

A GLOBAL INVESTMENT CASE FOR HEPATITIS C

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Background: Major gains in reducing the burden of hepatitis C are now possible due to advancements in diagnostics and the discovery of a cure. The prevention of premature deaths and increased workforce participation among people who are cured are likely to provide significant indirect economic benefits. To help catalyze financing, we developed a global investment case for hepatitis C, for the first time considering both direct and indirect economic benefits.

Methods: Mathematical and economic modelling was used to estimate the impact, cost, cost-effectiveness and return on investment of hepatitis C elimination, involving scaling up testing and treatment to reach the WHO targets of 90% of people living with hepatitis C diagnosed and 80% of people diagnosed started on treatment by 2030. Independent epidemic models were calibrated for the six WHO world regions, and a productivity model was used to capture hepatitis C-attributable productivity losses due to absenteeism and presenteeism.

Results: Investment in hepatitis C testing and treatment to achieve elimination was estimated to cost US\$51.0 (US\$42.1-60.0) billion globally between 2018 and 2030, requiring a peak in annual investment of US\$5.7 (US\$4.8-6.6) billion in 2021, before the annual direct costs became less than a scenario of inaction by 2030. In the models, this investment became cost-saving by 2027 due to substantive productivity gains, and produced a net US\$19.4 (US\$4.4-33.1) billion return by 2030 in addition to preventing 2.1 (1.2-3.1) million hepatitis C-related deaths and 12 (9-19) million new hepatitis C infections between 2018 and 2030. A scenario to achieve only 45% of people with hepatitis C diagnosed was also cost-saving by 2027, but resulted in significantly lower longer-term returns (US\$7.2 [US\$3.5-14.9] billion by 2030), due to ongoing transmission leading to perpetual treatment costs.

Conclusion: Countries should consider hepatitis C investment cases to support early financing for greater long-term returns.

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