

**H**epatitis B Virus (HBV) is a vaccine-preventable liver infection caused by the hepatitis B virus (HBV). Hepatitis B is spread when blood, semen, or other body fluids from a person infected with the virus enters the body of someone who is not infected. This can happen through sexual contact; sharing needles, syringes, or other drug-injection equipment; or from mother to baby at birth. For many people, Hepatitis B is a short-term illness. For others, it can become a long-term, chronic infection that can lead to serious, even life-threatening health issues like cirrhosis or liver cancer.<sup>1</sup> There are potentially 2.4 million people living with Chronic Hepatitis B in the United States<sup>2</sup> and an estimated 20,700 new Acute Hepatitis B infections annually.<sup>1</sup>

Despite the availability of an effective vaccine, just 30% of adults in the U.S. have been vaccinated against HBV.

### Racial Disparities

In the United States, the burden of HBV has shifted significantly since 2005:

In 2005, Black Americans had the highest rate of new Acute HBV diagnoses, with a rate of 3.0 (per 100k), followed by American Indians/Alaska Natives (1.6), Asians/Pacific Islanders (1.3), Hispanic/Latinos (1.1), and Whites (1.1). By 2019, the burden shifted, with every racial demographic seeing at least a 62.5% decrease in new diagnoses except for Whites, which saw just a 9.1% decrease.<sup>1</sup>

The vast majority of new Acute HBV diagnoses (64.1%) occur in White Americans, with Black Americans accounting for 12%. Unfortunately, surveillance and reporting on HBV are notoriously lax, meaning that many data points are missing, including race. As a result, 14.8% of reported diagnoses were listed as “Other”.<sup>1</sup>

### Sex/Gender Disparities

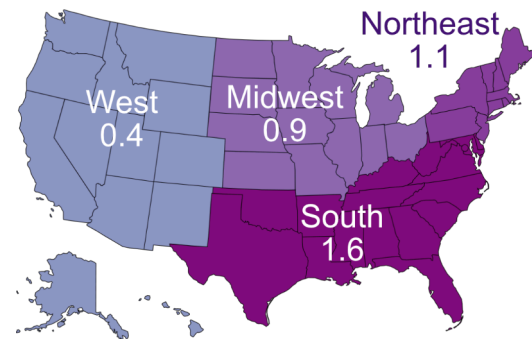
Males are significantly more likely to be diagnosed with Acute HBV than their female counterparts, with rates of new diagnoses of 1.3 and 0.7, respectively.<sup>1</sup>

### Income Disparities

Little research has been conducted on income disparities and Acute HBV diagnoses in the United States. That said, of the ten states with the highest rates of new diagnoses, 7 states—MS, LA, KY, WV, TN, NC, and FL (in order from most to least impoverished)—fall within the 20 most impoverished states in the U.S., where at between 24.7% and 33.3% of residents earn below 150% of the Federal Poverty Level.

### Regional Disparities

Acute HBV diagnoses are not evenly distributed across the U.S. The incidence of new diagnoses disproportionately impacts Americans living in the South, with an incidence rate of 1.6 (per 100k), compared to the national rate of just 1.0.<sup>1</sup>



### Disparities in Modes of Transmission

In 67% of reported cases, either no risk factors were identified, or the data are missing. Of the 33% of reported cases with identified risk factors, 35% report Injection Drug Use as the primary risk factor.<sup>1</sup>

### Prevention and Treatment

The transmission of HBV can be prevented through the administration of a complete course of vaccination. There is no cure for HBV. Chronic HBV is treatable with entecavir (Baraclude, Bristol Myers Squibb), tenofovir disoproxil fumarate (Viread, Gilead Sciences), tenofovir alafenamide (Vemlidy, Gilead), and pegylated interferon being the first-line drugs of choice for anti-HBV therapy.<sup>3</sup> The costs of these medications runs between \$900.00 and \$1,300.00 per month, though generics for Viread and Baraclude are significantly cheaper.

### References

<sup>1</sup> Centers for Disease Control and Prevention. (2021a, May 11). *Viral Hepatitis Surveillance Report - Hepatitis B*. Atlanta, GA: United States Department of Health and Human Services: Centers for Disease Control and Prevention. <https://www.cdc.gov/hepatitis/statistics/2019surveillance/HepB.htm>

<sup>2</sup> Hepatitis B Foundation. (2021). *Hepatitis B Facts and Figures*. Doylestown, PA: Hepatitis B Foundation: What is Hepatitis B. <https://www.hepb.org/what-is-hepatitis-b/what-is-hepb/facts-and-figures/>

<sup>3</sup> Chien, R. -N. & Liaw, Y. -F. (2022). Current Trend in Antiviral Therapy for Chronic Hepatitis B. *Viruses*, 14(2), 434. <https://doi.org/10.3390/v14020434>