

P3.332 MATCHING PARTICIPANTS IN A CHLAMYDIA SCREENING PROGRAMME WITH PATIENTS SEEN BY STD CLINIC, GENERAL PRACTITIONER, OR SPECIALIST: ADDED VALUE OF A CHLAMYDIA SCREENING PROGRAMME

doi:10.1136/sextrans-2013-051184.0785

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Background Register and internet-based Chlamydia Screening Implementation (CSI) was introduced in the Netherlands to detect and treat asymptomatic infections and to limit ongoing transmission through annual testing and treatment of *Chlamydia trachomatis* (Ct) in young people. This population-based screening may be compromised by addressing individuals who are already covered by regular care like general practitioners and STD clinics. We study, in a timeframe of five years, overlap between CSI participation and attendance of major services offering Ct screening services to assess whether CSI reached additional patients.

Methods Data included all Ct tests performed in subjects aged 16–29 years in Eastern South Limburg in the Netherlands (population 16–29 years: 42,000) between 2006 and 2010 by CSI, regional STD clinic, general practitioners (GPs), and specialists (mainly gynaecologists) as reported by the testing laboratory. Data were matched between testing agencies, with complete certainty (STD clinic) (name, date of birth) and with a certainty range (part of the name, month and year of birth). Maastricht University's ethical committee approved the study. Analyses were restricted to subjects tested (at least) by CSI.

Results In CSI, 4477 (82.9%) subjects were first-time testers, others were previously tested by the STD clinic (3.5%, n = 190), GPs (6.4%, n = 352), specialists (3.6%, n = 197) or multiple providers (3.4%, n = 183). Compared to persons previously tested by the STD clinic/GPs/specialists, first time testers were younger (mean age 23y vs. 24y, p < 0.001), and more often were heterosexual men compared to women (29.8% vs. 13.6%, p < 0.001). Ct prevalence was similar in first time testers (4.6%) compared to previously tested persons (4.9%, p = 0.76). Symptom-rate was also similar (2.5% vs. 3.3% p = 0.32).

Conclusions Chlamydia screening addresses young individuals, including heterosexual men, hidden to current care with similar Ct prevalence and adds to the existing regular care.

P3.333 CHLAMYDIA TRACHOMATIS IGG SEROPREVALENCE IN THE GENERAL POPULATION OF THE NETHERLANDS IN 1996 AND 2007

doi:10.1136/sextrans-2013-051184.0786

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Background *Chlamydia trachomatis* (Ct) reporting rates from sexually transmitted infection (STI) clinics and general practitioners have shown a rising trend in the Netherlands. It is unknown to what extent this reflects increased Ct transmission or improved case-finding. To achieve more insight into the dynamics of the Ct epidemic, we explored the Ct IgG seroprevalence (marker of past Ct infection) in the general population of the Netherlands in 1996 and 2007.

Methods From two independent population-based studies in 1996 and 2007, serum samples were drawn, from 650 men and 1,000 women per study. Participants completed a questionnaire covering demographic information and sexual risk factors. Serum antibodies were analysed using Medac Ct IgG ELISA test. Multivariate logistic regression analyses explored changes in, and determinants of Ct IgG seroprevalence.

Results The Ct IgG seroprevalence was higher in women than in men in 1996 (11.3% vs 5.2%), but this difference had diminished in 2007 (8.4% vs 6.9%). Among women aged 25–40 years, the seroprevalence was significantly lower (OR 0.6 [0.4–0.8]) in 2007 than in 1996, whereas the seroprevalence among women aged 15–24 years and men in both age groups was slightly higher in 2007, though not significantly. Determinants of seropositivity were female gender (OR 1.7 [1.3–2.0]), known history of Ct infection (OR: 3.4 [1.7–6.8]), 25–40 years old (OR 1.6 [1.1–2.4]), non-western ethnicity (OR: 1.8 [1.1–3.2]) and ≥ 2 recent sexual partners (OR: 2.2 [1.4–3.7]).

Conclusion Ct IgG seropositivity was associated with known STI risk factors. Our results suggest that the proportion of individuals in the population who have had a Ct infection did not increase between 1996 and 2007. The decrease in seroprevalence among women aged 25–40 years between 1996 and 2007 may indicate changes in Ct transmission due to a more pro-active 'test and treat' policy.

P3.334 SOCIAL GEOGRAPHY OF DIAGNOSED AND UNDIAGNOSED STIS: PRELIMINARY RESULTS

doi:10.1136/sextrans-2013-051184.0787

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Background Geographic propinquity affects the number and types of sexual partners available as well as sexual network connections. Geographic location also affects the pervasiveness of STI screening and the availability of STI treatment. This presentation explores the geographic clustering of diagnosed and undiagnosed STIs and STI-risk factors in CityplaceBaltimore, StateMD.

Methods The 2006–2009 Monitoring STIs Survey Program (MSSP) tracked trends in three STIs (trichomoniasis, chlamydia, gonorrhoea) in probability samples of the population ages 15 to 35 in CityplaceBaltimore, StateMD. 2,936 participants reported on previously diagnosed STIs and STI-risk behaviours, and 2,136 participants provided biospecimens for STI testing. Census tract codes and socio-demographic characteristics of these tracts were appended to the MSSP data. Investigators are exploring the social geography of the distribution of diagnosed and undiagnosed STIs and STI-risk factors using this database.

Results Preliminary analyses suggest that: (1) the estimated prevalence of *undiagnosed* infections is elevated among Black respondents living in census tracts with *high* levels of median income; (2) the estimated prevalence of *diagnosed* infections is elevated among Black respondents living in census tracts with *low* levels of median income; (3) the estimated prevalence of *undiagnosed* infections among non-Blacks is highest among non-Blacks living in Census tracts with more than 80% Black residents; (4) the estimated prevalence of *undiagnosed* infection among Black women has a curvilinear relationship with the percentage of residents in a Census tract who are Black. (Higher infection prevalences are found in Census tracts with lower and higher proportions of Black residents.)

Conclusion These results invite provocative conclusions. It appears, for example, that inadequate screening resources may be targeted on Black respondents residing in wealthier neighbourhoods resulting in an elevated prevalence of undiagnosed infection in this subpopulation. A rigorous examination of this and related preliminary results will be presented at the conference.

P3.335 HIV AND SYPHILIS PREVALENCE AND BEHAVIOUR, PRACTISES AND ATTITUDES OF THE TRANS POPULATION IN PARAGUAY, 2011

doi:10.1136/sextrans-2013-051184.0788

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Background The transgender population is highly affected by STI and HIV epidemic, with high stigma and social discrimination. In Paraguay there is a lack of information concerning HIV and syphilis prevalence in this population. Generally, data on this population is mixed with that of men who have sex with men (MSM). It is estimated there are 421 transgender citizens throughout the country.

Methods Cross sectional observational study at subnational level, that included a survey and linked confidential serological tests from August to September 2011. HIV and syphilis were screened with rapid tests. HIV was confirmed with Western Blot and syphilis with TPFA for those reactive. The study population was people of male sex at birth that self-identify as females, with or without modification of their body and clothing according to said identity. A mapping of transgender was carried out, and subsequently the study was offered to all mapped people in the geographical areas of Capital, Itapúa, Caaguazú, Paraná and Amambay.

Results 311 transgender participated in the study, 237 agreed to HIV testing and 247 to syphilis testing. HIV and syphilis prevalence was 27% (IC95% 21–32) and 12% (IC95% 8–16) respectively. HIV/syphilis co-infection occurred in 6% of cases. 89% were sexual workers. The associated risk factors for HIV infection were age, non-injectable drug use and sexual work time ($p < 0.05$). Among those who tested positive for HIV, 60% were previously known HIV positive and 19% for those not submitted to the test. That data was found through the introduction of personal code in the information system.

Conclusions HIV prevalence is high, similar to other Latin American countries. The prevalence of syphilis and syphilis/HIV co-infection is high. The high prevalence of non-injectable drug use implies the need for changing prevention strategies.

P3.336 SEROPREVALENCE OF HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION AMONGST TUBERCULOSIS (TB) PATIENTS ATTENDING TB/DOTS CENTRE IN NNEWI SOUTH EAST NIGERIA

doi:10.1136/sextrans-2013-051184.0789

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Background The Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi is a centre for free laboratory and x-ray investigations, management of tuberculosis and HIV infection in the South Eastern Nigeria.

Method The authors conducted a retrospective study using the medical records of patients aimed at determining the prevalence of HIV infection in Tuberculosis (TB) patients attending Directly Observed Treatment Short-course (DOTS) services between April 2008 and December 2010. Pattern of TB/HIV co-infection rate over time was also analysed.

Result The study showed a high prevalence of HIV among TB patients (29.9%). Smear Positive (SPT) was the most frequent (60.6%) form of TB diagnosis. Extra Pulmonary Tuberculosis (EPT) and Smear Negative Tuberculosis (SNT) were frequently associated with HIV co-infection (60.9%) and (62.9%) respectively. HIV prevalence and TB was higher in females (15.6%) than males (14.1%) though not statistically significant.

Conclusion The co-infection rate was highest among individuals aged 27–34 years (10.9%) followed by 35–42 years (8.1%) and least among 60 years and above (0.6%). The increase in TB/HIV co-infection rate was monotonic over time with a strong trend among females aged 27–34 years (25.7%, 21.6% and 21.3%) for 2008, 2009 and 2010 respectively.

P3.337 FACTORS ASSOCIATED WITH HIV PREVALENCE AND HIV TESTING IN SIERRA LEONE: FINDINGS FROM THE 2008 DEMOGRAPHIC HEALTH SURVEY

doi:10.1136/sextrans-2013-051184.0790

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Background Based on data from the Demographic Health Survey (SLDHS) 2008, this study aims to identify factors associated with HIV prevalence and HIV testing in Sierra Leone.

Methods The SLDHS 2008 was conducted nationwide and included anonymous HIV testing via dried blood spot. All participants that were interviewed and tested for HIV are included in this analysis. Multiple logistic regression was used to identify factors associated with HIV infection and with ever having a voluntary HIV test.

Results 6,475 respondents were interviewed and tested for HIV; the response rate to testing was 86%. The HIV prevalence was 1.5%, and 10% had voluntarily tested for HIV. Of those found HIV infected 78% had never taken a voluntary HIV test, and 86% were sexually active in the last 12 months among whom 96% did not use a condom at last intercourse. Among women aged 15–49 years 40% had their HIV test during antenatal care (ANC). In regression analysis people separated, divorced or widowed, with urban residence and having first sexual intercourse at age 17–18 years, were more likely to be HIV positive. Undiagnosed infection was associated with not knowing that abstaining from sex can reduce HIV infection. Voluntary HIV testing was associated with urban residence, being married, female, education beyond primary level, using condoms at last sex, and knowledge of HIV.

Conclusions The HIV prevalence in Sierra Leone is relatively low compared to many African countries; however the high proportion of undiagnosed infection highlights the potential for rapid escalation of the epidemic in this country. Currently few people access voluntary testing beyond antenatal care and condom use is low. Interventions to address both these issues, and access to antiretroviral therapy, need to be sustained or expanded to ensure Sierra Leone's HIV epidemic remains stable.

P3.338 EPIDEMIOLOGICAL AND CLINICAL ASPECTS OF HIV-TB CO-INFECTION IN THE REPUBLIC OF DJIBOUTI: EXPERIENCE OF PAUL FAURE HOSPITAL

doi:10.1136/sextrans-2013-051184.0791