positive specimen. Semen specimens with detectable HCV had a significantly higher median blood HCV VL (P = 0.002). There were no differences between men with acute or chronic HCV in either the proportion of semen specimens positive for HCV (8/38 [21%] and 8/21 [38%], respectively; P = 0.159), or in the median seminal HCV VL (1.32 log IU/ml and 1.77 log IU/ml, respectively; P = 0.163).

Conclusion This study, although identifying no differences in the magnitude or proportion of seminal HCV during acute HCV-infection, provides valuable insights into the dynamics of seminal HCV during this period. It is unknown whether the levels of seminal HCV identified in this study are sufficient for the sexual transmission of HCV in HIV-infected MSM. However, it is plausible that HCV in semen deposited in the rectum after the friction of receptive anal intercourse, could enter the blood stream and infect the liver. Future research should focus on establishing the infectivity of seminal HCV, and the analysis of seminal HCV levels during the 'ramp-up' period of early acute HCV-infection, where blood HCV levels are highest.

Disclosure of interest statement There are no competing or financial interests to disclose.

O07.4 INCIDENT HIV ASSOCIATED WITH RECTAL GONORRHOEA (GC) AND CHLAMYDIA (CT) INDEPENDENT OF SEXUAL BEHAVIOUR IN MEN WHO HAVE SEX WITH MEN (MSM)

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Introduction Although STIs are associated with HIV-acquisition, because they share a causal pathway – sex – how much this risk is independent of sexual behaviour remains unknown.

Methods We conducted a case-control study of MSM STD clinic patients in Seattle, WA, 2001–2014 to evaluate the role of concurrent and prior rectal STIs in HIV-acquisition. Cases were new HIV diagnoses who tested HIV-negative ≤12 months prior. Controls tested HIV-negative and were matched to cases on year. All included men tested for rectal STI and tested negative for syphilis. We used routinely collected condom-use data to create four sexual behaviour categories: no receptive anal intercourse (RAI) in ≤12 months, consistent condom-use for all RAI, condomless RAI only with HIV-negative partners (CRAIneg), and CRAI with HIV-positive/unknown-status partners (CRAIpos/unk). We used logistic regression to estimate odds ratios (OR) of the association between rectal GC/CT and HIV diagnosis.

Results Among 176 cases and 704 controls, concurrent rectal GC (OR3.5 95% CI 2.3–5.5) and rectal CT (OR3.2 95% CI 2.1–5.1) were associated with HIV diagnosis in univariate analysis. Controlling for age, race, number of sex partners, methamphetamine use year and other rectal STI, both rectal GC (aOR2.4 95% CI 1.4–4.0) and CT (aOR2.6 95% CI 1.5–4.4) continued to be associated with HIV diagnosis. Adding sexual behaviours to the model did not change the association between rectal infection and HIV diagnosis (GC aOR2.3, 95% CI 1.4–3.9; CT aOR 2.6 95% CI 1.5–4.3). CRAIneg (aOR3.5 95% CI 1.2–10.4) and CRAIpos/ukn (aOR4.2 95% CI 1.4–12.5) were independently associated with new HIV diagnosis. Rectal infection in ≤12 months was strongly associated with new HIV diagnosis (aOR3.4 95% CI 1.5–7.4).

Conclusions Concurrent and prior rectal GC/CT are associated with HIV-acquisition independent of sexual behaviour, suggesting a causal role for rectal STI in HIV-acquisition, and supporting STI control as an HIV-prevention strategy.

Disclosure of interest statement This work was funded by the US National Institutes of Health. No pharmaceutical grants were received in the development of this study.

O07.5 SEXUAL RISK BEHAVIOUR AND SEXUALLY TRANSMITTED DISEASES AMONG MEN WHO HAVE SEX WITH MEN PARTICIPATING IN A PRE-EXPOSURE PROPHYLAXIS DEMONSTRATION PROJECT

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Background Pre-exposure prophylaxis (PrEP) is a highly efficacious HIV prevention tool. Whether changes in sexual risk behaviours and frequency of sexually transmitted diseases (STDs) occur among individuals using PrEP is unclear. We evaluated sexual behaviours and STDs among men who have sex with men (MSM) in the open-label US PrEP Demonstration (Demo) Project.

Methods The Demo Project enrolled 557 MSM at STD clinics in San Francisco and Miami, and a community health centre in Washington, DC. Participants were tested for STDs and reported their sexual risk behaviours in the prior 3-months at baseline and weeks 12, 24, 36 and 48. Prevalence of STDs and STD incidence were assessed, and changes in reported risk behaviours and STD incidence were assessed using chi-square tests.

Results The median number of anal sex partners in the prior 3-months decreased from 5 at baseline to 4 at week 48 (p = 0.0003). While the median number of condomless receptive anal sex episodes was unchanged, the median number of receptive anal sex episodes with condoms declined from 6.5 to 2.0 (p < 0.0001). One quarter (25.7%) had an STD at baseline and 42.2% were diagnosed with ≥1 STD during the study. Extra-genital STDs were prevalent: 9.8–15.3% positivity for rectal gonorrhoea (GC) or chlamydia (CT) and 5.2–12.9% positivity for pharyngeal GC or CT at follow-up visits. Overall STD incidence was high, but did not increase over time (p = 0.96); incidence/100 person-years was 47.8 (95% CI: 41.6–54.7), 42.9 (95% CI 37.0–49.4) and 12.6 (95% CI 9.5–16.3) for CT, GC and syphilis, respectively. There were two HIV seroconversions (incidence 0.43; 95% CI 0.05–1.54), both had undetectable drug levels at the time of seroconversion.

Conclusion HIV incidence was extremely low, despite a high incidence of STDs in a PrEP demonstration project. Quarterly STD screening, including testing at extra-genital sites, is recommended for MSM taking PrEP.

Conflict of interest This work was supported by National Institute for Allergies and Infectious Diseases (NIAID) [UM1AI069496]; National Institute for Mental Health (NIMH)

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Susan Philip has received speaker's honorarium from Gilead. Richard Elion has received research support from Gilead and is on the speakers' bureau for Gilead. TRIAL REGISTRATION: clinicaltrials.gov Identifier: NCT# 01632995.

O07.6 ROLE OF MINORITY STRESS IN HEALTH-RISK BEHAVIOURS AMONG YOUNG MSM AND TGS IN INDIA

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Introduction Literature shows MSM and TGs face exorbitant levels of minority stress. Moreover, health-risk behaviours in young MSM and TG have not been comprehensively studied in all parts of India. Therefore, an insight into the potential role of minority stress in mental health of young MSM and TGs, and further health-risk behaviours is essential. The study explored the pathways and mechanisms of engagement in health risk behaviours among young MSM and TGs using minority stress perspective.

Methods A mixed method approach (Qual-Quant-Qual) was adopted to examine how minority stress predicts poor mental health, and the role of mental health as a mediator variable in health-risk behaviours. 6 FGDs of 5 participants each were followed by a focused questionnaire development building on the insights from the FGDs. After field pilot, collection of Quant Data from 220 young MSM and TGs (18–30 years), using TSS was performed. In-depth Interviews on a focused and smaller yet representative sample of 32 was conducted.

Results This study establishes that components and associates of minority stress (internalised homophobia, perceived and actual discrimination, gender non-conformity stigma, non-acceptance of sexual/social identity, experiences of violence and impact of criminalization of Homosexuality) significantly predict poor mental health outcomes among young MSM and TGs (e.g. anxiety and depression). This establishes Meyer's Minority stress perspective and its cross-cultural validity in Indian context for the first time. This study also significantly suggests role of mental health as mediator variable in influencing health-risk behaviours including sexual risk-taking and alcohol and drug abuse.

Conclusion Health-risk behaviours are a byproduct of the interaction between socio-cultural contexts, person's social and community identity, sexual identity acceptance by self and others (e.g. criminalization in Indian context). Insights of the study will inform policy makers to assess LGBT rights and health policies and create increased sensitivity in the mainstream society.

Disclosure of interest statement This study was funded by AusAID as an Australian Leadership Award Scholarship to the Researcher. *No pharmaceutical or other grants were received in the development of this study.*

O08 - Violations of human rights in relation to STI and HIV

O08.1 HOW FAR VIOLATION OF BODILY RIGHTS OF WOMEN IS LINKED TO SEXUAL AND REPRODUCTIVE MORBIDITIES? A STUDY OF INDIA AND SELECT STATES AND DISTRICTS

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Introduction This paper aims to link violation of bodily (sexual and reproductive) rights of women with sexual and reproductive morbidities in India and specifically in states of Bihar, Uttar Pradesh, Andhra Pradesh, Karnataka and four select districts from each state namely Kishenganj, Kanpur, Guntur and Bellary.

Methods National Family Health Survey-3 and CHARCA data has been used for this research. Bivariate and multivariate analyses have been done for analysis.

Results More than two-fifths of women in India experiencing sexual violence suffered abnormal genital discharge, 5 percent suffered genital sore or ulcer against 9 percent and 2 percent women respectively who did not experience sexual violence. Women experiencing forced sex/sexual act are three times more likely to have STD ($p < 0.01$) in India, 5 times more likely to get genital ulcer/sore and 8 times more likely to have STD ($p < 0.01$) in Karnataka. Genital discharge is the most common morbidity found among women in India who experienced forced sex. Other common morbidities are pain in lower abdomen not related to menses, low back ache, frequent urination and pain during urination. More than one-forth women in Bellary and one-tenth in Kanpur who experienced sexual violence had miscarriages in pregnancy. These morbidities are least prevalent in Guntur, since the experience of sexual violence ('often') is far less among women in this district than the other districts.

Conclusion The occurrence of sexual and reproductive morbidities in last twelve months was more prevalent among women experiencing forced sex in India and the select states/districts. The prevalence of these morbidities is least found among women of the southern states since less women in these states experience sexual violence perpetuated by their husbands. Specifically, in the districts, women whose bodily rights were violated experienced more miscarriages than women who did not experience sexual violence.

Disclosure of interest statement Not applicable.

O08.2 STIGMA PREDICTS SEVERITY OF MAJOR DEPRESSIVE DISORDER IN WOMEN LIVING WITH HIV IN RURAL INDIA

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Educational objectives There is paucity of data on mental health risk factors among women living with HIV in rural settings in low income countries. This study explores comorbid mental health risk factors among this vulnerable group. Purpose: To