

# Uptake of guideline-based care to prevent hepatitis B transmission during pregnancy and birth: a national linked data analysis

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**Background:** Australia's National Hepatitis B Strategy 2025-2030 sets ambitious targets for the prevention of mother-to-child-transmission of chronic hepatitis B (CHB) via the provision of guideline-based perinatal care. This includes universal antenatal serology testing; viral load testing for all women with CHB; treatment during pregnancy where indicated; and follow-up testing of children born to women with CHB. Currently no national data are available to assess uptake of these interventions or identify gaps in access, due to the lack of key fields in necessary datasets. Linked data provide an opportunity for assessment through the collation of information relevant to perinatal care for CHB.

**Methods:** Linked data accessed via the Australian Bureau of Statistics (ABS) Person-Level Integrated Data Asset (PLIDA) were analysed, including Medicare records of hepatitis B viral load testing, antiviral treatment, and hepatitis serology testing. Pregnancy status, family linkages, and measures of cultural and linguistic diversity were derived using Census data. Uptake was calculated over time and assessed by geographic and sociodemographic factors.

**Results:** Uptake of antenatal serology testing during pregnancy was high, however Medicare-funded hepatitis B viral load testing occurred in 47.5% of pregnancies occurring in people living with CHB, and antiviral treatment in 11.6% of pregnancies in people living with CHB. Uptake of viral load testing increased slightly between 2011-2021, while antiviral treatment increased substantially. Only 31.5% of children born to mothers with CHB in Australia had received hepatitis serology testing.

**Conclusion:** Despite increases over time, there are still substantial gaps in evidence-based care for the care of hepatitis B during pregnancy, most substantially in hepatitis B viral load testing during pregnancy and serological testing of children. Improvements in service delivery are required to support the prevention of mother-to-child transmission, and support enrolment in ongoing CHB care to reduce the risk of adverse outcomes for mothers.

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