017.6 RISK FACTORS FOR STI VERSUS TESTING RATES IN A DUTCH MULTICULTURAL AREA: OPPORTUNITIES FOR INCREASING SEXUAL HEALTH CARE ACCESSIBILITY?

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Background We aimed to compare sexually transmitted infection (STI)-related risk profiles and STI testing rates by geographical area to determine areas for improvement of access to sexual health care (SHC). This could aid in optimizing and targeting interventions or service allocation.

Methods Five-year (2015–2019) individual population registry data were used (15–45yr), and matched with laboratory-based chlamydia (CT) and gonorrhea (NG) testing data of general practitioners (GPs) and the only sexual health clinic (SH-CLIN) in the multicultural greater Rotterdam area, the Netherlands. CT/NG data were used as proxy for STI consultation. Per four-digit postal code (PC) area we calculated STI-related risk scores (based on age, non-western migratory background, education level and urbanization) and testing rates. Three PC clusters were identified: 1) high risk score with low testing rate; 2) high risk score with high testing rate; 3) low risk score, independently of testing rate. Multivariable logistic regression analysis was used to compare individual and area characteristics in cluster 1 and cluster 2.

Results The greater Rotterdam area consists of approximately 525,000 residents between 15–45yr. Around 27,000 CT/NG tests per year were reported. The PC area testing rate ranged from 2.2 to 116.1 tests per 1,000 residents. Around 45% of all residents belonged to cluster 1 and 30% to cluster 2. Characteristics associated with individuals in cluster 1 are low education, Turkish, Moroccan, residing outside the dense urban area, living in less ethnic diverse area and more distant from both GP and SH-CLIN.

Conclusion This study combines individual population data and data of the two main SHC providers. Several determinants are associated with high STI-related risk scores and low testing rates. The next step is to develop strategies to improve SHC access for this group. Opportunities for further exploration include for example GP education, community-based testing and service (re)allocation.

Sexual partnerships and partner therapy

018.1 ASSOCIATIONS BETWEEN METHODS OF MEETING SEXUAL PARTNERS AND SEXUAL PRACTICE AMONG HETEROSEXUALS: A CROSS-SECTIONAL STUDY PERFORMED IN MELBOURNE, AUSTRALIA

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Background The association between meeting partners online and sexual practices has been under-studied in heterosexuals. This study aimed to examine the associations between the methods of meeting partners with sexual practices, as well as sexually transmitted infections (STIs) and human immunodeficiency virus (HIV), in heterosexuals.

Methods We conducted a survey among heterosexuals attending the Melbourne Sexual Health Centre between March and April 2019. This survey asked about the methods through which participants had met their sexual partner(s), sexual practices and intravenous drug use (IVDU) over the past 3 months. Participants' HIV/STI (chlamydia, gonorrhoea, syphilis) status was obtained from clinical testing. A multivariable logistic regression was used to examine the association between each method of meeting partners and the participants' sexual practices, IVDU, and STI status.

Results A total of 698 participants (325 males, 373 females) were included in the study. The majority of participants reported using only one method to meet partners (68.3% males, 65.7% females, $p=0.0462$). Males most commonly met partners at social-venues (e.g. bar, pub, party) (38.8%, $n=126$), whilst females most commonly met through friends/family (47.7%, $n=178$). Paying for sex was associated with males meeting partners at sex-venues (AOR=145.34, 95%CI: 26.13–808.51) and the internet (AOR=10.00, 95%CI: 3.61–27.55). There was no association between IVDU and methods of meeting. Social-venues were associated with condomless vaginal sex in males (AOR=3.31, 95%CI: 1.94–5.71) and females (AOR=2.58, 95%CI: 1.61–4.13) and testing STI positive in males (AOR=3.04, 95%CI: 1.24–7.48) and females (AOR=3.75, 95%CI: 1.58–8.89).

Conclusion Heterosexuals that met sexual partners at social-venues had a more than threefold risk of testing positive for STIs, indicating that heterosexuals may benefit from health promotion campaigns that are delivered through a more public setting.

018.2 DOES ACCELERATED PARTNER THERAPY IMPROVE PARTNER NOTIFICATION OUTCOMES FOR PEOPLE WITH CHLAMYDIA? THE LUSTRUM CLUSTER CROSS-OVER RANDOMISED CONTROL TRIAL

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Background Accelerated partner therapy (APT) is a partner notification (PN) method whereby healthcare professionals assess sex partners by telephone, then send or give the index patient antibiotics and self-sampling kits for their sex partner (s). We determined the effect of APT on proportions of: index patients who test positive for chlamydia at 12–24 weeks

(primary outcome) and sex partners treated (key secondary outcome).

Methods We did a cross-over cluster-randomised controlled trial comparing APT, as an additional PN method to enhanced patient referral (2018–2019, ISRCTN Reference 15996256). Clusters were 17 UK clinics, assigned in the first period by random permutation. Each period lasted 6 months, with a two-week washout. Participants were heterosexual women and men, ≥ 16 years with a positive *C. trachomatis* test and/or clinical PID, cervicitis, non-gonococcal urethritis or epididymo-orchitis, reporting ≥ 1 contactable sexual partner in the past six months. Analysis was by intention-to-treat, fitting random effects logistic regression models.

Results All clinics completed both periods. 1536 and 1724 index patients provided data in intervention and control phases. In total, 4807 sex partners were reported, of whom 1636 (34%) were committed/steady partners. Characteristics of index cases and partners were balanced. Overall, 293/1536 (19.1%) of index patients chose APT for a total of 305 partners, of whom 248 accepted. In intervention and control phases, 666 (43%) and 800 (46%) of index patients were tested for *C. trachomatis*; 31 (4.7%) and 53 (6.6%) were positive, adjusted odds ratio (aOR) 0.66 (95% CI 0.41–1.04, $p=0.07$). The proportion with ≥ 1 sex partner treated was 775 (92.7%) in intervention and 760 (89.3%) in the control phase, aOR 1.43 (95% CI 0.98–2.07, $p=0.06$). There were no significant harms reported.

Conclusion The findings suggest a benefit from the offer of APT supplementing enhanced PN. Differences in the outcomes were however small, with lower than expected uptake.

018.3 CHARACTERISTICS AND OUTCOMES OF PEOPLE WHO USED ACCELERATED PARTNER THERAPY FOR CHLAMYDIA IN THE LUSTRUM CLUSTER CROSS-OVER RANDOMISED CONTROL TRIAL

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Background Accelerated partner therapy (APT) is a partner notification (PN) method whereby healthcare professionals assess sex partners by telephone, then send or give the index patient antibiotics and self-sampling kits for them. We described characteristics and outcomes of people choosing APT in an RCT.

Methods We did a cross-over cluster-randomised controlled trial comparing APT, additional to enhanced patient referral (2018–2019, ISRCTN Reference 15996256). Clusters were 17 UK clinics, assigned by random permutation. Each period lasted 6 months, with two-week washout. Participants were heterosexual women and men, ≥ 16 years with a positive *C. trachomatis* test and/or clinical PID, cervicitis, non-gonococcal

urethritis or epididymo-orchitis, reporting ≥ 1 contactable sex partner in the past six months. Analysis is 'per protocol', using random effects logistic regression.

Results 1536 index patients were offered APT. They described 2137 partners and selected APT for 305/2137(14.3%). Of these 166/305(54%) were Committed/steady, 85/305(29%) New, 45(15%) Occasional and 9(3%) One-off partners. Common index reasons for declining APT included: preference for face-to-face conversation 400/1832(21.8%), partner already in clinic 388/1832(21.2%), unwilling to engage with partner 206/1832(11.2%), preferring partner to attend clinic 202/1832 (11.0%), partner overseas 150/1832(8.2%). Of 241 partners sent APT packs, 119/241(49%) returned chlamydia and gonorrhoea testing samples, of which 78/119(65.5%) were positive, but only 60/241(24.9%) HIV and syphilis samples (all negative). Of 106 index patients offered APT which was accepted ≥ 1 partners, and tested for chlamydia at 12–24 weeks, only 2 (1.9%) were positive. This contrasts with 6.6% (53) in the control arm and 5.2%(29) in index patients not selecting APT or whose partners refused.

Conclusion APT may improve PN outcomes but uptake is not universal and varies by partner type. Many index patients preferred face-to-face discussion and/or partners to attend clinic, while many were already attending. The role of APT in optimising PN, index patient care and STI control requires further clarification.

018.4 UNCOVERING RISKY NETWORKS: RISK BEHAVIORS, SEXUAL PARTNERSHIPS, AND PROVIDER DISCUSSIONS AMONG MEN WHO HAVE SEX WITH MEN AND WOMEN (MSMW)

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Background Differences in sexual networks and risk behaviors between MSM and MSMW have important implications for HIV/STI transmission networks and bridging to other populations. As most HIV/STI programming is directed toward MSM, understanding risk behaviors, healthcare provider discussions, and network factors differentially experienced by MSMW are critical toward developing targeted, efficacious HIV/STI prevention paradigms.

Methods This is an analysis of a longitudinal cohort of predominantly Black/Latinx MSM in Los Angeles, California, half with substance use and half with HIV. Every 6 months from 8/2014–1/2019, respondents completed surveys evaluating the following: discussion of sexual orientation/behavior with healthcare provider in last 6 months, transactional sex, and last partnership characteristics (type, gender of partner's sexual partners, HIV serostatus). MSMW was defined as self-reported sexual intercourse with a woman during last 6 months on two separate visits. Generalized estimating equations evaluated differences between MSM and MSMW associated with healthcare provider discussions, transactional sex, and last partnership characteristics, controlling for HIV and demographics.