

increased CT and/or NG risk (aHR=1.03, $p<0.001$), and men reporting having sex in exchange for money at screening were 2.35 times more likely to be infected ($p=0.072$). Number of sex partners, sexual positioning, condom use, lubricant use, and self-reported PrEP adherence were not associated with infection.

Conclusion The incidence of urethral CT/NG infection was high in our cohort of MSM taking PrEP, despite risk reduction counselling and repeated testing and treatment, supporting need for ongoing etiologic testing and more effective risk reduction intervention. Additional analyses will examine risk compensation.

Disclosure No significant relationships.

P454 EMERGENCY DEPARTMENT (ED)-BASED HIV PRE-EXPOSURE PROPHYLAXIS (PREP) REFERRAL PROGRAM – USING EDS AS A PORTAL FOR PREP SERVICES

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Background U.S. Emergency Departments (EDs) serve many patients at high risk for HIV and could serve as a portal of entry for pre-exposure prophylaxis (PrEP). We conducted a pilot study to determine feasibility and acceptability of PrEP referral from the ED.

Methods From late December 2018 to March 2019, a pilot PrEP referral program was integrated into an established HIV/HCV screening program in an urban U.S. ED with HIV seroprevalence of 6%. Patients were deemed PrEP referral eligible if they had recent STI-related visit (<2 months) and tested HIV negative, or a negative HIV test during the current ED visit. The PrEP referral program was implemented by HIV/HCV program staff and trained volunteers. Patients were approached by convenience sampling based on staff availability. HIV risk and interest in PrEP referral was assessed through an electronic survey based on CDC PrEP guidelines. Patients expressing interest in PrEP were referred to PrEP peer navigators from the adult infectious disease specialty clinic and pediatric clinic. Referrals, scheduled and completed appointments, and PrEP initiation were collected.

Results In this ongoing program, 290 ED patients were screened, 162 approached and 89 (55%) took the survey. 68 (42%) were categorized as high-risk and eligible for PrEP referral. Of these 68 patients, 36 (53%) accepted PrEP referral, 15 (22%) were successfully contacted by phone with additional 21 (31%) pending for follow-up calls, six (9%) were scheduled for appointments, and two (3%) completed an appointment.

Conclusion Our preliminary findings demonstrate a high interest for PrEP referral and comparable PrEP care cascade outcomes in high-risk ED patients indicating that implementation of an ED-based PrEP referral program is feasible and acceptable and could serve as an important portal for PrEP care. Barriers along the PrEP care continuum to better engage and retain patients should be addressed as a future direction.

Disclosure No significant relationships.

P455 AWARENESS, KNOWLEDGE AND WILLINGNESS TO USE HIV PREP AMONG MSM AND TG PEOPLE IN BALI, INDONESIA

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Background World Health Organisation in 2014 has recommended Pre-Exposure Prophylaxis (PrEP) as HIV prevention tool for men who have sex with men (MSM) along with other prevention strategies. Before PrEP implementation is introduced in Indonesia, it is vitally important to have an evidence base about the awareness, knowledge and acceptability among MSM and transgender people and the differences in knowledge and PrEP acceptability based on sexual risk factors of MSM and transgender people.

Methods A cross-sectional study was conducted between July and November 2017 in an MSM clinic in Denpasar, Bali, Indonesia. The key outcomes were exploring the awareness, knowledge and willingness to use PrEP among MSM and transgender people in Bali, Indonesia and determining demographic and sexual risk factors associated with knowledge and willingness to use PrEP.

Results A total of 164 participants were recruited into the study but only 124 participants were eligible and included in the analysis. Of these, 69 out of 124 (55.6%) participants had never heard about PrEP. Among those 55 (44.4%) participants who had heard about PrEP, education and occupation were the only factors associated with PrEP knowledge. Men with the University education showed higher knowledge scores (29.2) and were more likely to use PrEP compared with men with lower education levels. 73 out of 124 participants (58.9%) were willing to take PrEP in the future and education was the only factor associated with PrEP willingness.

Conclusion This is the first study to report data on awareness, knowledge and willingness to use PrEP in Bali and is only the second such study conducted in Indonesia. Consistent with similar studies in other countries, this study found limited knowledge of PrEP among MSM and transgender participants. As PrEP is not yet publicly available in Indonesia, it is crucially important to prepare the community by education and disseminating accurate information.

Disclosure No significant relationships.

P457 A SINGLE DOSE OF BEHAVIOUR CHANGE: THE IMPACT OF TESTING ON BEHAVIOUR AND CHLAMYDIA TRANSMISSION

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Background The aim was to explore short-term effects of chlamydia testing on sexual behaviour also taking into account psychological characteristics, and to estimate the impact on chlamydia transmission of interventions aimed at sustaining or enhancing testing effects.

Methods A cohort study was conducted among heterosexual STI clinic visitors aged 18–24 years. Risk classes based on behavioural and psychological characteristics, and transitions between classes three weeks after chlamydia testing, were identified using latent transition analysis. We developed a pair compartmental model with a susceptible-infected-susceptible structure informed by the cohort study. We estimated the impact of sustaining the found short-term effects of testing and of interventions enhancing these effects in those diagnosed, in those tested negative, or in all tested on chlamydia prevalence after five years relative to no effect.

Results Four classes were identified (n=810, 13% chlamydia positive (CT+)): 19% of people were in class 1 (5% CT+), 15% in class 2 (10% CT+), 47% in class 3 (16% CT+), and 19% in class 4 (17% CT+). The number of new partners in the past year was higher in class 3 and 4, compared to class 1 and 2. Class 2 and 4 had lower intentions to use condoms, reported less condom use, and were more impulsive, compared to class 1 and 3. Chlamydia positives were more likely to move to a lower risk class after testing, compared to chlamydia negatives. Sustaining this short-term effect resulted in an estimated relative reduction in chlamydia prevalence of 27%. The impact of interventions enhancing behaviour change in those tested negative (−45%) or in all tested (−48%) was estimated to be larger than in those diagnosed (−31%).

Conclusion Testing has strong short-term effects in chlamydia positives, but not in chlamydia negatives. Sustaining these effects is vital in controlling chlamydia transmission, as are interventions enhancing behaviour change in chlamydia negatives.

Disclosure No significant relationships.

P458

GENITAL CHLAMYDIA TRACHOMATIS AND MYCOPLASMA GENITALIUM AMONG INFERTILE WOMEN IN UNIVERSITY COLLEGE HOSPITAL, IBADAN

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Background *Chlamydia trachomatis* and *Mycoplasma genitalium* are both intracellular pathogens of Sexually Transmitted Infection (STI) that has been reportedly associated with various gynaecological morbidities. The asymptomatic carrier state of *Chlamydia trachomatis* and *Mycoplasma genitalium* facilitates infertility sequelae and perinatal transmission among other complications. Due to the fastidious nature of both organisms, Polymerase Chain Reaction (PCR) are considered more reliable for accurate diagnosis. The aim was to determine the prevalence and risk factors for *Chlamydia trachomatis* and *Mycoplasma genitalium* infection among infertile women in University College Hospital, Ibadan, Nigeria.

Methods A Cross-sectional hospital-based study conducted at the Infertility clinic of the University College Hospital, Ibadan, Nigeria using random sampling technique. Ethical approval was received from UI/UCH ethical approval committee.

Information was collected from the 150 consenting women using structured questionnaire, on sociodemographic and behavioral characteristics of the respondents. Endocervical swabs were obtained for DNA extraction. The presence of *Chlamydia trachomatis* and *Mycoplasma genitalium* were detected from the extracted DNA by the use of conventional PCR. Bands corresponding to 241 and 495kb were documented as positive for *Chlamydia trachomatis* and *Mycoplasma genitalium* respectively. All data were analyzed using SPSS version 20.0. Associated risk factors were assessed with logistic regression.

Results Among the infertile women 11(7.30%) had evidence of *Chlamydia trachomatis* and 32(21.3%) *Mycoplasma genitalium*. Only 1(0.7%) had co-infection. Associated risk factors of *Chlamydia trachomatis* included past history of gonorrhoea (OR=8.37, p value = 0.002) and Multiple sex partners (OR=6.67, p value= 0.007). No associated risk factors were found for *Mycoplasma genitalium*.

Conclusion Considering the prevalence of *Chlamydia trachomatis*, the high rates identified for *Mycoplasma genitalium* as a single infection and the low co-infection among the participants, their screening should be included in the microbiological evaluation of infertile women. The risk factors for the infections are similar to those peculiar to other STI

Disclosure No significant relationships.

P459

TOWARDS A UNIVERSAL TOOL FOR ESTIMATING CHLAMYDIA PREVALENCE FROM SURVEILLANCE DATA: A SYSTEMATIC COMPARISON OF MODELS

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Background Chlamydia is the most commonly-diagnosed bacterial STI worldwide. Models have been developed to estimate chlamydia prevalence from surveillance data in Australia and the UK, respectively, by Ali, Cameron et al. (AC) and Lewis & White (LW). To assess robustness, we compared the models' prevalence estimates when applied to the same data.

Methods The models were applied to Australian 2001–2016 surveillance data to produce annual prevalence estimates in age-sex categories of 15–19, 20–24, 25–29 years for each sex. Two sets of input parameters (the “prior” and “posterior” parameters from the AC modelling study) were used.

Results The LW model produced higher prevalence estimates than the AC model in every age-sex category, with both “prior” and “posterior” parameterisation. Prevalence estimates for Australian women aged 15–29 in 2015 were 2.5%(95% CrI:2.4%–2.7%) and 5.1%(95%CrI:4.0%–6.0%) from the AC model and LW model (using “prior” parameters), respectively; the corresponding empirical estimate from literature was 3.3%(95%CI:2.1%–4.5%). Averaging over all years, the LW model produced prevalence estimates that were 2.5x higher than the