



Hepatitis B and the Opioid Epidemic

Despite the availability of a highly effective vaccine, barriers to preventing hepatitis B infection in the U.S. remain. These barriers include low rates of hepatitis B vaccination coverage among adults and increased rates of injection drug use – a major risk factor for hepatitis B (HBV), hepatitis C (HCV), and HIV infections – as the opioid epidemic in the U.S. continues.

Up to 2.2 million Americans and more than 257 million people worldwide are chronically infected with HBV. Hepatitis B is the world's most common serious liver infection and the deadliest vaccine-preventable disease in the world. Without diagnosis or intervention, **1 in 4 chronically infected with HBV will go on to develop liver failure and/or liver cancer.** Many will die prematurely due to cirrhosis or liver cancer – the second deadliest cancer in the U.S. with a five-year survival rate of less than 15%.

Hepatitis B is transmitted through infected blood and bodily fluids. This occurs most commonly through perinatal transmission (from an infected mother to her baby at birth), but also through unprotected sexual contact, non-sterile health care procedures, and/or injection drug use. **HBV is 100 times more infectious than HIV and 10 times more infectious than HCV.**

However, HBV infection is preventable. **A new 2 dose vaccine to be administered over 1 month was approved in 2018 for adults.** A safe and effective 3 dose vaccine has been available for over 30 years for all age groups. The hepatitis B vaccine was designated as the first “anti-cancer” vaccine, since preventing HBV infections can prevent primary liver cancer. The HBV vaccine is recommended for all infants and children 18 years or younger by the CDC's Advisory Committee on Immunization Practices and the American Academy of Pediatrics. The CDC also recommends that adults with high risk of HBV infection be vaccinated, including people who inject drugs.

For the first time since 2006, the number of reported acute HBV cases across the country is rising, and has increased by 20.7% in 2015 alone. Parts of the country hardest hit by the opioid epidemic are facing a rise in acute HBV infection associated with injection drug use.

- *Maine saw a 489% increase in new HBV cases from 2015-2016, with 45% of new cases co-infected with HCV*
- *From 2009 to 2013, new cases of HBV increased by 114% in Kentucky, Tennessee, and West Virginia.*
- *The number of acute HBV cases in those three states increased specifically among non-Hispanic whites, people 30–39 years old, and injection drug users.*
- *From 2014-2016, new cases of HBV increased by 56% in North Carolina, and Southeastern Massachusetts had a 78% increase in new HBV cases over the annual average in 2017.*
- *As HBV is commonly transmitted from mother to infant during childbirth, these newly infected young adults risk passing the virus on to their children, putting these babies at risk for liver cancer that is 68 times greater than the general population.*
- *The spread of HBV infection among injection drug users is disproportionately affecting rural communities and people under 40, similar to the trend with HCV cases.*

This is why it is critical to increase HBV vaccination coverage, particularly among young adults born prior to 1991, when HBV vaccination for infants became routine. While the HBV vaccine series offers lifelong protection from infection, data from 2013 indicated that **only 32.6% of adults aged 19 to 49 years were covered by the full three-dose vaccine.** Coverage is estimated to be even lower among injection drug users who are at high risk of contracting HBV.

To prevent and eliminate hepatitis B as a U.S. public health threat, strategies to promote testing, vaccination, and linkage to care – particularly among high-risk populations impacted by the opioid epidemic – must be implemented while raising awareness about the seriousness of hepatitis B and its deadly link to cirrhosis, liver failure, and liver cancer.

References

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