

# Advancing towards hepatitis B virus elimination: determining the impact of Hep B PAST, a holistic model of care for Aboriginal and Torres Strait Islander peoples in the Northern Territory of Australia

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**Background:** The Northern Territory (NT) has the highest prevalence of chronic hepatitis B (CHB) in Australia, with Aboriginal and Torres Strait Islander peoples disproportionately affected. National elimination strategies targets are 80% diagnosed, 50% engaged in care, and 20% on treatment. The Hep B PAST program aims to improve health outcomes for people living with CHB and eliminate CHB as a public health threat.

**Methods:** This mixed methods study involves Aboriginal and Torres Strait Islander peoples living across 1.3 million km<sup>2</sup> in remote, sparsely populated NT. We used participatory action research principles across three steps: 1. Foundation step: establishing hepatitis B virus (HBV) status and linkage to care; 2. Capacity building: training clinicians, including Aboriginal and Torres Strait Islander health workforce; 3. Supported transition to primary healthcare: implementation of the “Hub and Spoke” model and in-language resources. Analysis occurred at three time points: 1. Pre-Hep B PAST (2018); 2. Foundation step (2020); and 3. Completion of Hep B PAST (2023). Evaluation focuses on four key indicators, the number of people: 1) with documented HBV status; 2) diagnosed with CHB; 3) receiving care; and 4) receiving treatment.

**Results:** Hep B PAST (2018-23) reached 40,555 people. HBV status was documented in 11% (1,192/10,853), 79.2% (26,075/32,915) and 90.8% (28,675/31,588) of people at pre-Hep B PAST, foundation step, and at completion respectively. An estimated 99.9% (821/822) of people were diagnosed, 86.3%

(709/822) engaged in care, and 24·1% (198/822) on antiviral treatment at completion of Hep B PAST. CHB prevalence in the study population is 2·6%, decreasing from 6·1% to 0·4% in the pre- and post-vaccination cohorts, respectively.

**Conclusion:** Hep B PAST is an effective model of care. Partner health services are exceeding elimination targets. This model could enable other countries to enhance the cascade of care and work towards eliminating HBV as a public health threat.

**Disclosure of Interest Statement:** Hep B PAST received a partnership grant from the National Health and Medical Research Council, GNT1190918.