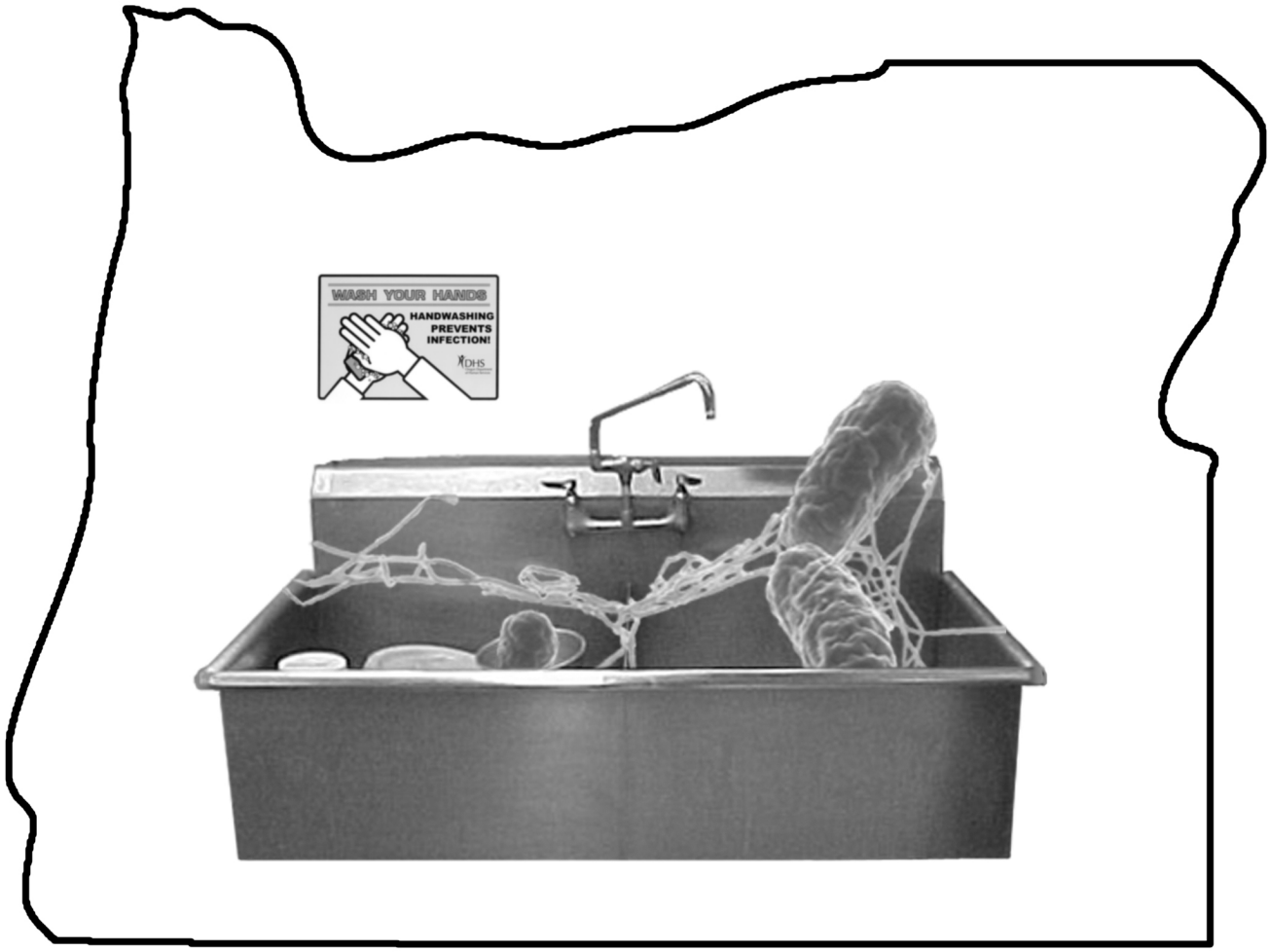
2005 State of Oregon Selected Reportable Communicable Disease Summary



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DHS
Oregon Department of Human Services

Oregon Health Services
Office of Disease Prevention and Epidemiology
Acute and Communicable Disease Program

2005
State of Oregon
Selected Reportable
Communicable Disease Summary

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Compiled and prepared by
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December 2006

If you need this publication in an alternate format, please call the Acute and Communicable Disease Program at 971-673-1111.

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. 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 Office for Disease Prevention and Epidemiology within the Oregon Department of Human Services. In some cases (e.g., Salmonella infection), laboratories are required to forward bacterial isolates to the Oregon State Public Health Laboratory for subtyping (see Appendix). Together, these epidemiologic and laboratory data constitute our communicable disease "surveillance system;" data from 2005 and trends from recent years are summarized in this report.

But caveat lector! Disease surveillance data have many limitations.

Firstly, 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 have been estimated at 1–5% of the true number.†

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

Yet, 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. They 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.

Paul R. Cieslak, MD
Manager, Acute and Communicable Disease Prevention

* Oregon Administrative Rules, chapter 333, division 18. Available at http://oregon.gov/DHS/ph/acd/reporting/disrpt.html

† 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.

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AIDS and HIV Infection

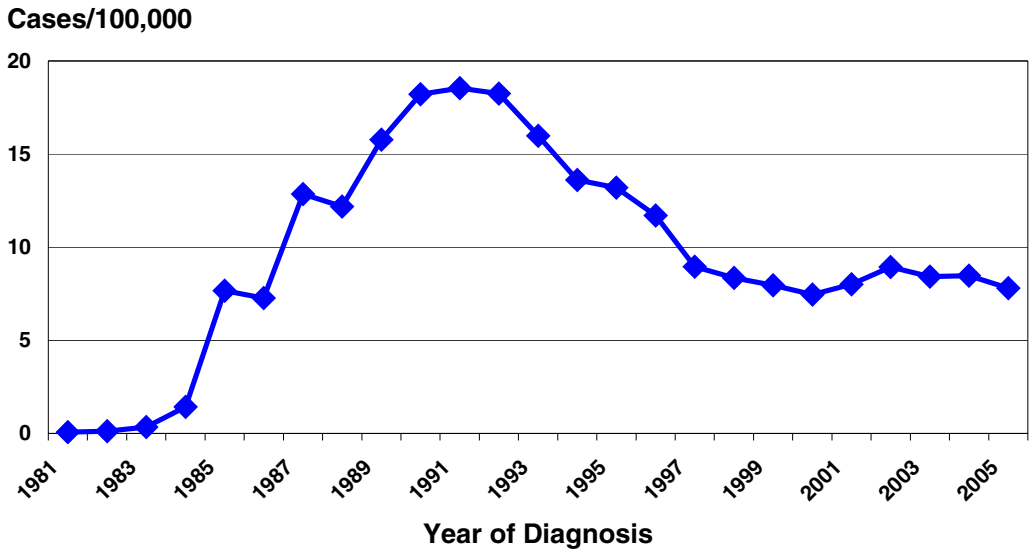
Human immunodeficiency virus (HIV) is usually spread by having sex, sharing injection drug equipment, or receiving a transfusion or transplant from an infected person. It can also be spread from mother to fetus or infant at the time of delivery or by breastfeeding. Rarely, it is also spread by accidental exposure to bodily fluids of an infected person such as an accidental contaminated needle stick in a healthcare worker. The acquired immunodeficiency syndrome (AIDS) represents the late stage of HIV infection, indicated by either low CD4 (immune system) cell counts or the manifestation of 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.

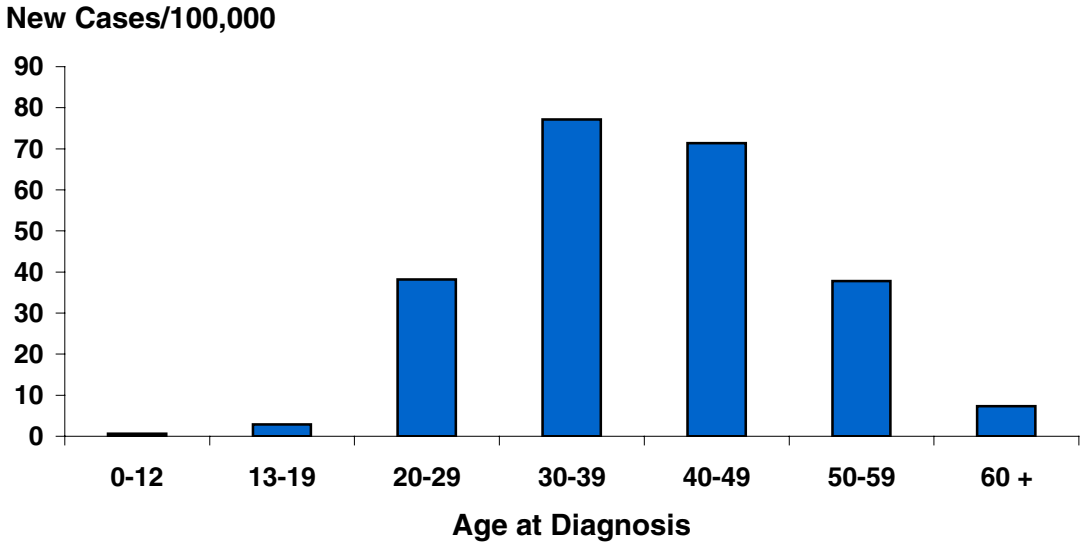
From 1981 through 2005, 5,855 cases of AIDS were diagnosed in Oregon, including 3,114 deaths. Men accounted for 92% of cases. Most AIDS cases were white (4,992, 85%) with 321 (6%) African Americans, 408 (7%) Hispanics, 48 (1%) Asians, and 63 (1%) Native Americans reported. Only 20 cases of pediatric AIDS have been diagnosed in Oregon.

In 2005, 284 new cases of HIV/AIDS were diagnosed, 40% 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 on October 1, 2001. Through December 2005, 1,625 cases of HIV were diagnosed; 97% of which were alive at the end of 2005. The majority of HIV occurred among white males, though rates (per 100,000 population) are highest in Black-African Americans.

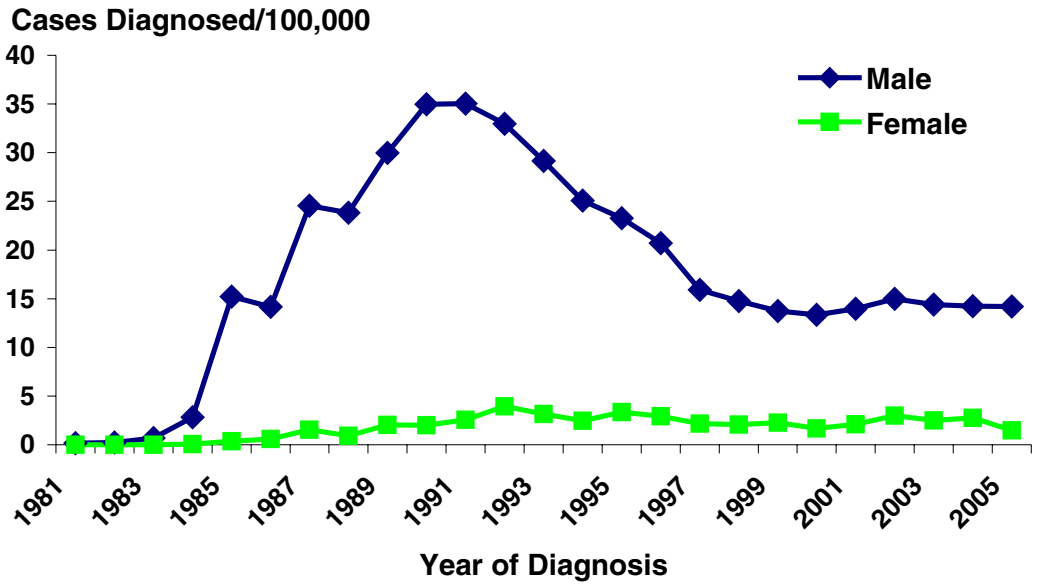
HIV/AIDS Incidence
by Year of Diagnosis
Oregon, 1981-2005



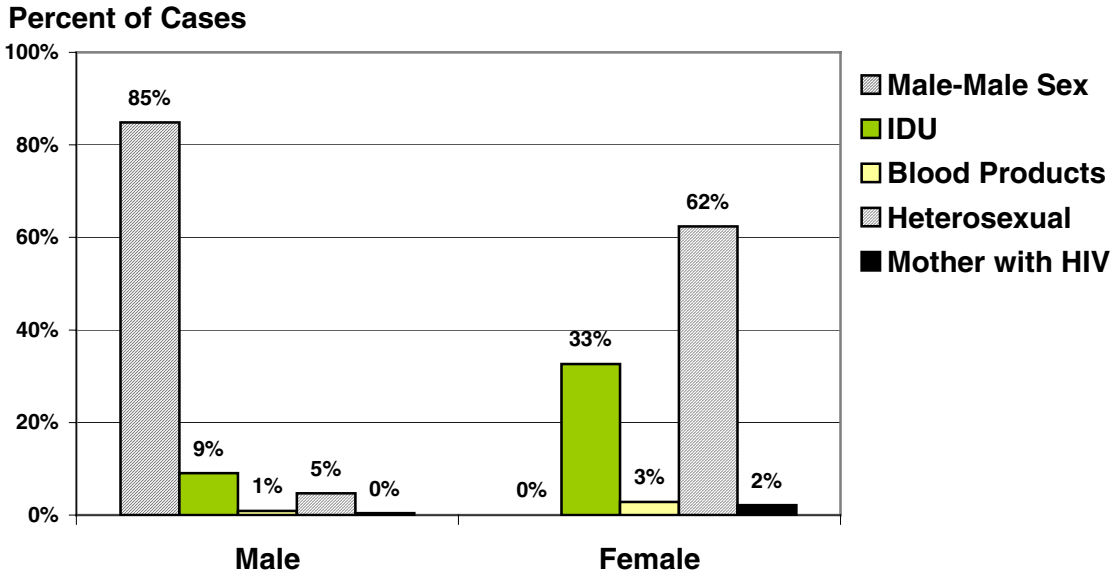
HIV/AIDS Rates
by Age at First Diagnosis
Oregon, 2002-2005



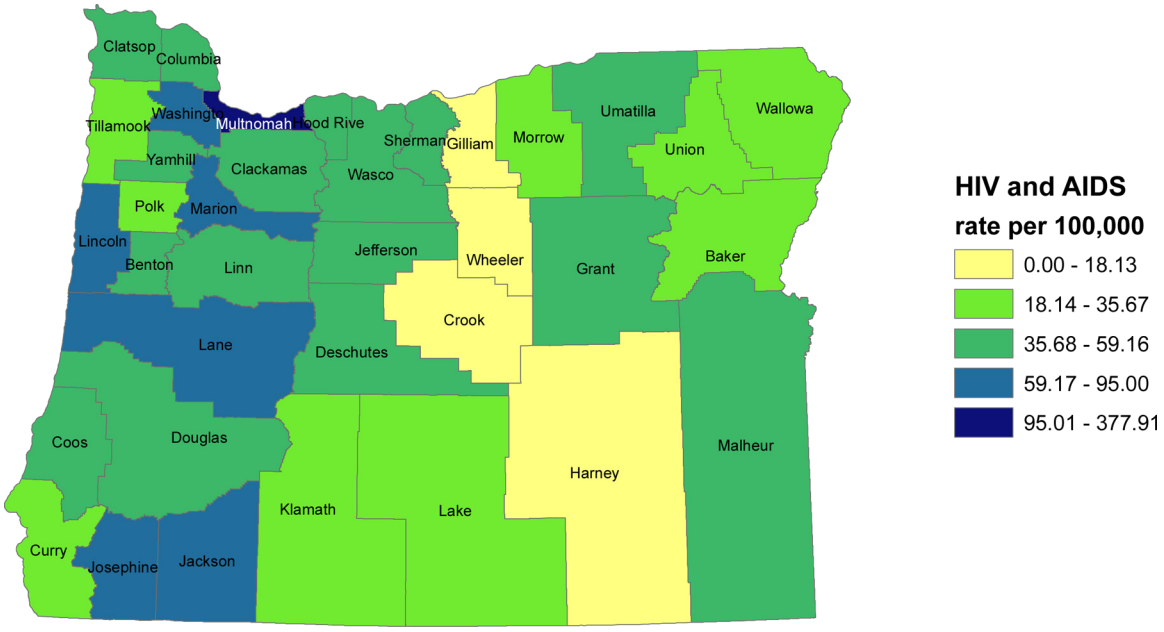
New HIV/AIDS Rate
by Year and Sex at First Diagnosis
Oregon, 1981-2005



Factors in HIV Disease Diagnosis
Oregon, 2002-2005



Incidence of HIV/AIDS
by County of Residence
Oregon, 2005



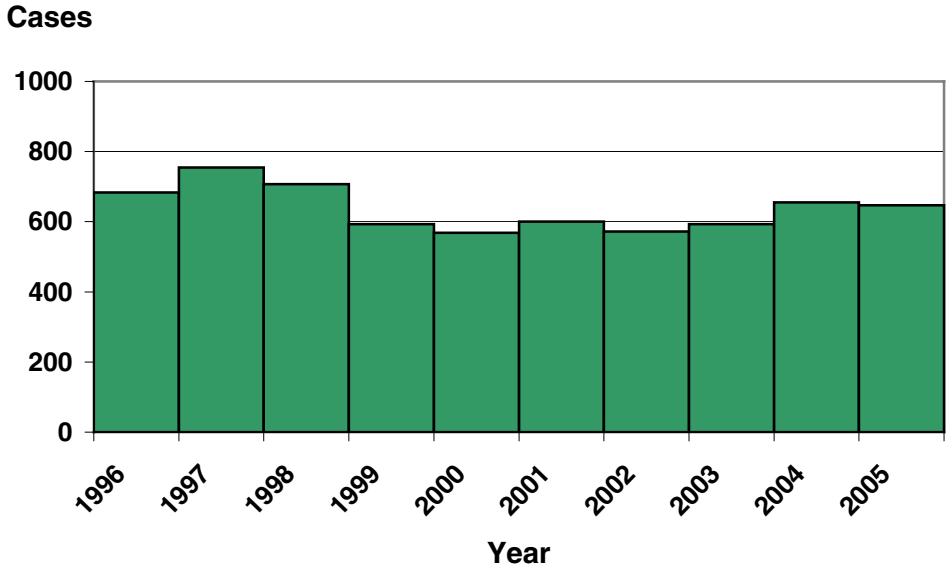
Campylobacteriosis

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.

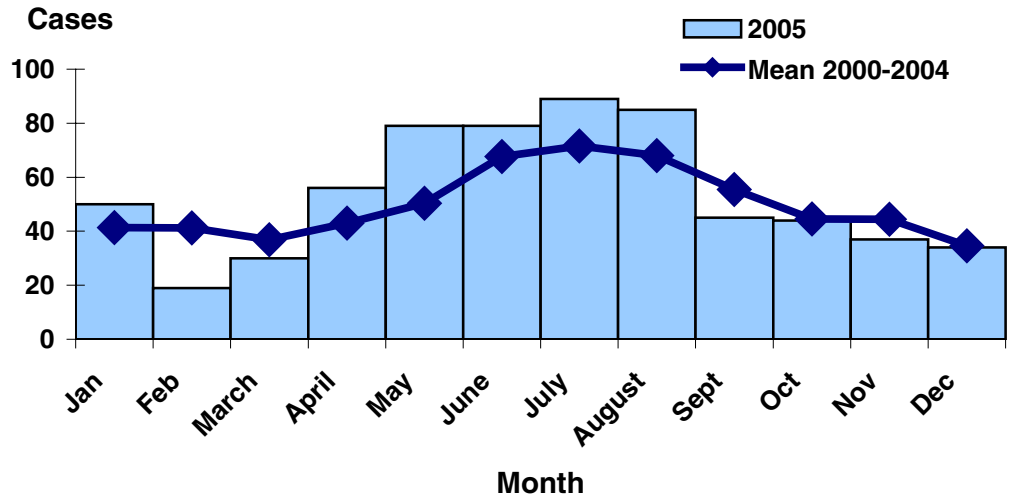
Most illnesses are sporadic and outbreaks have been associated with undercooked meat (often chicken), unpasteurized milk or non-chlorinated water. Infections occur year-round in Oregon, with peak incidence in the summer months. Proper food handling and water treatment, along with good hygienic practices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

Since 1996, six outbreaks of Campylobacter have been investigated: two foodborne, one waterborne, two from animal contact and one of unknown etiology. No outbreaks were reported in 2005; all cases were considered sporadic.

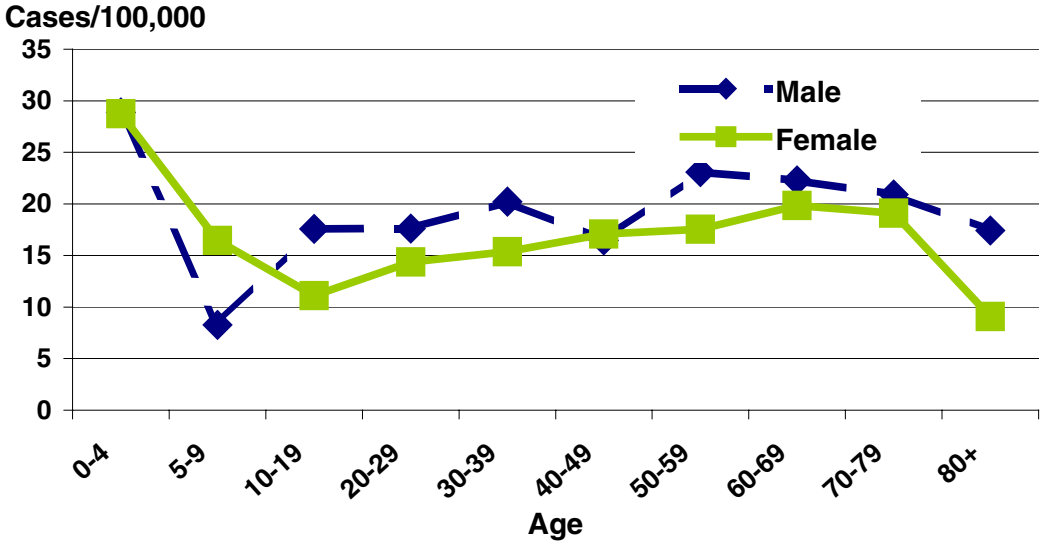
Campylobacteriosis
by Year
Oregon, 1996-2005



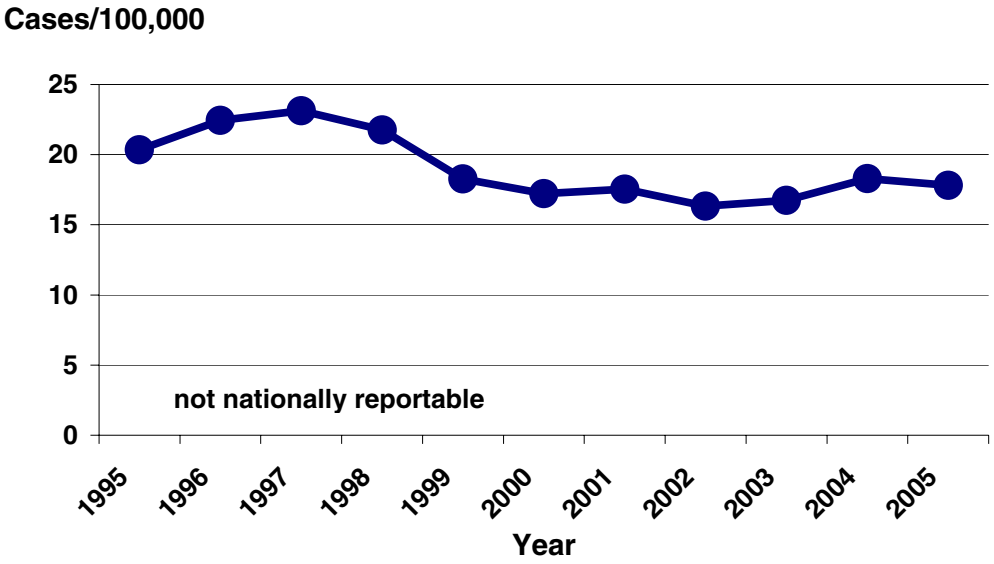
Campylobacteriosis
by Report Month
Oregon, 2005



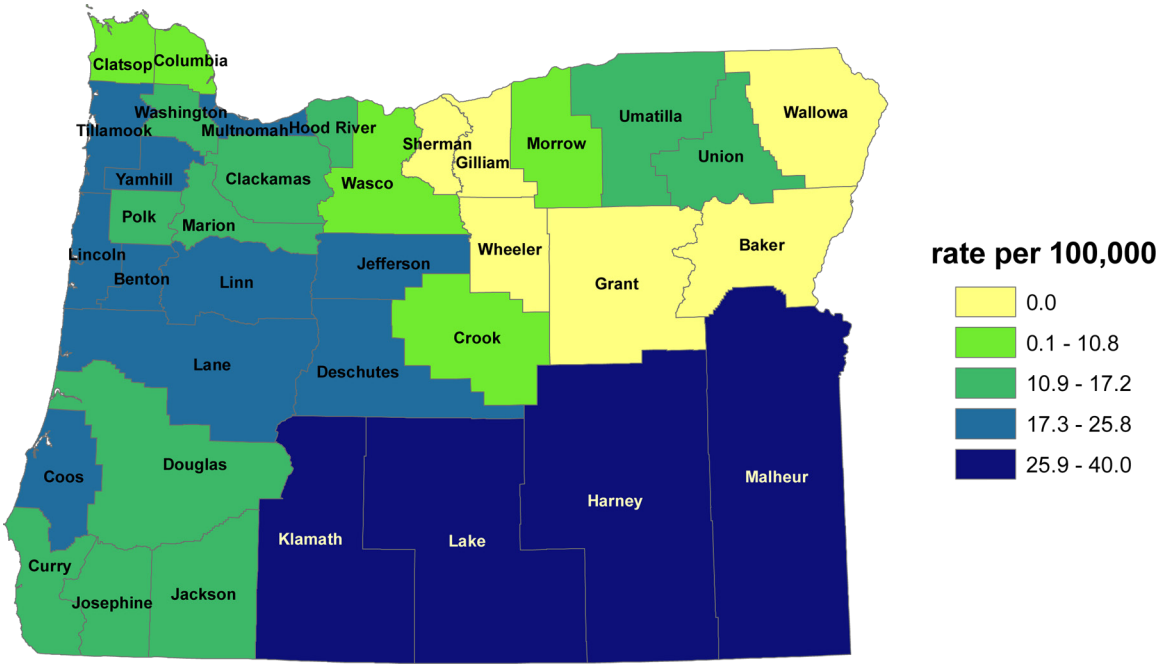
Incidence of Campylobacteriosis
by Age and Sex
Oregon, 2005



Incidence of Campylobacteriosis
Oregon, 1995-2005



Incidence of Campylobacteriosis
by County of Residence
Oregon, 2005

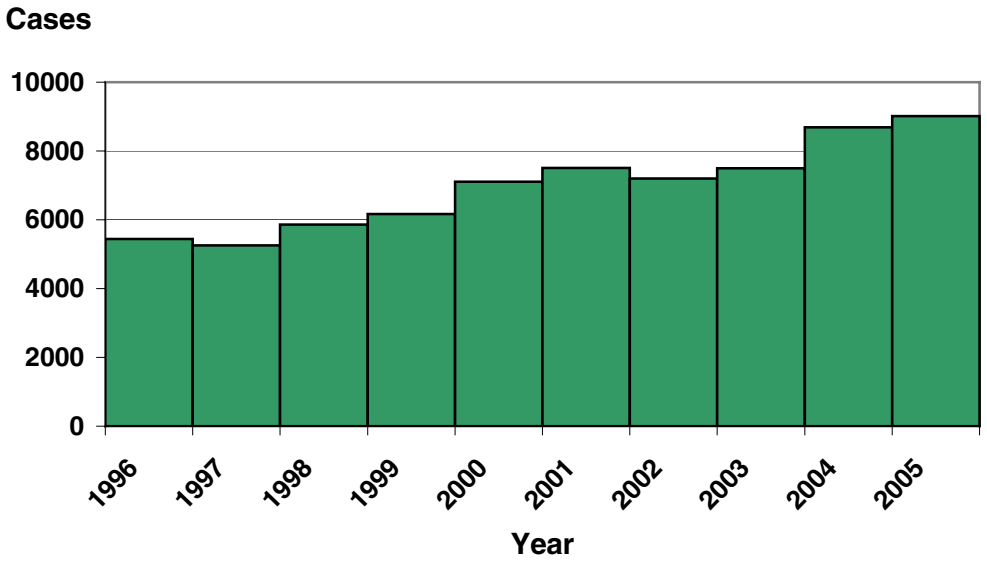


Chlamydiosis

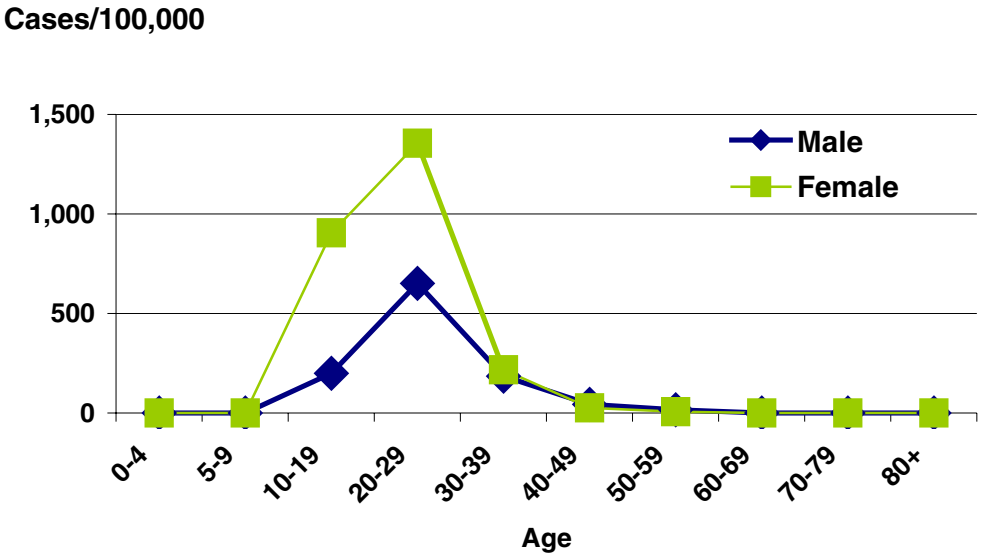
Chlamydia trachomatis is Oregon's most commonly reported infection. In 2005, there were 9,018 reported, an increase of 328 cases (3.8%) compared to cases reported in 2004. The highest rates of infection occur among young women. As with gonorrhea and syphilis, chlamydial infections are transmitted by vaginal, rectal and oral sexual contact. Chlamydiosis may be prevented by abstaining from sexual contact or only having sex with one uninfected partner. Those who are sexually active outside of a mutually monogamous relationship can protect themselves 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.

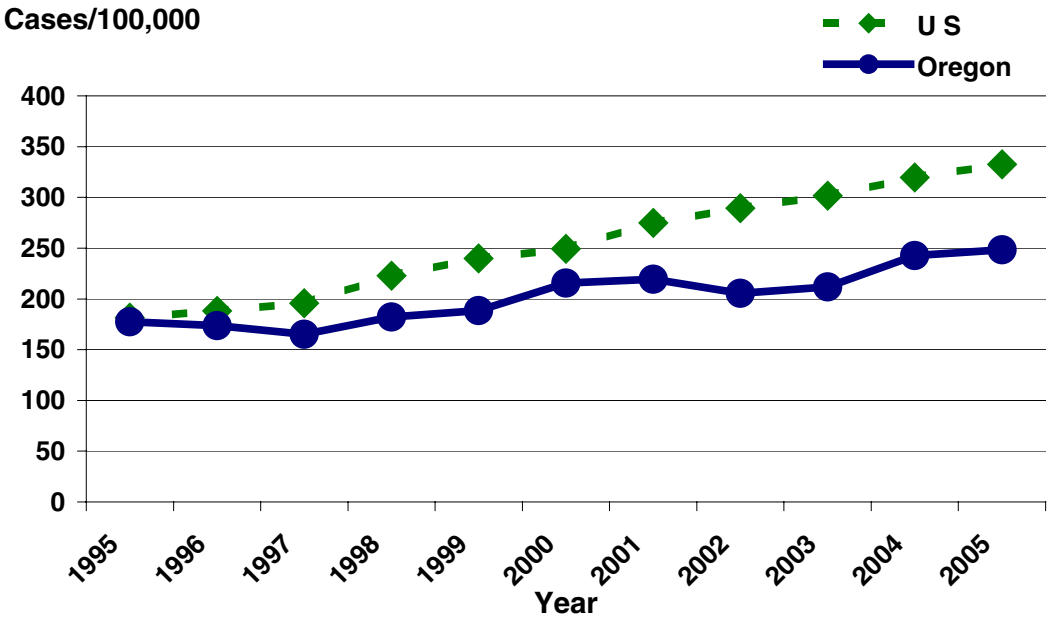
Chlamydiosis
by Year
Oregon 1996-2005



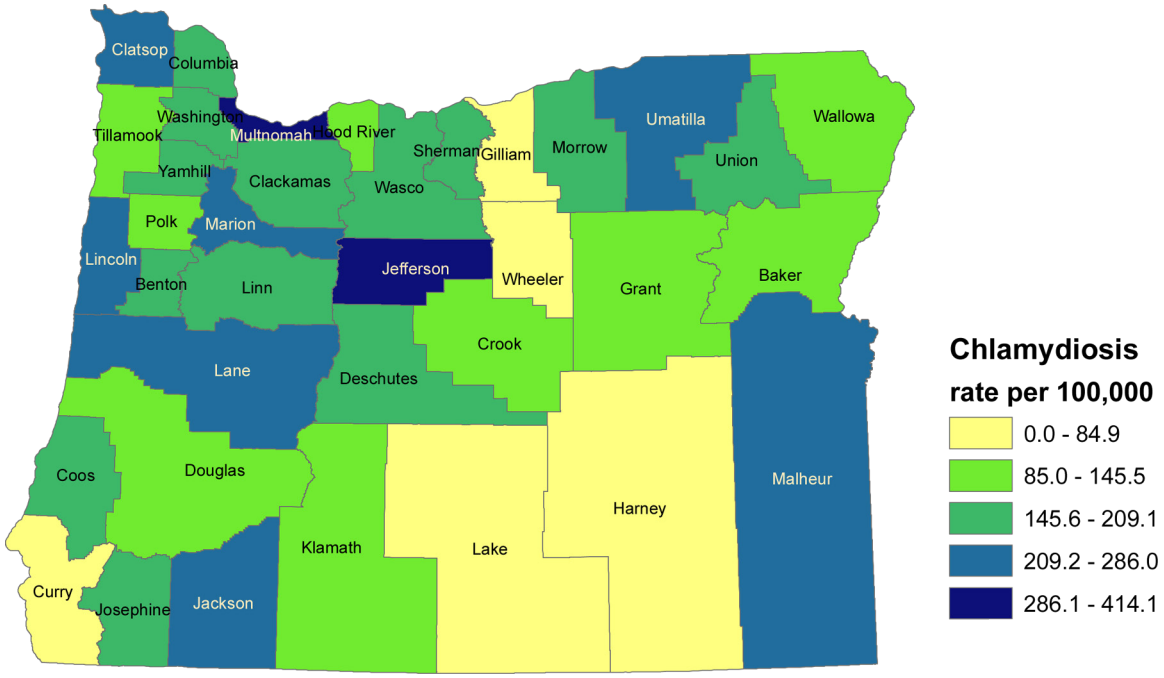
Incidence of Chlamydiosis
by Age and Sex
Oregon, 2005



Incidence of Chlamydiosis
Oregon vs. Nationwide, 1995-2005



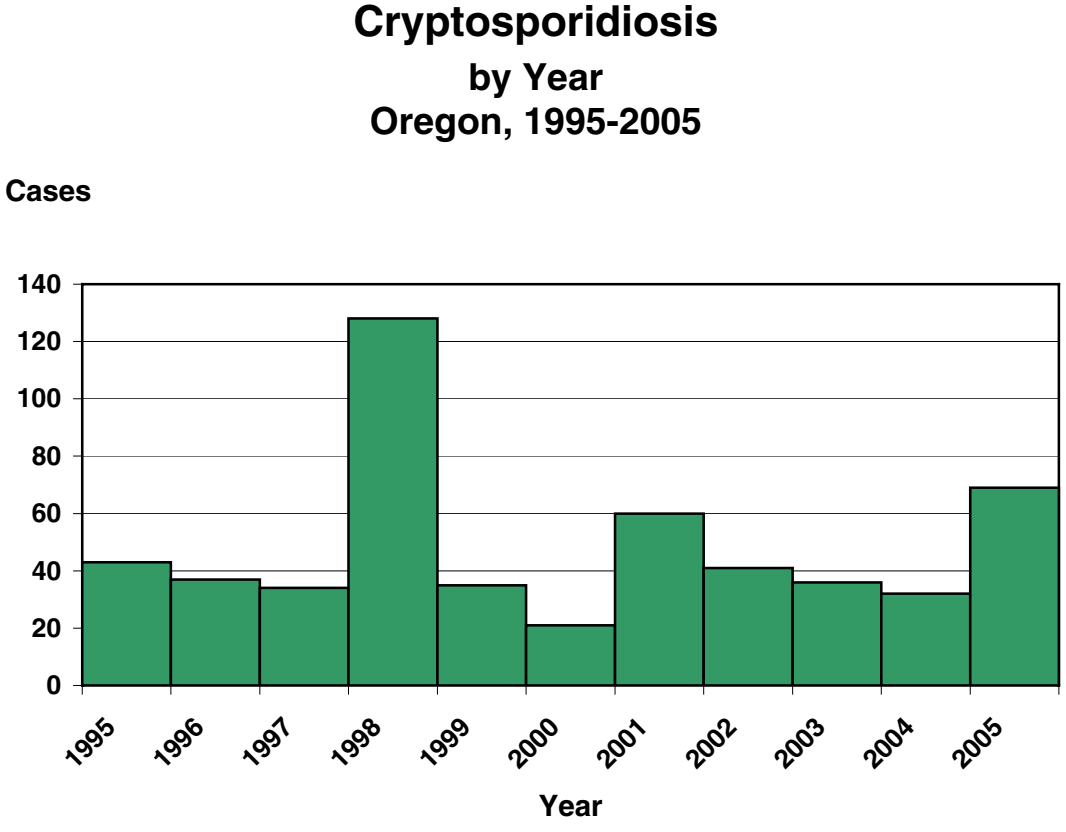
Incidence of Chlamydiosis
by County of Residence
Oregon, 2005



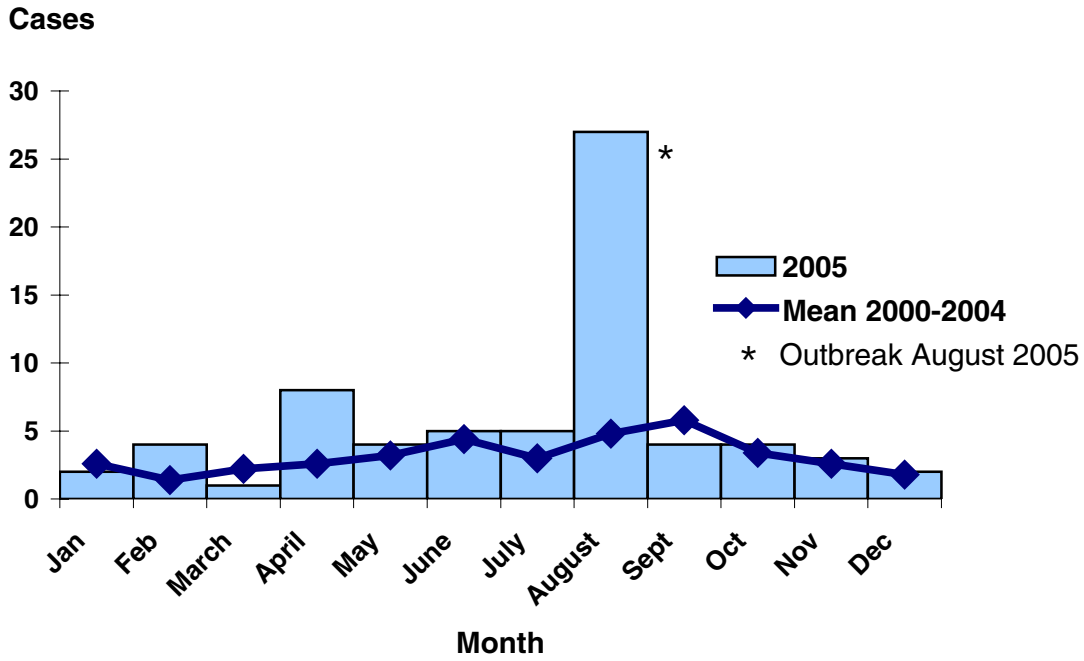
Cryptosporidiosis

Cryptosporidiosis in humans results from infection with protozoal parasites in the genus *Cryptosporidum*—most commonly *C. hominis* or *C. parvum*. Symptomatic infections are characterized by watery diarrhea and abdominal cramps. Symptoms typically resolve within 1–2 weeks in immunocompetent persons, but may be unusually protracted and can be difficult to control among the immunocompromised. Repeated 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.

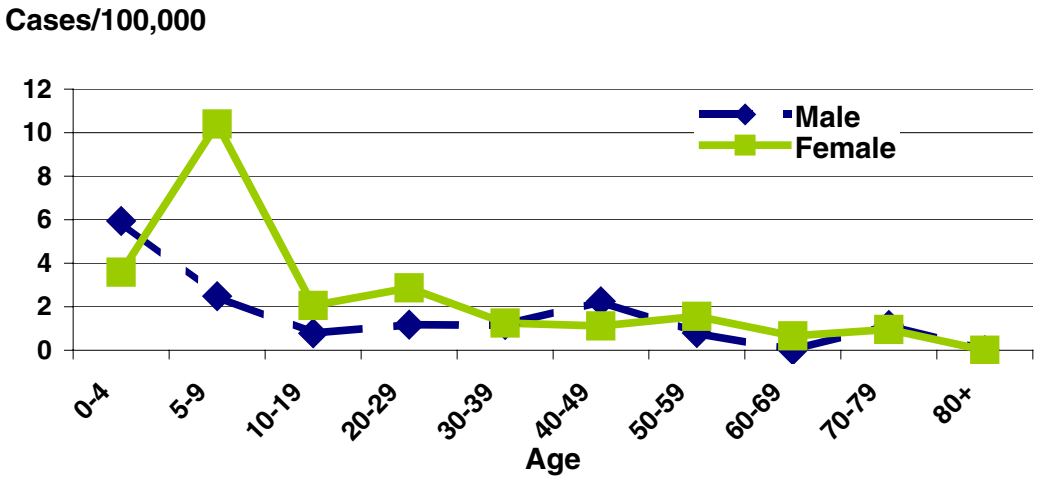
Given the number of asymptomatic and undiagnosed infections, surveillance data can be difficult to interpret, although they have been used to identify a number of outbreaks over the years, most commonly associated with childcare or water (both drinking and recreational). In 2005, an outbreak with more than 25 cases was traced to a swimming pool exposure in Jackson County.



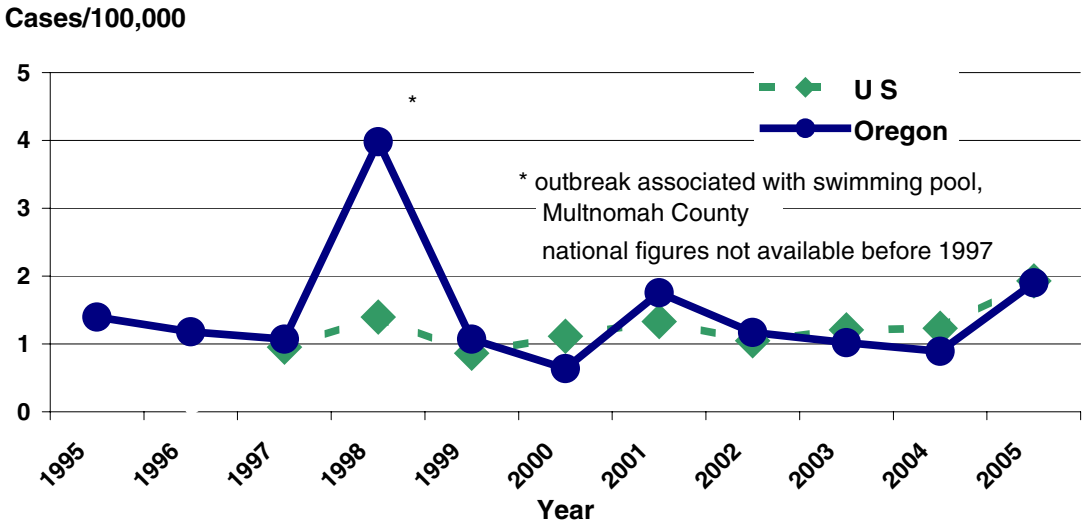
Cryptosporidiosis
by Onset Month
Oregon, 2005



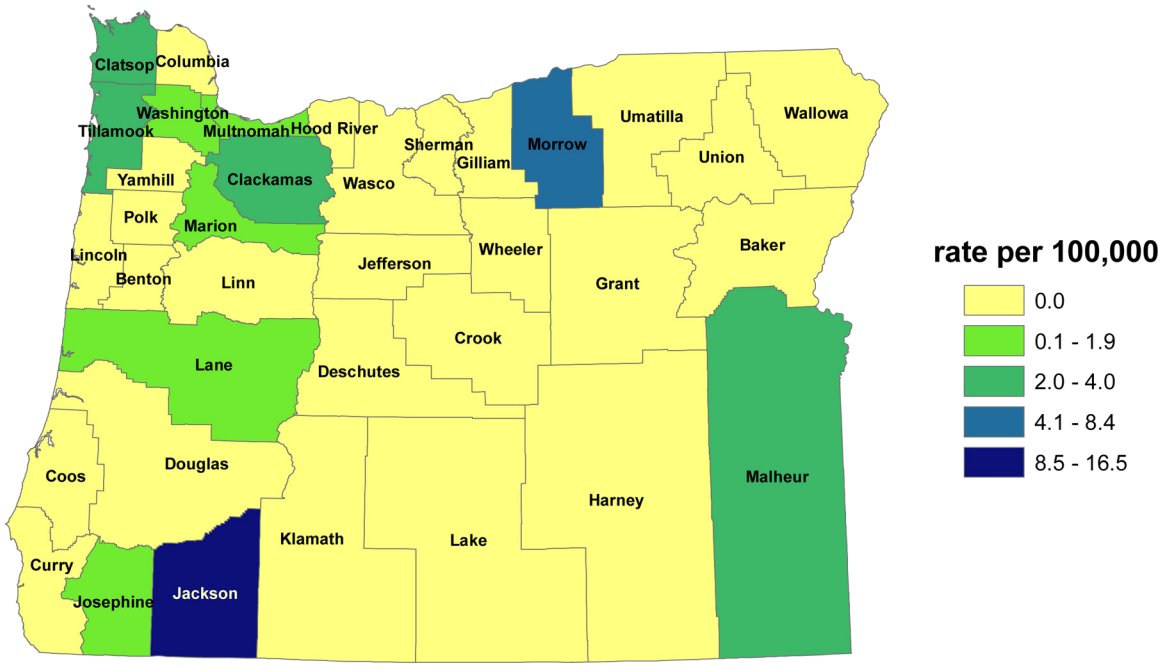
Incidence of Cryptosporidiosis
by Age and Sex
Oregon, 2005



Incidence of Cryptosporidiosis
Oregon vs. Nationwide
1995-2005



Incidence of Cryptosporidiosis
by County
Oregon, 2005

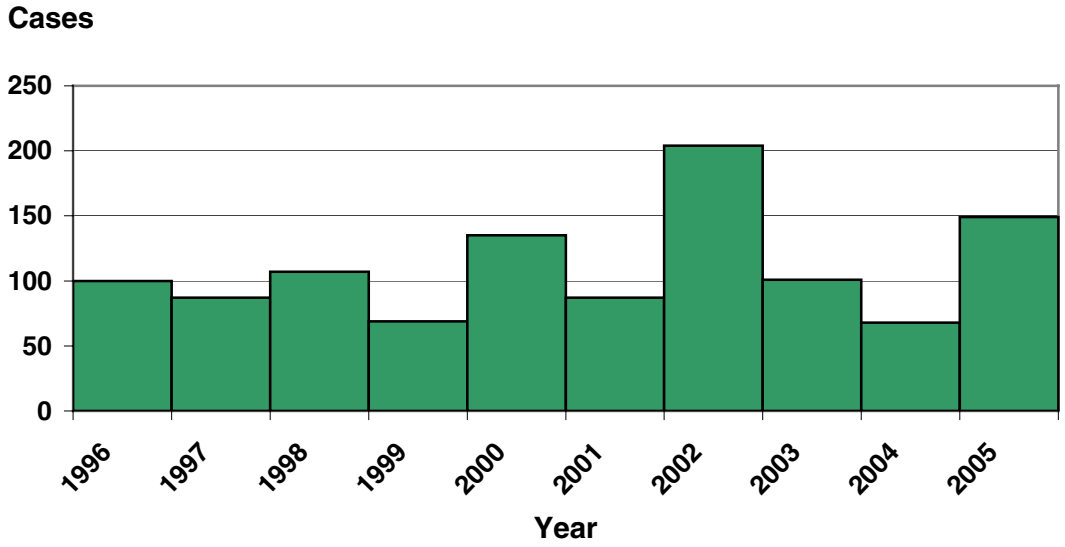


Escherichia coli O157 Infection

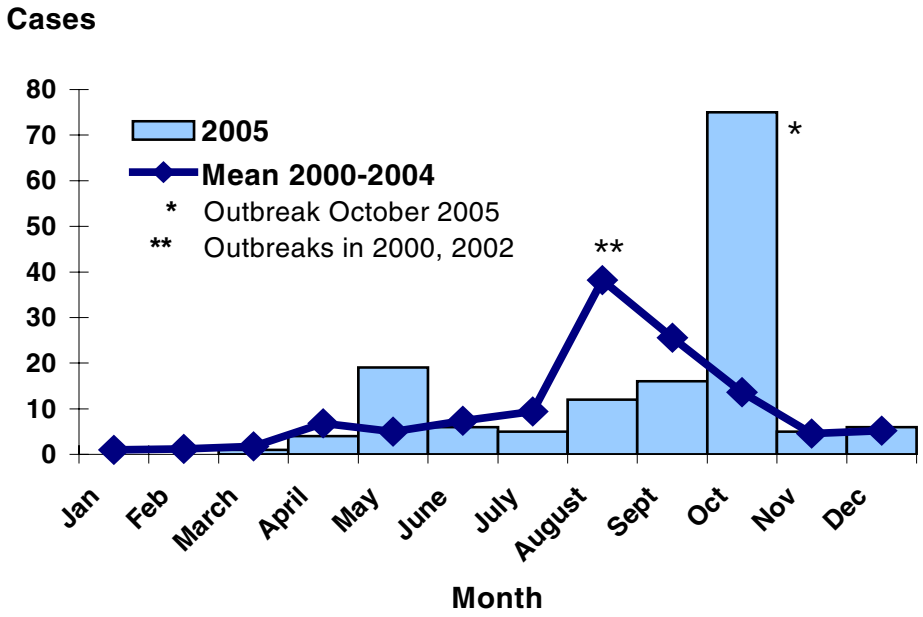
E. coli O157 has become one of the most feared of the common causes of infectious diarrhea. Oregon has been the setting for many O157 outbreaks, and investigations of those outbreaks combined with the analysis of other surveillance information have contributed greatly to our understanding of this pathogen. 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.

The number of reported cases jumped in 2005 to 149—up from only 69 in 2004. This primarily reflects an increase in outbreak-associated cases, notably one caused by locally grown parsley distributed to restaurants and grocery stores in Oregon and Washington. Restaurant-associated clusters were recognized in both states, the largest involving 64 victims in Deschutes County. Other 2005 outbreak cases were linked to consumption of raw milk, bagged lettuce, and contaminated drinking water at a summer camp. Outbreak-associated cases notwithstanding, surveillance data suggest that O157 infection rates nationally may have declined a bit over the past few years.

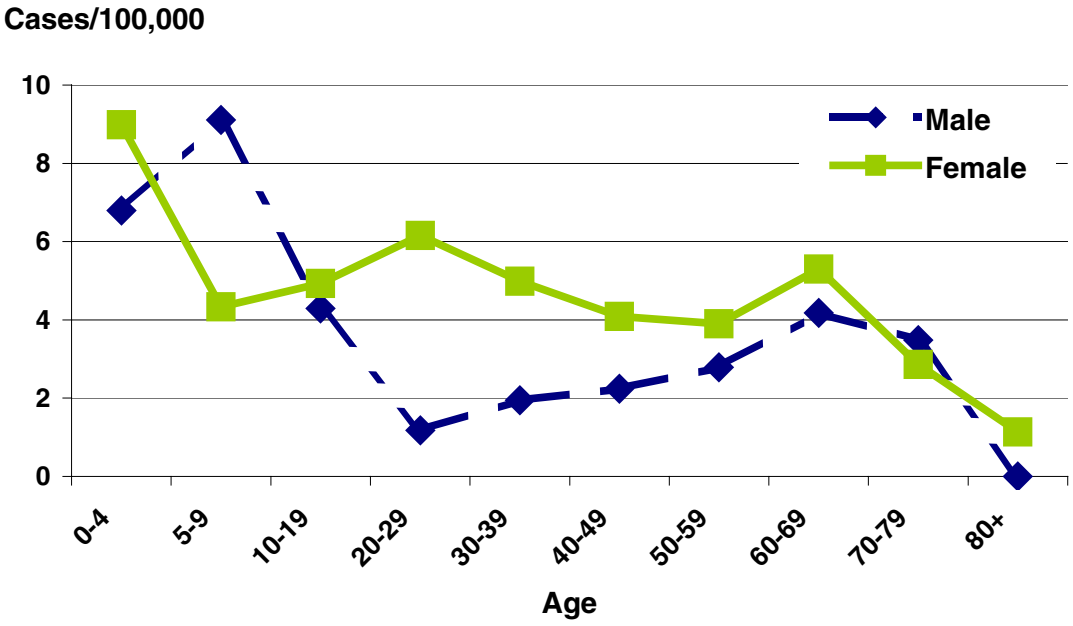
E. coli O157 Infection
by Year
Oregon, 1996-2005



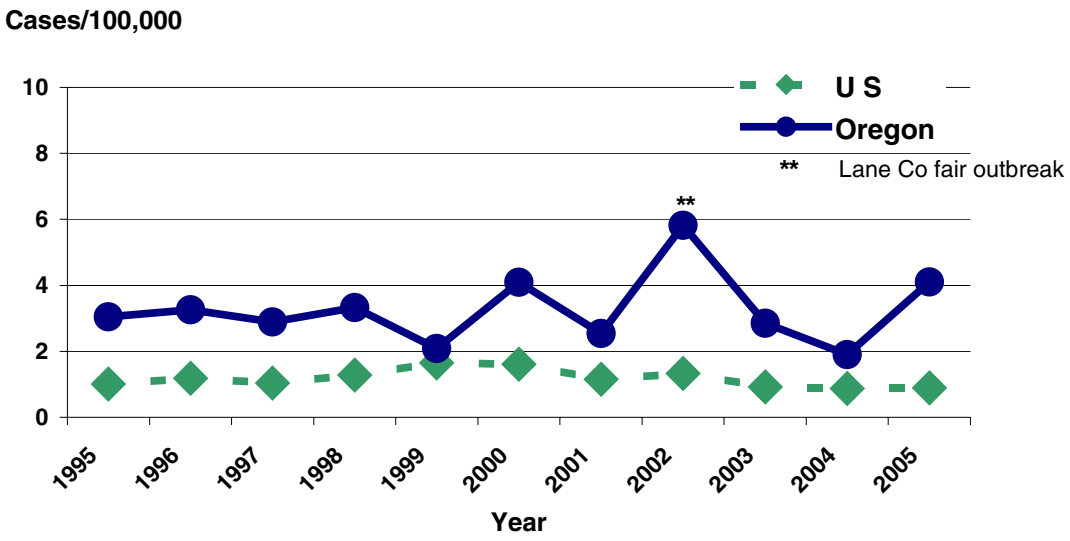
E. coli O157 Infection
by Onset Month
Oregon, 2005



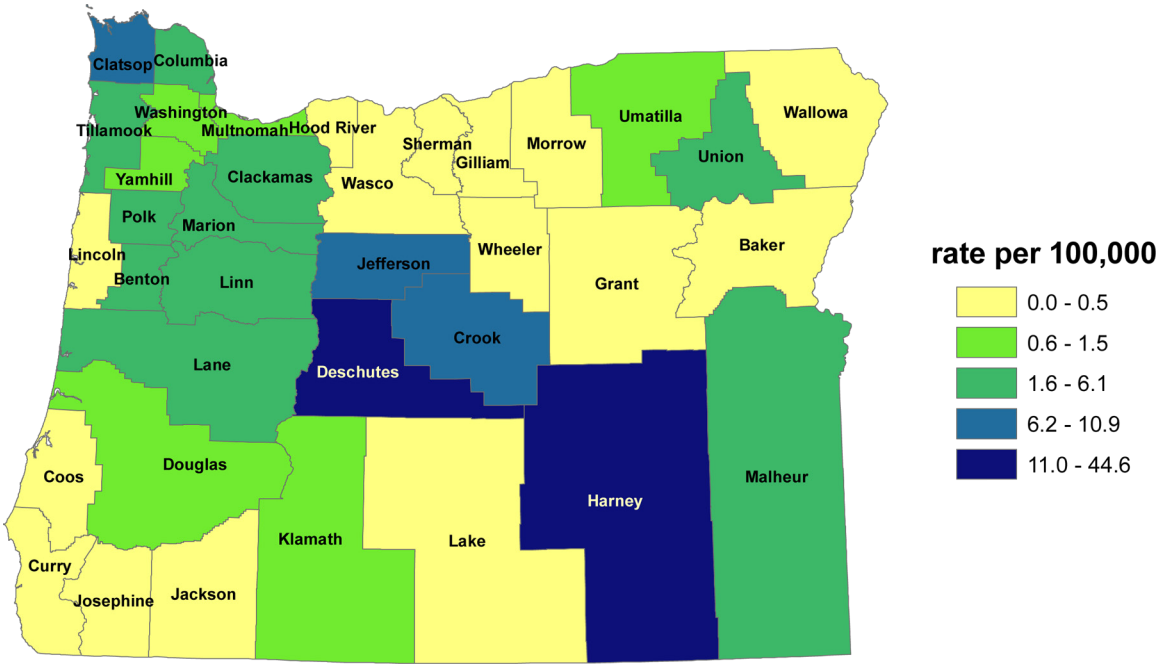
Incidence of *E. coli* O157 Infection
by Age and Sex
Oregon, 2005



Incidence of *E. coli* O157 Infection
Oregon vs. Nationwide
1995-2005



Incidence of *E. coli* Infection
by County
Oregon, 2005



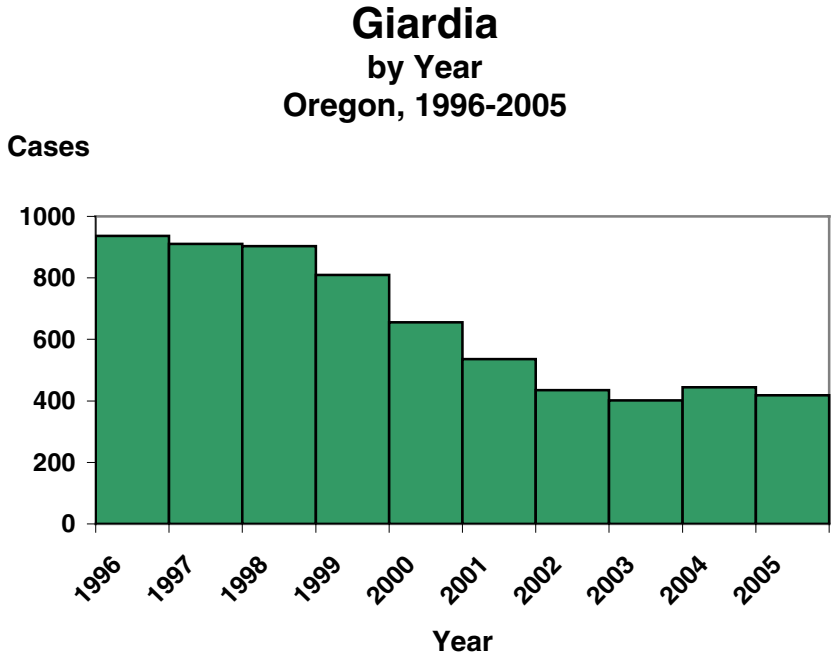
Giardiasis

Giardia intestinalis, the flagellated protozoan originally named *G. lamblia*, is the most commonly identified parasitic pathogen in the US. 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.

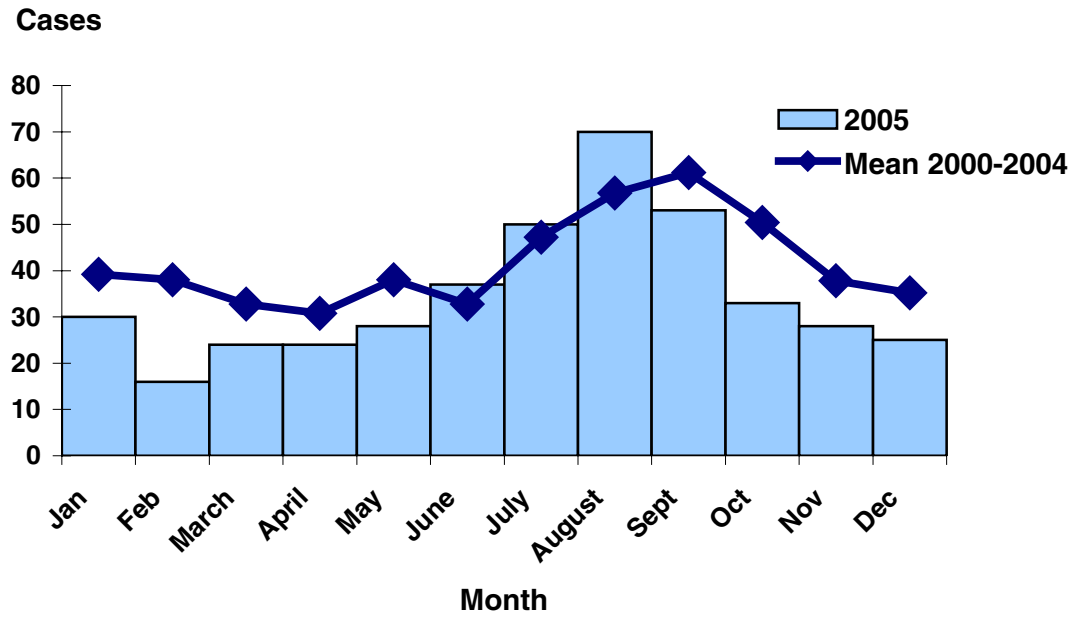
The majority of Giardia infections occur without symptoms. When symptomatic, patients report a variety of gastrointestinal complaints including chronic diarrhea, steatorrhea, abdominal cramps, bloating, frequent loose and pale greasy stools, fatigue, and weight loss.

In 2005, the reported incidence of giardiasis in Oregon was nearly twice that of the rest of the US, with 11.5 cases per 100,000 population. All 2005 cases were reported as sporadic or household-associated disease; no outbreaks were detected. Children <5 years of age continue to have the highest incidence, with 31 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.

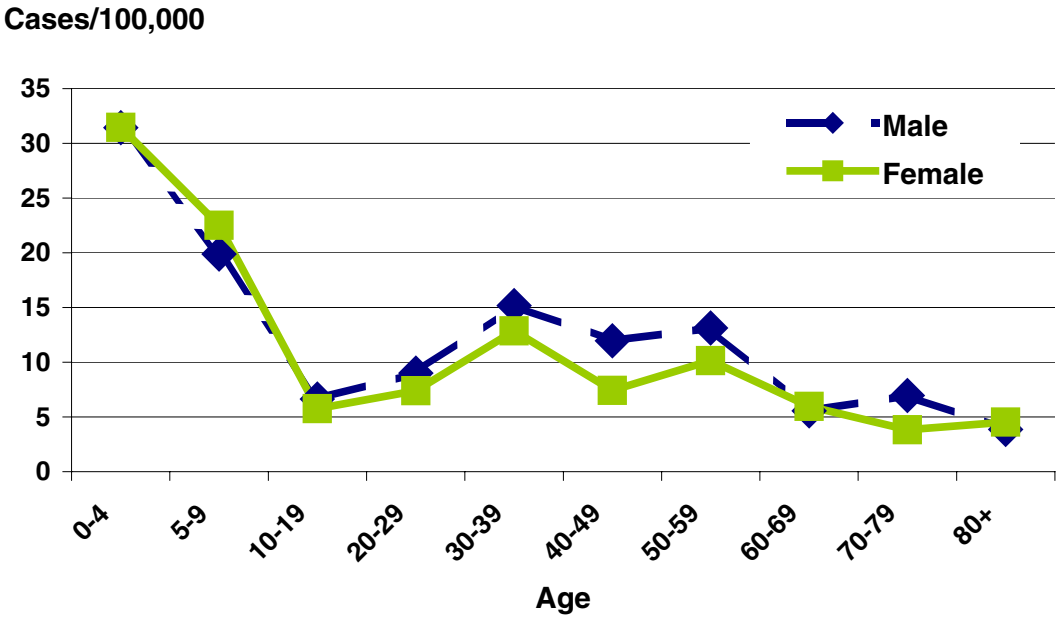
Prevention depends upon good personal hygiene (hand washing!), and avoiding consumption of fecally contaminated water. Travel warnings on water quality should be heeded.



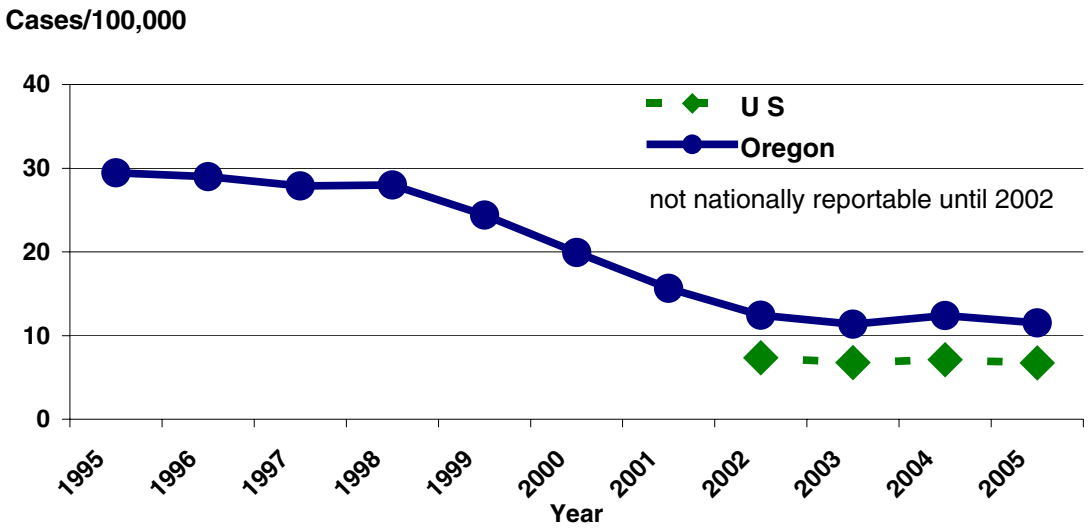
Giardiasis
by Onset Month
Oregon, 2005



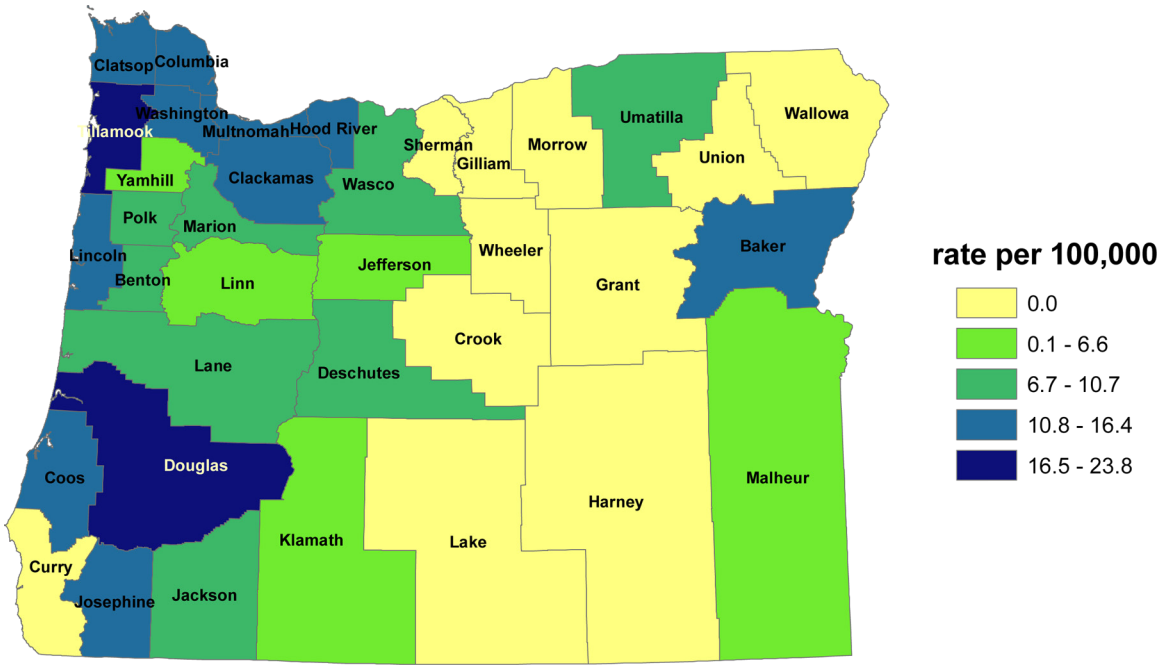
Incidence of Giardiasis
by Age and Sex
Oregon, 2005



Incidence of Giardiasis
Oregon vs. Nationwide
1995-2005



Incidence of Giardiasis
by County of Residence
Oregon, 2005

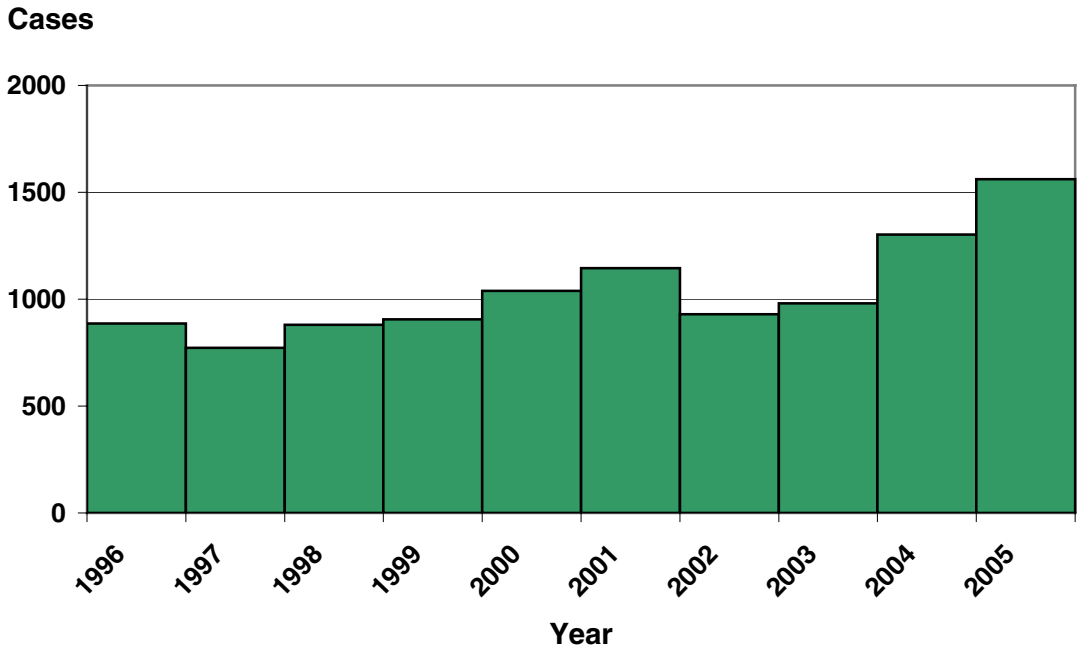


Gonorrhea

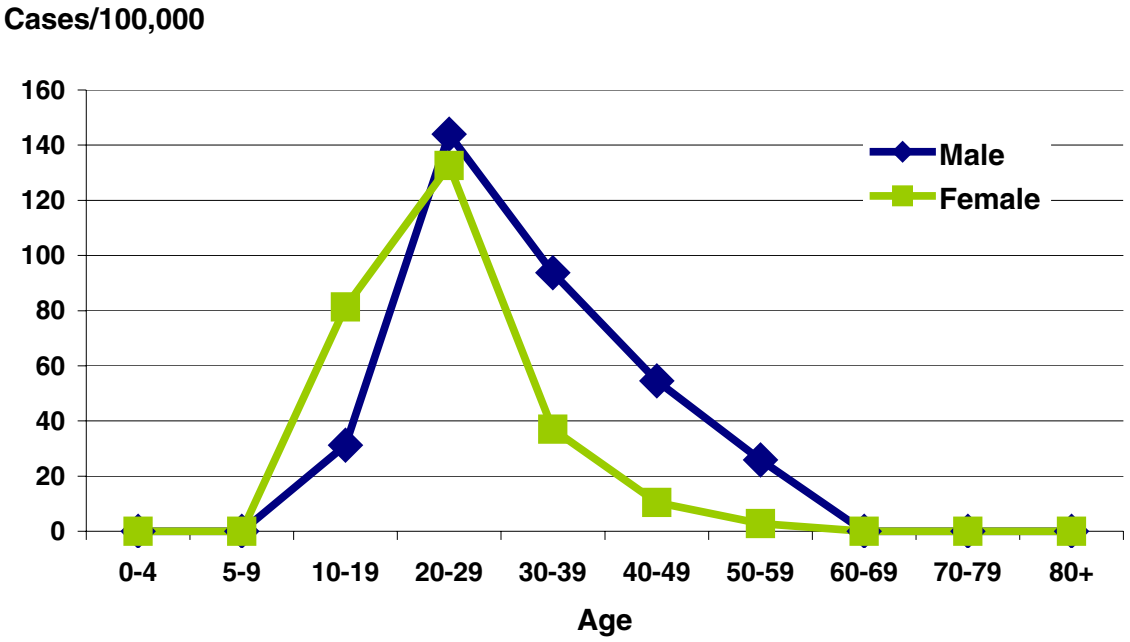
Gonorrhea, caused by the Gram-negative bacterium *Neisseria gonorrhoeae*, is easily transmitted from person to person through vaginal, rectal or oral sexual contact. Gonorrhea can be prevented by abstaining from sex outside a mutually monogamous relationship with an uninfected partner. Those who are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

The 1,562 gonorrhea cases reported in 2005 represent an increase of 20.0% from the 1,302 cases reported in 2004. 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. Reported cases of gonorrhea among men who have sex with men increased during 2005, as did cases among white women and heterosexual males. Recent sex partners of infected persons should be evaluated and treated for gonorrhea.

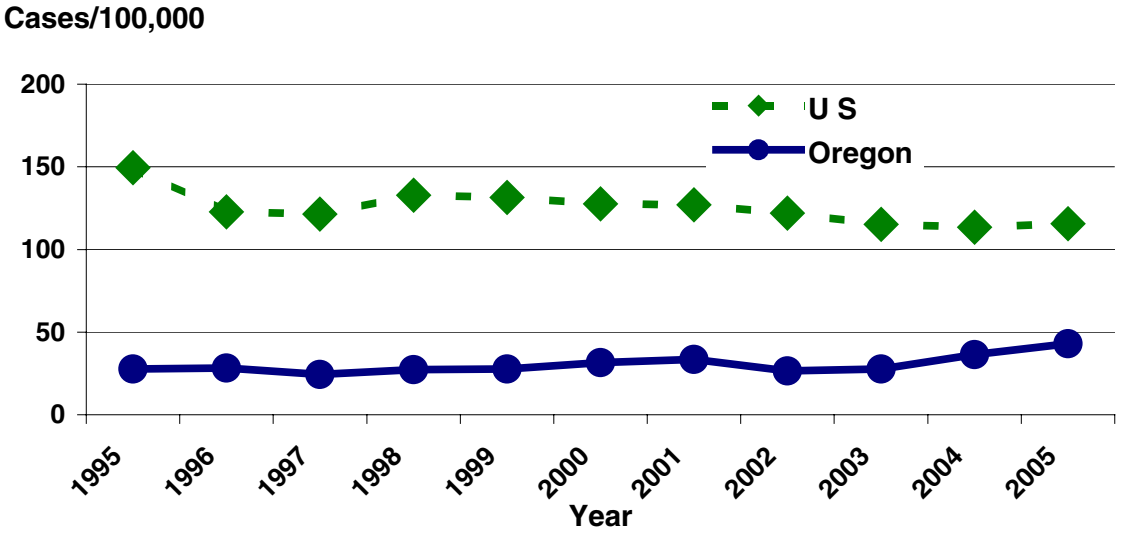
Gonorrhea
by Year
Oregon, 1996-2005



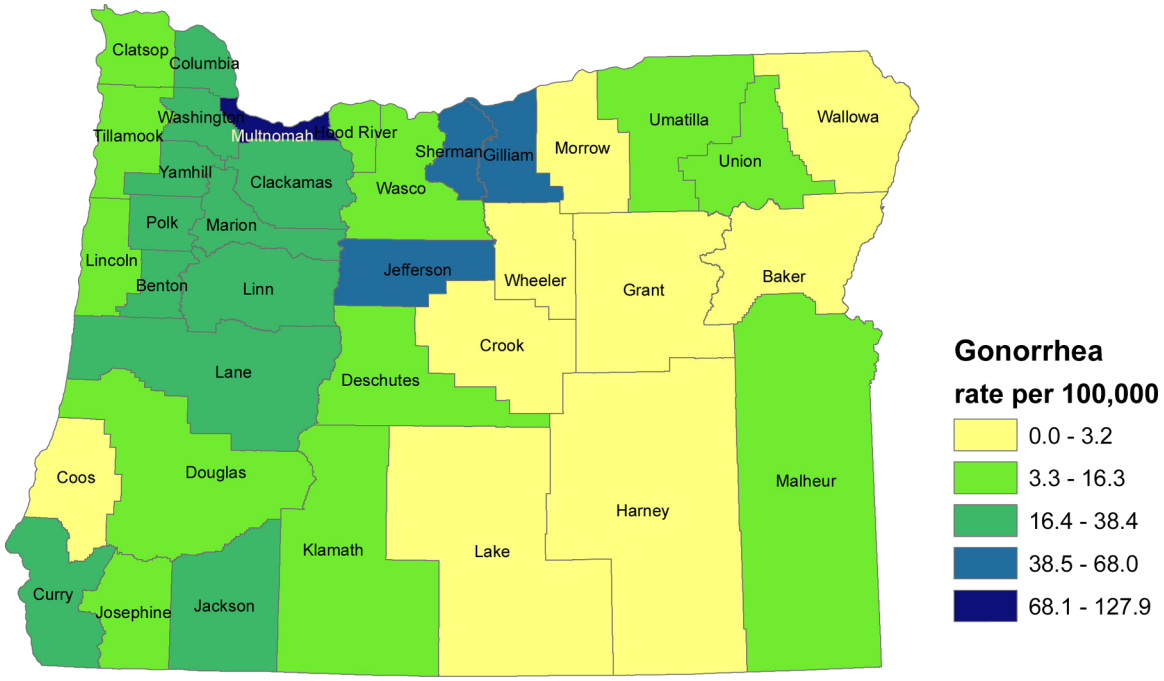
Incidence of Gonorrhea
by Age and Sex
Oregon, 2005



Incidence of Gonorrhea
Oregon vs. Nationwide
1995-2005



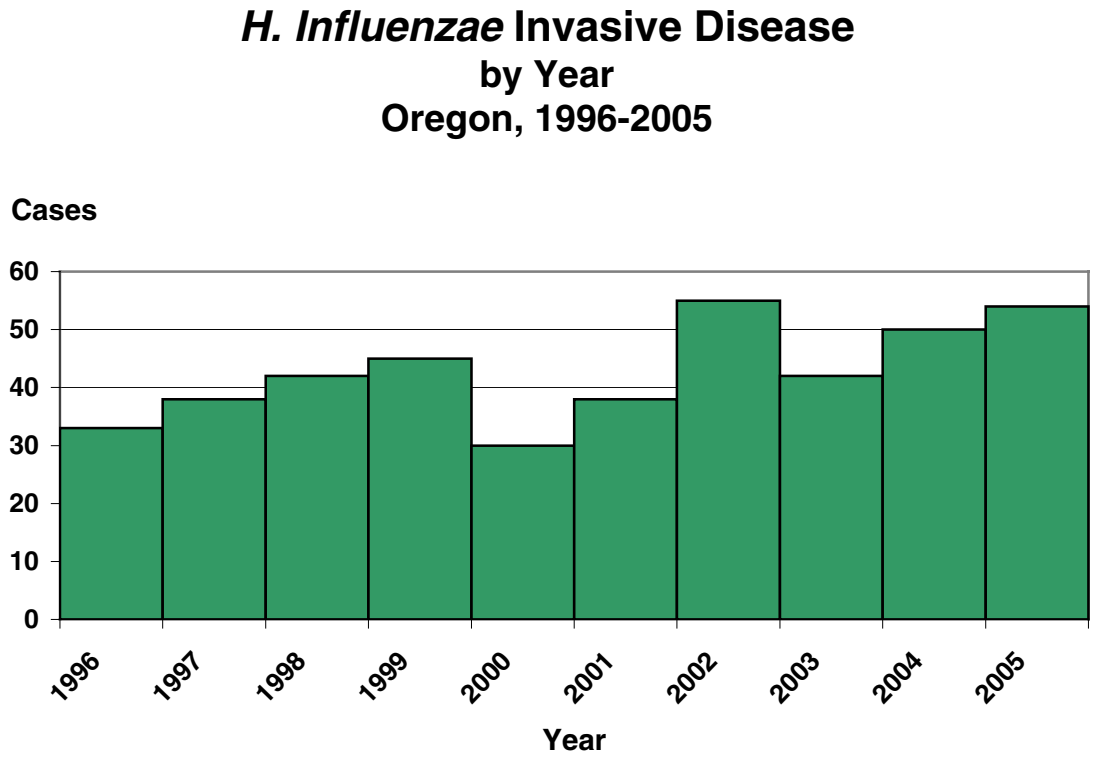
Incidence of Gonorrhea
By County of Residence
Oregon, 2005



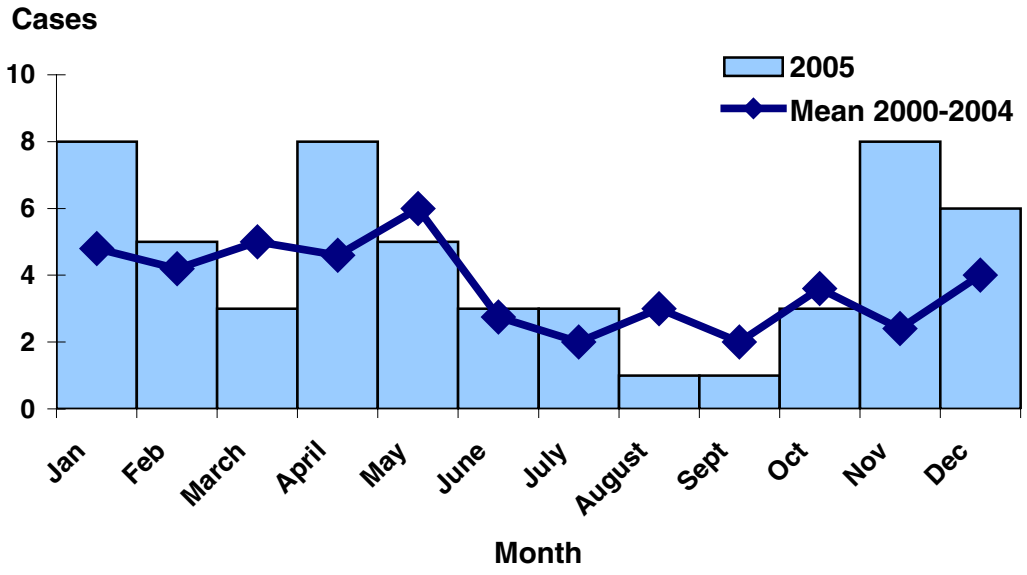
Haemophilus influenzae

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 *S. pneumoniae* now in the lead. In Oregon, serotype b organisms have not been cultured in association with invasive infection of normally sterile body fluids in fully immunized children since 1999. Appropriate utilization of conjugate vaccine will help to ensure that this trend continues well into the future. All sterile site *H. influenzae* isolates must be sent to the Oregon State Public Health Laboratory for additional typing. Though the majority of cases are non typeable, almost ¼ of 2005 Oregon cases were identified as serotype f.

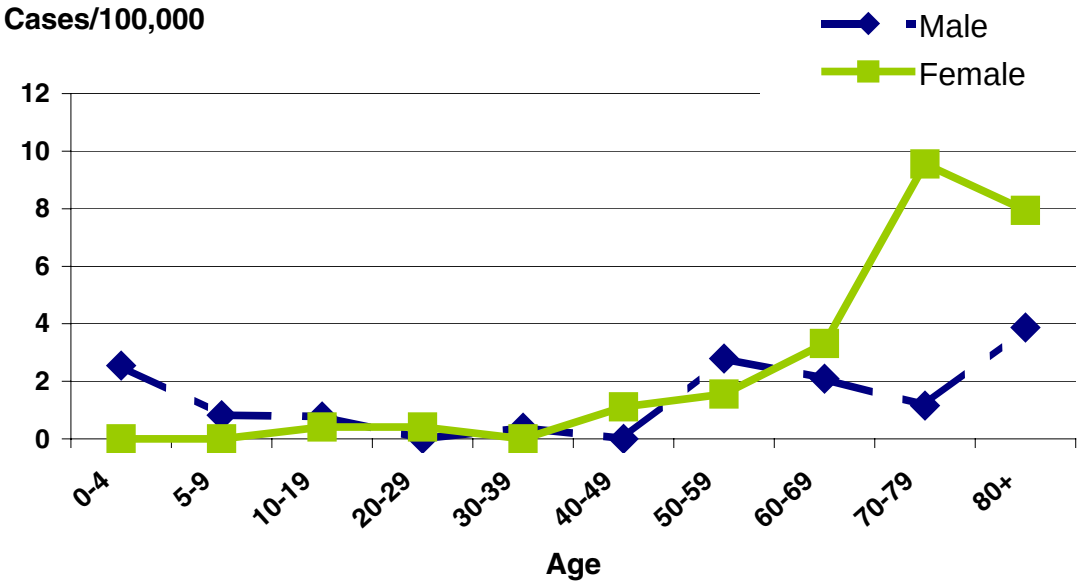
Peak incidence occurs in late winter/early spring. The majority of cases in 2005 were among those aged 50 and over.



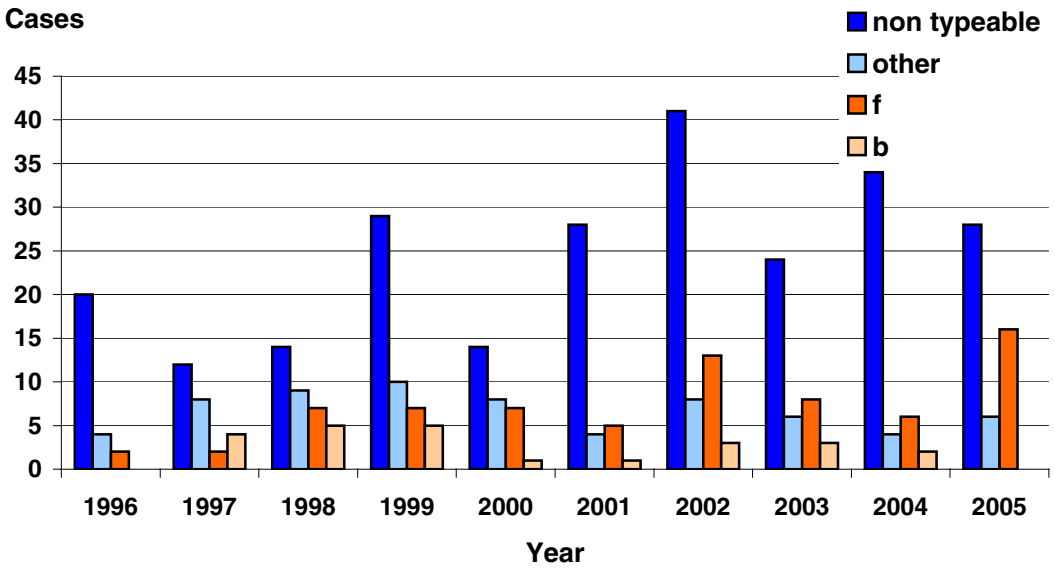
H. Influenzae Invasive Disease
by Onset Month
Oregon, 2005



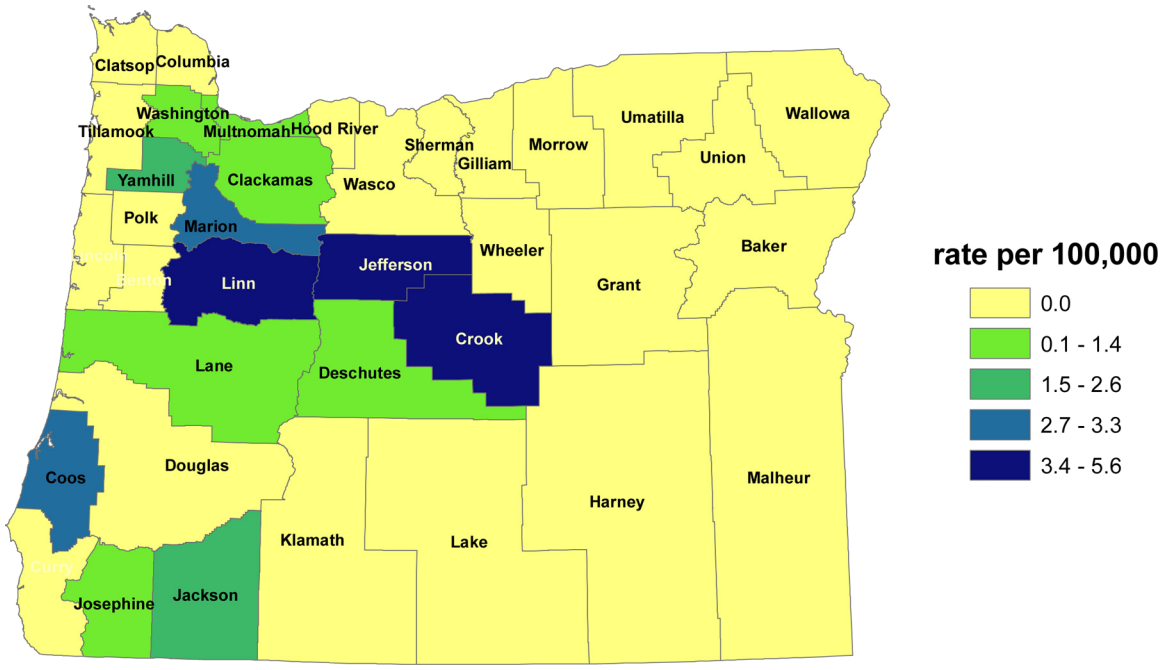
Incidence of *H. Influenzae* Invasive Disease
by Age and Sex
Oregon, 2005



H. Influenzae Invasive Disease
by Serotype and Year
Oregon, 1996-2005



Incidence of *H. Influenzae*
by County of Residence
Oregon, 2005



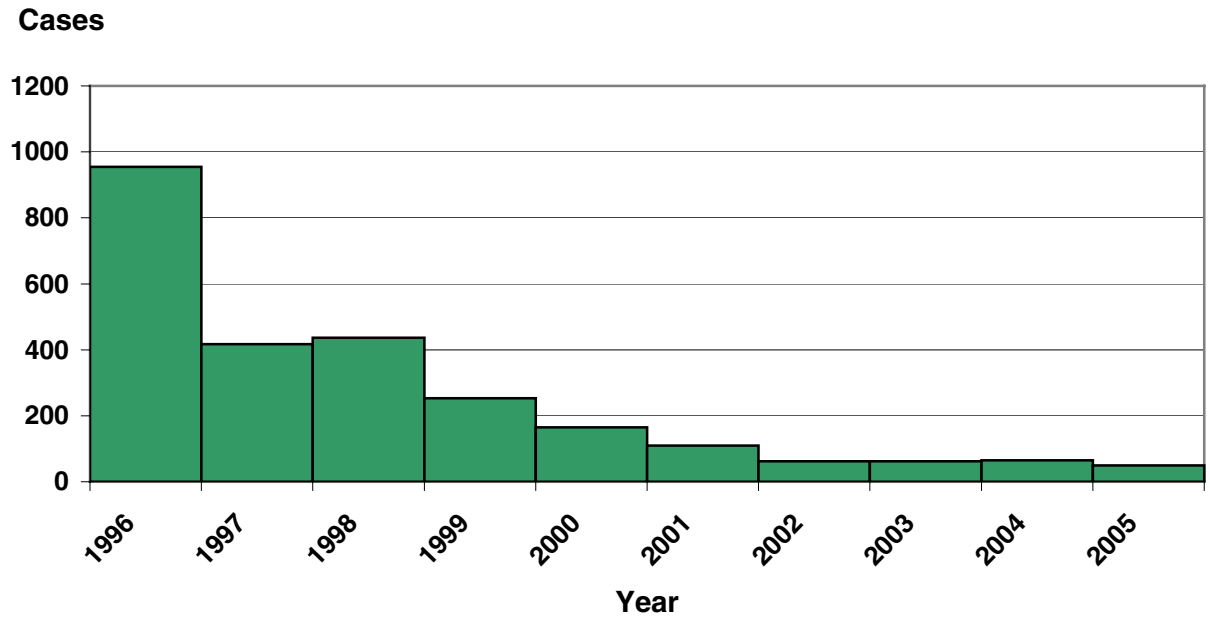
Hepatitis A

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 widespread outbreaks.

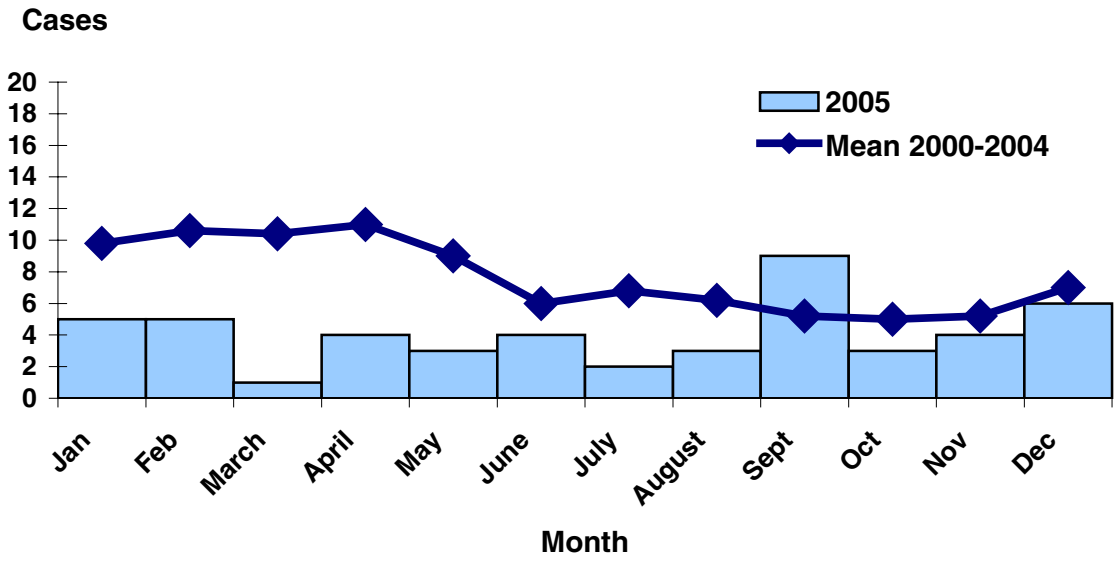
Good personal hygiene and proper sanitation can help prevent hepatitis A. Vaccines are recommended for long-term prevention of hepatitis A in all Oregon children 2 years of age and older, as well as for adults in high-risk groups. Immune globulin is available for short-term prevention of hepatitis A in individuals of all ages.

In 2005, Oregon's 49 cases represented an historic low. Most infections are acquired by venturing outside of Oregon to areas having poor practices relating to personal hygiene and environmental sanitation. Such persons placing themselves at elevated risk should seriously consider getting a hepatitis A vaccination at least two months prior to departure.

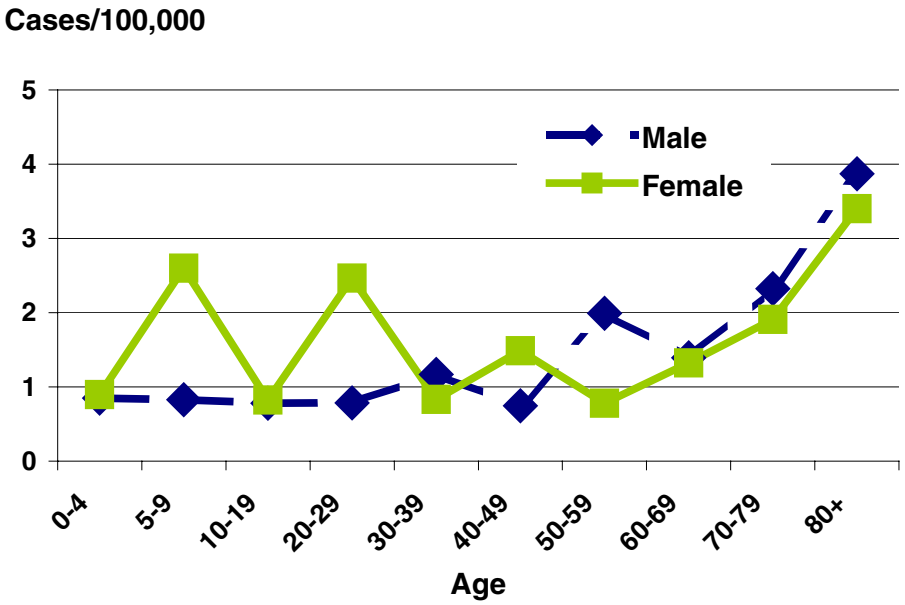
Hepatitis A
by Year
Oregon, 1996-2005



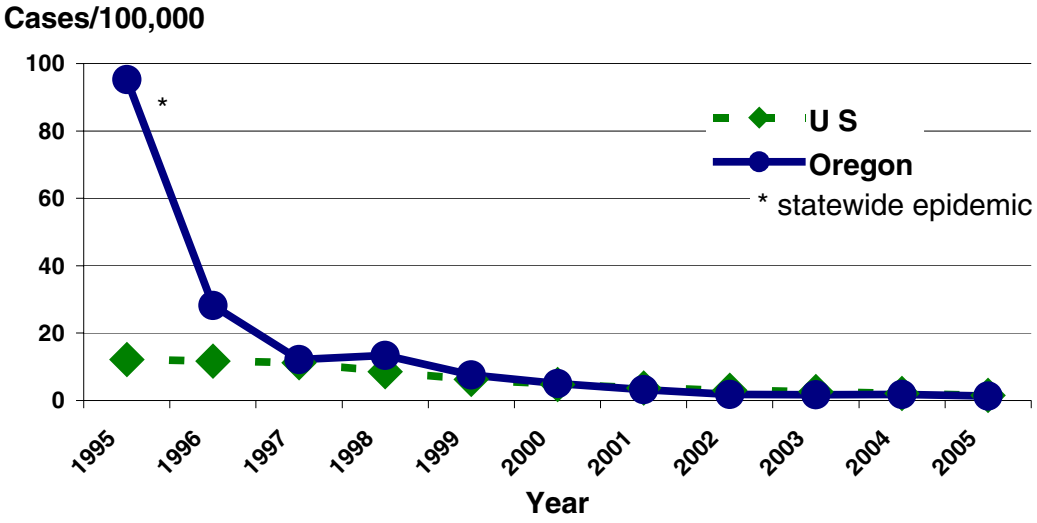
Hepatitis A
by Onset Month
Oregon, 2005



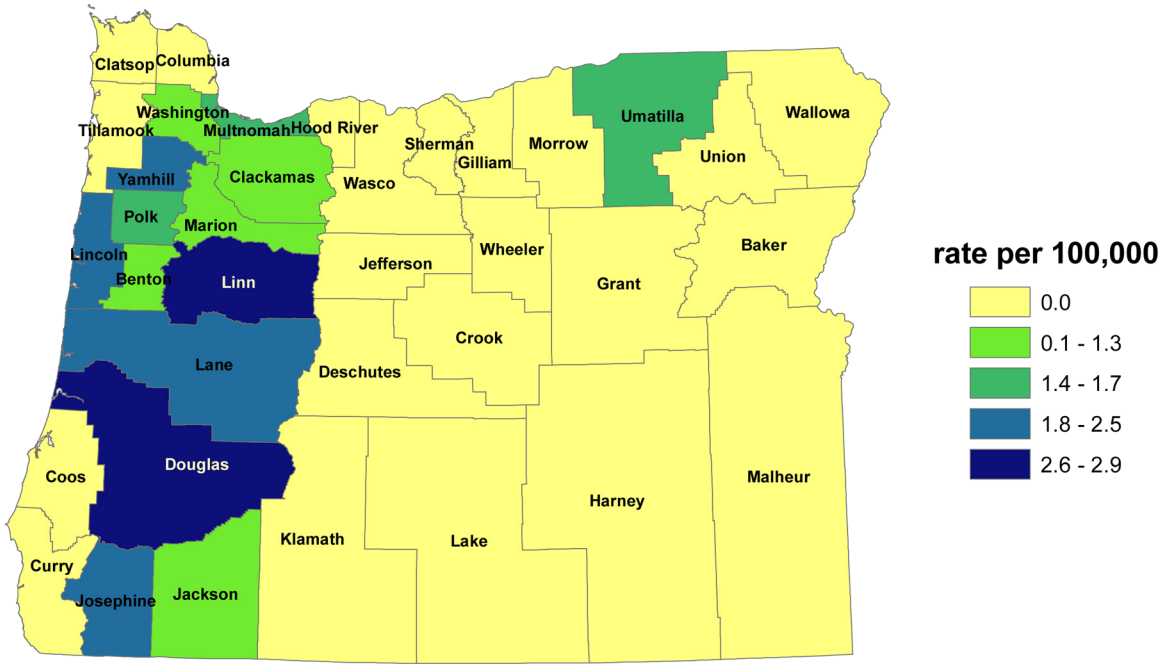
Incidence of Hepatitis A
by Age and Sex
Oregon, 2005



Incidence of Hepatitis A
Oregon vs. Nationwide
1995-2005



Incidence of Hepatitis A
by County of Residence
Oregon, 2005



Acute Hepatitis B

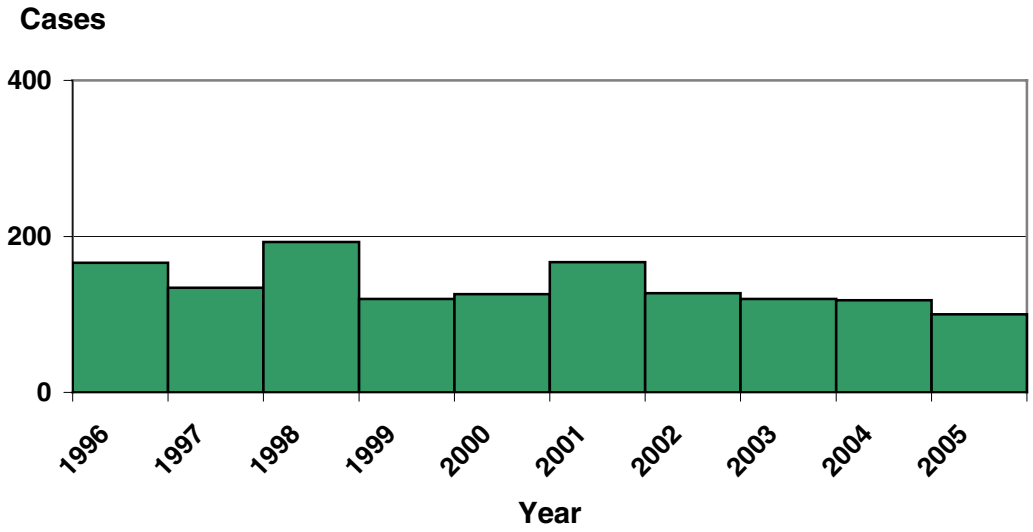
Hepatitis B is a vaccine-preventable viral disease of the liver that occurs when the virus of an infected person passes (through blood, semen, or saliva) into the blood stream of a non-immune person. Percutaneous or permucosal exposures take place when hypodermic needles are shared, when blood splashes 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 hepatitis B carrier is being born.

Acute hepatitis B virus infection (diagnosed by the sero-presence of the IgM antibody to the hepatitis B core antigen [IgM anti-HbcAg]) 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.

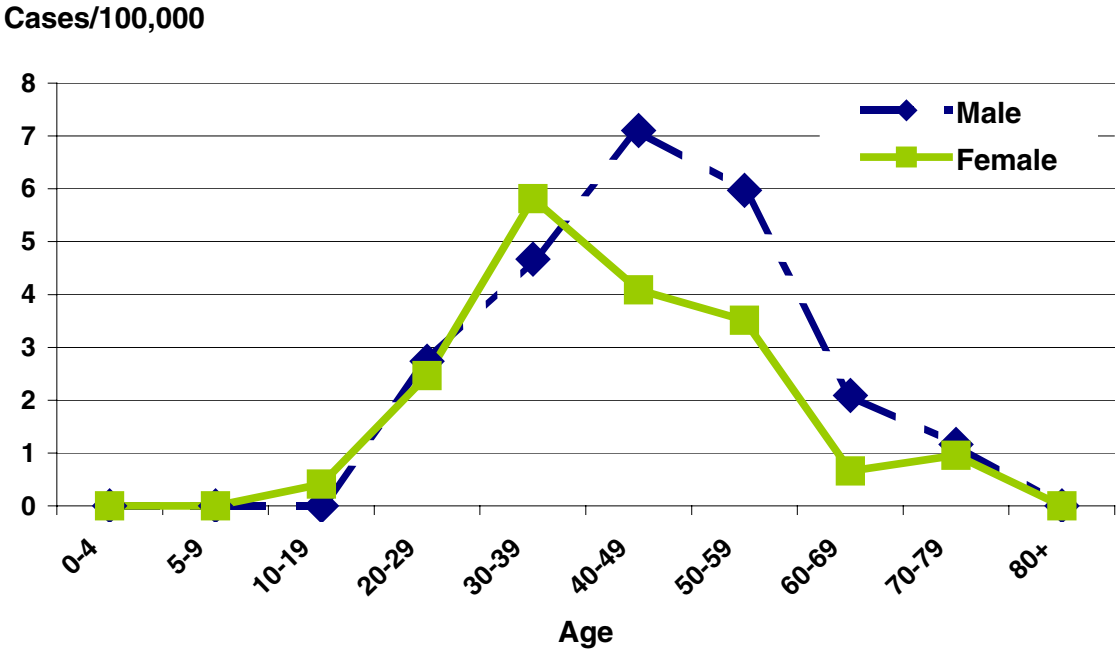
Acute hepatitis B continues to decline in Oregon —a decline that started here after the hepatitis B vaccine was licensed in 1982. The number of cases leveled off in 1999, to about 120 cases per year.

In 2005, the picture of hepatitis B in Oregon was essentially unchanged. Local health departments investigated and reported 99 acute cases in 2005. Over half of the cases were male (56%). Risk factors reported by cases included recent dental work (15%), tattoo (14%), and sexual contact with a confirmed case (3%). The most significant change since 2004 was the decline in the number of cases who reported IV drug use. In 2005, 28% of those interviewed were IV drug users, as compared to 42% in 2004.

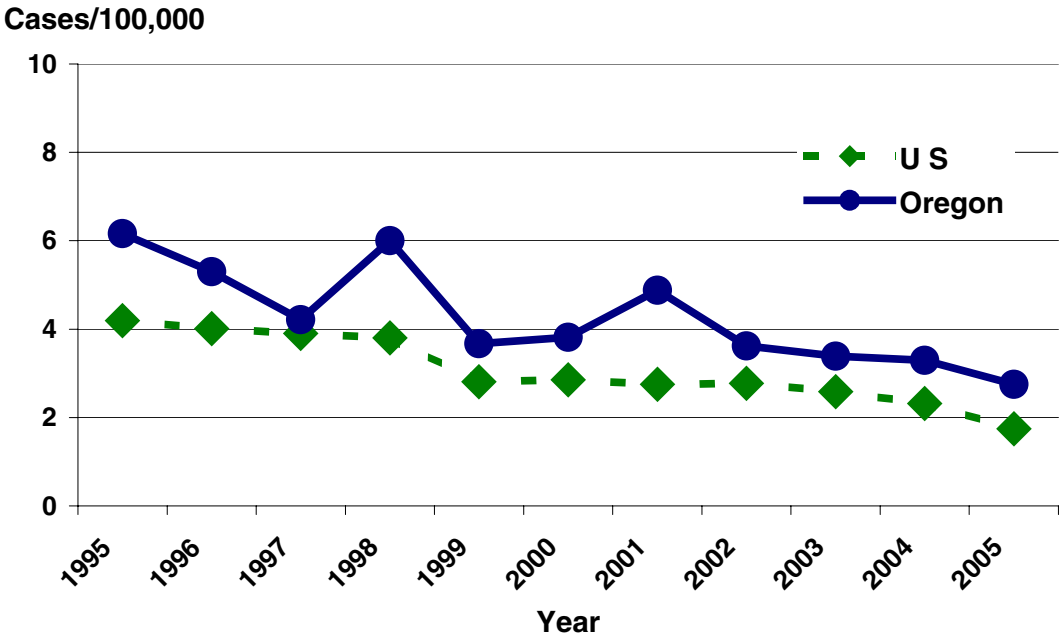
Acute Hepatitis B
by Year
Oregon, 1996-2005



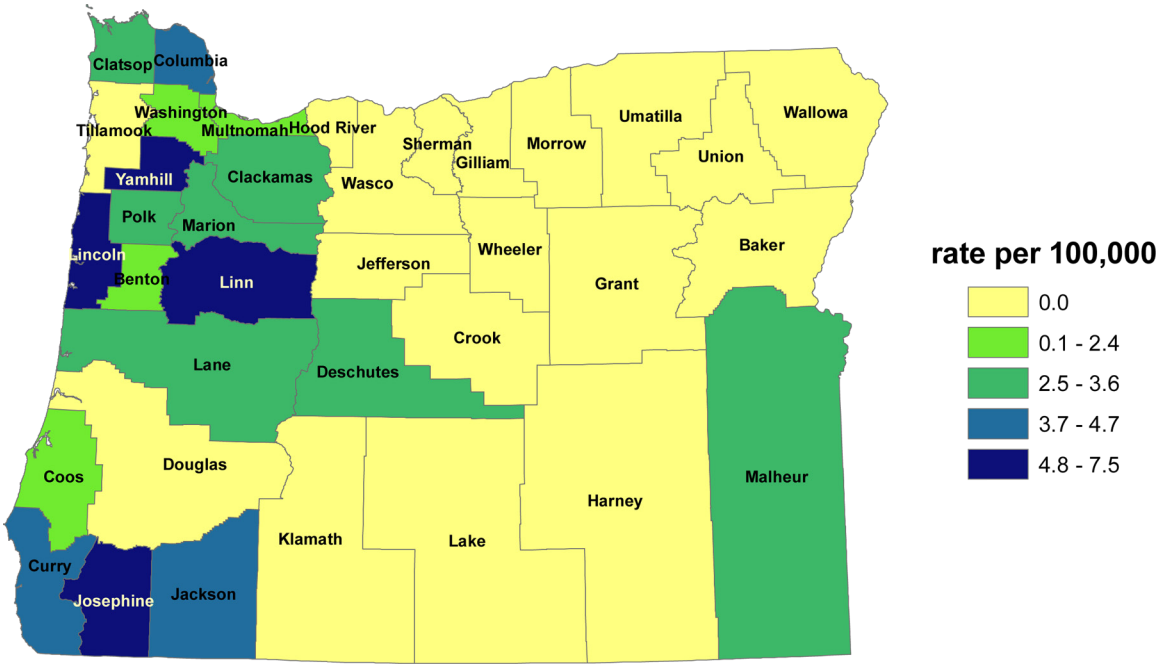
Incidence of Acute Hepatitis B
by Age and Sex
Oregon, 2005



Acute Hepatitis B
Oregon vs. Nationwide
1995-2005



Incidence of Acute Hepatitis B
by County
Oregon, 2005

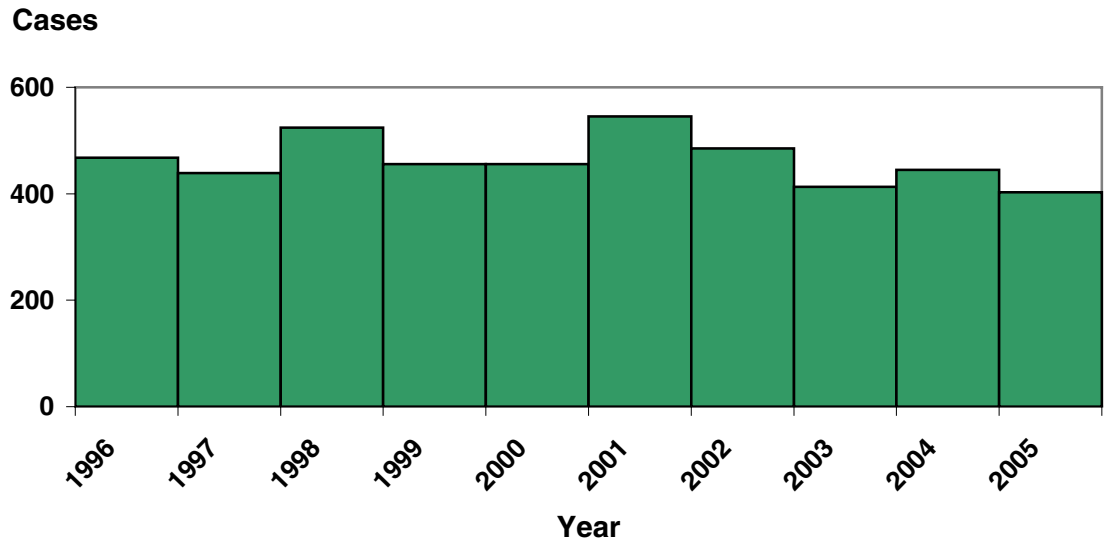


Chronic Hepatitis B

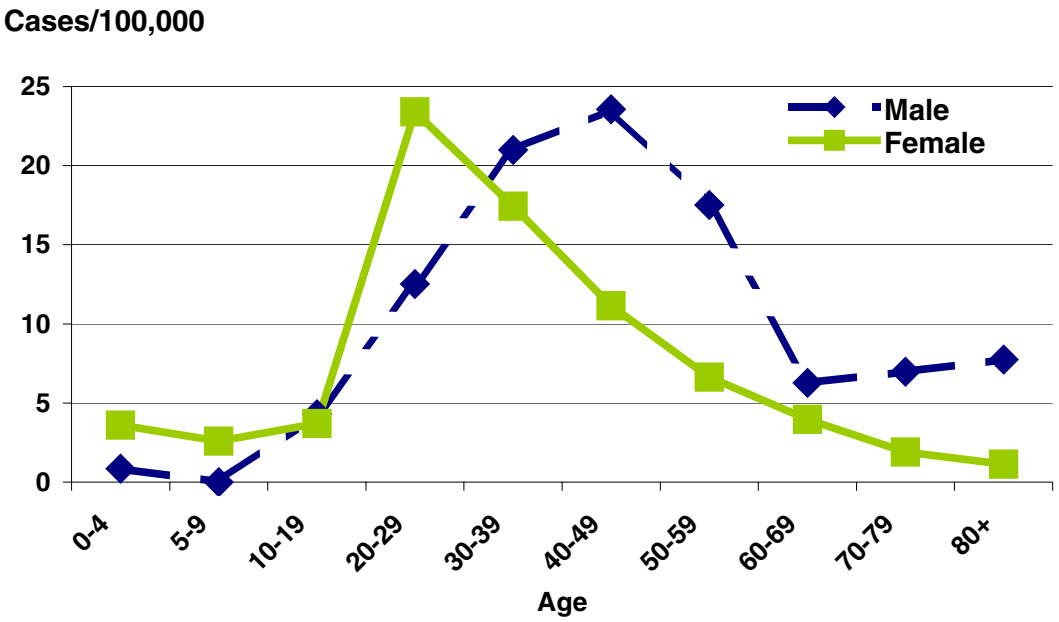
Persons with chronic hepatitis B are known as "chronic carriers" — a state of infection that exists when hepatitis B surface antigen (HBsAg) persists in the blood for more than six months. The likelihood of becoming a chronic carrier is affected by the age at infection. Fewer than 6% of acutely infected adults in the US 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 US — 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. 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 US until vaccine-induced immunity is nearly universal.

In 2005, there were 404 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. Chronic carriers are not reportable in many of the US states, so a table comparing Oregon to the rest of the US is not given.

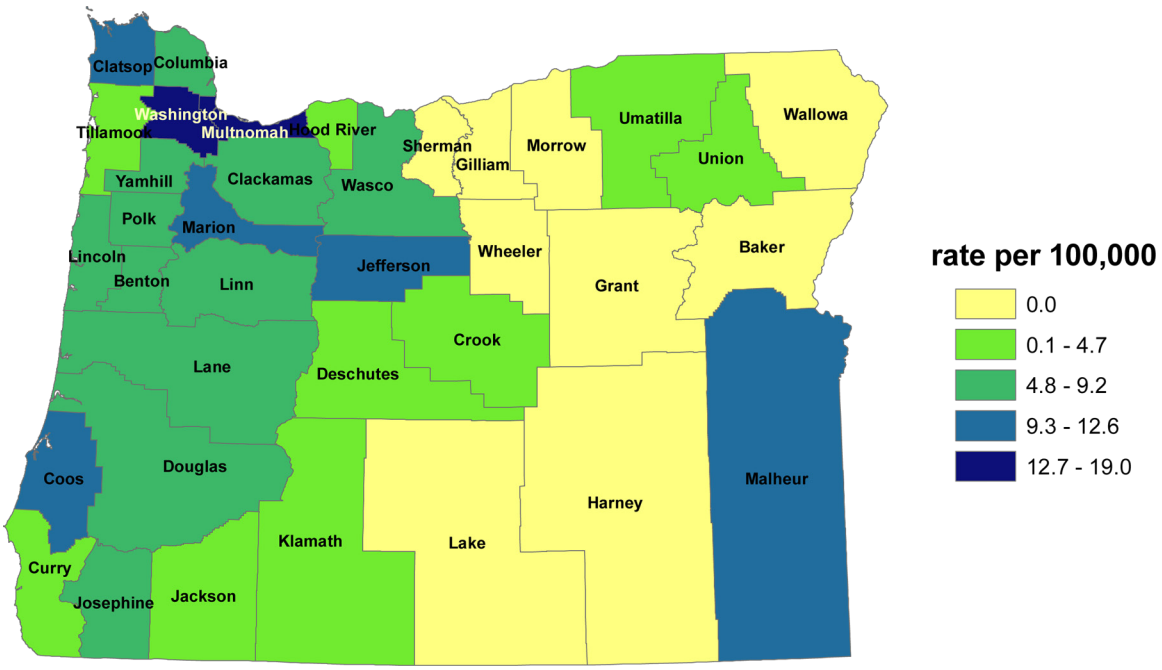
Chronic Hepatitis B
by Year, Oregon, 1996-2005



Incidence of Chronic Hepatitis B
by Age and Sex
Oregon, 2005



Incidence of Chronic Hepatitis B
by County of Residence
Oregon, 2005



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 disease. Infection can lead to liver damage and sometimes death due to liver breakdown. Nearly five million people in the U. S. are infected with HCV, of whom 3.2 million are chronically infected. Chronic liver disease may develop in up to 70% of chronically infected persons; HCV infection is the leading indication for liver transplant. Currently, 8,000 to 10,000 people die each year in the U.S. from hepatitis C. There is no vaccine for hepatitis C.

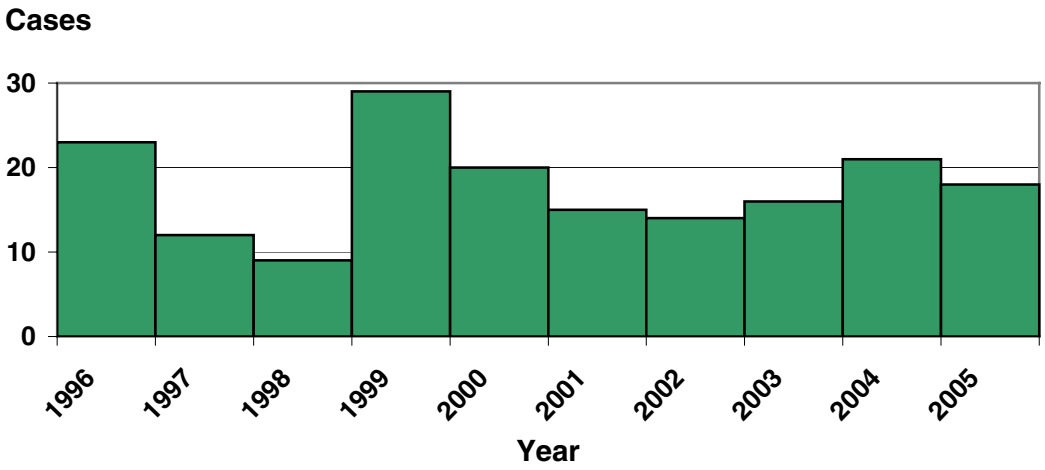
Hepatitis C is spread from one person to another primarily by direct contact with human blood. Most infections are due to illegal injection drug use. The virus can also be transmitted through sexual contact and from infected mothers to their infants at the time of birth. The risk for perinatal HCV transmission is about 4%. If coinfected 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 in less than 1 per 2 million transfused units of blood.

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 are asymptomatic.

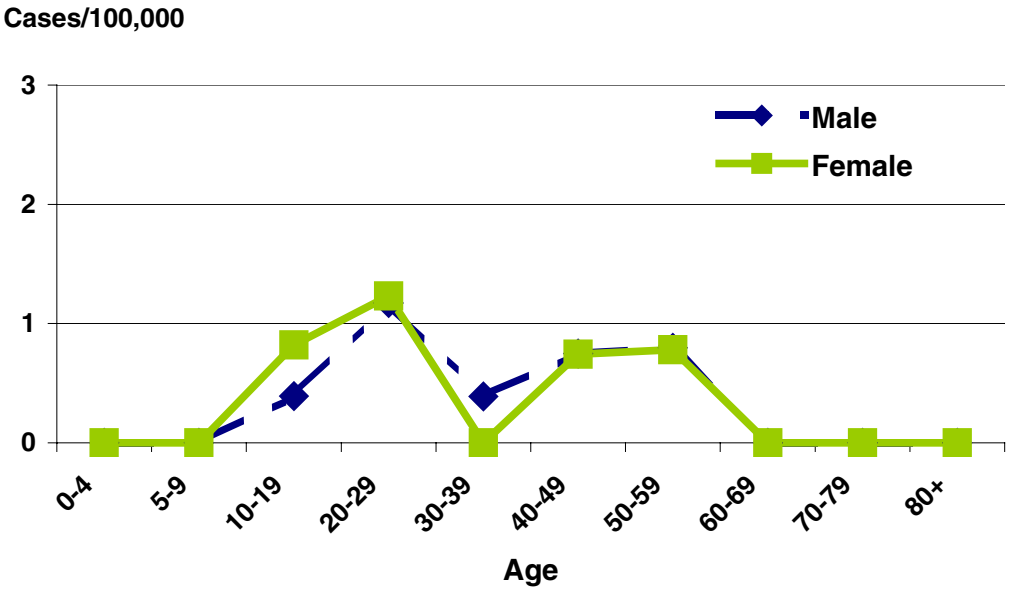
On average, from 1980-2005, there were 50 acute hepatitis C cases reported per year, In 2005, there were 18 cases reported.

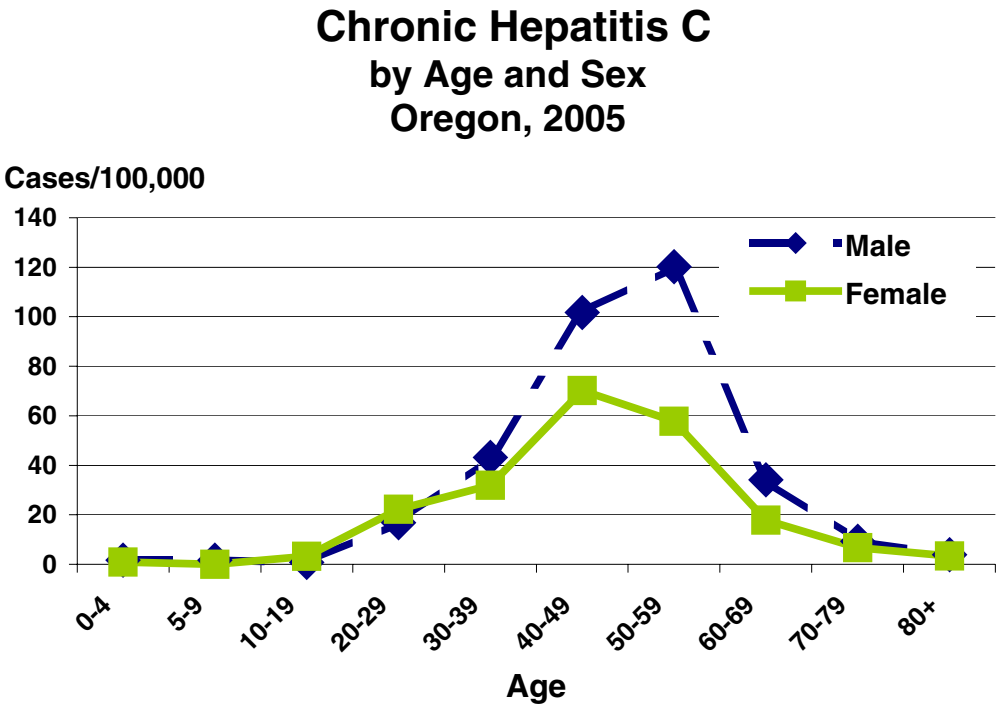
Chronic hepatitis C is newly reportable in Oregon as of July 1, 2005. From July-December 2005, 1337 chronic hepatitis C cases were reported by 35 of Oregon's 36 counties; these data do not include Oregon's most populous county, Multnomah. Preliminary analyses of these data show that rates of infection are higher in males than females, and in those aged 40-60 years. 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.

Acute Hepatitis C
by Year
Oregon, 1996-2005



Acute Hepatitis C
by Age and Sex
Oregon, 2005




Chronic Hepatitis C
by Age and Sex
Oregon, 2005
Cases/100,000
140
120
100
80
60
40
20
0
Male
Female
0-4
5-9
10-19
20-29
30-39
40-49
50-59
60-69
70-79
80+
Age

Legionellosis

Legionellosis is an acute bacterial infection caused by *Legionella* bacteria, mainly *L. pneumophilia*. Signs of the disease can include: a high fever, chills, and a cough. Symptoms are similar to other forms of pneumonia, so it can be hard to diagnose. Some people may also suffer from myalgias and headaches. Chest X-rays are needed to diagnose pneumonia, with follow-up tests on sputum (phlegm), as well as blood or urine to find evidence of *Legionella*.

These symptoms usually begin 2 to 14 days after exposure.

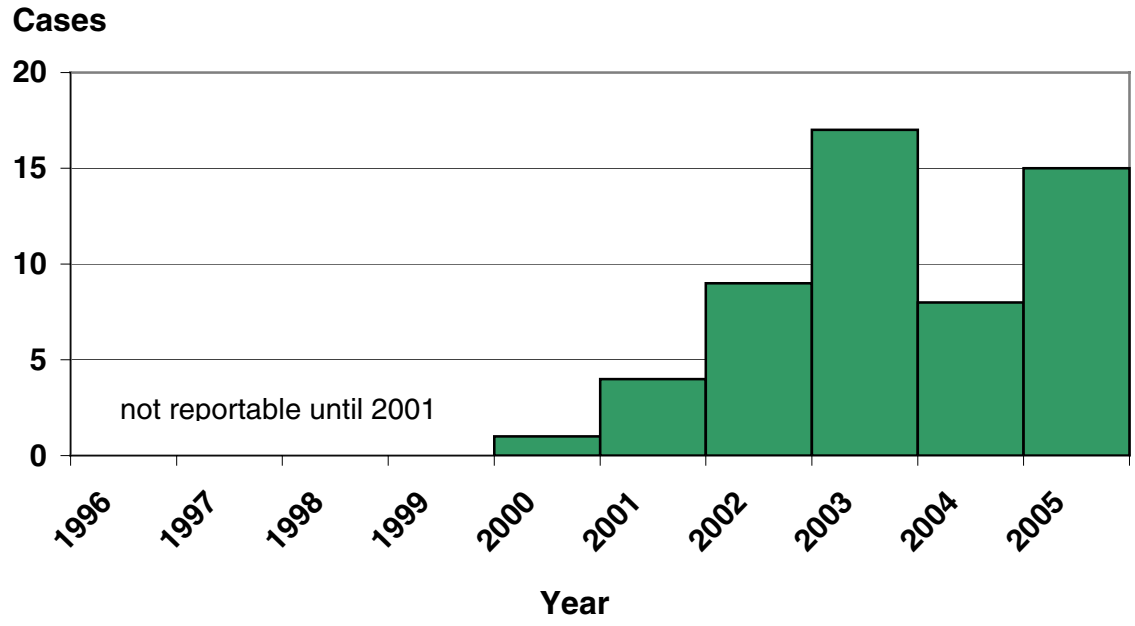
Pontiac Fever, a milder illness associated with *Legionella* bacteria characterized by fever and myalgias without pneumonia typically occurs within a few hours to two days after exposure. Symptoms go away on their own without treatment and without causing further problems.

The *Legionella* bacteria are found naturally in the environment, usually in water. The bacteria grow best in warm water, like the kind found in hot tubs, cooling towers, hot water tanks, large plumbing systems, or parts of the air-conditioning systems of large buildings. Person-to-person transmission does not occur.

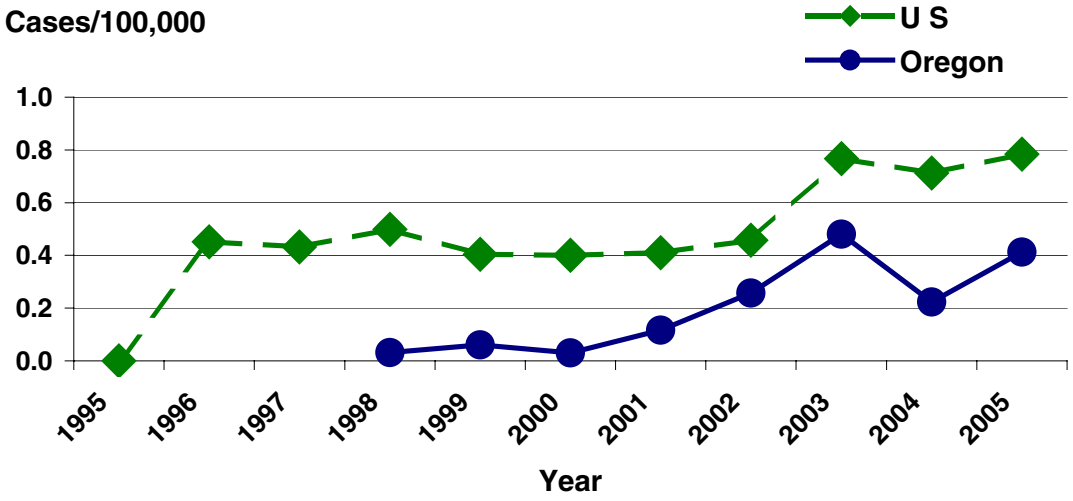
Risks for infection include older age, smoking, chronic lung disease (like emphysema), renal insufficiency, diabetes and immune deficiency. Death occurs in 10%-15% of cases: a substantially higher proportion of fatal cases occur during nosocomial outbreaks. Pontiac fever is a self-limited disease that requires no treatment.

In 2005, 15 cases of legionellosis were reported in Oregon. All were hospitalized and there was one death.

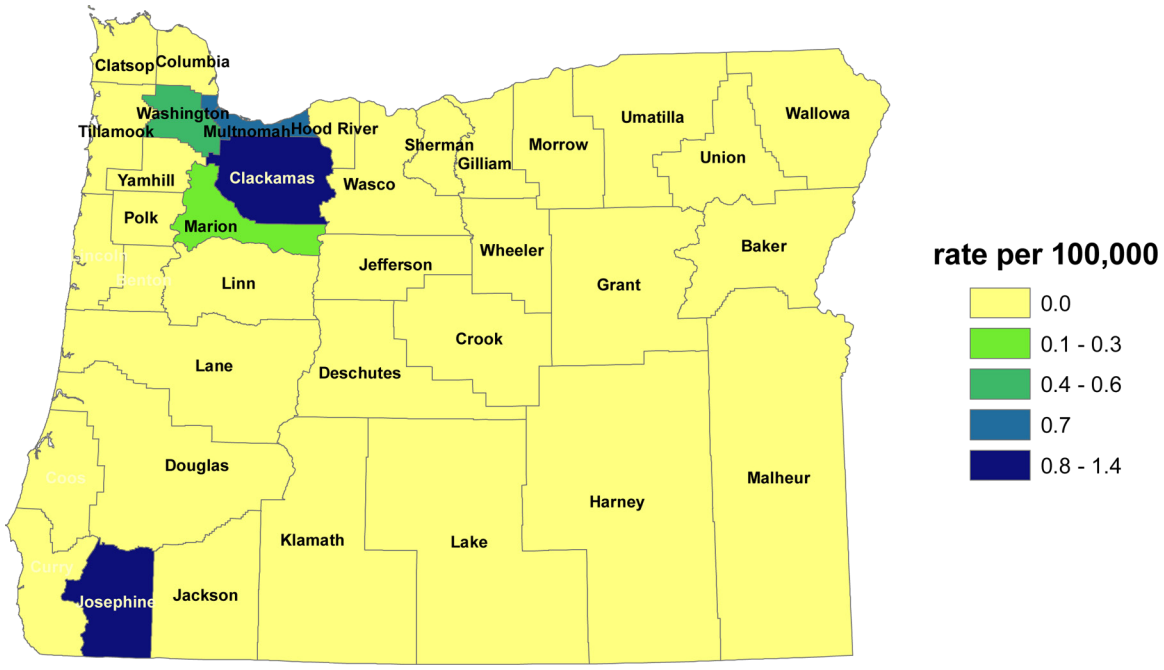
Legionellosis
by Year
Oregon, 1996-2005



Incidence of Legionellosis
Oregon vs. Nationwide
1995-2005



Incidence of Legionellosis
by County of Residence
Oregon, 2005



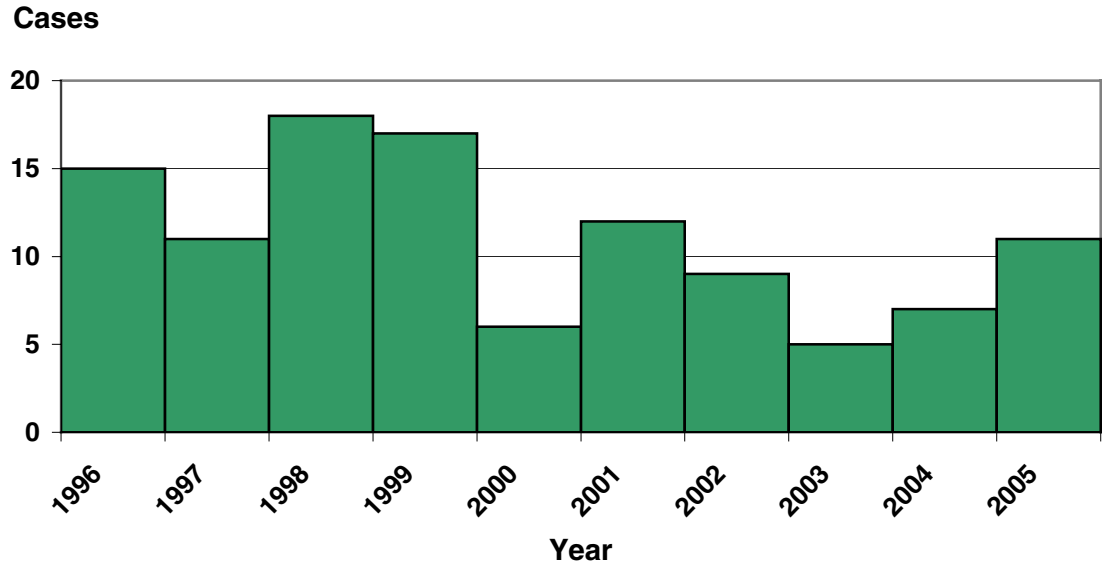
Listeriosis

Listeriosis is a bacterial infection that has different manifestations. It may present as influenza-like illness with high fever, headache and myalgias. It can also present as a gastrointestinal illness, or it can be invasive with sepsis and meningitis. In pregnant women, listeriosis may cause miscarriages or stillbirths. The case fatality rate of invasive listeriosis may be as high as 30% in infants infected prenatally, and 25-30% in non-pregnant adults.

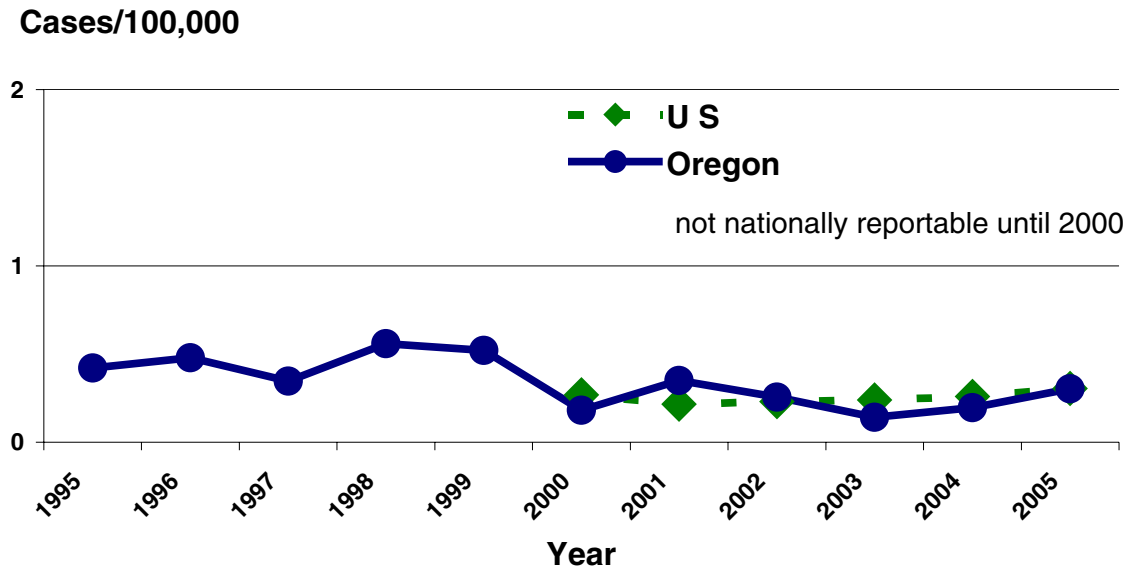
Most cases of listeriosis are sporadic rather than epidemic. However, several large outbreaks have been associated with consumption of contaminated foods. It is important to track the incidence of this disease to limit its transmission and prevent further spread. The rate is higher among pregnant women, newborns, the elderly, and immunocompromised persons. Cooking food properly is the most important means of prevention. If diagnosed, treatment with antibiotics should be instituted promptly.

The incidence increased slightly in 2005. A cluster of cases was reported, but no common exposure was found.

Listeriosis
by Year
Oregon, 1996-2005



Incidence of Listeriosis
Oregon vs. Nationwide
1995-2005



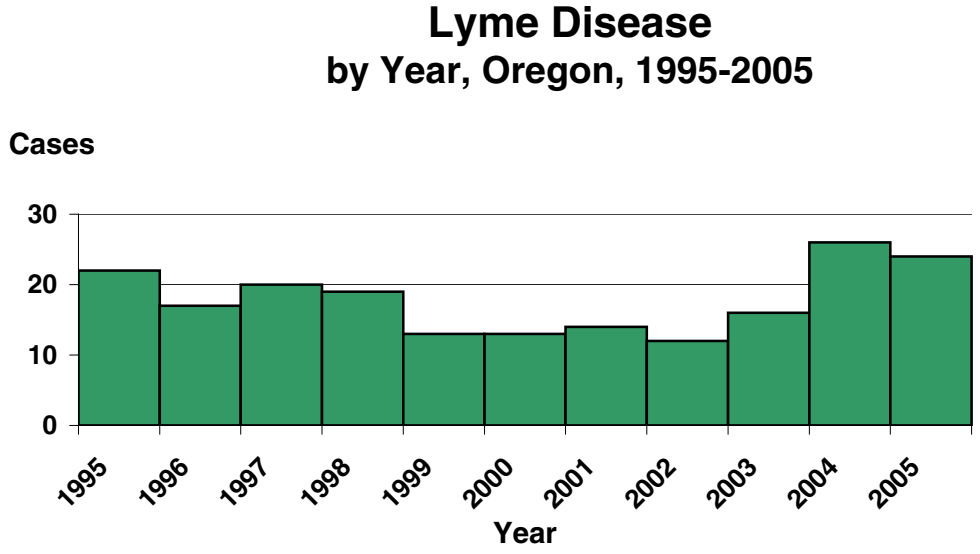
Lyme Disease

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 (EM). The incubation period for Lyme Disease ranges from 3 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 and cardiac involvement occurring in varying combinations over a period of months to years.

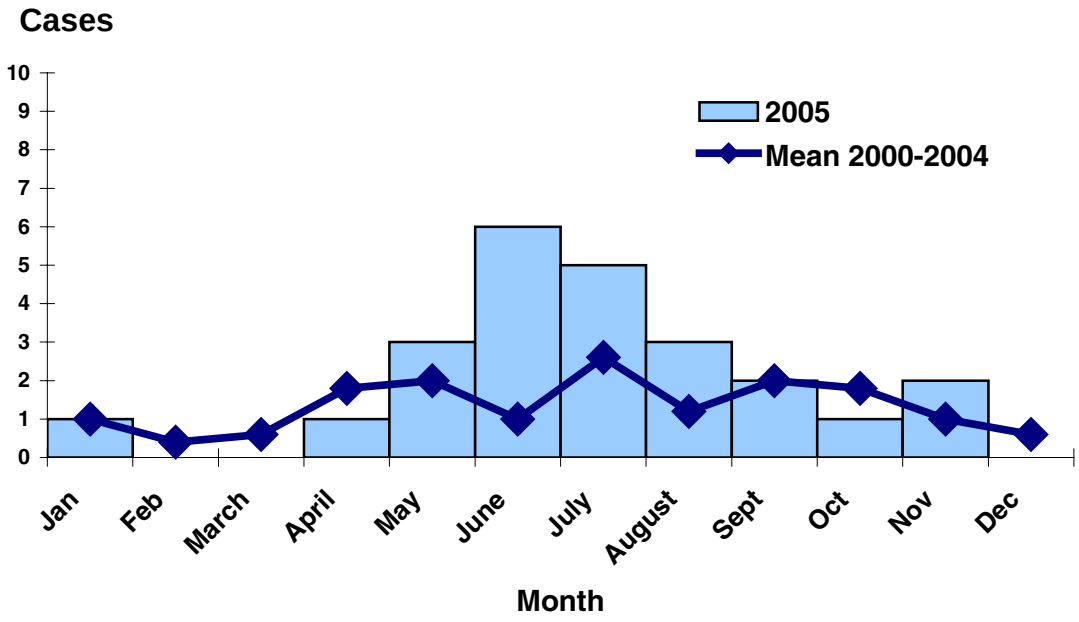
Currently, increasing recognition of the disease is redefining endemic areas; cases have been reported in 47 states, and in Ontario and British Columbia, Canada. Elsewhere, related borrelioses have been found in Europe, the former Soviet Union, China and Japan. Oregon Lyme Disease rates pale in comparison to the national rate.

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.

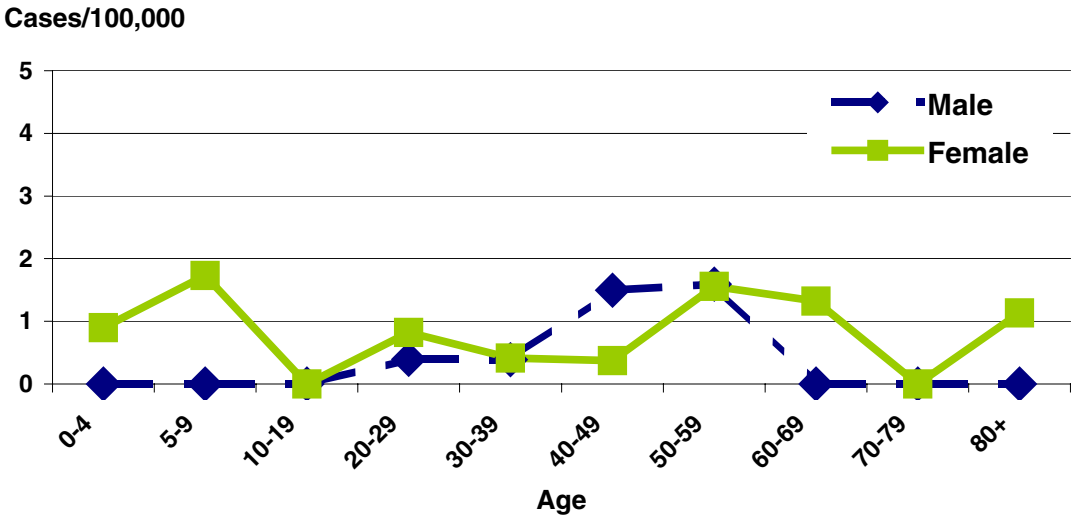
During 2005, 24 cases were reported in Oregon. The average age was 43 years. Seventeen (71%) of the cases occurred between May and August, when the warmer weather attracts Oregonians to the outdoors. Twenty (83%) of the cases resided west of the Cascades.



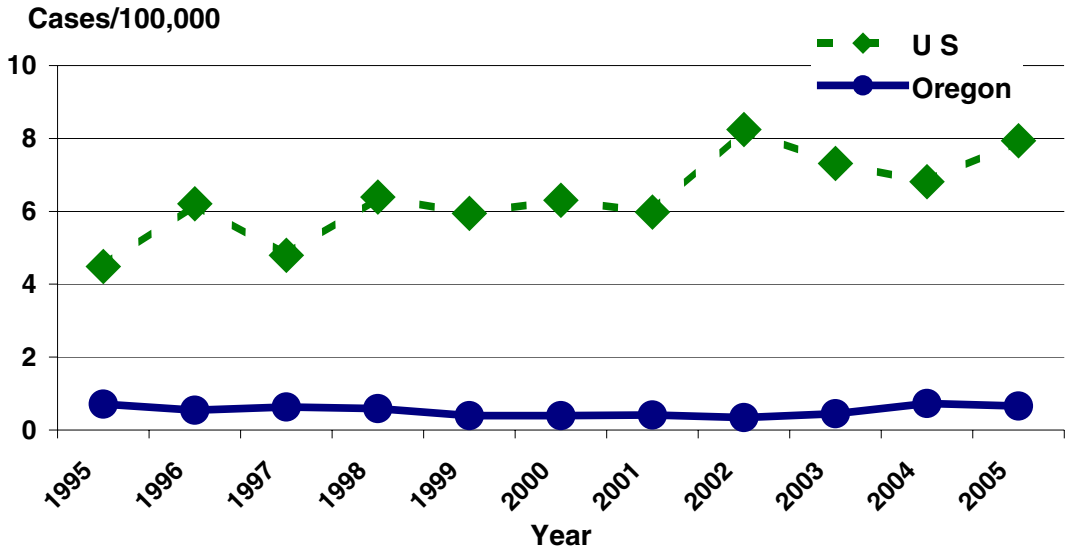
Lyme Disease
by Onset Month
Oregon, 2005



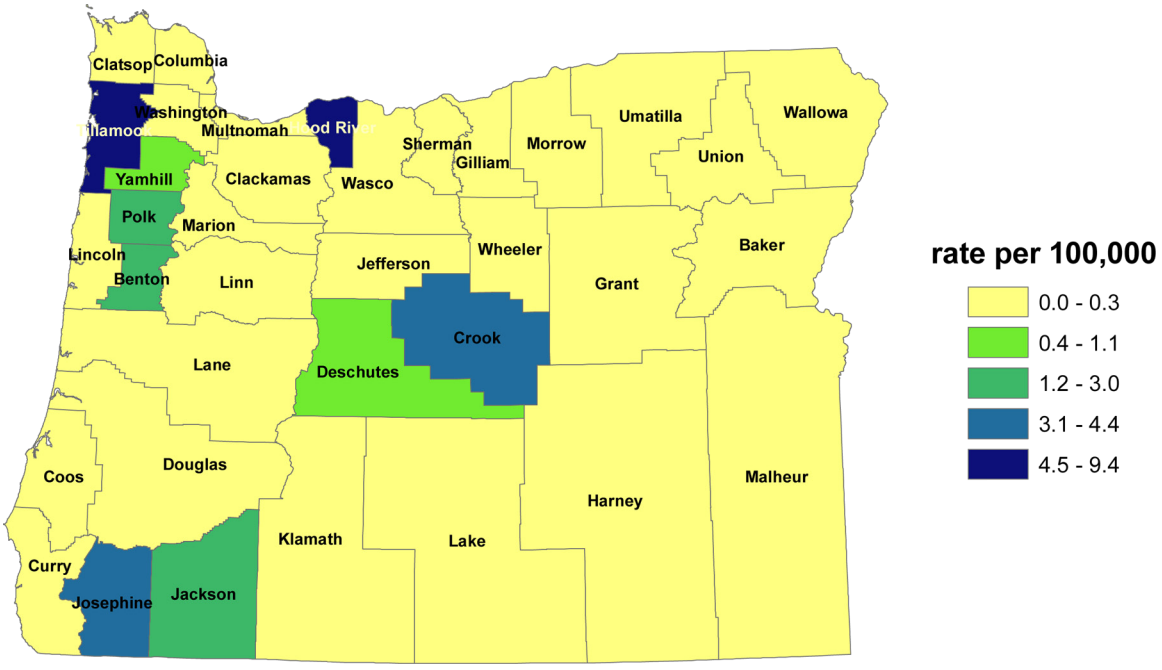
Incidence of Lyme Disease
by Age and Sex
Oregon, 2005



Incidence of Lyme Disease
Oregon vs. Nationwide
1995-2005



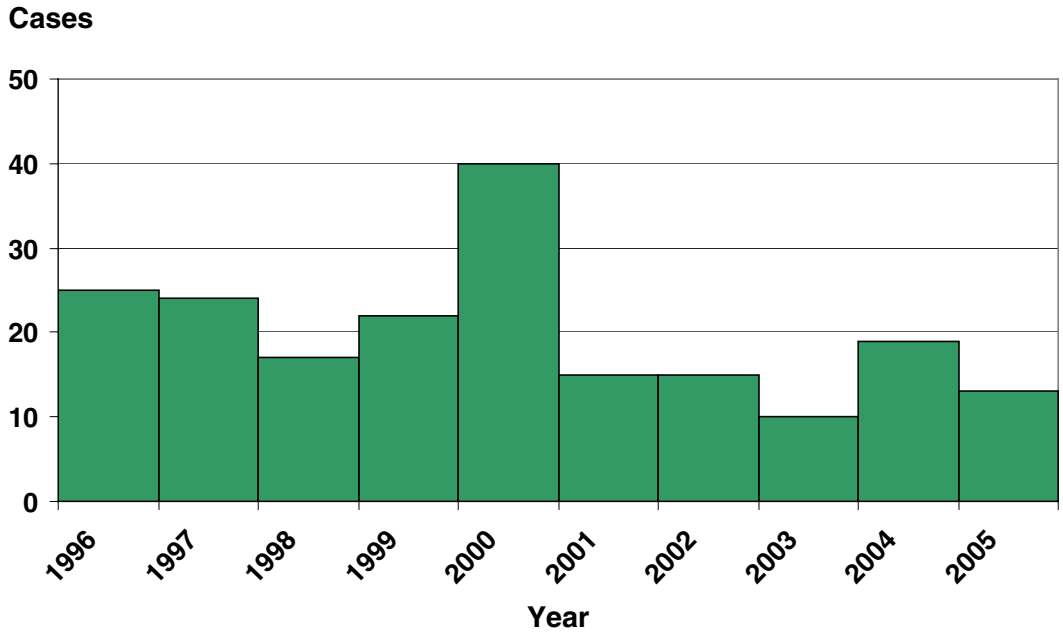
Incidence of Lyme Disease
by County of Residence
Oregon, 2005



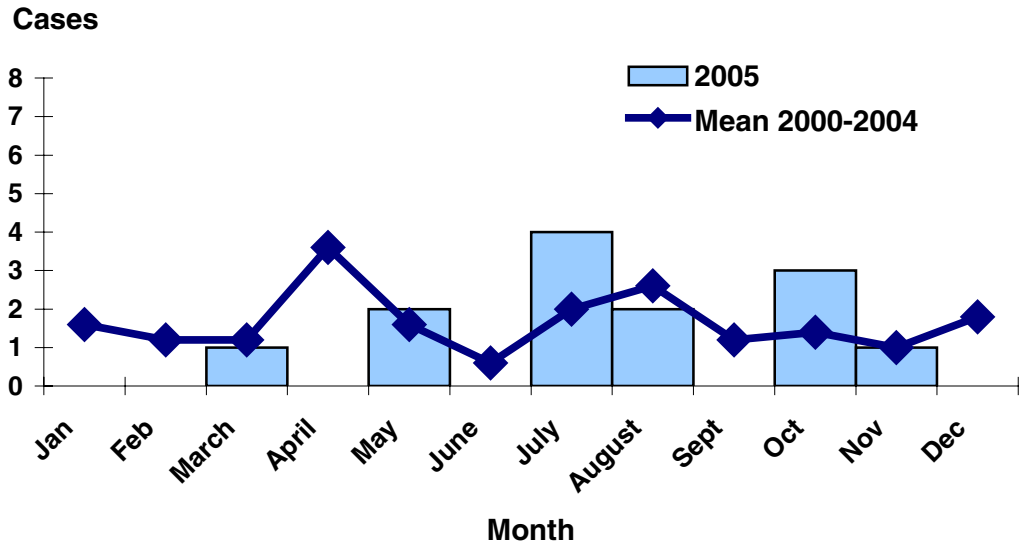
Malaria

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 4 human parasite species) was the most commonly reported flavor in 2005.

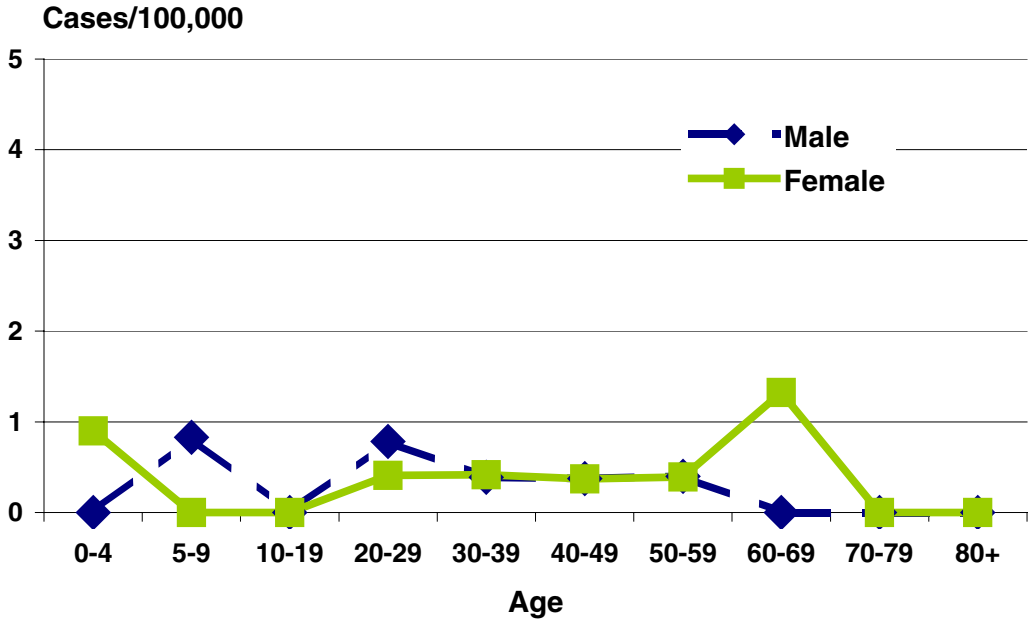
Malaria
by Year
Oregon, 1996-2005



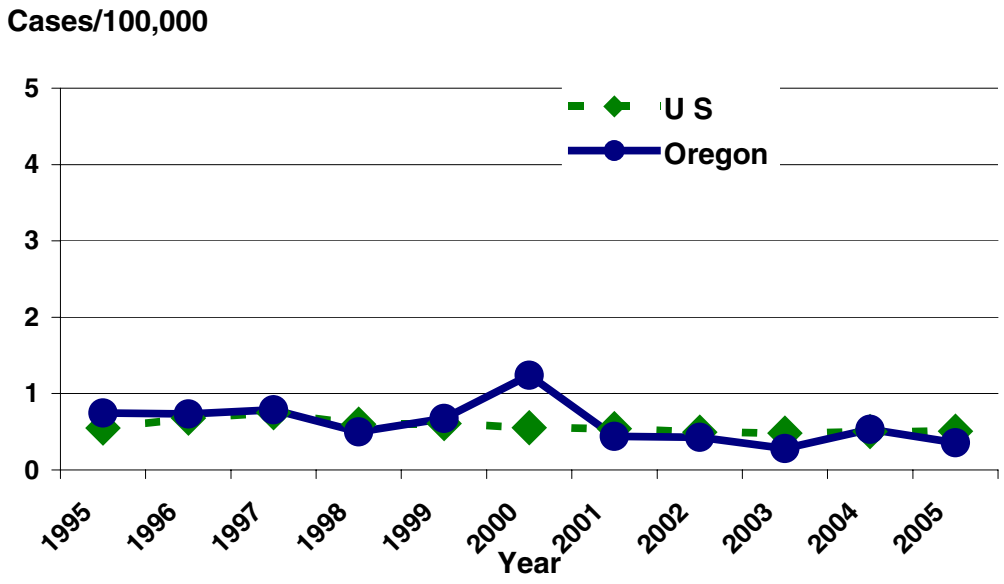
Malaria
by Onset Month
Oregon, 2005



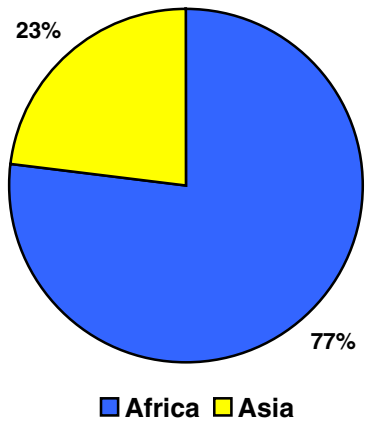
Incidence of Malaria
by Age and Sex
Oregon, 2005



Incidence of Malaria
Oregon vs. Nationwide
1995-2005



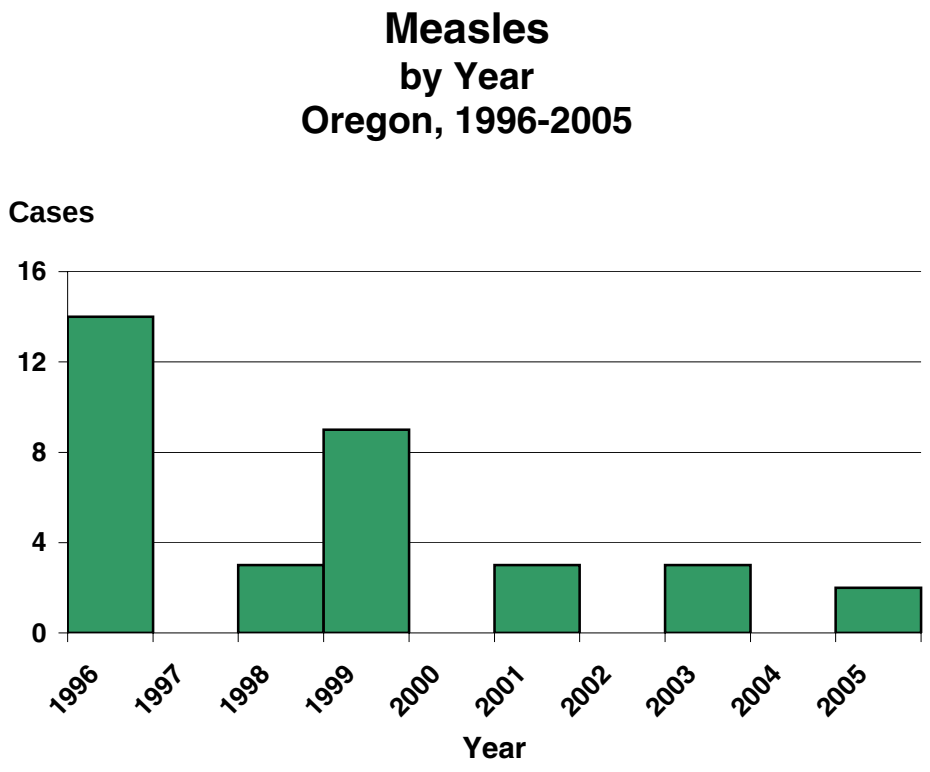
Malaria
by Region of Acquisition
Oregon, 2005



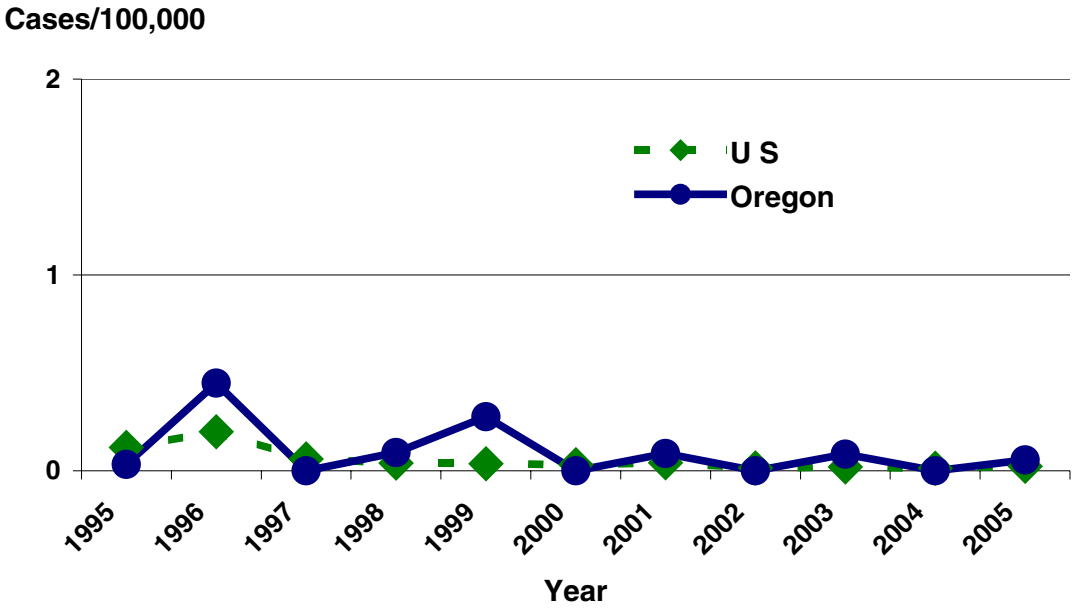
Measles

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; the 2005 cases of measles were imported from Saudi Arabia and Egypt. No indigenous cases were reported in 2005 and the risk of exposure to measles in Oregon remains low.



Incidence of Measles
Oregon vs. Nationwide
1995-2005

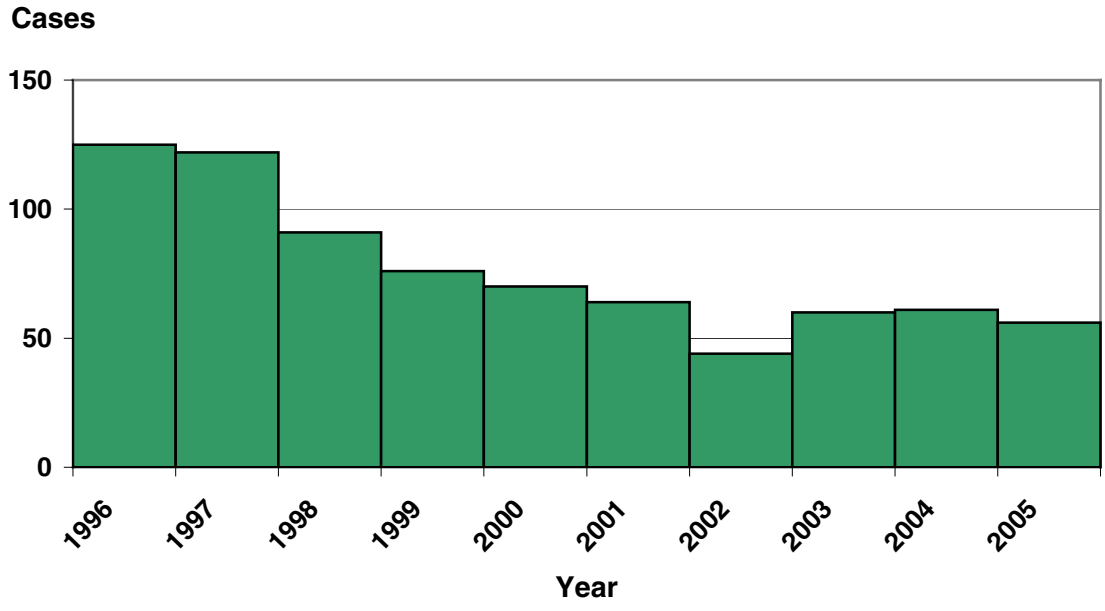


Meningococcal Disease

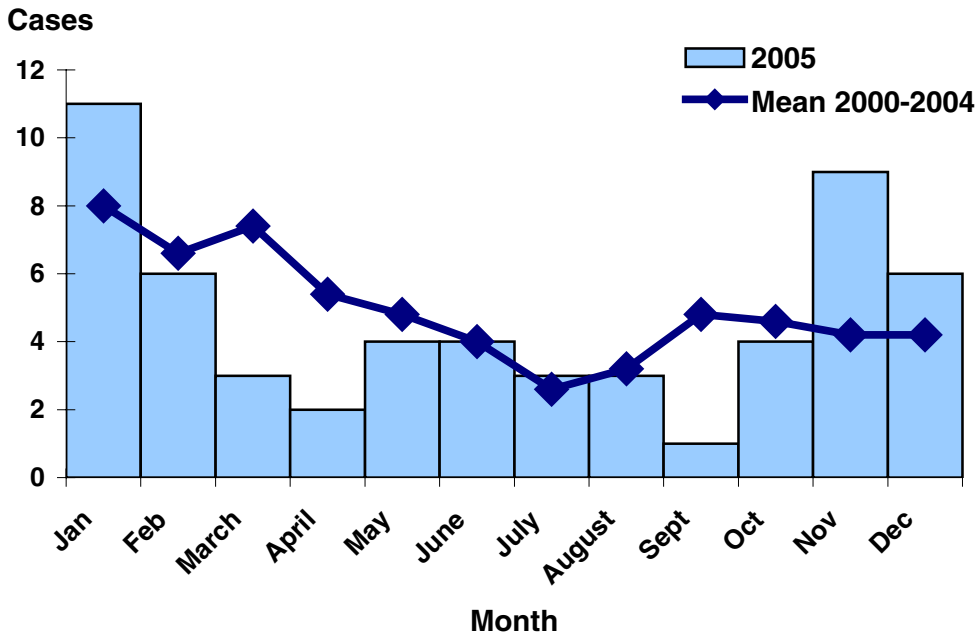
Reported cases of invasive meningococcal infections, including sepsis and meningitis, have declined from hyperendemic levels seen in 1993–1997 to those observed prior to the advent of the ET5 strain of serogroup B. Through prompt reporting and contact prophylaxis we aim to continue this salutary decline in Meningococcal Disease.

In 2005, 56 cases of Meningococcal Disease were reported. Though the overall trend in disease incidence in Oregon is declining, we continue to have higher rates than the nation. Serogroup B organisms make up 48% of all Oregon isolates. January through March show 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 vaccine for adolescents and young adults was licensed in 2005 (Menectra); this vaccine does not protect against Serogroup B disease.

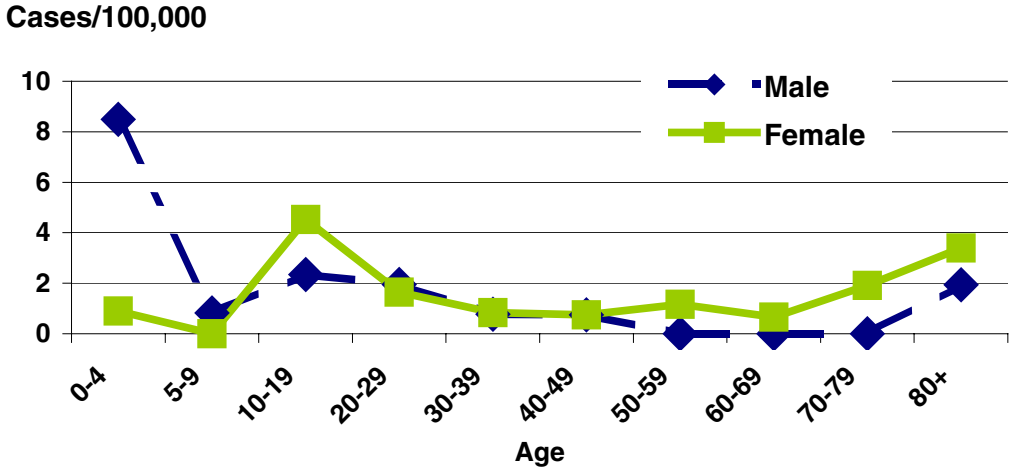
Meningococcal Disease
by Year
Oregon, 1996-2005



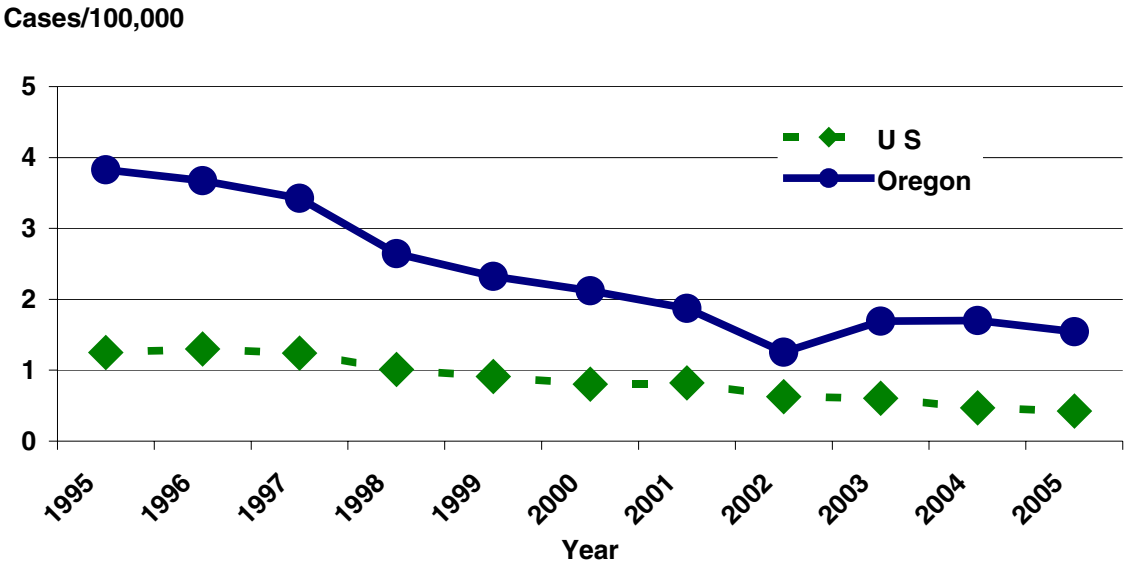
Meningococcal Disease
by Onset Month
Oregon, 2005



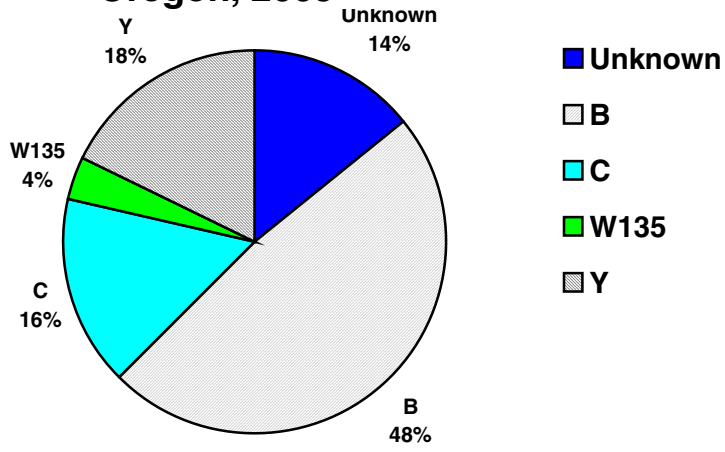
Incidence of Meningococcal Disease
by Age and Sex
Oregon, 2005



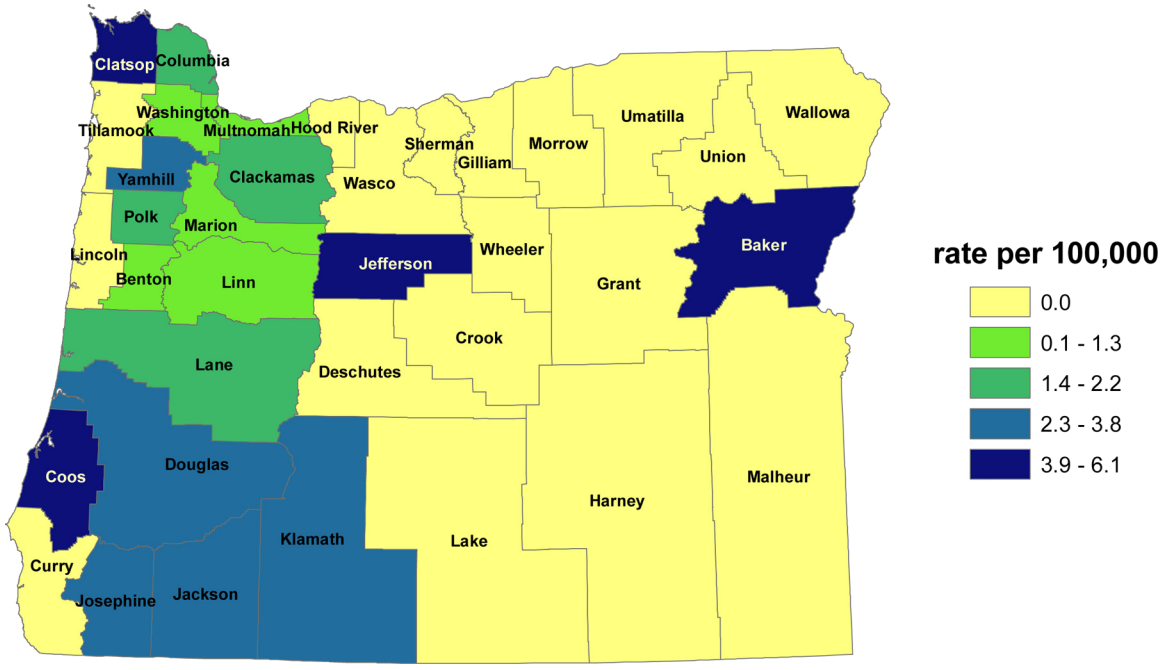
Incidence of Meningococcal Disease
Oregon vs. Nationwide
1995-2005



Meningococcal Disease
by Serogroup
Oregon, 2005



Incidence of Meningococcal Disease
by County of Residence
Oregon, 2005



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.

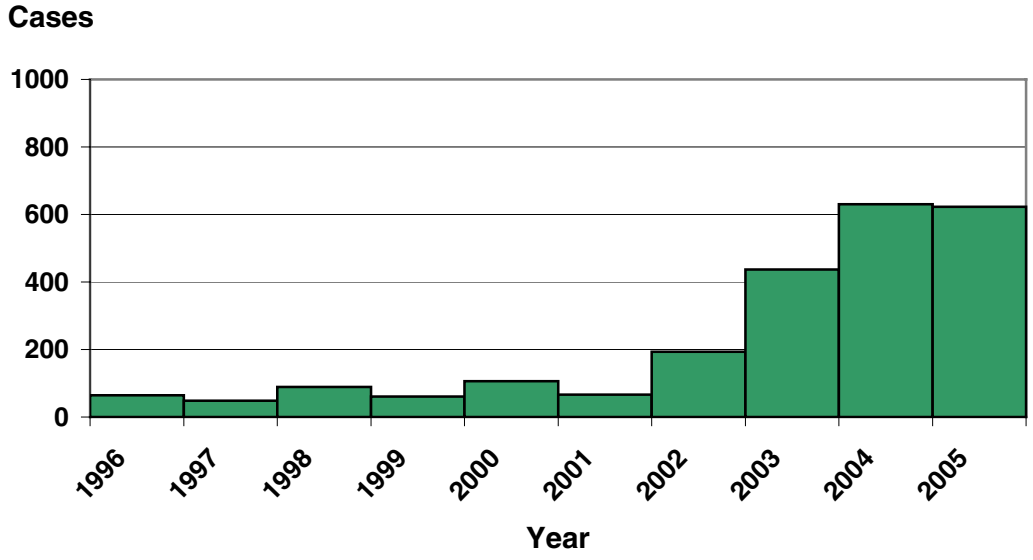
This vaccine-preventable, viral infection was formerly reportable in Oregon in 1981. Once an almost universal childhood infection, mumps incidence decreased in the US with routine childhood vaccination. Mumps reporting was re-established in Oregon July 1, 2006—prompted by recent outbreaks of illness among both vaccinated and unvaccinated persons. Reporting of cases will assist in the appropriate isolation of cases, standardization of follow-up, and contact tracing.

Pertussis

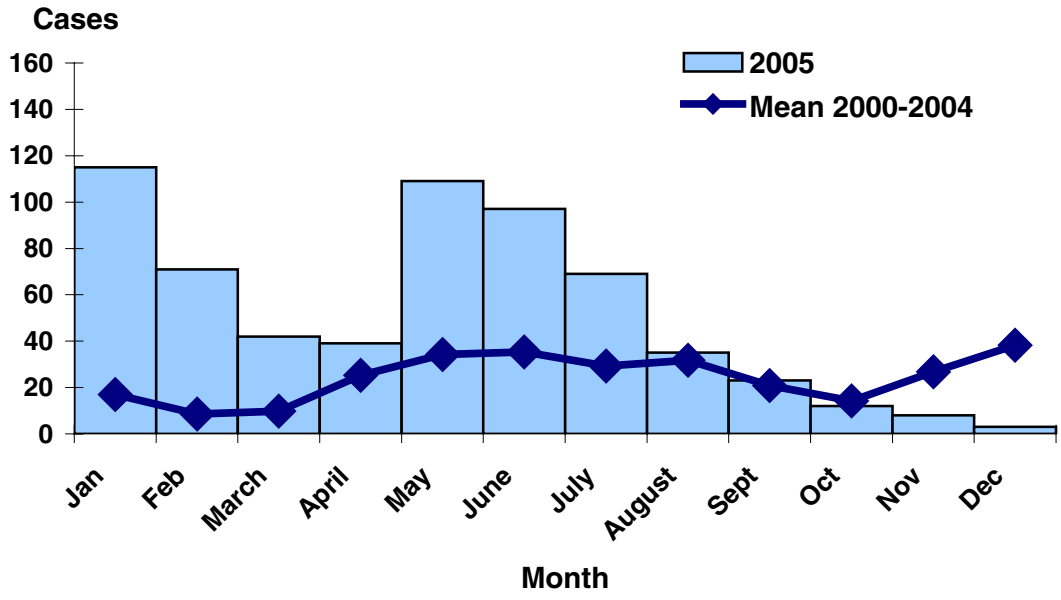
Pertussis is a highly contagious acute bacterial infection of the respiratory tract attributable to *Bodetella pertussis.* It is transmitted from person to person through contact with respiratory secretions (droplet transmission). Illness presents as an irritating cough that gradually becomes paroxysmal (or whooping). In 2004, reported cases reached the highest level since 1959. Although down a bit from levels seen in 2004, pertussis transmission continues.

Despite increasing immunization rates in Oregon children, pertussis holds the dubious distinction of being the only vaccine-preventable disease increasing in incidence. While pertussis is often a mild but lingering illness in adults, it poses significant risk for hospitalization and death of infants (<6 months). Though the highest rates (72 per 100,000) are in children less than 4, those over age 10 now comprise more than 2/3 of reported cases. We'll see how the new adolescent pertussis booster vaccine effects Oregon's pertussis rate.

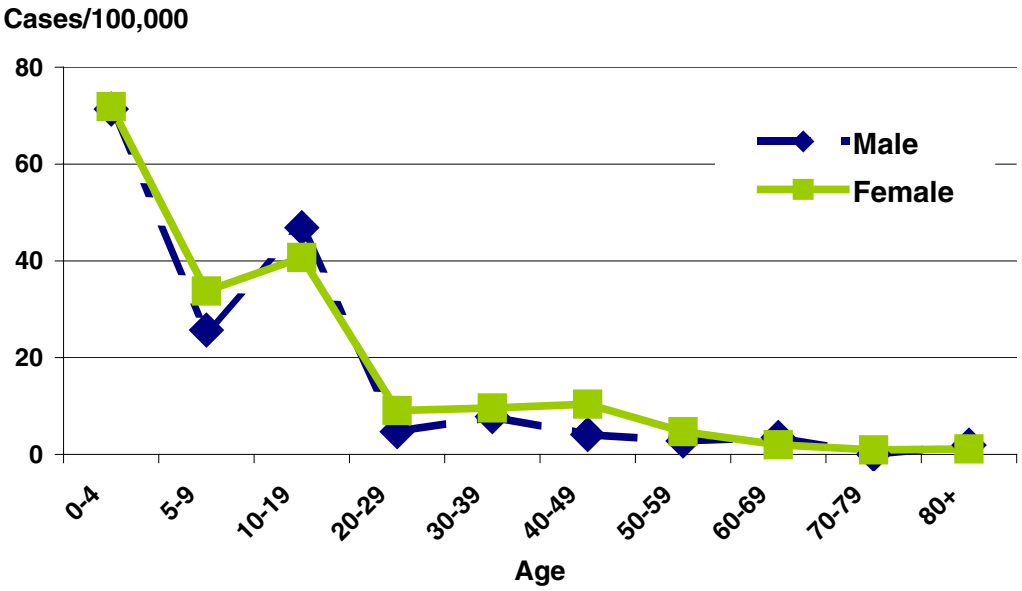
Pertussis
by Year
Oregon, 1996-2005



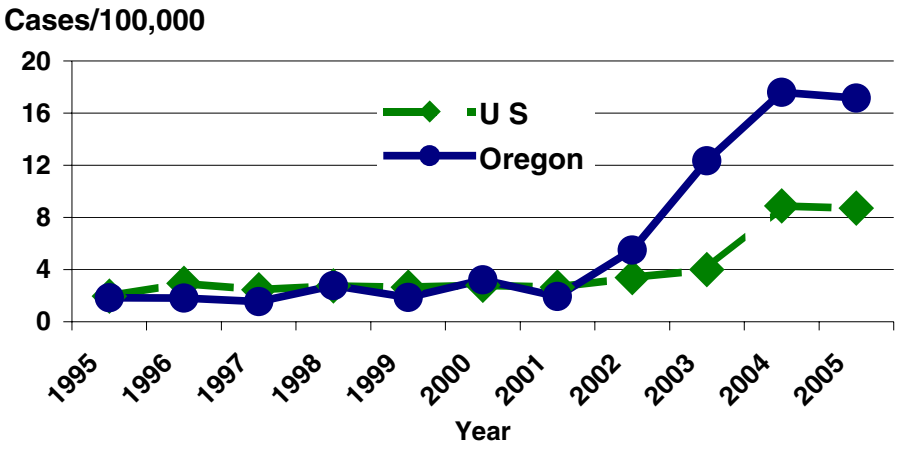
Pertussis
by Onset Month
Oregon, 2005



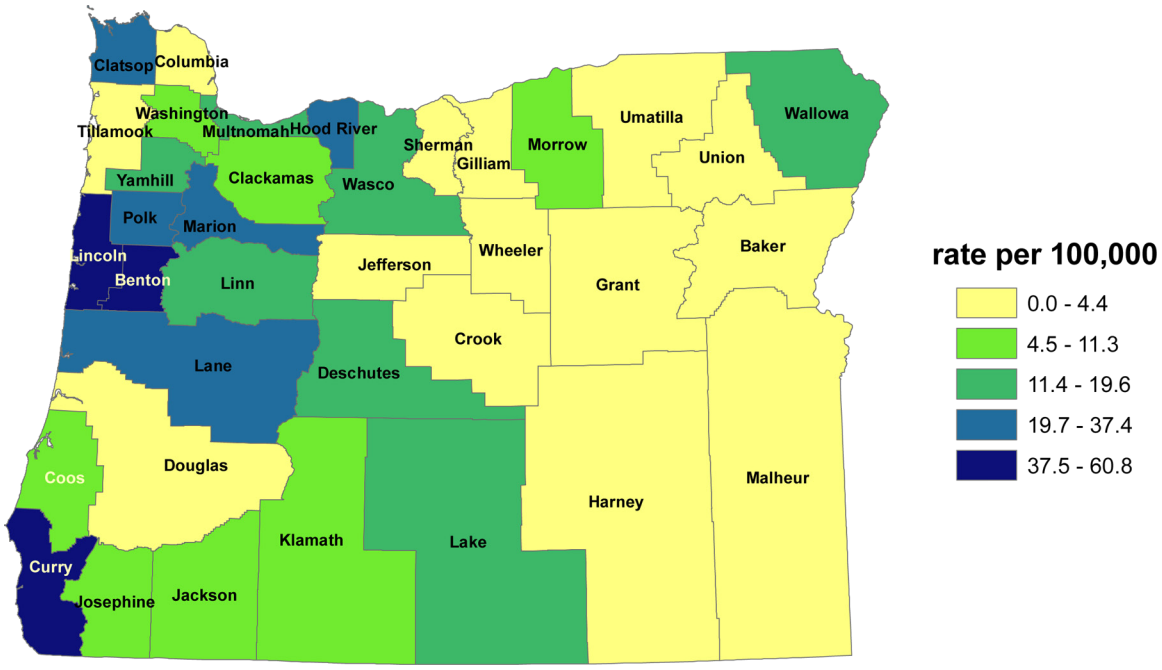
Incidence of Pertussis
by Age and Sex
Oregon, 2005



Incidence of Pertussis
Oregon vs. Nationwide
1995-2005



Incidence of Pertussis
by County of Residence
Oregon, 2005



Rabies

Rabies is an acute infection of the central nervous system caused by a neurotropic rhabdovirus of the genus *Lyssavirus*. All mammals, including humans, are susceptible to rabies. In humans, rabies causes a rapidly progressive and fatal encephalomyelitis. The incubation period in humans is usually 2-12 weeks, but there have been documented incubation periods of more than one year. 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 US, in Oregon, the main source is bats, and animals that come in contact with rabid bats (foxes and cats). An average of 9 % of the bats that are tested in Oregon are positive for rabies. This is not a random sample of all bats but ones who 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 5 doses of rabies vaccine, one each, on days 0, 3,7,14, 28.

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

For additional information and an algorithm to follow for assessment of rabies risk, see Appendix 1.

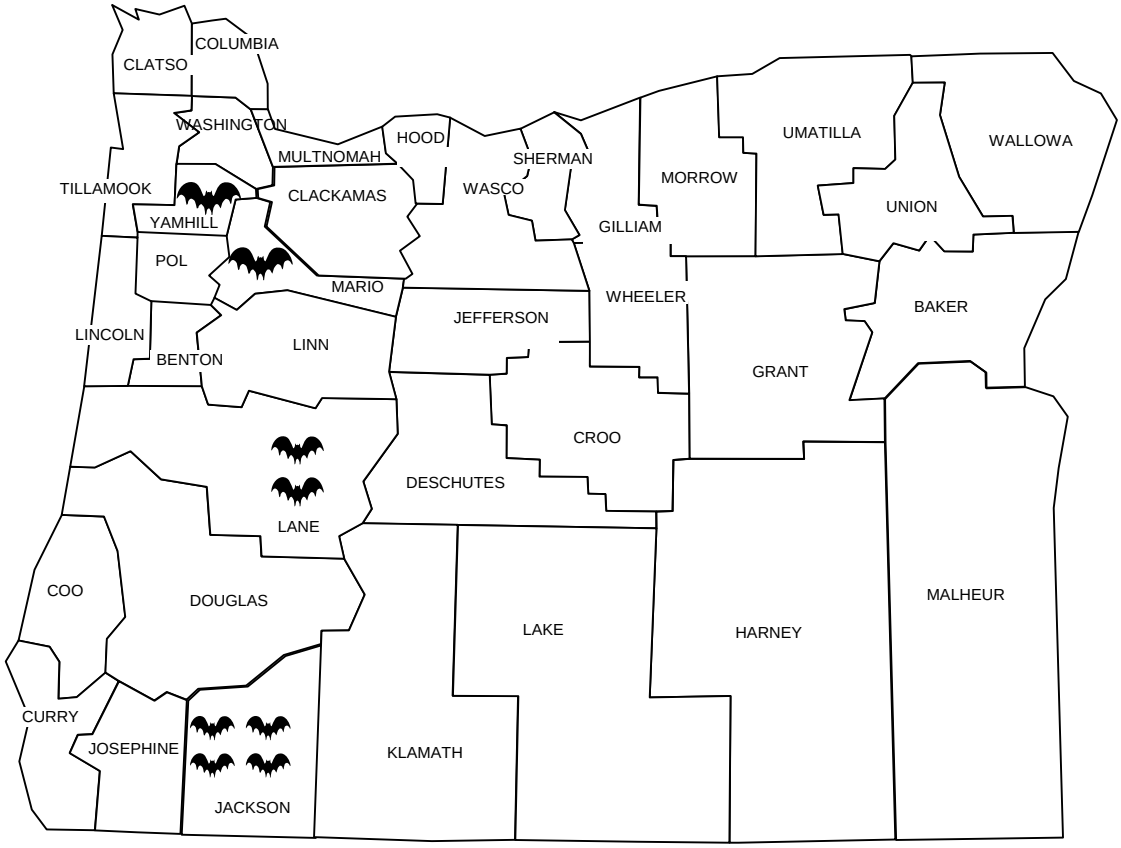
Rabies Tests in Oregon, 1990-2005
(Number of positive/total tested)

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**
Totals 1990-2005	**101/1107 (9.1%)**	**4/1378 (0.3%)**	**1/736 (0.13%)**	**17/63 (27%)**	**1/745 (0.13%)**

September 2006

Rabies-positive Animals
Oregon, 2005

= 1 bat



Salmonellosis

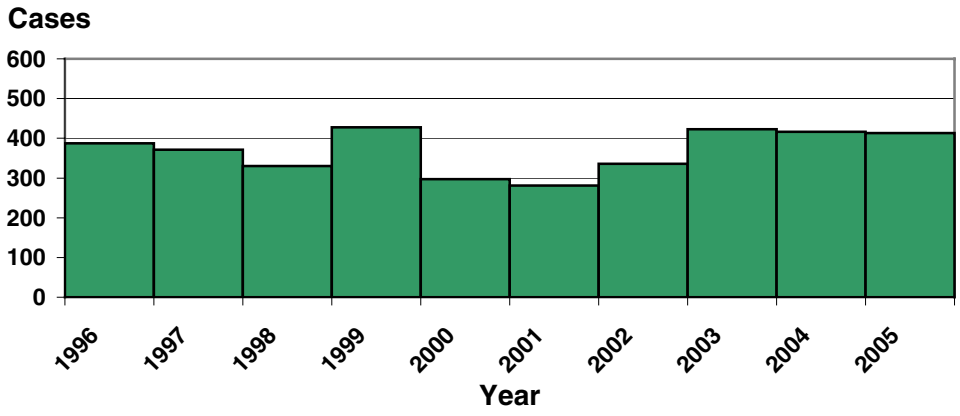
Salmonellosis is bacterial illness characterized by acute abdominal pain, diarrhea, and often fever that begins 12 hours to 5 days after infection. In cases of enterocolitis, fecal excretion usually persists for several days or weeks beyond the acute phase of illness; antibiotics generally have no effect on the illness and, in fact, may increase the duration of excretion of organisms.

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. 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. 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.

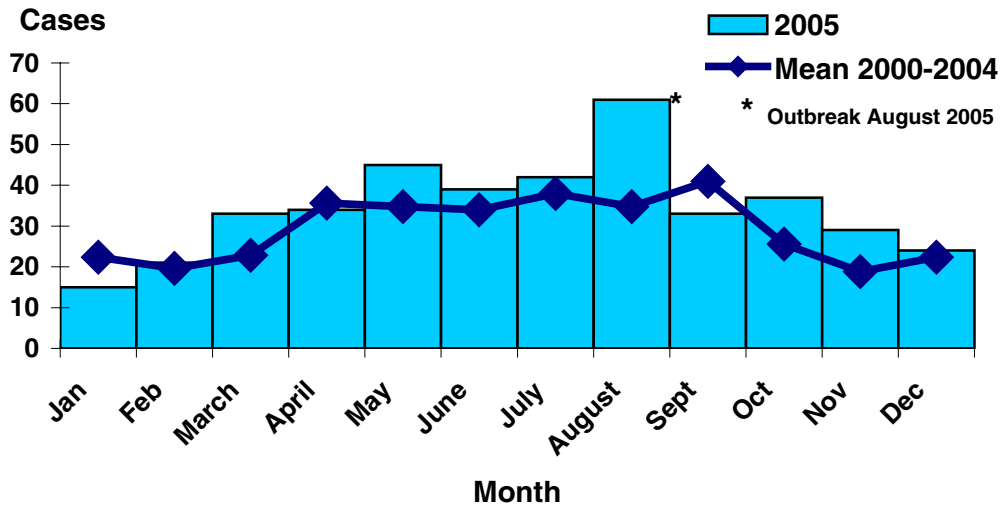
Of approximately 2,500 known serotypes, only about 200 are detected in the US in any given year. In Oregon, *S. Typhimurium* and *S. Enteritidis* are the two most commonly reported.

In 2005, 13 outbreaks of Salmonellosis were investigated in Oregon. Most notably, four foodborne outbreaks were caused by *S. Typhimurium*; two outbreaks of *S. Enteritidis* and one of *S. Ohio* were related to handling baby chicks – an annual occurrence.

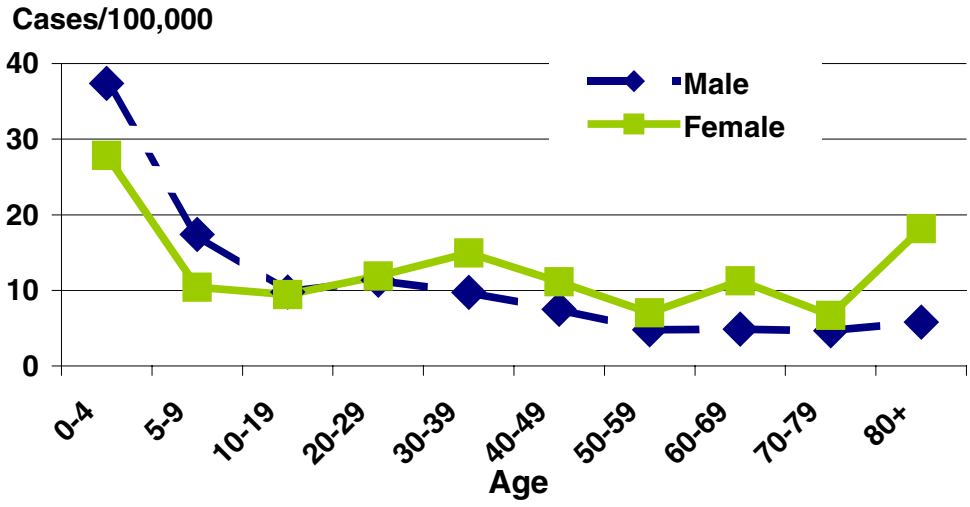
Salmonellosis
by Year, Oregon, 1996-2005



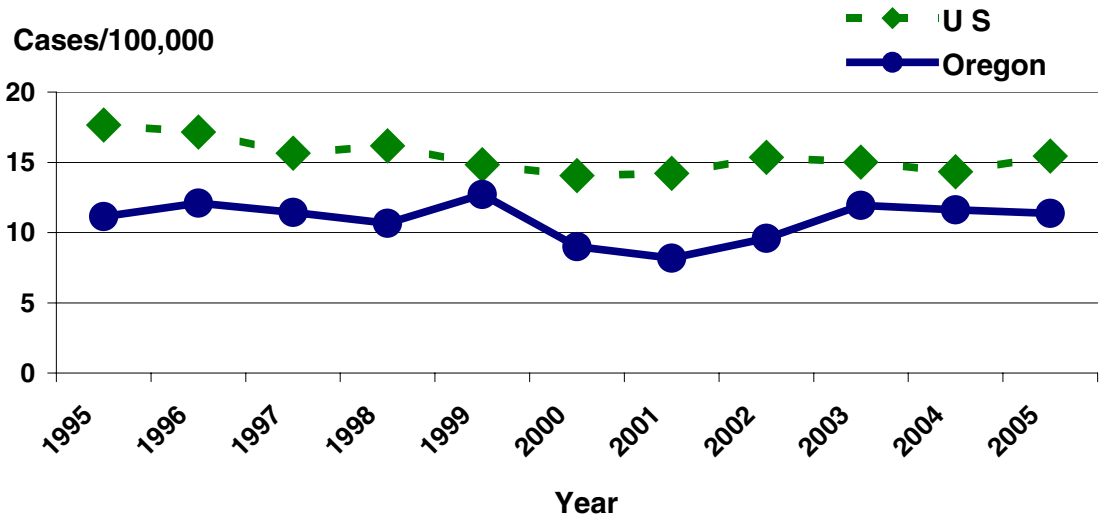
Salmonellosis
by Onset Month
Oregon, 2005



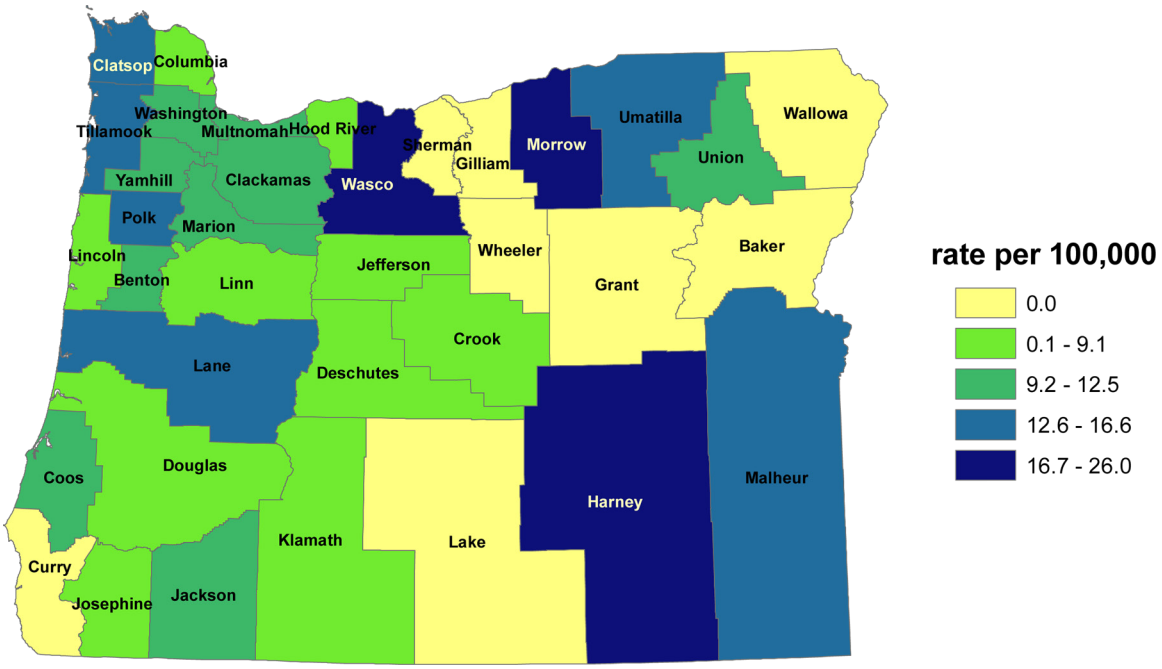
Incidence of Salmonellosis
by Age and Sex
Oregon, 2005



Incidence of Salmonellosis
Oregon vs. Nationwide
1995-2005



Incidence of Salmonellosis
by County of Residence
Oregon, 2005



Selected* Salmonella by Serotype, Oregon, 2005

	2001	2002	2003	2004	2005		2001	2002	2003	2004	2005
Agona	1	4	8	7	6	Lattenkamp	0	0	0	0	1
Albany	0	1	0	2	1	Mbandaka	0	0	1	2	2
Anatum	1	2	2	6	1	Montevideo	13	17	16	15	15
Anecho	0	0	0	0	1	Muenchen	8	10	5	7	8
Berta	1	0	0	0	2	Muenster	0	0	2	2	2
Bovismorbificans	0	0	0	17	1	Ohio	0	0	2	0	9
Braenderup	7	4	1	2	1	Oranienburg	10	12	13	6	8
Cerro	1	0	0	0	1	Oslo	2	0	0	2	1
Chester	1	0	16	0	1	Panama	0	2	4	1	2
Choleraesuis	0	0	0	0	1	Paratyphi B var. Java	9	9	9	17	20
Clackamas	0	4	3	1	1	Pomona	0	0	1	0	2
Corvallis	0	0	0	0	1	Saintpaul	4	18	36	16	7
Cubana	0	0	1	0	1	Sandiego	0	1	0	1	2
Dublin	1	1	3	3	3	Senftenberg	0	3	1	2	1
Ealing	0	0	0	1	1	Stanley	5	4	5	2	5
Eastbourne	0	0	1	0	1	Stanleyville	0	0	0	0	1
Enteritidis	34	48	78	60	86	Tennessee	0	1	0	1	1
Grumpensis	0	0	0	0	1	Thompson	4	1	2	1	6
Haardt	0	0	2	1	2	Typhimurium	86	67	79	85	84
Hadar	2	9	6	3	5	Urbana	1	0	0	0	1
Hartford	0	1	3	0	1	Virchow	2	1	0	0	1
Heidelberg	26	27	12	37	51	Weltevreden	1	0	2	0	1
Infantis	4	1	2	10	5	Other serotype	31	37	34	68	19
Itami	0	0	2	0	2	Unknown	5	16	31	22	16
Javiana	4	3	3	1	4	**Total**	**280**	**335**	**424**	**415**	**413**

* must have at least one case reported in 2005; other serotypes not listed might have been reported in previous years

data as of 10/10/2006

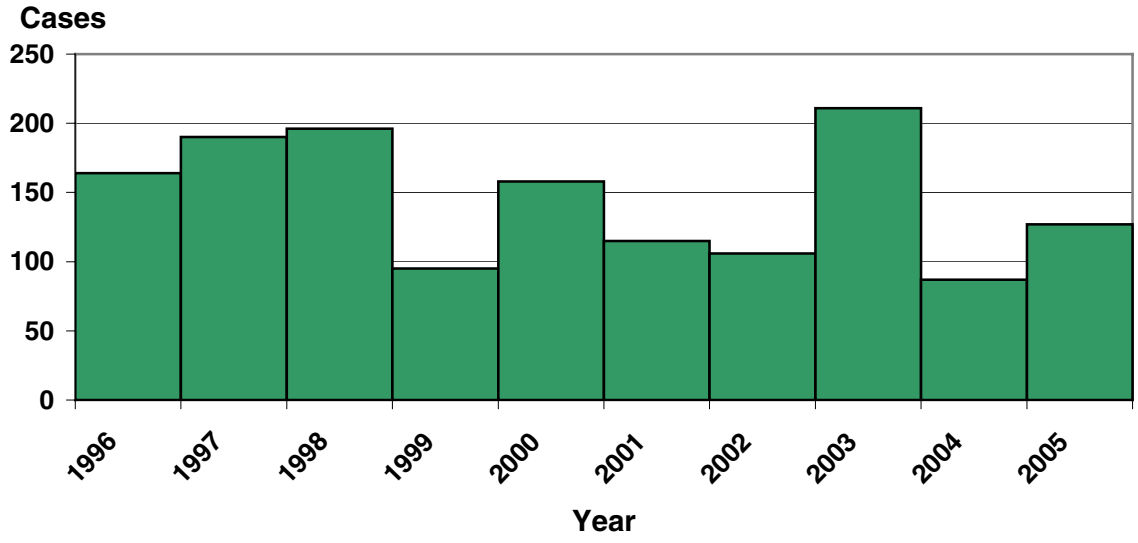
Shigellosis

Shigellosis is an acute bacterial infection characterized by diarrhea (sometimes bloody), 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 limit its transmission and prevent further spread. The rate is higher among children 1–4 years of age. The incidence of shigellosis usually increases in late summer and fall.

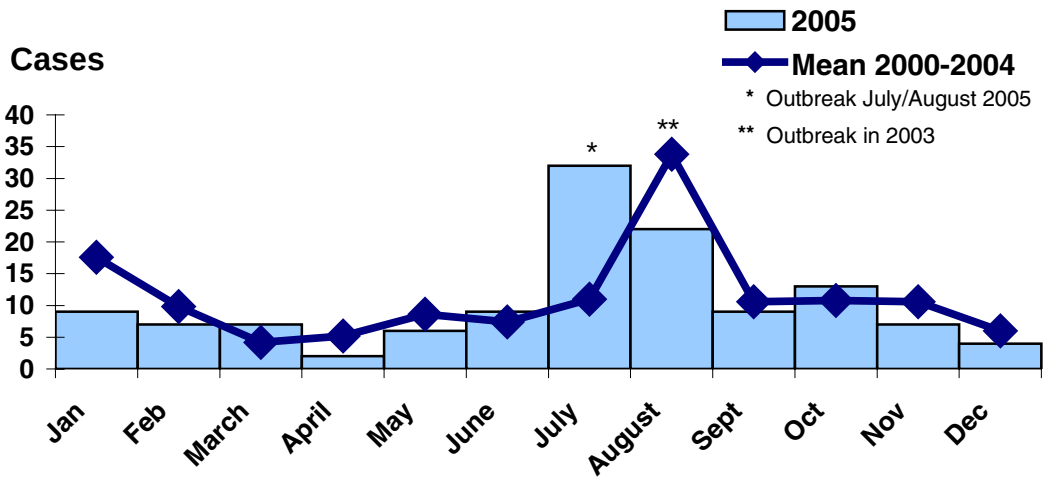
Outbreaks in day-care centers are common, mainly due to poor hygienic practices of small children. Hand washing is the most important means of prevention. Treatment reduces duration of illness, but the organism has become resistant to many antibiotics used for empiric therapy. Testing for antibiotic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

After a record low of 87 cases in 2004, the number of cases increased to 127 in 2005. This was due to a large outbreak at a religious retreat in Southern Oregon.

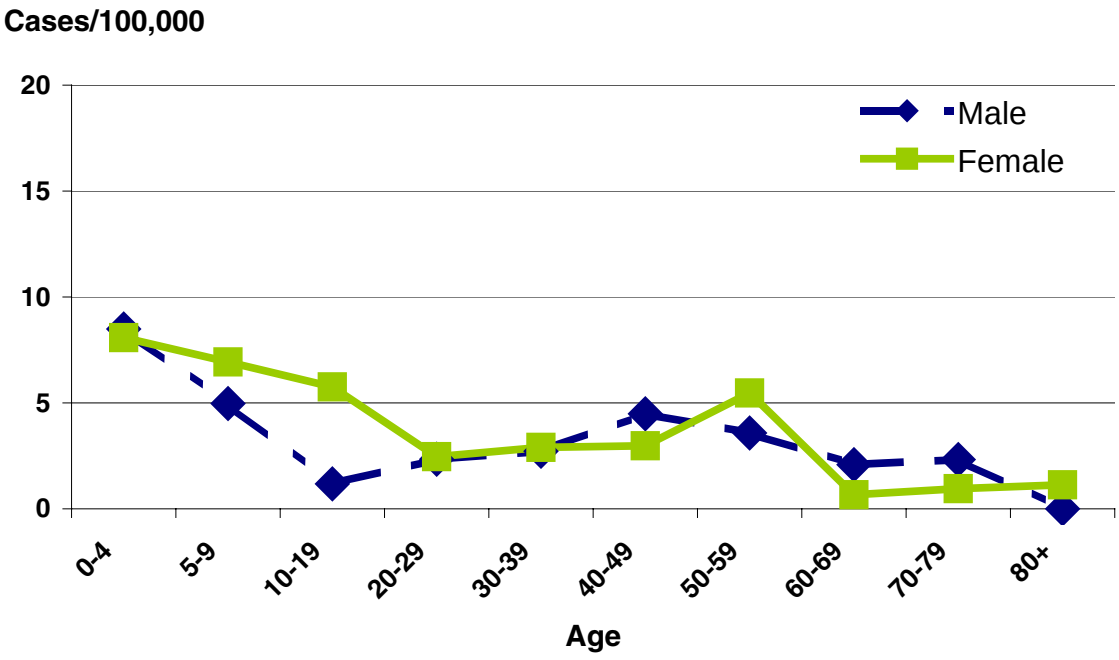
Shigellosis
by Year
Oregon, 1996-2005



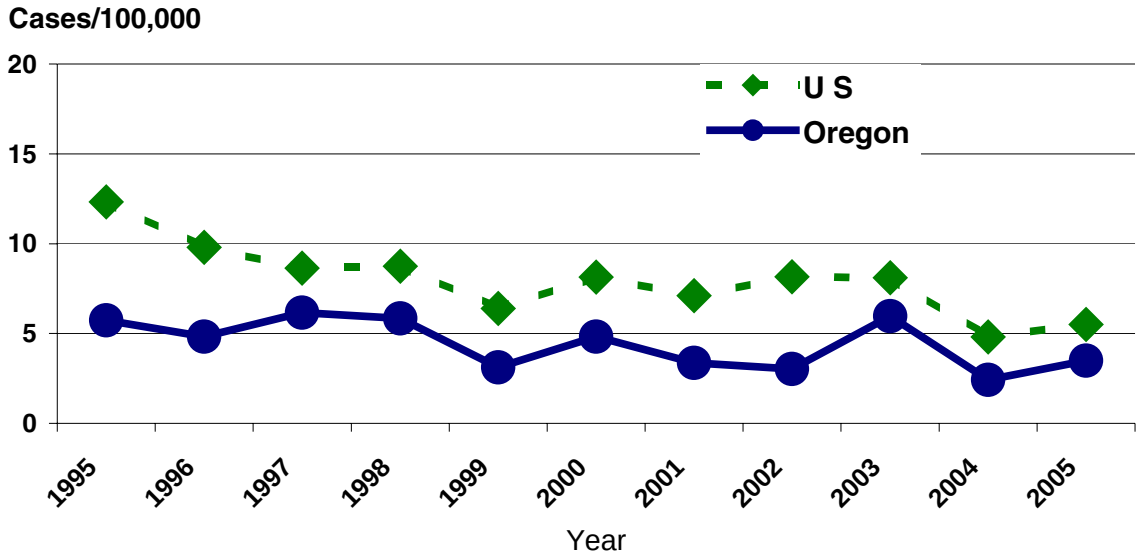
Shigellosis
by Onset Month
Oregon, 2005



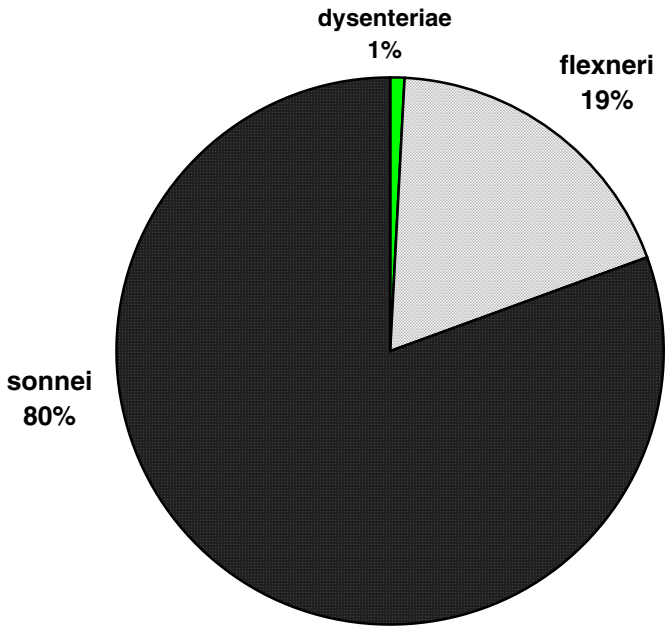
Incidence of Shigellosis
by Age and Sex
Oregon, 2005



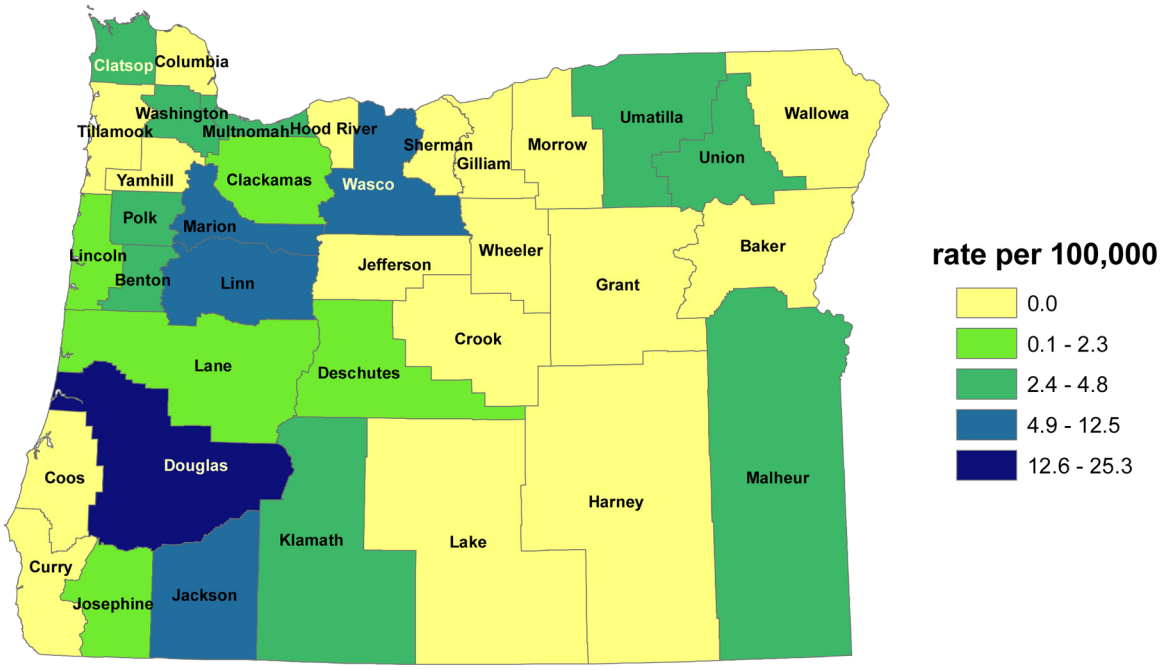
Incidence of Shigellosis
Oregon vs. Nationwide
1995-2005



Shigellosis
by Species
Oregon, 2005



Incidence of Shigellosis
by County of Residence
Oregon, 2005



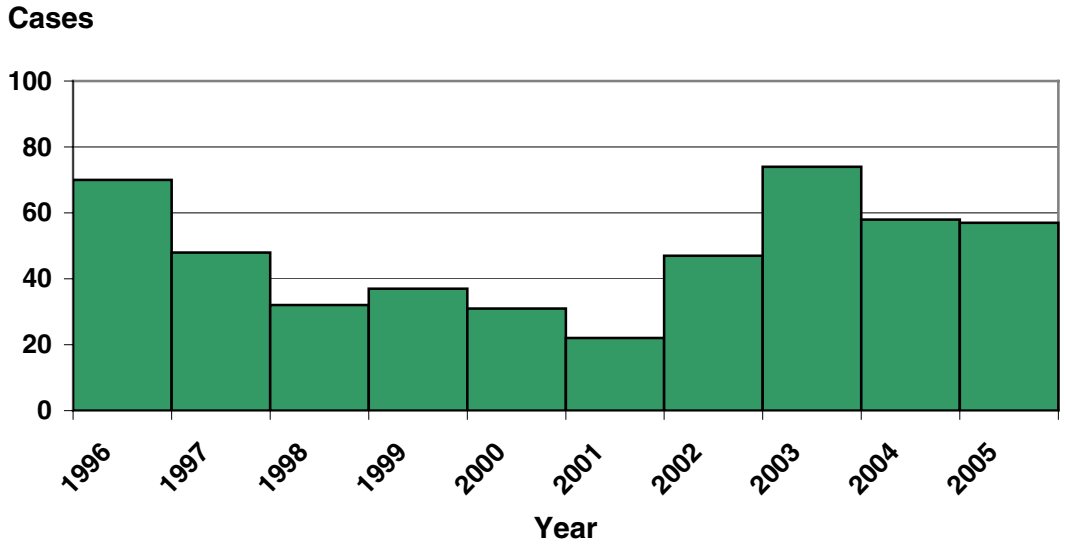
Early Syphilis

Early syphilis cases represent an aggregate of primary, secondary and early latent cases under-one year's duration. The 57 early syphilis cases reported in 2005 reflect a similar rate to the 58 cases reported in 2004. The main difference between 2005 and 2004 is more primary and secondary syphilis infections were identified in 2005. Primary and secondary stages of syphilis are when the infection can be transmitted to sex partners.

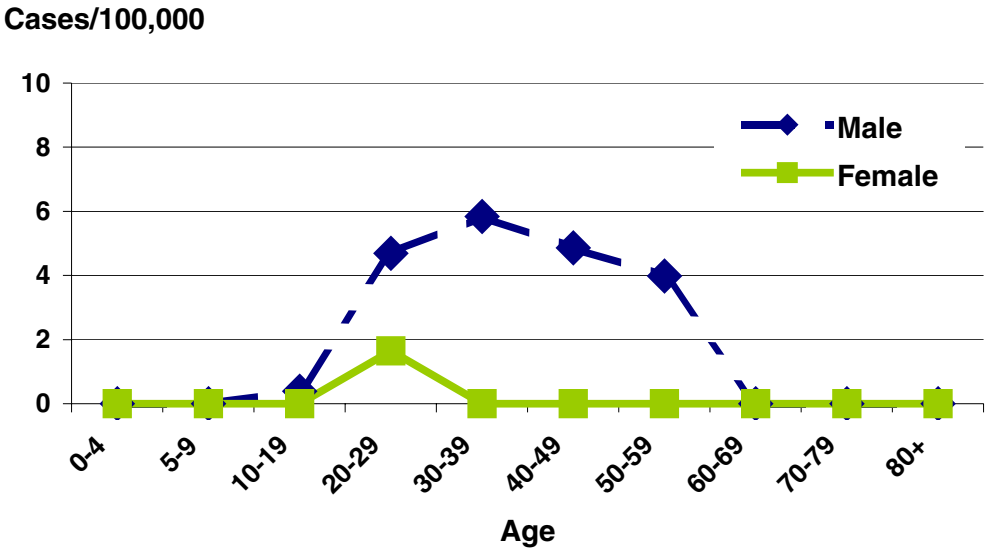
Syphilis is transmitted via vaginal, rectal or oral sex. Syphilis can be prevented by abstaining from sex, or only having sex with an uninfected partner. Those who are sexually active outside of a mutually monogamous relationship can protect themselves by using a condom when engaging in sexual activity.

The majority of the early syphilis cases reported during 2005 were among men who have sex with men. 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, people with primary and 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 people with early syphilis.

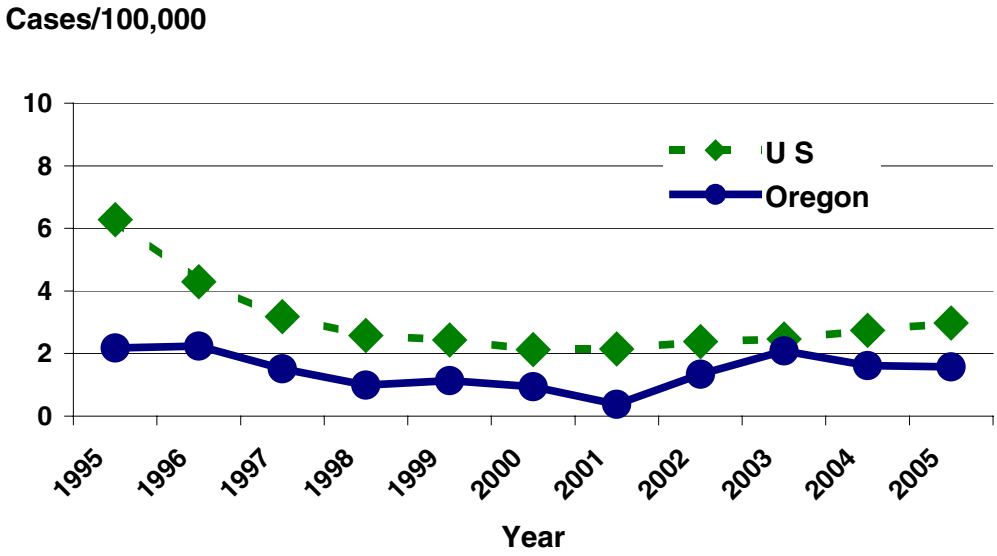
Early Syphilis
by Year
Oregon, 1996-2005



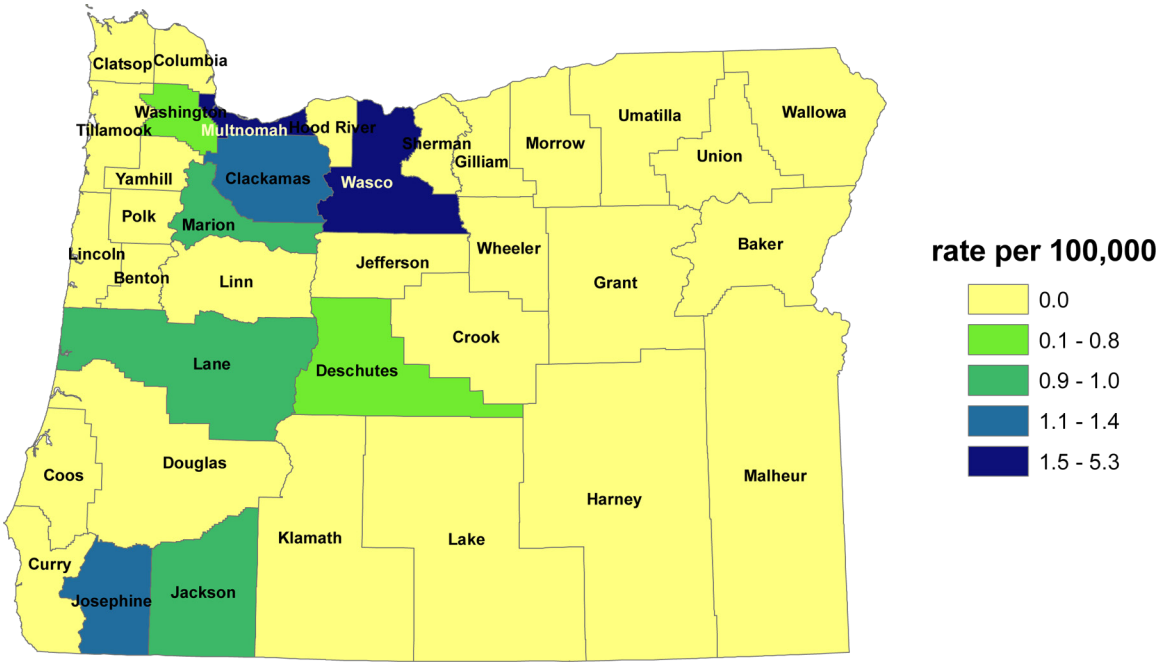
Incidence of Early Syphilis
by Age and Sex
Oregon, 2005



Incidence of Early Syphilis
Oregon vs. Nationwide
Oregon, 2005



Incidence of Early Syphilis
by County of Residence
Oregon, 2005



Tuberculosis

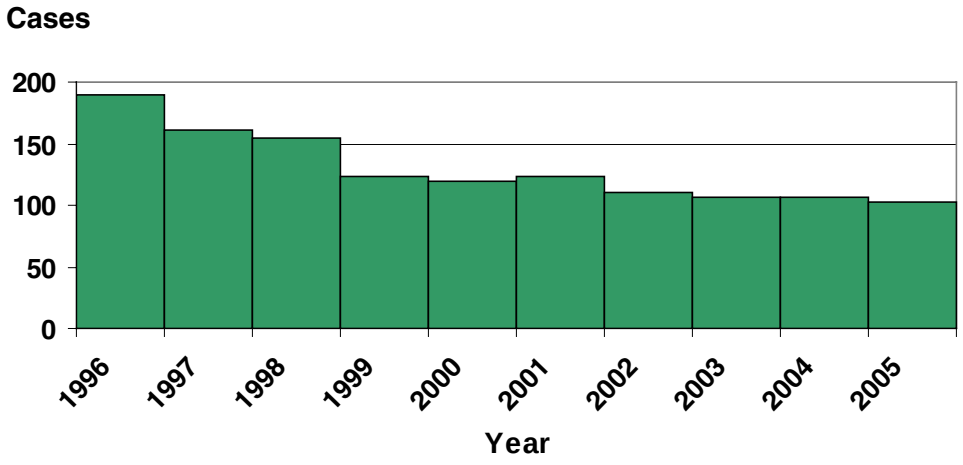
Tuberculosis (TB) is a communicable disease caused by *Mycobacterium tuberculosis*. The most common site for active TB disease is the lung; however, TB can occur in any organ in the body. TB is spread when a person develops active pulmonary or laryngeal TB, coughs the bacteria into the air, and another 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 (MDR TB) is a form of tuberculosis that is resistant to two or more of the standard TB drugs and requires treatment with second-line drugs.

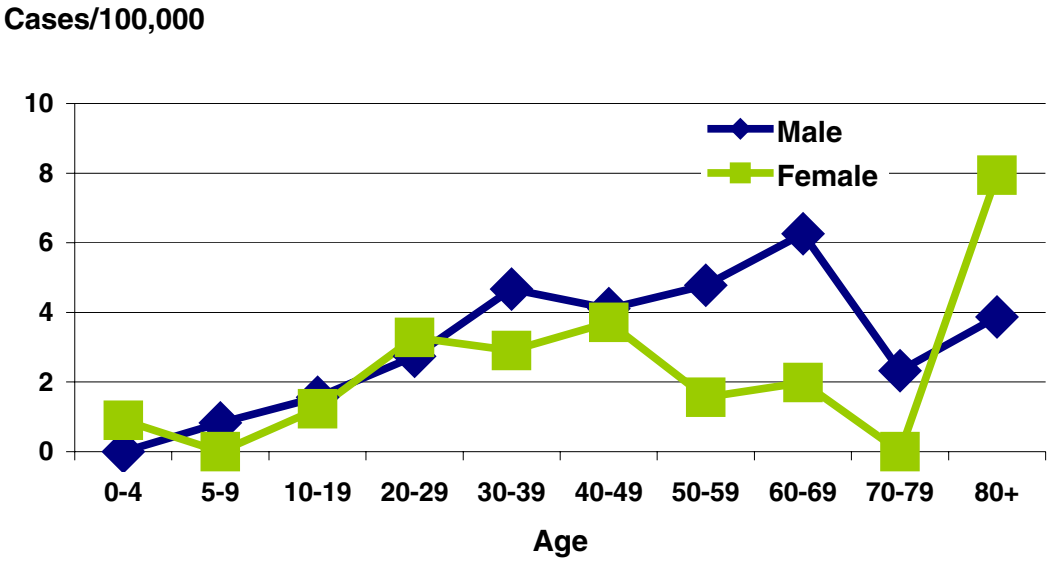
The incidence rate of TB has been declining over the past decade. In 2005, a total of 103 cases of active TB disease were verified in Oregon, for a rate of 2.8 cases per 100,000 residents. Nearly two-thirds of the cases were among foreign-born residents. No multi-drug resistant (MDR) TB cases were reported in Oregon in 2005; however 6% of TB isolates undergoing susceptibility testing were INH-resistant.

The Oregon TB rate of 2.8 cases per 100,000 meets the Healthy People 2000 Goal of $\leq$3.5/100,000.

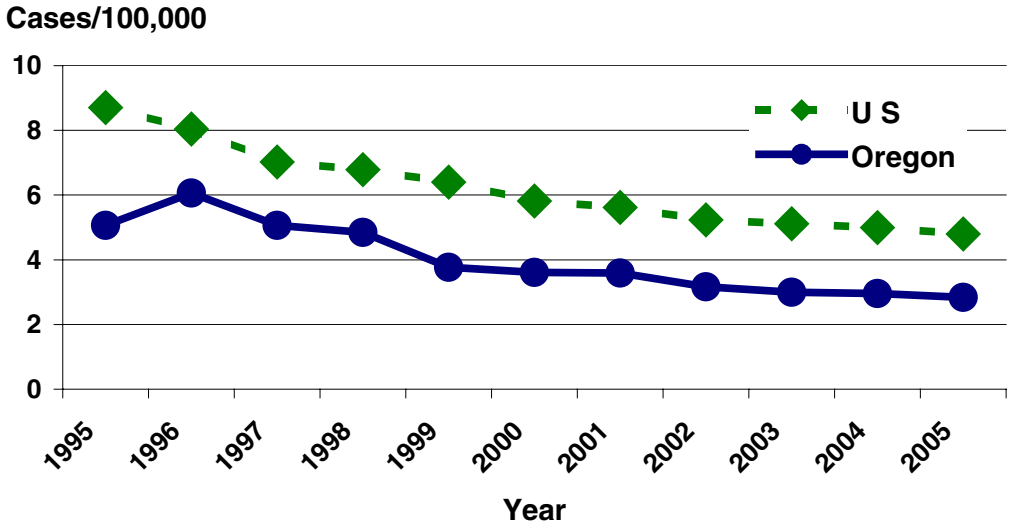
Tuberculosis
by Year
Oregon, 1996-2005



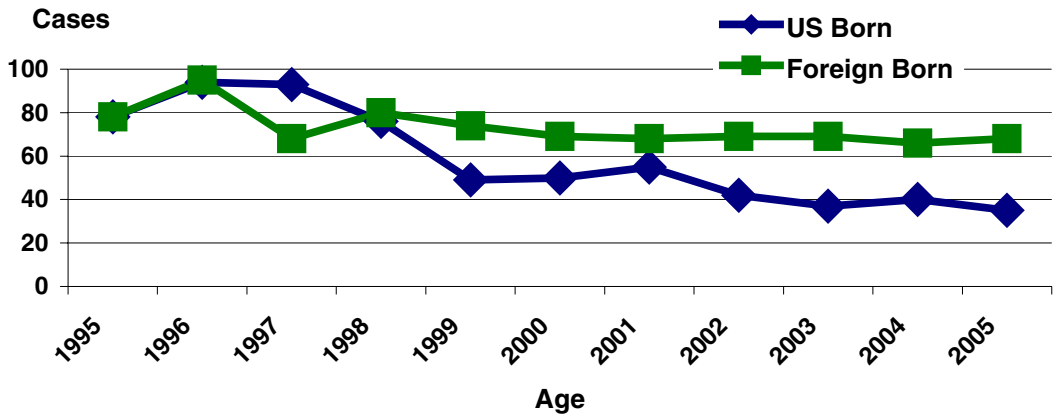
Incidence of Tuberculosis
by Age and Sex
Oregon, 2005



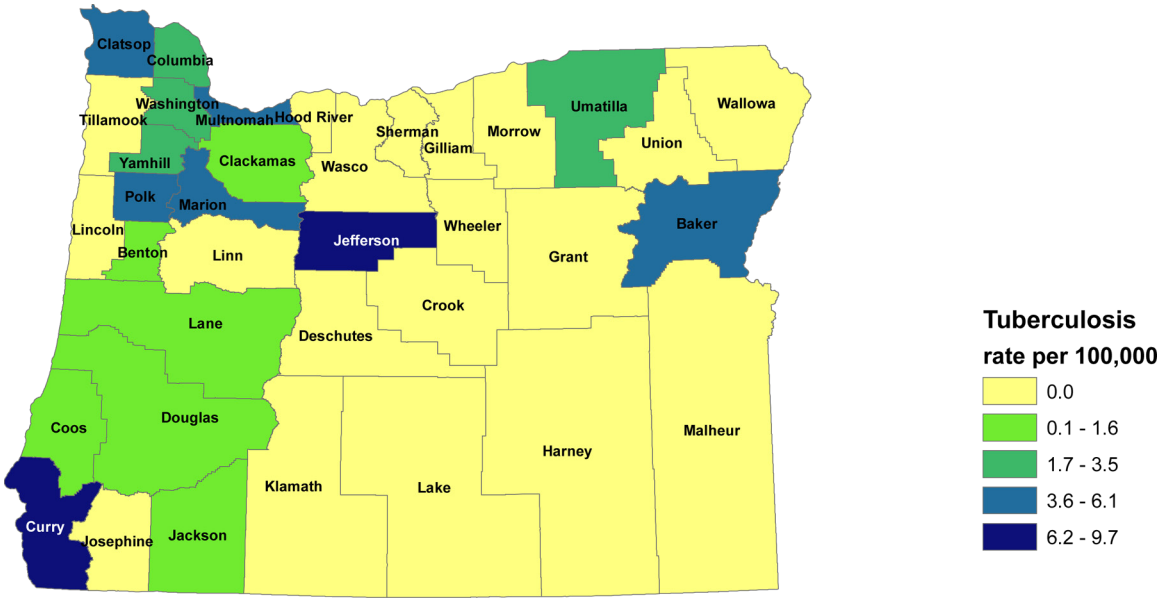
Incidence of Tuberculosis
Oregon vs. Nationwide
1995-2005



Tuberculosis Cases
by Country of Origin
Oregon, 1995-2005



Incidence of Tuberculosis
by County of Residence
Oregon, 2005



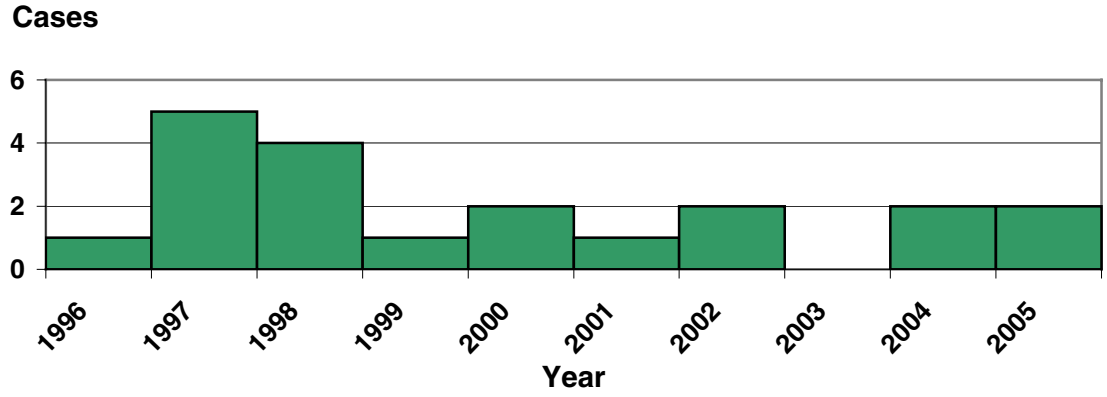
Tularemia

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 75–85% of naturally occurring cases. Other clinical forms include: pneumonic (pulmonary symptoms); typhoidal (gastro-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 US. People 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 1994 to 2005, 25 cases of tularemia were reported in Oregon. Cases occurred in residents of 12 counties, and were evenly spread across age groups. In 2005, there were two cases; both had regular contact with wild animals.

Tularemia
By Year
Oregon, 1996-2005

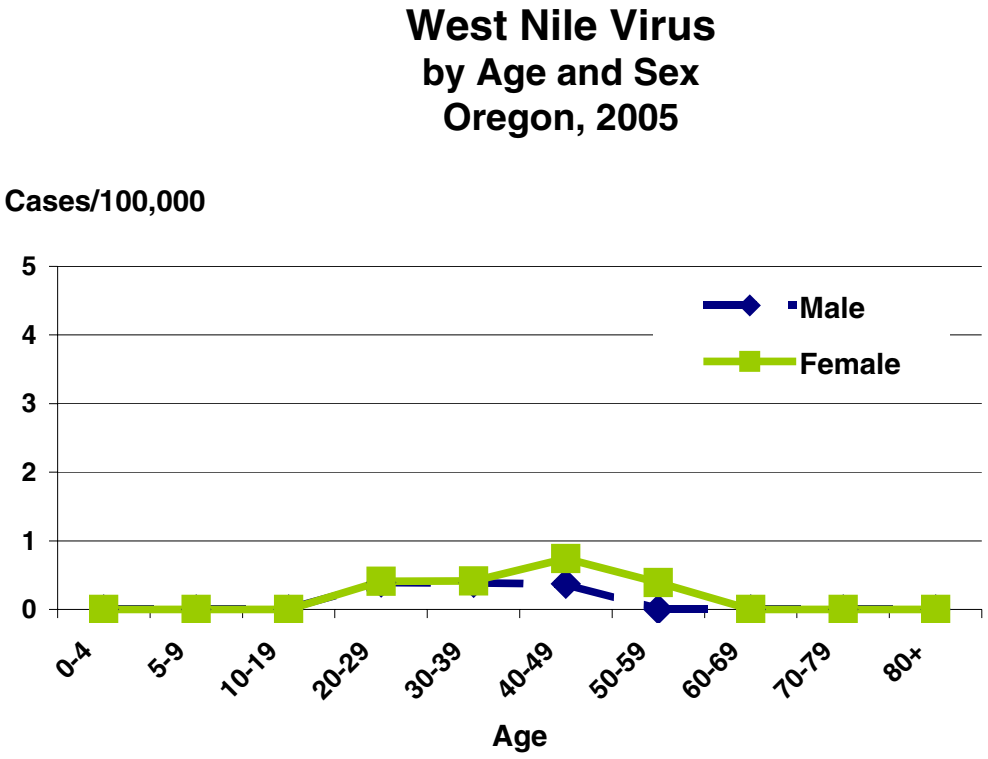


West Nile Virus

West Nile virus first appeared in the US in 1999. Since then, it has steadily moved across the US. In Oregon, the first case was reported in 2004. West Nile is a mosquito-borne viral disease that affects both animals and humans. Birds are the reservoir of the disease; humans and other animals are considered to be dead-end hosts.

Of those infected, 1 in 5 will have mild symptoms such as fever, headache, and body aches; fewer people, about 1 in 150, will have more severe symptoms including neck stiffness, stupor, disorientation, tremors, convulsions, muscle weakness, paralysis, and coma. The risk of getting West Nile virus is very low. Though most cases have been found in people aged 20-50 years, those over 50 years of age have the highest risk of developing serious illness.

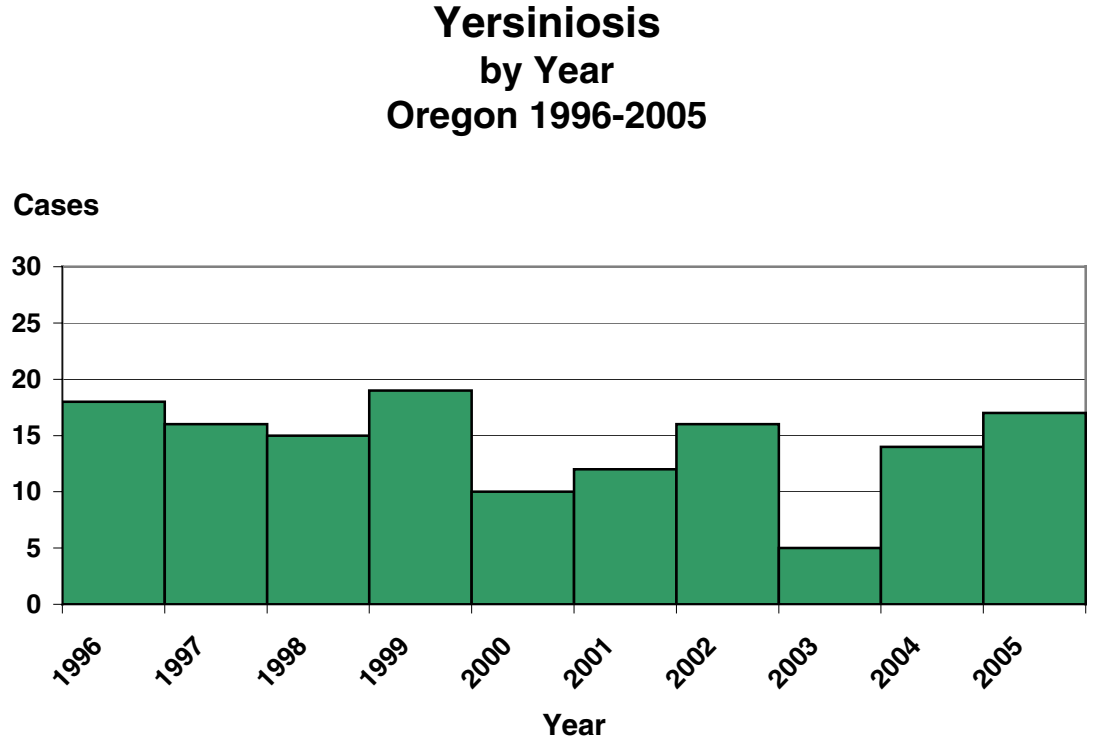
In 2005, 8 human cases of WNV were reported.



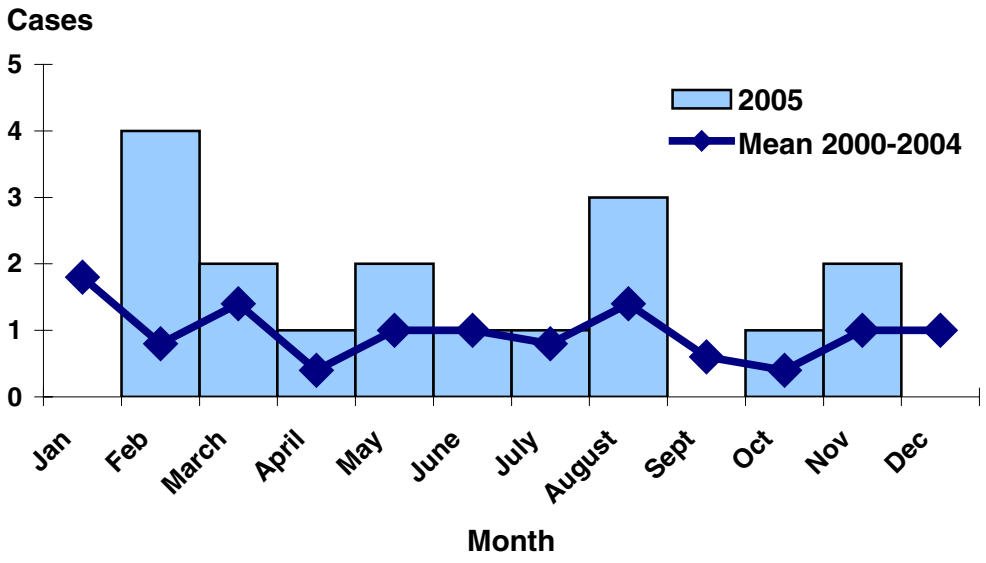
Yersiniosis

Yersiniosis is a bacterial infection characterized by 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, and infected people or animals. Preventive measures include cooking food thoroughly, avoiding cross-contamination with raw food of animal origin, and washing hands after handling food.

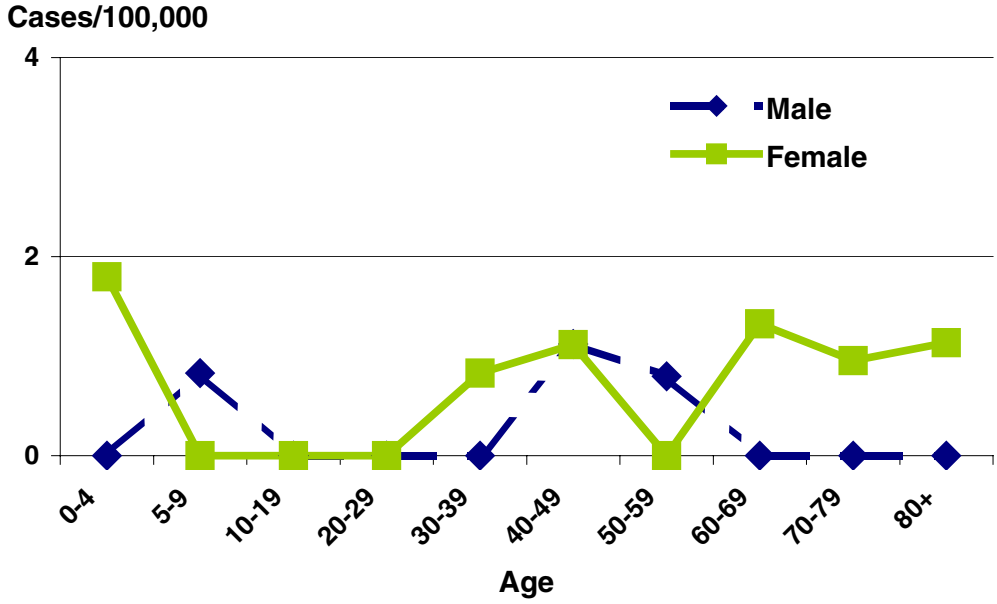
The incidence of yersiniosis in Oregon has been fairly stable over the years. In 2003, the number of cases dropped to 5, the lowest reported incidence since 1995. By far the most common species is *Y. enterocolitica*.



Yersiniosis
by Onset Month
Oregon, 2005

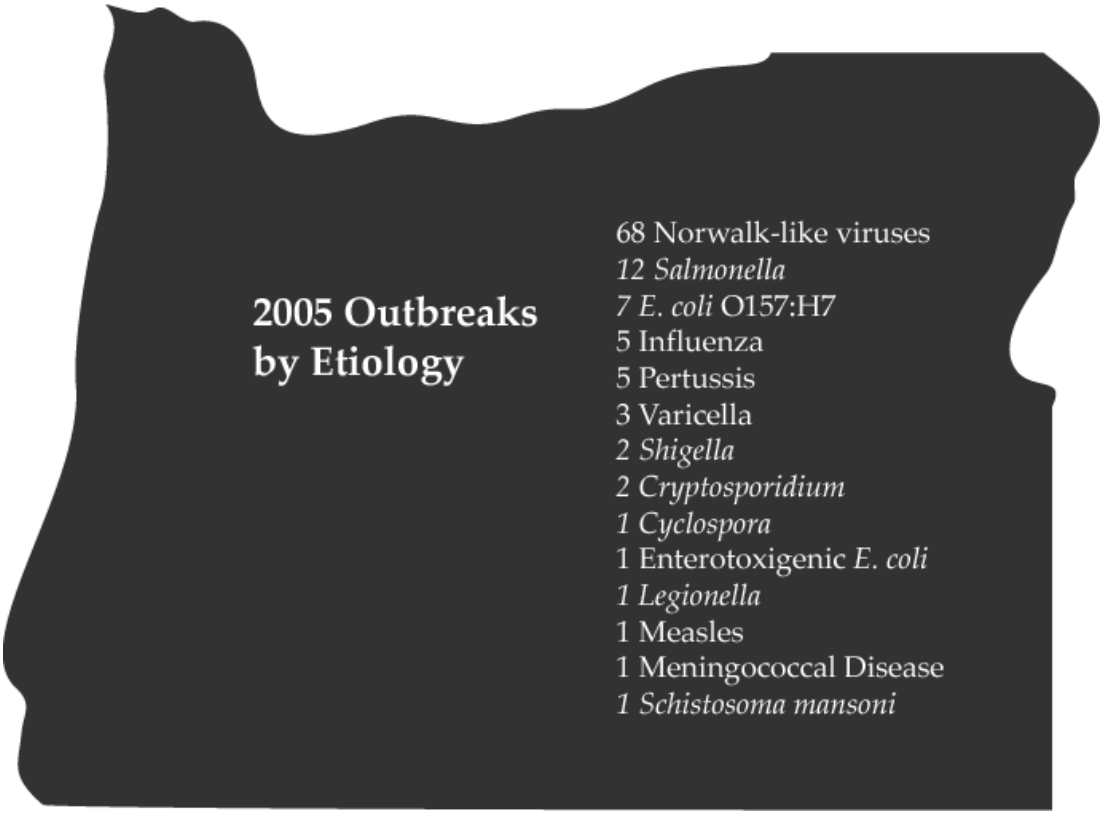


Incidence of Yersiniosis
by Age and Sex
Oregon, 2005



Disease Outbreaks by Etiology

We investigated a total of 125 outbreaks in 2005. One of the largest, 280 cases of *Shigella sonnei* occurred among campers at a spiritual retreat. There was *Cryptosporidiosis* at the YMCA in Jackson County, a multi-pathogen outbreak (*E. coli* O157 and *Campylobacter*) outbreak at an outdoor camp for kids and *Salmonella* in ice cream! *E. coli* O157-adorned salads were responsible for three outbreaks, organic eggs and raw milk (for pets) were also tagged as culprits.



Selected Cases of Notifiable Diseases by Onset Year, Oregon 1986-2005

Cases as of 10/10/2006

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AIDS/HIV by year diagnosis			334	440	521	543	546	489	425	420	380	296	280	270	256	278	315	300	304	284
Campylobacteriosis	1344	1039	970	999	958	941	885	720	655	644	683	755	707	593	568	600	572	593	655	647
Chlamydiosis			7135	6734	7387	7327	5885	5539	5494	5468	5442	5254	5857	6163	7110	7504	7200	7500	8690	9018
***E. coli* O157 Infection**					53	108	149	244	105	90	100	87	107	69	135	87	204	101	68	149
Giardiasis	1157	1171	1194	1078	1348	1294	1247	1011	930	915	937	910	903	810	656	536	435	402	444	418
Gonorrhea	5471	4043	3221	3025	2549	2172	1768	1192	977	854	886	773	880	906	1039	1145	929	981	1302	1562
***H. influenzae* Infection**	70	86	85	67	68	26	27	11	26	28	33	38	42	45	30	38	55	42	50	54
Hepatitis A	1899	1328	1483	2366	829	449	550	581	1326	2968	955	417	437	253	165	110	62	62	65	49
Acute Hepatitis B	644	660	582	569	415	305	278	282	232	186	164	131	186	122	123	166	126	119	112	99
Acute hepatitis C	87	104	105	83	59	132	85	72	56	58	48	19	21	23	1	15	14	16	21	18
Legionellosis								1	1	7	23	12	9	29	18	15	13	16	17	18
Listeria			6	11	5	3	6	10	11	13	15	11	18	17	6	12	9	5	7	11
Malaria	19	6	19	21	20	12	19	14	17	21	25	24	17	22	40	15	15	10	19	13
Measles	12	132	7	82	212	93	3	4	2	1	14	0	0	9	0	33	0	3	0	2
Meningococcal Disease	38	37	47	59	73	61	72	109	136	117	125	122	91	76	70	64	44	60	61	56
Pertussis	16	83	55	18	123	68	47	105	106	67	64	48	89	61	106	66	193	437	630	623
Rubella	4	2	0	3	77	5	2	0	4	0	1	0	0	0	0	0	0	1	0	1
Salmonellosis	235	305	404	322	359	368	486	349	314	343	387	371	330	428	297	281	336	423	416	413
Shigellosis	127	114	112	121	178	712	292	169	166	169	164	190	196	95	158	115	106	211	87	127
Early Syphilis	202	503	515	424	261	277	218	185	100	67	70	48	32	37	31	22	47	74	58	57
Tuberculosis	136	159	161	151	148	144	146	153	165	156	190	161	155	123	119	123	111	106	106	103
Tularemia	0	5	2	5	2	2	0	3	4	1	1	5	4	1	2	1	2	0	2	2
Typhoid fever	0	3	8	6	5	6	2	4	5	4	4	3	1	5	4	8	2	4	1	4
Vibrio parahaemolyticus															7	6	9	5	11	6
Yersiniosis	16	12	16	20	18	17	9	16	15	8	18	16	15	19	10	12	16	5	14	17
TOTAL	**11627**	**10028**	**16413**	**16467**	**15619**	**14884**	**12577**	**11631**	**11555**	**12704**	**10886**	**9757**	**10334**	**10129**	**11412**	**11689**	**10815**	**11476**	**13140**	**13751**

Blank cells = not reportable

Oregon Communicable Disease Case Counts by County of Residence, 2005

Data as of 10/10/2006

	AIDS/HIV	Campylobacteriosis	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 Syphillis	Tuberculosis	Vibrio parahaemolyticus	West Nile	Yersiniosis	Total
Baker	4	0	24	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	33
Benton	34	16	167	0	4	7	16	0	1	2	6	0	0	0	0	2	1	1	45	0	10	4	0	1	0	1	0	318
Clackamas	218	62	602	8	10	46	95	4	4	10	29	3	0	5	1	1	0	6	36	0	45	7	5	4	1	0	3	1205
Clatsop	21	3	84	1	4	6	5	0	0	1	4	0	0	0	2	0	0	2	9	0	5	1	0	2	0	0	0	150
Columbia	23	5	89	0	2	6	14	0	0	2	4	0	0	0	0	0	0	1	1	0	2	0	0	1	0	0	0	150
Coos	35	12	115	0	0	8	2	2	0	1	6	0	0	0	1	0	0	3	5	0	6	0	0	1	0	0	1	198
Crook	4	2	28	0	2	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	42
Curry	8	3	18	0	0	0	4	0	0	1	1	0	0	0	0	0	0	0	10	0	0	0	0	2	0	0	0	47
Deschutes	62	37	300	0	64	14	8	2	0	5	6	0	0	0	0	1	1	0	23	0	13	2	1	0	2	0	0	541
Douglas	56	14	132	0	1	19	10	0	3	0	9	1	0	0	0	0	1	3	0	0	9	26	0	1	0	0	0	285
Gilliam	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grant	4	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Harney	1	3	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	13
Hood River	11	3	29	0	0	3	1	0	0	0	1	0	0	0	0	2	0	0	5	0	1	0	0	0	0	0	0	56
Jackson	128	25	515	32	1	15	62	5	2	8	9	4	0	0	0	4	0	6	21	4	21	12	2	2	0	1	0	879
Jefferson	9	4	83	0	2	1	14	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	0	120
Josephine	54	13	148	1	0	12	13	1	2	6	7	1	0	1	1	3	0	3	9	0	7	1	1	0	0	0	0	284
Klamath	22	21	93	0	1	3	4	0	0	0	2	0	1	0	0	0	1	2	5	0	4	2	0	0	0	0	0	161
Lake	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	9
Lane	258	72	891	4	17	36	63	4	7	12	31	0	0	0	1	1	0	6	120	2	52	4	3	4	0	1	1	1590
Lincoln	34	8	100	0	0	6	7	0	1	3	3	0	0	0	0	0	0	0	27	0	4	1	0	0	0	0	0	194
Linn	45	21	194	0	4	5	24	6	3	7	8	0	1	0	0	0	1	1	21	0	7	6	0	0	0	0	0	354
Malheur	14	11	78	1	1	1	2	0	0	1	4	0	0	0	0	0	0	0	0	0	5	1	0	0	0	4	0	123
Marion	290	48	864	2	10	27	116	10	4	8	35	0	1	1	2	1	0	2	113	0	36	18	3	18	0	1	0	1610
Morrow	4	1	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	1	30
Multnomah	2543	129	2869	13	9	108	886	10	12	16	125	6	0	5	1	2	6	9	87	0	80	19	37	40	1	0	7	7020
Polk	23	8	91	0	4	6	15	0	1	2	4	2	0	0	0	2	1	1	16	1	10	2	0	3	0	0	0	192
Sherman	1	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
Tillamook	9	5	25	1	1	6	2	0	0	0	1	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0	0	56
Umatilla	32	11	196	0	1	6	4	0	1	0	3	0	0	0	0	0	0	0	3	0	12	2	0	2	0	0	1	274
Union	8	4	45	0	1	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	3	1	0	0	0	0	0	66
Wallowa	2	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	12
Wasco	10	2	39	0	0	2	2	0	0	0	2	0	0	0	0	0	0	0	3	0	5	3	1	0	0	0	0	69
Washington	318	81	998	5	7	67	169	6	6	9	93	0	2	3	2	1	1	5	47	0	53	15	4	17	2	0	1	1912
Wheeler	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Yamhill	38	20	153	0	1	6	20	2	2	6	6	0	1	0	0	1	0	3	12	1	11	0	0	2	0	0	1	286
Total	**4325**	**647**	**9018**	**69**	**149**	**418**	**1562**	**54**	**49**	**100**	**403**	**18**	**6**	**15**	**11**	**24**	**13**	**56**	**623**	**8**	**413**	**127**	**57**	**103**	**6**	**8**	**17**	**18299**

Public Health Reporting for Clinicians

By law,[1] Oregon clinicians must report diagnoses (confirmed or suspected) of the following infections, diseases, and conditions. Both clinical and lab-confirmed 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 department[2] 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 (health department) working day of the diagnosis, but there are a number of exceptions (noted with asterisks, *infra*). 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. If local health department staff are unavailable, a state epidemiologist is always on call (971-673-1111; after hours, 503-731-4030).

SPECIFIC ETIOLOGIES

Anthrax***
Botulism***
Brucellosis
Campylobacteriosis
Chancroid
Chlamydia infection[3]
Cryptosporidiosis
Cyclospora infection
Diphtheria***
Escherichia coli (Shiga-toxigenic)[4]
Giardiasis
Gonorrhea
*Haemophilus influenzae***
Hantavirus*
Hepatitis A
Hepatitis B
Hepatitis C (new infections)[5]
Hepatitis D (delta)
HIV infection and AIDS[6]
Legionellosis
Leptospirosis*
Listeriosis
Lyme disease
Malaria
Measles (rubeola)**
Meningococcal disease**
Mumps
Plague***
Polio**
Rabies**
Rubella**
Pertussis
Q fever
Salmonellosis (including typhoid)
Shigellosis
Syphilis
Taenia solium/Cysticercosis*
Tetanus*
Trichinosis
Tuberculosis
Tularemia
Vibrio infection**
Yersiniosis

OTHER CONDITIONS

Animal bites
any Arthropod-borne infection[7]
HUS
Lead poisoning*
Marine intoxications***[8]
any Outbreak of disease***[9]
Pesticide poisoning**
any Uncommon illness of potential public health significance***[10]
PID (acute, non-gonococcal)*

TIMING OF REPORTS

***Immediately—day or night
**Within 24 hours
*Within 1 week

If unspecified, report within 1 working day

FOOTNOTES

1 ORS 433.004; OAR 333-018-0000 to 333-018-0015.
2 Refer to *http://www.oregon.gov/DHS/ph/acd/disrpt.htm* for a list of local health departments and more details about what to report.
3 STDs, trachoma, TWAR, psittacosis—all of 'em—even if they're renamed *Chlamydophila*.
4 *E. coli* O157:H7 is the exemplar of this group.
5 Report only diagnoses of probable *recent* infection (e.g., post-transplant infections, persons with conversion of paired sera). Most cases are old or indeterminate; these are not reportable.
6 HIV/AIDS reports can be made directly to the state's HIV office (fax: 971-673-0178).
7 Including any of the scores of viral, bacterial, and parasitic infections typically spread by ticks, mosquitos, fleas, and their ilk (e.g., Lyme disease, malaria, ehrlichiosis, relapsing fever, typhus, babesiosis, dengue, yellow fever, Oroya fever, Colorado tick fever, West Nile fever, RMSF, SLE, WEE, EEE, filariasis, tsutsugamushi, Congo-Crimean hemorrhagic fever,...).
8 Paralytic shellfish poisoning, scombroid, domoic acid intoxication, ciguatera, etc.
9 Outbreaks are •2 cases from separate households associated with a suspected common source.
10 Don't make us 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.

Public Health Reporting for Laboratories

By law,[1] 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 department[2] within one working day of the initial test report. 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 very helpful. 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 the reports you make in a log or file.

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 A
hepatitis B[7]
hepatitis C
hepatitis D (delta)
HIV infection and AIDS[8]
measles (rubeola)
mumps
polio
rabies
rubella
yellow fever

OTHER IMPORTANT THINGS
any "Uncommon Illness of Potential Public Health Significance"[2]
any outbreak of disease[2]
any other typically arthropod vector-borne infection[2]
all blood lead testing results
all CD4 cell counts[8]

FOOTNOTES
1 ORS 433.004; OAR 333-018-0015.
2 Refer to *http://www.oregon.gov/DHS/ph/acd/disrpt.htm* 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 Lab (phone, 503/229-5882).
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 Report positive HBsAg (surface antigen) and IgM anti-HBc (core antibody) tests.
9 HIV/AIDS reports can be made directly to the state's HIV office (fax: 971-673-0178).