

Abstract

BACKGROUND:

In sub-Saharan Africa, cervical cancer is the leading cancer among women. The causative role of different human papillomavirus (HPV) types in cervical cancer is established, but the distribution of HPV types within this region is largely unknown.

GOAL:

The goal was to study the distribution of HPV among family planning clinic attendees in Nairobi, Kenya.

STUDY DESIGN:

This was a cross-sectional study of persons attending a family planning center in Nairobi, Kenya.

RESULTS:

HPV data of 429 women were analyzed; 7.0% had low-grade intraepithelial lesions, 6.8% had high-grade intraepithelial lesions, and 0.23% had invasive cancer. One hundred ninety samples (44.3%) were HPV-positive (28.4% were positive for multiple types). The most common HPV types were HPV 52 (17.9% of positive samples), HPV 16 (14.7%), HPV 35 (11.6%), and HPV 66 (9.0%). The risk of high-grade squamous intraepithelial lesions (HSIL) was 88.5 times higher (95% CI, 8.5-1.4 x 10) in HPV 16-positive women than in HPV-negative women. Relative risks were 54.3 (95% CI, 4.0-1.4 x 10) for HPV 35, 49.2 (95% CI, 3.6-9.5 x 10) for HPV 52, and 21.7 (95% CI, 0.0-1.9 x 10) for HPV 18. The prevalence of HSIL was not increased in association with HIV-positivity, yet HIV-1 was significantly associated with high-risk HPV types ($P < 0.00001$).

CONCLUSION:

The pattern of HPV distribution in this population was different from that in other regions in the world, which has important consequences for HPV vaccine development.