Characteristics and STI screening results of SAV and non-victims (NV) were compared. Backward multivariable logistic regression analysis was conducted to assess whether SAV was associated with STI positivity (chlamydia, gonorrhoea, infectious syphilis, infectious hepatitis B, and/or HIV).

**Results** Between 2005 and 2016 194,954 STI consultations were performed with male clients and in 135 (0.07%) consultations SA was reported. In 92% of the assaults no condom was used. In 91% of cases the assailant was a male. Forensic examination was performed in 13% of the cases. Prior to the STI clinic consultation, in 19% an HIV test had been performed and 35% were vaccinated against hepatitis B. SAV were less often Dutch (54% vs. 63% in NV, p=0.027), the median age was 28 years (vs. 30 in NV, p=0.20), and 28% reported STI related complaints (vs. 34% in NV, p=0.15). In the 6 months preceding the STI clinic visit, 56% of the male victims reported homosexual contacts only (vs. 39% in NV, p<0.001). STI positivity was 12.6% in SAV and 18.4% in NV (p=0.080). In multivariable analysis being an SAV was associated with a lower risk of STI (OR 0.51; 95% CI 0.51–0.86).

**Conclusion** Over twelve years, 135 male clients reported an SA. The majority of the sexual assaults posed a risk to contract an STI (no condom use and male assailant). SAV had a significant lower risk to test STI positive than NV attending the STI clinic. As most victims were not tested for HIV, and did not receive a hepatitis B vaccination after the assault, STI clinics can play a key role in providing care to SAV including STI testing.

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**P3.230 DOUBLE TROUBLE: THE IMPACT OF LOW RISK PERCEPTION AND HIGH RISK SEXUAL BEHAVIOUR ON CHLAMYDIA TRANSMISSION**

1. 10.1136/sextrans-2017-053264.465
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**Introduction** Transmission of *Chlamydia trachomatis* (chlamydia) is influenced by both sexual behaviour and psychological determinants (i.e., risk perception). However, mathematical models describing chlamydia transmission often consider only sexual behaviour. We explored the influence of incorporating risk perception in a mathematical model that estimated the impact of different testing scenarios on chlamydia prevalence.

**Methods** We developed a pair compartmental model with a susceptible-infected-susceptible structure representing heterosexuals aged 16–26 years. Model parameters were informed by an online pilot study (n=173) on sexual behaviour, psychological determinants, and chlamydia (re-) infections and will be updated with data from an ongoing longitudinal cohort study. The model population was divided in two sexual risk behaviour groups (based on the number of partners in the last year) and further divided in two risk perception groups (based on perceived risk for chlamydia). We compared the impact of an overall testing uptake of 20% per year on population chlamydia prevalence with different testing scenarios: 1) differential uptake among sexual behaviour groups (higher uptake in high sexual behaviour group) and additionally 2) differential uptake among risk perception groups (higher uptake in high risk perception groups).

**Results** Respondents with high sexual risk behaviour (SB) and low risk perception (RP) had the highest mean number of partners (high SB/low RP=5.3, compared to high SB/high RP=5.0, low SB/high RP=1.3 and low SB/low RP=1.1, p<0.001), shortest mean duration of partnerships (high SB/low RP=153 days, compared to high SB/high RP=233, low SB/high RP=512 and low SB/low RP=607 days, p<0.001) and the highest percentage of self-reported chlamydia infections in the past year (high SB/low RP=22.2%, compared to high SB/high RP=14.3%, low SB/high RP=3.1% and low SB/low RP=0%, p=0.02). Models that did not consider differential testing uptake among risk perception groups overestimated the impact of testing on chlamydia prevalence. This effect was largest in the high sexual behaviour/low risk perception group.

**Conclusion** Mathematical models incorporating risk perception could improve the estimation of the impact of testing interventions on the prevalence of chlamydia in specific subgroups.