was incomplete. Epidemiologic monitoring of HPV in sexual networks is needed, particularly in populations with suboptimal HPV vaccine coverage.

P3.054 IDENTIFICATION OF HPV VACCINE-GENOTYPES IN A FEMALE STI POPULATION GROUP

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Background and Objectives Women harbouring HPV genotypes are at risk to develop either genital warts or cervical dysplasia as a precursor of cervical carcinoma. Aim of the study was to evaluate the prevalence of HPV vaccine-genotypes in a female population group.

Materials and Methods Data were collected from 4230 female patients between February and July 2012. Material was either delivered or directly sampled and processed at the Outpatients' Centre for Diagnosis of Infectious Venero-Dermatological Diseases Vienna. Clinical diagnosis was assessed by the referring physician. Samples were collected and processed using Cytobrush DNAPAP Cervical Sampler and Papillo Check PCR.

Results Out of 1485 patients with "cervical dysplasia and cervical cancer precursors" (PAP III, IIID, IV and CIN I, II, III) 55.2% showed HPV high-risk positivity. Out of this group 35.6% were positive for HPV 16 and 18. Referring to vaccination cross-immunity HPV 31, 33, 45, and 52 were detected in 14.9%, 7.7%, 2.9% and 6.2% respectively.

In women with diagnosis "cervical dysplasia and cervical cancer precursors" an age-related distribution of different genotypes could be observed. HPV 16 and 18 were more often detected in young women (40%) and decreased with increasing age (24%). In contrast, HPV 45 and 56 were more often identified in older women (11.2% vs. 24%).

In specimens of individuals with genital warts HPV low-risk was detected significantly more often when samples were collected in the Outpatients' Centre than when taken by the referring physician (65.3% vs. 24.8%).

Conclusion HPV high-risk types 16 and 18 were detected especially in the group of young women. It can be considered that vaccination in our young female population would have prevented cervical dysplastic lesions in at least 35.6% of cases. In case of using the quadrivalent vaccine in our study cohort genital warts would have been prevented in 71.2% of cases.

P3.055 HERPES SIMPLEX TYPE 2 (HSV-2) INCIDENCE BY AGE AND SEX OVER FOUR AGE PERIODS TO AGE 38 YEARS IN A BIRTH COHORT

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Background Here we report direct measures of HSV-2 incidence over four age periods to age 38 in the Dunedin Multidisciplinary Health and Development Study, a long-running New Zealand birth cohort.

Methods Information on sexual behaviour and STIs was obtained at ages 21, 26, 32 and 38. Sera were collected at these ages and tested for HSV-2 antibodies using an indirect enzyme-linked immunosorbent assay. Incidence rates for four age periods (< 21, 21–26, 26–32 and 32–38) were calculated and compared by age and sex.

Results The seroprevalence of HSV-2 antibodies at age 38 was 14.0% (63/451) for men and 23.7% (107/451) for women (p = 0.001). The number becoming HSV-2 positive in each age period, and the associated incidence rate per 1000 person-years (95% CIs), are shown below.

The peak period of HSV-2 risk (after adjustment for number of sexual partners) was 21–26 for women, and 26–32 for men. It was significantly higher for women in the period 21–26.

Conclusion In this birth cohort HSV-2 is common, more so in women. The elevated risk for people in their twenties, that peaks later among men, is likely due to increasing prevalence among their partners. However, this did not result in continued increasing incidence into their thirties as would be expected. The most plausible explanation for the drop in incidence is that individuals' infectivity is decreasing with time, so that while prevalence among partners continues to rise, those with HSV-2 will on average have been infected for longer and be less infectious.

Abstract P3.055 Table 1

Incidence of HSV-2 infection per 1,000 person-years for (a) Men and (b) Women			
First coitus to 21	**Age 21–26**	**Age 26–32**	**Age 32–38**
Incidence	**Incidence**	**Incidence**	**Incidence**
(a) 6.8 (3.7, 12.2)	(a) 7.6 (4.6, 12.4)	(a) 14.1 (10.0, 19.9)	(a) 5.1(2.8, 9.2)
(b) 8.6 (5.1, 14.5)	(b) 19.1 (13.9, 26.3)	(b) 15.8 (11.1, 22.4)	(b) 6.8 (4.0, 11.8)

P3.056 PREVALENT HUMAN PAPILLOMAVIRUS IN TANZANIAN ADOLESCENT GIRLS WHO REPORT NOT HAVING PASSED SEXUAL DEBUT

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Objectives The HPV vaccine is recommended for girls prior to sexual debut since it is most effective if administered prior to HPV acquisition. Little research has been conducted in high HPV-prevalence countries regarding HPV infection in girls who report not having passed sexual debut.

We present the HPV prevalence in girls enrolled in a cohort study in Mwanza, Tanzania, who report not having passed sexual debut.

Methods Girls aged 15–16 years who had previously attended 82 randomly selected primary schools were enrolled and underwent a face-to-face interview on socio-demographic variables, sexual behaviour and intra-vaginal practises. A nurse-assisted self-administered vaginal swab was collected. Swabs were tested for 13 high-risk (HR) and 24 low-risk (LR) HPV genotypes using the Roche LINEAR ARRAY® HPV genotype test.

Results Of 1555 female primary school attenders, 1177 (76%) were located, of whom 801 were aged 15 or 16 years. Of these, 628 (78%) consented to eligibility screening and 480 girls who reported not having passed sexual debut were enrolled. B-globin negative results (to ensure sample quality) were excluded (N = 6).

HPV was detected in 40/474 (8.4%; 95% C-I: 5.9–11.0) girls. The most common genotype was HPV42, detected in 9/474 (1.9%; 95% CI: 0.9–3.7). HR genotypes were detected in 5.3% (95% CI: 3.5–7.8). Overall, 50% of girls with HPV had infection with > 1 genotype. In multivariate analysis, only intra-vaginal cleansing (practised by 21.0%) was associated with HPV detection (aOR = 3.16.95% CI: 1.46–6.85)

Conclusion In this cohort of adolescent Tanzanian girls, we found a high HPV prevalence prior to self-reported sexual debut, which was associated with intra-vaginal cleansing. This is likely to reflect under-reporting of sexual activity. However, vaginal HPV could be acquired during vaginal cleansing. Potential HPV transmission

through genital hygiene practises or other practises (e.g.female genital mutilation or masturbation) should be explored to determine the possibility of HPV acquisition prior to first sex, which may have implications for vaccination programmes.

P3.057 CLINICAL FOLLOW-UP OF WOMEN WITH GENITAL HUMAN PAPILLOMAVIRUS INFECTION TREATED AT A REFERENCE HOSPITAL IN BRAZIL

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Background The viral types of HPV are classified as low or high risk oncogenic. The low risk is associated with benign genital tract infections such as genital warts or flat intraepithelial lesions of low-grade (LSIL). Already the high risk have a high correlation with intraepithelial lesion high-grade (HSIL) and carcinoma of the cervix, vulva, anus and, more rarely, the penis. Cancer of the cervix is the second most common type of cancer among women, with approximately 500,000 new cases per year worldwide. Therefore, the aim of this study was to evaluate the clinical follow-up of women with HSIL caused by HPV, considering the attendance and the number of appointments after undergoing surgery for high frequency (CAF).
Methods Transversal retrospective study with a quantitative approach, conducted in the Department of Infectious Diseases in Obstetrics and Gynecology (SEMIGO) of the Hospital of the Faculty of Medicine of Ribeirão Preto, University of São Paulo, Brazil. The study population was composed of 169 women diagnosed with HSIL caused by HPV, which were submitted to CAF for at least 24 months. We analysed attendance in six of those women returns by pre-established protocol of care service study for the period of 24 months after completion of CAF.
Results Regarding the clinical follow-up, 108 (63.9%) women attended the first return after LEEP, 116 (68.6%) returned the second, 72 (42.6%) to the third return, 74 (43.8%) to the fourth return, 67 (39.6%) the fifth feedback and 67 (39.6%) to the sixth return.
Conclusion Considering the decline in attendance at scheduled appointments over the 24 months, it is necessary to implement health programmes aimed at greater control of clinical follow-up actions promoting character education, developed with the participation of a multidisciplinary team.

P3.058 UTILIZATION OF MUNICIPAL STD CLINIC SERVICES AMONG THE INSURED, SAN FRANCISCO 2011–2: IMPLICATIONS FOR HEALTH CARE REFORM IN THE UNITED STATES

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Limited data exist on the number of insured patients who receive care at publically funded STD clinics, despite having access to a primary care provider. In this analysis, we compare patients with and without health insurance who sought services at City Clinic, the San Francisco municipal STD clinic.

We analysed San Francisco City Clinic visits between August 1, 2011 and August 31, 2012. Insurance was self-reported at registration and included both private and public insurance. Variables from the clinic electronic medical record were examined and included basic demographic and risk behaviour questions, as well as positivity among asymptomatic patients tested for vaginal, urethral, rectal, pharyngeal and/or rectal chlamydial and gonoccocal infection. We compared the characteristics of insured and uninsured patients using chi-square statistics.

There were 18,232 patient visits in this analysis, of which 6,305 (35%) were categorised as insured and 11,927 (65%) as uninsured. Overall, insured patients were older, more likely to be male, more likely to be white, and less likely to be Hispanic compared to uninsured patients (all $p < 0.05$). Additionally, insured patients were more likely to be men who have sex with men, and more likely to be HIV-infected compared to uninsured patients (all $p < 0.0001$). Among asymptomatic patient visits, insured patients were less likely to have a diagnosis of chlamydia at any site or a diagnosis of rectal gonorrhoea.

In our municipal STD clinic, over one-third of patients currently report having insurance, yet still choose to seek care at the STD clinic. These data suggest that the expansion of access to insurance may not result in a reduced need for categorical STD services. Confidentiality and cost may be reasons for continued use of STD clinics among the insured. Maintaining access to high quality sexual health services should remain a priority in the era of expanded health care access.

P3.059 EFFECT OF VAGINAL WASHING ON LACTOBACILLUS COLONISATION IN HIV-NEGATIVE KENYAN WOMEN

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Background Vaginal washing has been associated with an increased risk of bacterial vaginosis (BV) and a decreased likelihood of vaginal Lactobacillus colonisation. We sought to determine whether a lower prevalence of Lactobacillus colonisation in women reporting vaginal washing was independent of the effect of BV.
Methods We conducted a cross-sectional study of 273 HIV-negative female sex workers enrolled in an open cohort study in Mombasa, Kenya. Vaginal washing and sexual risk behaviours were assessed using structured face-to-face interviews. Lactobacillus species were detected by plating vaginal swabs on both Rogosa and Columbia 5% sheep blood agars. We used tetramethylbenzidine agar subculture to assess H_2O_2-production. BV was detected by Gram stain. Log-binomial regression was used to assess correlates of Lactobacillus colonisation, including vaginal washing, controlling for BV.
Results Two-hundred eighteen participants (80%) reported vaginal washing in the past week (median frequency per week = 14; range 1–35). Lactobacillus species were detected in 50/218 (23%) participants who reported vaginal washing versus 23/55 (42%) who did not report this practise. Similarly, H_2O_2-producing Lactobacillus species were detected in 13/218 (6%) participants who reported vaginal washing versus 10/55 (18%) who did not. After controlling for age, unprotected sex, and BV, vaginal washing was associated with a lower likelihood of any Lactobacillus (adjusted relative risk [aRR] = 0.55; 95% confidence interval [CI] 0.37–0.81) and H_2O_2-producing Lactobacillus (aRR = 0.33; 95% CI 0.15–0.73).
Conclusion Vaginal washing was associated with a lower likelihood of any Lactobacillus and H_2O_2-producing Lactobacillus species detected by culture. The results of our adjusted analysis suggest that the effect of vaginal washing on lactobacilli is not mediated entirely through the higher prevalence of BV associated with this practise. Prospective studies will be important to determine whether cessation of vaginal washing could improve vaginal health by promoting vaginal colonisation with Lactobacillus.

P3.060 THERE IS A NEED FOR MULTIPURPOSE PREVENTION TECHNOLOGIES TARGETING HIV AND COMMON REPRODUCTIVE TRACT INFECTIONS: DATA FROM THE MICROBICIDE SAFETY BIOMARKERS STUDY TEAM

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