

## TRENDS IN CHRONIC HEPATITIS B PREVALENCE IN AUSTRALIAN WOMEN BY COUNTRY OF BIRTH, 2000-2016

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**Background:** Routine antenatal screening for HBV in countries with high migrant populations provides an opportunity to monitor trends in HBV prevalence and can inform HBV prevalence estimates both locally and in countries with limited seroprevalence data.

**Methods:** We linked records from a perinatal birth register with HBV notifications in the largest Australian state, New South Wales over the period 2000 to 2016. Among women aged 15-44 years we estimated age-standardised chronic HBV prevalence overall and by region and country of birth and, also estimated trends in age-standardised HBV prevalence over time using log-linear or linear models.

**Results:** Among 903,831 women, mean age 30 years, who had a first birth record between 2000-2016, 8001 linked to a record of chronic HBV infection (overall age-standardised prevalence 0.76%, 95%CI 0.74-0.78). Prevalence varied by country of birth with the highest prevalences estimated for women born in Sierra Leone (11.13%, 95%CI 8.29-13.96) and Taiwan (8.08%, 95%CI 6.74-9.43%); prevalence was 0.18% (95%CI 0.17-0.19) in Australian-born women. Over the 17 years, we found a significant reduction in HBV prevalence among all women ( $p < 0.0001$ ) and this reduction was observed in both Australian-born and overseas-born women ( $p < 0.0001$ ). Among women from high prevalence countries, the greatest absolute reductions were observed in those from Taiwan (10.1%,  $p < 0.001$ ) followed by Tonga (5.4%,  $p < 0.001$ ) and China (3.0%,  $p < 0.001$ ), whereas no reductions were observed for women born in South Korea ( $p = 0.41$ ) and Sudan ( $p = 0.06$ ).

**Conclusion:** Our results demonstrate how routine antenatal HBV testing in Australia can be used to inform which migrant populations should be prioritised for HBV testing and treatment, and also to estimate potential changes in HBV prevalence driven by migration. Internationally, they can also inform HBV prevalence estimates and vaccine program impact in countries with limited surveillance and high migration to Australia.