Conclusions We found that in patients with urogenital Chlamydia infection positive reactions could be detected with high frequency at extragenital sites by both PCR and antibody-based assays. Thus, testing clinical specimens obtained from extragenital sites can facilitate detection of Chlamydia, resulting in a significant increase of the efficiency of laboratory diagnosis of Chlamydia for Public Health.

This work was supported by the Project #3846 NIH/BTEP/ISTC.

P.03 - Epidemiology and Prevention Sciences Track

P3.001 PATTERNS OF RECENT ALCOHOL AND MARIJUANA USE AS PREDICTORS OF CONDOM USE, PREGNANCY AND SEXUALLY TRANSMITTED INFECTIONS DURING 18-MONTHS OF FOLLOW-UP AMONG AFRICAN-AMERICAN FEMALE ADOLESCENTS

doi:10.1136/sextrans-2013-051184.0461

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Background Few, if any, studies have differentiated patterns of alcohol and marijuana use as predictors of sexual risk among adolescents. The objective was to compare recent use of alcohol and marijuana (A+M), alcohol only (AO) and marijuana only (MO) as predictors of condom use, pregnancy and sexually transmitted infections (STIs) during 18 months of follow-up among African-American female adolescents.

Methods The analytic sample included 213 African-American females (14–20 years) assigned to the control arm of an HIV prevention trial. Participants completed audio computer-assisted self-interviews at baseline and every 6 months for 18 months. At each assessment, a pregnancy test was conducted and specimens were collected and assayed for *Trichomonas vaginalis*, *Chlamydia trachomatis* and *Neisseria gonorrhoeae* using DNA amplification. Generalized estimating equations compared proportion condom-protected sex acts in the past 3 months, pregnancy and STI acquisition during follow-up among participants who in the 90 days prior to baseline assessment reported using A+M, AO and MO but no other illegal substances. Multivariable models controlled for group differences at baseline and corresponding baseline measure of the outcome.

Results Of 182 (85%) participants with follow-up data, 43% (n = 79) reported recent use of A+M, 39% (n = 71) AO and 17% (n = 32) MO. No group differences in retention or proportion condom-protected sex acts during follow-up were observed. There were no significant differences in STI acquisition or pregnancy among MO and AO users. Relative to AO users, A+M users were more likely to become pregnant (AOR: 2.5, 95% CI: 1.2, 5.3). Relative to MO users, A+M users were more likely to acquire an STI (AOR: 2.5, 95% CI: 1.0, 6.2) and become pregnant (AOR: 3.7, 95% CI: 1.1, 12.3).

Conclusion STI/HIV and pregnancy prevention programmes serving African-American female adolescents may benefit by intensifying services for recent A+M users and addressing the role of substance use on sexual risk.

P3.002 DETECTION OF HUMAN PAPILLOMAVIRUS (HPV) INFECTION IN ANAL SAMPLES IN RUSSIAN MEN WHO HAVE SEX WITH WOMEN (MSW)

doi:10.1136/sextrans-2013-051184.0462

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Background HPV has been found in the anal canal of heterosexual men (MSWs) but knowledge on anal HPV epidemiology among MSWs is still limited.

Methods In total, B-globin positive anal samples from 350 Russian MSWs (age 18–58 years, sex debut 9–23 years, 1–700 life-time sex partners) attending a urology unit of a STI clinic and HIV+ patients from a city infection hospital were collected in St. Petersburg. HPV testing and genotyping for 13 oncogenic and 23 non-oncogenic HPV types was conducted with a reference method from the WHO HPV LabNet global reference laboratory, using a proficient Luminex assay.

Results Overall HPV prevalence (including oncogenic and non-oncogenic types) was 17.1%, 15.2% in HIV- compared to 40.7% in HIV+ Russian MSW (p = 0.0022). HPV 16 infection was most common (5.4%) followed by HPV 51 (2.0%), HPV 45, (1.7%) and 87 (1.7%). Age, number of sexual partners, and age at sexual debut were not associated with HPV infection.

Conclusion HPV infection is common in anal samples of Russian MSWs. HPV prevalence is higher among men who were HIV-positive.

P3.003 HETEROSEXUAL ANAL INTERCOURSE AMONG YOUTH: A SYSTEMATIC REVIEW AND METAANALYSIS

doi:10.1136/sextrans-2013-051184.0463

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Background Anal intercourse (AI) is a risk factor of HIV/HPV infection and anal cancer. However, heterosexual AI practises are ill-understood. Our objective was to understand the level and heterogeneity in AI among heterosexual youth

Methods We conducted a systematic review and meta-analysis. PubMed was searched for studies reporting heterosexual AI among the general population with a mean age < 25 years published 1975–2012. Meta-analysis and meta-regression were used where appropriate to summarise estimates and test whether continent, survey year, mean age and interview method explained variation in AI prevalence among sexually active and all youth.

Results 110 eligible studies were identified from North America (n = 75), Europe (14), Africa (13), Latin America (4) and Asia (4). Studies of AI prevalence over lifetime (n = 66) and 3 months (n = 16) only are reported here. Both lifetime and three-month AI prevalence estimates were too heterogeneous to pool (I2 > 90%).

Lifetime AI prevalence was 0.2%–55.7% and 0.0%–38.8% in sexually active and all youth, respectively. AI among all youth increased significantly (p≤ 0.05) with mean age. Among sexually active youth, interview method explained 12% and 47% of variation in AI prevalence in male/mixed gender samples, respectively. Higher prevalence was reported using more confidential methods. Lifetime prevalence increased significantly with survey year among all gender groups in Europe, but not elsewhere.

Three-month AI prevalence was 5.1%–52.6% and 1.3%–22.7% in sexually active and all youth, respectively. Among all youth, mean age explained 76% and 80% of variation in female and mixed AI prevalence, respectively. Three-month prevalence increased significantly with survey year in sexually active female samples (all from North America).

Conclusion AI is common among all young heterosexual populations, with prevalence increasing in Europe and possibly among females in North America. It could therefore become an increasingly important determinant of HIV and HPV transmission.

P3.004 STANDARD SYMPTOM- AND SEXUAL HISTORY-BASED TESTING MISSES OVER HALF OF ANORECTAL STD IN WOMEN VISITING THE STD CLINIC

doi:10.1136/sextrans-2013-051184.0464

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Introduction Symptom- and sexual history-based testing (testing on indication) for STD in (high risk) women has become part of standard operating procedures in STD clinics. However, little is known about alternative transmission routes for example by fingers and toys. We determined the proportion anorectal STD missed when applying testing on indication, such as STD due to alternative transmission routes.

Methods All women attending our STD clinic (consults: n = 395) [from May 2012–December 2012] were routinely tested for anorectal and urogenital Chlamydia trachomatis (Ct) and Neisseria gonorrhoeae (Ng) infections. Data were collected on demographics, anal symptoms, anal sex with casual/steady partner(s) and anal use of fingers and/or toys. We compared anorectal STD (Ct and/or Ng) prevalence between 3 groups of women: with indication (self reported anal symptoms and/or anal sex), without indication (no symptoms, no anal sex, no fingers/toys) and without indication but with self reported anal use of fingers/toys. Enrollment in the study is ongoing.

Results In total, 395 consults were included by 380 females. Overall prevalence of anorectal STD was 7.8% (n = 31). Of all consults, 31% (n = 122) had indication for anal testing, 60% (n = 237) no indication and 9% (N = 36) only used fingers/toys. Prevalence was 8.2% (10/122) with indication, 8.0% (19/237, P = 0.95) without indication and 5.6% (2/36, P = 0.61) without indication with use of fingers/toys. Testing on indication only would have missed 68% of all detected anorectal STD (21/31). Multiple infection (vaginal and anorectal) was present in all but one (with indication).

Discussion Large part of anorectal STD are missed in STD clinics, this was partly associated with alternative transmission routes. Also autoinoculation may be possible, all missed anorectal infections coincided with urogenital STD. However, treating urogenital Ct does not automatically imply appropriate co-treatment of anorectal Ct, since there is current debate on treatment of extragenital Ct.

P3.005 THE BURDEN OF BACTERIAL VAGINOSIS: WOMEN'S EXPERIENCE OF LIVING WITH RECURRENT BACTERIAL VAGINSOSIS

doi:10.1136/sextrans-2013-051184.0465

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Background Bacterial vaginosis (BV) is a common vaginal infection, causing an abnormal vaginal discharge and/or odour in up to 50% of sufferers. Recurrence is common following recommended treatment. There are limited published data on women's experience of BV, and the impact of recurrent BV on their self-esteem, sexual relationships and quality of life. The aim of this study was to explore the experiences and impact of recurrent BV on women.

Methods Social constructionism informed the epistemological framework of this study. Thirty five women with male and/or female partners were interviewed face-to-face or by phone about their experience of recurrent BV. All interviews were digitally recorded, transcribed verbatim and imported into N-Vivo 9 for thematic analysis.

Results Interviews took 20–45 minutes. Median number of diagnosed BV episodes in participants was 3 (range 2–25). Most women attributed BV to some form of sexual contact including specific sexual partners, frequency of sex, unprotected sex or certain sexual practises. The impact of BV varied according to severity of symptoms - the more severe, the greater the impact. The most distressing symptom was abnormal odour, with women commonly feeling embarrassed, ashamed, unattractive, 'dirty' and concerned others may detect the odour. The biggest impact was on women's sex lives, with women commonly avoiding sexual activity, especially oral sex and employing preventative practises to minimise odour including frequent showering and self-help remedies. Women commonly felt confused and frustrated about why they were experiencing recurrent BV, the lack of effective treatment and preventative options and poor public and professional knowledge around BV.

Conclusion Recurrent BV impacted on women broadly and significantly in this study but varied according to symptom severity. Women would like a greater understanding about the cause of BV, better available treatment options and improved knowledge and support amongst clinicians.

P3.006 PREVALENCE OF HIV AND SYPHILIS AMONG VOLUNTARY BLOOD DONORS AT A REGIONAL BLOOD CENTRE IN SRI LANKA FOR THREE YEAR PERIOD

doi:10.1136/sextrans-2013-051184.0466

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Background This study was conducted to estimate the prevalence of HIV and Syphilis among voluntary blood donors at a regional blood centre in western province of Sri Lanka, contributing to 7% of total blood collection in the country.

All units collected by the blood centre were screened for HIV1 & 2, HBV, HCV, syphilis and Malaria. 4th generation Enzyme immunoassay (EIA) for HIV p24 antigen and HIV-1 and 2 antibodies (Genscreen-ULTRA HIV Ag-Ab) was the screening test for HIV and confirmation was done by standard immunoblotting (western blot) technique.

Venereal Disease Reference Laboratory (VDRL) test was used for screening of syphilis confirmed by Treponema pallidum hemagglutination (TPHA) test.

Method This is a descriptive analysis of retrospective donor records from January 2010 to December 2012.

Results 66087 allogenic donation (Community, apheresis, in-house) records were analysed. 77.5% of donors were male and 37.3% of donors were within 26–35year age group. 91% of donations were collected from community based donation campaigns.

Overall prevalence of HIV was 0.00004% (3 cases) and incidence was 0.0001%, 0.000% and 0.00004 in 2010, 2011 and 2012 respectively. Overall prevalence of syphilis was 0.0005% (37 cases) and was 0.0007%, 0.0007% and 0.0006% in 2010, 2011 and 2012 respectively. There were no HIV positive female blood donors and HIV prevalence among male donors was 0.00005%. Prevalence of syphilis in female donors was 0.0002% and 0.0006% in male donors. The highest Syphilis prevalence of 0.0007% was in 26–35 year age group. All HIV cases were in 36–45 year age group.

Conclusion In 2011, HIV prevalence was < 0.1 in adult general population of Sri Lanka and reported cases of syphilis was 799. This study shows a low prevalence among blood donors due to the existing strategies of the National blood service which could further improved by strengthening of donor selection and testing strategies.

P3.007* GONORRHOEA, SYPHILIS, CHLAMYDIA AND TRICHOMONAS IN CHILDREN UNDER THIRTEEN YEARS OF AGE: NATIONAL SURVEILLANCE IN THE UK AND REPUBLIC OF IRELAND

doi:10.1136/sextrans-2013-051184.0467