

High-risk HPV infection in women living with HIV: experiences from a Zimbabwean HIV cohort

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Background

- Cervical cancer (CC) is the most common gynecological cancer in Zimbabwe.
- Persistent infection with high-risk human papillomavirus (hr-HPV) has been established as the necessary cause of CC.
- The 2021 WHO guidelines for the screening of cervical pre-cancer and cancer recommend the detection of HPV DNA as the primary test.
- Women living with HIV (WLHIV) are at increased risk of developing CC, and comprehensive HIV care should include routine CC screening.
- This study describes the hr-HPV prevalence and subtype distribution in a Zimbabwean cohort of WLHIV

Methods

- 2708 women were screened for hr-HPV infection between January and December 2021.
- Nurses collected cervical swabs from women attending routine CC screening.
- Swabs were transferred to the on-site laboratory for analysis using the validated real time PCR platform which detects 14 hr-HPV types.
- Data analysis of women with a positive hr-HPV test was done.
- The prevalence of hr-HPV infection and subtype were calculated, and the chi square test was used to assess the relationship between subtype and clinical diagnosis.
- Predictors of HPV infection were analyzed using logistic regression.

Results

- The median age was 45 years (IQR 37-52).
- 1433 (53%, 95% CI 51-55) were positive for hr-HPV.
- hr-HPV types 58 (11.4%), 35 (10.3%) & 52 (10.1%) were most prevalent, followed by 16 (9.3%) 7 18 (8.3%). (Fig1)
- 56 women had a histological diagnosis of cervical precancer and 9 had CC.
- In multivariable analysis, women with a detectable HIV viral load (≥ 50 copies/ml), were more likely to have hr-HPV infection (aOR1.8, 95%CI 1.4-2.5).

Conclusions

- The high prevalence of hr-HPV in this cohort highlights the necessity of CC screening in WLHIV
- HIV disease control is an important factor in CC control programs
- The primary prevention of HPV infection through vaccination programs is essential if the goal of the elimination of CC in Zimbabwe is to be attained.

Figure 1. Prevalence of HPV by subtype

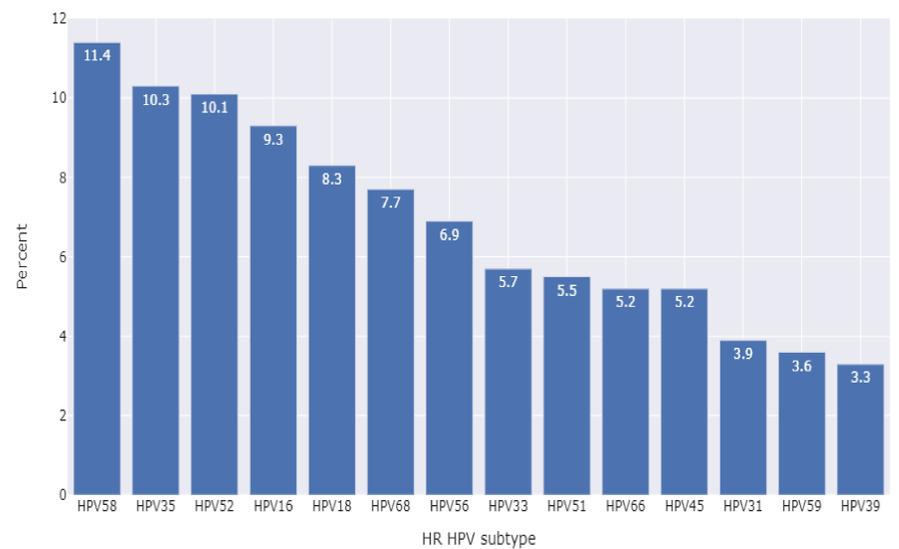


Figure 2: Cervical cancer screening cascade

