Hepatitis B Deaths Are Higher in Coastal and Appalachian States

Over the past decade, deaths related to HBV rose significantly in West Virginia and Kentucky.

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Coastal and Appalachian states had the highest rates of deaths from hepatitis B during 2000 to 2019, according to a nationwide study published in JAMA Network Open.

Although people born outside the United States—especially those from Asia—have historically had a higher prevalence of hepatitis B virus (HBV), people born in the United States now account for some two thirds of HBV-related deaths.

Over years or decades, chronic hepatitis B can lead to serious complications, including cirrhosis, liver cancer and liver failure leading to transplantation or death. While HBV-related mortality has been well studied at the national level, reasons for regional differences remain unclear.

Philip Spradling, MD, and colleagues with the Centers for Disease Control and Prevention's National Center for HIV, Viral Hepatitis, STD, and TB Prevention looked at regional variations in hepatitis B mortality rates and identified characteristics of people who had HBV listed on their death certificates.

The researchers analyzed Multiple Cause of Death data for 35,280 individuals who had hepatitis B listed as an underlying or contributing cause of death across all 50 states and the District of Columbia, including 17,483 deaths that occurred between 2010 and 2019.

Around 63% of people who had hepatitis B listed as a cause of death were born in the United States. Nearly three quarters were men, 47% were white and 26% were Asian or Pacific Islander. More than a quarter (28%) also had hepatitis C virus coinfection.

The overall national HBV mortality rate was 0.47 deaths per 100,000 people, but certain states diverged significantly from the national average. The District of Columbia had the highest death rate, at 1.78 deaths per 100,000 people. Death rates in 11 states significantly exceeded the national average (Hawaii, Oklahoma, California, Tennessee, West Virginia, Mississippi, Oregon, Washington, Louisiana, Kentucky and New York). Some 20% of hepatitis B deaths occurred in California, with 8% each in New York and Texas and 6% in Florida.

The national median age for HBV-related death was 60 years, compared with 77 years for deaths due to other causes. But in some states, people died of hepatitis B at even younger ages, including Kentucky (54 years), West Virginia (56 years), Tennessee (57 years), Mississippi (58 years) and Ohio (59 years).

Across the study population, hepatitis B was listed as the underlying cause for about 30% of deaths among people born in the United States and those born abroad. In both groups, most had a liver-related underlying cause of death. Among people born in the United States, the most common underlying causes were HBV (30%), liver cancer (14%) and other types of cancer (11%). For people born outside the country, the most common causes were liver cancer (38%), HBV (29%) and non-liver cancers (12%).

Between 2000 to 2019 and 2010 to 2019, HBV-related mortality rates dropped by 19% nationwide. However, significant increases were seen in West Virginia (up by 84%) and Kentucky (up by 69%).

Based on these findings, the researchers concluded, "In addition to addressing liver-related complications, U.S.-born persons with chronic infection may also require diagnosis and management of multiple comorbidities."

Click here to read the study in JAMA Network Open.

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