

P431 EFFECT OF TARGETED INTERVENTION ON CONDOM USE AND AMONG MEN WHO HAVE SEX WITH MEN (MSM) TAKING PREP IN NAIROBI KENYA

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Background In 2017 Kenya became the second country in Africa to roll out PrEP. It prioritized Key population to access free PrEP services. Sex Workers Outreach Program (SWOP) - a HIV/STI research center offers preventive, care and treatment services to female sex workers and MSM within Nairobi. In 2018 SWOP realized high STI cases among MSM on PrEP and introduced an intervention seeking to improve their STI prevention knowledge.

Methods An experimental study was carried out among HIV negative MSM enrolling into PrEP within SWOP clinics. Participants were randomized to control and intervention. Control group received PrEP services as prescribed by the government; the intervention group received targeted health education in addition to government prescribed services. Both arms were followed up for six months and screened for STIs at every visit. Data were collected at baseline and endline using structured questionnaire.

Results 168 MSM enrolled into study with 84(50%) on each arm. At baseline condom use and STI Knowledge was low across both arms. At endline knowledge level had improved significantly in intervention arm compared to control arm with significance association to the targeted health education: Used K.Y Jelly to lubricate condom $\chi^2=4.983$, $df=1$, $P=0.026$. Knew how to use male condoms Fisher's <0.001 . Used condom consistently $\chi^2=0.92$, $df=1$, $P=0.337$. Negotiate for condom use $\chi^2=28.886$, $df=1$ $P<0.001$. Negotiated condom use with regular clients $\chi^2=8.839$, $df=1$, $P=0.003$. Refused sex when client refused condom use $\chi^2=11.483$, $df=1$, $P=0.001$. Syndromically STI cases at month one were 28/84 (33.3%) in control, while 26/84 (30.9%) in intervention arm. At month six cases were 16/38(42%) control and 7/59 (12%) in intervention arm.

Conclusion Targeted health education on condom use among MSM on PrEP is vital in averting STI cases.

Disclosure No significant relationships.

P432 HIGH PREVALENCE AND INCIDENCE OF CURABLE STIS AMONG YOUNG WOMEN INITIATING PREP IN A TOWNSHIP IN SOUTH AFRICA

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Background Sexually-transmitted infections (STIs) in adolescents and young women (AGYW) increase the risk of infertility and the risk of HIV acquisition. Recent data on STIs in African AGYW are limited because of syndromic management and lack of STI testing. PrEP programs that test for STIs can provide critical epidemiologic data to guide policies.

Methods Sexually-active HIV-uninfected AGYW (16–25 years) in a township near Cape Town, South Africa were enrolled in

the 3Ps for Prevention Study to evaluate PrEP uptake and adherence. Nucleic acid amplification testing for *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) and a rapid test for *Trichomonas vaginalis* (TV) was conducted at screening and 6 months, and infections were treated. Symptom screening was performed at each visit. Predictors of incident STIs were analysed via Poisson regression to evaluate potential targeting of STI screening.

Results 200 AGYW were enrolled with a median age of 19 (IQR 17–21). At screening one-third of women tested positive for a curable STI: 25% CT, 11% NG, and 6% TV, 98% of whom were asymptomatic. At month 6, the incidence of a curable STI was 52/100 person-years (100py); CT 42/100py, NG 14/100py and TV 10/100py. Most incident STIs were diagnosed in women who did not have these infections at enrolment: 62% of 39 incident CT, 77% of 13 incident NG, and 89% of 9 incident TV infections. No significant associations were found between age, hormonal contraception or IPV and incident STIs.

Conclusion South African AGYW in a PrEP demonstration project had very high prevalence and incidence of asymptomatic curable STIs. Offering STI testing and treatment in PrEP programs is an important reproductive health service, and is valued by AGYW. Treatment of partners and innovative strategies to prevent STIs, including doxycycline post-exposure prophylaxis and vaccines, need to be evaluated in African AGYW.

Disclosure No significant relationships.

P433 LOW HIV INCIDENCE AMONG WOMEN DIAGNOSED WITH SYPHILIS OR GONORRHEA DOES NOT SUPPORT PREP RECOMMENDATIONS, KING COUNTY, WA

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Background The November 2018 U.S. Preventive Services Task Force draft statement recommended clinicians offer HIV pre-exposure prophylaxis (PrEP) to women with recent syphilis (all stages) or gonorrhoea diagnosis. We estimated HIV incidence among women in King County, WA following syphilis or gonorrhoea diagnosis, and attempted to identify risk factors for HIV acquisition that might prompt clinicians to offer PrEP.

Methods We matched public health HIV and sexually transmitted infection (STI) surveillance data for 2008–2018. Incidence rate was calculated using person-years (py) of follow-up, defined as time from initial STI diagnosis date to either HIV diagnosis date or end of study period. Women with prior or concurrent (within seven days of STI diagnosis) HIV diagnosis were excluded. Risk factors were identified from disease intervention specialists (DIS) interviews.

Results Between 2008–2018, 5,524 and 397 King County women were diagnosed with gonorrhoea and syphilis, respectively. Over 1,705 py (median: 3.8) of follow-up, no incident HIV diagnoses occurred among women diagnosed with syphilis. Among women diagnosed with gonorrhoea, 16 incident HIV diagnoses (incidence 0.06/100 py) occurred over 24,758 py (median: 3.7). Median time from gonorrhoea to HIV diagnosis was 1.7 years (IQR: 0.5–3.0). DIS interviewed four (25%) of the incident diagnoses following gonorrhoea diagnosis; two (50%) had risks identified: both reported injection

drug use (IDU), sex with a person who injected drugs (PWID), and methamphetamine use. DIS interviewed eleven (69%) of the women following HIV diagnosis; nine (82%) reported at least one of following: IDU, methamphetamine use, exchange sex, or serodiscordant, bisexual, or PWID sex partners.

Conclusion HIV incidence among King County women with gonorrhoea and syphilis appears to be low. Although these diagnoses do not clearly identify a population that would benefit from the draft PrEP recommendations, the generalizability of these findings is uncertain and additional data on HIV incidence among women following bacterial STIs are needed.

Disclosure No significant relationships.

P434 SUBSTANCE USE PATTERNS AND HIV PREVENTION AMONG GAY AND BISEXUAL MEN IN THE 2014–2015 SEX NOW SURVEY

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Background Qualitative studies suggest that substance use is central to the identities and cultures of many gay and bisexual men (gbMSM) – and a salient factor in how they manage HIV risk. To quantitatively assess this, we examined patterns of substance use and associations with awareness, interest, and uptake of key prevention strategies.

Methods Canadian gbMSM were recruited online and asked to report their frequency of substance use. Latent class analysis identified patterns in use. Demographic-adjusted multivariable multinomial logistic regression models, stratified by HIV-status, assessed associations with key prevention strategies (TasP awareness, PrEP interest, HIV-testing).

Results Among 669 HIV-positive and 7,184 HIV-negative men, six substance use classes were characterized: ‘limited’ (46.0%; i.e., infrequent/low use of most drugs), ‘conventional’ (25.9%; i.e., alcohol, marijuana, and tobacco), ‘club’ (9.5%; i.e., alcohol, cocaine, and psychedelics), ‘sex’ (11.4%; i.e., alcohol, crystal meth, GHB, poppers, and erectile dysfunction drugs), ‘prescription’ (12.1%; i.e., alcohol and prescription drugs), and ‘assorted’ (4.5%; i.e., most drugs) use. Limited use was selected as the referent class in all analyses. Other HIV-positive men were no more likely to have detectable viral-loads, nor were they less likely to know about the preventative benefits of TasP. HIV-negative men in the prescription (aOR:1.37,95%CI:1.15–1.63) and sex (aOR:1.58,95%CI:1.21–2.06) drug use classes were more likely to know about TasP. HIV-negative men in the prescription (aOR:1.6, 95%CI:1.34–1.91), conventional (aOR:1.30,95%CI:1.16–1.45), club (aOR:1.44,95%CI:1.15–1.81), sex (aOR:3.94,95%CI:2.92–5.33), and assorted (aOR:3.06,95%CI:1.64–5.72) use classes were more likely to report interest in taking PrEP. Membership in these classes was associated with higher odds of HIV-testing.

Conclusion Among HIV-positive men, we observed high levels of viral-load undetectability and TasP awareness, independent

of substance use. Among HIV-negative men, multiple patterns of substance use traditionally associated with heightened risk for acquiring HIV were associated with awareness, interest, and uptake of HIV risk management strategies, contravening stereotypes that link substance use to risk-indifferent attitudes.

Disclosure No significant relationships.

P435 USE OF CONDOMS FOR THE PREVENTION OF SEXUALLY TRANSMITTED INFECTIONS (STIS) AMONG HIV PRE-EXPOSURE PROPHYLAXIS (PREP) USERS

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Background HIV PrEP is highly effective at preventing HIV, but not STI, acquisition. We examined the use of condoms to prevent STIs among PrEP-users in the EPIC-NSW trial.

Methods Between March 2016 and April 2018, 9,708 individuals were enrolled. Analysis was restricted to participants who completed the optional end-of-study survey and were on-study for ≥ 1 year prior. STI diagnoses came from medical records; other data were from the end-of-study survey. We used multivariate logistic regression to assess independent associations between those agreeing with the statement, “I use condoms to avoid getting STIs” (“STI-condom-users”) and those disagreeing.

Results 2,915 participants were included; 92.5% were gay men. In the previous year, 54.2%, 25.6%, and 20.2% were diagnosed with no, one, and ≥ 2 STIs, respectively. 1,127 (38.7%) reported being STI-condom-users. In multivariate analysis, there was no difference in mean STIs diagnosed in the previous year (0.7 vs 0.8, $p=0.244$). STI-condom-users were younger (39 vs 41 years, $p=0.004$), less likely to live in a suburb with $\geq 10\%$ gay men (24.8% vs 35.5%, $p<0.001$), less likely to report any condomless sex in the previous 6 months (85.9% vs 93.3%, $p<0.001$), and had been on-study less time (1.4 vs 1.6 years, $p=0.003$). STI-condom-users were more: concerned about acquiring STIs (95.1% vs 88.9%, $p=0.025$), likely to discuss STI results with partners (88.3% vs 79.8%, $p<0.001$), and likely to believe condoms prevent STI transmission (96.7% vs 89.6%, $p<0.001$). Fewer STI-condom-users had rejected a sexual partner for wanting to use condoms (9.6% vs 32.7%, $p<0.001$), while more had been rejected for wanting to use condoms (45.0% vs 26.2%, $p<0.001$).

Conclusion Most PrEP-users did not use condoms for STI prevention, despite strong beliefs in its effectiveness. STI-condom-users did not have fewer STIs, reflecting high levels of condomless sex. Our results suggest alternative methods of STI prevention should be trialled for PrEP-users.

Disclosure No significant relationships.