

## **A multifaceted intervention to implement routine syphilis screening in later pregnancy: a prospective, multicentre study of screening uptake and case detection.**

### **Background**

The global re-emergence of congenital syphilis reflects missed opportunities for timely syphilis detection and treatment during pregnancy. Australian Pregnancy Care Guidelines now recommend repeat syphilis screening later in pregnancy.

### **Methods**

A prospective multicentre study was conducted across three tertiary maternity services in Victoria, to evaluate the impact of implementing routine 26-28 week syphilis testing on screening uptake and syphilis case detection across Victorian antenatal services.

A multifaceted intervention was implemented, including updated clinical guidelines recommending universal repeat testing, electronic medical record prompts, automated pathology ordering, and clinician education. Pregnant people were included if they underwent gestational diabetes testing, with blood tests performed within the hospital during the study period (2022–2024), typically between 24–30 weeks. We determined the proportion of pregnant people screened and detection of new syphilis cases in later pregnancy.

### **Results**

A total of 14872 pregnancies were included. The proportion of women screened for syphilis in later pregnancy increased from 8.2% (852/10,413) in the 12-month pre-intervention period to 71.5% (3,186/4,459) in the 4 month post intervention period ( $p < 0.001$ ). One case of early infectious syphilis was identified among women at each site (total  $n=3$ ) from later pregnancy rescreening, cases that would not have been detected through first trimester screening alone. Despite improved rescreening, 6 syphilis cases occurred in pregnant people who presented late for antenatal care (after 30 weeks).

### **Conclusion**

This multifaceted intervention increased screening uptake and case detection, thus allowing treatment and prevention of congenital syphilis in those cases. Additional strategies are required to detect syphilis in pregnant people who do not engage early for antenatal care.

#### **Disclosure of Interest Statement**

None.

#### **Acknowledgement of Funding**

This work is supported by an NHMRC Postgraduate Scholarship. No pharmaceutical or industry funding was received for this study.