An assessment of institutional factors affecting uptake of ARV prophylaxis amongst HIV positive pregnant women in Kakamega District

By Maxwell Philip Omondi

Background: Mother to child transmission of HIV/AIDS accounts to almost 90% of HIV infections in children. ARV prophylaxis is one of the key interventions in the prevention of mother to child transmission of HIV and its goal is to reduce the HIV transmission from a HIV infected pregnant woman to the child during pregnancy, childbirth and breastfeeding. National PMTCT programme is facing many challenges and key amongst them is the low uptake of ARV prophylaxis. Failure to use ARV prophylaxis leads to more HIV transmission from mother to child ante-natally, intra-partum and postpartum. Many factors affect the uptake of ARV prophylaxis amongst HIV positive pregnant women and these include client as well as institutional factors.

Objectives: The study looked at the relationship between institutional factors and the uptake of ARVs in PMTCT programme in Kakamega district.

Methods: A descriptive study design was used and sampling was done using a combination of both convenient sampling and multi-stage sampling method. Qualitative and quantitative methods of data collection were used and methodological triangulation was also used to determine the institutional barriers to uptake of ARV prophylaxis. Statistical tests were used to determine independent predictors of uptake of prophylactic ARVs.

Results: The study revealed that urban health facilities were almost 3 times more likely to be rated as having a satisfactory maternal ARV prophylaxis as compared to the rural health facilities (P=0.039). After controlling for confounders the only characteristics that remained strong predictors to either maternal or infant ARV prophylaxis uptake were district, facility, type of health facility, age and risk reduction.

Risk reduction was 6 times more likely to be discussed in health facilities rated as having satisfactory maternal ARV prophylaxis as compared to health facilities rated as having unsatisfactory maternal ARV prophylaxis uptake (Fisher's exact Test=0.039). More HIV positive pregnant women are more likely to have disclosure of HIV status to partner discussed in health facilities with satisfactory maternal ARV prophylaxis uptake compared to health facilities with unsatisfactory maternal ARV prophylaxis uptake (Fisher's Exact test=0.009). There was high quality of PMTCT services with 86.7% of the health facilities sampled having satisfactory
quality of PMTCT services. In this study majority 95% of the HIV positive pregnant women knew that HIV can be transmitted from HIV positive pregnant woman to the child.

The study showed that most 82.3% of the HIV pregnant women knew that antiretroviral drugs can be used for prevention of mother to child transmission of HIV. The mean maternal and infant ARV prophylaxis was 87.5% and 77% respectively for the Jan-March 2009 period. It further showed 90% of the PMTCT counselors' were PMTCT trained and were providing PMTCT services. The PMTCT mean score on a 20-item knowledge test was 77.17% correct (95% CI: 73.28-81.05%). The attitude scores ranged from 39% to 91% with a mean of 62.13% (95% CI: 57.53-66.73%).

**Conclusion:** This study showed the quality of PMTCT counseling was good though there was need to have the counselors emphasize on risk reduction, HIV disclosure issues as well as condom demonstration and use.

**Recommendations:** PMTCT counselors need to be re-oriented on the importance of offering quality PMTCT counseling services. They should ensure all aspects of pre-test and post-test counseling are discussed with the pregnant women including issues on HIV disclosure to partners, risk reduction and condom demonstration and condom use. The administration of maternal and infant ARV prophylactic regimens should be done at the same time, same day to avoid scenarios where infant ARV prophylaxis uptake is lower than the maternal ARV prophylaxis uptake. A similar study needs to be carried out in a different geographical and socio-cultural set up to identify other factors that could affect maternal and infant ARV prophylaxis uptake.