

Type-Specific Epidemiology and Risk Factors for Human Papillomavirus Infection in Young Women.

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Objective: The objectives of this study were to: 1) determine the prevalence of any HPV, high-risk HPV, and vaccine-type HPV in sexually experienced 13-26 year-old young women within the first year post-licensing of the quadrivalent HPV-6, -11, -16, -18 vaccine, and 2) determine which demographic, gynecologic, cognitive, attitudinal, and behavioral factors as associated with high-risk and vaccine type HPV in this population.

Methods: Sexually experienced women aged 13-26 (N=409) were recruited from three clinics. All participants completed a survey instrument assessing demographic, gynecologic, cognitive, attitudinal, and behavioral characteristics and submitted cervicovaginal swabs for HPV DNA testing. Outcome measures were prevalence of high-risk type HPV and prevalence vaccine type HPV. Variables independently associated with high-risk and vaccine-type HPV were determined using unadjusted and adjusted logistic regression models.

Results: The overall prevalence of HPV was 68.4%; 59.5% were positive for ≥ 1 high-risk HPV type and were detected in 59.5% and 33.1% were positive for ≥ 1 vaccine-type HPV. The most common HPV types detected were HPV-52 (detected in 19.0%), HPV-16 (17.3%), HPV-18 (11.6%), HPV-59 (10.1%), HPV-CP610 (10.1%), HPV-6 (9.4%), HPV-66 (8.4%), HPV-51 (8.2%), and HPV-58 (8.2%). Variables independently associated with high-risk HPV infection were Black race (OR 2.03, 95% CI 1.21-3.41) and lifetime number of male sexual partners > 2 (e.g. OR for 3 vs. ≤ 1 partner 3.58, 95% CI 1.61-7.96). No variables were consistently associated with vaccine-type HPV infection.

Conclusion: In this sample of low income adolescent women the overall prevalence of HPV was high, characteristic of urban populations; however, it was significantly higher than HPV prevalence in nationally representative samples. Vaccine-type HPV were commonly detected in HPV positive women, though none of the women were infected with all four vaccine-type HPV which supports recommendations to vaccinate 13-26 year-old women even if they are sexually active. None of the variables were associated with vaccine-type HPV infection, supporting national recommendations for universal HPV vaccination.