

cancer. In HIV-negative individuals, pooled HPV prevalence was 6.42% (95% CI: 4.13–9.18%) for normal cytology, 18.86% (95% CI: 10.84–28.49%) for head and neck lesions, and 28.86% (95% CI: 24.26–33.70%) for head and neck cancer. Pooled HPV 16 prevalence increased with diagnosis severity, from 2.14% (95% CI: 0.86–3.94%) in normal cytology to 20.47% (95% CI: 16.58–24.65%) in head and neck cancer in HIV negative individuals. HPV prevalence varied by diagnosis, subsite, region, but not by gender. Data for HIV-positive patients were too limited to analyze.

Conclusion In HIV negative individuals, HPV prevalence increased with diagnosis severity. And HPV 16 was the most carcinogenic HPV type in head and neck, with enrichment from normal cytology to head and neck cancer.

Disclosure No significant relationships.

P830 FEASIBILITY OF AN ONLINE HPV SELF-COLLECTION SCREENING PROGRAM IN CANADA: DIGITAL HEALTH LITERACY IN SOUTH ASIAN WOMEN

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Background Women who do not regularly attend cervical cancer screening are at increased risk for cervical cancer. In British Columbia (BC), approximately 30% of women aged 21–69 years are under-screened. As cervical cancer screening in BC moves towards the use of primary HPV testing, there is an opportunity to address screening barriers women face through self-collected, rather than clinician collected specimens. Cervix-Check is an internet-based program for HPV self-collection being piloted in communities across BC with low screening rates. To inform the implementation of CervixCheck, we investigated digital health literacy (DHL) in South Asian women.

Methods A cross-sectional anonymous survey was administered July-August 2018 through collaborating primary care clinics in predominantly South Asian communities in the Fraser Health Region of BC. The study population was a convenience sample of women 30–65 years of age, presenting at a primary care clinic. Women were administered the survey on a tablet, which collected demographic, screening history, and internet use information. DHL was measured using the validated eHEALS and Digital Health Literacy Instruments.

Results 51 women participated from four family practices where 30% of women were 50 years or older. 29.4% of women self-reported not having had a Pap test in the last 3 years. English (86%) and Punjabi (58%) were the most common languages participants reported reading and speaking. Majority of women reported using the internet daily (82.4%), with mobile phones being the most common device (72.6%). DHL was higher in under-screened women. Over 80% of women responded that they would be likely to very likely to participate in self-collected screening using CervixCheck.

Conclusion The survey revealed CervixCheck is a promising digital health platform to increase cervical cancer screening uptake among under-screened South Asian women. Findings were used to inform CervixCheck website design and program resources in preparation for its launch.

Disclosure No significant relationships.

P831 CHARACTERISTICS ASSOCIATED WITH HPV-RELATED EXTERNAL GENITAL LESIONS AMONG YOUNG ADULTS IN BRAZIL

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Background HPV-related external genital lesions are the most common outcome of HPV infection, a sexual transmitted disease responsible by low-grade squamous intraepithelial lesion (LSIL) and 99% of cervical cancer. The aim of this study was to assess the prevalence of HPV-related lesions and associated factors in the Brazilian young adult population.

Methods We included 7,694 unvaccinated people from 16 to 25 years recruited from primary care units and submitted to interview, genital examination and cervical/penile sampling. Linear Array® Test (Roche) was used for HPV detection and genotyping.

Results The prevalence of HPV-related lesions was 4% (234), being more frequent in men (5.8%) than women (2.3%). From those, 63% (p<0.03) were positive to HPV. The HPV genotyping distribution comprised all the 37 HPV types tested. However, the more frequent types were the 16 (12.5%), 6 (9.2%), 11 (8.8%), 62 (8.7%), 58 (8.4%), 52 (8.2%) and 51 (8%). Number of sexual partners in the last year (p=0.0005), multiple HPV infection (p<0.0247), smoking (p=0.04), use of hormonal contraceptives (p=0.04) and presence of other STIs (p<0.0001) were associated with the presence of lesion.

Conclusion We found a high prevalence of genital lesion in this young adult population. As expected, most participants were HPV positive. Although HPV 16 was not usually related to external lesions, it was the most frequent HPV type found followed by HPV 6 and 11. Sexual behavior, smoking and hormonal contraception were the main factors associated with genital lesions. Increase awareness about healthy sexual behaviors and immunization coverage should be used as a target to prevent HPV infection and related lesions in the young Brazilian population.

Disclosure No significant relationships.

P832 EFFECTIVENESS OF THE QUADRIVALENT HPV VACCINE AGAINST HSIL AND CIN: A DATA-LINKAGE STUDY

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Background Although originally approved for three-doses, two doses of the HPV vaccine are now approved for 9–14 year olds in British Columbia (BC), Canada. Post-hoc analyses have shown similar efficacy compared to three-doses even after

one-dose. Vaccinated cohorts that include incompletely vaccinated individuals offer the opportunity to evaluate the effectiveness of reduced dosing schedules. We aimed to estimate effectiveness of one-dose of quadrivalent vaccine against high-grade squamous intraepithelial lesion (HSIL) and cervical intraepithelial neoplasia grade 2 or higher (CIN2+).

Methods Data-linkage was performed between the population-based Cervical Cancer Screening Program and immunization registries in BC. Occurrence of HSIL and CIN2+ were compared in a screening cohort of YW born between 1994–2005 who were either (a) unvaccinated; (b) completely vaccinated per-schedule (2-doses 150 days apart or 3-doses) between 9–14 years of age; or (c) vaccinated between 9–14 years of age with one-dose. Relative incidence rates (RR, (95%CI)) were calculated using Poisson regression and adjusted for birth year and age at first screening.

Results Overall, 19,496 women were unvaccinated, 14,130 were completely vaccinated (mean age at vaccination 13.3 ±1.2), and 471 vaccinated with one dose only (mean age at vaccination 13.4±1.1). We found significant protection among completely vaccinated compared to unvaccinated women. The adjusted RR for HSIL was 0.52 (0.43–0.64) and for CIN2+ 0.42 (0.31–0.57). No significant protection after one dose against HSIL and CIN2+ was observed compared with unvaccinated women, respective adjusted RR 0.69 (0.27–1.41) and 1.21 (0.43–2.86).

Conclusion In this observational study, no evidence of protection of one-dose against HSIL and CIN2+ was observed, while protection was found amongst completely vaccinated. The small sample size and the potential for administrative data biases may have impacted this preliminary analysis. This methodological approach provides a platform for further analyses, with larger numbers, to determine the potential impact of single dose HPV vaccination.

Disclosure No significant relationships.

P833

HSV-2 SEROSTATUS AND HPV INCIDENCE, PERSISTENCE, AND PRECANCEROUS LESIONS IN A COHORT OF HPV-VACCINATED WOMEN LIVING WITH HIV

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Background In understanding HPV oncogenesis, several co-factors have been proposed including co-infection with HSV-2. We assessed the relationship between HSV-2 serostatus and HPV-related outcomes in a cohort of quadrivalent HPV-vaccinated women living with HIV (WLWH).

Methods In this multi-site study of immunogenicity and efficacy of the qHPV vaccine in WLWH, three doses of qHPV vaccine were offered. Visits were at months -3, 0, 2, 6, 12, 18, 24, and annually thereafter. Participants provided clinical data and cervico-vaginal swabs for HPV DNA detection (Linear array assay) at each visit; baseline serum was tested for HSV-2 type-specific serology (Focus EIA). We used non-parametric statistics to compare the HPV-related outcomes

(including 37 high and low-risk HPV types) according to HSV-2 serostatus.

Results 151 women aged ≥16 provided baseline serum samples for HSV-2 testing. The predominant regions of origin were Canada (51%) and Africa (30%). At baseline, median age was 39 years (IQR: 34–45), median CD4 count was 500 cells/mm³ (IQR: 382–692), and 70% had an HIV viral load <50 copies/mL. Baseline seroprevalence of HSV-2 was 76.2%, and median years of follow-up was similar for HSV-2 positive (6, IQR: 5.0–7.8) and negative (6, IQR: 5.2–7.9) participants. HSV-2 positivity was significantly associated with increased age. HSV-2 seropositive and seronegative participants had similar frequencies of HPV persistence (86/115 vs 27/36, p=1), clearance of incident HPV infections (88/115 vs 26/36, p=0.8), number of HPV types detected during the study (4.5 vs 5.7, p=0.1), HSIL cytology during the study (11/115 vs 2/36, p=0.7), and CIN2+ histology ever (15/115 vs 5/36, p=1). Results were similar in sensitivity analyses in which HSV-2 seropositivity was defined as an index value ≥3.5.

Conclusion HSV-2 seropositivity was common in this cohort of WLWH in Canada, but was not associated with multiple measures of HPV incidence, persistence, and precancerous lesions.

Disclosure No significant relationships.

P834

EPIDEMIOLOGY OF HUMAN PAPILLOMAVIRUS AMONG WOMEN IN GUANGDONG, CHINA 2008–2017

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Background Human papillomavirus (HPV) infection is the major etiological factor for cervical cancer. Data on the prevalence and genotype distribution of HPV infection in Guangdong Province in southern China are limited. Our study aimed to analyze genotype-specific, age-specific prevalence and year-on-year trend of HPV detection among women in Guangdong 2008–2017.

Methods Exfoliated cervical cells were harvested from women attending gynecological department or medical examination center at Guangdong Women and Children Hospital. Twenty-one HPV subtypes were tested. Chi-squared test and the linear-by-linear association test were applied.

Results A total of 199,963 women attending gynecological department and 11,999 women attending medical examination center were included. HPV was detected in 20.16% of gynecological outpatients, with 17.67% positive for high risk (HR) HPV and 4.43% positive for low risk (LR) HPV. HPV was detected in 17.25% of women receiving physical examinations, with the prevalence of HR HPV and LR HPV being 14.88% and 4.05%, respectively. HPV prevalence significantly differed among these two populations (P<0.001). The five most prevalent genotypes were HPV 52, 16, 58, 81 and 53 among gynecological outpatients and 52, 81, 58, 53 and 16 among women receiving physical examinations. The distribution of any HPV, HR HPV, LR HPV and 9-valent HPV infections showed a bimodal pattern across age groups among both populations. A quasi-V-shaped prevalence curve was observed over the 10-year period among gynecological outpatients for any HPV, HR HPV subtype, LR HPV subtype and 9-valent HPV, while a quasi-reversed V-shaped curve was observed among