Background
Sex-partner type influences sexually transmitted infection (STI) risk. Evaluating partner notification (PN) outcomes by sex-partner type could facilitate effective targeting of resources for PN for STIs. To inform development of PN outcomes for bacterial STIs, we reviewed PN guidelines and randomised control trials (RCTs) for sex-partner type characterisation and its impact on PN outcomes.

Methods
We searched online/via experts for PN guidelines worldwide and systematically reviewed RCTs of PN for bacterial STIs in PubMed to December 2018. We extracted data on PN recommendations and outcomes by sex-partner type.

Results
We found PN guidelines from United Kingdom (UK), United States of America (USA), Canada, Australasia, Australia, and New Zealand (NZ). They recommend collecting sex-partner data using terms such as: ‘regular’/‘main’/‘primary’/‘casual’/‘past’/‘anonymous’, without providing definitions. Australasian, NZ, Australian, and USA guidelines recommend prioritising PN based on factors that can enhance STI risk (e.g. having multiple partners), and emphasise PN of ‘regular’ partners to prevent index case reinfection. Only Australian guidelines outline auditable PN outcomes accounting for sex-partner type: index-reported number of treated ‘current regular partners’ or ‘all past partners (includes current casual partners)’.

Ten of 28 RCTs reported study participants’ baseline data on sex-partner type (e.g. ‘steady’/‘regular’)/‘main’/‘long-term’/‘casual’/‘one-time’), without defining them. Three RCTs reported PN outcomes by sex-partner type. Two RCTs reported higher chlamydia/gonorrhoea/trichomonas treatment rates for ‘main’ than ‘casual’ partners using expedited-provider-therapy (EPT) vs. patient-referral. Another RCT reported no difference in chlamydia re-infection rates in EPT vs. self-referral among women with a single ‘steady’ partner than women in overall trial.

Conclusion
Current PN guidelines do not define sex-partner type nor address public health benefits of notifying different sex-partners. Sex-partner type definitions should be developed and integrated in clinical practice. RCTs should examine the effect of sex-partner types on PN outcomes. PN guidelines should account for sex-partner type based on evidence from RCTs.

Disclosure
No significant relationships.

P252
PREDICTABILITY OF PREVALENCE OF SEXUALLY TRANSMITTED INFECTION ON COMPLEX SEXUAL NETWORK

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Background
Estimation of epidemic potential of a sexually transmitted infection (STI) is difficult due to difficulty in measuring and quantifying the sexual network and implications for infection transmission. We demonstrate an approach for predicting the epidemic potential of an STI using data on another STI for men who have sex with men.

Methods
An individual-based mathematical model was constructed to describe sex partnering and STI concurrent transmission, namely HIV, herpes simplex virus type 2 (HSV-2), gonorrhoea, chlamydia, and syphilis. The model was parameterised with representative biological and behavioral data. 500 heterogeneous sexual networks were simulated, on each of which STI transmission was also simulated. Correlations were assessed on model simulations (STI prevalences). Regressions were conducted to evaluate the predictability of HIV prevalence from each of the other STI prevalences.

Results
Across these simulations, Spearman’s rank correlation coefficient was 0.46 (95% CI: 0.37–0.55) between HIV and HSV-2, 0.90 (95% CI: 0.88–0.91) between HIV and gonorrhoea, 0.82 (95% CI: 0.78–0.86) between HIV and chlamydia, 0.82 (95% CI: 0.78–0.84) between HIV and syphilis, 0.31 (95% CI: 0.21–0.40) between HSV-2 and gonorrhoea, 0.82 (95% CI: 0.78–0.86) between HSV-2 and chlamydia, 0.15 (95% CI: 0.05–0.25) between HSV-2 and syphilis, 0.70 (95% CI: 0.65–0.75) between gonorrhoea and chlamydia, 0.93 (95% CI: 0.92–0.95) between gonorrhoea and syphilis, and 0.56 (95% CI: 0.49–0.61) between chlamydia and syphilis. The adjusted R-squared for predicting HIV prevalence using each individual STI prevalence was 0.40 for HSV-2, 0.77 for gonorrhoea, 0.71 for chlamydia, and 0.57 for syphilis. The adjusted R-squared for predicting HIV prevalence in a model that includes all other STI prevalences was 0.92.

Conclusion
STI prevalence is a proxy biomarker of HIV prevalence across heterogeneous sexual networks, explaining a considerable fraction of HIV prevalence variation. However, the strength of the association between each pair of STIs varies across STIs.

Disclosure
No significant relationships.

P253
HPV VACCINE KNOWLEDGE AND ACCEPTABILITY AMONG MSM IN LEBANON: A QUALITATIVE STUDY

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Background
Some countries specifically recommend HPV vaccination for MSM up to 26 years of age. In Lebanon, free HPV vaccine is not administered. The purpose of this exploratory study was to characterize the knowledge and beliefs of Lebanese MSM regarding HPV vaccination.

Methods
Participants through contacts of MSM consulting an STD clinic in Beirut-Lebanon were recruited. In-depth
interviews used questions and probes on vaccine knowledge, acceptability, social and community concerns.

**Results** Fifteen in-depth interviews (15 MSM) were conducted. In general, there was confusion among the majority of participants whether HPV vaccine cures, treats, or prevents. Some participants had previously heard about the HPV vaccine but the majority had not known about it. Reasons mentioned for accepting the vaccine were the prevention of genital warts and related cancers; and avoiding infecting others with HPV. Vaccine cost was mentioned as a major factor related to vaccine uptake. Several participants thought receiving the vaccine would encourage condom use to avoid other STDs including HIV. Other participants predicted increased sexual risk-taking due to a bolstered sense of safety. None of the participants mentioned any stigma or social issue with this vaccine.

**Conclusion** The chief finding is that the acceptability of a preventive HPV vaccine was widespread but not universal among these populations depending on a range of factors. Although HPV vaccination was incorrectly perceived as therapeutic, reasons for wanting HPV vaccination centered on self-protection and the protection of sexual partners. Chief among the barriers to HPV vaccination was the cost of the vaccine rather than the vaccine-induced reactions as has been mentioned in previous studies. Thus, HPV vaccination for MSM will be out of reach except for the few who can pay for it unless either all adolescent boys (regardless of sexual and gender orientation) are included.

**Disclosure** No significant relationships.

**P254 BARRIERS TO SEXUAL ASSAULT DISCLOSURE WITHIN SEXUAL HEALTH SERVICES: A MIXED METHOD/POPULATION STUDY**

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**Background** Internationally, the UN reports that an estimated 1 in 3 women experience physical/sexual violence during their lifetime. These rates vary across cultures, age, gender and sexual identity. However, what does not vary is that the majority (UK, 83%) will not report this. It is likely that many will attend mainstream sexual health services for crisis STI screening or emergency contraception. It is clear that a range of psychological and health impacts may be suffered by this group including triple the risk of depression and half survivors of rape. 21 (14.5%) have had an unwanted pregnancy with 6 (4.1%) aborted. 86 (59.3%) have experienced emotional violence mostly sexual touch (breast/buttock), attempted rape & rape. 21 (14.5%) have had an unwanted pregnancy with 6 (4.1%) aborted. 86 (59.3%) have experienced emotional violence either verbal insult or threat. Partner alcohol consumption is associated with experiencing physical violence (\(\chi^2 = 4.32, df = 1, P = 0.001\)) with higher odds (OR: 2.01, 95% CI: 1.04 – 3.89).

**Conclusion** Gender-based violence is common in South Africa with alcoholism being a serious risk factor for this violence in the society thus alcohol control law implementation is key to halting this trend.

**Disclosure** No significant relationships.