Background Under new Canadian sex work laws (PCEPA) passed in 2014, sex workers with precarious legal status face exacerbated criminalization, yet little quantitative evidence exists on how legal immigration status shapes HIV/STI risk. This study aimed to model the effect of precarious status on client condom refusal; and the potential moderating effect of precarious status on the relationship between condom refusal and the post-PCEPA law reform period.

Methods Longitudinal data were drawn from AESHA, a community-based cohort of 900+ sex workers in Vancouver (2010–2018). A multivariable confounder model using logistic regression with generalized estimating equations was developed to model the independent effect of precarious status (any immigration status that is revocable under criminal charges: permanent residency, temporary residency, and undocumented) on recent client condom refusal (forcing unprotected sex or intentionally breaking the condom) over the study period. A second multivariable confounder model examined the moderating effect of precarious status on the relationship between condom refusal and the post-PCEPA law reform period.

Results Over the 8-year study (n=758), 9.1% of participants had precarious status and 16.5% experienced condom refusal, with a total 196 events of condom refusal reported. In multivariable analysis adjusted for confounders, precarious status was independently associated with increased odds of facing condom refusal (adjusted odds ratio [AOR] 2.53, 95% confidence interval [CI] 1.37–4.68). In a second multivariable confounder model, legal status moderated the relationship between condom refusal and the post-PCEPA law reform period: among women with non-precarious status, odds of condom refusal were not significantly different post-PCEPA (AOR 1.17, 95% CI 0.77–1.78), whereas women with precarious status faced 4-fold increased odds of condom refusal post-PCEPA (4.35, 95% CI 1.21–15.66).

Conclusion Laws criminalizing sex work among im/migrants in Canada enhance vulnerability among those with precarious status through presenting barriers to safer sex and increasing HIV/STI risk, highlighting urgent need for sex work and immigration policy reforms.

Disclosure No significant relationships.

Background US guidelines recommend annual chlamydia screening of sexually active women under age 25y. The benefits of screening heterosexual men remain unclear. We analyzed the potential impact of increasing chlamydia screening from current levels, comparing strategies targeting women and/or men.

Methods We examined expanded screening scenarios using a calibrated deterministic pair formation chlamydia transmission model of the US heterosexual population ages 15–54y, stratified by sex, age, risk and partnership status (not sexually active, unpaired, paired). We modeled three scenarios targeting 15–24y, using a fixed number of additional tests (1.2 million) across scenarios and maximum impact achievable: additional screening for women (S1), men (S2), or equally divided between women and men (S3). We report estimates and 95% credible intervals of yearly infections averted, prevalence reduction, and pelvic inflammatory disease (PID) cases averted among 15–24y.

Results In the calibrated baseline scenario, estimated chlamydia screening coverage in the 15–24y population translated into 7.5 times as many yearly tests among women as among men. In S1 (15% increase in screening among women), median 4,900 (2,500–10,700) PID cases were averted yearly, compared to S2 (a doubling of screening among men) with 4,100 (2,200–8,700) cases averted, and S3 (8% increase among women and 53% increase among men) with 5,100 (2,800–10,400) cases averted. Estimated chlamydial infections averted for men and women were 30,400 (18,400–64,500) in S1, 59,600 (36,400–112,900) in S2, and 52,900 (34,300–93,900) in S3. For S1 and S2, the sex targeted with additional tests had a greater reduction in chlamydia prevalence, but fewer infections averted compared to the opposite sex.

Conclusion Depending on specific program objectives, differing screening recommendations may apply. To avert PID, increasing screening in women or both sexes may be most beneficial. To maximize infections averted, targeting men with increased screening may be needed. Program costs and cost-effectiveness, not considered here, may impact the interpretation of results.

Disclosure No significant relationships.