

Cost-effectiveness of investment projects to support Australia's national hepatitis strategies

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Background:

The Australian Government is expected to release the Fourth National Hepatitis B Strategy and Sixth National Hepatitis C Strategy, aimed at eliminating hepatitis B (HBV) and hepatitis C (HCV) as public health threats by 2030. Without appropriate investment, Australia risks of falling short of proposed national targets. The National HBV and HCV Projects were developed to help achieve the goals of the Strategies by finding people living with viral hepatitis and increasing treatment uptake and monitoring. This study examined the cost-effectiveness of implementing the Projects, measured against the 2030 National Targets.

Methods:

Markov models were developed using published literature and designed to estimate the costs and outcomes of implementing the Projects when compared to a status quo scenario. Prevalent and incident cases of HBV and HCV were modelled to 2030. Transitions between health states in the status quo arm were based on previous modelling studies. The Projects were costed using historical cost data and validated against analyses from similar population-level disease prevention programs. Effects of the Projects were based on published clinical studies. Each analysis was independently validated by Australian epidemiologists.

Results:

The cost of implementing the National HBV Project was calculated to be \$10.4 million per year. By 2030, the Project resulted in an additional 84,863 HBV cases in care, 14,937 people living with HBV receiving treatment, 12,329 HBV cases diagnosed, and 65 fewer HBV-related deaths compared to the status quo. The cost of implementing the National HCV Project was calculated to be \$9.9 million per year. By 2030, the Project resulted in an additional 21,687 HCV cases cured, 14,427 fewer HCV infections, and 1,011 HCV-related deaths avoided compared to the status quo.

Conclusion:

These results highlight the importance of investing in prevention, testing and treatment programs to help reduce the burden of hepatitis in Australia and achieve the national targets.

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