Background We have previously identified PrEP adherence as a risk factor for STIs in an academically affiliated Deep South PrEP clinic. In this analysis of a community-based Deep South PrEP clinic, we hypothesized that PrEP adherence and high risk sexual behaviors would be associated with STI.

Methods This was a retrospective analysis of men who have sex with men (MSM) aged ≥18 years receiving PrEP at a community-based clinic in Birmingham, AL from 2016 to 2018. HIV negative patients were included if they completed ≥1 sexual behavior and PrEP adherence survey and were prescribed PrEP. Screening for gonorrhea, chlamydia, and syphilis and patient-reported outcomes (PROs) were performed at quarterly clinic visits. The outcome of interest was incident bacterial STI. We evaluated the association of sexual behavior and PrEP adherence PROs with STI using logistic regression.

Results Of 119 eligible participants, 48% were ≥35 years, 21% reported no condom use, and 75% reported ≥2 sexual partners. Over the study period, 29 cases of STI were detected including 18 chlamydia, 10 gonorrhea and 1 syphilis case. However, 14 participants declined STI testing. Of 85 patients who completed ≥1 PRO (initial visit plus follow-up), 74% reported excellent PrEP adherence. By univariate and multivariable analysis neither condom use, number of sexual partners, or PrEP adherence were significantly associated with STIs, though consistent condom use approach significance.

Conclusion In a community-based PrEP clinic in the Deep South, adherence was high and high-risk sexual behaviors were common. Neither adherence nor sexual behaviors were associated with STIs. Although it did not meet statistical significance, there was a trend toward STI for those reporting condomless anal sex. Surprisingly, many patients declined recommended STI testing, leaving missing data and suggesting an overall lack of awareness of STI risk in this community. These results highlight the need for vigorous STI screening and education.

Disclosure No significant relationships.

Background HIV and Syphilis, including co-infection, are increasing among men who have sex with men (MSM) in several countries. The objective of this analysis is to compare the prevalence of HIV-syphilis co-infection, HIV only, or syphilis only among MSM in Brazil in 2009 and 2016 and associated factors for 2016.

Methods Two MSM Respondent Driven Sampling (RDS) cross-sectional studies were carried out in 2009 (10 cities) and 2016 (12 cities) in Brazil. HIV and syphilis serology were performed using rapid tests. Risk behavior and sociodemographic data were obtained. RDS weighted prevalence rates with 95% confidence intervals were estimated. Poisson regression was used to estimate the prevalence ratio (PRR) and 95%CI of each outcome, as compared to those with no infection.

Results The prevalence rates of syphilis only (80% increase) and HIV-syphilis co-infection (136% increase) were significantly different between 2009 and 2016 (Table 1). HIV only was relatively stable. For 2016 data, older age (25+ y.o.) and previous diagnosis of sexually transmitted infections were independently associated with co-infection, PRR=2.49 (95% CI=1.87–3.31) and 5.50 (95%CI=4.31–7.02), respectively. Other predictors were heterogenous with regard to different outcomes.

Conclusion Although the prevalence rate of HIV infection alone did not increase so between 2009 and 2016, it is of extreme concern the increase in rates of syphilis, alone or as co-infection with HIV, among MSM in Brazil. Treatment and prevention efforts may not be reaching those at higher risk and may lack effectiveness. Syphilis may be an important drive of the persistence of the HIV epidemic among MSM in Brazil. Nationwide public health actions, including syphilis testing, treatment and reiterating consistent condom use, are urgently needed.

Disclosure No significant relationships.
Sexually transmitted infection (STI) and drug-related practices among New Zealand gay and bisexual men

Background HIV pre-exposure prophylaxis (PrEP) and chem-sex present both opportunities and challenges for sexual health improvement among gay and bisexual men (GBM). However, there is scant evidence to inform responses in New Zealand (NZ), notably prevalence, uptake and cessation of behaviours over time. We sought a better understanding by recruiting a diverse national cohort of GBM.

Methods Flux NZ is a national online prospective observational study investigating wellbeing among GBM in NZ. The protocol, questionnaire and data management system were based on a concurrent Australian study. Recruitment was predominantly via social media and community partners. Eligible participants were GBM living in NZ. We present baseline descriptions of PrEP, STI and illicit drug-related data among the cohort to date.

Results The 315 participants are broadly reflective of the target population (10.8% identified as indigenous Māori, 59% lived outside Auckland the largest city, mean age 33.6 years (SD 15.6), 8.3% diagnosed HIV-positive). Among HIV-negative participants, 50% had heard “a lot” and 44% “a little” about PrEP, 18.2% were currently using PrEP. 57% of all participants had tested for STIs in the past 6 months; 7%, 5.7% and 3.2% were diagnosed with gonorrhoea, chlamydia and syphilis respectively. Drug use in the past 6 months was 37.5% cannabis, 35.6% amyl, 17.5% MDMA, 5.1% methamphetamine, 4.8% LSD, 4.4% cocaine, 3.2% GHB, 2.5% amphetamine, 1.0% ketamine, 0.3% synthetic cannabis, 0% mephedrone, 0% heroin, and 1.9% other hallucinogens/psychedelics. “Any” drug use was 57.8% in the past 6 months and 78.7% ever. Of those using “party drugs” (MDMA, amphetamine, cocaine, methamphetamine, GHB, ketamine, LSD) recently, 29.2% had done so to enhance sex, the majority “once” (4.7%) or “a few times” (15.1%).

Conclusion The Flux online cohort design effectively recruits GBM in NZ. This will enable comparative research of the impact of HIV, STI and drug harm reduction policies in the two countries.

Disclosure No significant relationships.