# Reaching the national and WHO hepatitis B elimination targets in Australia is cost-effective and requires more investment.

For complete details and results, **contact Yinzong Xiao (<u>vinzong.xiao@burnet.edu.au</u>)**. Full publication: Xiao Y, Howell J, van Gemert C, Thompson A, Seaman C, McCulloch K, Hellard M, Scott N. Enhancing the hepatitis B care cascade in Australia: a cost-effectiveness model. *J Viral Hepat.* 2019;00:1–11.

## THE ISSUE

The World Health Organization (WHO) has set specific hepatitis B elimination targets for 2030<sup>1</sup>. These include:

- 90% of people living with chronic hepatitis B to be diagnosed
- 80% of people eligible for treatment to be treated.

In Australia, approximately a quarter of a million people are living with chronic hepatitis B, yet an estimated one in three are not diagnosed<sup>2</sup> and only around 26% of those who are eligible for treatment (based on current treatment guidelines) are on therapy. In an effort to address this issue, the Australian Government's 3<sup>rd</sup> National Hepatitis B Strategy<sup>2</sup> sets shorter-term targets by 2022:

- 80% of people living with chronic hepatitis B to be diagnosed
- 50% to receive care
- 20% to receive treatment (i.e. around 65% of those eligible).

The cost and cost-effectiveness of scaling up to reach the national and WHO targets in Australia have not been measured previously. This brief report presents our estimates.

### WHAT OUR WORK FOUND

We modelled the cost-effectiveness of scaling up hepatitis B diagnosis, linkage to care and treatment in Australia to reach Australia's 2022 national targets and the WHO's 2030 global targets. Compared with current testing, care and treatment rates:

- reaching national targets was estimated to cost an additional \$1.3 billion and avert 97,743 disability-adjusted life years (DALYs) (\$13,435 per DALY averted).
- reaching the WHO targets was estimated to cost an additional \$2.4 billion and avert 165,134 DALYs (\$14,482 per DALY averted).

Reaching both the WHO 2030 and the Australian 2022 targets was costeffective\*. However, note that the costs of implementation and demand generation are unknown and were not included here. To compensate for this lack of information, we also estimated the investment that could be spent to reach the Australian and WHO targets whilst remaining costeffective. We estimated that:

- investing up to \$328 million per annum on implementation and demand generation activities to reach the national targets would be cost-effective
- investing up to \$538 million per annum on implementation and demand generation activities to reach WHO's targets would be cost-effective.

\* Cost effectiveness determined based on a willingness to pay \$50,000 per DALY averted.

#### 80% Diagnosed 60% proportion 2030 WHO 2022 National among people 40% diagnosis diagnosis living with CHB target 20% target 0% 2016 2018 2020 2022 2024 2026 2028 2030 100% 80% Receiving care 60% among people 2022 National in 40% living with CHB care rate target 20% 0% 2022 2024 2026 2016 2018 2020 2028 2030 100% 80% 2022 National Receiving 60% treatment treatment among people 40% coverage targe living with CHB 20% 0% 2016 2018 2020 2022 2024 2026 2028 2030 Status quo The National Strategy — The WHO Strategy

100%

Graph showing projections of proportions 1) diagnosed, 2) receiving care, and 3) receiving treatment, among people living with chronic hepatitis B under the status auo. if

### **CONCLUSION AND POLICY IMPLICATIONS**

- Reaching national and WHO targets for eliminating hepatitis B is cost-effective in Australia.
- Investment is required to achieve these targets. Our models suggest that investing \$328 million and \$538 million per year to reach the Australian 2022 and WHO 2030 hepatitis B targets respectively is cost-effective\*.

References:

WHO. Global Health Sector Strategy on Viral Hepatitis 2016-2021, 2016.
Department of Health. Third National Hepatitis B Strategy 2018-2022, 2018.

