

# Progress towards viral hepatitis elimination mortality targets in New South Wales, Australia

## Authors:

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**Background:** *World Health Organization's (WHO) 2030 elimination mortality targets have been recently revised to absolute, population-level measures, including a combined HBV- and HCV-related mortality elimination target of  $\leq 6$  per 100,000 population. We aimed to evaluate progress towards viral hepatitis elimination in New South Wales (NSW), Australia, in response to WHO elimination targets.*

**Methods:** *HBV and HCV notifications in New South Wales, Australia (1995-2022) were linked hospitalisation records and linked mortality records. The impact of HBV and HCV on decompensated cirrhosis (DC), hepatocellular carcinoma (HCC), and mortality was evaluated. Segmented Poisson regression models were used to assess the impact of the viral hepatitis elimination era.*

**Results:** *During 1995-2022, there were 64,865 people with an HBV notification and 112,277 people with an HCV notification in NSW. Between 2002 and 2022, there were significant reductions in age-adjusted HBV- and HCV-related DC, HCC, and liver-related mortality, particularly after the introduction of potent antiviral therapies and the commencement of the elimination era (post-2015). Absolute liver-related mortality in 2022 was 0.95 and 3.56 per 100,000 population, for HBV and HCV, respectively. In the elimination era among those with HBV and HCV, an estimated 167 and 914 deaths were prevented, respectively. In adjusted analyses, older age, higher Charlson comorbidity index scores, and a history of alcohol use disorder were associated with increased liver-related mortality.*

**Conclusion:** *This population-level study provides evidence of declining individual risk of DC, HCC, and mortality, suggesting early progress towards WHO elimination targets and underpinned by therapeutic advancements and effective clinical management for both HBV and HCV.*

## Disclosure of Interest Statement:

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