Conference Abstracts

Prevalence, Genotype Distribution, and Determinants of High-Risk Carcinogenic Human Papillomavirus Infection Among Female Sex Workers in Kilimanjaro Region: A Community-Based Cross-Sectional Study

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Keywords: Sex work, Human papillomavirus, Cervical cancer, Genotype, infection

https://doi.org/10.53876/001aa.129638

International Journal of Cancer Care and Delivery

Vol. 6, Issue Supplement 1, 2026

Introduction

Female sex workers (FSWs) face a heightened risk of cervical cancer due to increased exposure to human papillomavirus (HPV). However, data on the prevalence and genotype distribution of high-risk HPV (Hr-HPV) among FSWs in Tanzania are scarce. This study provides the first community-based evidence from this population in the Kilimanjaro region

Material and Methods

A community-based cross-sectional study was conducted between June and November 2024 among 328 FSWs aged 25–49 years, recruited using Respondent-Driven Sampling (RDS). Vaginal self-samples were tested using the ScreenFire HPV assay, which detects 13 high-risk HPV genotypes grouped into four channels (i.e., genotype clusters ranked by carcinogenic risk: HPV16; HPV18/45; HPV31/33/35/52/58; HPV39/51/56/59/68). Data were analyzed in SPSS Version 27.0 using modified Poisson regression to identify determinants of Hr-HPV infection.

Results

Among 309 eligible participants (median age 35 years, IQR 32–39), the overall prevalence of Hr-HPV was **57.6% (95% CI: 52.1–63.1).** Among Hr-HPV positives, 40% of infections were found in Channel 3 (HPV31/33/35/52/58) and 10% had multiple HPV channel positivity.Higher odds of Hr-HPV infection were observed among **HIV-positive women, tobacco users, and those engaged in peasantry or household occupations,** while having a **history of cervical cancer screening was protective** (APR = 0.83; 95% CI: 0.73–0.94).

Conclusion

This study revealed a high prevalence of Hr-HPV among FSWs, with channel 3 (HPV31/33/35/52/58) being the most common. Interventions targeting HIV, tobacco use, and improving screening uptake are recommended. Further research is needed to evaluate prevalence of cervical precancer/cancer among FSWs to better guide targeted screening strategies.