

Hepatitis B, Acute

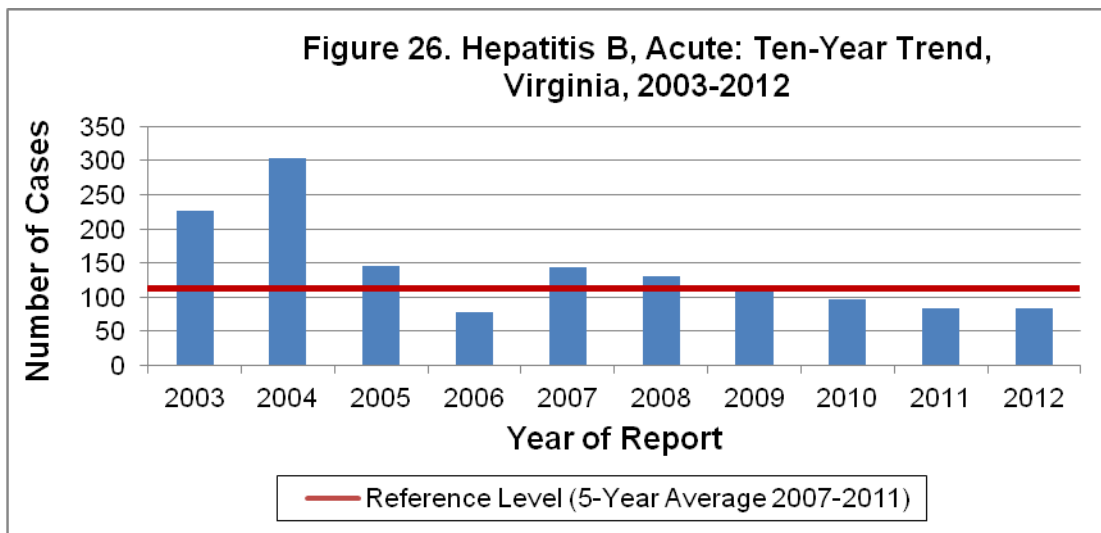
Agent: Hepatitis B virus (HBV), a hepadnavirus

Mode of Transmission: Person-to-person transmission through infected blood or body fluids (e.g., sexual, perinatal, or through the skin by nonsterilized needles or syringes).

Signs/Symptoms: Fever, fatigue, loss of appetite, nausea, abdominal pain, and jaundice. Infection can be asymptomatic. The likelihood of developing symptoms is age-dependent with adults and children over the age of five years being more likely to develop symptoms.

Prevention: Preventive strategies include immunization of people at increased risk of infection; screening of all pregnant women and treatment of children born to women who test positive; routine immunization of infants; routine immunization of adolescents who have not previously been immunized; and screening of donated blood and organs.

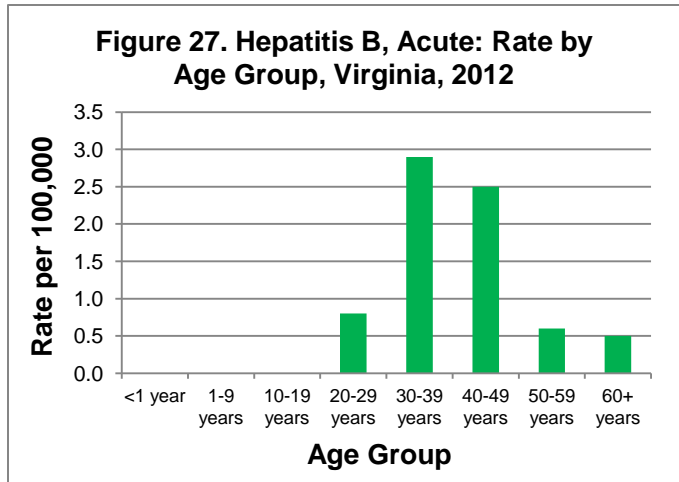
Other Important Information: Infection with hepatitis B virus may lead to chronic (i.e., long-term) infection. The risk of chronic infection is inversely related to the age of the patient at the time of infection. Death from liver disease occurs in 15%-25% of those with chronic infection. A nationwide strategy to eliminate hepatitis B infection was initiated in 1991. It included vaccination of infants at birth, prevention of perinatal hepatitis B infections, vaccination of children and adolescents, and vaccination of adults at high risk of infection.



In both 2012 and 2011, 84 cases of acute hepatitis B infection were reported in Virginia. This represents a 26% decrease from the five-year average of 113.0 cases per year (Figure 26), and a substantial reduction from routine incidence of over 500 cases per year in the mid 1980s. The general decrease in reported cases in Virginia reflects a national trend related to the availability of hepatitis B vaccine since 1981 and a strategy initiated in 1991 to eliminate hepatitis B transmission in the United States.

The highest incidence rate was observed in the 30-39 year age group (2.9 per 100,000), followed by the 40-49 year age group (2.5 per 100,000) (Figure 27). As in 2011, no cases were reported in persons under the age of 20 years. Among the 66% of cases for whom information on race was available, incidence rates were similar in the white, black and “other” race populations, ranging from 0.5 to 0.8 per 100,000. A slightly higher rate was observed in males than in

females (1.3 and 0.8 per 100,000, respectively). The rate of 3.0 per 100,000 occurring in the southwest region was ten times the rate of 0.3 per 100,000 observed in the northern region and was notably higher than the rates in the other regions (0.6 to 1.3 per 100,000). A community-wide outbreak associated with injection drug use in the southwest region resulted in a clustering of cases in the second and third quarters of the year. More than 30 acute hepatitis B cases were identified in this outbreak. One additional outbreak of acute hepatitis B was identified in the northwest region; lapses in infection prevention practices associated with blood glucose monitoring resulted in at least three residents in an assisted living facility being infected.



Risk factors were identified in 65% of cases, with multiple risks listed for some individuals. Of those with risk factor information, recreational drug use and contact with a person with confirmed or suspected acute or chronic hepatitis B virus infections were the most frequently reported risk behaviors (36% and 31% of cases, respectively). Two deaths due to acute hepatitis B infection were reported in 2012, both associated with the outbreak in the southwest region.