

Missed Opportunities for Early Infant Diagnosis in Rural Nigeria: An Analysis from the MoMent Study

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Background

Less than 10% of HIV-exposed infants (HEI) in Nigeria receive early infant diagnosis (EID) by the recommended age of 2 months. Low EID uptake means delays in time-to-infant ART initiation, leading to missed opportunities for lifesaving treatment. MoMent Nigeria, an interventional PMTCT implementation research study, evaluated EID uptake and cascade losses amongst HEI at Primary Healthcare Centers (PHCs) in rural North-Central Nigeria.

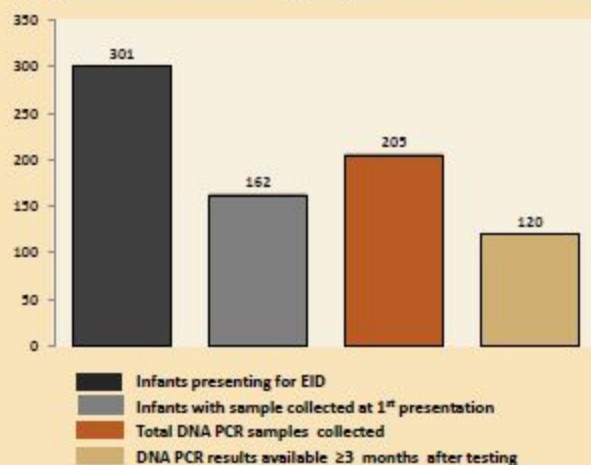
Methods

In this prospective cohort study, HEI were followed up to 62 days of age. HIV status was determined by DNA PCR, and results were collected for pooled analysis. "EID uptake" was calculated as: (number of HEI presenting for DNA PCR test)/(number of live-born HEIs). To further evaluate missed opportunities, EID uptake was analyzed by 3 domains: HEI who presented for DNA PCR and successfully received testing at first presentation; HEI who presented but were not tested at first presentation; and lastly proportion of HEIs tested and had results available.

Findings

There were 403 live HEI births. EID uptake was 301/403 (74.7%). Out of 301 HEI who presented, only 162 (53.8%) received same-day sample collection. Lastly, out of 205 DNA PCR samples collected, only 120 (58.5%) had results available at least 3 months after testing (**Figure 1**).

Fig 1: Bar chart showing drop-offs in EID Cascade



Interpretation

The findings show substantial early losses along the PMTCT cascade. Even where ~75% of HEI presented on time, almost half (~46%) did not receive same-day testing. Lastly, >40% of HEI tested did not have DNA PCR results available 3 or more months after sample collection.

These findings may be due to stock-out of DNA PCR test kits and lack of systematic PHC-to-lab processes for tracking results. The consequence is then delays in testing and result provision, and ART initiation for infected infants. Client confidence is reduced in the efficiency of PMTCT services and this encourages poor compliance.

Innovative, systematic, widely-implemented public health approaches are needed in order to improve rates of same-day EID testing, result receipt, and linkage to care for infected infants. This will have lasting impact on the health of HIV-exposed infants and on the value of EID programs in resource-limited settings.

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