

and describes manifestations and correlates of MJ and CC among participants.

Methods A cross sectional study using multistage cluster sampling was conducted among public high school students, aged 14–19 years, in two districts in Panama City from August–November 2015 and June–August 2016. Participants self-administered a questionnaire and gave biological samples. Those who acknowledged prior sexual activity (PSA) were tested for HIV and other STI (syphilis, chlamydia, gonorrhoea, trichomoniasis, *M. genitalium*, and hepatitis B surface antigen). **Results** Of the 1228 male and female participants, 57.7% of males and 58.5% of females reported PSA; 23.1% of participants reporting PSA had ≥ 1 positive STI test. Positive STI tests or PSA were not correlated with MJ or CC. Manifestations of MJ were found in 19.6% of participants; correlates include low confidence in personal HIV knowledge (AOR=2.5, 95% CI: 1.3–5.0) and belief that HIV+ classmates should be excluded from school (CES) (AOR=2.7 95% CI: 1.6–4.6). Almost half (48.8%) of participants answered affirmatively to 2–9 scenarios of transmission by CC. High confidence in personal HIV knowledge was protective for belief of transmission through CC (AOR=0.6, 95% CI: 0.4–0.9); participants with belief in CES were more likely to believe in transmission by CC (AOR=2.0 95% CI: 1.3–3.2).

Conclusion This study found high STI prevalence in public school adolescents from two districts in Panama City. Poor confidence in personal HIV knowledge and exclusion through CES were correlated with MJ of PLHIV, and belief in HIV transmission through CC. This study identifies the need for effective educational interventions to increase HIV transmission knowledge and decrease negative attitudes towards PLHIV.

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P3.09 LONGITUDINAL TRAJECTORIES OF SEXUAL RISK BEHAVIOUR IN MEN WHO HAVE SEX WITH MEN

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Introduction Sexual behaviour changes during a person's life course. Insights in sexual careers of men who have sex with men (MSM) may optimise timing of HIV prevention methods. Our objectives were to develop a behavioural risk score for HIV seroconversion and study trajectories of sexual behaviour over time.

Methods Longitudinal data from the Amsterdam Cohort Studies on HIV and AIDS (ACS) were used. We included HIV-negative MSM who visited the ACS at least once between May 2007 and April 2016 (n=820). MSM were bi-annually tested for HIV and completed a questionnaire about their sexual behaviour in the preceding six months. The following

behavioural variables were selected a priori: number of casual partners with insertive or receptive anal intercourse (AI), condom use during AI, number of condomless AI partners with unknown or positive HIV status, and AI during group sex. Using Poisson regression, we calculated a risk score for HIV seroconversion. This score was used in growth mixture modelling to examine trajectories of sexual behaviour since first male sexual contact.

Results During follow-up 49 MSM seroconverted. Predictors of seroconversion in multivariable analyses were number of casual partners with receptive AI (log transformed IRR: 1.63, 95% CI: 1.20–2.22) and number of condomless insertive AI partners with unknown or positive HIV status (log transformed IRR: 1.73, 95% CI: 1.24–2.42). We identified 3 sexual risk behaviour trajectories: Decreasing high risk (7% of MSM) with high risk behaviour at start of sexual career and decreasing risk over time; Increasing high risk (3%) with low risk behaviour at start of sexual career and increasing risk over time; and Low risk (90%) with relatively low risk throughout the career. MSM in the decreasing high risk trajectory were younger at first sexual contact than MSM in the Low risk trajectory.

Conclusion We identified 3 distinct sexual career trajectories. Increasing risk behaviour during the life course was found in a small group of MSM. The trajectories of these men might provide clues for time-tailored interventions.

P3.10 HPV CLEARANCE IN A BRAZILIAN WOMEN LIVING WITH HIV COHORT

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Introduction Persistent infection with high-risk human papillomavirus (HR-HPV) is necessary for the development of precursor lesions and cervical cancer. HPV infection among women living with HIV/AIDS (WLHA) occurs more frequently, presents a higher parcel of persistent infections and an earlier progression to cancer. We aimed to evaluate the HR-HPV infection and clearance, and its association with HIV viral suppression, immunological response, and other risk factors among WLHA followed in a STD/HIV reference centre.

Methods This is a cohort study conducted at a reference centre for STD/AIDS in Northeastern Brazil from September 2013 to September 2015. Follow-up visits were conducted at 6 and 12 months from enrolment, where socio-epidemiological data was obtained through standardised form. Cervical samples were collected for conventional cytology and HPV DNA research (PCR COBAS Roche) in addition to blood samples for TCD4+ lymphocyte count and HIV viral load.

Results We prospectively evaluated 333 women. HR-HPV DNA prevalence was 39.6% during the follow-up. HPV-16 was present in 6.0%, HPV-18 in 5.4% and 37.8% WLHA had other HR-HPV (31,33,35,39,45,51,52,56,58,59,66 and 68).

The HR-HPV incidence was 10.6% in 6 months visit and 6.5% in 12 months visit. Variables associated with HR-HPV incidence were: age ≤ 30 years, combined oral contraceptive use, smoking and detectable HIV viral load. The HR-HPV clearance was 31.7% and was associated with age > 30 years and lymphocytes count > 350 cels/mm³ at enrolment. Nulliparous women had higher HR-HPV clearance rates.

Conclusion These findings have contributed to the knowledge about the group of women that need a more careful HPV screening, while described the association of efficient immunological response and HIV viral suppression with a lower HR-HPV incidence and increased clearance of HPV-HR.

P3.11 BIOTYPES, BIOFILM AND PHOSPHOLIPASE C PRODUCTION OF *GARDNERELLA VAGINALIS* ASSOCIATED WITH NORMAL FLORA AND BACTERIAL VAGINOSIS

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Introduction Bacterial vaginosis (BV) is the most common vaginal infection among women around the world, characterised by the replacement of the normal vaginal microbiota by anaerobic bacteria, mainly *G. vaginalis* a Gram negative coccobacillus that is isolated in up to 98% of the cases. This bacterium is classified into eight biotypes and has several virulence factors such as the production of biofilm and phospholipase C (PLC) that are associated with gineco-obstetric complications. Therefore, it is necessary to evaluate the relationship between biotypes and virulence factors with BV, which was the main objective of this study.

Methods 250 samples of vaginal swab were analysed; the samples were inoculated on Columbia agar for the isolation of *G. vaginalis*. We use Amsel and Nugent criteria for the classification of vaginal flora and for the diagnosis of BV. For biotyping, we use Piot *et al* 1984 classification (hydrolysis of hippurate, β -galactosidase and lipase). Biofilm production was performed in 96-well plates and the results were classified as non-producing (< 0.1), moderate (0.1–0.2) and abundant (> 0.2). We measured PLC production on skim milk agar.

Results We isolated *G. vaginalis* in 75% (187) of the samples, of which 15% (37) were associated with BV whereas 60% (150) with normal flora. We identify biotypes 1 (19%), 2 (8%), 5 (16%) and 6 (57%) in BV cases, whereas in normal flora we identify the same biotypes at different frequency [1 (22%), 2 (11%), 5 (21%) and 6 (46%)]. We observed PLC production in 22% of the cases associated with BV and at 27% in normal flora. We observed that 76% of strains associated with BV were non-producers, 19% were moderate and 5% were abundant, whereas in the normal flora group was 66%, 26% and 8%, respectively.

Conclusion: *G. vaginalis* was isolated in 75% of the samples (15% associated with BV and 60% in normal flora). We identified biotypes 1, 2, 5 and 6 of *G. vaginalis*; the production of PLC and biofilm was similar in both study groups. We couldn't associate biotypes and virulence factors with BV.

P3.12 FREQUENCY AND DISTRIBUTION OF *CHLAMYDIA TRACHOMATIS* INFECTION AMONG YOUNG PREGNANT WOMEN IN ARGENTINA

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Introduction: *Chlamydia trachomatis* causes the most frequent bacterial Sexually Transmitted Infection (STI) in the world. Previous results showed that in Buenos Aires, Argentina, adolescent pregnant women have an unusually high prevalence of this infection. Our aim was to define the frequency of *C. trachomatis* infection among pregnant women, and to describe its association pattern.

Methods Starting on May 2016, voluntary participation for this study was offered to every pregnant woman attending the Hospital Materno Infantil "Ana Goitia" (Avellaneda, Buenos Aires) during her routine pregnancy control. Those who accepted and signed the Informed Consent form were enrolled. Cervico-vaginal lavage and first catch urine samples were collected. Detection of *Chlamydia trachomatis* was performed using Real Time PCR. This preliminary report shows the results for the first four months of a two years study, which is still ongoing.

Results One hundred and nineteen pregnant women aged between 14 and 39 years-old were enrolled, with a mean age of 22.85 years-old. Sixty four (53.78%) of them were younger than 22 years-old. *C. trachomatis* infection was detected on 22 (18.49%) women. The majority of the chlamydia infected patients (76.19%) were 21 years-old or less, which is statistically significant related to the age distribution of the whole analysed group OR: 3,27 (1.11–9.62) $p < 0.05$. Eleven out of 16 *C. trachomatis* infected patients (68.75%) were associated to lack of inflammatory reaction on vaginal content.

Conclusion The frequency of *Chlamydia trachomatis* infection on the analysed group was high, and was also significantly associated to the age of the studied women, being higher on women younger than 21 years-old (25%) than on the older ones (9.09%). This evidence supports the need of assessing the addition of the detection of *C. trachomatis* infection to routine pregnancy control of younger women in Argentina.

P3.13 HIGH-RISK PAPILLOMAVIRUS INFECTION AND CERVICAL CANCER AMONG WOMEN LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS: BRAZILIAN MULTICENTRIC STUDY

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Introduction Although HPV infections can clear spontaneously, persistence of high-risk-HPV is a risk factor for cervical cancer