

Prevalence of chronic hepatitis B may exceed 2 million, higher in US than previously reported

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The prevalence of chronic hepatitis B virus (HBV) infection in the U.S. may be as high as 2.2 million cases according to a new study now available in *Hepatology*, a journal published by Wiley-Blackwell on behalf of the American Association for the Study of Liver Diseases. Findings suggest the higher prevalence of chronic HBV can be attributed to foreign-born persons who were infected in their country of origin prior to arrival in the U.S. Emigrants from Asia and Africa, where infection with hepatitis B is highly endemic, represent close to 70% of the 1.32 million foreign-born persons living with chronic HBV in the U.S. in 2009.

Chronic HBV is a major health burden that experts say affects up to 400 million individuals worldwide, with up to 25% at risk of [premature mortality](#) due to primary liver cancer and end-stage [liver disease](#) if the infection is left untreated. In the U.S., the [Centers for Disease Control and Prevention](#) (CDC) estimate that in 2006 there were 800,000 to 1.4 million persons living with chronic HBV. However, previous reports may underestimate the true burden of [chronic hepatitis B](#) as individuals in the U.S. who are institutionalized, homeless, and foreign-born "at risk" populations are underrepresented on national health surveys.

"There is a wide discrepancy in the current estimates of the chronic HBV burden in the U.S.," explains lead author Dr. Kris Kowdley, Director of the Liver Center of Excellence at Virginia Mason Medical

Center in Seattle, Washington. "Understanding the ethnic and cultural populations affected by chronic hepatitis B will provide more accurate estimates and help to develop programs for prevention, earlier diagnosis, and access to care for those at greatest risk."

For the present study researchers systematically reviewed the world's medical literature for HBV seroprevalence rates from 1980 to 2010. The team identified 256 [disease prevalence](#) surveys for emigrants from 52 countries and 1,797 surveys for the general populations of 98 countries for use in the meta-analysis. Individuals with lower or higher risk of chronic HBV than the general population and groups not likely to emigrate were excluded. These surveys provided data for populations from the 102 countries of origin for migrants to the U.S. as determined in the U.S. Census 2009 American Community Survey.

Analysis determined between 1.04 million and 1.61 million (1.32 million estimate) foreign-born persons were living with chronic hepatitis B in the U.S. in 2009. Chronically infected emigrants were mainly from Asia, Africa, and Central America, accounting for 58%, 11% and 7% of the foreign burden of disease in the U.S., respectively. "Our analysis suggests the total prevalence of chronic HBV is significantly higher, exceeding two million cases or twice the number previously reported," said Dr. Kowdley.

Senior author, Dr. Carol Brosgart, a member of the faculty at the Division of Global Health, UCSF and Senior Advisor on Science and Policy to the Viral Hepatitis Action Coalition at the CDC Foundation added, "This study highlights an important health concern for the U.S. and the need for broader hepatitis B screening of foreign-born individuals. Given our ability to treat chronic HBV and to monitor for emergence of liver cancer when it is treatable, physicians should screen the foreign-born, their children and close contacts. If these individuals do not have chronic infection and are not immune, then they are good

candidates for HBV immunization. Hepatitis B is a serious infection with the risk of long-term consequences of cirrhosis, end-stage liver disease, liver cancer and premature death. Today this is a disease that we can prevent and we can treat."

In a related editorial also published in *Hepatology*, Drs. John Ward, the Director of the Division of Viral Hepatitis (DVH) at the CDC and Kathy Byrd, a medical epidemiologist in the DVH, note, "The study by Kowdley and colleagues provides evidence that numerous and diverse foreign-born populations in the U.S. are at risk for chronic [hepatitis B](#). Nearly 3.5% of all foreign-born persons in the U.S. are living with this disease—a rate more than 10-fold higher than the prevalence of the general U.S. population." The editorial authors further emphasize the need for culturally specific services along with expanded HBV testing and linkage to care and treatment to prevent new infections, liver disease and cancer.

Hepatitis sickens millions around the world and kills one million people each year according to the World Hepatitis Alliance. The World Hepatitis Alliance in collaboration with the World Health Organization (WHO) have designated July 28, 2012 as World Hepatitis Day to raise awareness of viral hepatitis.

More information: "Prevalence of Chronic Hepatitis B among Foreign-Born Persons Living in the United States by Country of Origin." Kris V. Kowdley, Chia C. Wang, Sue Welch, Henry Roberts, and Carol L. Brosgart. *Hepatology*; Published Online: February 16, 2012 ([DOI: 10.1002/hep.24804](#)); Print Issue: July 2012.

Editorial: "Hepatitis B in the United States: A Major Health Disparity for Foreign-Born Minorities." John W. Ward and Kathy K. Byrd. *Hepatology*; Published Online: April 24, 2012 ([DOI: 10.1002/hep.25799](#)); Print Issue: July 2012.

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