

## **Abstract**

Human papillomavirus (HPV) prevalence was estimated from 2,705 sexually active, uncircumcised, human immunodeficiency virus seronegative men aged 17-28 years in Kisumu, Kenya. HPV prevalence was 51.1% (95% confidence interval: 49.2-53.0%) in penile cells from the glans/coronal sulcus and/or shaft. HPV prevalence varied by anatomical site, with 46.5% positivity in the glans/coronal sulcus compared with 19.1% in the shaft ( $p < 0.0001$ ). High-risk HPV was detected in 31.2% of glans and 12.3% of shaft samples ( $p < 0.0001$ ). HPV16 was the most common type and 29.2% of men were infected with more than one HPV type. Risk factors for HPV infection included presence of *C. trachomatis*, *N. gonorrhoea*, self-reported sexually transmitted infections, and less frequent bathing. Lifetime number of sexual partners and herpes simplex virus type-2 seropositivity were also marginally associated with HPV infection.

## **Abstract**

### **BACKGROUND:**

We examined the effect of male circumcision on the acquisition of 3 nonulcerative sexually transmitted infections (STIs).

### **METHODS:**

We evaluated the incidence of STI among men aged 18-24 years enrolled in a randomized trial of circumcision to prevent human immunodeficiency virus (HIV) infection in Kisumu, Kenya. The outcome was first incident nonulcerative STI during 2 years of follow-up. STIs examined were laboratory-detected *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and *Trichomonas vaginalis* infection.

### **RESULTS:**

There were 342 incident infections among 2655 men followed up. The incidences of infection due to *N. gonorrhoeae*, *C. trachomatis*, and *T. vaginalis* were 3.48, 4.55, and 1.32 cases per 100 person-years, respectively. The combined incidence of *N. gonorrhoeae* and *C. trachomatis* infection was 7.26 cases per 100 person-years (95% confidence interval, 6.49-8.13 cases per 100 person-years). The incidences of these STIs, individually or combined, did not differ by circumcision status as a time-dependent variable or a fixed variable based on assignment. Risks for incident STIs in multivariate analysis included an STI at enrollment, multiple sex partners within <30 days, and sexual intercourse during menses in the previous 6 months; condom use was protective.

### **CONCLUSIONS:**

Circumcision of men in this population did not reduce their risk of acquiring these nonulcerative STIs. Improved STI control will require more-effective STI management, including partner treatment and behavioral risk reduction counseling.