

# *HIV prevalence among pregnant students at a tertiary institution in Botswana during period (2012 - 2016): A cross sectional study*

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**Background:** Young women disproportionately carry the burden of HIV, with new infections being 44% higher in women aged 15- 24 years compared to among men of the same age group. In Botswana, no study has been carried out to investigate the prevalence of HIV in pregnant women at tertiary institutions. We investigated the prevalence of HIV among pregnant students at one tertiary institution in Botswana.

**Methods:** We conducted a retrospective record cross-sectional study of antenatal care records at one of the tertiary institutions during the period 2012 to 2016. We collected data on the socio demographics of the participants, reproductive history, HIV status and biochemical markers. HIV sero-positivity was determined using antibodies detection-based tests as well as PCR. The HIV prevalence was calculated by dividing the total number of seropositive cases by the total sample. We used multiple regression analysis to identify any possible risk factors for HIV sero-positivity.

**Results:** A total of 854 records of students pregnant during the study period, were included in the analysis. The participants had a median age of 22 years old, IQR (21-24). There were 38 women who were HIV positive resulting in an HIV prevalence among pregnant students at the institution of 4.4% (95CI 3.25%-6.06%). The HIV prevalence for each of the years under study were: 2012 (4.7%) 2013 (3.2 %, 95%CI 1.6%-6.2%), 2014 (4.7%, 95%CI 2.3% - 9.7%), 2015 (7.8% 95% CI 4.2%-13.9%) and 2016 (3.1% 95% CI 1.1%-8.0%). Anaemia (Hb<11g/dl) was associated with HIV sero-positivity after multivariable analysis (OR=2.173 95%CI 1.062-4.448, p =0.034).

**Conclusion:** These findings show that HIV prevalence among pregnant women at this tertiary institution was lower than in pregnant women in the public in Botswana. Factors associated with HIV sero-positivity in this population need further investigation.