

## **Assessing first-trimester HIV, hepatitis B and syphilis testing among pregnant people seeking antenatal care in Australian general practice, 2018-2022**

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**Background:** One of the essential services in the World Health Organization's initiative for the triple elimination of vertical transmission of HIV, hepatitis B (HBV) and syphilis is antenatal screening with  $\geq 95\%$  coverage. We assessed first-trimester (1-14 weeks) coverage of antenatal screening for these infections in Australian general practice.

**Methods:** A retrospective observational study using de-identified NPS MedicineInsight data was conducted for pregnant people who attended  $\geq 1$  antenatal care visit at 426 Australian general practices during February 2018-April 2022. Temporal trends in first-trimester test requests and tests completed were assessed by First Nations status, and differences were measured by summary rate ratios (SRR) and their 95% confidence intervals (CI). Odds ratios (OR) and 95% CI were used to assess sociodemographic correlates of first-trimester testing using multivariate logistic regression.

**Results:** Among 70,737 pregnancies (First Nations people: 3,541), first-trimester testing coverage in general practice during 2018-2022 was: HIV: 76.2%; HBV: 60.0%; syphilis: 70.6%; and three infections: 54.4%. Test requests increased significantly overtime in both non-Indigenous and First Nations pregnant people, with greater increases in the latter group for HBV (SRR: 1.09; 95% CI: 1.02-1.16) and three infections (SRR: 1.08; 95% CI: 1.02-1.15). Tests completed increased for each and three infections among First Nations people, but only for HIV and three infections among non-Indigenous people. These increases were greater in First Nations pregnant people for syphilis (SRR: 1.07; 95% CI: 1.01-1.13), and three infections (SRR: 1.06; 95% CI: 1.03-1.09). Yet First Nations pregnant people were less likely to receive first-trimester testing for each or three infections than non-Indigenous people, HIV: (OR: 0.66; 95% CI: 0.61-0.72); HBV: OR: 0.86; 95% CI: 0.80-0.93); syphilis: (OR: 0.67; 95% CI: 0.62-0.73); three infections (OR: 0.84; 95% CI: 0.78-.91).

**Conclusion:** First-trimester antenatal testing in general practice increased over time, yet persistent inequalities remain for First Nations people, highlighting the need for culturally safe and equity-based antenatal strategies.

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