1029 – High prevalence and associated factors of STIs among pregnant women living with HIV in South Africa

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T-03 Global STI Epidemiology
Presented by Dr Dvora Joseph Davey

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BACKGROUND

- *Trichomonas (T.) vaginalis, Neisseria (N.) gonorrhea, Chlamydia (C.) trachomatis,* and syphilis are the most common curable STIs globally.
- During pregnancy, curable STIs are linked to adverse maternal & neonatal outcomes, increased risk of HIV acquisition and transmission, including vertical transmission.
- ART use, viral load (VL), and timing of HIV diagnosis are proxies for care engagement and health seeking behaviour among pregnant women living with HIV (PWLHIV) and may be associated with STI prevalence.
- We evaluated the distribution of curable STIs by HIV clinical indicators among PWLHIV in South Africa

METHODS

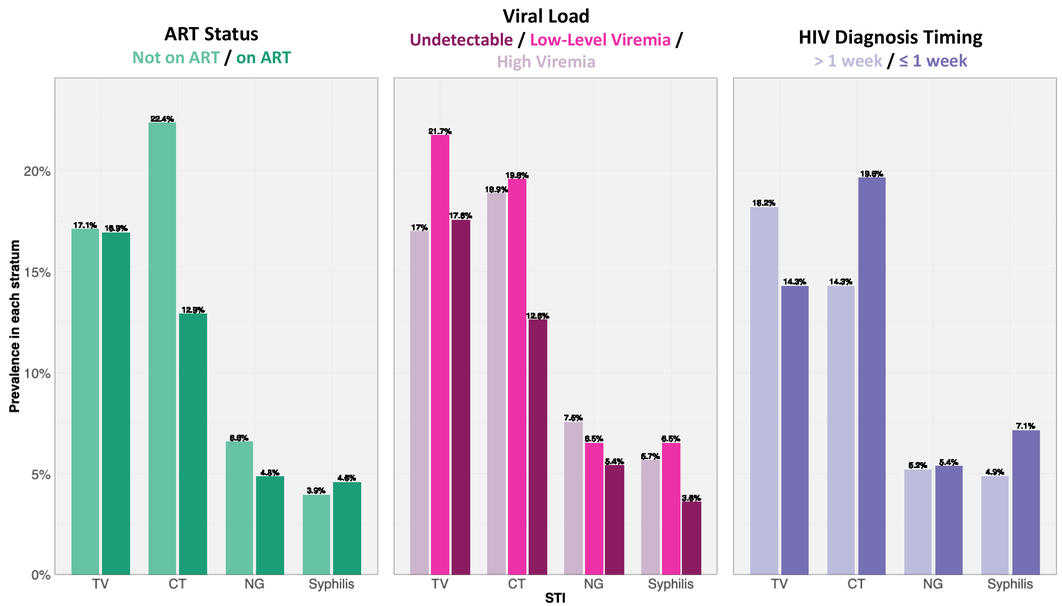
- Cross-sectional analysis of baseline data among PWLHIV in the intervention cohort of the Philani Ndiphile trial (2021–2024)
- Pregnant women (<27 weeks' gestation, ≥18 years) attending first antenatal care (ANC) at four public health facilities in Eastern Cape were enrolled.
- POCT for *T. vaginalis, N. gonorrhea, C. trachomatis* using GeneXpert (Cepheid, Sunnyvale, CA) and rapid testing for HIV and syphilis as per national prevention of vertical transmission guidelines.
- Recent VL results were obtained from the National Health Laboratory Services or drawn if absent. ART status and recent HIV diagnosis were self-reported.
- Associations between HIV clinical indicators and STI test positivity were assessed using Poisson regression with robust standard errors, adjusted for maternal and gestational age at first ANC visit

RESULTS

Among 448 pregnant women living with HIV [median age: 30 years (IQR: 26-34), gestational age: 13 weeks (IQR: 8-18)] at the first ANC visit:

- ART coverage was 83%, undetectable VL (< 50 copies/mL) was 83.7%, diagnosed with HIV in the past week was 15.4%. No women were newly diagnosed with HIV at the first ANC visit.
- Prevalence of any curable STI was 32.8% (n=147, 95% CI: 28.5-37.4): *C. trachomatis* 14.5% (11.4-18.1), *T. vaginalis* 17.0% (13.6-20.8), *N. gonorrhoeae* 5.1% (3.3-7.6), and syphilis 4.5% (2.7-6.8).
- Prevalence of any STI not was statistically different by ART status (p = 0.49), recent HIV diagnosis (p = 0.73), or viral load (p = 0.14)
- After adjusting for maternal and gestational age, we found no significant associations between STI positivity and viral load, ART status, or recent HIV diagnosis

Prevalence of curable STIs among pregnant women living with HIV attending their first ANC visit in South Africa, by HIV clinical strata and STI organism



Clinical correlates of curable STI test positivity among pregnant women living with HIV attending their first ANC visit in South Africa

HIV clinical status at first ANC visit	Any STI[1] at first ANC visit	PR (95% CI)	aPR[‡] (95% CI)
ART status			
Not on ART (ref)	28/76 (36.8%)		
On ART	119/372 (32%)	0.87 (0.63-1.21)	0.96 (0.69-1.33)
Viral Load[#]			
Undetectable (< 50 copies/mL) (ref)	70/222 (31.5%)		
Low Level Viremia (50-999 copies/mL)	21/46 (45.7%)	1.45 (1-2.1)	1.43 (1-2.05)
High viremia (≥1,000 copies/mL)	21/53 (39.6%)	1.26 (0.86-1.85)	1.22 (0.86-1.76)
HIV diagnosis timing[‡]			
≤ 1 week (ref)	21/56 (37.5%)		
> 1 week	105/308 (34.1%)	1.10 (0.76-1.6)	0.88 (0.59-1.28)

[1] n (%). Defined as *T. vaginalis, N. gonorrhea, C. trachomatis,* or syphilis
[‡] Adjusted for maternal and gestational age at first ANC visit
[#] N = 321
[‡] N = 364

CONCLUSION

- Curable STIs were common among pregnant women living with HIV attending their first antenatal care visit in the Eastern Cape, South Africa.
- STI prevalence was high across HIV clinical profiles, including ART use, viral load suppression, and timing of HIV diagnosis.
- Our findings support the need for universal, integrated STI and HIV screening and treatment within antenatal care to prevent avoidable maternal and infant adverse outcomes in high-burden settings.

LIMITATIONS

- Inability to draw causal inferences due to cross-sectional design.
- Self-reported data for HIV diagnosis timing and ART status may have introduced reporting bias.
- Missing data for viral load and recent HIV diagnosis limited sample size for these indicators, which may have impacted our ability to detect associations.
- Limited generalizability to pregnant women <18 years and those who who present to ANC later (>27 weeks).

Prevalence of any curable STI was 32.8% among pregnant women living with HIV and remained high irrespective of ART use, viral load, or recent HIV diagnosis.

Our findings support the need for universal integrated STI and HIV screening among pregnant women in South Africa

ADDITIONAL INFORMATION
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