# SYPHILIS INCIDENCE IN PREGNANT WOMEN ATTENDING ANTENATAL CARE IN EAST LONDON, EASTERN CAPE, SOUTH AFRICA

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## **Background:**

In South Africa all women should be routinely screened for syphilis using a rapid treponemal antibody diagnostic test (RDT) at every antenatal care visit. Despite this, the incidence of syphilis in pregnancy is not well-documented. We aim to determine syphilis incidence and associated risk factors in pregnant women in East London, South Africa.

#### Methods:

Women at 5 primary healthcare clinics in East London, South Africa were included in a study about STI testing strategies. Eligibility criteria included age  $\geq 18$  years and <27 gestational weeks. At enrolment and follow-up (30-34 gestational weeks), we tested women for syphilis with a rapid diagnostic test (RDT) (Abbott® Determine<sup>TM</sup> Syphilis TP, Abbott Diagnostics Medical Co., Ltd, Matsuhidai, Japan). Women with positive test results were treated as per guidelines. We calculated percentages, incidence rates per 1000 person-years and incidence rate ratios (IRR) (with 95% confidence intervals, CI).

#### **Results:**

From March 2021 to December 2023, 1581 women were enrolled and had follow-up data available. At enrolment, the median gestational age was 14 weeks (IQR 10-19) and 444/1581 (28.1%) were living with HIV. Syphilis RDT was positive for 49/1581 (3.1%) women. At follow-up, among women with a negative test result at baseline, syphilis incidence was 36 per 1000 person-years (95% CI 21.6-57.7). The crude incidence rate ratio for syphilis was 1.31 (95% CI 0.49-3.48). The incidence was 44 per 1000 person-years for women living with HIV and 34 per 1000 person-years for women without HIV. The IRR was 0.96 (95% CI 0.36-2.57) for women  $\leq$ 25 years compared to those >25 years.

## **Conclusion:**

Third-trimester rapid antibody testing showed high incidence of syphilis in pregnant women. Our findings confirm the relevance of repeat syphilis testing in third trimester in our high-prevalence setting.

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

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