Prevalence and Incidence of HIV/STIs Among MSM and Men Who Have Sex With Women (MSW) in the SAMURAI Study

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BACKGROUND

- Data related to detection, management and treatment of bacterial and viral STIs, including HIV, are often limited for men in Africa.
- Among Men who have sex with men (MSM), feelings of marginalization within health services typically limit STI symptom-reporting that is essential for initiating treatment algorithms. In contrast, men who have sex with women (MSW) display low health-seeking behavior, which, paired with exposure to asymptomatic STIs from partners, exacerbates risks of HIV/STI transmission.
- Diagnostic STI testing and management are therefore critical to an effective STI prevention response for men, which in turn is essential for preventing HIV/STI acquisition and re-infection.

METHODS

- SAMURAI was a two arm, randomized, clinical crossover study conducted from July 2022 – June 2024 amongst MSW and MSM aged 18-35 in Johannesburg and Cape Town, South Africa. Each participant was followed up for 12 months.
- Participants in Arm 1 received a six-month placebo subdermal implant and at crossover, three bimonthly gluteal placebo injections, as proxies for long-acting PrEP delivery modalities. Participants in Arm 2 were administered the same products but in reverse order.
- Clinical assessment included collecting urine and blood samples for HIV (Ag/Ab rapids); Syphilis (RPR/TPHA) and Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (GC) testing (GeneXpert) at Screening, Months 6, 12, and when clinically indicated.
- Participants testing HIV-positive were referred to ART services and those with GC/CT/syphilis were treated on-site. Partner notification cards for accessing treatment were offered.

RESULTS

Of the 251 potential participants screened;

- 184 were enrolled (median age 22, IQR 22-27). Median number of sex partners in the past six months was 3 (IQR 2-5)
- Screening identified 22 prevalent HIV infections (8.8%), 24 syphilis, 33 CT and 4 GC infections (22.7% prevalence of bacterial STIs [26.9% MSM, 17.9% MSW]) (Figures 1a,b,c)

The study found high STI and HIV incidence, particularly among MSM, emphasizing the need for more effective diagnostic and treatment strategies in South Africa

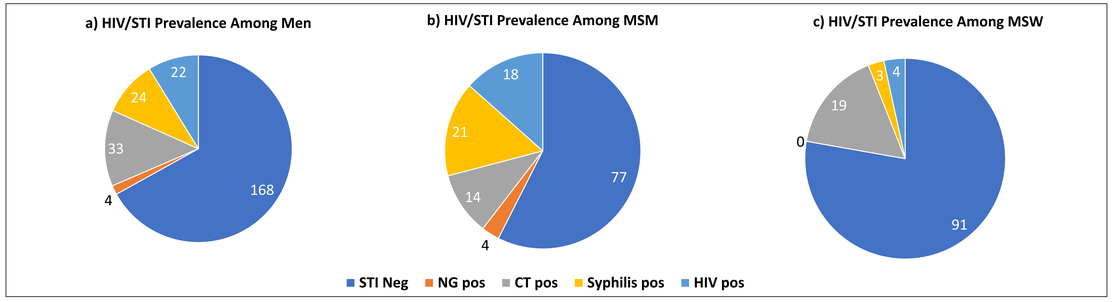


Figure 1a,b,c: a) Overall HIV/STI prevalence for all participant screened, b) HIV/STI Prevalence among MSM screened and c) HIV/STI prevalence among MSW screened

- For the 184 enrolled, over 12-months of follow-up, diagnostic testing detected a further 6 incident HIV infections among MSM, 26 syphilis infections among 12 MSM and 3 MSW; 24 CT infections among 6 MSM and 13 MSW, and 9 GC infections among 2 MSM and 6 MSW.
- 41 enrolled participants experienced at least one lab-diagnosed bacterial STI (22.2% incidence).
- The proportion with CT decreased between screening and follow-up; nonetheless, participants continued to acquire new CT infections over the 12-month study period.
- The data shows a reduction in CT rates among the enrolled MSW and MSM from Screening, Month 6 and Month 12 (Figure 2).
- The syphilis results among MSM show that syphilis is high and not improving in this study sample, even with identification and treatment

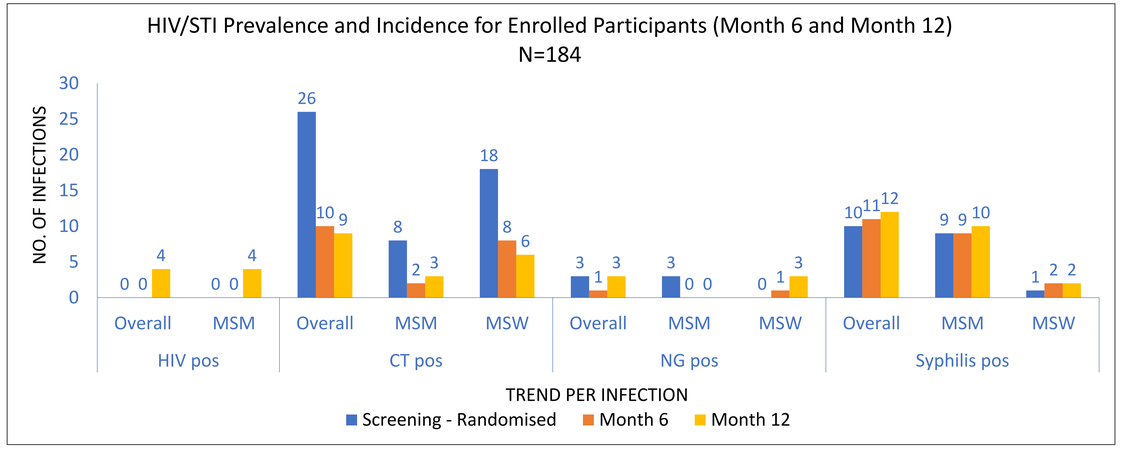


Figure 2: HIV/STI prevalence and Incidence for enrolled participants

CONCLUSIONS

- High incidence of HIV and bacterial STIs among both groups of men was observed, with higher incidence of HIV and syphilis among MSM and CT/GC among MSW.
- Key reductions in CT and reduced persistence of STIs demonstrates value in point-of-care (POC) diagnostic testing. Despite the reduction in CT within the project period, CT incidence among MSW and MSM persisted. This and the high syphilis results emphasize the need for regular testing and improved treatment strategies such as Expedited Partner Treatment (EPT) to better control these infections.
- Co-infection and recurring infections, combined with STIs preceding HIV acquisition, reinforce urgency around identifying a more effective STI response for men in South Africa.
- Diagnostic POC testing can impact rates and risk of HIV and STI persistence and transmission.
- Innovative diagnostic and treatment strategies including use of testing paired with expedited partner therapy need further exploration.

ADDITIONAL KEY INFORMATION

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