Addressing Hepatitis B in Aboriginal and Torres Strait Islander populations

Innovative testing solutions using Community Collected Microsamples

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Introduction to hepatitis B in Aboriginal and Torres Strait Island Populations

- Hepatitis B presents significant health disparities between Aboriginal and Torres Strait Islander (ATSI) populations and non-First Nations Australians

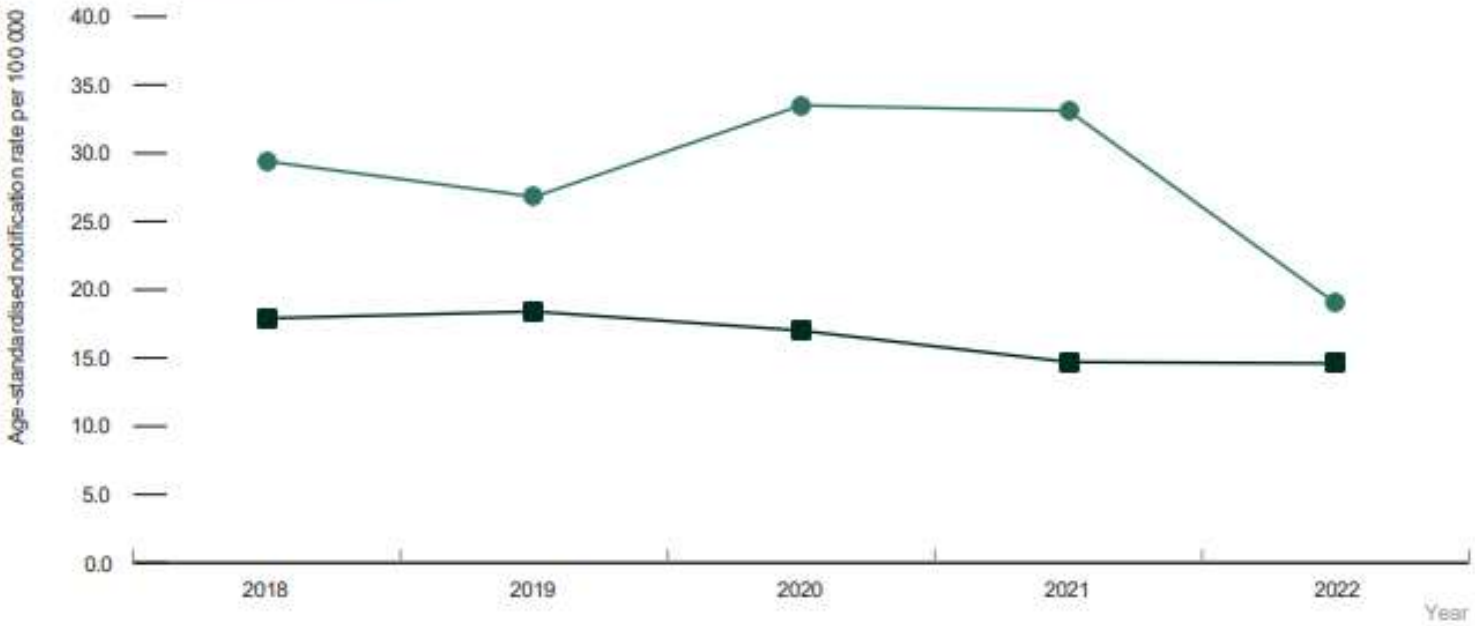
- In regions like the Northern Territory, the prevalence of CHB among ATSI populations is approximately 6.08%, which is significantly higher than the prevalence rate of 1.56% observed in non-Indigenous populations

- These disparities extend beyond prevalence to outcomes and care engagement. First Nations populations often experience lower rates of diagnosis, treatment, and ongoing management.

Hepatitis B in Australia

- In 2022, estimated >205,000 people living with HBV (0.78% of the population)
- Almost 30% of people living with hep B are aware of their status.
- 2/3 of cases are in Aboriginal & Torres Strait Islander populations and people born overseas
- Nationally, only about 25% (12.7% in WA) of all people living with CHB are engaged in appropriate care, and the proportion is often lower for ATSI communities due to barriers like:

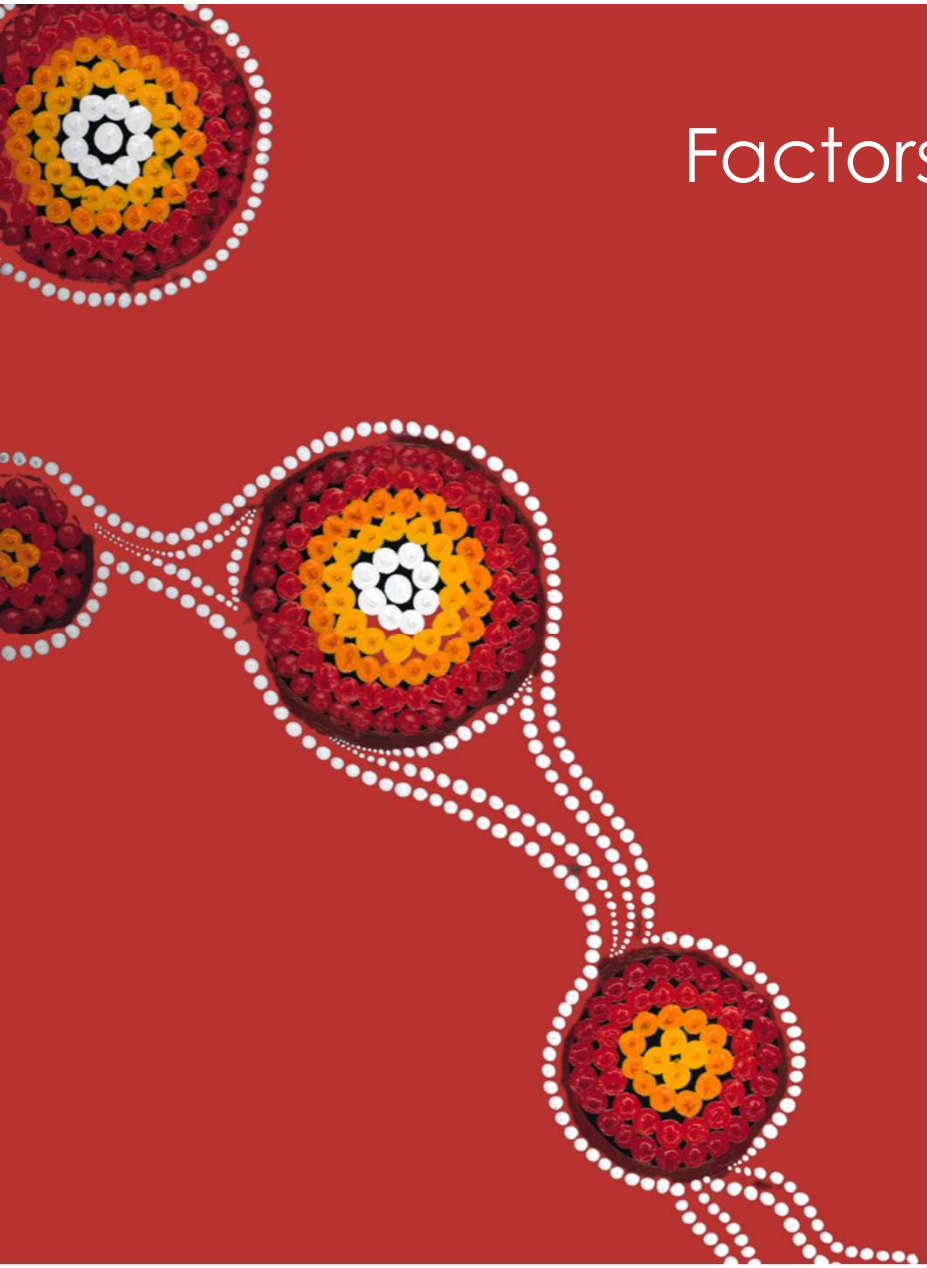
Figure 55 Hepatitis B notification rate per 100 000 population by, Aboriginal and Torres Strait Islander status, 2018-2022



	2018	2019	2020	2021	2022
Aboriginal and Torres Strait Islander peoples	29.4	26.8	33.5	33.1	19.0
Non-Indigenous	17.9	18.4	17.0	14.7	14.6

Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, and Western Australia).

Factors influencing transmission rates in First Nations populations



- Asymptomatic nature of the virus
- Inequality in access to health services
  - Screening issues
  - Vaccinations
  - Medical intervention for positive mothers
- Routes of transmission – vertical transmission, sexual transmission, and cultural influences
- Lack of awareness/education

Table A.4: Estimated prevalence of CHB by remoteness category, 2022

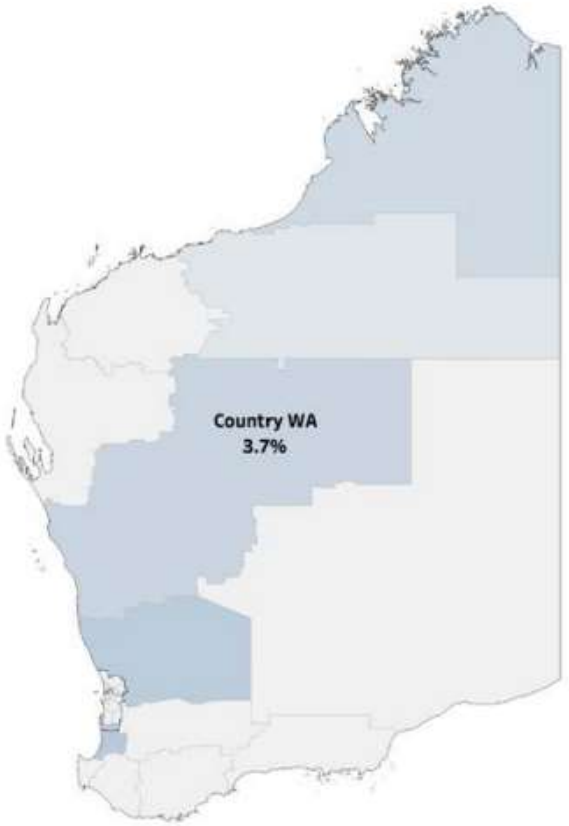
Remoteness level	Total population	People living with CHB	CHB prevalence (%)
Major cities	19,201,661	172,348	0.90%
Inner regional	4,610,462	16,915	0.37%
Outer regional	1,927,367	10,289	0.53%
Remote	235,055	3,048	1.30%
Very remote	125,665	2,949	2.35%
AUSTRALIA	**26,268,359**	**205,549**	**0.78%**

ABS, Australian Bureau of Statistics. CHB, chronic hepatitis B.

Data source: CHB prevalence estimates based on mathematical modelling incorporating population-specific prevalence and ABS population data. Remoteness category based on designations by the ABS.[8]

Totals may not add up due to inclusion of people without a remoteness category of residence recorded in source data.

Figure A.35: Geographic variation in CHB treatment uptake in WA (other than Greater Perth), by PHN and SA3, 2022

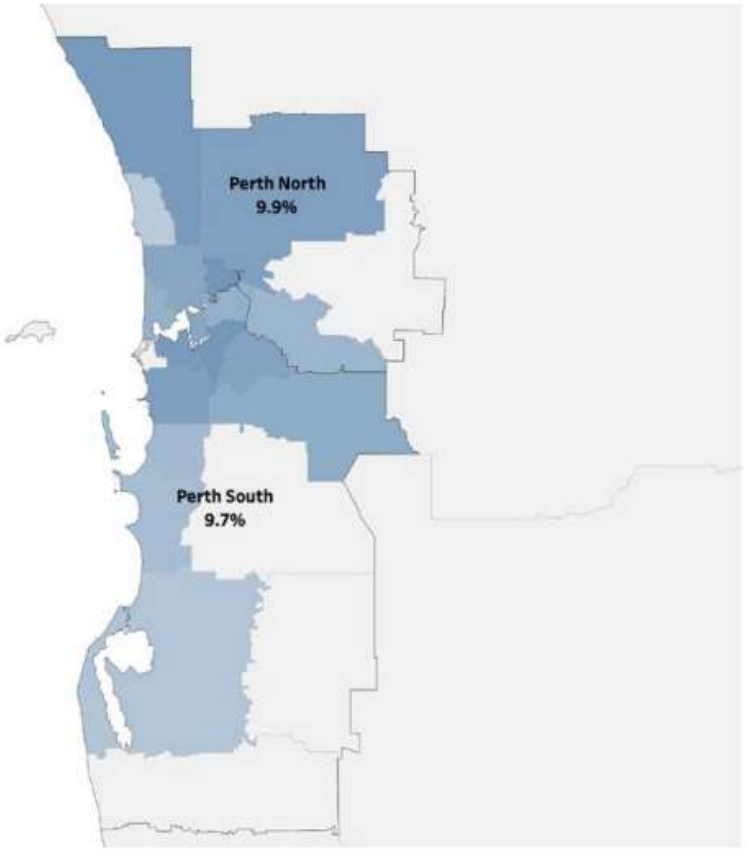


ABS, Australian Bureau of Statistics. CHB, chronic hepatitis B. PHN, Primary Health Network. SA3, Statistical Area 3.

Key: Darker shade of blue denotes higher treatment uptake. PHN outlines, names and overall treatment estimates are denoted in black. Grey areas represent SA3 regions outside the boundary of the PHN, or those with data suppressed due to low treatment numbers (<6).

Data source: CHB prevalence estimates based on mathematical modelling incorporating population-specific prevalence and ABS population data. Treatment data sourced from Medicare statistics.

Figure A.34: Geographic variation in CHB treatment uptake in Greater Perth, by PHN and SA3, 2022



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Barriers to Effective Care

- Challenge of remote areas – lack of local healthcare infrastructure making access to testing and treatment difficult
- Cultural mismatch – many hep B resources aimed at CaLD populations. Need for culturally appropriate resources aimed at ATSI
- Under resources facilities - remote areas frequently lack the resources necessary for effective hepatitis B management. This includes shortages of trained healthcare professionals, diagnostic tools, and antiviral medications
- Transport and Mobility Issues - The significant distances between remote communities and healthcare providers create logistical challenges, making it difficult for ATSI individuals to access consistent care

Barriers to Effective Care

- Cultural stigma – shame and embarrassment rooted in misunderstanding of the disease.
- Concerns in small communities - In small, close-knit Aboriginal communities, concerns about confidentiality can be a significant barrier to care.
- Healthcare Policy and Implementation - Despite national strategies aiming to improve hepatitis B care, systemic barriers such as inconsistent policy implementation and insufficient funding continue to hinder progress.

National Strategy Targets

- Fourth National Hepatitis B Strategy (2023-2030): Aims to eliminate hepatitis B as a public health threat by 2030, with specific targets to improve diagnosis, care, and treatment, especially for Aboriginal and Torres Strait Islander populations
- **Target: 80% diagnosed**.
  Current: ~63.7% diagnosed, lower rates in ATSI populations due to barriers like geographic isolation
- **Target: 50% in regular care**.
  Current: ~25% engaged, lower in ATSI communities due to cultural, socio-economic, and systemic barriers
- **20% receiving treatment.**
  Current: Only 8.3% nationally, even lower in remote ATSI areas
- Emphasis on **culturally secure services** and community engagement to improve outcomes

Non-Clinical Community Screening Models

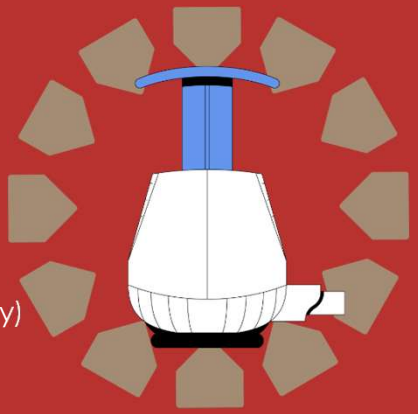
1. Hep B Surface Antigen (HBsAg)
   Point of Care Testing - fingerstick test

- **Pros:**
- Quick result for HBsAg
- Non-clinical use
- Identifies need for reflexive testing
- No need for cold chain protocols

- **Cons:**
- Doesn't identify active viral load
- Requires more blood sample for reflexive testing
- If follow up bloods can't be collected at the time, might be difficult to keep participant engaged

Non-Clinical Community Screening Models

2. TAP Micro Capillary Blood Draw



- **Pros:**
  - Collects enough sample for serology tests
    (hep B surface antigen, hep B core antibody, hep B surface antibody)
  - Identifies active viral load
  - Non-clinical use
  - No need to get participant back for reflexive testing
  - Can also test for hepatitis C, HIV, and Syphilis co-infections

- **Cons:**
  - Not a rapid point of care test (pathology lab test)
  - Cold chain protocols (and/or centrifuge)

TAP Micro Select Demonstrations

Devices to try at each table
Please follow the instructions as we walk you through this

- Facilitator led
- Participant self-collected.
- TGA approved for non-clinical capillary blood draw
- Virtually painless
- No sharps, needleless blood draw

TAP Micro Select

1. Devices are single use only
2. TGA approved blood collection device
3. Approved for clinical and non-clinical use
4. Designed for participant self-collection
5. Capillary blood microsamples tested on Roche Cobas and Abbott Alinity platforms
6. Devices are purchased directly from the manufacturer in Boston at $12 each
7. TAP Micro Select can be used to collect samples for a range of blood tests
8. Designed for use with BD Microtainers
9. Collects up to 900µ volume
10. Painless

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