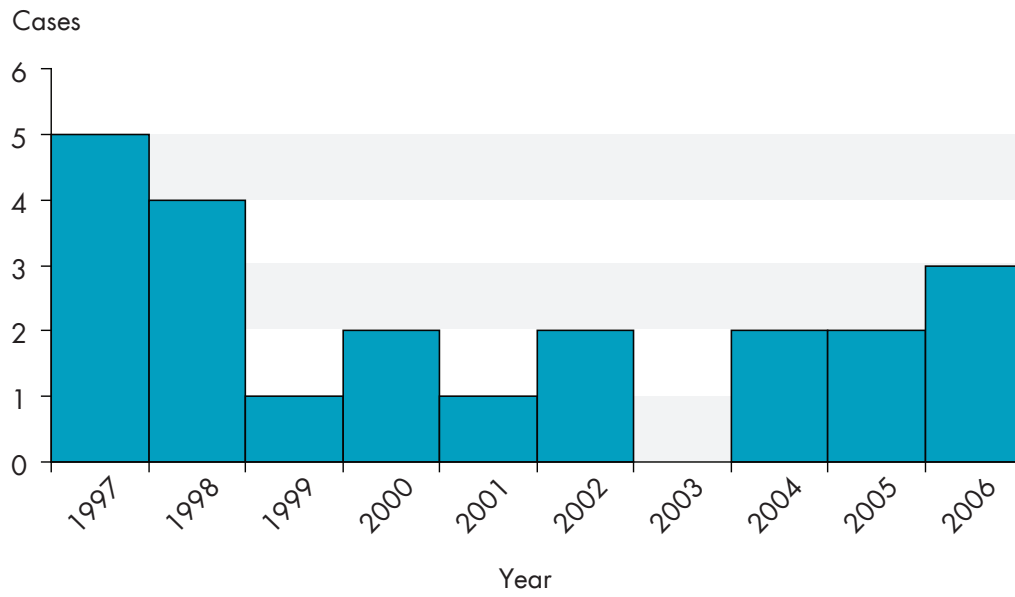
Tularemia

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

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

Tularemia occurs throughout the U.S. Persons become infected primarily through handling contaminated animals; the bite of infective deer flies, mosquitoes or ticks; direct contact with or ingestion of contaminated food, water or soil; or inhalation of infective aerosols. From 1997 to 2006, 22 cases of tularemia were reported in Oregon. Cases occurred in residents of 12 counties, and were evenly spread across age groups. In 2006, there were three cases.

Tularemia by year - Oregon, 1997-2006



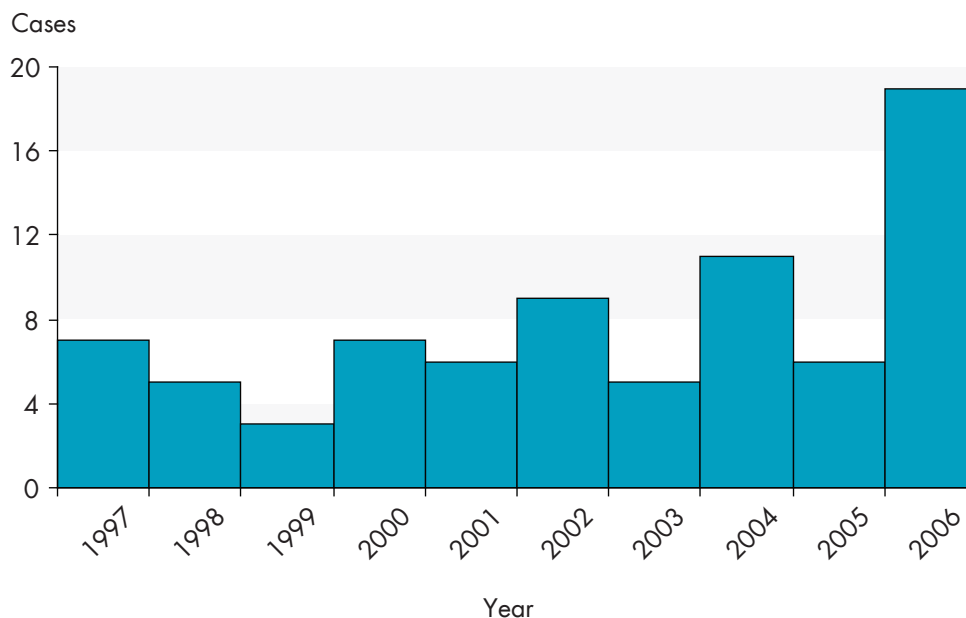
Vibriosis

Vibriosis means infection with any of several kinds of bacteria in the *Vibrio* genus. The hallmarks of most *Vibrio* infections are watery diarrhea, abdominal cramps and fever. Some species (e.g., *V. vulnificus*) can cause severe sepsis and skin infections. *Vibrio* spp. are common in coastal marine waters and may be concentrated by filter-feeding shellfish. Cholera is another kind of *Vibrio* infection, although fortunately one reported only rarely in the United States nowadays.

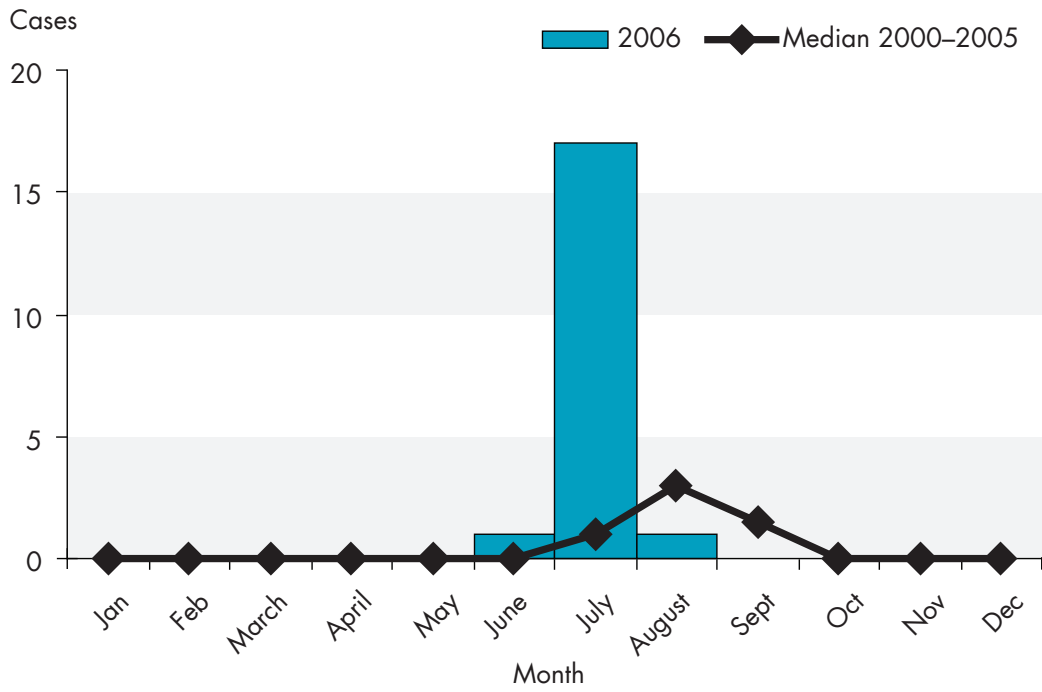
In Oregon, almost all *Vibrio* infections are caused by *V. parahaemolyticus* and acquired by eating raw oysters. *V. parahaemolyticus* occurs naturally in the Pacific Northwest, and levels rise with water temperature in the summer months. Hundreds of persons are sickened every summer, although only a minority of infections are diagnosed and reported. Case reporting is essential to the identification of contaminated shellfish beds and removal of these shellfish from the raw seafood market. Non-cholera *Vibrio* infections became reportable in Oregon in 1998.

In 2006, 19 vibriosis cases were identified in Oregon, including nine presumptive cases associated with a multi-state outbreak linked to ingestion of raw oysters. Most cases were males (63%) between 20–55 years old. Statistics on coincident beer consumption were not collected.

Vibrio parahaemolyticus by year - Oregon, 1998–2006



V. parahaemolyticus by onset month - Oregon, 2006



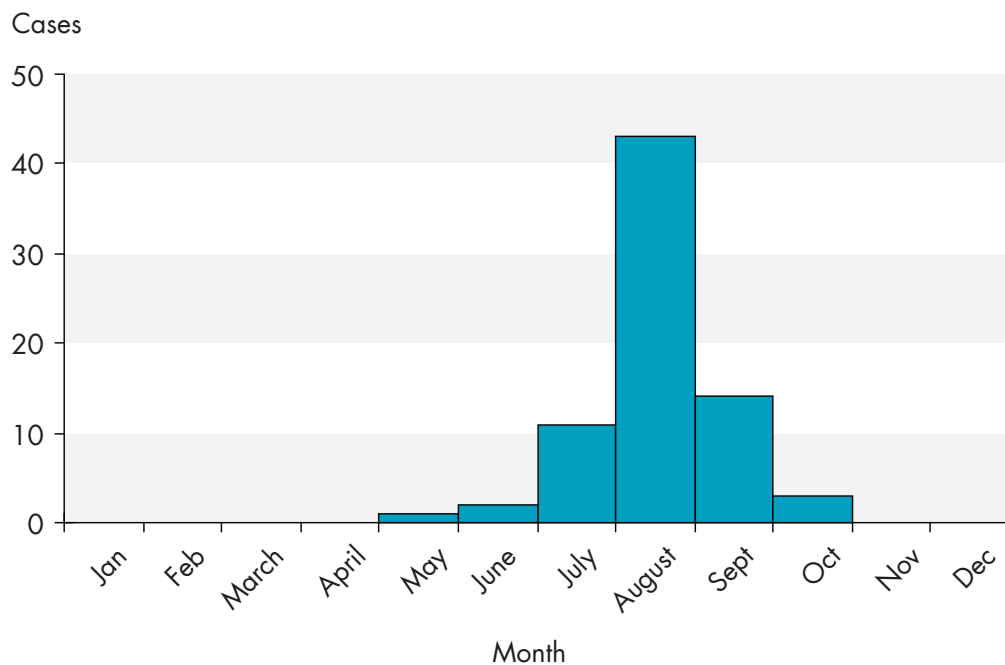
West Nile virus

West Nile virus (WNV) first appeared in the U.S. in 1999, and has moved westward across the U.S. In Oregon, the first case was reported in 2004. West Nile virus is a mosquito-borne virus that affects both animals and humans. Birds are the reservoir; humans and other animals are considered “dead-end” hosts.

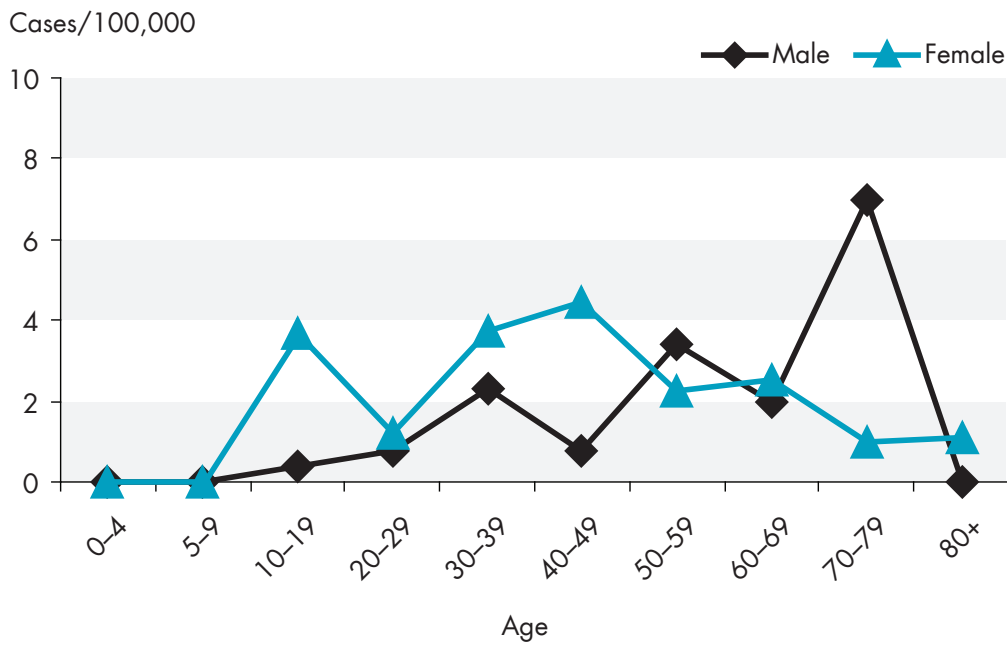
Of those infected, one in five will have mild symptoms such as fever, headache and muscle aches; fewer persons, about one in 150, will have more severe symptoms that may include neck stiffness, stupor, disorientation, tremors, convulsions, muscle weakness, paralysis and coma. The risk of getting West Nile virus in Oregon has been very low. Though most cases were in those aged 20–50 years, those over 50 years of age have the highest risk of developing serious illness.

The year 2006 saw the ramping up of WNV in Oregon with 73 laboratory-confirmed cases and two deaths in our human population. The incidence in summer months is higher. Most (82%) presented with uncomplicated fever, though 11% of cases suffered encephalitis or meningitis. Three-quarters of Oregon cases were Malheur County residents. Most (64%) were female and 39% of cases were older than 50 years of age. Only Baker and Union counties had positive mosquito pools, all of which were *Culex tarsalis*.

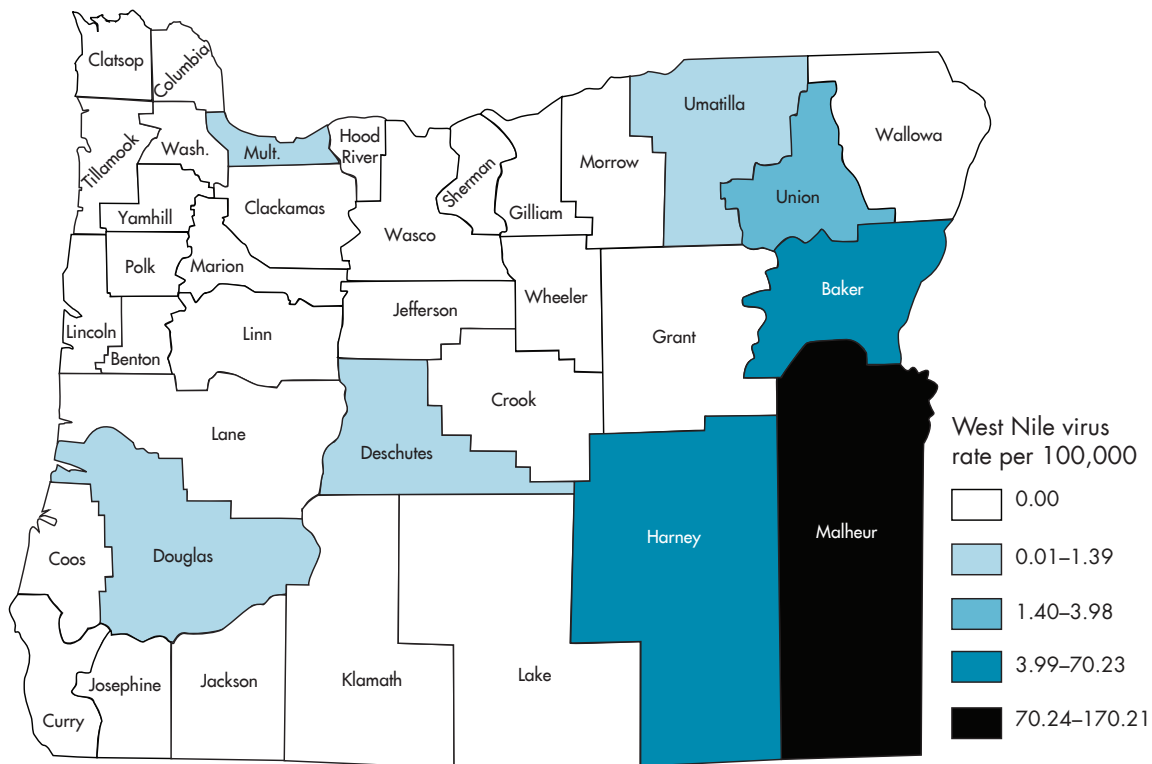
West Nile virus by month of onset - Oregon, 2006



West Nile virus by age and sex - Oregon, 2006



Incidence of West Nile virus by county of residence - Oregon, 2006

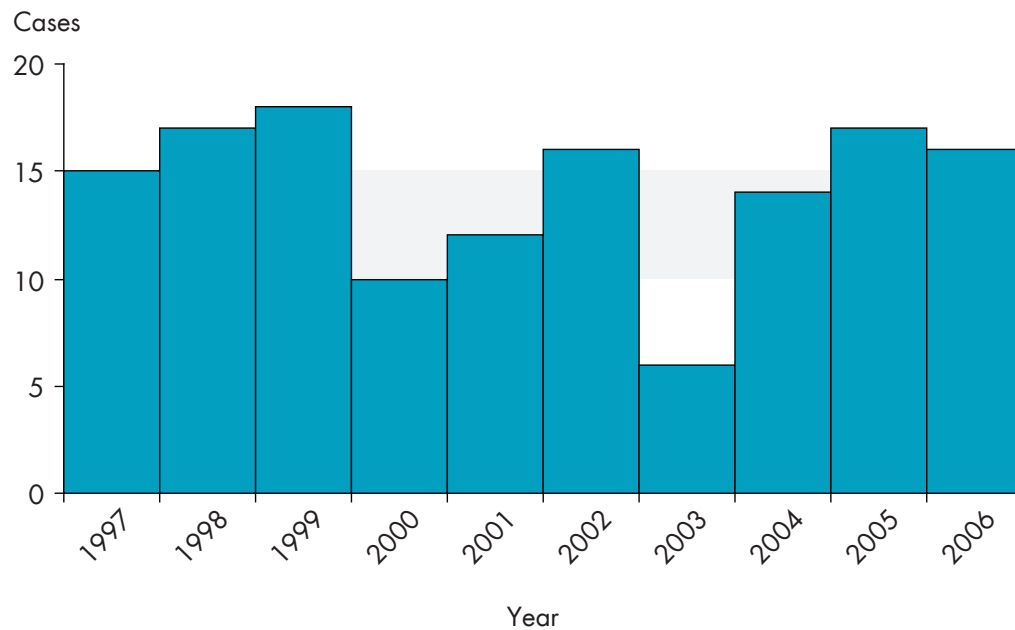


Yersiniosis

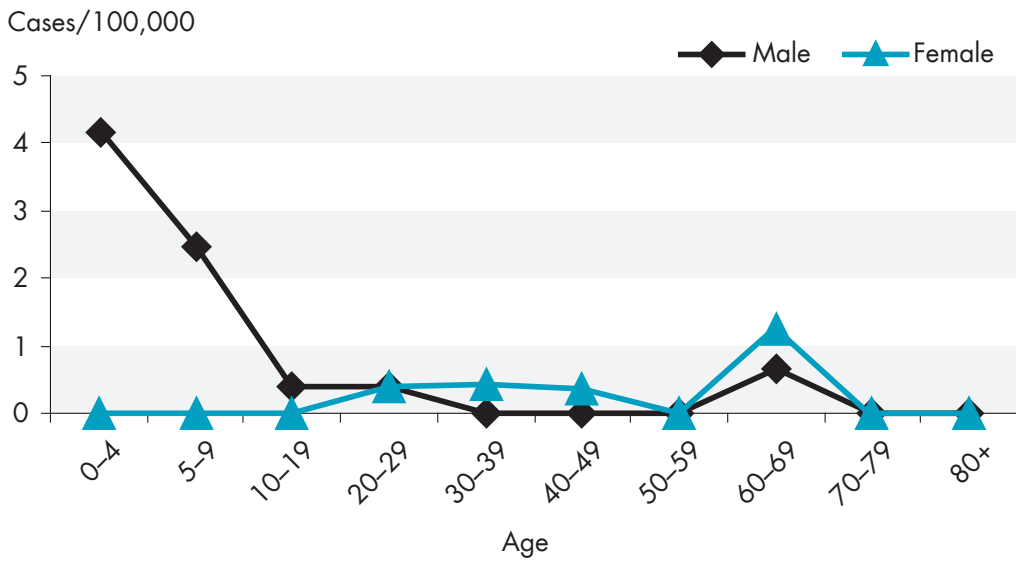
Yersiniosis is a bacterial infection characterized by (sometimes bloody) diarrhea, vomiting and abdominal pain. The main reservoir for *Yersinia* is the pig. Transmission occurs via the fecal-oral route through contaminated food and water, or through contact with infected persons or animals. Preventive measures include cooking food thoroughly, avoiding cross-contamination with raw food of animal origin, and washing hands after handling food.

The incidence of yersiniosis in Oregon has been fairly stable over the years. In 2003, the number of cases dropped to five, the lowest reported incidence since 1995. There was not much change in 2006 compared with 2005. Yersiniosis occurs throughout the year with no seasonality. The most common species (75%) is *Y. enterocolitica*.

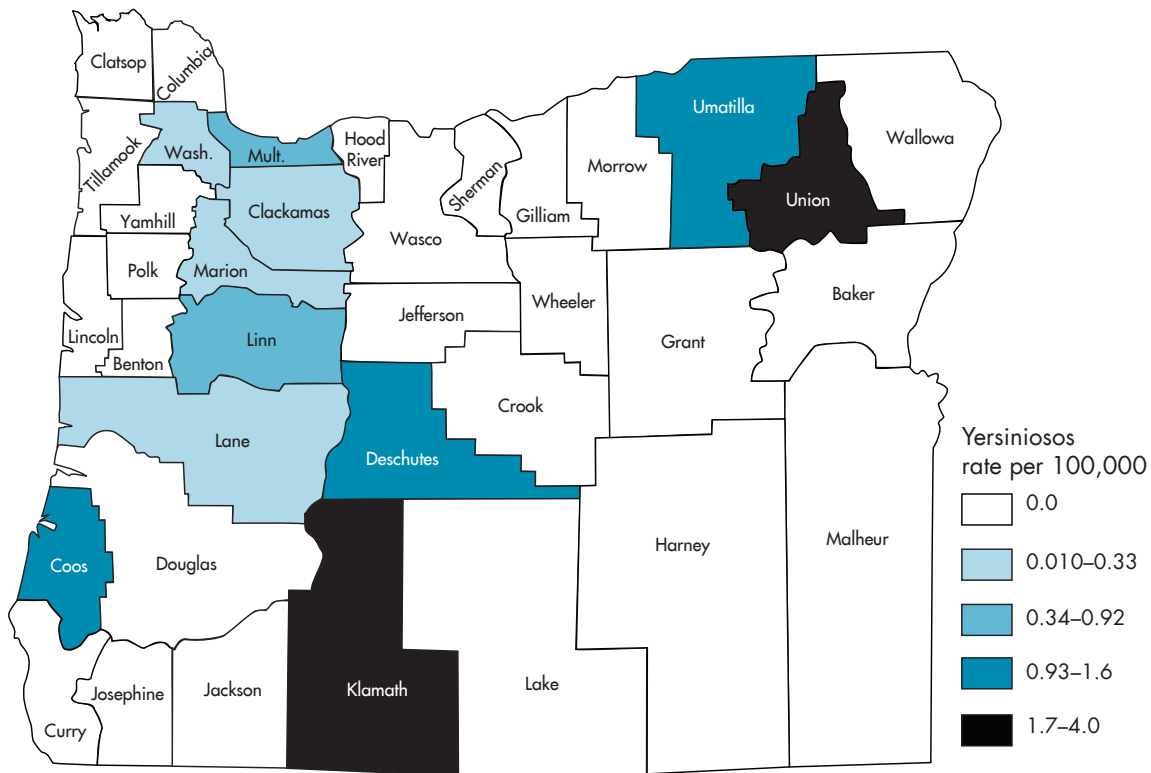
Yersiniosis by year - Oregon, 1997–2006



Incidence of yersiniosis by age and sex - Oregon, 2006

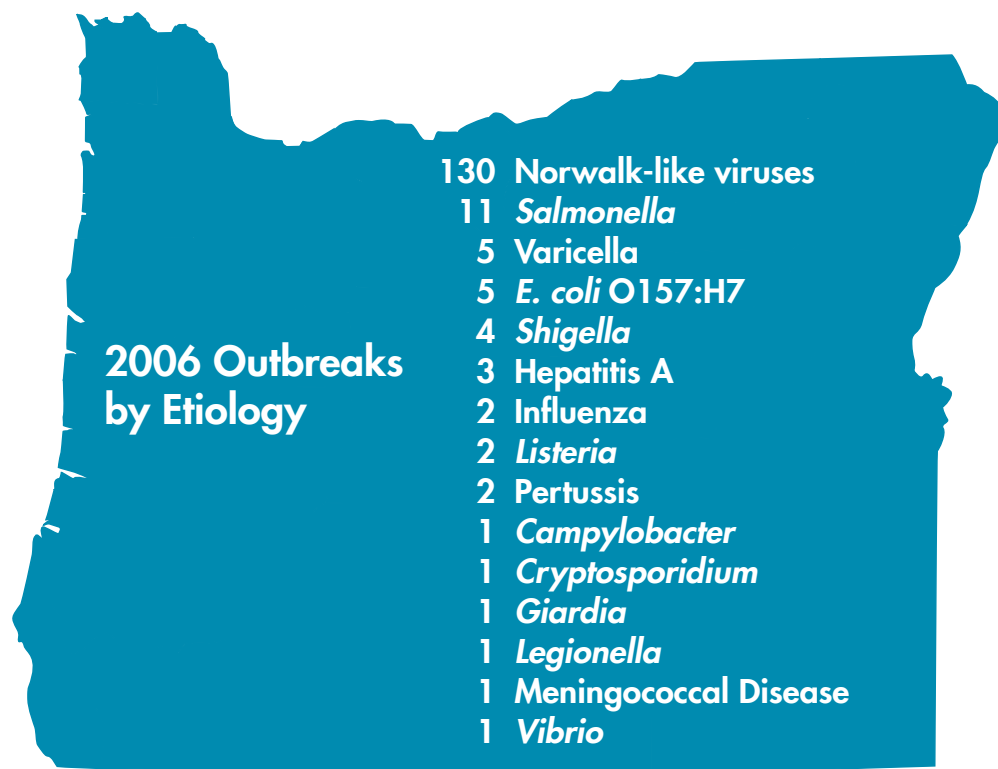


Incidence of yersiniosis by county of residence - Oregon, 2006



Disease outbreak by etiology

We investigated a total of 220 outbreaks in 2006. The vast majority of outbreaks that are reported and investigated are gastroenteritis. More than half of these were person-to-person outbreaks of Norwalk-like virus, the majority of which occurred in long-term care facilities or assisted-living communities. In 38 outbreaks foodborne transmission was identified. The largest foodborne outbreak was a nationwide spinach-associated *E. coli* O157:H7 infection, to which Oregon contributed five cases. Shigellosis was responsible for 35 persons becoming ill after eating at a Yamhill County restaurant. Two small listeriosis outbreaks were noted, one found to be associated with pasteurized artisanal sheep cheese. Consumption of raw oysters from Hood Canal resulted in a prolonged outbreak of *Vibrio parahaemolyticus* with 14 Oregon cases adding to the hundreds of victims nationwide. Other highlights include nine persons in Crook County developing cryptosporidiosis after contact with some sick calves.



Public health reporting for clinicians

By law¹, Oregon clinicians must report diagnoses (confirmed or suspected) of the specified infections, diseases and conditions. Both lab-confirmed cases and clinically suspect cases are reportable. The parallel system of lab reporting does not obviate the clinician's obligation to report. Some conditions (e.g., Uncommon Illnesses of Public Health Significance, animal bites, HUS, PID, pesticide poisoning, disease outbreaks) are rarely if ever identified by labs. In short, we depend upon clinicians to report. Reports should be made to the patient's local health department² and should include at least the patient's name, home address, phone number, date of birth, sex, the diagnosis, and the date of symptom onset. Most reports should be made within one working day of the diagnosis, but there are several important exceptions.

Disease reporting enables appropriate public health follow-up for your patients, helps identify outbreaks, provides a better understanding of morbidity patterns, and may even save lives. Remember that HIPAA does not prohibit you from reporting protected health information to the public health authorities for the purpose of preventing or controlling disease, including public health surveillance and investigations; see 45 CFR 164.512(b)(1)(i).

IMMEDIATELY

Anthrax

Botulism

Diphtheria

Marine intoxication³

Plague

SARS-coronavirus

Any outbreak of disease⁴

Any uncommon illness of potential public health significance⁵

WITHIN 24 HOURS

Haemophilus influenzae

Measles (rubeola)

Meningococcal disease

Pesticide poisoning

Polio

Rabies

Rubella

Vibrio infection

WITHIN 1 WORKING DAY

Animal bites

Any arthropod-borne infection⁶

Brucellosis

Campylobacteriosis

Chancroid

Chlamydia infection⁷

Cruetzfeld-Jakob disease (CJD) and other prion diseases

Cryptosporidiosis
Cyclospora infection
Escherichia coli (Shiga-toxigenic)⁸
 Giardiasis
 Gonorrhea
 Hantavirus infection
 Hepatitis A
 Hepatitis B
 Hepatitis C
 Hepatitis D (delta)
 HIV infection and AIDS
 Hemolytic-uremic syndrome (HUS)
 Legionellosis
 Leptospirosis
 Listeriosis
 Lyme disease
 Lymphogranuloma venereum (LGV)
 Malaria
 Mumps
 Pelvic inflammatory disease
 (acute, non-gonococcal)
 Pertussis
 Psittacosis
 Q fever
 Rocky Mountain spotted fever
 Salmonellosis (including typhoid)
 Shigellosis
 Syphilis
Taenia solium infection/Cysticercosis
 Tetanus
 Trichinosis
 Tuberculosis
 Tularemia
 West Nile virus
 Yersiniosis

WITHIN 1 WEEK

Lead poisoning

Diabetes in person ≤ 18 years old⁹

FOOTNOTES

1. ORS 433.004; OAR 333-018-0000 to 333-018-0015.
2. Refer to www.oregon.gov/DHS/ph/acd/reporting/disrpt.shtm for a list of local health departments and more details about what to report.
3. Paralytic shellfish poisoning, scombroid, domoic acid intoxication, ciguatera, etc.
4. Outbreaks are ≥ 2 cases from separate households associated with a suspected common source.
5. We can't list every exotic disease in the world. Ask yourself "Might there be public health implications from a case of possible Ebola, smallpox, melioidosis, or whatever?" If the answer is "yes" – or even "maybe" – then pick up the phone. There are no penalties for overreporting.
6. Including any viral, bacterial, and parasitic infections typically spread by ticks, mosquitos, fleas and their ilk (e.g., relapsing fever, typhus, babesiosis, dengue, filariasis, Colorado tick fever, ehrlichiosis, yellow fever, Chagas disease, leishmaniasis, SLE, WEE, EEE, CCHF, etc.)
7. STDs, trachoma, TWAR, psittacosis – all of 'em – even if they're named *Chlamydophila*.
8. *E. coli* O157:H7 is the exemplar of this group.
9. Fax all childhood diabetes cases to 971-673-0994. (Forms available at www.healthoregon.org/diabetes.)

Public health reporting for laboratories

By law¹, Oregon labs must report all test results “indicative of and specific for” the following diseases, infections, microorganisms and conditions. These results include microbiological culture, isolation or identification; assays for specific antibodies; and identification of specific antigens, toxins or nucleic acid sequences.

In general, reports must be made to the patient’s local health department² within one working day of the initial test report. Laboratories identifying possible agents of bioterrorism should contact their local health department and refer the isolates to the Oregon State Public Health Laboratory immediately, day or night. Reports must include the patient’s name and county of residence, the specimen collection date, lab test and result, and contact information for the ordering clinician and the lab. If available, the patient’s address, date of birth, and sex are much appreciated.

The lab that reports to the clinician is responsible for reporting, regardless of who actually does the test. For out-of-state residents, you may report directly to the state office; document in a log.

BACTERIA

Bacillus anthracis

Bordetella pertussis

Borrelia

Brucella

Campylobacter

Chlamydia psittaci

Chlamydia trachomatis

Clostridium botulinum

Clostridium tetani

Corynebacterium diphtheriae

Coxiella burnetii

Ehrlichia

Escherichia coli -- Shiga-toxigenic)^{3,4}

Francisella tularensis

Haemophilus influenzae^{3,5}

Haemophilus ducreyi

Legionella

Leptospira

*Listeria monocytogenes*³

*Mycobacterium tuberculosis*³

Mycobacterium bovis

Neisseria gonorrhoeae

Neisseria meningitidis^{3,5}

Rickettsia

*Salmonella*³

*Shigella*³

Treponema pallidum

*Vibrio*³

*Yersinia*³

PARASITES*Cryptosporidium**Cyclospora**Giardia**Plasmodium**Taenia solium*⁶*Trichinella***VIRUSES**

Hantavirus

Hepatitis A⁷Hepatitis B⁷

Hepatitis C

Hepatitis D (Delta)

HIV infection and AIDS

Measles (Rubeola)

Mumps

Polio

Rabies

Rubella

SARS-coronavirus

West Nile

Yellow Fever

OTHER IMPORTANT REPORTABLESAny "uncommon illness of potential public health significance"²Any outbreak of disease²Any other typically arthropod vector-borne infection²

All blood lead testing results

All CD4 cell counts and HIV viral loads

Creutzfeldt-Jakob disease (CJD) and other prion illnesses

FOOTNOTES

1. ORS 433.004; OAR 333-018-0000 to 333-018-0015.
2. Refer to www.oregon.gov/DHS/ph/acd/reporting/disrpt.shtml for a list of local health departments, reporting FAQs, and more details about what to report. When in doubt, report.
3. Isolates must be forwarded to the Oregon State Public Health Laboratory (phone, 503-693-4100).
4. Including all confirmed or suspected *E. coli* O157.
5. Report only isolates from normally sterile sites (e.g., neither sputum nor throat cultures).
6. Report cysticercosis and all undifferentiated *Taenia* sp., (e.g., eggs in stool O & P).
7. IgM positive HAV and HBV specimens must be forwarded to the Oregon State Public Health Laboratory.

Selected Cases of Notifiable Diseases Year*, Oregon 1987-2006

| | 1987* | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-----------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AIDS/HIV by year diagnosis* | 350 | 336 | 443 | 525 | 544 | 552 | 492 | 426 | 426 | 386 | 304 | 287 | 278 | 268 | 286 | 319 | 315 | 313 | 292 | 270 |
| Campylobacteriosis | 1039 | 945 | 998 | 951 | 966 | 850 | 712 | 656 | 626 | 702 | 736 | 698 | 599 | 568 | 598 | 575 | 597 | 656 | 647 | 652 |
| Chlamydiaosis* | 7135 | 6734 | 7387 | 7387 | 7327 | 5885 | 5539 | 5494 | 5468 | 5442 | 5254 | 5857 | 6163 | 7110 | 7504 | 7200 | 7500 | 8690 | 9019 | 9578 |
| E. coli O157 Infection | 5 | 3 | 56 | 114 | 154 | 253 | 111 | 94 | 102 | 92 | 107 | 68 | 134 | 91 | 204 | 101 | 68 | 149 | 92 | |
| Giardiasis | 1171 | 1152 | 1062 | 1359 | 1301 | 1178 | 1000 | 937 | 897 | 899 | 879 | 892 | 792 | 673 | 535 | 431 | 406 | 443 | 417 | 425 |
| Gonorrhea* | 4043 | 3221 | 3025 | 2549 | 2172 | 1768 | 1192 | 977 | 854 | 886 | 773 | 880 | 906 | 1039 | 1145 | 929 | 981 | 1302 | 1562 | 1460 |
| H. influenzae Infection | 86 | 134 | 83 | 67 | 28 | 24 | 11 | 25 | 27 | 32 | 36 | 41 | 49 | 30 | 38 | 57 | 42 | 49 | 53 | 55 |
| Hepatitis A | 1328 | 1438 | 2322 | 809 | 446 | 506 | 581 | 1366 | 2929 | 883 | 387 | 430 | 248 | 164 | 109 | 61 | 62 | 65 | 47 | 47 |
| Acute hepatitis B | 660 | 582 | 569 | 415 | 305 | 278 | 282 | 232 | 186 | 164 | 131 | 186 | 122 | 123 | 166 | 126 | 119 | 112 | 97 | 86 |
| Acute hepatitis C | 104 | 105 | 83 | 59 | 132 | 85 | 72 | 56 | 58 | 23 | 12 | 9 | 29 | 18 | 15 | 13 | 16 | 17 | 19 | 28 |
| Legionellosis | | | | | | | | | | | | 1 | 2 | 1 | 4 | 9 | 17 | 8 | 15 | 22 |
| Listeria | | 6 | 11 | 5 | 3 | 6 | 10 | 11 | 13 | 15 | 11 | 18 | 17 | 6 | 12 | 9 | 5 | 7 | 11 | 13 |
| Malaria | | 6 | 17 | 20 | 21 | 13 | 16 | 16 | 23 | 23 | 26 | 16 | 22 | 41 | 14 | 14 | 10 | 19 | 13 | 15 |
| Measles | 132 | 5 | 82 | 212 | 93 | 3 | 4 | 2 | 1 | 14 | | 3 | 9 | | 3 | | 3 | | 2 | 2 |
| Meningococcal Disease | 37 | 53 | 70 | 87 | 81 | 72 | 101 | 136 | 118 | 114 | 109 | 85 | 75 | 71 | 65 | 44 | 60 | 61 | 56 | 41 |
| Pertussis | 83 | 51 | 22 | 122 | 66 | 45 | 105 | 67 | 57 | 57 | 49 | 89 | 61 | 105 | 66 | 193 | 438 | 625 | 622 | 112 |
| Rubella | 2 | 0 | 4 | 75 | 5 | 2 | | 4 | | 1 | | | | | | | 1 | | 1 | |
| Salmonellosis | 305 | 410 | 325 | 357 | 378 | 478 | 346 | 337 | 345 | 381 | 366 | 344 | 422 | 300 | 288 | 337 | 427 | 416 | 417 | 428 |
| Shigellosis | 114 | 108 | 123 | 180 | 721 | 280 | 158 | 166 | 174 | 151 | 195 | 187 | 102 | 159 | 115 | 106 | 211 | 87 | 127 | 121 |
| Early Syphilis* | 503 | 515 | 424 | 261 | 277 | 218 | 185 | 100 | 67 | 70 | 48 | 32 | 37 | 31 | 22 | 47 | 74 | 58 | 57 | 48 |
| Tuberculosis* | 159 | 161 | 151 | 148 | 144 | 146 | 153 | 165 | 156 | 188 | 161 | 156 | 123 | 119 | 123 | 111 | 106 | 106 | 103 | 81 |
| Tularemia | 5 | 2 | 4 | 3 | 2 | 1 | 2 | 4 | 1 | 1 | 5 | 4 | 1 | 2 | 1 | 2 | 0 | 2 | 2 | 3 |
| Typhoid fever | 3 | 7 | 6 | 5 | 6 | 2 | 3 | 5 | 3 | 4 | 3 | 1 | 7 | 4 | 8 | 2 | 3 | 1 | 4 | 4 |
| Vibrio parahaemolyticus | | | | | | | | | | | 7 | 5 | 3 | 7 | 6 | 9 | 5 | 11 | 6 | 19 |
| Yersiniosis | 12 | 16 | 28 | 22 | 20 | 9 | 15 | 16 | 7 | 18 | 15 | 17 | 18 | 10 | 12 | 16 | 6 | 14 | 17 | 16 |

* Case counts by onset year except for where noted with * indicating counts by date of report Blank cells = not reportable Data as of 01/2/21/2007

Oregon Communicable Disease Case Counts by County of Residence, 2006

| County | AIDS/HIV** | Campylo bacteriosis | Chlamydiosis | Cryptosporidiosis | E. coli O157 infection | Giardiasis | Gonorrhea | Haemophilus influenzae | Hepatitis A | Hepatitis B (acute) | Hepatitis B (chronic) | Hepatitis C (acute) | HUS | Legionellosis | Listeriosis | Lyme disease | Malaria | Meningococcal disease | Pertussis | Rabies, animal | Salmonellosis | Shigellosis | Early Syphilis | Tuberculosis | Vibrio parahaemolyticus | West Nile | Yersiniosis | Total |
|------------|------------|---------------------|--------------|-------------------|------------------------|------------|-----------|------------------------|-------------|---------------------|-----------------------|---------------------|-----|---------------|-------------|--------------|---------|-----------------------|-----------|----------------|---------------|-------------|----------------|--------------|-------------------------|-----------|-------------|-------|
| Baker | 4 | 4 | 16 | | | 3 | | | | | | | | | | | | | | | | | | | | | | 38 |
| Benton | 34 | 21 | 130 | 2 | 5 | 11 | 14 | 1 | 1 | 1 | 6 | 1 | 1 | | | 2 | 2 | 1 | 1 | 3 | 8 | 9 | 1 | 2 | 1 | | 257 | |
| Clackamas | 244 | 64 | 720 | 8 | 8 | 33 | 96 | 5 | 3 | 4 | 26 | 3 | 2 | 5 | 1 | | 1 | 1 | 1 | 3 | 30 | 1 | 3 | 3 | 3 | | 1269 | |
| Clatsop | 25 | 7 | 93 | | | 3 | 14 | | 2 | 2 | 4 | 1 | | | | | | 1 | | | 4 | | | | | | 155 | |
| Columbia | 26 | 10 | 65 | 1 | | 1 | 16 | 1 | | 3 | 4 | | | | | | | | | | 3 | | | | | | 130 | |
| Coos | 35 | 10 | 105 | 1 | | 12 | 3 | 2 | | | 1 | | | | | | | 2 | 2 | | 4 | 1 | | 2 | | | 181 | |
| Cook | 5 | 1 | 48 | 9 | 1 | | | 1 | | 1 | | | | 1 | | | | 1 | 1 | | 2 | | | 2 | | | 71 | |
| Curry | 9 | 1 | 23 | | | 5 | 1 | | | 1 | 1 | 1 | | | | | | | | 1 | 1 | | | 1 | 1 | | 44 | |
| Deschutes | 71 | 38 | 359 | | 4 | 39 | 7 | 4 | 3 | 4 | 3 | 2 | 2 | 1 | | 1 | 1 | 3 | | | | | | | | | 568 | |
| Douglas | 61 | 9 | 231 | 1 | 3 | 12 | 15 | | | 2 | 3 | 2 | 2 | 1 | | 1 | | 7 | | | | | | | | | 364 | |
| Gilliam | | | | | | | | | | | | | | | | | | | 5 | | | | | | | | 5 | |
| Grant | 4 | | 11 | | 1 | | | | | | 1 | | | | | | | | | | | | | | | | 17 | |
| Harney | 1 | 5 | 3 | | 1 | 1 | | | | | | | | | | | | | | | | | | | 6 | | 26 | |
| Hood River | 12 | 3 | 44 | 1 | | 3 | 1 | | 1 | | | | | | | | | | | | | | | | | | 71 | |
| Jackson | 134 | 19 | 532 | 10 | 3 | 31 | 40 | 5 | 3 | 10 | 9 | | | | | 1 | 1 | 2 | 8 | 5 | 21 | 3 | 3 | 1 | 1 | | 842 | |
| Jefferson | 10 | 5 | 76 | | 3 | 1 | 6 | 2 | | 1 | 1 | | 1 | | | | | | | | 2 | | | 2 | | | 110 | |
| Josephine | 61 | 14 | 168 | | 7 | 5 | 4 | 4 | | 6 | 7 | | | | 1 | 5 | | | | 2 | 12 | 2 | 2 | 1 | | | 294 | |
| Klamath | 20 | 20 | 123 | 4 | 3 | 8 | 1 | 1 | | 1 | 4 | | | | 1 | 1 | | 1 | 9 | 2 | 7 | 1 | | | | | 208 | |
| Lake | 2 | 1 | 15 | 1 | 10 | 2 | 1 | | | | 39 | 1 | 2 | 4 | 3 | 1 | | | 16 | | 38 | 5 | 6 | 6 | 7 | | 23 | |
| Lane | 277 | 59 | 998 | 4 | 10 | 37 | 131 | 12 | 5 | 14 | | | | | | | | 1 | | | | | | | | | 1677 | |
| Lincoln | 38 | 7 | 96 | | | 5 | 12 | 1 | | 1 | | | | | | | | | | | 4 | | | | | | 164 | |
| Linn | 51 | 31 | 250 | | 7 | 9 | 28 | 2 | | 2 | 5 | | 1 | | 1 | 1 | | 1 | 2 | | 20 | 1 | 2 | 1 | 1 | | 417 | |
| Mallheur | 15 | 10 | 68 | | 2 | 2 | 6 | | | 5 | | 2 | | | | | | | | | 3 | 1 | | 4 | | | 172 | |
| Marion | 319 | 32 | 891 | 1 | 11 | 31 | 146 | 2 | 4 | 6 | 30 | | 1 | 1 | 4 | 2 | | 4 | 8 | | 38 | 15 | | 12 | | | 1559 | |
| Morrow | 5 | 1 | 20 | | 1 | | | | | | | 1 | | | | | | | 4 | | 1 | | | | | | 33 | |
| Multnomah | 2755 | 119 | 2873 | 30 | 15 | 96 | 704 | 7 | 10 | 18 | 158 | 11 | 1 | 8 | 2 | 4 | 5 | 6 | 23 | | 85 | 22 | 26 | 32 | 4 | | 7019 | |
| Polk | 24 | 9 | 124 | | 1 | 4 | 14 | | | 1 | 11 | | | | | | | 3 | | | 5 | 1 | | 1 | | | 198 | |
| Sherman | 1 | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Tillamook | 9 | 3 | 32 | 1 | | 4 | 5 | | 6 | | | 1 | | | | | | 1 | 1 | | 1 | 1 | | | | | 64 | |
| Umatilla | 33 | 21 | 192 | | | 1 | 6 | | 1 | 1 | 6 | 2 | | | | | | | | | 6 | 1 | | 4 | | | 277 | |
| Union | 8 | 10 | 42 | | | | 1 | | | 1 | 2 | | | | | | | | | | 2 | | | | | | 68 | |
| Wallowa | 2 | 1 | 4 | | | 1 | | | | | | | | | | | | | | | | | | | | | 8 | |
| Wasco | 13 | 5 | 53 | | 1 | 4 | 4 | | | | | | | | | | | | 1 | | 8 | 2 | | | | | 91 | |
| Washington | 378 | 103 | 997 | 8 | 8 | 53 | 172 | 3 | 7 | 7 | 65 | | 1 | 1 | 1 | | 5 | 2 | 17 | | 75 | 19 | 3 | 8 | 1 | | 1935 | |
| Wheeler | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Yamhill | 41 | 9 | 174 | | 4 | 6 | 10 | 2 | 1 | | 4 | | 1 | | | | | 5 | 3 | | 18 | 34 | | | | | 312 | |
| Total | 4727 | 652 | 9578 | 82 | 92 | 425 | 1459 | 55 | 47 | 86 | 394 | 28 | 11 | 22 | 13 | 19 | 15 | 41 | 112 | 25 | 428 | 121 | 48 | 81 | 19 | 74 | 16 | 18670 |

CD Data as of 12/21/2007 **Number of persons living HIV/AIDS



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