

Over 20 million individuals infected with hepatitis E in Asia and Africa

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New research funded by the World Health Organization (WHO) estimates that 20.1 million individuals were infected with hepatitis E virus (HEV) genotypes 1 and 2 across 9 world regions in 2005. According to findings available in the April issue of *Hepatology*, a journal published by Wiley-Blackwell on behalf of the American Association for the Study of Liver Diseases, there were 3.4 million symptomatic cases, 70,000 deaths, and 3,000 stillbirths from HEV that year in countries throughout Asia and Africa.

Unlike [hepatitis virus](#) B and C strains that lead to chronic disease states, HEV causes acute illness. Previous studies show HEV genotypes 1 and 2 specifically infect humans, and are associated with large outbreaks in developing countries where sanitation conditions are poor. There is evidence that HEV increases [mortality risk](#) among pregnant women. While a safe and effective HEV vaccine has been developed, it has not been widely implemented.

"Our study represents the first attempt to estimate the annual global impact of [hepatitis E](#)," said lead author Dr. David Rein of the social science research organization NORC at the University of Chicago. Estimates were created by modeling the disease burden of HEV genotypes 1 and 2 in the 9 regions, representing 71% of the world's population. Based on published evidence the team—a collaboration between researchers from NORC, WHO and RTI International—also estimated annual incidence of infection to determine symptomatic, asymptomatic, and mortality cases.

The team determined that the prevalence pattern of HEV was consistent across the regions, with the largest incident increase occurring in those between the ages of 5 and 20 years. The average age of infection was 17 years with the lowest age of infection in North Africa (8 years) and highest in East Asia (21 years).

Of the more than 20 million people infected with HEV, 61% of the cases occurred in East and South Asia, two regions which also accounted for 65% of deaths from HEV. Researchers also noted that North Africa accounted for 14% of all global HEV infections, but only 8.3% of symptomatic cases and 8% of deaths, which the authors attribute to the younger average age of infection in that region.

The authors caution there are limitations to the study which only estimated incidence of HEV genotypes 1 and 2, leaving out [genotype 3](#) that prevalently occurs in Europe and the U.S., and genotype 4. "Future HEV estimates should include genotypes 3 and 4 to provide a complete picture of the global burden of HEV," concludes Dr. Rein.

More information: "The Global Burden of Hepatitis E Virus Genotypes 1 and 2 in 2005." David B. Rein, Gretchen Stevens, Jordan Theaker, John S. Wittenborn and Steven T. Wiersma. *Hepatology*; Published Online: November 26, 2011 ([DOI: 10.1002/hep.25505](https://doi.org/10.1002/hep.25505)); Print Issue Date: April 2012.

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