no difference in complete case management between participants with home- vs. clinic-collected specimens (RR 0.88, 95% CI 0.60 to 1.29, I^2 0%). The trials were heterogeneous with respect to test uptake (I^2 100%) but eight reported more participants tested with home- vs. clinic-based testing. In nine studies (2,928 participants) the pooled positive test prevalence was lower in the home-based than the clinic-based group (RR 0.73, 95% CI 0.61 to 0.86, I^2 0%). No RCTs evaluated adverse events, rates of partner treatment or infection cure.

Conclusion We found no evidence that home- vs. clinic-based specimen collection increased complete case management for CT and NG infections. Testing uptake might increase with home-based specimen collection but heterogeneity between studies was high. Safety and biological outcomes, such as infection cure, of home-based specimen collection strategies need to be evaluated.

Disclosure of interest statement The Cochrane Sexually Transmitted Infections Group receives funding from the Faculty of Medicine, Universidad Nacional de Colombia. No pharmaceutical grants were received in the development of this study.

O14.5 BLIND SPOT ON HETEROSEXUAL MEN? MULTIPLE PATHWAYS TO STI CARE AMONG MEN IN MALAWI

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Introduction A focus on heterosexual men is critical to reducing STIs/HIV rates in Sub-Saharan Africa. Despite this, prevention efforts and national policies have insufficiently addressed men's STI and HIV needs and access to care.

Methods We undertook mixed-methods research on men's sexual (including STI/HIV) health in Malawi between 2013–14. A national household-based survey with men (n = 998), qualitative interviews (n = 162) with other men, women, male clients, health service providers and key informants, ethnographic observations and a policy review investigated men's experience of sexual health, including risks, care-seeking, and health service responses.

Results Eight percent of men reported STI symptoms, of whom only 0.3% sought STI-related health care. One in five men had multiple concurrent sexual partners. Qualitative findings included that STI-related communication and disclosure within couples was limited. STI positive men confided in closest friends but sought treatment without their partner's knowledge. Many men with STIs used private clinics – citing perceived problems in the public sector of: confidentiality; lack of male-focused services; long queues; and the requirement to be accompanied by their sexual partner. Those unable to afford private treatment took self-medication or used traditional healers (particularly in rural areas). STIs were seen as "curable unlike HIV," less stigmatising though still embarrassing, and to be "dealt with quickly" and clandestinely. Among providers and stakeholders, improving men's STI prevention and care was seen as essential, though national policies insufficiently focused on this issue.

Conclusion Men are at risk of STI (and HIV) transmission in Malawi, but their sexual health needs are not being met by the public health sector. Opportunities for more gender-equitable health care include: strengthening public-private sector linkages and a policy environment that reflects men's specific health needs. In addition, challenging male gender norms that result in men taking risks with their sexual health need to be a priority.

Disclosure of interest statement We confirm that there are no conflicts of interest in the development of this study.

O14.6 ATTRIBUTES OF DIAGNOSTIC TESTS TO INCREASE UPTAKE OF TESTING FOR SYPHILIS AND HIV IN PORT-AU-PRINCE, HAITI

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Introduction Syphilis and HIV screening is highly recommended for pregnant women and those at risk for infection. Enhanced control and prevention can be accomplished through more testing. We used conjoint analysis, an innovative method for systematically estimating consumer preferences across discrete attributes, to identify factors associated with testing preferences for HIV and syphilis infection.

Methods We recruited 298 men and women 18 years and over seeking testing or care at GHESKIO (Haitian Study Group for Kaposi's sarcoma and Opportunistic Infections) clinics. We created 8 hypothetical test profiles varying across six dichotomous attributes: cost (free vs. $4), accuracy (no false positive vs. false positive), time-to-result (20 min vs. 1 week), blood draw method (finger prick vs. venipuncture), number of draws (1 vs. 2), and test type (rapid vs. laboratory). Participants were asked to rate each profile using Likert preference scales. Ratings were converted to 100-point preference scores; higher scores suggest increased preference. An impact score was generated for each attribute by taking the difference between the preference scores for the preferred and non-preferred level of each attribute. Two-sided one-sample t-test was used to generate p-values.

Results Of 298 study participants, 61 (20.5%) were male. Of 237 females, 49 (20.7%) were pregnant. Cost (free vs. $4; impact score = 27.2, SD = 36.6, $p < 0.0001$) had the highest impact on likelihood of testing, followed by number of blood draws (1 vs. 2; impact score = 17.5, SD = 29.8, $p < 0.0001$), blood draw method (fingerprick vs. venipuncture; impact score = 9.7, SD = 26.5, $p < 0.0001$), test type (rapid vs. laboratory; impact score = -4.5, SD = 21.9, $P = 0.0005$), and time-to-result (20 min vs. 1 week; impact score = 3.6, SD = 25.6, $p = 0.0139$).

Conclusion HIV and syphilis testing preferences for this study sample in Port-au-Prince prioritised cost, single fingerprick and timeliness. Implementing a low cost dual rapid test in the laboratory for HIV and syphilis could improve screening uptake and accessibility to accelerate time to treatment.

Disclosure of interest statement The study was supported in part by Standard Diagnostics.

O15 - Chlamydia infections

O15.1 SENSITIVE DETECTION OF *CHLAMYDIA TRACHOMATIS* PGP3 ANTIBODY DEMONSTRATES ANTIBODY PERSISTENCE AND CORRELATES WITH SELF-REPORTED INFECTION AND BEHAVIOURAL RISKS IN A BLINDED COHORT STUDY

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Introduction With improvements in serological detection of *Chlamydia trachomatis* (CT) infection and knowledge of persistence of CT antibodies, serological studies in populations could help monitor changes in incidence. The Dunedin Multidisciplinary Health and Development *study, New Zealand,* has regularly monitored the health and behaviour of 1037 men and women since their birth *in 1972–73*. Using this cohort, we report on the association between CT seropositivity and age, sexual behaviour and self-reported infection, as well as CT antibody changes over time.

Methods We developed a Pgp3 double-antigen sandwich ELISA then assayed, blinded, sera obtained from the Dunedin cohort at ages 26, 32 and 38.

Results Seropositivity was associated with a history of CT at all ages, with a stronger association in women than men. At ages 26, 32 and 38 years, 24.1%, 26.2% and 26.8% respectively of women, and 10.7%, 14.0% and 13.1% of men, were CT seropositive. Among those with a self-reported prior CT diagnosis at these ages, 79.5%, 75.0% and 74.6% respectively of women were positive, markedly higher than among comparable men (25.0%, 33.3% and 27.0%). The proportion seropositive increased with the lifetime number of sexual partners at all ages ($p < 0.001$). At age 38, among Pgp3 seropositive individuals 63.3% (95% CI 54.4%–71.4%) of women and 83.1% (71.5%–90.5%) of men did not report having ever been diagnosed with chlamydia. Among women, persistence over six years was 92.5% (85.7–96.7%) and over 12 years 94.3% (87.2–98.1%); among men the respective proportions were 87.3% (76.5–94.4%) and 83.8% (68.0–93.8%).

Conclusion CT infection was common in Dunedin, New Zealand with many infections going undetected. The strong correlation of Pgp3 antibody with number of sexual partners and high persistence of antibody is a powerful argument for the development of methodology to use CT Pgp3 serology for evaluation of CT control programmes.

Disclosure of interest statement PH has received funding from Cepheid directly and indirectly for lecturing on point of care testing and undertaking research on the cost effectiveness of their CT/NG assay. Has also received payment from Atlas Genetics for an article in the Parliamentary Review on the benefits of point of care technology in improving the cost effectiveness of sexual health services. Has also received an honorarium from Hologic for an education talk on STI diagnostics. GW, AR, SV, DS, AW, DM, ND and MMcC no conflicts of interest declared.

O15.2 COMBINED DETECTION OF CHLAMYDIA, GONORRHOEA AND TRICHOMONAS USING THE BD MAX™ CT/GC/TV ASSAY

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Background *Chlamydia trachomatis* (CT) and Neisseria gonorrhoea (GC) are the two most common bacterial STIs. Screening for CT and/or GC, is recommended in many countries. The prevalence of *Trichomonas vaginalis* (TV) is also high and negative consequences of untreated infection may be serious. Inclusion of TV as part of a combination assay would facilitate screening of these STI. Here we evaluated the performance of the BD MAX CT/GC/TV assay compared to currently available assays for these STI.

Methods Eight STD and Family Planning clinics enrolled participants for this study. Vaginal and endocervical swabs, and female and male urine specimens were obtained from 1854 women and 843 men. Female samples were used for evaluation of the BD MAX CT/GC/TV assays while male urine was used only for CT/GC evaluation. BD MAX CT/GC/TV results were compared to the Aptima Combo 2 ® CT/GC; BD ProbeTec™ CT/GC; BD Viper™ CT Q^x/GC Q^x; TV microscopy and culture. Participants were classified as infected if at least one positive result from each of 2 comparator assays were obtained. Positive wet mount and/or culture results were used as evidence of TV infection for women only.

Results Among women, 7.3%, 2.4% and 14.7% were infected with CT, GC and TV, respectively. Among men the rates were 22.0% and 14.6% for CT and GC. The BD MAX CT/GC/TV assay detected 92.2–99.2%, 94.9–95.1% and 92.9–96.1% of CT, GC and TV infections among women, depending on specimen type, and 96.6% and 99.1% among men. The specificity for all organisms and sample types was >98.5%.

Discussion In this US multi-site study, the prevalence of TV infection was high, demonstrating the benefit of screening women for TV as well as GC and CT. The BD MAX CT/GC/TV assay performance allows combined testing for all 3 STI among women and CT/GC from male urine.--

Financial disclosure This study was funded by BD Diagnostics.

O15.3 HIGH CHLAMYDIA TREATMENT FAILURE RATES IN MEN WHO HAVE SEX WITH MEN

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Introduction There is increasing concern about treatment failure among those treated for anogenital chlamydia infection. We used genotyping and survey data to differentiate between reinfection