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 migrant 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

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=2.38, 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.