Abstract

OBJECTIVE: American Indian (AI) women living in the Northern Plains have high incidence and mortality rates for cervical cancer. We assessed risk factors for human papillomavirus (HPV) infection among AI and White women.

METHODS: We tested cervical samples for HPV infection obtained from women ages 18–65 years attending 2 rural AI reservation clinics in South Dakota (n=235) and an urban clinic serving predominantly White women (n=246). Patients self-reported information on HPV risk factors. We used percentages and chi-square tests to compare risk factors, and logistic regression with HPV status as the outcome to quantify the association between HPV and risk factors.

RESULTS: AI women had more risk factors than White women, including younger age, less education, less vegetable consumption, more sexual partners, younger age at first sexual experience and first pregnancy, and more pregnancies (p values≤0.003). AI women more often endorsed recreational drug use, history of sexually transmitted diseases, and current smoking; White women reported more alcohol consumption (p valuesb0.001). In multivariate analysis, younger age and current smoking were associated with higher odds of HPV infection in AI women, whereas a higher number of sexual partners was associated with higher odds of HPV infection in White women.

CONCLUSIONS: AI women have a high burden of risk factors for HPV disease, and associations with HPV infection appear to differ by community. Knowledge of specific risk factors in AI populations may provide targets for public health officials to decrease HPV infection and disease.