Acute hepatitis B

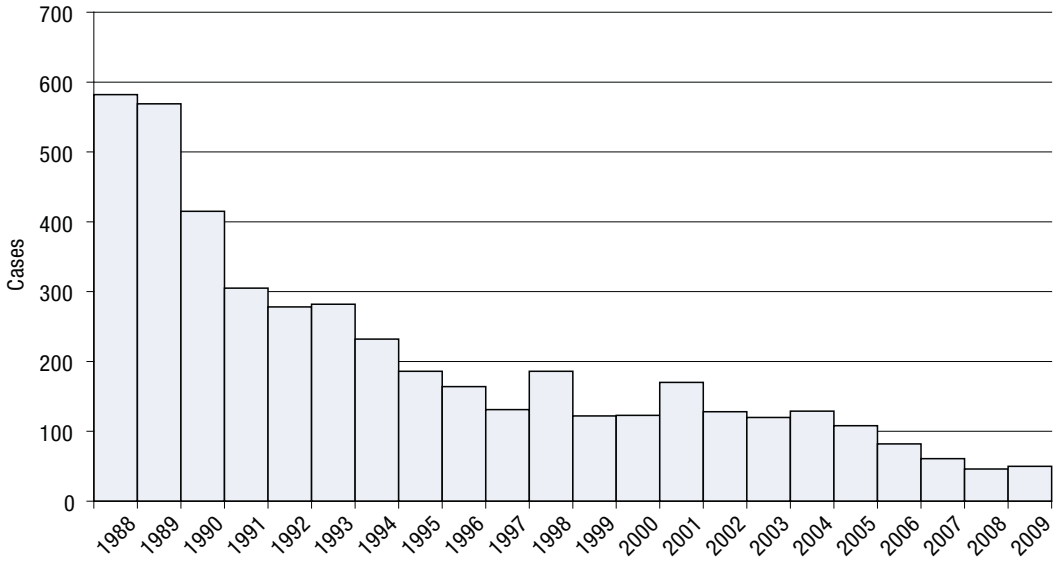
Hepatitis B is a vaccine-preventable viral disease of the liver that occurs when the virus of an infected person passes (through blood, semen, or saliva) into the blood stream of a non-immune person. Percutaneous or permucosal exposures take place when hypodermic needles are shared; when blood splashes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

Acute hepatitis B virus infection (diagnosed by the presence in serum of IgM antibody to the hepatitis B core antigen [IgM anti-HBc]) usually, but not always, causes jaundice. Some infections are mild, even asymptomatic, and may go undetected. Hepatitis B has been vaccine-preventable since 1982 and, to promote universal vaccination and hence protection, was added to the recommended childhood immunization schedule in 1992 with the series starting at birth.

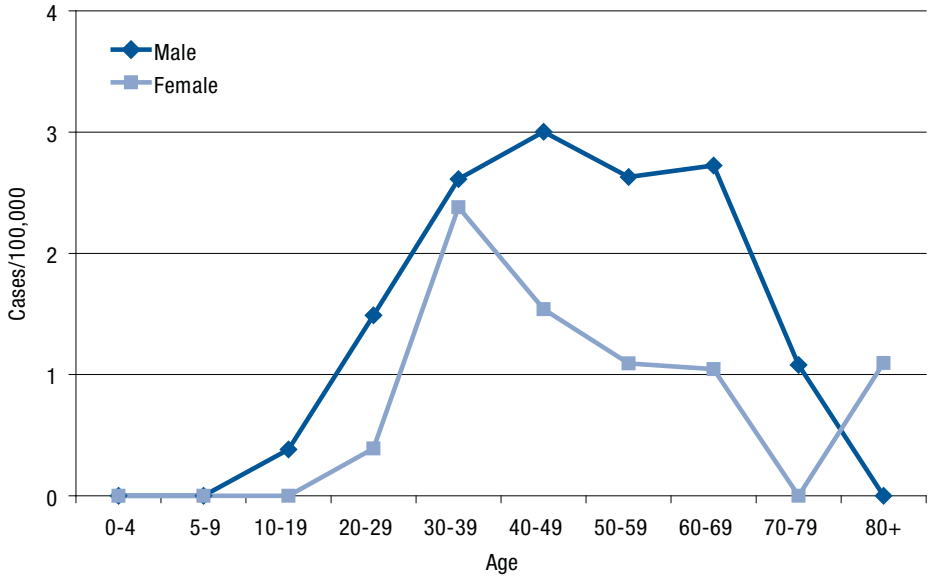
Acute hepatitis B continues to decline in Oregon — a decline that started here after the hepatitis B vaccine was licensed in 1982.

Local health departments investigated and reported 46 acute cases in 2008, 50 in 2009. Seventy-four percent of the cases were male. The number of cases reporting injection drug use continues to decrease; use was reported by 14% of cases in 2009 and 29% in 2008.

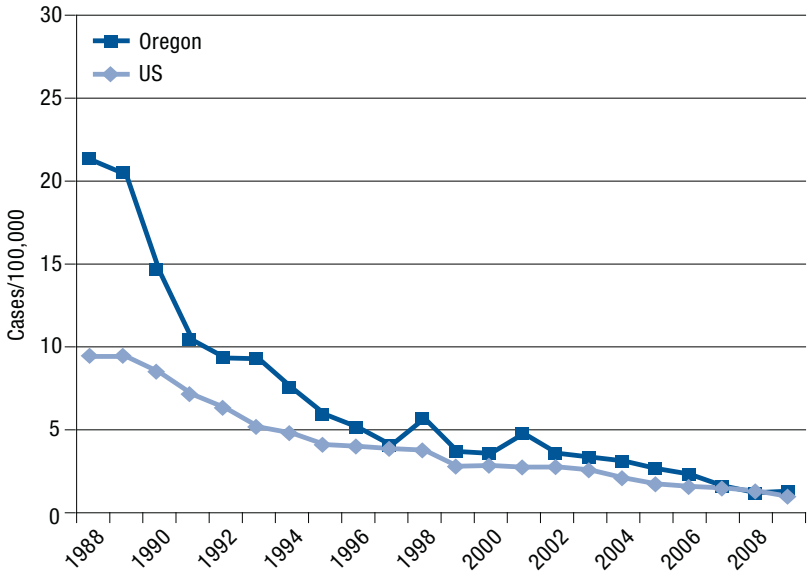
Acute hepatitis B by year: Oregon, 1988–2009



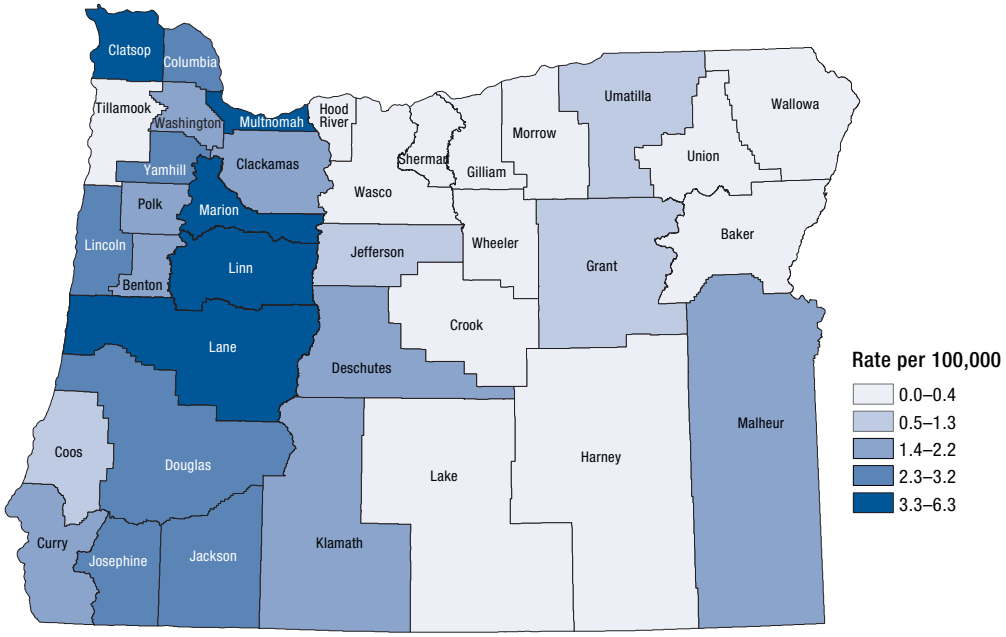
Incidence of acute hepatitis B by age and sex: Oregon, 2009



Incidence of acute hepatitis B: Oregon vs. nationwide, 1988-2009



Incidence of acute hepatitis B by county of residence: Oregon, 2000–2009



Chronic hepatitis B

Persons with chronic hepatitis B are known as "chronic carriers" — a state of infection defined by the persistence of hepatitis B surface antigen (HBsAg) in the blood for more than six months. The likelihood of becoming a chronic carrier is affected by the age at infection. Fewer than 6% of acutely infected adults in the United States become carriers, compared to 25% (with HBeAg-negative moms) to 90% (with HBeAg-positive moms) of children infected in early childhood or during birth. Perinatal infection can be prevented by prompt administration of hepatitis B immune globulin and initiation of the three-dose hepatitis B vaccination series. This perinatal intervention is widely practiced in the United States — all states have federal funding for perinatal hepatitis B prevention programs — 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. Seventy-nine percent of 2008–2009 reports were from foreign born individuals. 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 United States until vaccine-induced immunity is nearly universal.

Recommendations and strategies to prevent new cases include the following: routinely vaccinating all infants at birth; screening