

**FACTORS ASSOCIATED WITH UPTAKE OF DNA PCR HIV TESTING  
OF HIV EXPOSED INFANTS IN HOIMA DISTRICT, UGANDA: A CASE  
CONTROL STUDY.**

**BY**

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## **Abstract**

### **Introduction**

Early Infant Diagnosis (EID) of HIV infection in exposed infants as early as six weeks using DNA PCR is critical to improve pediatric HIV/AIDS care. In Hoima district, only 38% of HIV exposed infants were brought for HIV screening using DNA PCR performed on DBS on those borne between January 2007 and July 2007.

### **General objective of the study**

To determine the factors associated with the uptake of infant HIV testing using DNA PCR by at least eight weeks after birth, and inform the policy-makers and the district health authorities to identify strategies that can be put in place to plan, implement and manage this service.

### **Methodology**

A health facility based unmatched case control study was conducted. 97 Cases HIV+ mothers enrolled in the PMTCT program or caregivers who brought their infants for HIV screening on time (between six and eight weeks after birth) and 186 controls that never brought HIV exposed for testing were interviewed. Data were collected using semi-structured questionnaires and key informant interview guides.

**Results:** Mothers or caregivers who had a secondary and above level of education (AOR 5.2, 95% CI 2.7- 10.1,  $P < 0.001$ ), that knew the correct age recommended early infant diagnosis (AOR 4.6, 95 % CI 4.6- 22.8,  $P < 0.001$ ) and whose homes were a distance of less than 5km to the nearest health facilities that offer DNA PCR HIV testing services (AOR 1.7, 95 % CI 1.7 – 6.1,  $P < 0.001$ ) were more likely to have taken their HIV exposed infants for HIV testing on time.

As in quantitative results, key informants also perceived that long distances to the health facilities, health system factors like insufficient logistics and lack of trained health workers to collect DBS as well as consumer related factors like HIV positive women enrolled under the PMTCT programme not delivering at health facilities, lack disclosure of the HIV status by PMTCT mothers to their partners and fear of being told positive results of their HIV exposed infants affected uptake of early infant diagnosis services.

**Conclusions:** Level of education, distance to testing facilities, knowledge of the right schedule of HIV testing for exposed infants, availability of material resources and trained manpower were found to be the most important factors associated with the uptake of DNA PCR HIV testing of infants.

**Recommendations:** There is need for the DHT to create awareness /educational programmes to sensitize communities on the availability and benefits of early infant testing services, stressing the correct age when to bring HIV exposed infants for testing.

The DHT should also train more health workers in DBS collection and ensure timely supply of logistics. In order to minimize loss to follow up of HIV exposed infants, health workers should integrate infant HIV testing services into the existing infant/ child health services that are carried out as outreach such that mothers or care givers that fail to return for these services due to long distances can be reached.

