

**P554 ADHERENCE AND SEXUALLY TRANSMITTED INFECTIONS AMONG MSM RECEIVING CARE IN A COMMUNITY-BASED HIV PREP CLINIC IN THE DEEP SOUTH**

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**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  $\geq 18$  years receiving PrEP at a community-based clinic in Birmingham, AL from 2016 to 2018. HIV negative patients were included if they completed  $\geq 1$  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  $\geq 35$  years, 21% reported no condom use, and 75% reported  $\geq 2$  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  $\geq 1$  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 approached 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.

**P555 MONITORING HIV AND SYPHILIS CO-INFECTION AMONG MEN WHO HAVE SEX WITH MEN IN BRAZIL, 2009–2016**

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**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 standard rapid tests. Risk behavior and sociodemographic data were obtained. RDS weighted prevalence rates with 95% confidence intervals (95%CI) were estimated. Poisson regression was used to estimate the prevalence rate 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 driver 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.

**P556 HISTORY OF STI THERAPY AND WILLINGNESS OF PREP AMONG HIV-NEGATIVE MSM COHORT IN JAPAN**

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**Background** Pre-exposure prophylaxis (PrEP) is not yet approved and information of PrEP is still very limited in Japan. In such circumstances, we established an HIV-negative MSM cohort at National Center for Global Health and Medicine, Tokyo in 2017. This study aimed to explore correlation between histories of STI therapies and willingness of receiving PrEP in this cohort.

**Methods** Face-to-face interviews with a semi-structured standardized questionnaire was conducted. HIV incidence risk index for MSM was used to identify the risk of HIV acquisition and scores of 10 and over were defined as at the high risk. Willingness of PrEP was divided into 4 categories: “Yes definitely”, “Yes probably”, “No probably” and “No definitely”. Histories of STI therapies within 1 year against at least one of followings; syphilis, gonorrhea, chlamydia, hepatitis A, B,