

TREAT ASIA

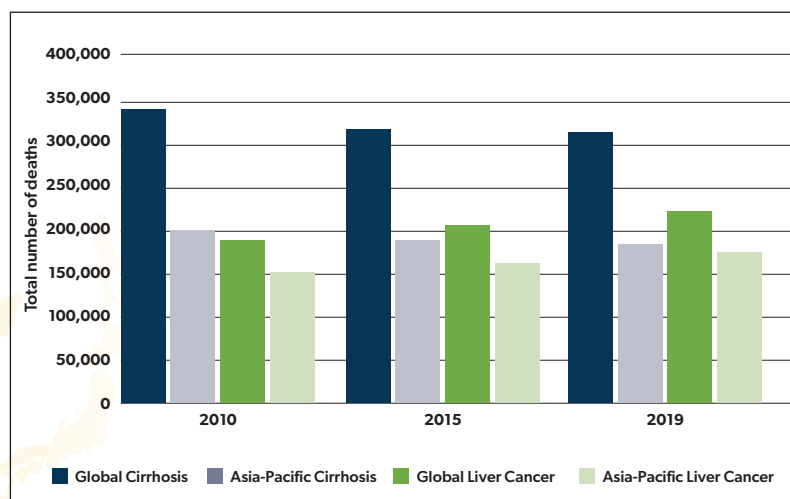
Hepatitis B: A Hidden Public Health Emergency in the Asia-Pacific

KEY POINTS

- The Asia-Pacific region bears the highest global burden of hepatitis B (HBV) infection, with **59%** of those living with chronic HBV and **79%** of deaths.
- In the Western Pacific, **18%** have been diagnosed and **5%** have been treated; and in South-East Asia, only **2%** have been diagnosed and **0.2%** treated.
- There is growing interest in simplifying HBV treatment criteria to **“treat all,”** which may be a more cost-efficient strategy, but research is needed to validate the potential benefits and optimize implementation strategies.

The morbidity and mortality caused by chronic hepatitis B virus (HBV) infection requires urgent attention. An estimated 296 million people are living with chronic HBV across the world, with 1.5 million new infections and 820,000 deaths due to HBV-related complications in 2019 alone. The Asia-Pacific region bears the highest overall burden of HBV, with 59% of those living with chronic HBV, 26% of new infections, and 79% of deaths.¹ Globally, 38% of deaths due to liver cancer and 23% of deaths due to liver cirrhosis are attributed to HBV. The Asia-Pacific accounts for 80% of global liver cancer—and 59% of liver cirrhosis-related deaths.

Figure 1. Mortality due to complications of hepatitis B virus infection



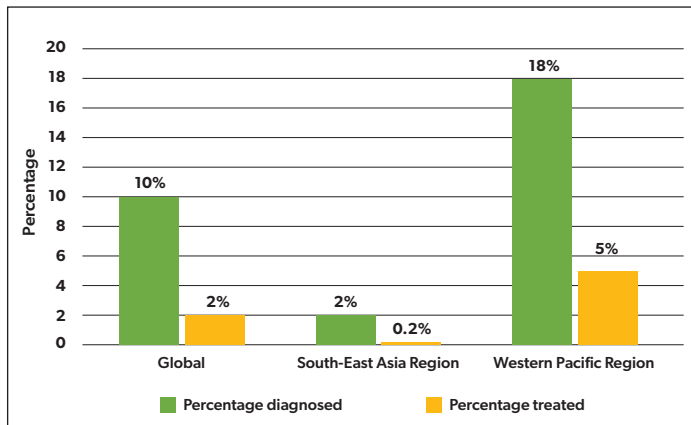
Data source: World Health Organization, Global Health Estimates, Leading causes of death.

In 2016, the World Health Assembly of the United Nations set targets to eliminate viral hepatitis caused by HBV and hepatitis C virus (HCV) as a public health threat by 2030. Key aspects of the elimination plan include reducing new infections by 90% and deaths by 65%, compared to 2015 data.² This commitment was renewed in 2022 in the World Health Organization’s (WHO) Global Health Sector Strategies for 2022–2030. WHO’s two regional offices in South-East Asia and the Western Pacific have developed their regional hepatitis action plans in line with these global strategies.^{3,4}

CURRENT STATUS OF DIAGNOSIS AND TREATMENT OF HBV

The aims of the Global Health Sector Strategies include diagnosing 90% of people living with chronic HBV and ensuring that 80% of those individuals receive treatment by 2030. At the end of 2019, of the 296 million people living with chronic HBV, 10% had been diagnosed, and only 2% were accessing treatment. In the Western Pacific region, 18% had been diagnosed and 5% were treated, and in the South-East Asia region, the proportions fell to only 2% diagnosed and 0.2% treated.⁵ No countries are on track to achieve elimination of HBV by 2030.⁶

Figure 2. Percentage of people diagnosed and treated for hepatitis B virus infection



Data source: World Health Organization, Global progress report on HIV, viral hepatitis and sexually transmitted infections, 2021.

More effective strategies to screen, diagnose, and link people to viral hepatitis care and treatment are urgently needed. However, we do not know enough about the care cascade for HBV, as represented by the numbers of people who have been screened and vaccinated, and entered and were retained in care. In the absence of this information, we cannot identify the gaps where advocacy efforts and interventions are needed.

PREVENTION AND TREATMENT OF CHRONIC HBV

Vaccines that effectively prevent HBV infection have been available for decades, and a three-dose series could be available for less than US\$1.⁷

The WHO has recommended vaccination of previously unimmunized high-risk groups in many of its guidelines,^{8,9,10,11} but no regional programs have implemented this on a large scale, despite the widespread availability of these vaccines.

The antiviral drug tenofovir disoproxil fumarate (TDF) has been recommended for HBV treatment since 2008. Extensively used for HIV prevention and treatment, TDF is considered safe and is widely available in quality-assured generic formulations, which can cost as little as US\$2.40 per bottle of 30 tablets.¹²

The Global Fund, in its 2023–2025 allocations, has expanded its scope to allow countries to include viral hepatitis screening for

all key populations in the health programs they fund, thus providing additional opportunities to strengthen programs to address HBV.¹³ There also are existing HIV and HCV programs with established infrastructure, diagnostics capacities, and personnel that could serve as effective platforms to reach people with appropriate HBV screening and linkage to care interventions.

SIMPLIFYING HBV TREATMENT CRITERIA TO “TREAT ALL”

Low- and middle-income countries (LMIC) in the Asia-Pacific largely depend on WHO guidelines to inform the development of their own viral hepatitis control programs. Current WHO guidelines for initiation of HBV treatment involve testing for HBV DNA and liver enzymes (i.e., ALT), and assessments for liver cirrhosis, which may need to be done twice a year or more frequently.¹⁴ These tests and processes are complicated, costly, and can be challenging to conduct in LMIC settings, creating additional barriers to accessing diagnosis and treatment.

There is growing interest to offer treatment to all people who have been diagnosed with an HBV infection.¹⁵ This “treat all” approach would simplify treatment decisions, improve treatment rates, and hasten progress towards HBV elimination by reducing liver disease-related deaths.^{16,17,18} Unfortunately, there are research gaps around “treat all” strategies for people with chronic HBV. Additional studies would be needed to validate the potential benefits and optimize implementation strategies.

CONCLUSIONS

The Asia-Pacific region bears a large burden of new and chronic HBV infections, and associated illness and death. The current slow rates of diagnosis and treatment of HBV are insufficient to achieve elimination.

We now need to reach more people with the tools we have to prevent and manage HBV. Effective vaccines against HBV are available at low cost, and there are opportunities to reach high-risk groups through existing harm reduction and other health programs. Programmatic strategies and political will are required to adopt WHO guidelines and leverage Global Fund and domestic funding to support access to care. National programs in the region need to allocate technical and human resources to ensure that high-risk groups and people with chronic HBV can access prevention, care, and treatment in support of HBV elimination.

¹World Health Organization, Global progress report on HIV, viral hepatitis and sexually transmitted infections, 2021, <https://www.who.int/publications/i/item/9789240027077>.

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³World Health Organization, South-East Asia Regional Office, Integrated regional action plan for viral hepatitis, HIV and sexually transmitted infections in South-East Asia, 2022–2026, <https://apps.who.int/iris/handle/10665/361834>.

⁴World Health Organization, Western Pacific Regional Office, Regional action plan for viral hepatitis in the Western Pacific, 2016–2020, <https://apps.who.int/iris/handle/10665/208337>.

⁵World Health Organization, Global progress report on HIV, viral hepatitis and sexually transmitted infections, 2021, <https://www.who.int/publications/i/item/9789240027077>.

⁶Blach S, et al. Updated evaluation of global progress towards HBV and HCV elimination, preliminary data through 2021, Center for Disease Analysis, Presentation at The Liver Meeting–AASLD, 2022.

⁷Price from Indian supplier and purchased in India.

⁸World Health Organization, Guidance on prevention of viral hepatitis B and C among people who inject drugs, 2012, https://apps.who.int/iris/bitstream/10665/75357/1/9789241504041_eng.pdf.

⁹World Health Organization, Hepatitis B vaccines: WHO position paper, July 2017, <https://apps.who.int/iris/handle/10665/255873>.

¹⁰World Health Organization, Guidelines for the prevention, care and treatment of persons living with chronic hepatitis B infection, 2015, <https://www.who.int/publications/i/item/9789241549059>.

¹¹World Health Organization, Consolidated guidelines on HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for key populations, 2022, <https://www.who.int/publications/i/item/9789240052390>.

¹²The Global Fund, Pooled procurement mechanism reference pricing, October 2022.

¹³The Global Fund, Technical brief, HIV Programming at scale for and with key populations, 2022, https://www.theglobalfund.org/media/4794/core_keypopulations_technicalbrief_en.pdf.

¹⁴World Health Organization, Guidelines for the prevention, care and treatment of persons living with chronic hepatitis B infection, 2015, <https://www.who.int/publications/i/item/9789241549059>.

¹⁵Hellard M, et al. Simplify access to hepatitis B care, *Nature (Outlook)*, 2022.

¹⁶Wong RJ, et al. Simplifying treatment criteria in chronic hepatitis B: Reducing barriers to elimination, *Clinical Infectious Diseases*, 2022.

¹⁷Kim G, et al. High risk of hepatocellular carcinoma and death in patients with immune-tolerant-phase chronic hepatitis B, *Hepatology*, 2017.

¹⁸Lim Y, et al. Evidence for benefits of early treatment initiation for chronic hepatitis B, *Viruses*, 2023.