1 in 5 People Who Inject Drugs Have Had Hepatitis B

National survey finds HBV rate is four times higher than that of the overall U.S. population.

August 23, 2019 By Liz Highleyman

About 20% of people with a history of injection drug use have antibodies indicating current or past infection with hepatitis B virus (HBV), according to a recent study. This is about four times higher than the rate in the general population.

HBV is readily transmitted via shared syringes and other equipment used to inject drugs, and many people who do so acquire hepatitis B soon after they start injecting. Approximately 850,000 people in the United States have chronic HBV infection, according to the Centers for Disease Control and Prevention (CDC). While a majority of people with chronic hepatitis B were born outside the United States in countries with high HBV rates, U.S. regions heavily affected by the opioid crisis have seen a surge in new HBV cases starting around 2010.

Jaimie Shing, MPH, of Vanderbilt University Medical Center, and colleagues conducted a study to estimate the proportion of people who test positive for hepatitis B core antibodies, which indicate past or present HBV infection.

Most people who acquire HBV as adults will clear the virus naturally, but around 10% will develop chronic infection. (These proportions are reversed for those who acquire HBV as infants, in which case most will develop chronic infection.)

After clearing the virus, hepatitis B core and surface antibodies remain in the blood, signaling past infection and conferring protection against future infection. People who are immune thanks to hepatitis B vaccination test positive for hepatitis B surface antibodies but negative for core antibodies. Although universal HBV vaccination for infants has been recommended since the early 1990s, many older individuals remain unprotected.

As described in Clinical Infectious Diseases, this analysis included adult participants (ages 20 to 59) in the 2001–2016 National Health and Nutrition Examination Survey (NHANES), an ongoing CDC study of the health of the U.S. population. Of note, this household survey does not include people in prisons or residential health facilities or members of the active-duty military, all of whom have higher HBV rates than the general population.

In the study, a total of 26,785 participants were tested for hepatitis B and 20,431 responded to the question about injection drug use. About 3% reported that they had never injected drugs. Within this group, two thirds were men, 53% were baby boomers born between 1945 and 1965—traditionally the age group with the highest HBV rate—80% were white and 62% had health insurance. One in five reported current or recent (within the past year) injection drug use and 45% said they had injected at least once a day.

The researchers reported that the prevalence, or total presence of hepatitis B core antibodies among participants who reported a history of drug injection was 19.7%, compared with a rate of 4.6% in the population as a whole.

Among people with a history of injection drug use, those born between 1945 and 1965, Black individuals and those who had injected at least 100 times in their life were more likely to have antibodies indicating prior HBV infection. The lower HBV prevalence among people ages 20 to 39 may reflect the fact that this group benefited from infant vaccination, the researchers noted.

Among those who did not inject drugs, baby boomers, men, Black people and Asians were more likely to have evidence of HBV infection. The higher rate among baby boomers who never injected drugs may, in part, be attributable to medical interventions before the advent of universal precautions against blood-borne infections, the study authors suggested. The higher rate among Black individuals in the general population shows that the racial disparity is not entirely attributable to injection drug use, the researchers noted.

In the general population, 0.4%—about one tenth of those who tested positive for core antibodies—tested positive for hepatitis B surface antigen (HBsAg), indicating a current infection. Current infections could not be calculated in the injection drug-using group, but the proportion would be expected to be about the same.

The survey also showed that 22.0% of those who reported drug injection and 4.8% in the general population had evidence of HBV immunity due to past infection, while 14.7% and 21.7%, respectively, were immune due to vaccination. In addition, 28.5% of participants with a drug injection history and 31.3% of those in the general population had antibodies conferring immunity to hepatitis A virus (HAV), indicating that they had either naturally cleared the virus or had received the HAV vaccine. HAV is transmitted via contaminated food or water, not through blood as with HBV.

“One-fifth of adults with [an injection drug use] history had previous or ongoing HBV infection, which was over four times higher than the prevalence in the general population,” the study authors concluded. They added that programs promoting safe injection practices, drug addiction treatment and hepatitis A and B vaccination “should be key components of viral hepatitis prevention programs to minimize the risk of transmission to susceptible people who inject drugs.”

Click here to read the study abstract.

Click here to learn more about hepatitis B.

© 2026 Smart + Strong All Rights Reserved.
http://beta.docker.hepmag.com/article/1-5-people-inject-drugs-hepatitis-b