Prevalence of sexually transmitted infections in pregnant women attending antenatal clinics and detection of markers associated with *Neisseria gonorrhoeae* antimicrobial resistance in Fiji

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Background:
Chlamydia trachomatis, *Neisseria gonorrhoeae*, *Trichomonas vaginalis* and *Mycoplasma genitalium* are common curable sexually transmitted infections (STI) globally and are important causes of adverse reproductive and perinatal health outcomes. High prevalences have been reported among antenatal women in the Pacific region. However, routine antenatal screening for these infections is not currently implemented in many low- and middle-income countries, including Fiji. We conducted a survey among women aged 18-29 years attending two antenatal clinics in Fiji's Central Division to generate STI prevalence data and assess antimicrobial resistance (AMR) in *N. gonorrhoeae*.

Methods:
Pregnant women attending their first antenatal appointment at Colonial War Memorial (CWM) Hospital or Nausori Hospital provided demographic information and a urine specimen. *C. trachomatis* and *N. gonorrhoeae* were tested using Cepheid Xpert® CT/NG cartridges at Suva's reference laboratory. Specimens were shipped to Australia for additional testing at UQCCR using in-house TaqMan qPCR assays for *T. vaginalis* and *M. genitalium. N. gonorrhoeae*-positive samples underwent AMR characterisation and genotyping using Sanger and next generation sequencing, targeting NG-STAR, NG-MAST, and MLST alleles.

Results:
A total of 1,002 women were enrolled (740 at CWM; 262 at Nausori), with a median age of 24 years. Most participants were iTaukei (81.0%), followed by Indo-Fijian (12.1%). The majority (80.2%) did not report any STI symptoms. Of 999 tested samples, 488 (48.8%) were positive for at least one STI. Prevalence was 34.7% for *C. trachomatis*, 10.5% for *N. gonorrhoeae*, 21.6% for *T. vaginalis*, and 8.4% for *M. genitalium*. All four STIs were detected in 6 (0.6%) participants and were more common in women aged 18-24. Genetic AMR markers were detected in two *N. gonorrhoeae* positive specimens: S91F (ciprofloxacin resistance) and C2611T (azithromycin resistance).

Conclusion:

A high burden of STIs was identified among pregnant women in Fiji. These findings support the need for strengthened STI control strategies and continued AMR surveillance to inform treatment and reduce adverse maternal and neonatal outcomes.

Disclosure of Interest Statement:
None.