

Methods AGW diagnoses were ascertained from an electronic medical record system used at 16 geographically dispersed high volume sexually transmitted infection (STI) clinics across BC. Clients aged 14–46 years, born between 1970–1999 who accessed services from 2000–2017 were included. Rates were calculated as new AGW diagnoses over person-years (PY) at risk, and stratified by age group, period of clinic visit, and birth cohort. Age-period-cohort Poisson modeling produced adjusted relative rates (aRR).

Results There were 204,832 clinic visits by 85,158 unique individuals: 28,366 (33%) WSM, 35,688 (42%) MSW and 14,534 (17%) MSM. After adjusting for age and period, overall AGW rates were 56% lower among the birth cohorts 1994–1996 compared to 1991–1993 (1.21 vs 2.72 cases/100PY, aRR: 0.44, 95%CI: 0.34, 0.59). AGW rates in the 1994–1996 cohort were 65% lower among WSM (0.97 vs 2.77 cases/100PY, aRR: 0.35, 95%CI: 0.22, 0.57), 58% lower among MSW (1.60 vs 3.78 cases/100PY, aRR: 0.42, 95%CI: 0.28, 0.65) and 41% lower among MSM (1.14 vs 1.19 cases/100PY, aRR: 0.59, 95%CI: 0.38, 0.91) versus the 1991–1993 cohort.

Conclusion The HPV-4 vaccine program had a significant impact on lowering AGW rates in BC, specifically among WSM born after 1994 who had access to the school-based program, and MSW born after 1994 likely from herd immunity. A smaller reduction in AGW rates among MSM may reflect delayed access to provincially-funded HPV-4 vaccine.

Disclosure No significant relationships.

017.5 DECLINING TRENDS IN ANOGENITAL WARTS SINCE HPV VACCINE INTRODUCTION IN A LARGE URBAN HEALTH SYSTEM, 2013–2017

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Background Assessing the extent to which the HPV vaccines are affecting trends of HPV-related diseases is an important public health priority. Diagnoses of anogenital warts (AGW) provide an early indicator of vaccine impact due to its short incubation period compared to other HPV-related diseases. We expand on previous trend studies by including recent data through 2017 that permit more robust assessments since the routine recommendations for male vaccination in 2011 in the United States.

Methods Electronic medical record data were abstracted from encounters that occurred in 8 Yale-New Haven Health system clinics between 2013–2017. Visits related to incident AGW were identified for each patient as the first occurrence of either having an AGW diagnosis code (ICD-9 078.11) or ‘genital warts’ as a reason for visit indicated by their medical provider. The annual proportion of visits related to incident cases of AGW was estimated among the number of patients who had at least one visit in that clinic per year. Trends overall, by sex, and by vaccine eligibility were analyzed using Cochran-Armitage tests and $p < 0.05$.

Results A significant decline over time was observed in the proportion of visits for incident AGW overall (p -value < 0.001 , annual percent change (APC) = -20.3). When stratified by sex,

a significant decline was observed in both males (p -value = 0.0203, APC = -17.9) and females (p -value = 0.0006 APC = -9.4). Significant declines were also observed among later birth cohorts that were eligible for HPV vaccines (p -value = 0.0003, APC = -24.4) but not for earlier birth cohorts (p -value = 0.12, APC = -3.1).

Conclusion Diagnoses of incident AGW have declined significantly through 2017, and birth cohort analyses are consistent with expected HPV vaccine impact. Importantly, these trends reflect and extend previous analyses and provide strong evidence of declines in males since their eligibility for routine vaccination in 2011 in the United States.

Disclosure No significant relationships.

017.6 PARENTS'/HEALTHCARE PROVIDERS' KNOWLEDGE, ATTITUDE AND PERCEPTION OF SCHOOL-BASED HPV VACCINATION PROGRAM IN LAGOS, NIGERIA

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Background Human Papillomavirus (HPV) infection is a necessary cause for cervical cancer. HPV vaccine is available at a cost but not yet implemented in the national vaccination program in Nigeria. School age children are the target population for this vaccine. Parents play crucial roles in the decision to vaccinate their children against HPV and the healthcare providers have important roles to play in the coverage of this vaccine. The study objective was to assess and compare the knowledge, attitude and perception of parents and healthcare providers about school-based HPV vaccination program in Lagos State, Nigeria.

Methods A comparative cross sectional descriptive study involving 300 parents of children aged 9–13 years attending public primary and junior secondary schools as well as 221 healthcare providers in Primary Health Centers in Lagos State selected by multistage sampling techniques was conducted. A pre-tested self-administered questionnaire was used for data collection. Data analysis was done using SPSS. Chi-square statistics was used to test the associations between the variables at the level of significance of 5%.

Results The mean ages were 42.0 ± 7.9 years (parents) and 36.8 ± 6.2 years (healthcare providers). Majority of the parents (75%) and healthcare providers (94%) have heard of HPV infection and cervical cancer but only 40% of parents and 80% of the healthcare providers knew about HPV vaccine. Of these, 33% of the parents and 58% of the healthcare providers knew that this vaccine can be given in schools. Overall knowledge was significantly poor (35%) among parents and good (94%) among healthcare providers. Attitude and perception in both groups were good (about 90%) and about 70% of respondents were in support of school-based HPV vaccination. Significant factors affecting overall knowledge in the two groups were age, gender and level of education.

Conclusion With poor knowledge among parents, there is a need for educational campaigns and medical education to increase the HPV vaccine awareness with subsequent increase in vaccination coverage in Nigeria.

Disclosure No significant relationships.