

Category: D3 Scale up of early infant diagnosis and pediatric treatment: feasibility and operational issues

**Title:** **Systematic analysis of the Early Infant Diagnosis (EID) cascade and implementation of specific interventions - Lessons from a program to increase identification and treatment of infants with HIV in Tanzania**

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Text: **Background:** EID of HIV-infected infants is crucial in order to initiate antiretroviral treatment (ART) and decrease mortality. Although Tanzania has made considerable progress in scaling up PMTCT, an estimated 14,000 infants annually are still HIV-infected (of which, less than 1,000 are identified). To address this problem, the Elizabeth Glaser Pediatric AIDS Foundation, in collaboration with Ministry of Health, implemented EID services at 141 sites in four regions from 2008 to 2010.

**Methods:** Routine EID data (uptake, turn-around time [TAT], results to parents, referral, enrollment and ART initiation) were collected. Quarterly cohort analyses showed TAT of >2 months, low report-back to parents, and low rates of ART initiation of infected infants. The following interventions were implemented to address these issues:

- Delegation of sample/result transportation from district authorities to a courier service.
- Staff sensitization on the importance of reporting results to caregivers and initiating ART.
- Cooperation with Central Laboratory to reduce TAT in two regions (database, data clerk and technical support implemented).
- Implementation of a clinical mentoring system to primary health facilities, focusing on treatment of young children. Mentors (clinicians at district-hospital) received didactic and hands-on training in pediatric HIV treatment.

**Results:** Program performance between July 2009 and September 2010 was evaluated, indicating that EID uptake increased (952 to 1385/quarter), TAT reduced to two weeks in central lab-supported regions (four-six weeks in other two regions), and the percentage of guardians receiving positive dried blood spot (DBS) results increased from 43.2% to 60.7% (following implementation of site sensitization and clinical mentoring, the rate increased to 71.6%). Most positive children were enrolled into care (320/324) and the percentage of infants receiving ART increased from 48% to 97.4%.

**Conclusion:** The critical review of each step in the EID-cascade allows the development of specific interventions. Such review can considerably increase the efficiency of EID services and should be routine.

Keywords: 1. Early Infant Diagnosis  
2. systematic analysis  
3. program implementation  
4. pediatric HIV  
5. Africa

Country of research: Tanzania, United Republic of

Related to women and girls? No

Ethical research declaration: Not applicable