



**MAKERERE UNIVERSITY**

**MODELLING FACTORS ASSOCIATED WITH MOTHER TO CHILD HIV  
TRANSMISSION IN UGANDA: A CASE OF BUIKWE DISTRICT**

**BY**

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## ABSTRACT

This research aimed at identifying maternal, obstetric and infant related factors associated with MTCT of HIV in Buikwe district, one of the 15 Hotspot HIV transmission districts in Uganda.

A retrospective analysis of HIV mother-infant pairs was carried out using data collected from patients' files and registers accessed from two hospitals namely; Kawolo hospital and St-Charles Lwanga Buikwe hospital. Data was analyzed at three levels namely; univariate, bivariate and multivariate. At the Univariate level of analysis, a descriptive summary of mother-infant characteristics were done using frequency distributions while at the bivariate level of analysis, contingency tables were used to present data. At the multivariate level, a clog log model was used in the final prediction since it appeared more superior over the logistic and probit models.

Factors that were significantly associated with MTCT of HIV in this study include; marital status, TB co-infection, Time of ARVs initialization, maternal regimen, Adherence to ARVs, maternal CD4 cell count, place of delivery ,Birth weight, and mode of feeding. TB co-infected mothers were more than four times more likely to have a positive child as compared to those without TB (OR =4.925, p=0.001). Mothers who started ARVs after the second trimester were more likely to transmit HIV virus to their babies as compared to those who initiated early in pregnancy (OR =2.536, p=0.022). Mothers who defaulted treatment were at an increased risk of transmitting HIV to their babies as compared to those who adhered well to treatment (OR= 3.69, p=0.005). Maternal age and maternal rupture of membranes before delivery had no significant association with MTCT of HIV.

Conclusively, the study revealed that MTCT of HIV can be reduced if there is; strict adherence strategies, avoidance of late presentation for ART, continued use of lifelong ART(Option B+), use of cesarean delivery, avoidance of delivery outside a specialized hospital, and complete avoidance of mixed feeding among exposed infants.