

# Hepatitis B care in remote Australia: Impacts of the novel Hep B PAST Model on health services utilisation

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## (World limit: 300 words)

**Background:** Chronic hepatitis B (CHB) disproportionately affects First Nations peoples in Australia. The Hep B PAST model of care is a collaborative approach which involved the transition of CHB care to a primary health care based, co-ordinated chronic disease model, supported by the establishment of a CHB clinical register. It has dramatically improved diagnosis, engagement in care and antiviral treatment uptake. However, its impact on broader patterns of healthcare utilisation and clinical complexity pre-and post-implementation of Hep B PAST is not known.

**Methods:** A retrospective pre and post study using linked longitudinal primary care, inpatient, emergency department (ED), outpatient and outreach data was conducted. The cohort included First Nations people living with CHB who attended participating remote Northern Territory clinics between July 2014 and May 2023. Outcomes included changes in healthcare utilisation and clinical complexity indicators.

**Results:** A total of 1,063 First Nations individuals with CHB were included. Post implementation of Hep B PAST, the number of individuals accessing CHB-related care increased from 844 to 912, with the largest increases in primary care (+66.5%) and antiviral treatment (+73.2%). Total healthcare contacts rose from 4,173 to 7,575, driven by increases in primary care contacts (+52.6%) and antiviral prescriptions (+63.9%). The annual mean number of healthcare contacts per individual (excluding medications) increased from 2.1 to 2.7. While clinical complexity remained stable (no material changes in Charlson scores, Australian Refined Diagnosis-Related Group complexity and ED triage categories), mean inpatient length of stay decreased from 4.2 days (95% CI: 3.0-5.4) to 2.8 days (95% CI: 2.3-3.2).

**Conclusion:** Hep B PAST implementation was associated with increased engagement in CHB care managed in primary care. This means more people were able to access comprehensive care within local communities rather than travelling long distances for care delivered in tertiary settings.

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