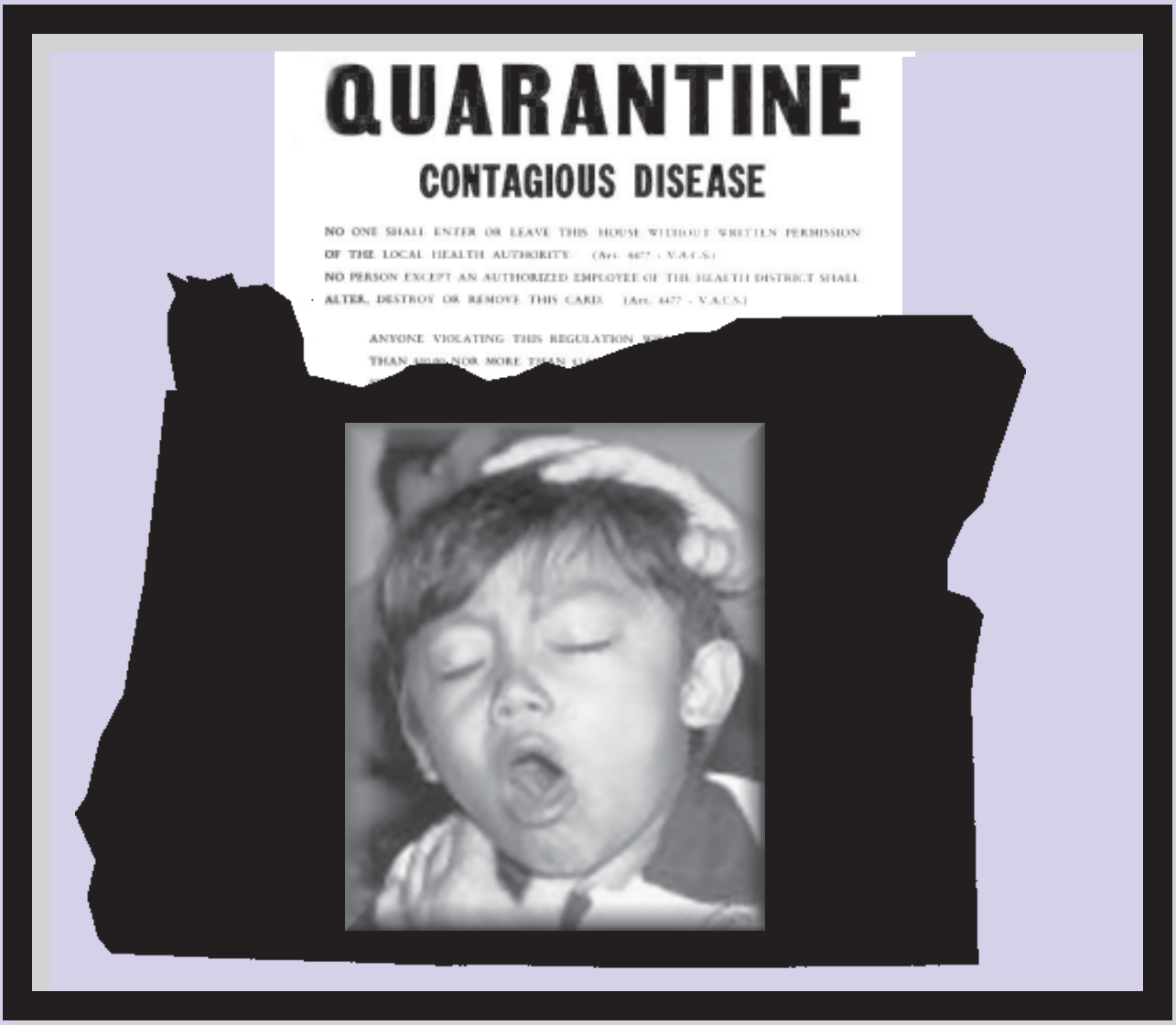
2003 STATE OF OREGON SELECTED REPORTABLE COMMUNICABLE DISEASE SUMMARY



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Oregon Health Services

Office of Disease Prevention and Epidemiology

Acute and Communicable Disease Prevention

2003 Selected Reportable Communicable Disease Summary

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If you need this publication in an alternate format, please call the Office of Disease Prevention and Epidemiology at 503/731-4023

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. Together, these epidemiologic and laboratory data constitute our communicable disease "surveillance system;" data from 2003 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. But even if they do, the health-care professional may not order a test to identify the causative microorganism. And 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, the 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.

And 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 disease totals by county, a summary table of statewide case counts over the past 20 years, and a brief tally of disease outbreaks reported in the past year.

We hope that, with all their limitations, you will find these data useful. If you have additional questions, please call our epidemiology staff at (503) 731-4024 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://www.oshd.org/acd/oars/rules/

† 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.

Table of Contents

AIDS and HIV Infection

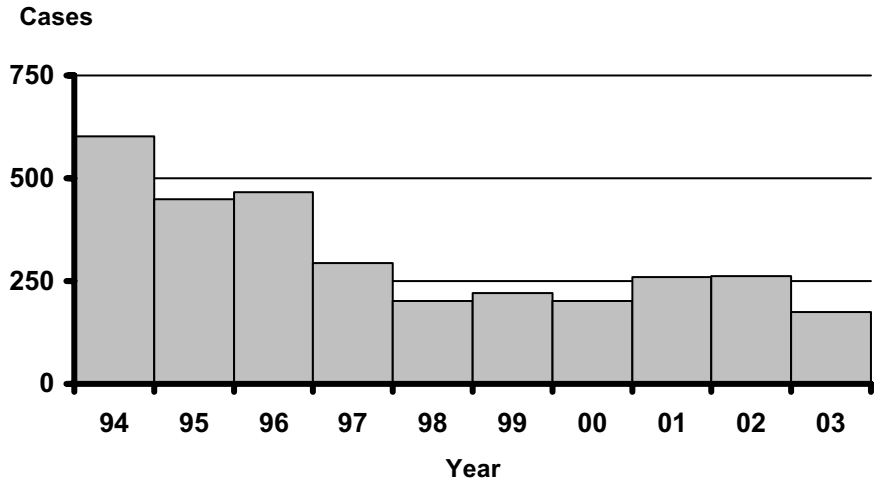
Human immunodeficiency virus (HIV) is spread through unprotected sex and sharing injection drug equipment with an HIV-infected partner, and less frequently, through blood transfusions and breast feeding. Disease morbidity is monitored to provide information to people and agencies designing public health interventions and to promote treatment options for those infected with HIV. 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 condition indicative of poor immune system functioning. Although there is no cure for HIV or AIDS, there are drug treatments that 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 zidovudine during pregnancy.

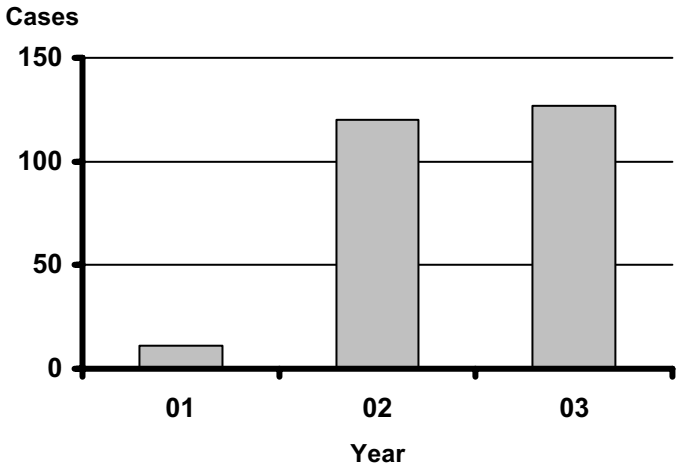
From 1981 through 2003, 5,571 cases of AIDS were reported in Oregon, including 3,072 deaths. Men accounted for 5,146 cases (92%), and there were 425 female cases (8%). Most cases have been white (4,815, 86%) with 296 (5%) African Americans, 349 (6%) Hispanics, 48 (<1%) Asians, and 61 (1%) Native Americans reported. Only 18 cases of pediatric AIDS have been reported in Oregon. In 2003, 174 cases of AIDS were reported.

HIV infection (as opposed to AIDS) became reportable in Oregon on October 1, 2001. Through December 2003, 1,209 cases of HIV were reported. One hundred twenty-seven of those were newly diagnosed in 2003.

AIDS
by Year
Oregon, 1994–2003

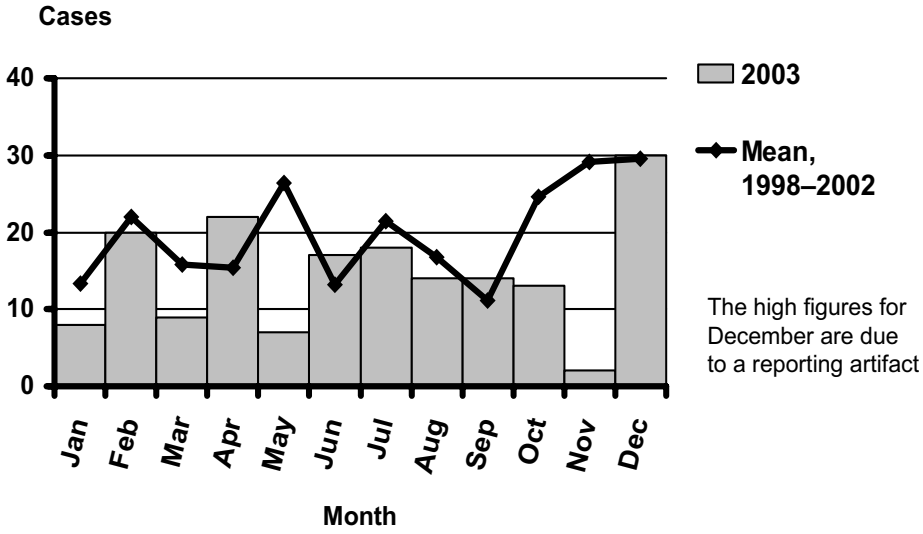


New HIV Infections
by Year
Oregon, 2001–2003



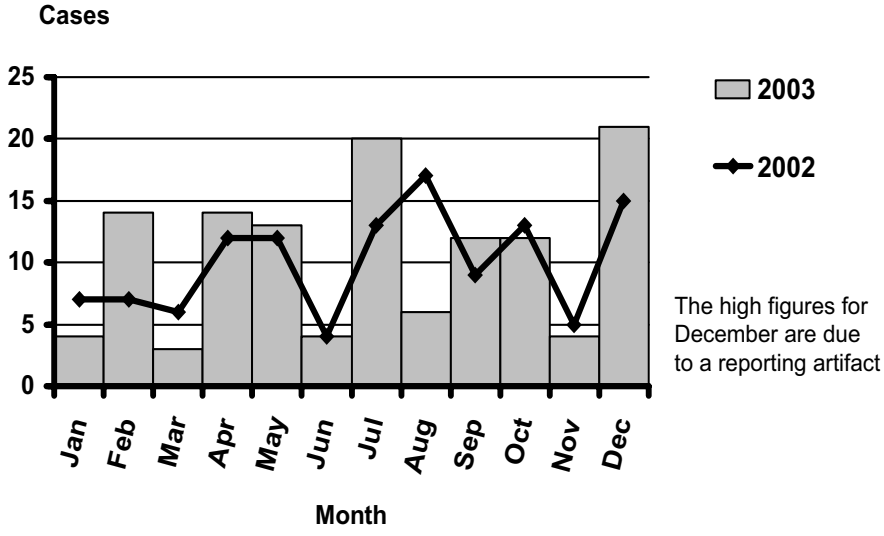
HIV became reportable by all Oregon healthcare providers and laboratories in October, 2001

AIDS
by Report Month
Oregon, 2003



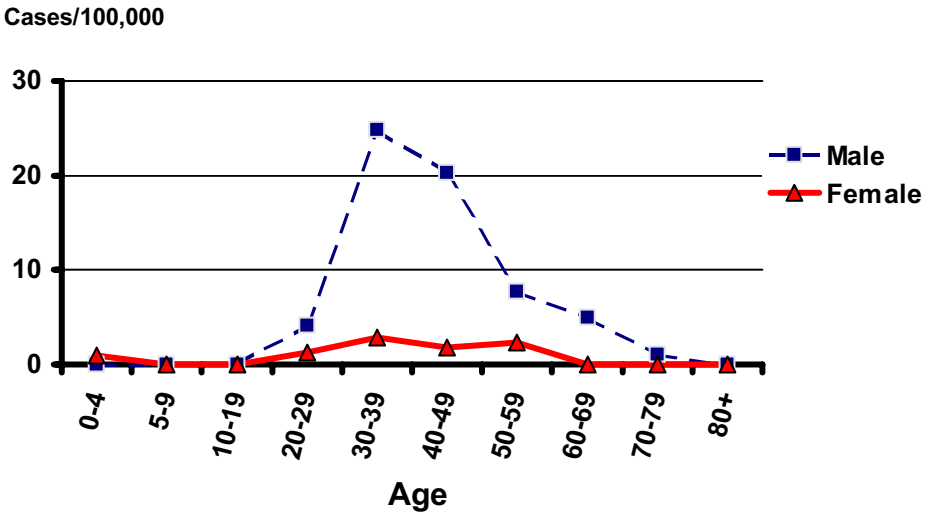
The high figures for December are due to a reporting artifact

New HIV Infection
by Report Month
Oregon, 2003

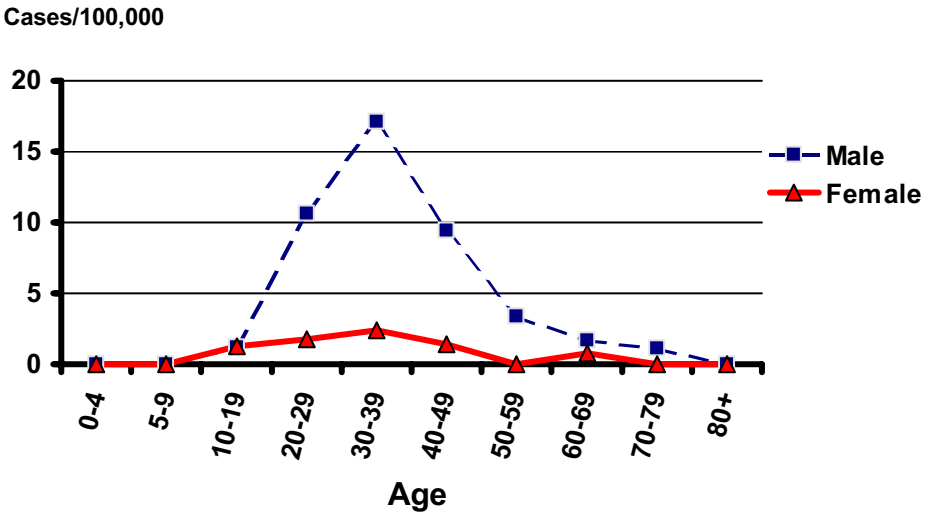


The high figures for December are due to a reporting artifact

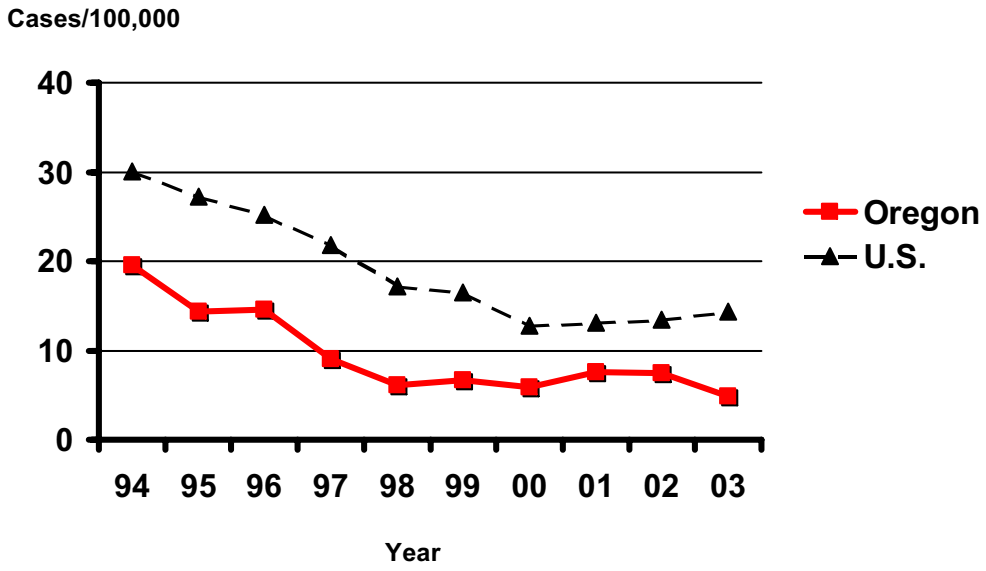
Incidence of AIDS
by Age and Sex
Oregon, 2003



Incidence of New HIV Infection
by Age and Sex
Oregon, 2003

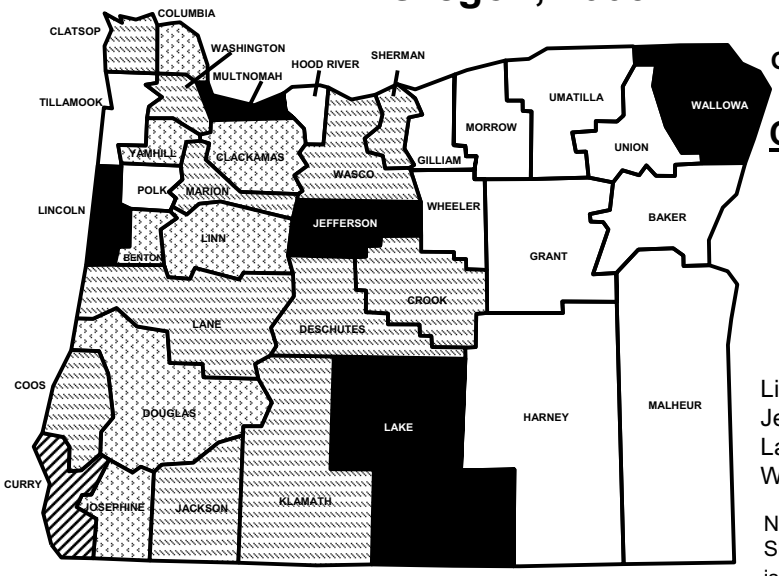


Incidence of AIDS
Oregon vs. Nationwide
1994–2003



National incidence of new HIV infection not available

Incidence of AIDS
by County
Oregon, 2003



Oregon rate = 4.91

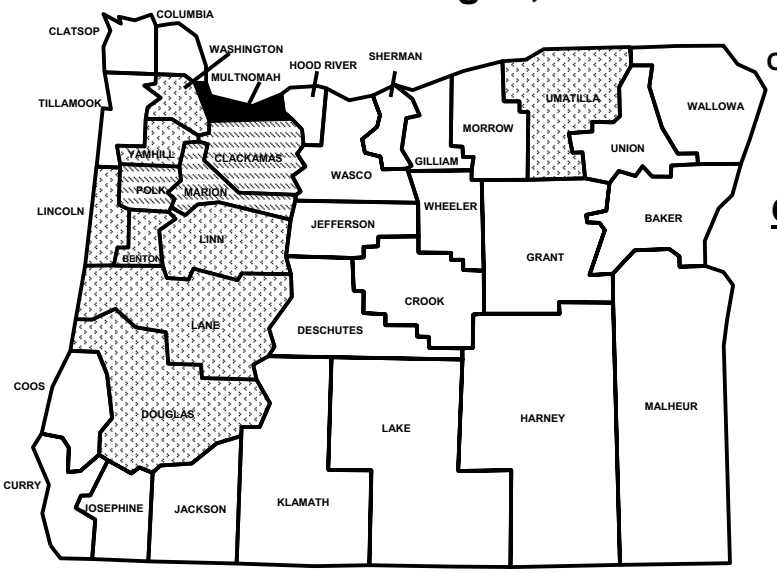
Cases/100,000

- 0
- 0.01 - 2.99
- 3.0 - 6.99
- 6.0 - 9.99
- 10.0 +

Lincoln — 6 cases
Jefferson — 3 cases
Lake — 1 case
Wallowa — 1 case

Note: Wasco and Sherman County rate is for both combined.

Incidence of New HIV Infection
by County
Oregon, 2003



Oregon rate = 3.59

Cases/100,000

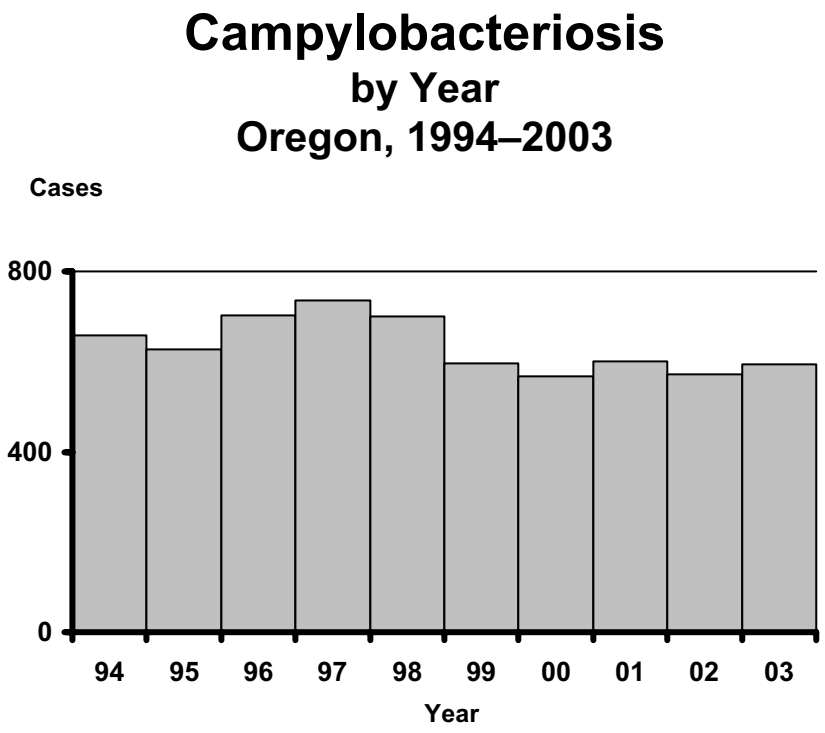
- 0
- 0.01 - 2.99
- 3.0 - 5.99
- 6.0 - 9.99
- 10.0 +

Note: Wasco and Sherman County rate is for both combined.

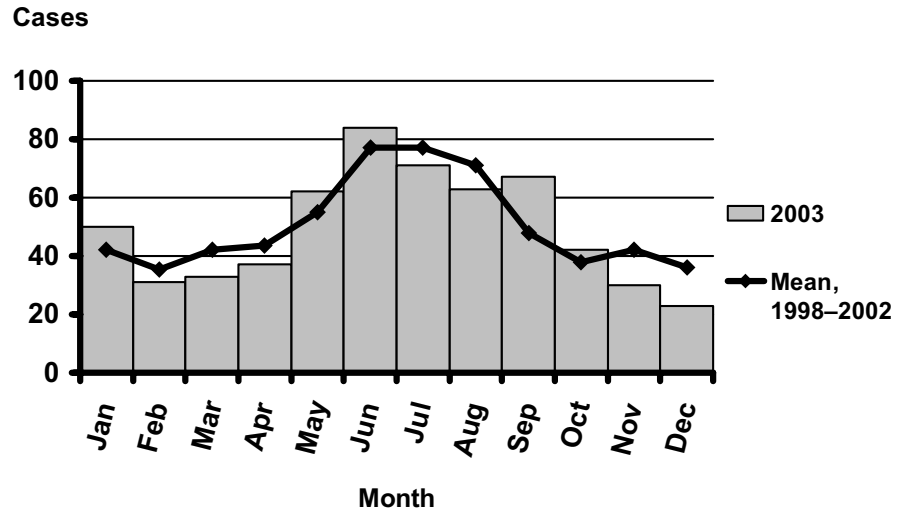
Campylobacteriosis

Campylobacteriosis is caused by a Gram-negative bacterium. It is characterized by acute onset of diarrhea, vomiting, abdominal pain, fever, and malaise. 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. It is the most common bacterial enteric infection reported.

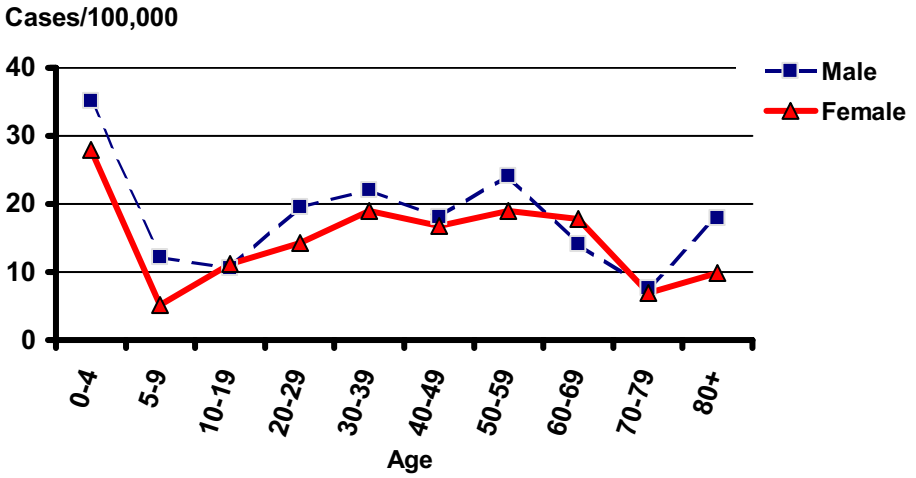
Most outbreaks are associated with undercooked meat (often chicken), unpasteurized milk or non-chlorinated water. Infections occur year 'round in Oregon, with peak incidence in the summer months. Proper food handling and water treatment, along with good hygienic practices (hand washing!) are the key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



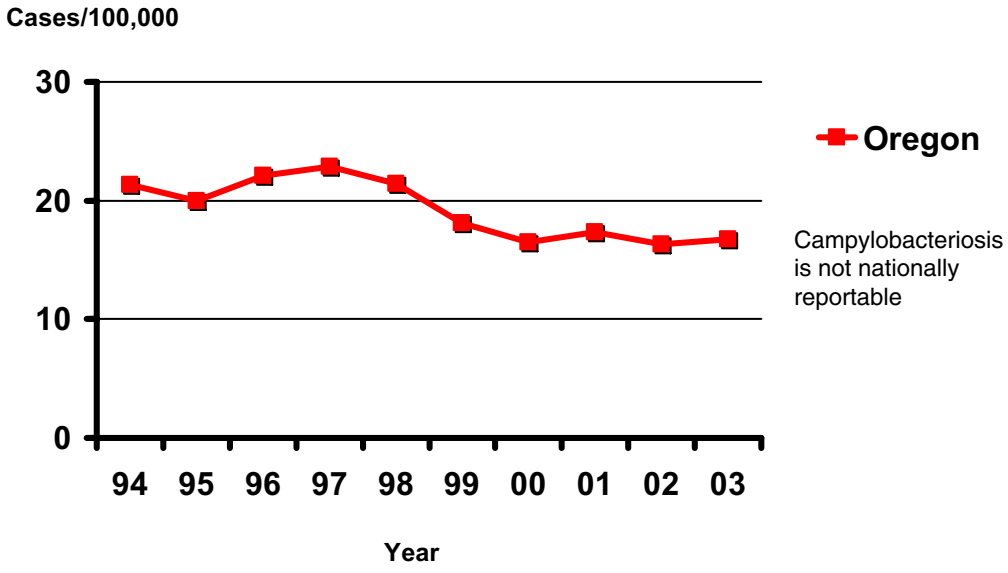
Campylobacteriosis
by Report Month
Oregon, 2003



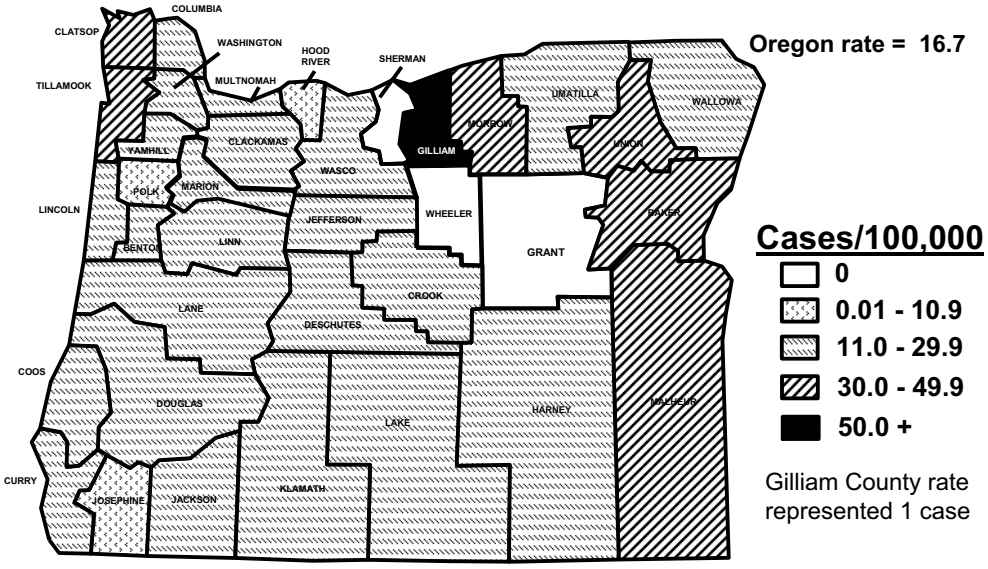
Incidence of Campylobacteriosis
by Age and Sex
Oregon, 2003



Incidence of Campylobacteriosis
Oregon
1994–2003

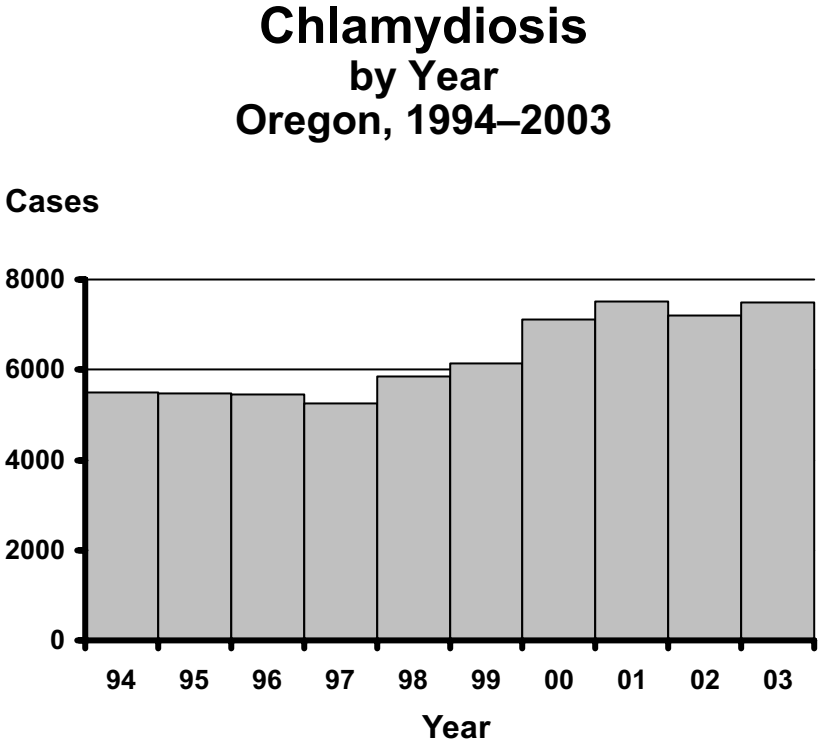


Incidence of Campylobacteriosis
by County
Oregon, 2003

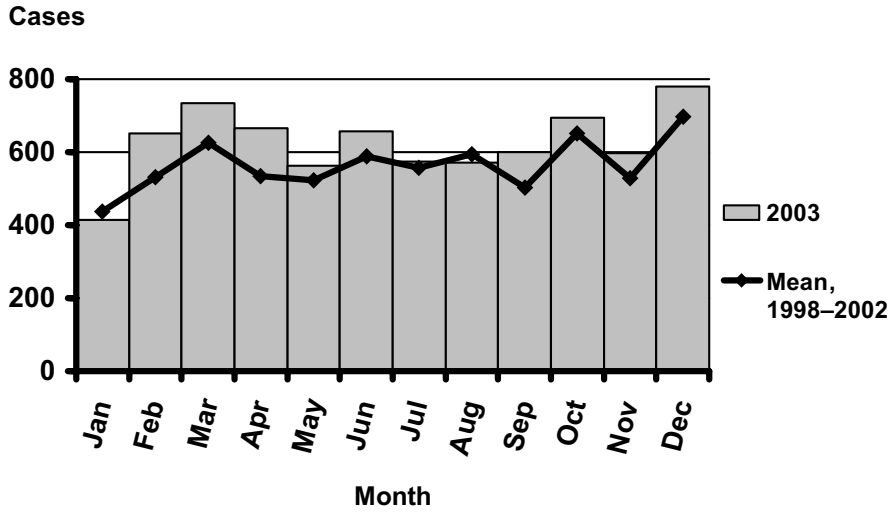


Chlamydial Infections (Chlamydiosis)

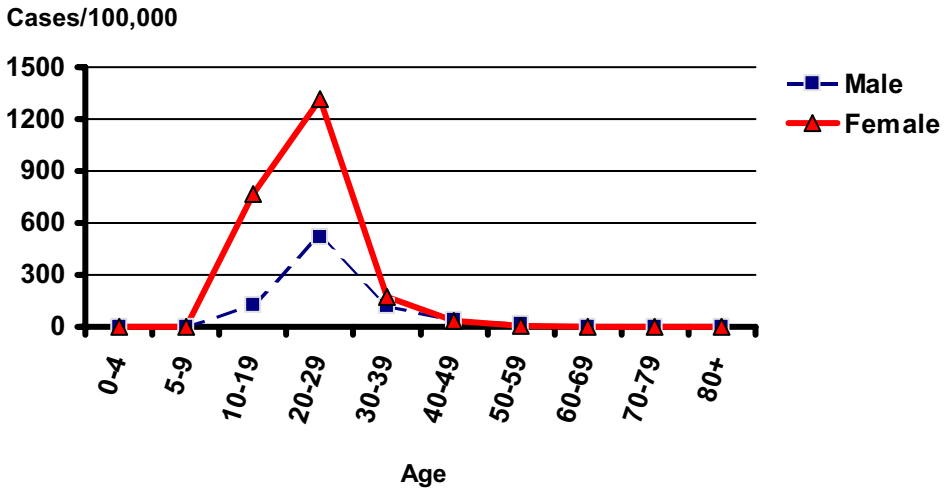
Chlamydia trachomatis is Oregon's most commonly reported infection. The 7,498 cases reported during 2003 were 298 (4.1%) greater than what was reported in 2002. As with gonorrhea and syphilis, chlamydial infections are transmitted by sexual contact. Chlamydial infections are likely to be silent, with neither men nor women having symptoms. However, reproductive health complications, especially among women, lead to infertility and an increased risk of tubal pregnancy.



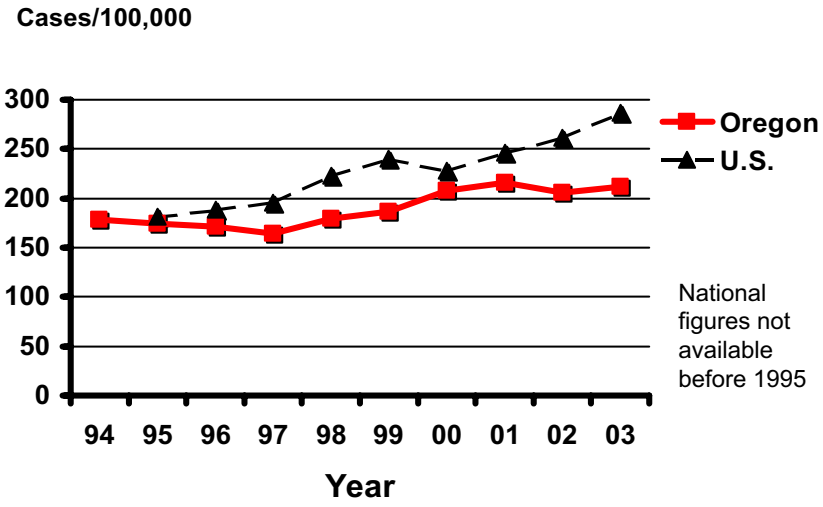
Chlamydiosis
by Report Month
Oregon, 2003



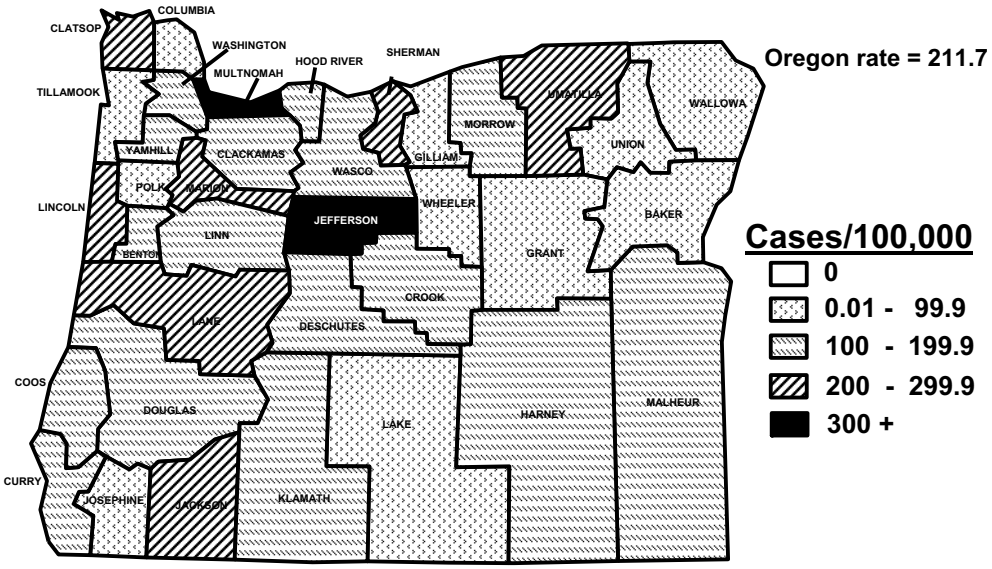
Incidence of Chlamydiosis
by Age and Sex
Oregon, 2003



Incidence of Chlamydiosis
Oregon vs. Nationwide
1994–2003



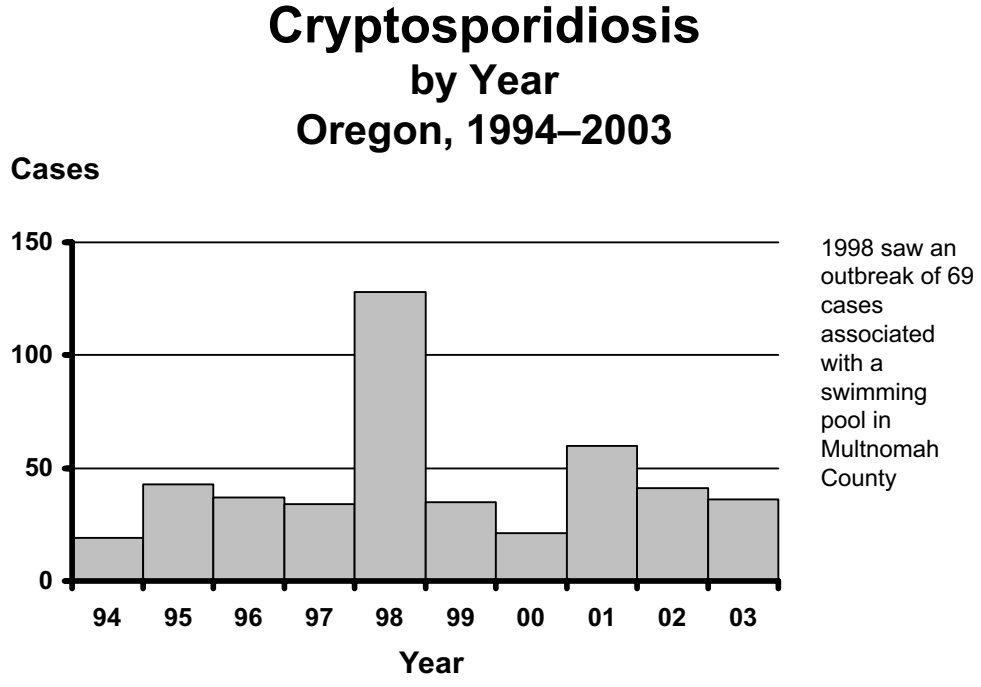
Incidence of Chlamydiosis
by County
Oregon, 2003



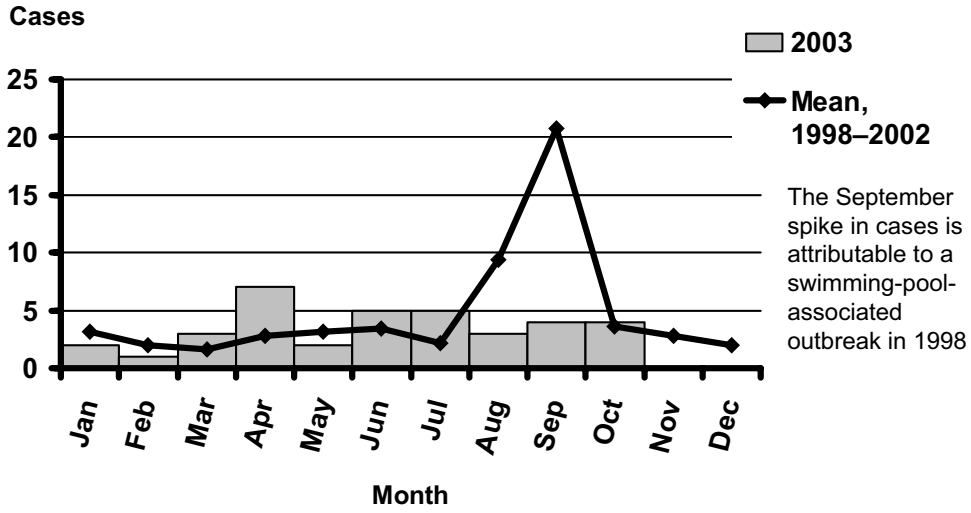
Cryptosporidiosis

Cryptosporidiosis is a relatively common parasitic infection that sometimes causes symptoms of watery diarrhea and abdominal cramps. Diagnosed infections typically last 1–2 weeks in immunocompetent persons, but may be unusually protracted. Infections can be difficult to control among the immunocompromised, notably AIDS patients. 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). Theoretical concerns about the possibility of crypto transmission in unfiltered drinking water are leading a number of communities, including Portland, to consider expensive changes to routine water treatment methods.

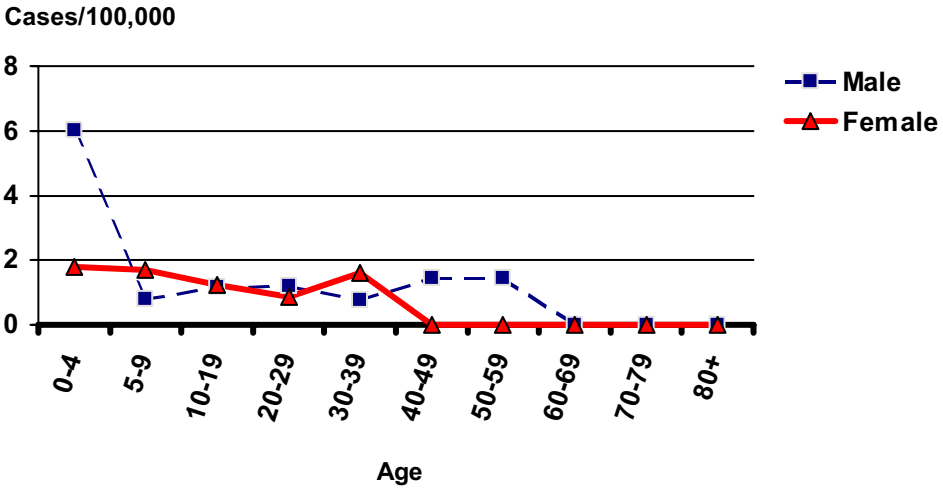


Cryptosporidiosis
by Onset Month
Oregon, 2003

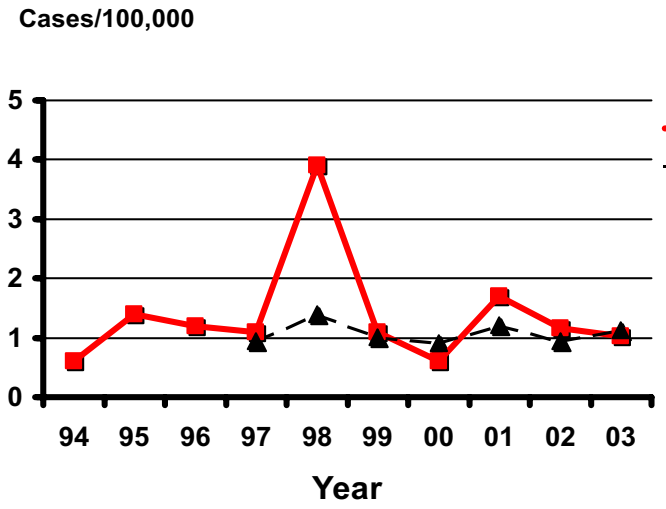


The September spike in cases is attributable to a swimming-pool-associated outbreak in 1998

Incidence of Cryptosporidiosis
by Age and Sex
Oregon, 2003



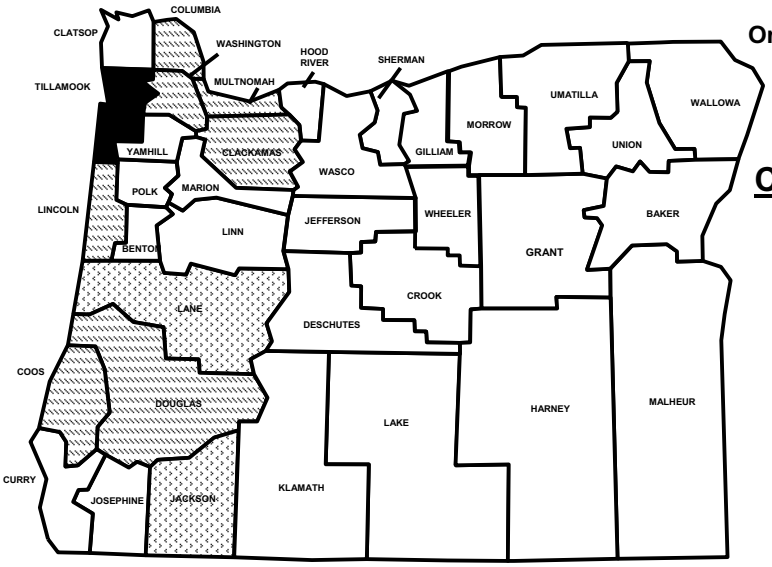
Incidence of Cryptosporidiosis
Oregon vs. Nationwide
1994–2003



1998 saw an outbreak of 69 cases associated with a swimming pool in Multnomah County

National figures not available before 1997

Incidence of Cryptosporidiosis
by County
Oregon, 2003



Oregon rate = 1.02

Cases/100,000

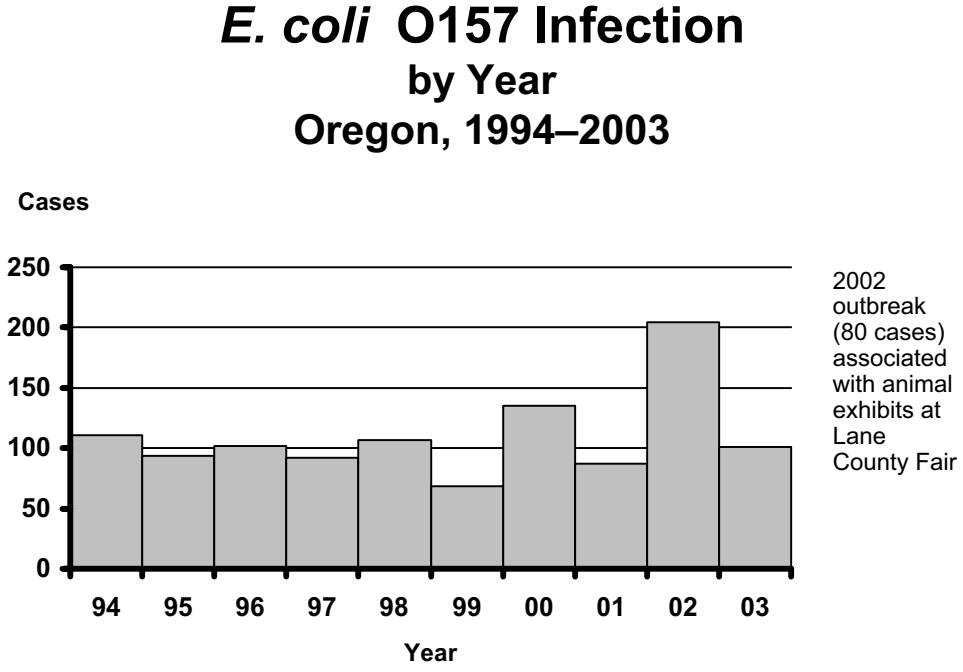
- 0
- 0.01 - 0.9
- 1.0 - 2.9
- 3.0 - 4.9
- 5.0 +

Tillamook County's rate represented 2 cases

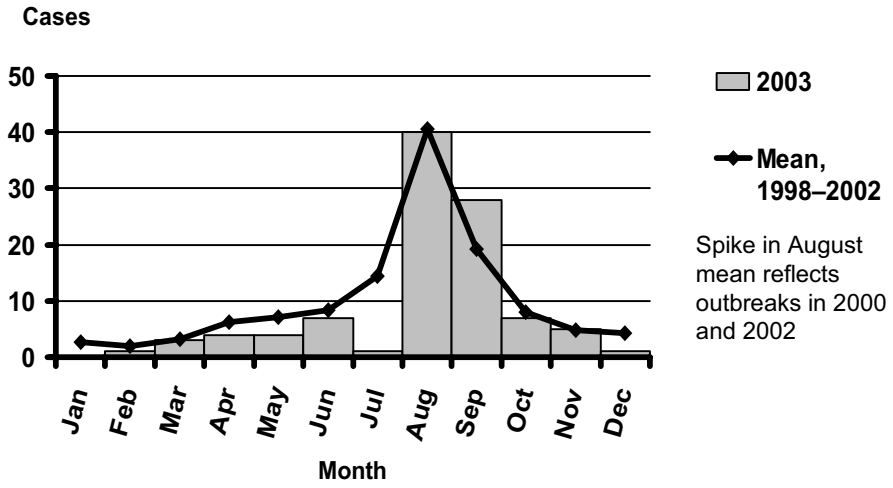
Escherichia coli O157 Infection

Over the past 20 years, O157 has emerged from obscurity to become, rightly or wrongly, perhaps the most dreaded 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.

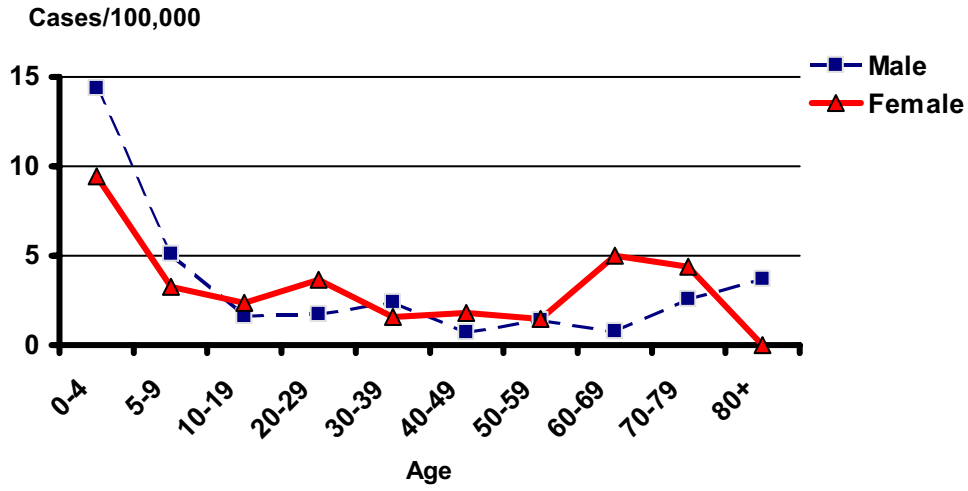
Nationally, outbreaks have involved undercooked ground beef, contaminated alfalfa sprouts and other produce, swimming in contaminated water, and drinking unpasteurized milk. In 2002, 80 of that year's 204 cases were due to an outbreak associated with animal exhibits at the Lane County Fair. Despite efforts nationally to reduce the levels of meat contamination, the rate of sporadic (i.e., not outbreak-related) cases has been essentially unchanged over the past decade. Person-to-person transmission remains an important source.



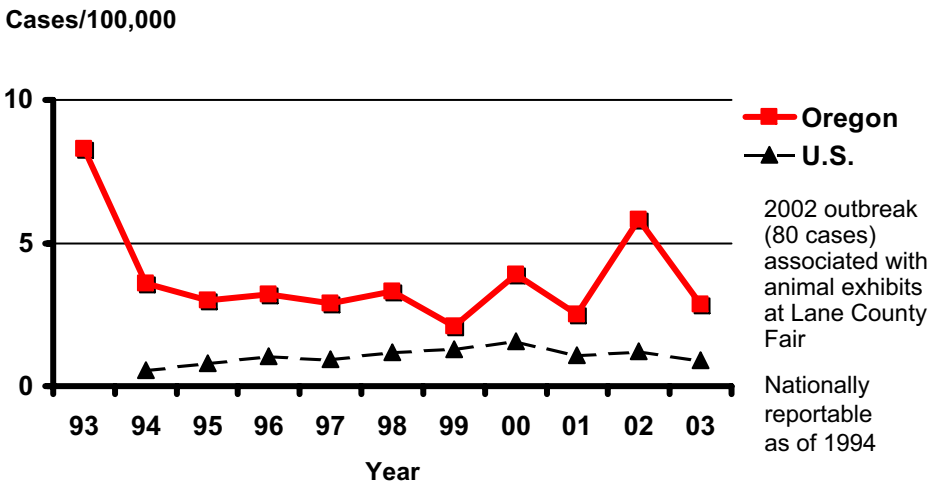
E. coli O157 Infection
by Onset Month
Oregon, 2003



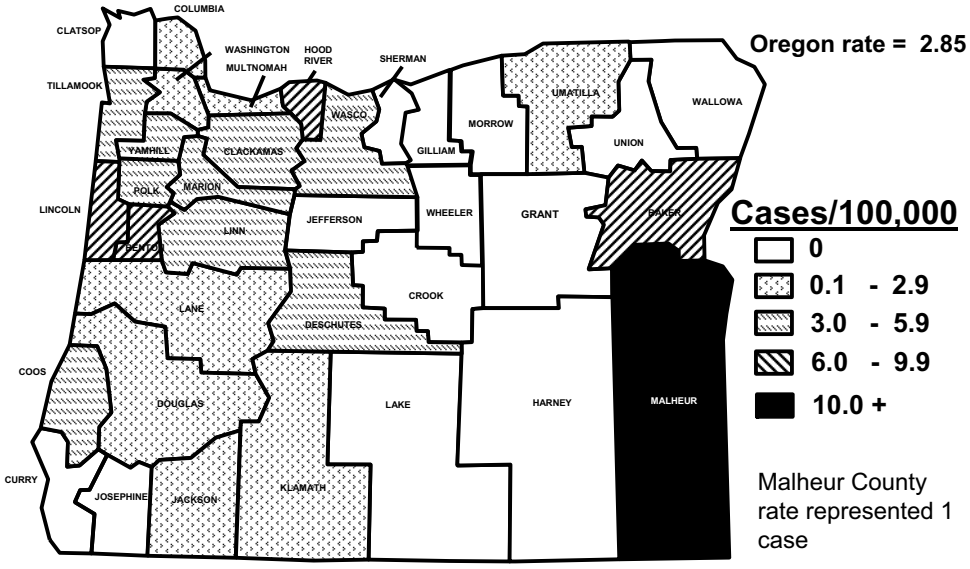
Incidence of *E. coli* O157 Infection
by Age and Sex
Oregon, 2003



Incidence of *E. coli* O157 Infection
Oregon vs. Nationwide
1994–2003



Incidence of *E. coli* O157 Infection
by County
Oregon, 2003



Giardiasis

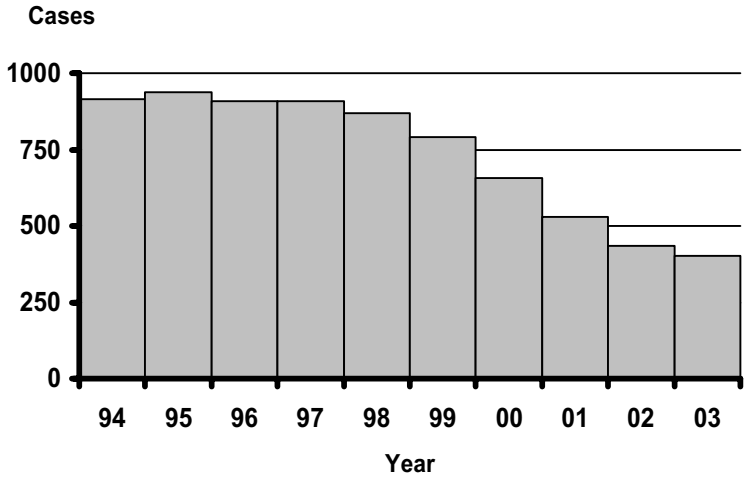
Giardia intestinalis, the flagellated protozoan originally named *G. lamblia,* is the most commonly identified parasitic pathogen in the U.S. Children in day care and their close contacts are at greatest risk, as are backpackers and campers (by drinking unfiltered, untreated water), persons drinking 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 a variety of gastrointestinal complaints including chronic diarrhea, steatorrhea, abdominal cramps, bloating, frequent loose and pale greasy stools, fatigue and weight loss.

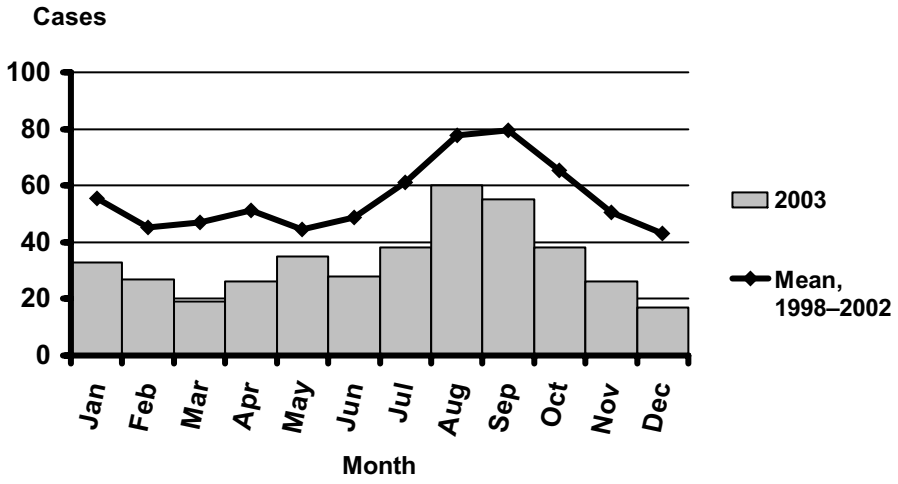
In 2003, the reported incidence of giardiasis in Oregon was nearly twice that of the rest of the U.S., with 11.5 cases per 100,000 population. All 2003 cases were reported as sporadic or household-associated disease; no outbreaks were detected. Children <5 years of age continue to have the highest incidence, with 33 cases/100,000.

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

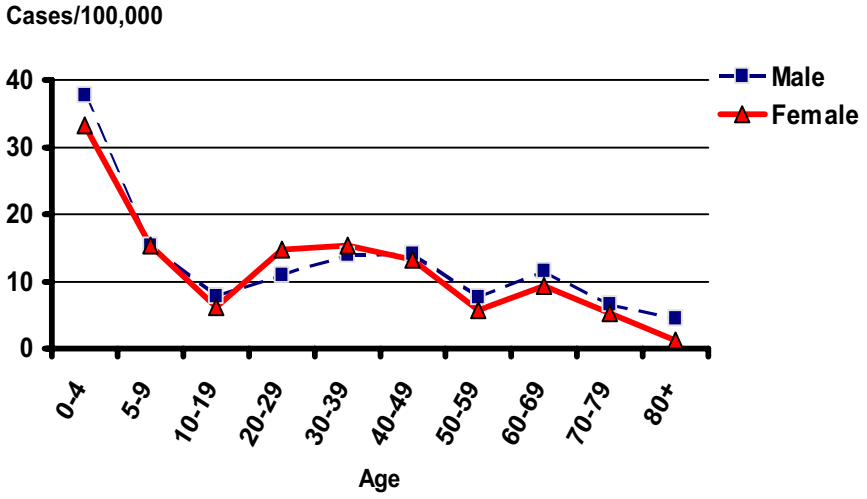
Giardiasis
by Year
Oregon, 1994–2003



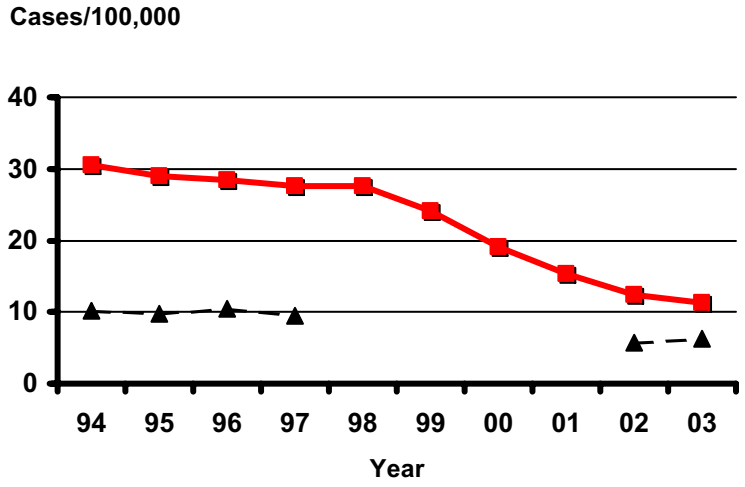
Giardiasis
by Onset Month
Oregon, 2003



Incidence of Giardiasis
by Age and Sex
Oregon, 2003

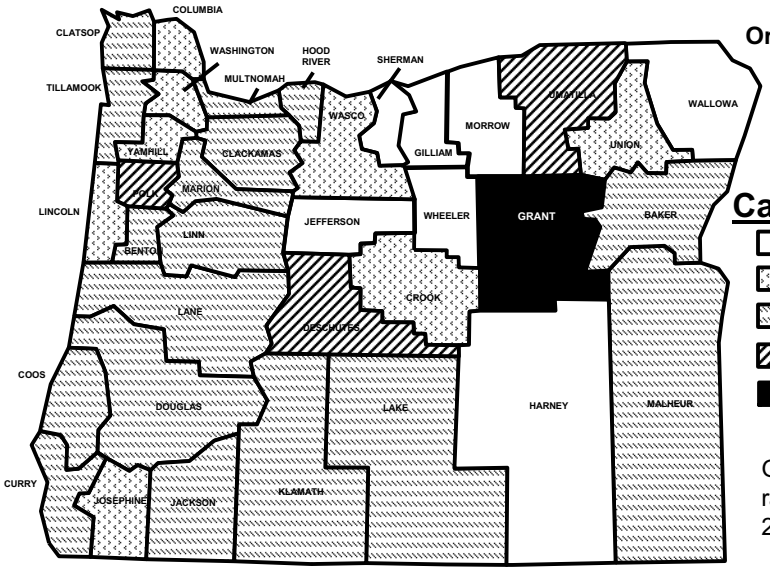


Incidence of Giardiasis
Oregon vs. Nationwide
1994–2003



Giardiasis was not nationally reportable until 2002; U.S. data from 1994–1997 were obtained from state case reports published in *MMWR* vol. 49 no. 7.

Incidence of Giardiasis
by County
Oregon, 2003



Oregon rate = 11.35

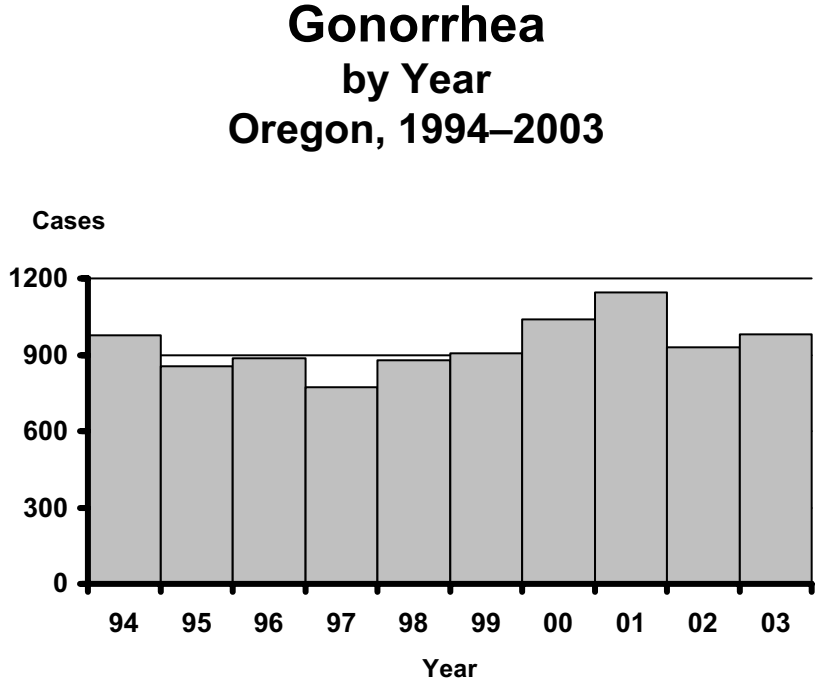
Cases/100,000

- 0
- 0.1 - 9.9
- 10.0 - 14.9
- 15.0 - 19.9
- 20.0 +

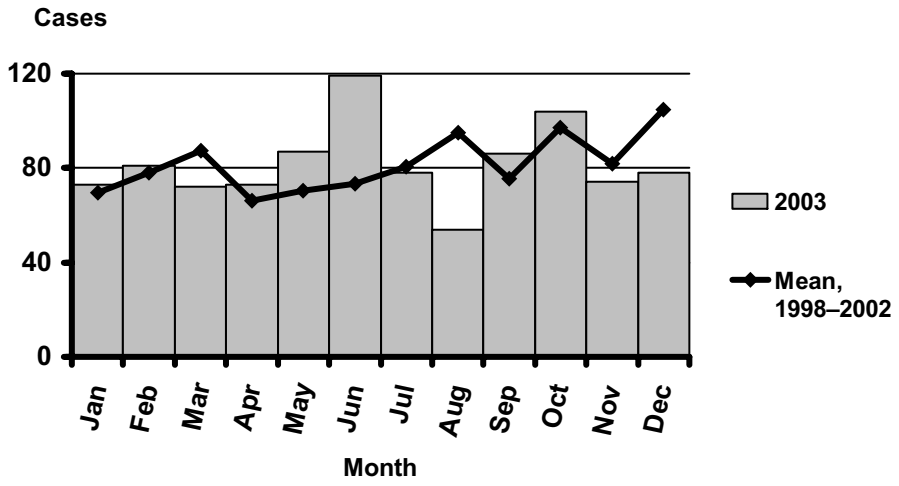
Grant County's rate represented 2 cases

Gonorrhea

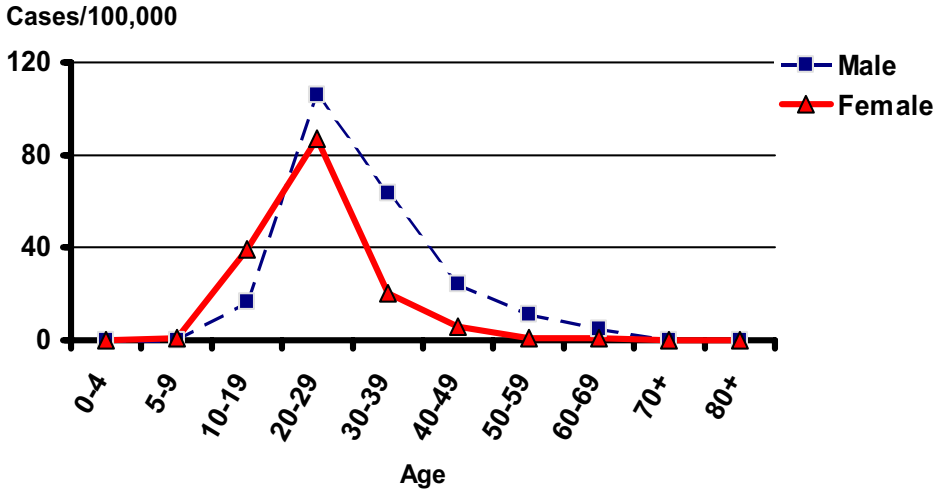
Gonorrhea, caused by the Gram-negative bacterium *Neisseria gonorrhoeae,* also known as the gonococcus, is easily transmitted from person to person through vaginal, rectal or oral sexual contact. The 981 gonorrhea cases reported in 2003 represent an increase of 5.6% from the 929 cases reported in 2002. 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 2003. Recent sex partners of infected persons should be evaluated and treated for gonorrhea.



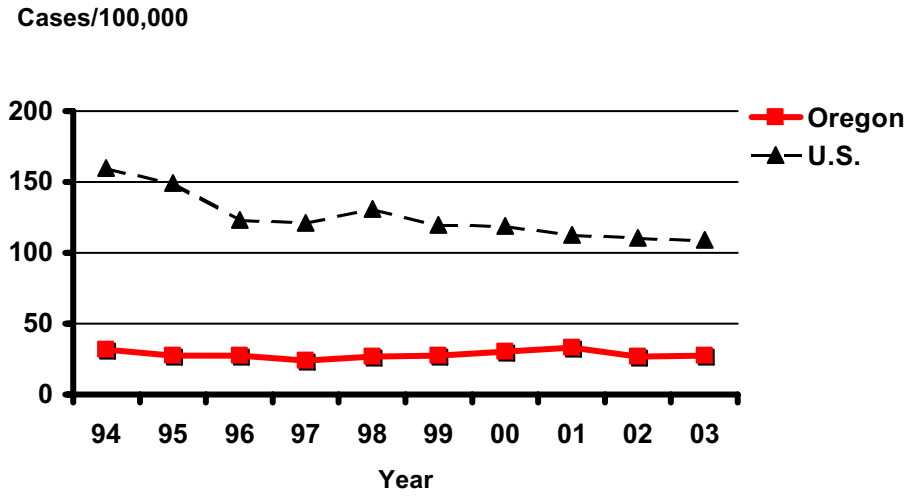
Gonorrhea
by Report Month
Oregon, 2003



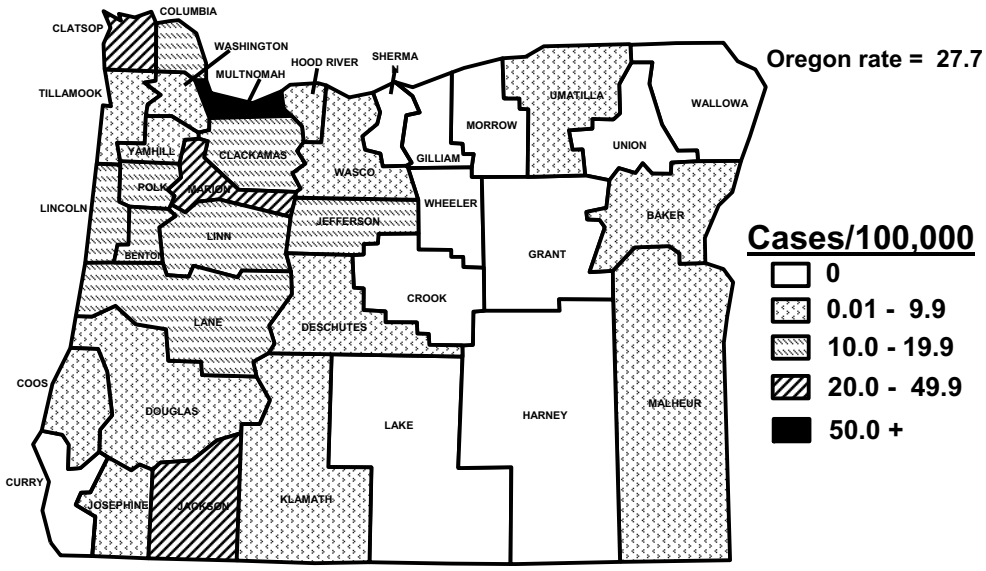
Incidence of Gonorrhea
by Age and Sex
Oregon, 2003



Incidence of Gonorrhea
Oregon vs. Nationwide
1994–2003



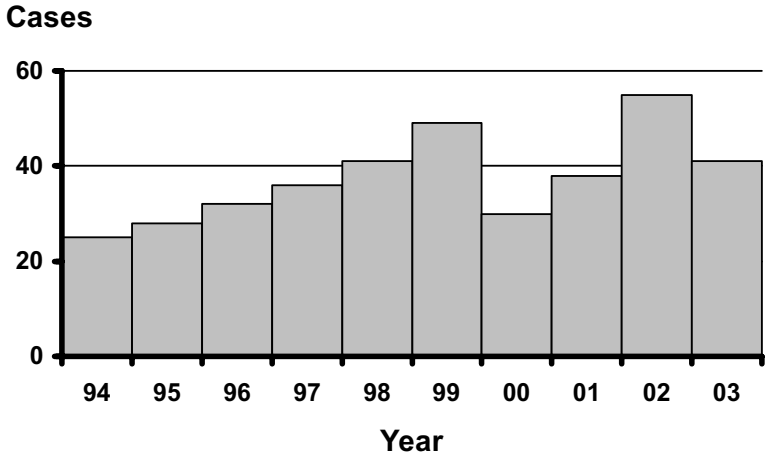
Incidence of Gonorrhea
by County
Oregon, 2003



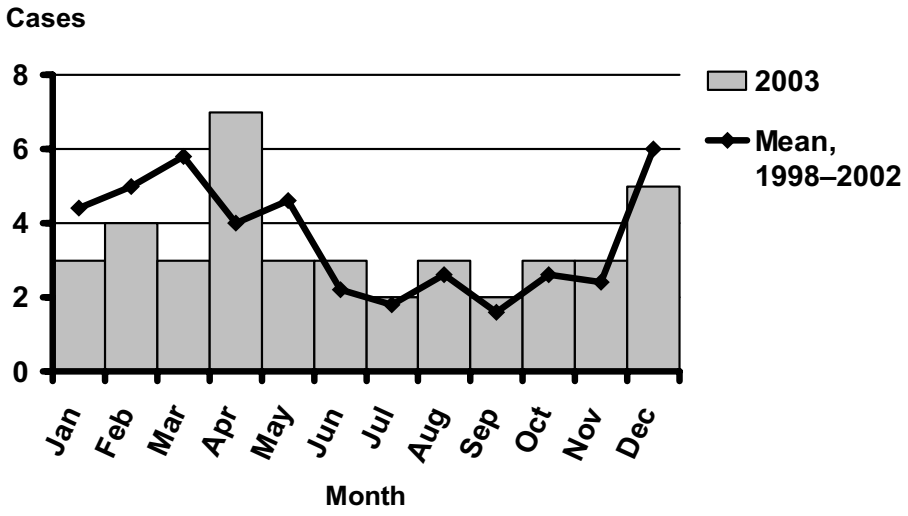
Haemophilus influenzae Infection

Until the advent of an effective vaccine against serotype b organisms, it was the leading cause of 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.

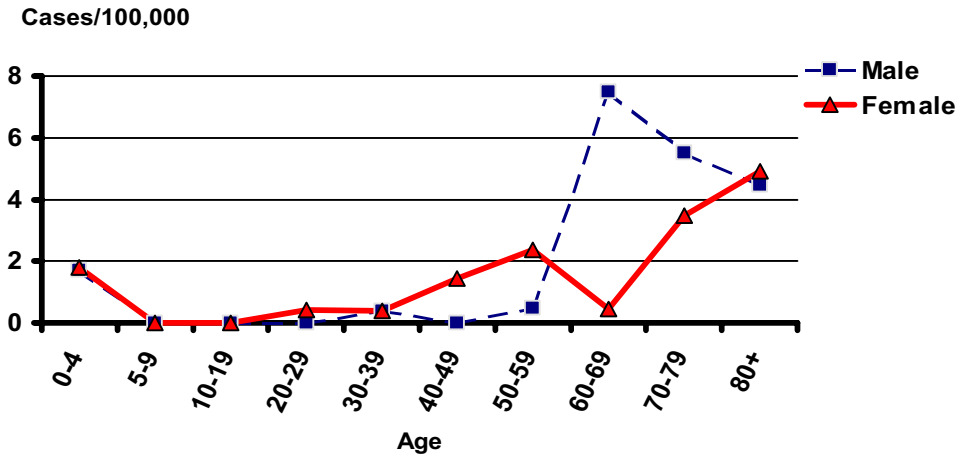
H. influenzae Invasive Disease
by Year
Oregon, 1994–2003



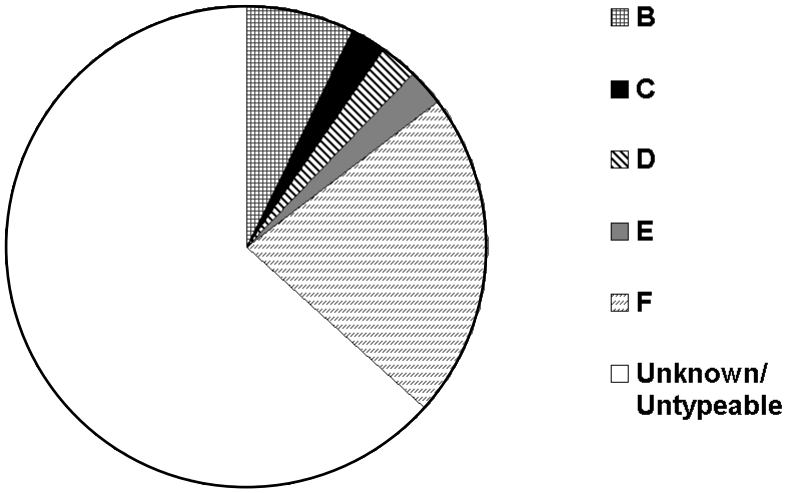
H. influenzae Invasive Disease
by Onset Month
Oregon, 2003



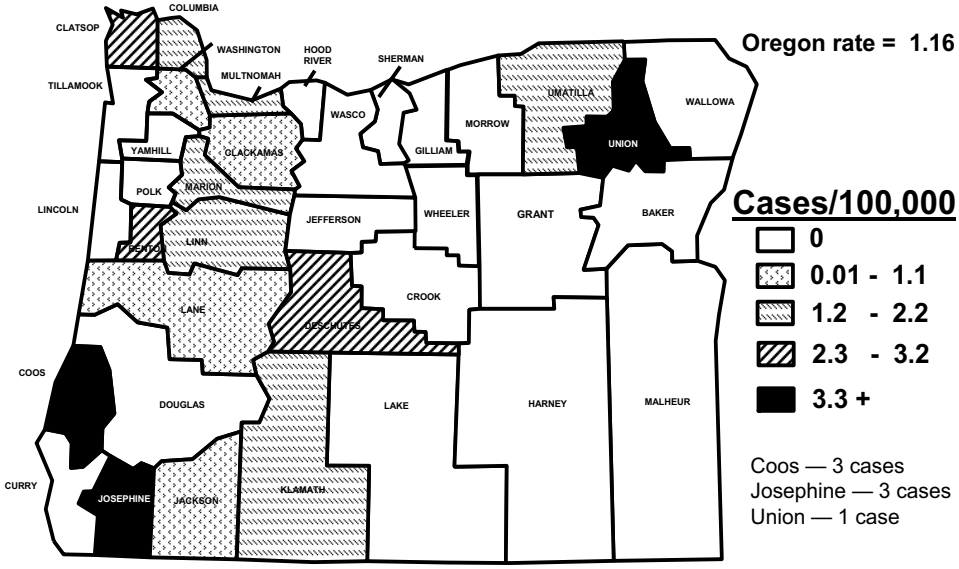
Incidence of *H. influenzae* Invasive Disease
by Age and Sex
Oregon, 2003



H. Influenzae Invasive Disease
by Serotype
Oregon, 2003



Incidence of *H. influenzae* Invasive Disease
by County
Oregon, 2003



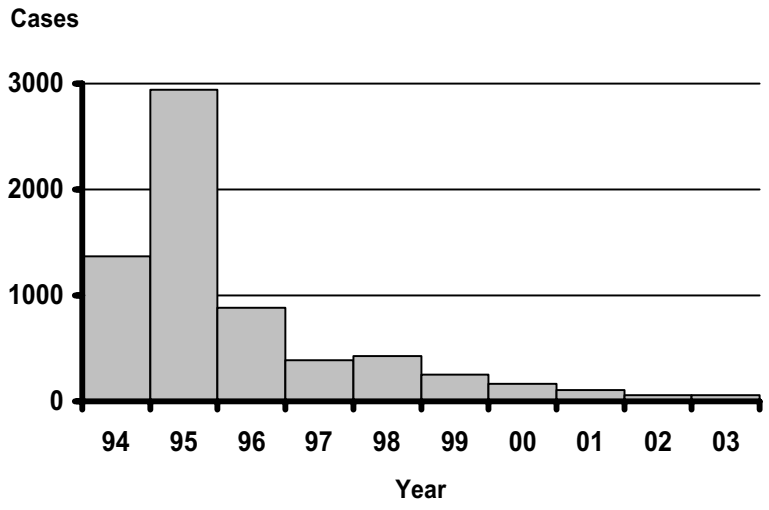
Hepatitis A

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.

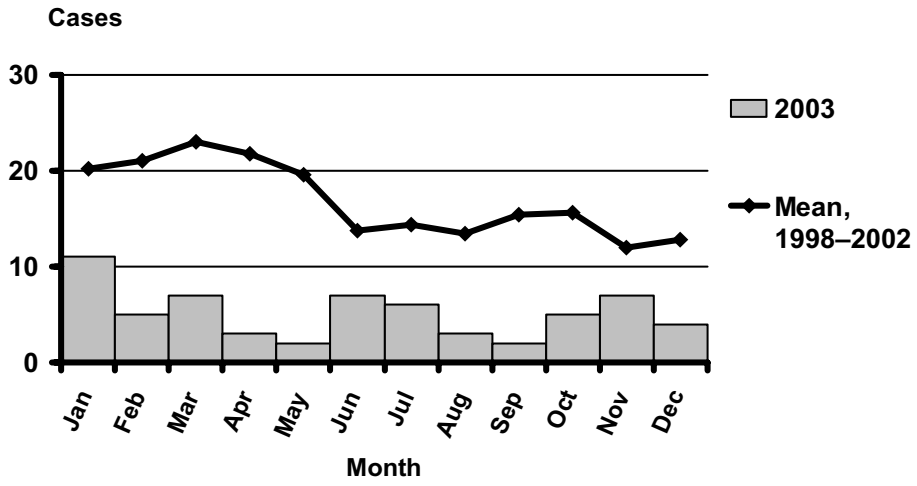
Good personal hygiene and proper sanitation can help prevent hepatitis A. Vaccines are recommended for long-term prevention of hepatitis A in all Oregon children 2 years of age and older, as well as for adults in high-risk groups. Immune globulin is available for short-term prevention of hepatitis A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

In 2003, Oregon's 62 cases represented an historic low. Although the number of cases among Oregonians is at a record low, most cases currently reported 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.

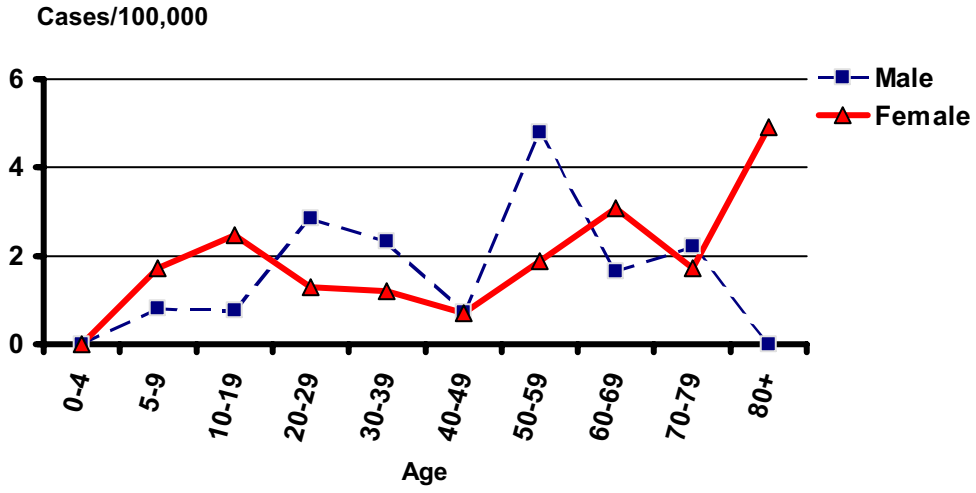
Hepatitis A
by Year
Oregon, 1994–2003



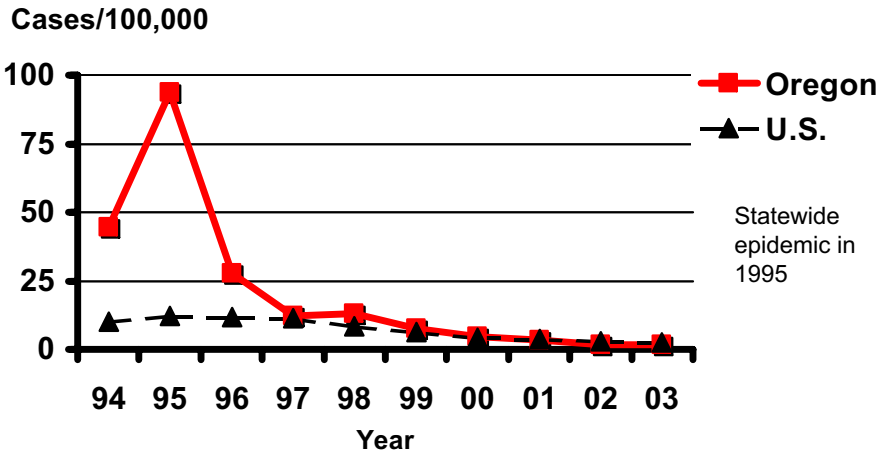
Hepatitis A
by Onset Month
Oregon, 2003



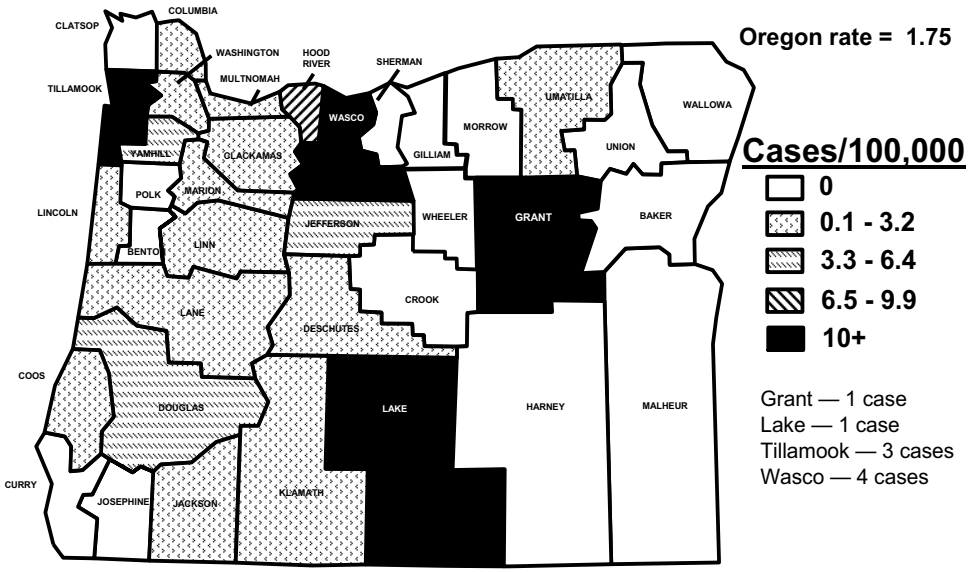
Incidence of Hepatitis A
by Age and Sex
Oregon, 2003



Incidence of Hepatitis A
Oregon vs. Nationwide
1994–2003



Incidence of Hepatitis A
by County
Oregon, 2003



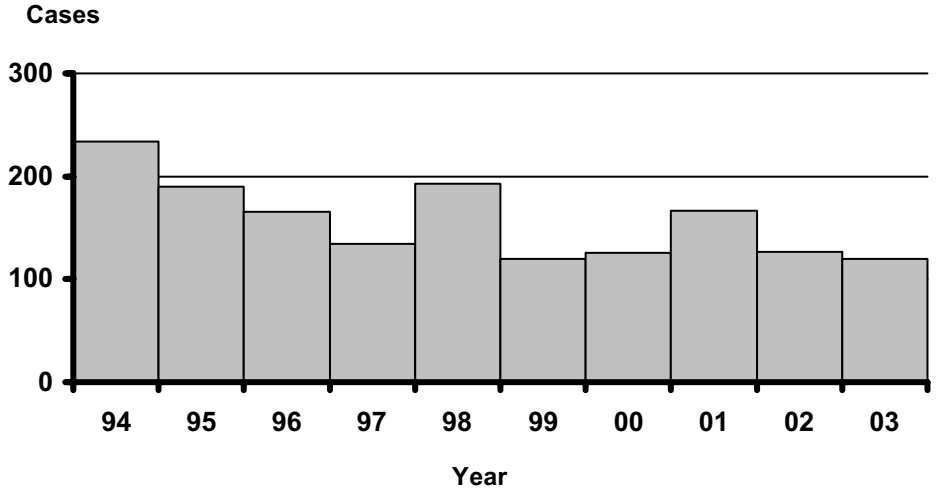
Acute Hepatitis B

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.

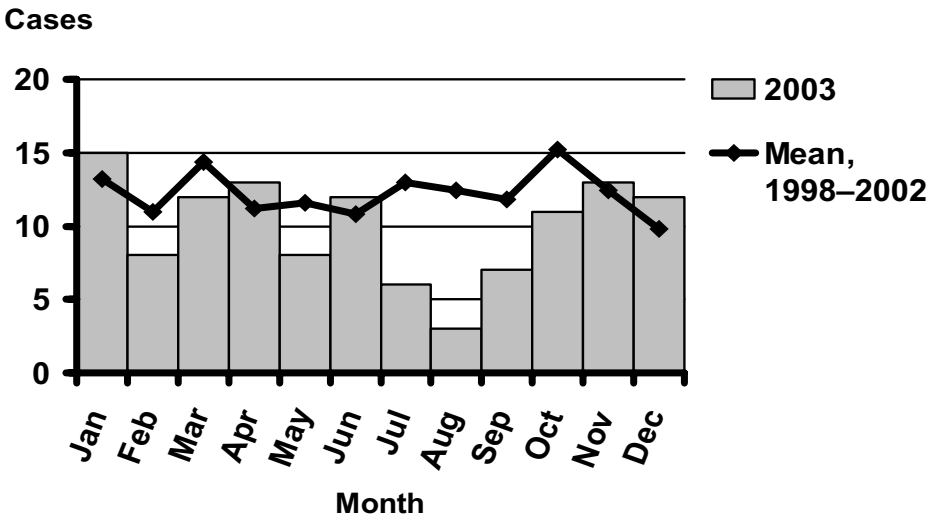
Acute hepatitis B in Oregon declined from 1993–1996 — the very end of a decade-long, 72% decline that started here after the hepatitis B vaccine was licensed in 1982 (hepatitis B declined 76% in the US as a whole over the same period of time). The number of cases leveled off in 1997, to about 150 cases per year.

In 2003, the picture of hepatitis B in Oregon was essentially unchanged. Local health departments investigated and reported 120 acute cases this year; there were nearly twice as many male cases as female cases. Nearly half (45%) of all cases did not have a hepatitis B risk factor identified after intensive probing by local public-health nurses; 41% of those interviewed were IV drug users; the remainder were sexually exposed.

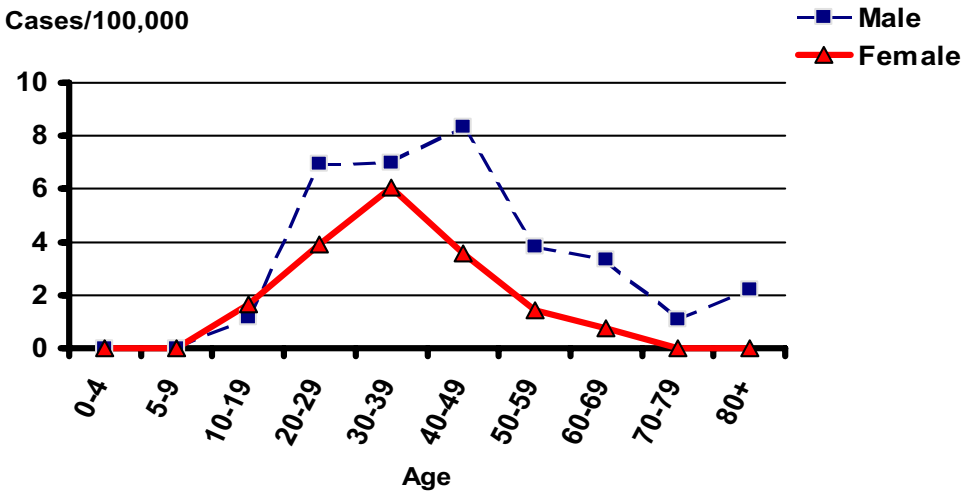
Hepatitis B (Acute)
by Year
Oregon, 1994–2003



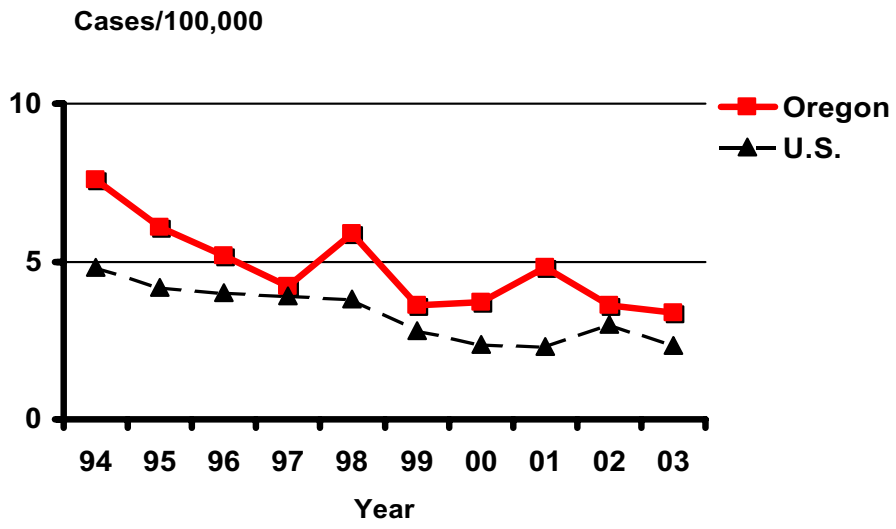
Hepatitis B (Acute)
by Onset Month
Oregon, 2003



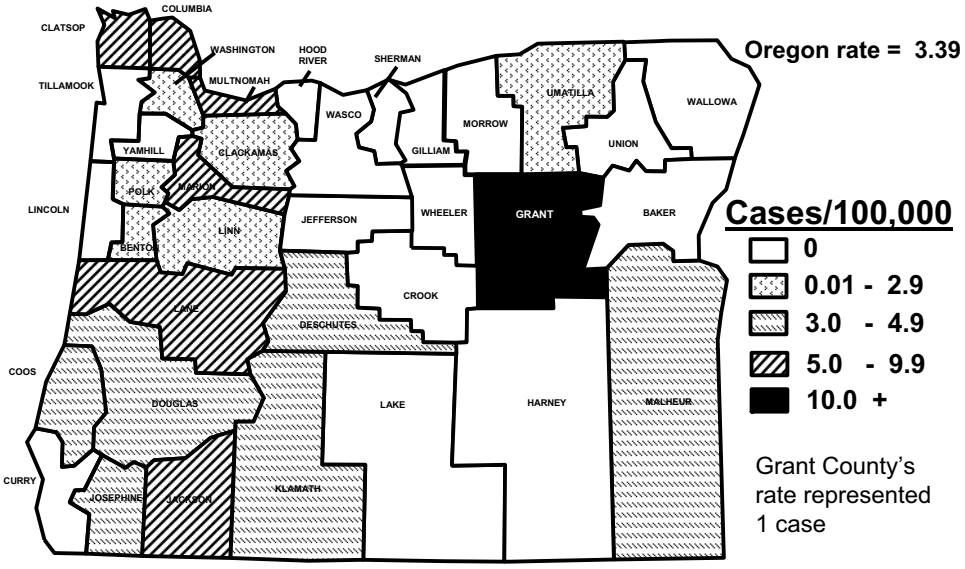
Incidence of Hepatitis B (Acute)
by Age and Sex
Oregon, 2003



Incidence of Hepatitis B (Acute)
Oregon vs. Nationwide
1994–2003



Incidence of Hepatitis B (Acute)
by County
Oregon, 2003

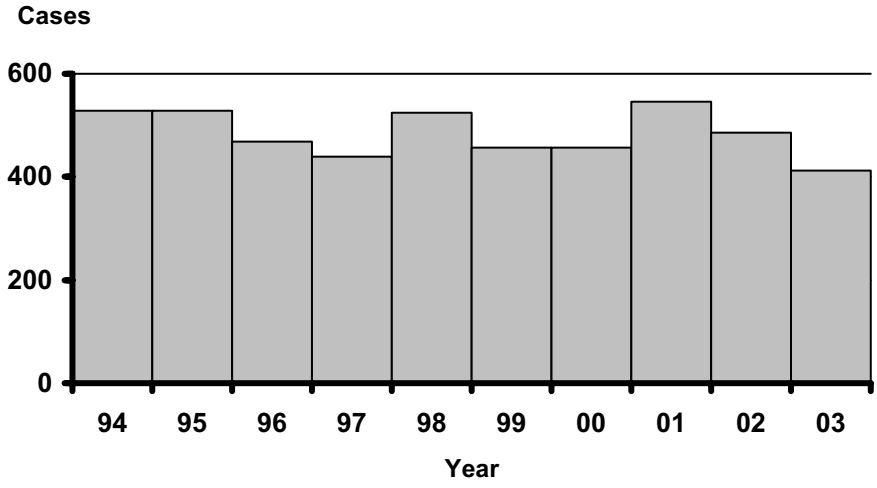


Chronic Hepatitis B

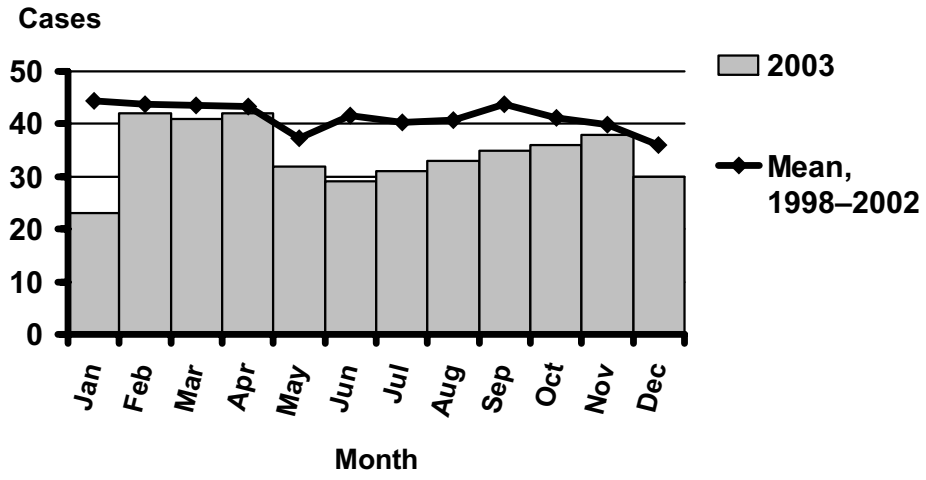
Persons with chronic hepatitis B are known as "chronic carriers" — a state of infection that exists when hepatitis B surface antigen (HBsAg) persists in the blood for more than six months. The likelihood of becoming a chronic carrier is affected by the age at infection. Fewer than 6% of acutely infected 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. In Oregon, 50% 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 US until vaccine-induced immunity is nearly universal.

The number of chronic carriers reported each year in Oregon is four times the number of acute cases. Keep in mind that these are newly reported carriers, not people who have newly become carriers. In 2003, there were 413 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 U.S. states, so a table comparing Oregon to the rest of the U.S. is not given.

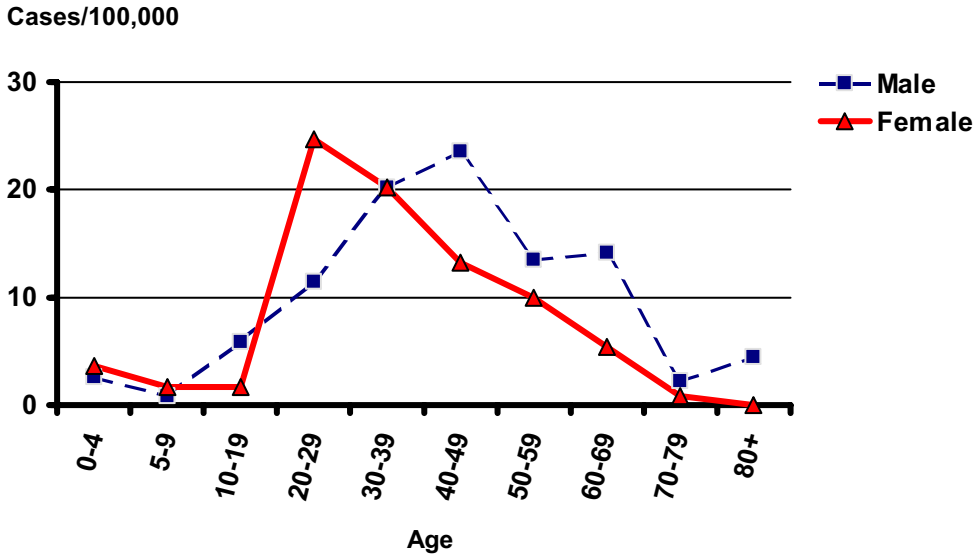
Hepatitis B (Chronic)
by Year
Oregon, 1994–2003



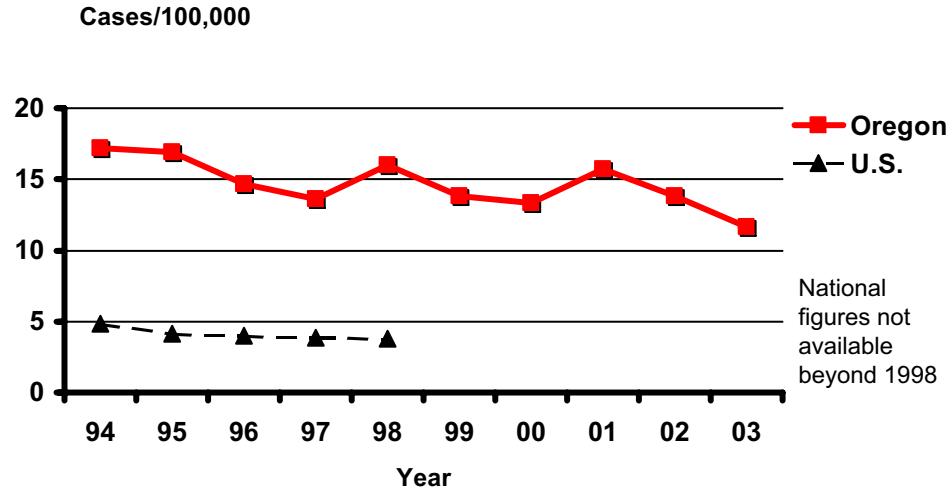
Hepatitis B (Chronic)
by Onset Month
Oregon, 2003



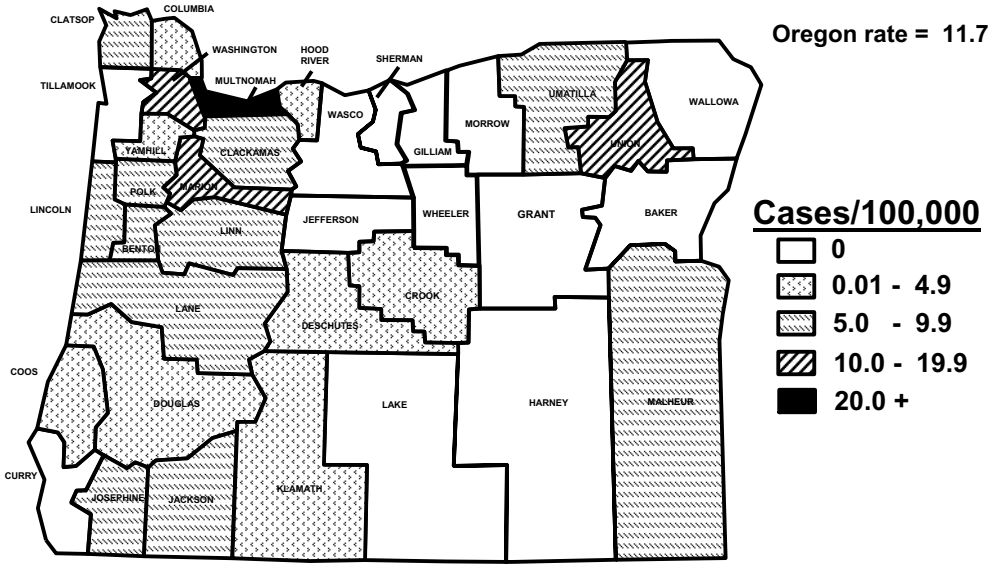
Incidence of Hepatitis B (Chronic)
by Age and Sex
Oregon, 2003



Incidence of Hepatitis B (Chronic)
Oregon vs. Nationwide
1994–2003



Incidence of Hepatitis B (Chronic)
by County
Oregon, 2003



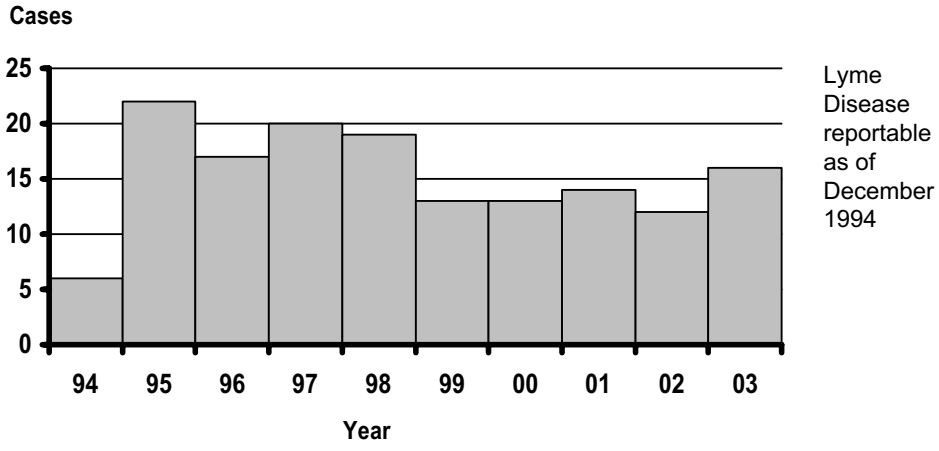
Lyme Disease

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). Incubation period for EM 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 neurologic, rheumatologic and cardiac involvement occurring in varying combinations over a period of months to years.

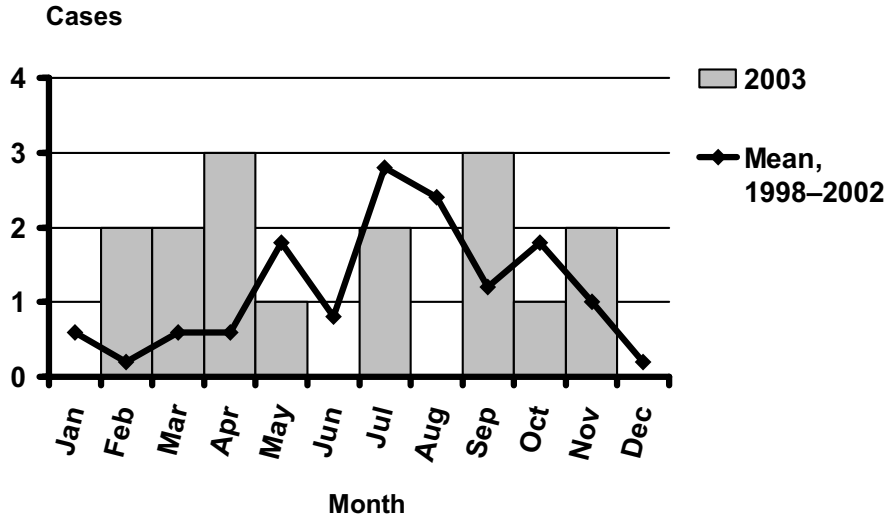
Currently, increasing recognition of the disease is redefining endemic areas; cases have been reported in 47 states, and in Ontario and British Columbia, Canada. Elsewhere, related borrelioses have been found in Europe, the former Soviet Union, China and Japan.

In 1997–1998, a tick identification and *Borrelia* isolation study was conducted by the CDC and the Oregon Department of Human Services. The organism was isolated in 3% of *Ixodes pacificus* ticks tested from Josephine and Jackson Counties.

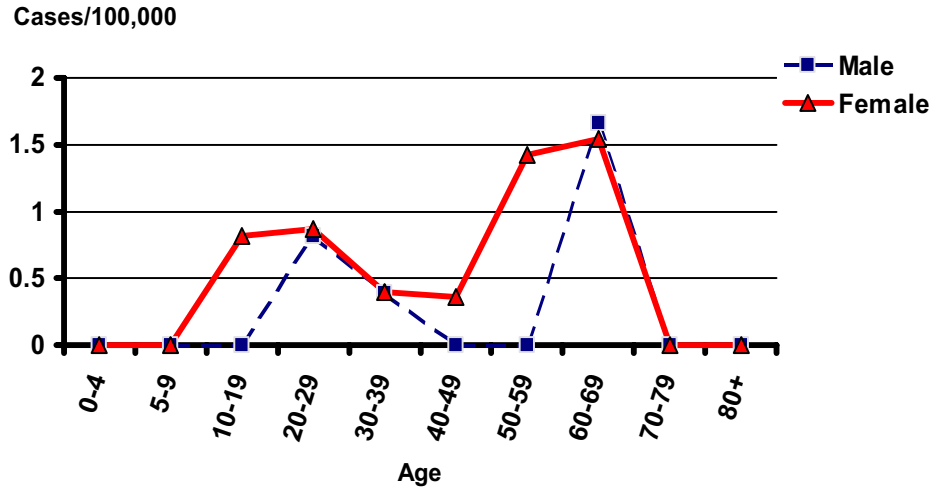
Lyme Disease
by Year
Oregon, 1994–2003



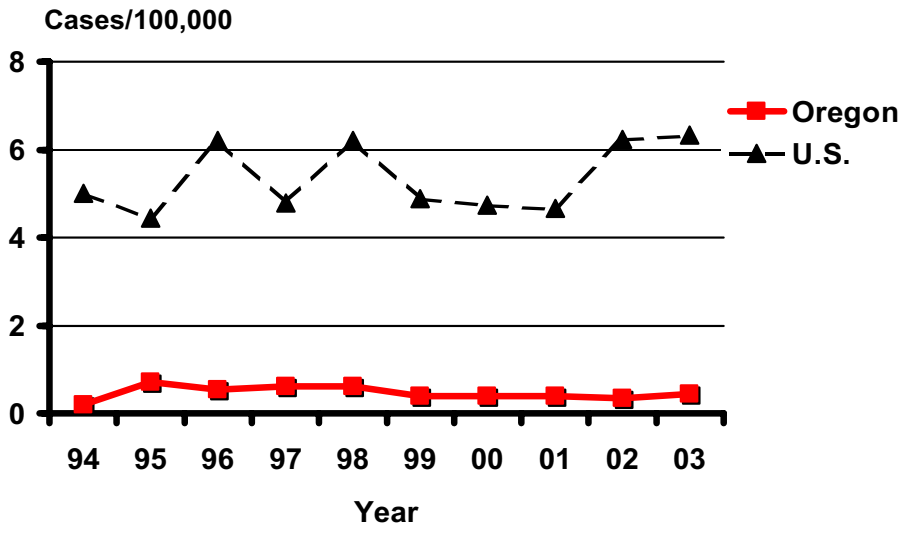
Lyme Disease
by Onset Month
Oregon, 2003



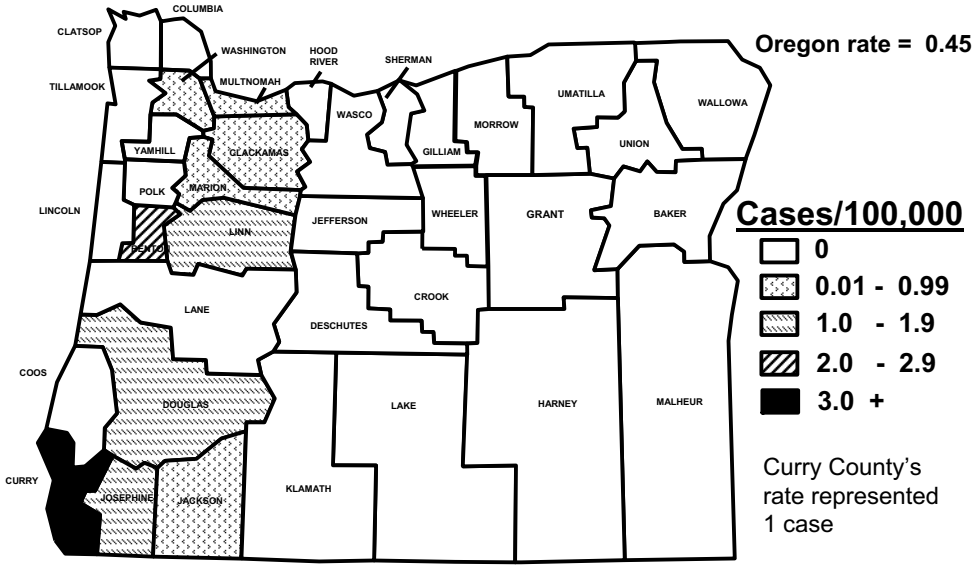
Incidence of Lyme Disease
by Age and Sex
Oregon, 2003



Incidence of Lyme Disease
Oregon vs. Nationwide
1994–2003

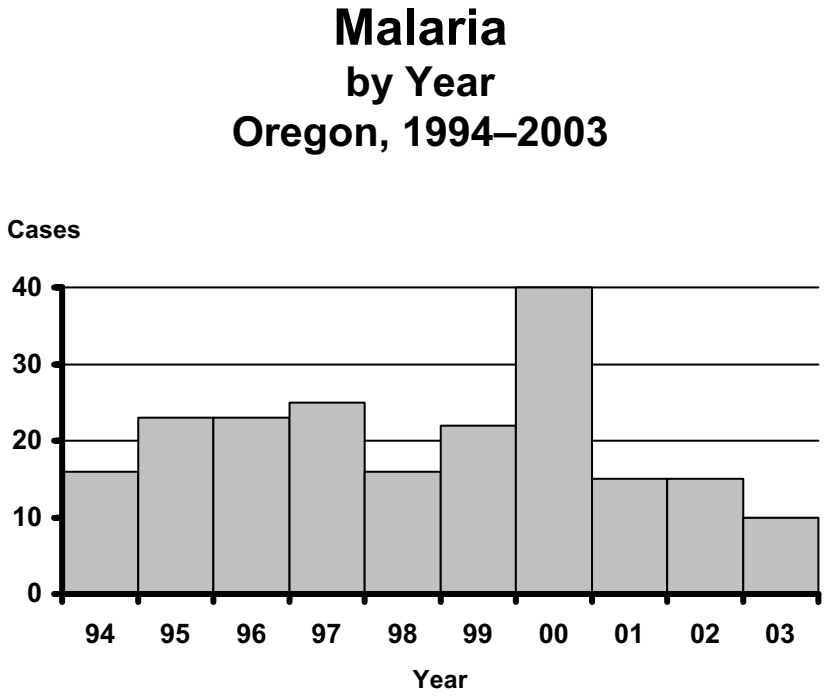


Incidence of Lyme Disease
by County
Oregon, 2003

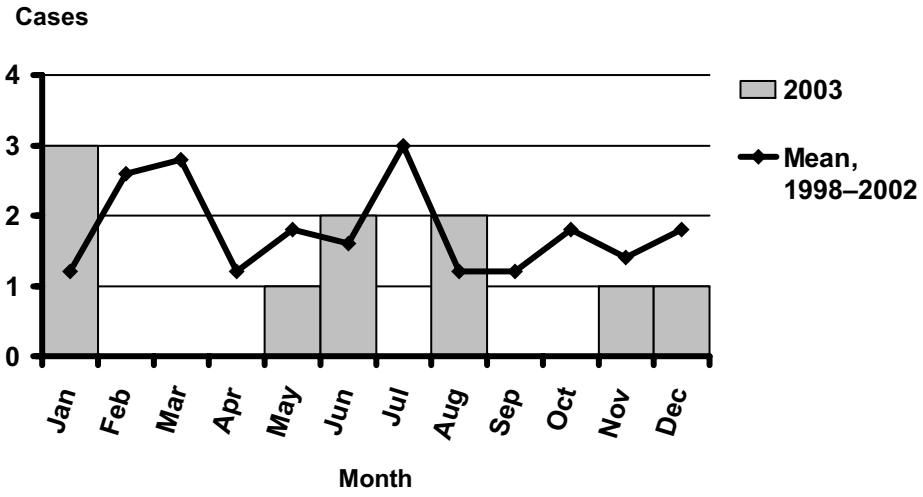


Malaria

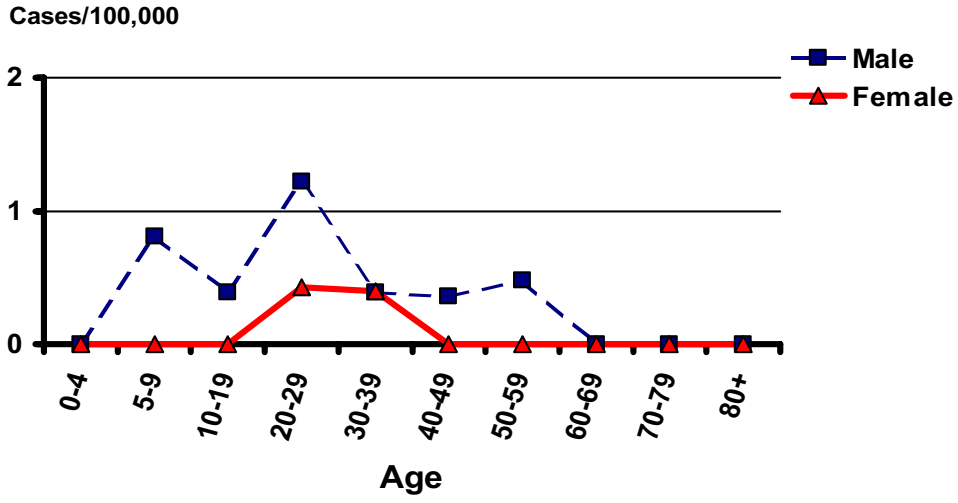
Worldwide, malaria is one of the most devastating of the communicable diseases, causing at least 1,000,000 deaths annually, not to mention an enormous burden of disability and medical costs. While transmission has not been documented in Oregon for decades, malaria remains the most commonly reported vector-borne disease 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. Surveillance data are contributed to the national database, which is used to tailor recommendations for prophylaxis and treatment.



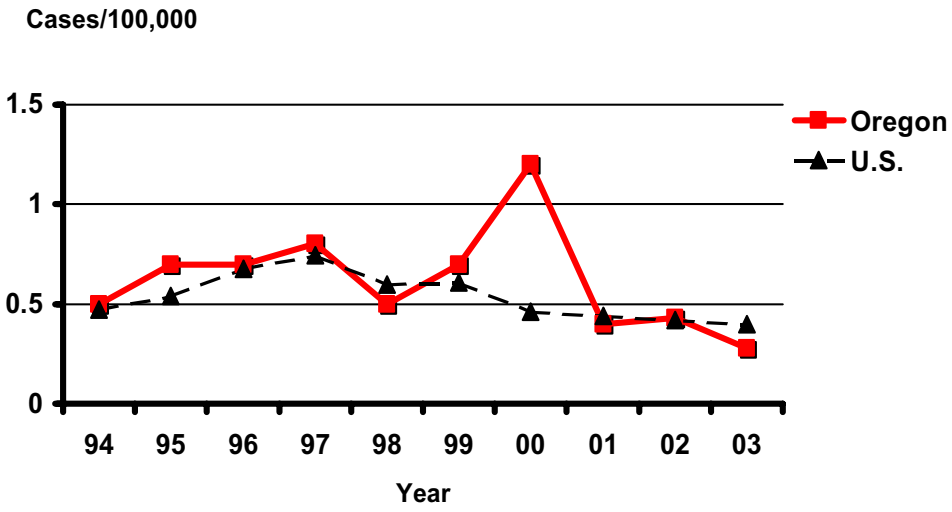
Malaria
by Onset Month
Oregon, 2003



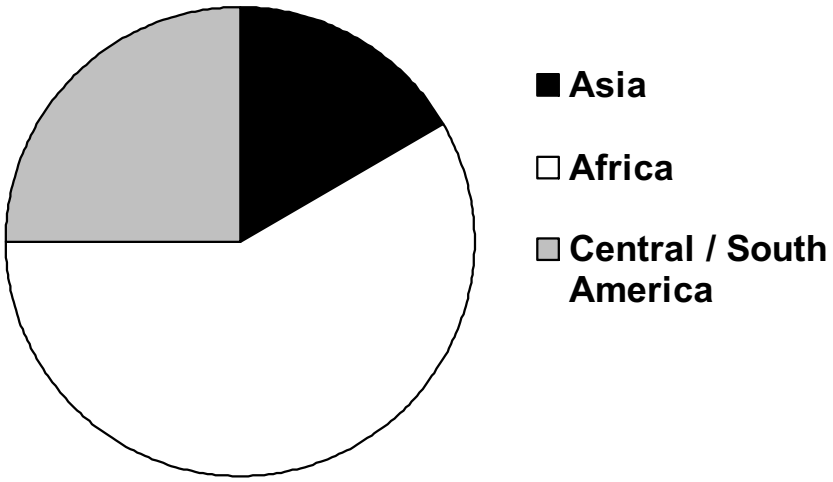
Incidence of Malaria
by Age and Sex
Oregon, 2003



Incidence of Malaria
Oregon vs. Nationwide
1994–2003



Malaria
by Region of Acquisition
Oregon, 2003

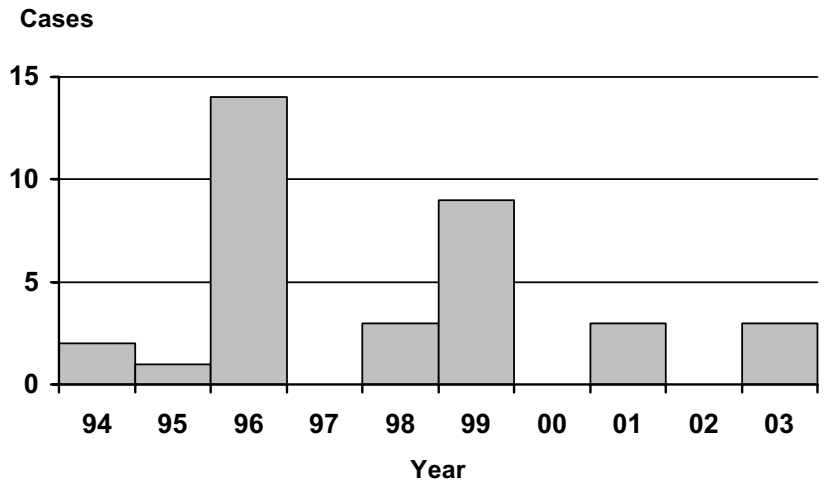


Measles

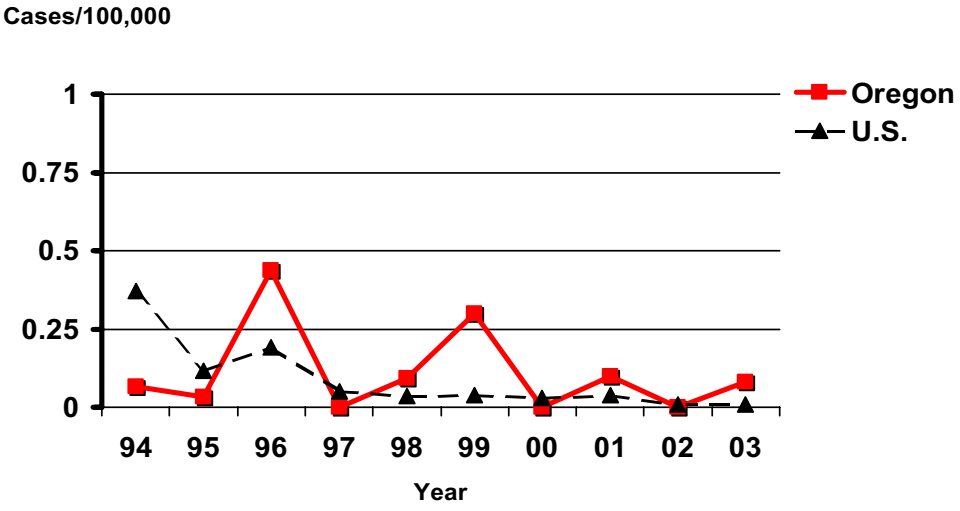
Measles is an acute, highly communicable viral illness, known for its red, blotchy rash that starts on the face and then becomes generalized. The rash is preceded by a febrile prodrome that includes cough, coryza, and conjunctivitis, and sometimes photophobia and Koplik spots. Diagnosis is confirmed 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; cases are occasionally imported. The 2003 cases of measles were imported from countries in Asia and Europe. The risk of exposure to measles in Oregon remains low.

Measles
by Year
Oregon, 1994–2003



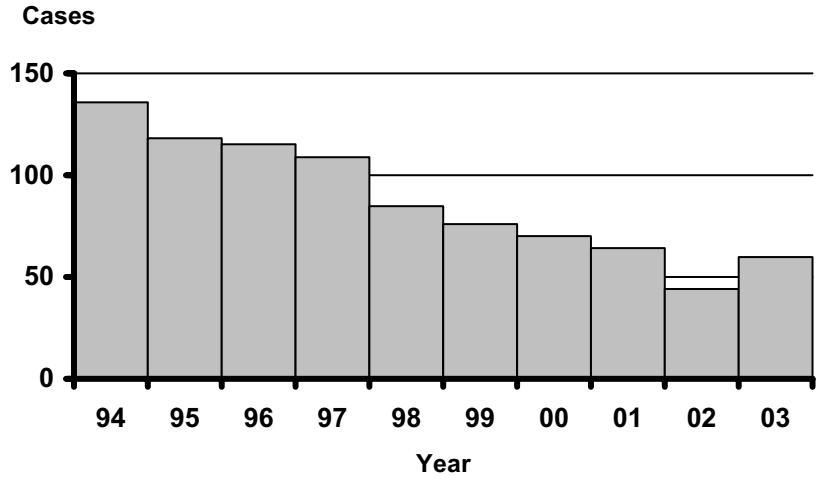
Incidence of Measles
Oregon vs. Nationwide
1994–2003



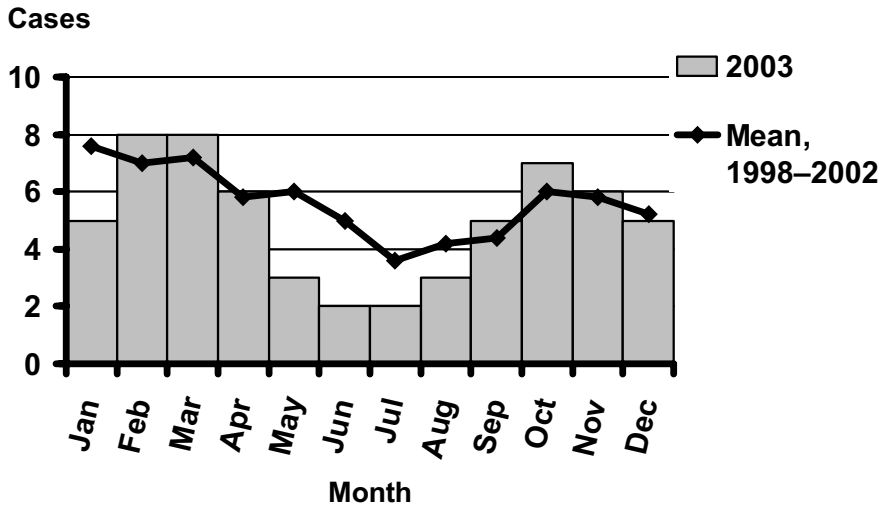
Meningococcal Disease

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. Respiratory secretions and droplets continue to be shared among Oregonians and predispose to secondary cases. Serogroup B organisms make up more than 65% of all isolates.

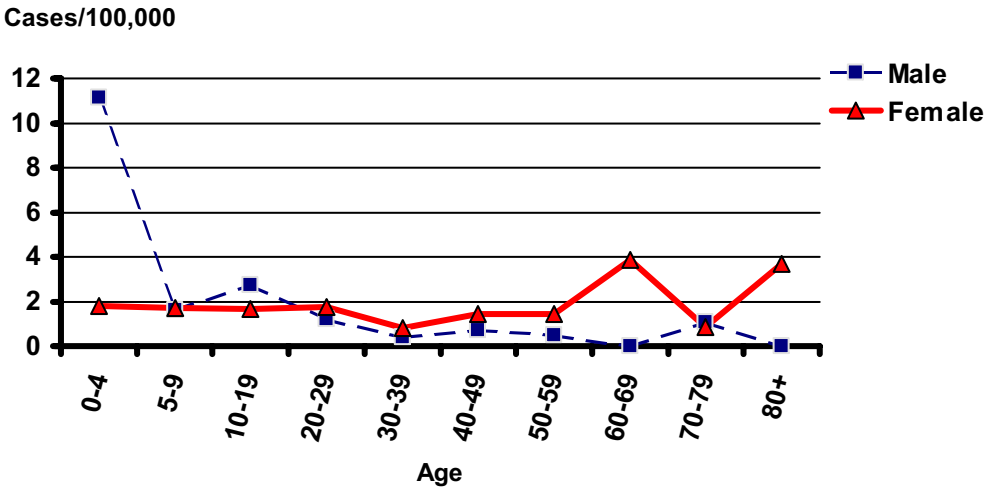
Meningococcal Disease
by Year
Oregon, 1994–2003



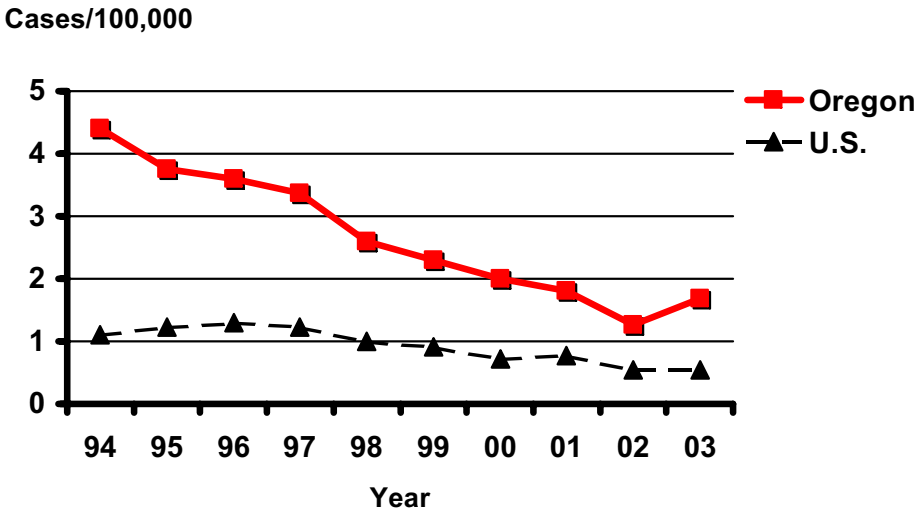
Meningococcal Disease
by Onset Month
Oregon, 2003



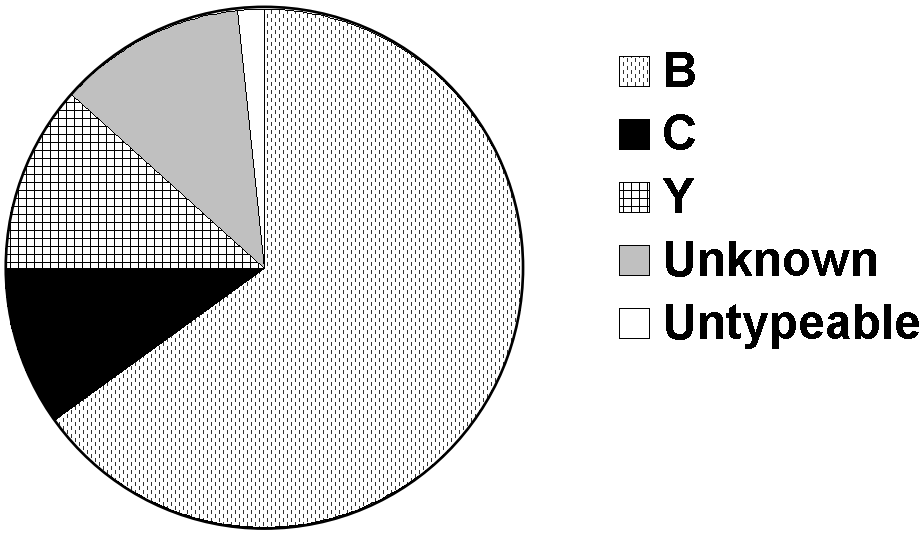
Incidence of Meningococcal Disease
by Age and Sex
Oregon, 2003



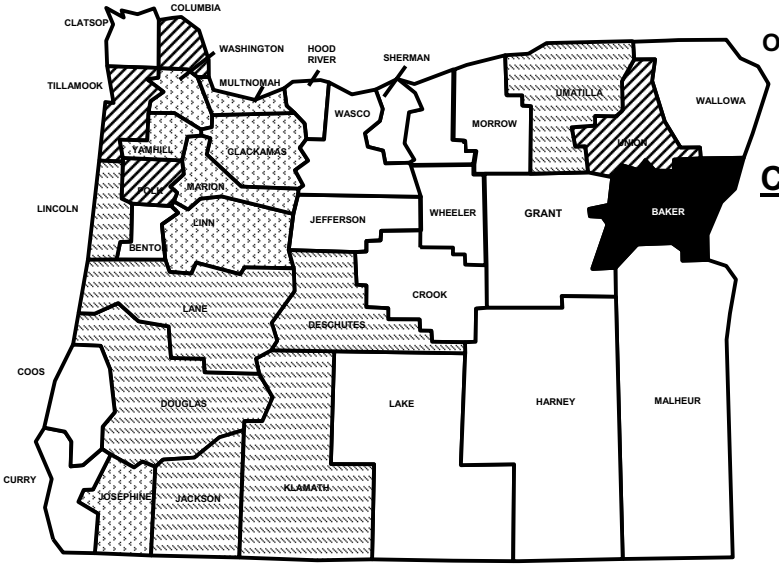
Incidence of Meningococcal Disease
Oregon vs. Nationwide
1994–2003



Meningococcal Disease
by Serogroup
Oregon, 2003



Incidence of Meningococcal Disease
by County
Oregon, 2003



Oregon rate = 1.69

Cases/100,000

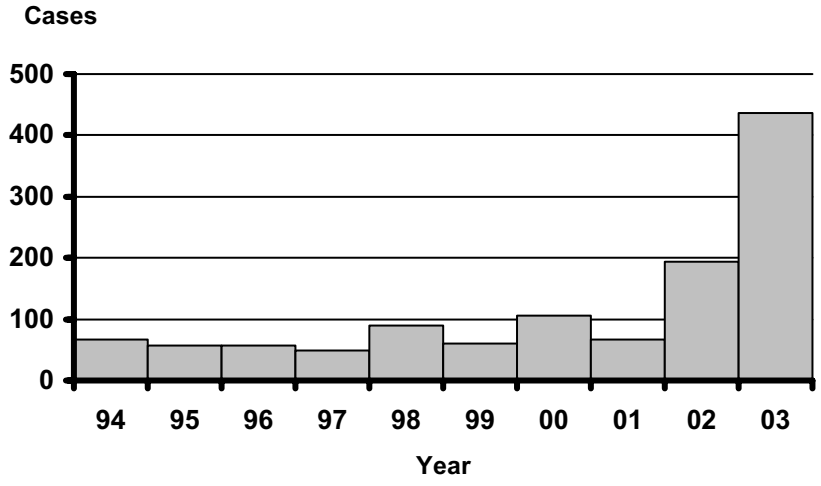
- 0
- 0.01 - 1.9
- 2.0 - 3.9
- 4.0 - 5.9
- 6.0 +

Baker County's rate represented 1 case

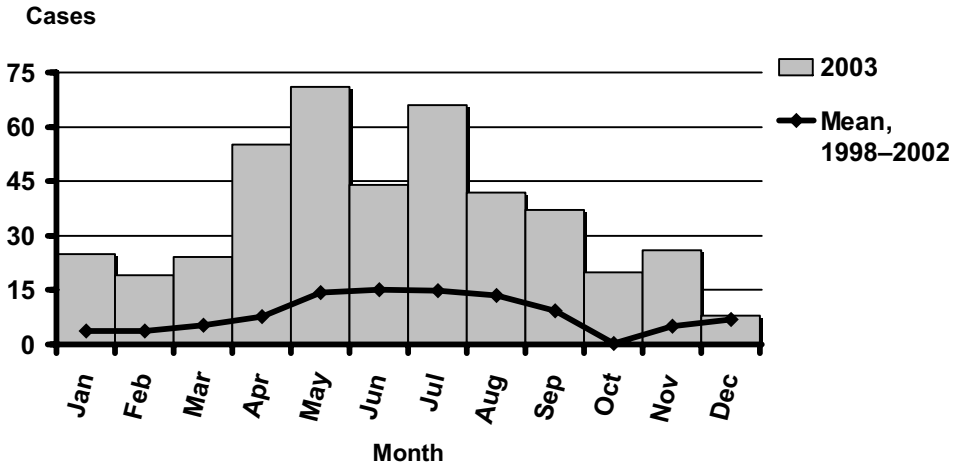
Pertussis

Pertussis is a highly contagious respiratory disease that is transmitted from person to person through contact with respiratory secretions (droplet transmission). 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). In 2003, Oregon experienced a forty-year high in the number of pertussis cases reported. Numerous outbreaks occurred in communities along the I-5 corridor.

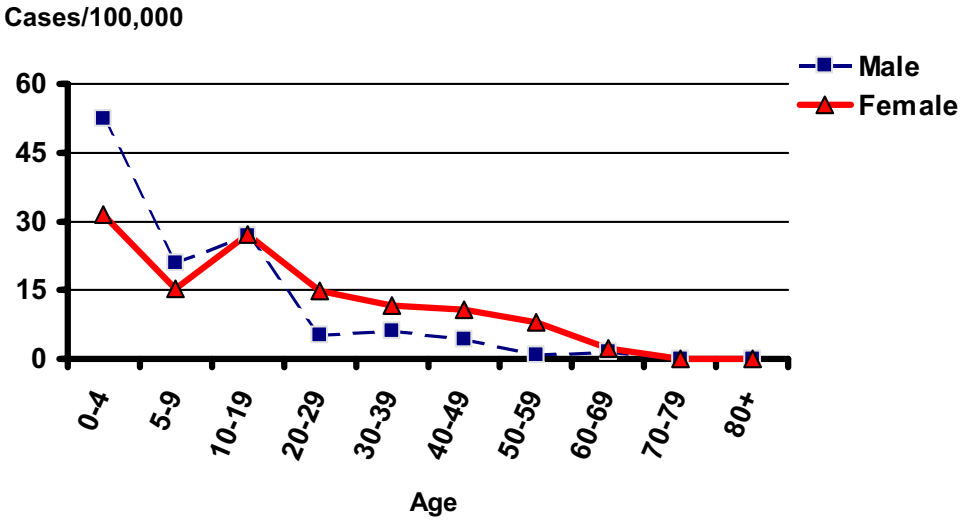
Pertussis
by Year
Oregon, 1994–2003



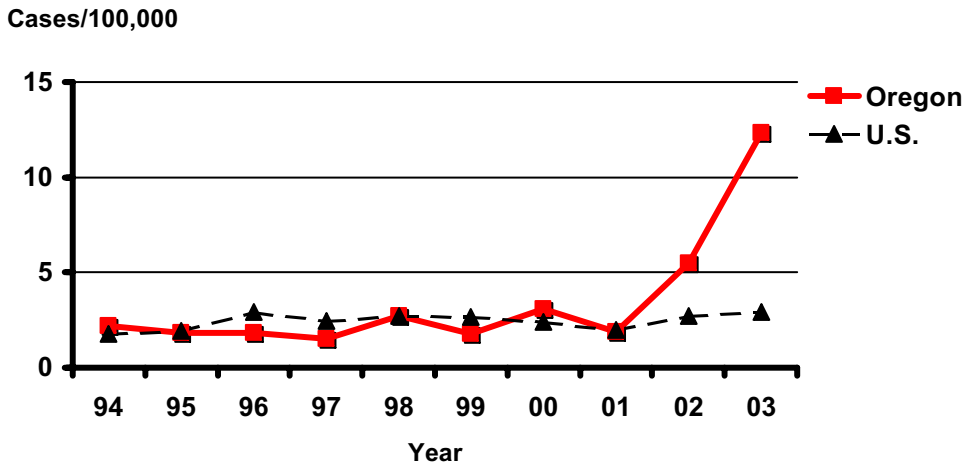
Pertussis
by Onset Month
Oregon, 2003



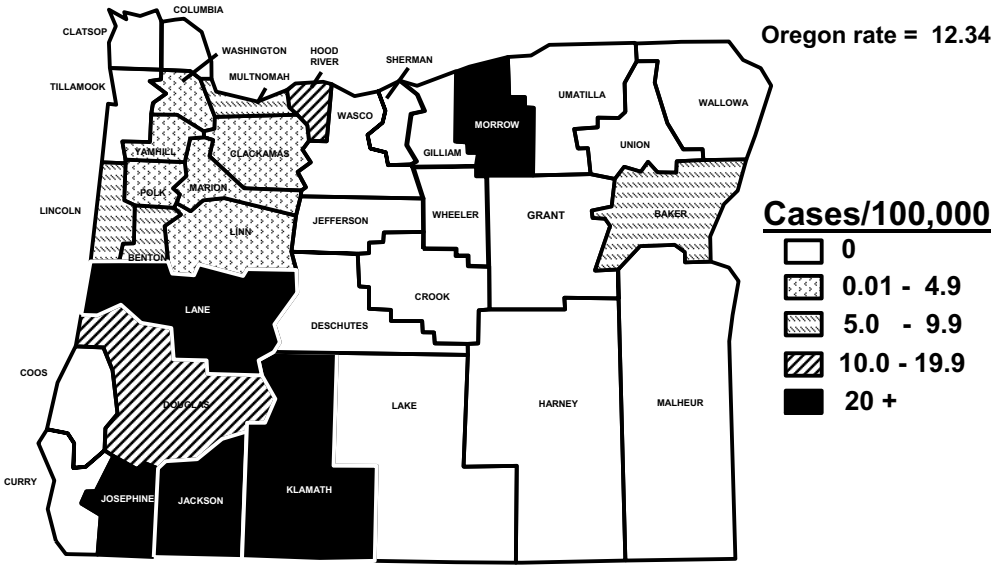
Incidence of Pertussis
by Age and Sex
Oregon, 2003



Incidence of Pertussis
Oregon vs. Nationwide
1994–2003



Incidence of Pertussis
by County
Oregon, 2003

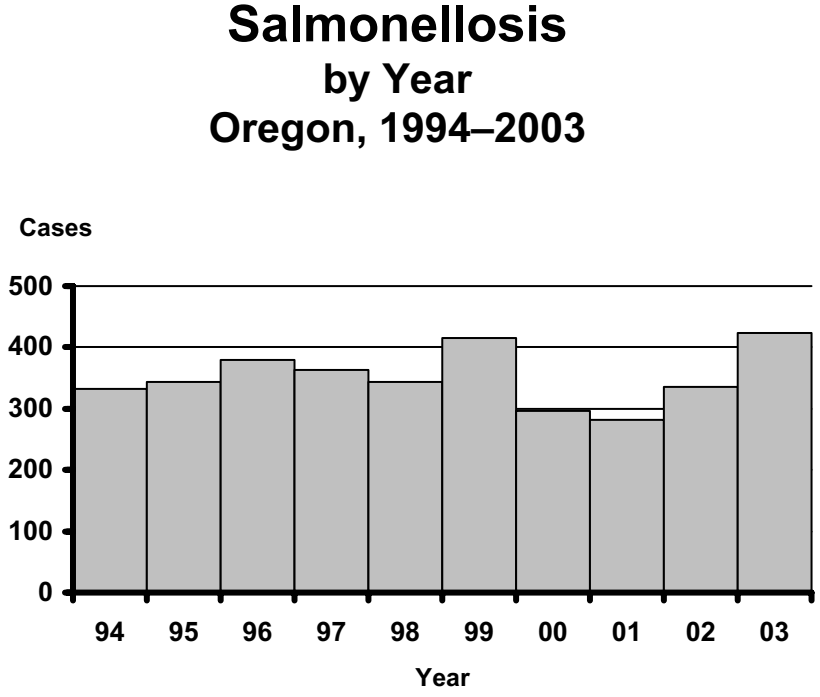


Salmonellosis

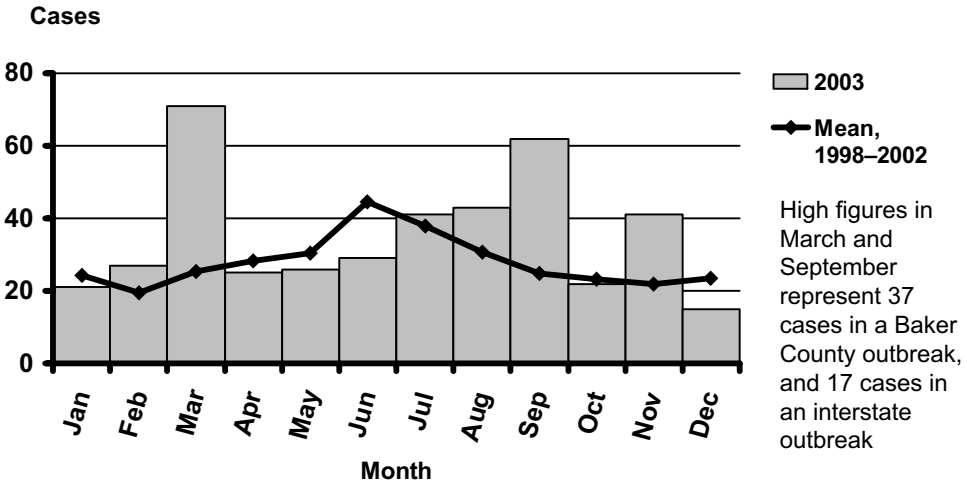
Salmonellosis is bacterial illness characterized by acute abdominal pain, diarrhea, and often fever that begins 12 hours to 5 days after infection. In cases of enterocolitis, fecal excretion usually persists for several days or weeks beyond the acute phase of illness; antibiotics generally have no effect 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. A wide range of domestic and wild animals are carriers of *Salmonella,* including poultry, swine, cattle, rodents, iguanas, tortoises, turtles, terrapins, chicks, 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.

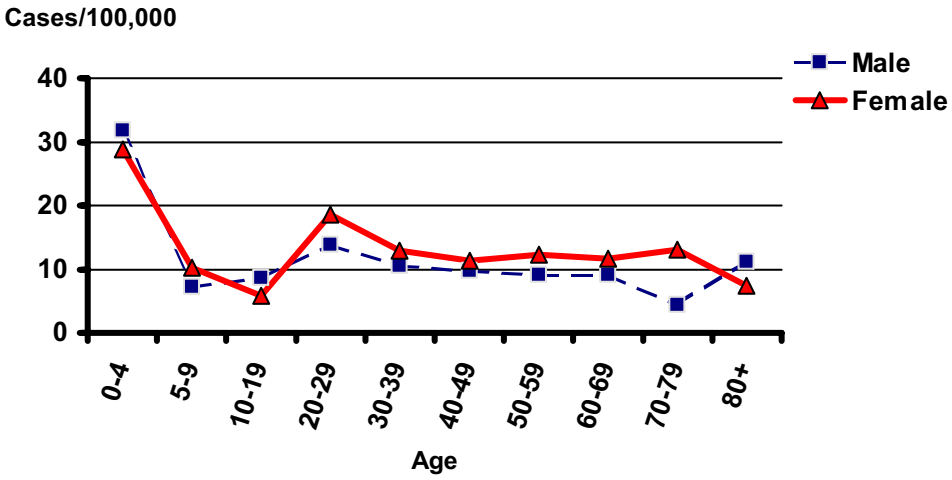


Salmonellosis
by Onset Month
Oregon, 2003

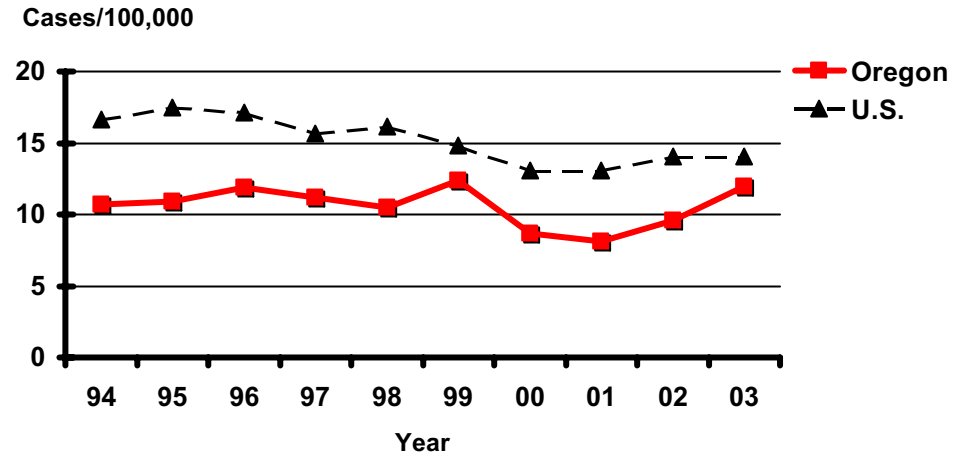


High figures in March and September represent 37 cases in a Baker County outbreak, and 17 cases in an interstate outbreak

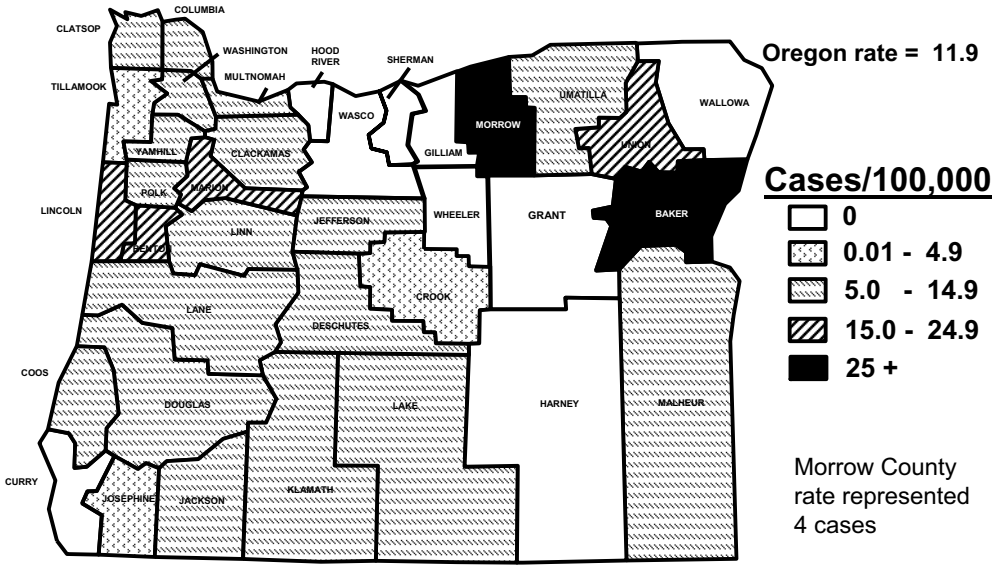
Incidence of Salmonellosis
by Age and Sex
Oregon, 2003



Incidence of Salmonellosis
Oregon vs. Nationwide
1994–2003



Incidence of Salmonellosis
by County
Oregon, 2003



Salmonella by Serotype, Oregon 2003

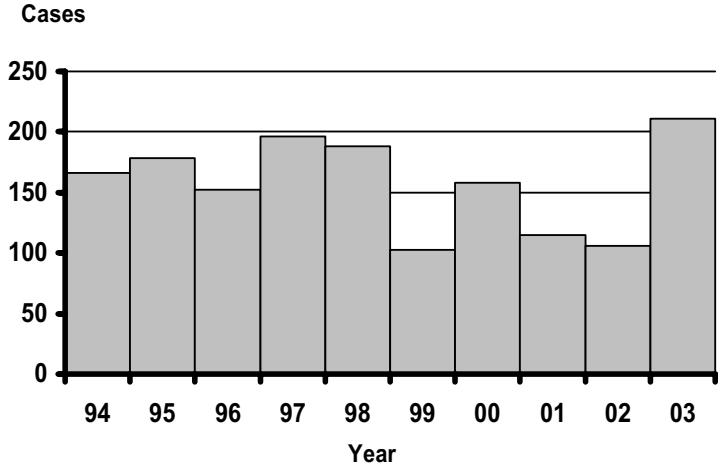
Agona	8	1.9	Lomalinda	1	0.2
Anatum	2	0.5	London	1	0.2
Braenderup	1	0.2	Mbandaka	1	0.2
Brandenburg	1	0.2	Molade	1	0.2
Chester	16	3.8	Montevideo	16	3.8
Clackamas	3	0.7	Muenchen	5	1.2
Concord	1	0.2	Muenster	2	0.5
Cubana	1	0.2	Newport	38	9.0
Dublin	3	0.7	Ohio	2	0.5
Eastbourne	1	0.2	Oranienburg	13	3.1
Edinburg	1	0.2	Panama	4	0.9
Enteriditis sp.	78	18.4	Paratyphi A	2	0.5
Haardt	2	0.5	Paratyphi B, var. Java	7	1.7
Hadar	6	1.4	Poano	1	0.2
Hartford	3	0.7	Pomona	1	0.2
Havana	1	0.2	Poona	3	0.7
Heidelberg	28	2.8	Reading	1	0.2
Indiana	1	0.6	Saintpaul	36	8.5
Infantis	2	0.3	Senftenberg	1	0.2
Itami	1	0.2	Stanley	5	1.2
Javiana	4	0.9	Thompson	2	0.5
Kiambu	2	0.5	Typhimurium	82	19.3
			Weltevreden	2	0.5
			Other	15	3.6

Shigellosis

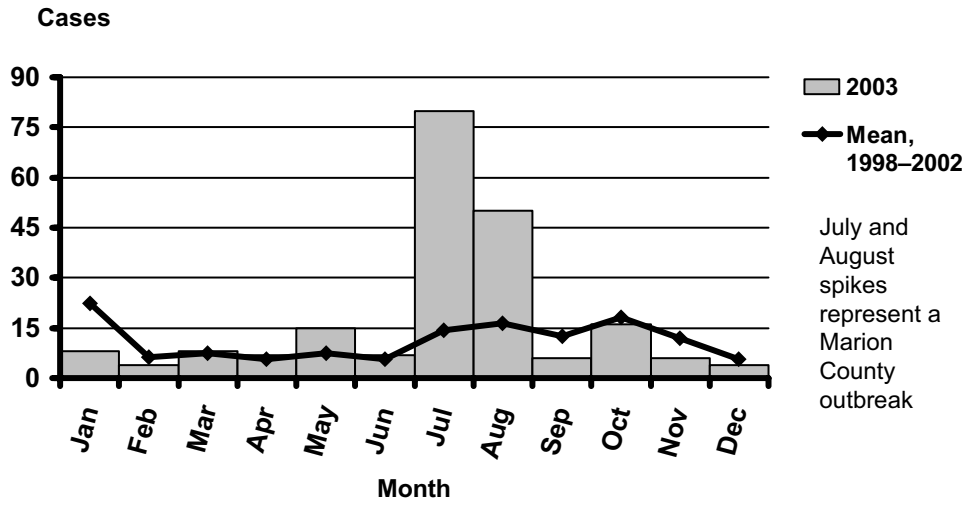
Shigellosis is an acute bacterial infection characterized by (sometimes bloody) diarrhea, vomiting, abdominal cramps and often, fever. Humans are the only known reservoir. It is transmitted from person to person, and just a few organisms can cause illness. It is important to track the incidence of this disease to 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.

In the summer of 2003, there was an outbreak of 111 cases of *S. sonnei* infection associated with an interactive fountain in Marion County.

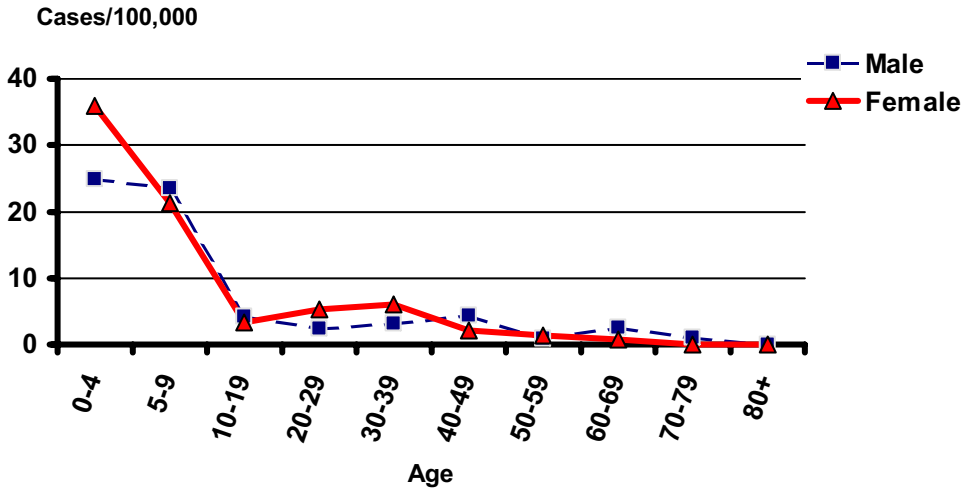
Shigellosis
by Year
Oregon, 1994–2003



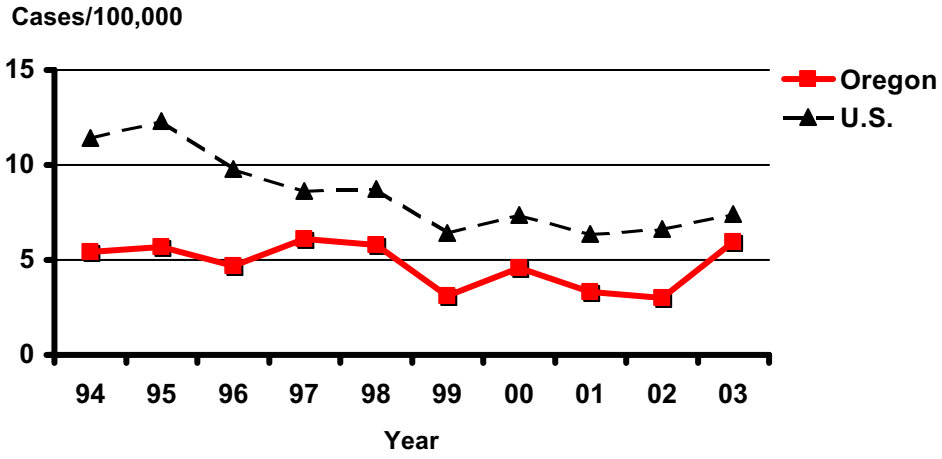
Shigellosis
by Onset Month
Oregon, 2003



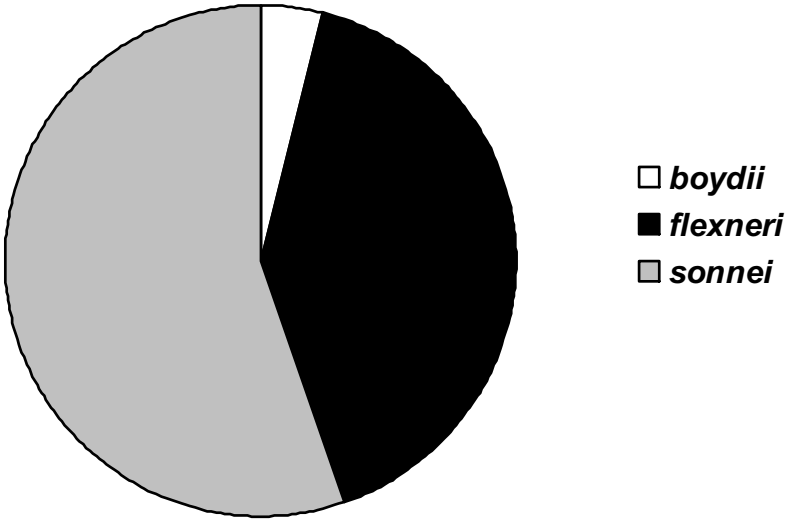
Incidence of Shigellosis
by Age and Sex
Oregon, 2003



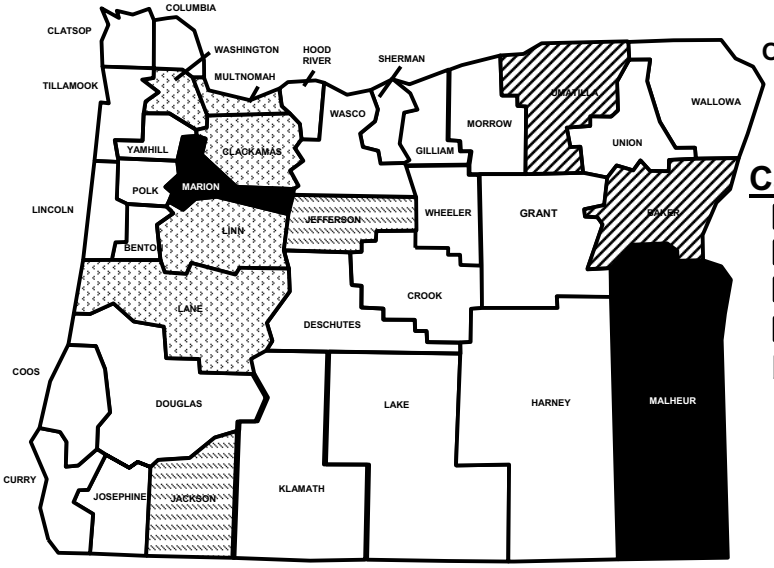
Incidence of Shigellosis
Oregon vs. Nationwide
1994–2003



Shigellosis
by Species
Oregon, 2003



Incidence of Shigellosis
by County
Oregon, 2003



Oregon rate = 5.96

Cases/100,000

- 0
- 0.01 - 2.9
- 3.0 - 5.9
- 6.0 - 9.9
- 10.0 +

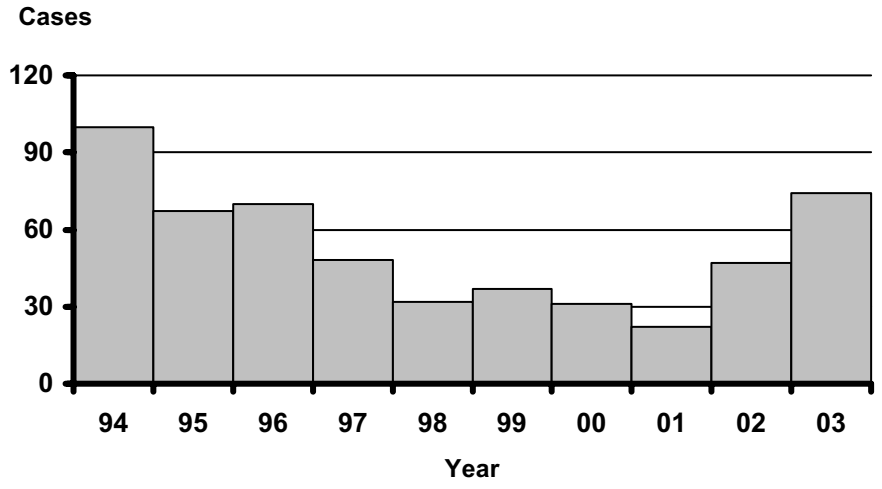
Malheur County's rate represented 5 cases

Early Syphilis

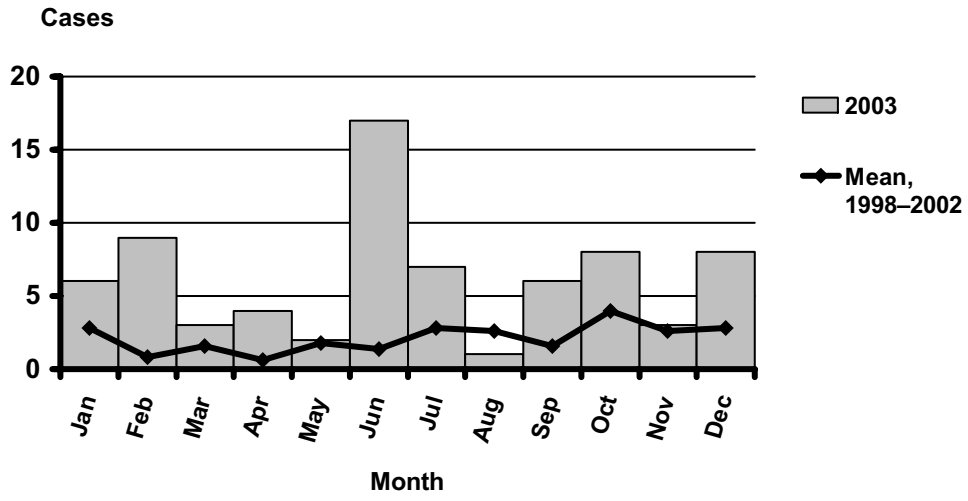
Early syphilis cases represent an aggregate of primary, secondary and early latent cases under one year's duration. The 74 early syphilis cases reported in 2003 show a 27-case (57.5%) increase over the year 2002 count and the greatest number reported since 1992.

Syphilis is transmitted via vaginal, rectal or oral sex. The majority of the early syphilis cases reported during 2003 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.

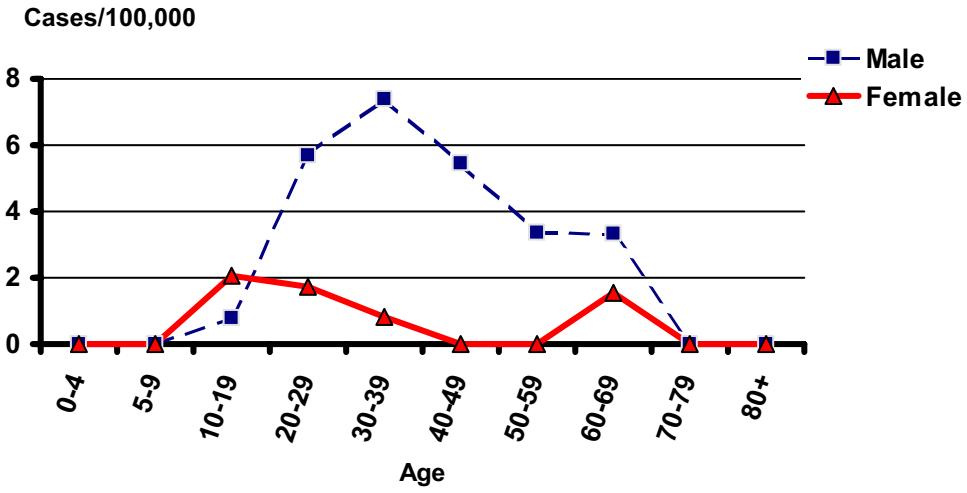
Early Syphilis
by Year
Oregon, 1994–2003



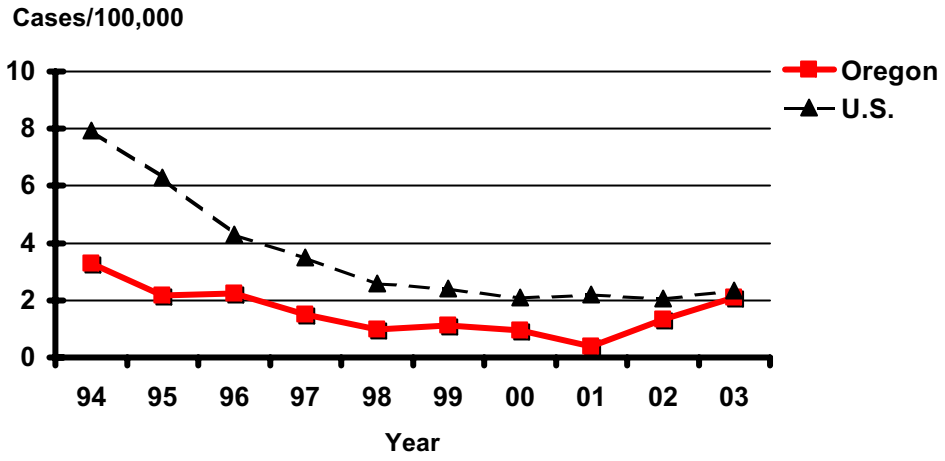
Early Syphilis
by Report Month
Oregon, 2003



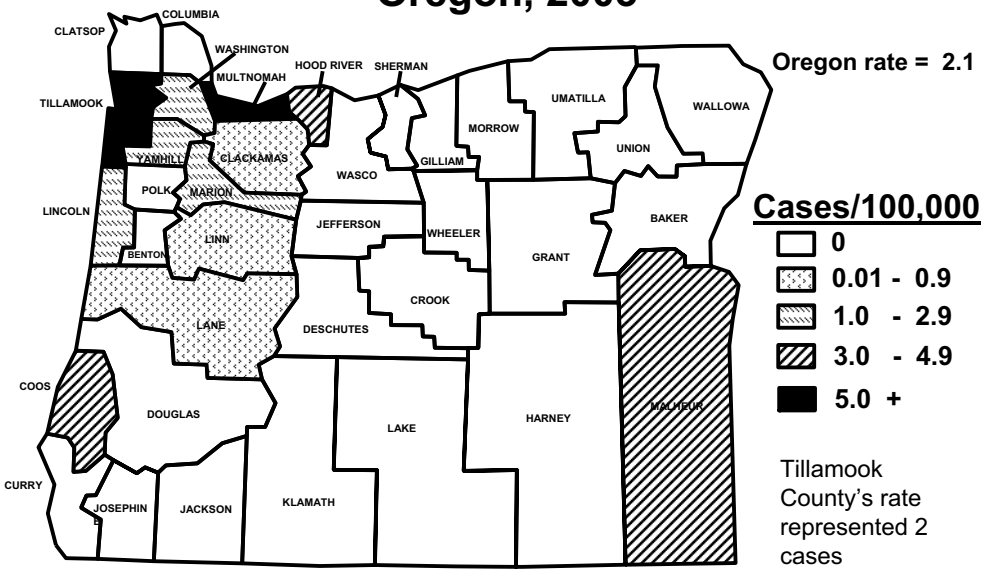
Incidence of Early Syphilis
by Age and Sex
Oregon, 2003



Incidence of Early Syphilis
Oregon vs. Nationwide
1994–2003



Incidence of Early Syphilis
by County
Oregon, 2003



Tuberculosis

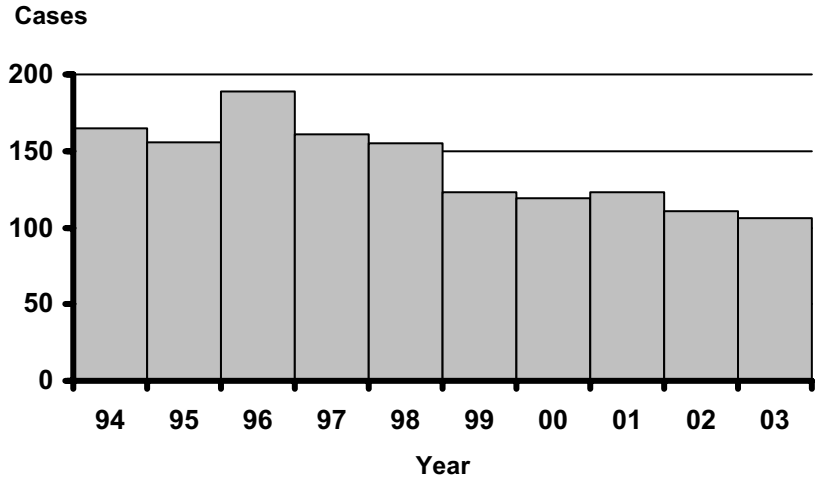
Tuberculosis (TB) is a communicable disease caused by *Mycobacterium tuberculosis*. The most common site for active TB disease is the lung; however, TB can occur in any organ in the body. TB is spread when a person develops active pulmonary or laryngeal TB, coughs the bacteria into the air, and another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

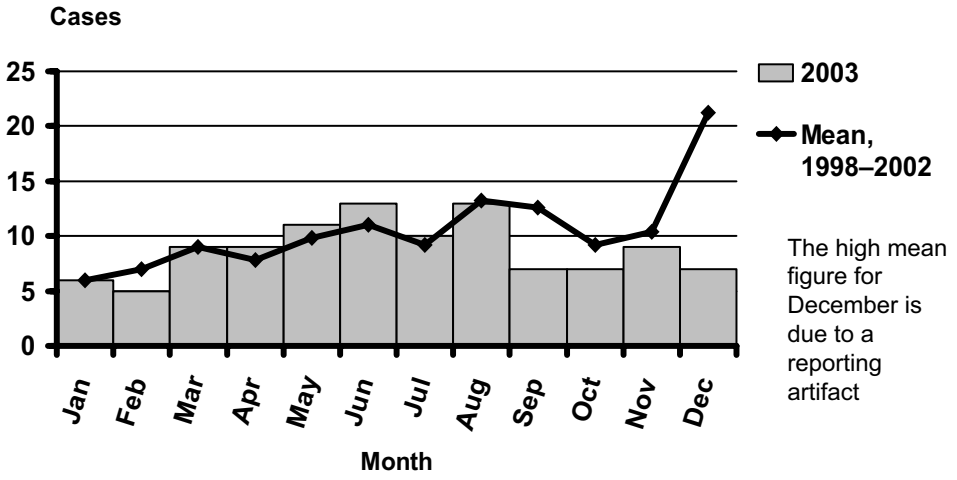
A total of 106 cases of active TB disease were verified in Oregon in 2003, for a rate of 3.0 cases per 100,000 residents. The standard initial treatment for active TB in Oregon includes four drugs: INH, rifampin, pyrazinamide, and ethambutol pending susceptibility testing.

The Oregon TB rate of 3.0/100,000 meets the Healthy People 2000 Goal of ≤3.5/100,000; however, reduced morbidity leads to decreased awareness and delays in diagnosis and treatment.

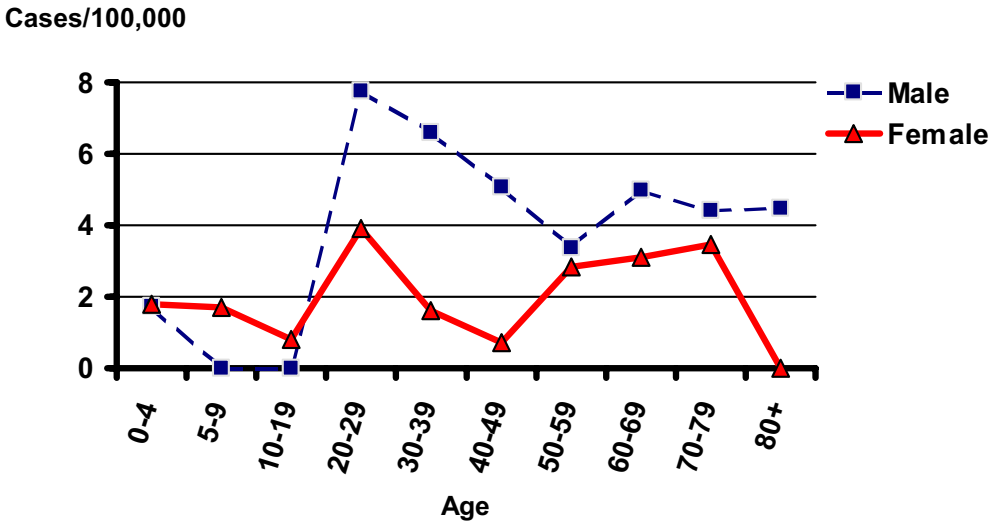
Tuberculosis
by Year
Oregon, 1994–2003



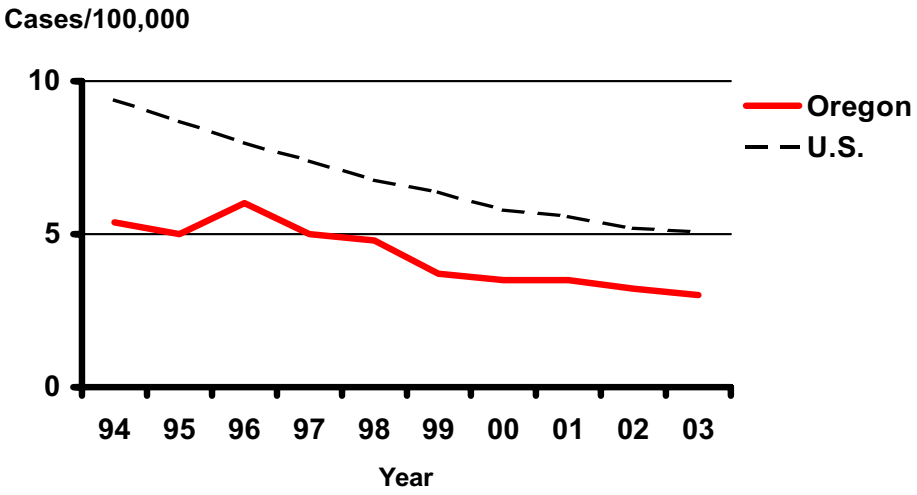
Tuberculosis
by Onset Month
Oregon, 2003



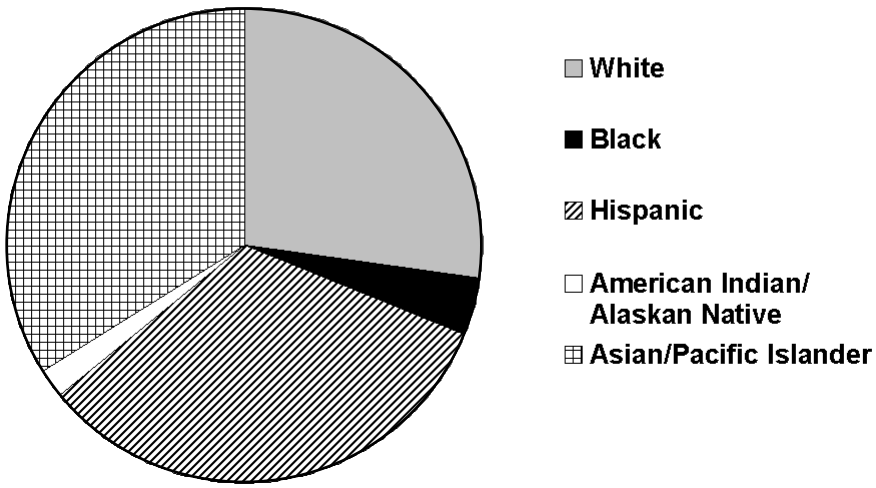
Incidence of Tuberculosis
by Age and Sex
Oregon, 2003



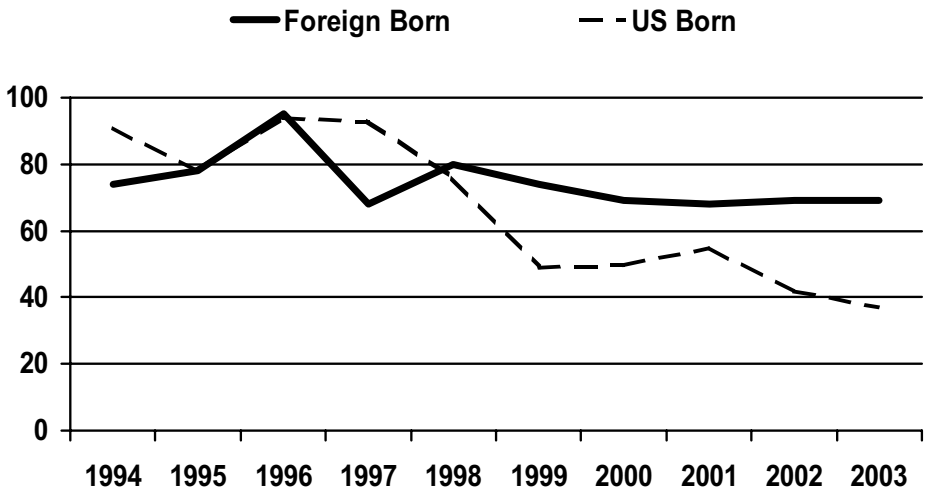
Incidence of Tuberculosis
Oregon vs. Nationwide
1994–2003



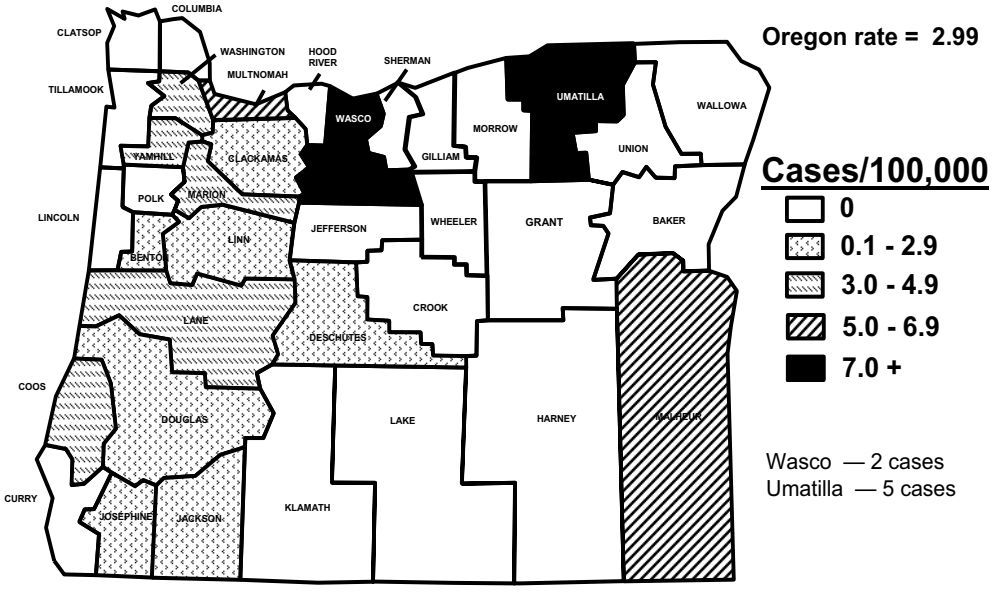
Tuberculosis
by Race/Ethnicity
Oregon, 2003



Tuberculosis
by Country of Origin
Oregon, 1994–2003



Incidence of Tuberculosis
by County
Oregon, 2003



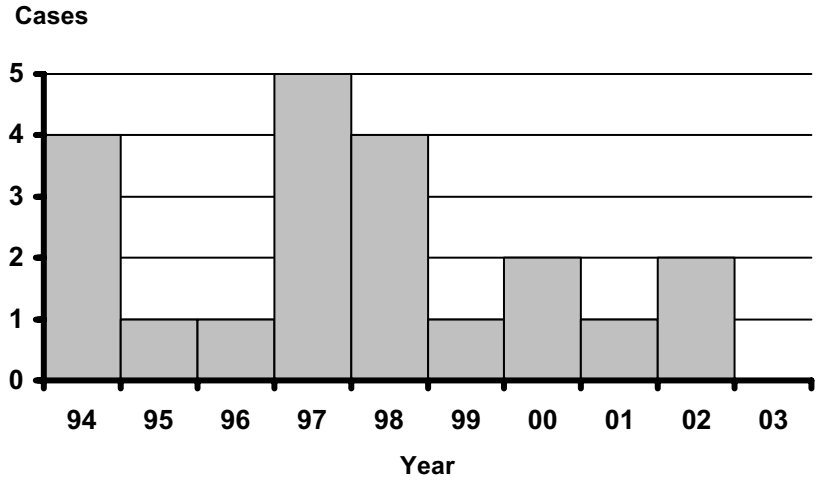
Tularemia

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.

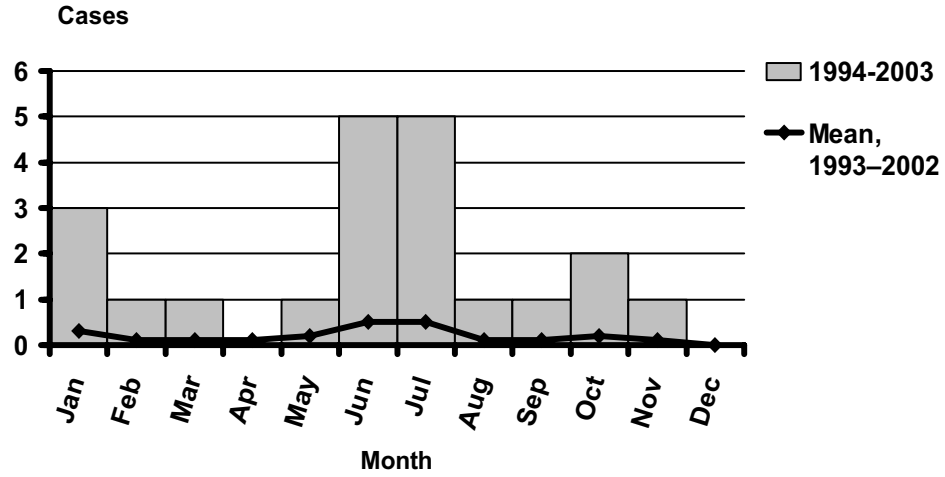
General symptoms of tularemia include fever, malaise, myalgias, headache, chills, rigors, and sore throat. Tularemia has six clinical forms, depending on portal of entry. Ulceroglandular tularemia is the most common form of the disease, accounting for 75–85% of naturally occurring cases. Other clinical 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 1994–2003, 21 cases of tularemia were reported in Oregon (range, 1–5 per year). Cases occurred in residents of 12 counties, and were evenly spread across age groups

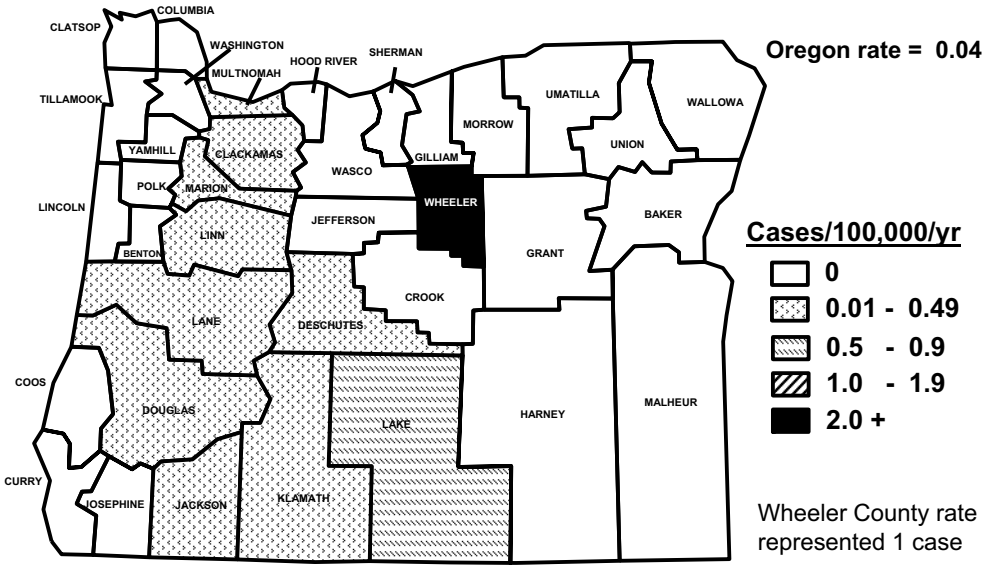
Tularemia
by Year
Oregon, 1994–2003



Tularemia
by Onset Month
Oregon, 1994–2003



Incidence of Tularemia
by County
Oregon, 1994–2003

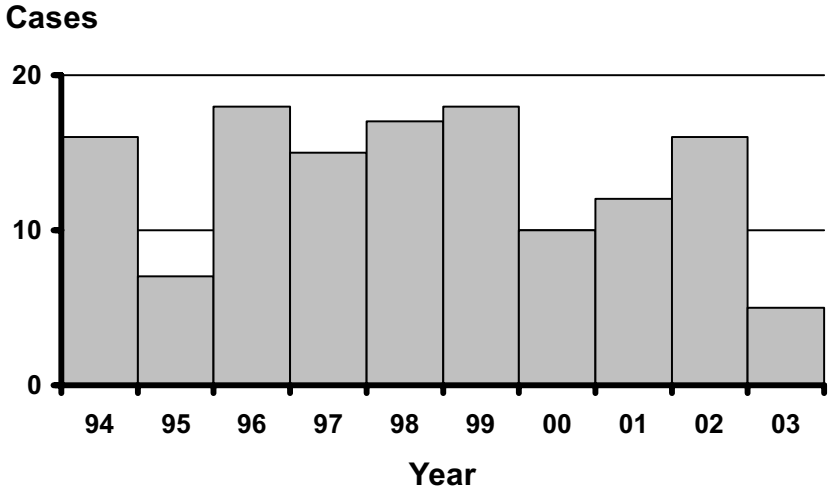


Yersiniosis

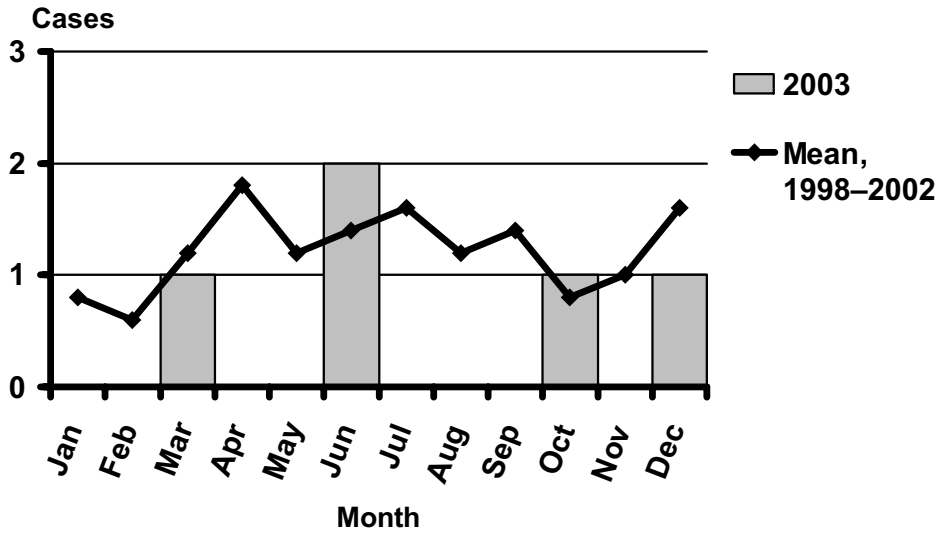
Yersiniosis is a bacterial infection characterized by (sometimes bloody) diarrhea, vomiting, and abdominal pain. The main reservoir for *Yersinia* is the pig. Transmission occurs via the fecal-oral route through contaminated food and water, and infected people or animals. Preventive measures include 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 incidence since 1995. Yersiniosis occurs throughout the year with no seasonality. By far the most common species is *Y. enterocolitica*, and all cases in 2003 were caused by this species.

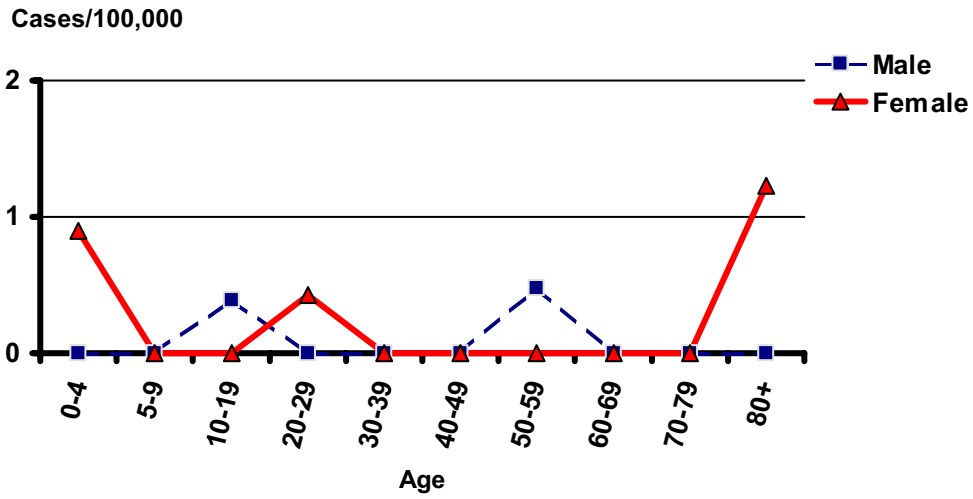
Yersiniosis
by Year
Oregon, 1994–2003



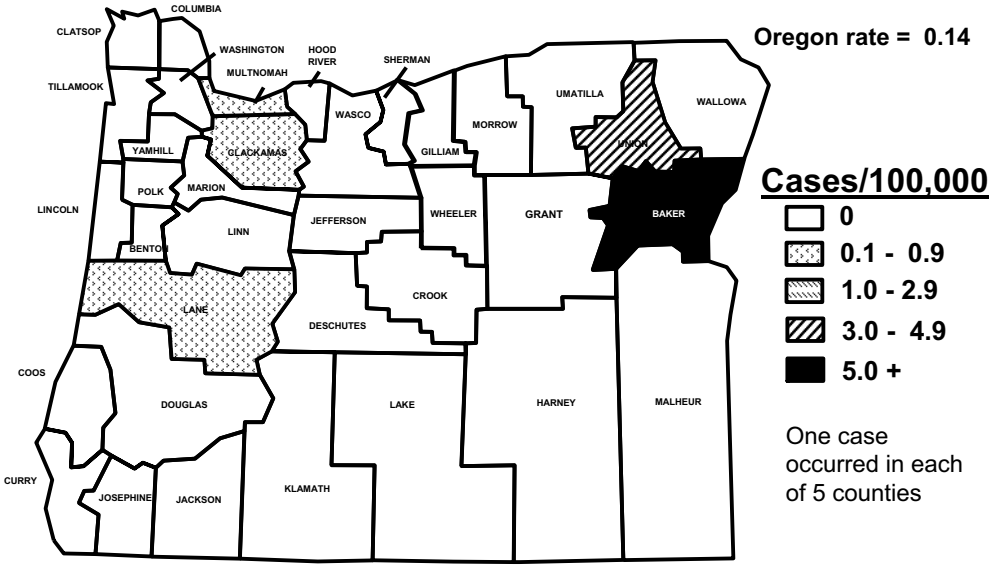
Yersiniosis
by Onset Month
Oregon, 2003



Incidence of Yersiniosis
by Age and Sex
Oregon, 2003



Incidence of Yersiniosis
by County
Oregon, 2003



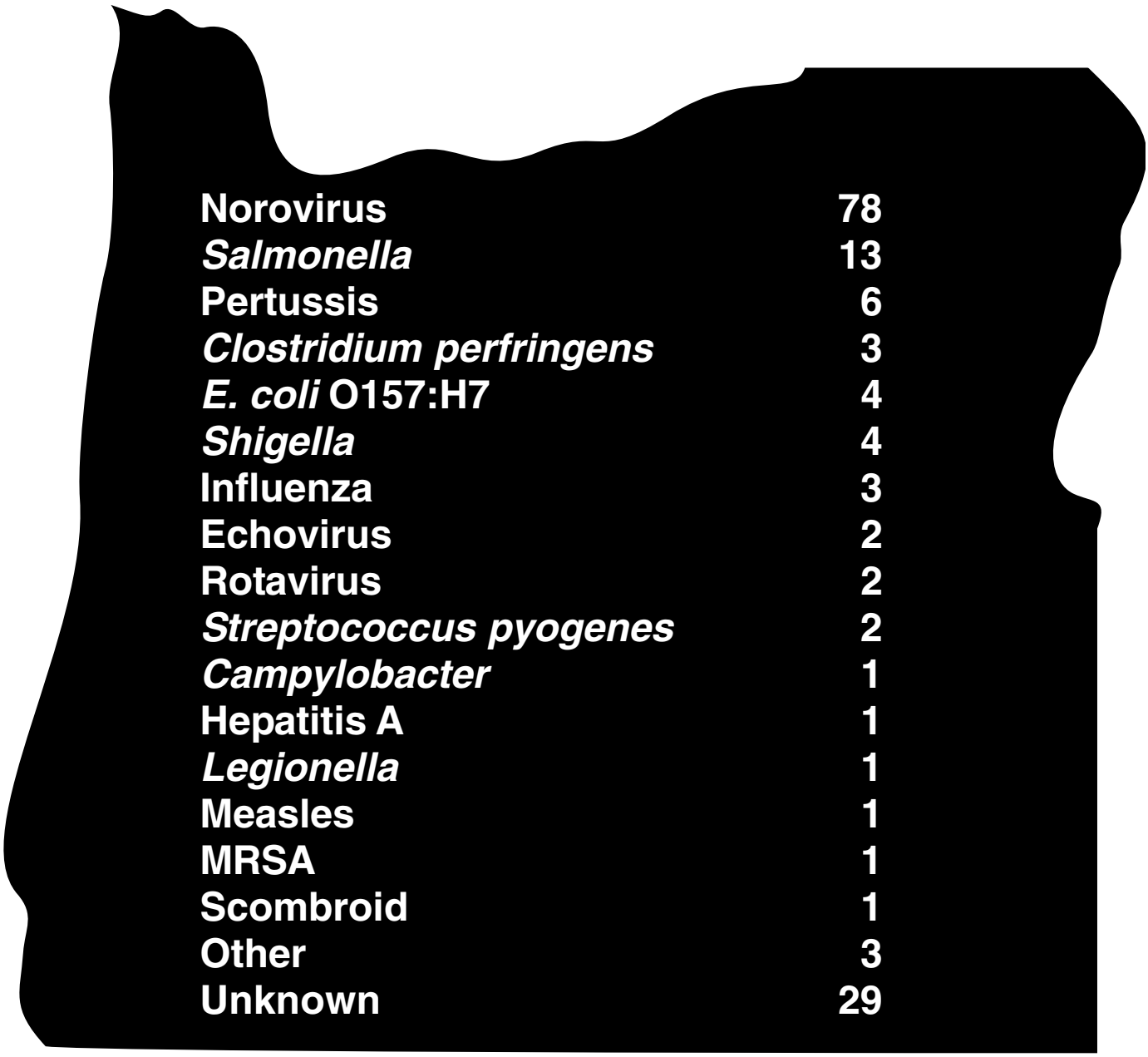
Oregon rate = 0.14

Cases/100,000

- 0
- 0.1 - 0.9
- 1.0 - 2.9
- 3.0 - 4.9
- 5.0 +

One case occurred in each of 5 counties

Reported Disease Outbreaks
by Causal Agent
Oregon, 2003
n = 155



Selected Cases of Notifiable Diseases by Year of Report
Oregon, 1984–2003

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
AIDS	17	34	69	175	177	221	328	271	293	766	599	446	469	293	201	221	202	259	262	174
Campylobacteriosis	1131	1246	1344	1039	970	999	958	941	885	720	655	644	683	755	707	593	568	600	572	593
Chlamydiosis					7135	6734	7387	7327	5885	5539	5494	5468	5442	5254	5857	6163	7110	7504	7200	7500
***E. coli* O157 Infection**							53	108	149	244	105	90	100	87	107	69	135	87	204	101
Giardiasis	1057	1223	1157	1171	1194	1078	1348	1294	1247	1011	930	915	937	910	903	810	656	536	435	402
Gonorrhea	6651	6370	5471	4043	3221	3025	2549	2172	1768	1192	977	854	886	773	880	906	1039	1145	929	981
***H. influenzae* Infection**	101	99	70	86	85	67	68	26	27	11	26	28	33	38	42	45	30	38	55	42
Hepatitis A	1007	1850	1899	1328	1483	2366	829	449	550	581	1326	2968	955	417	437	253	165	110	62	62
Hepatitis B	377	504	644	660	611	563	420	308	303	290	236	199	183	164	201	117	622	710	60	575
Hepatitis C	154	162	87	104	105	83	59	132	85	72	56	58	48	19	21	23	1	15	14	16
Listeria					6	11	5	3	6	10	11	13	15	11	18	17	6	12	9	5
Malaria	16	18	19	6	19	21	20	12	19	14	17	21	25	24	17	22	40	15	15	10
Measles	0	5	12	132	7	82	212	93	3	4	2	1	14	0	0	11	0	33	0	3
Meningococcal Disease	50	39	38	37	47	59	73	61	72	109	143	117	125	122	91	76	70	64	44	60
Pertussis	31	54	16	83	55	18	123	68	47	105	106	67	64	48	89	61	106	66	193	437
Rubella	2	2	4	2	0	3	77	5	2	0	4	0	1	0	0	0	0	0	0	1
Salmonellosis	1036	266	235	305	404	322	359	368	486	349	314	343	387	371	330	428	297	281	336	423
Shigellosis	237	121	127	114	112	121	178	712	292	169	166	169	164	190	196	95	158	115	106	211
Early Syphilis	217	179	202	503	515	424	261	277	218	185	100	67	70	48	32	37	31	22	47	74
Tuberculosis	156	144	136	159	161	151	148	144	146	153	165	156	190	161	155	123	119	123	111	106
Tularemia	3	1	0	5	2	5	2	2	0	3	4	1	1	5	4	1	2	1	2	0
Typhoid fever	2	5	0	3	8	6	5	6	2	4	5	4	4	3	1	5	4	8	2	4
Yersiniosis	11	7	16	12	16	20	18	17	9	16	15	8	18	16	15	19	10	12	16	5
TOTAL	**12357**	**12405**	**11627**	**10028**	**16413**	**16467**	**15619**	**14884**	**12577**	**11631**	**11555**	**12704**	**10886**	**9757**	**10334**	**10129**	**11412**	**11689**	**10674**	**11785**

Blank cells = not reportable. Cases as of March 16, 2003.

Selected Cases of Notifiable Diseases by County, Oregon, 2003

	AIDS	Campylobacteriosis	Chlamydiosis	Cryptosporidiosis	*E. coli* O157 infection	Giardiasis	Gonorrhea	*Haemophilus influenzae* infection	Hepatitis A	Hepatitis B (acute)	Hepatitis B (chronic)	Hepatitis C	HIV	HUS	Legionellosis	Leptospirosis	Listeriosis	Lyme disease	Malaria	Meningococcal Disease	Pertussis	Psittacosis	Rabies, animal	Relapsing Fever	Salmonellosis	Shigellosis	Early Syphilis	Tuberculosis	Typhoid fever	*Vibrio cholerae* (non-O1)	*Vibrio parahaemolyticus*	Yersiniosis	TOTAL
Baker	0	5	4	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	31	1	0	0	0	0	0	1	47
Benton	2	23	122	0	6	12	11	2	0	2	6	0	1	0	0	0	0	2	0	1	5	0	0	0	18	0	0	1	0	0	0	0	206
Clackamas	8	50	488	6	14	40	52	3	6	7	25	1	13	2	4	0	0	1	2	0	10	0	0	0	37	20	3	8	0	0	0	1	768
Clatsop	2	11	92	0	0	5	8	1	0	2	3	0	0	0	0	0	0	0	0	3	0	0	0	0	4	0	0	0	0	0	0	0	126
Columbia	1	8	41	1	1	4	6	1	1	3	1	0	0	0	0	0	0	0	0	2	0	0	0	0	5	0	0	0	0	0	0	0	71
Coos	3	11	115	1	3	9	4	3	2	3	3	0	0	1	0	0	1	0	1	0	0	0	0	0	5	0	3	2	0	1	0	0	165
Crook	1	3	28	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	34
Curry	2	3	27	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
Deschutes	5	39	177	0	5	21	3	4	2	4	6	0	0	0	0	0	0	0	0	3	0	0	1	1	15	0	0	1	0	0	0	0	310
Douglas	1	21	155	1	1	15	4	0	4	4	5	4	1	0	1	0	0	1	0	3	14	0	1	0	8	0	0	1	0	0	0	0	237
Gilliam	0	1	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	0	0	0	0	6
Grant	0	0	4	0	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Harney	0	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Hood River	0	2	38	0	2	3	2	0	2	0	1	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	1	0	0	0	0	0	54
Jackson	6	21	501	1	3	20	52	2	6	10	14	1	0	0	1	0	0	1	1	6	135	0	1	1	23	7	0	2	0	0	0	0	800
Jefferson	3	3	73	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	0	99
Josephine	2	6	44	0	0	7	5	3	0	2	5	0	0	0	0	0	0	1	0	1	17	0	0	0	3	0	0	1	0	0	0	0	90
Klamath	2	18	103	0	1	9	2	1	2	2	2	0	0	0	0	0	0	0	0	2	30	0	0	0	7	0	0	0	0	0	0	0	178
Lake	1	1	7	0	0	1	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	11
Lane	13	45	809	1	7	48	57	2	4	17	17	1	3	0	0	0	1	0	2	7	140	0	0	0	45	4	1	12	1	0	0	1	1204
Lincoln	6	5	103	1	3	3	5	0	1	0	3	1	0	0	0	0	0	0	0	1	3	0	0	0	8	1	1	0	0	0	1	0	167
Linn	1	29	164	0	4	13	17	2	3	1	5	1	1	0	0	0	1	1	0	1	2	0	2	0	11	1	1	1	0	0	1	0	256
Malheur	0	13	38	0	6	4	3	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4	5	1	2	0	0	0	0	83
Marion	10	34	760	0	9	36	98	4	4	17	42	0	9	1	1	0	0	2	0	4	4	0	0	0	46	115	3	11	1	0	0	0	1156
Morrow	0	4	20	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	4	2	0	0	0	0	0	0	33
Multnomah	80	107	2333	14	12	69	546	9	3	36	189	3	80	1	5	0	0	5	2	9	55	0	1	0	70	26	48	35	0	0	1	1	3547
Polk	0	4	61	0	3	10	10	0	0	1	5	0	2	0	0	0	1	0	0	3	3	0	0	0	5	0	0	0	0	0	0	0	106
Sherman	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Tillamook	0	10	24	2	1	3	1	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0	53
Umatilla	0	18	181	0	2	13	5	1	1	1	6	1	1	1	0	0	0	0	0	2	0	0	0	0	10	6	0	5	1	0	0	0	306
Union	0	8	22	0	0	2	0	1	0	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	1	41
Wallowa	1	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	236
Wasco	1	7	34	0	1	2	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	61
Washington	22	69	787	8	13	39	77	3	7	6	65	0	13	0	5	0	0	1	1	9	11	1	1	0	47	22	9	18	1	0	0	0	1164
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	0	0	0	0	0	1
Yamhill	1	12	121	0	3	6	6	0	4	0	3	0	3	0	0	0	1	0	0	1	1	0	0	1	8	0	1	3	0	0	1	0	181
Grand Total	174	593	7500	36	101	402	981	42	62	120	413	16	127	6	17	0	5	16	10	60	437	1	7	3	423	211	74	106	4	1	4	5	11879

Rabies-positive Animals
Oregon, 2003