opportunities for earlier HIV diagnosis are being missed in primary care. We assessed changes in GPs' HIV testing behaviour following an educational intervention using competitive feedback, to improve HIV testing in primary care in Amsterdam.

Methods The educational intervention, open for all Amsterdam GPs, was implemented from 2015 to 2020. The mean annual number of HIV tests per GP from 2011–2019 was calculated using data from diagnostic laboratories for primary care, and stratified by 4-digit postal code (PC4). Questionnaires and semi-structured interviews were conducted to identify perceived barriers and facilitators to HIV testing.

Results In total, 229 GPs (42%) participated in the educational intervention. Participation varied per PC4 area (median 27%, IQR 0%-60%). At baseline, the mean annual number of HIV tests per GP was similar for participants versus non-participants (26.8 versus 24.7, respectively). The number of tests per GP declined from 2011 to 2014 from 29.5 to 20.7, and increased thereafter to 27.1 in 2019. Testing was highest in PC4 areas with highest HIV prevalence. Qualitative analyses revealed various barriers to HIV testing, including taboo and stigma, a shrinking epidemic, and financial barriers. The use of competitive feedback was perceived as a motivator to improve testing behaviour. Of 59 GPs that completed the questionnaire, 68% stated the programme provided eye-openers, and 72% declared it improved their HIV testing behaviour.

Conclusion The observed increase in HIV testing coincided with the implementation of our intervention, but there was marked heterogeneity, with testing seemingly associated with local HIV prevalence. Amsterdam is well on its way towards zero new hiv infections, but it will be challenging to keep GPs engaged in proactive testing to prevent late presentations and missed opportunities for HIV diagnosis in primary care.

P275   **PREPPED FOR COVID? EXPLORING THE ASSOCIATION BETWEEN HIV PRE-EXPOSURE PROPHYLAXIS USE AND COVID-19 EXPERIENCE AMONG MSM**

[1,2]C Pulford*, [1,2]H Mitchell, [2,3]A Howarth, [1,2,3]J Saunders, [2,3]C Mercer, [1,2]G Hughes. [1]Blood Safety, Hepatitis, STIs and HIV Division, National Infection Service, Public Health England, Colindale, UK; [2]The National Institute for Health Research Health Protection Research Unit in Blood Borne and Sexually Transmitted Infections at University College London in partnership with Public Health England, London, UK; [3]Institute for Global Health, University College London, London, UK

Background Pre-exposure prophylaxis (PrEP) is highly effective at reducing HIV acquisition. Studies are underway to investigate the effectiveness of HIV antiretrovirals, including Tenofovir-based PrEP, for treating and preventing COVID-19. We investigated the association between HIV-PrEP use and COVID-19 among men who have sex with men in the UK.

Methods Participants completed an online survey (23/06/20–14/07/20), including men (cis/transgender), transwomen or gender-diverse people reporting sex with another man (cis/transgender) or non-binary person assigned male at birth. The outcome was COVID-19 experience, defined as reporting a positive test (antigen/antibody) or symptoms of a new continuous cough, high temperature or anosmia following the implementation of UK-wide restrictions ('lockdown' 23/03/20). All participants reporting taking HIV-PrEP since the beginning of the COVID-19 pandemic (12/19) were compared with those who did not. Analysis was performed using logistic regression, adjusting for sociodemographics (age, ethnicity, education, country) and subsequently for behavioural factors during lockdown (relationship status, chem-sex and number of new partners).

Results Altogether, 1,814 (89.9%) participants reported that they were living without HIV, of whom 253 (14.0%) reported experiencing COVID-19 (positive test or symptoms). Since December 2019, 410 (22.6%) participants reported taking HIV-PrEP, with daily use being lower during lockdown (6.2%) compared with the three months pre-lockdown (14.3%). HIV-PrEP use was positively associated with COVID-19 (crude-OR=1.51, 95%CI=1.13–2.04, p=0.006), including after adjusting for sociodemographics (OR=1.57, 95%CI:1.16–2.11, p=0.005), and after further adjustment for behavioural factors (OR=1.51, 95%CI:1.11–2.06, p<0.01).

Conclusion There is a positive association between HIV-PrEP use and COVID-19, independent of number of new partners. Our findings may reflect behaviours that increase COVID-19 exposure amongst HIV-PrEP users that are not captured in our analysis. People may also perceive that HIV-PrEP offers them protection against COVID-19. However, until robust evidence is available, people taking HIV-PrEP should adhere to COVID-19 prevention advice.

P277   **HOW DO WE MEASURE UNMET NEED WITHIN SEXUAL AND REPRODUCTIVE HEALTH? A SYSTEMATIC REVIEW**

[1]D Solomon*, [2]M Cabecinha, [1]J Gibbs, [3]F Burns, [1]C Sabin. [1]Institute for Global Health, University College London, London, UK; [2]Research Department of Primary Care and Population Health, University College London, London, UK; [3]Royal Free London NHS Foundation Trust, London, UK

Background Addressing health inequality with sexual and reproductive health requires an understanding of unmet need within a range of populations. This review examined the methods and definitions that have been used to measure unmet need, and the populations most frequently assessed.

Methods Five databases (PubMed, Web of Science, Scopus, CINAHL and HMIC) were searched for studies that described quantitative measurement of unmet need within sexual and/or reproductive health between 2010 to 2020. A narrative synthesis was then undertaken to ascertain themes within the literature.

Results The database search yielded 18539 papers; 145 papers were included after screening.

128 studies assessed unmet reproductive health need, of which 94 were analyses of trends among women living in low/lower-middle income countries; 121 used cross-sectional data, with only seven analyses being longitudinal.

Twelve studies analysed unmet sexual health need, of which nine focused on high and upper-middle income populations. All twelve used cross-sectional analyses.

The remaining five studies examined unmet need for a combination of sexual and reproductive health services, all among populations from upper-middle or high income countries and all being cross-sectional analyses.

138 of the papers were analyses of questionnaire data, five used reviews of medical records, one compared demand before and after an intervention, and one used modelling techniques.

113 studies used the DHS definition of unmet need; no other standardised definition was used among the remaining papers.