

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

Title: Scaling up Early Infant Diagnosis (EID) of HIV using dried blood spot (DBS) polymerase chain reaction testing (PCR) at prevention of mother-to-child transmission (PMTCT) Sites: Challenges and lessons learned in Cote d'Ivoire

Key words: Scaling-up EID; DBS/PCR; PITC;

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Background: To assess the scalability of Early Infant Diagnosis (EID) in Cote d'Ivoire, the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) conducted a demonstration at 18 PMTCT sites. From September 2007 to February 2008, 740 children were tested using DBS/PCR. Fourteen percent of the tested children (105) were HIV-positive. Not all children were initiated on antiretroviral treatment (ART). Reasons for this included lack of identification of HIV-exposed children, lack of a standard DBS sample transportation system to reference laboratories, slow results turnaround times, and reluctance to initiate treatment. In May 2008, the national HIV care and treatment program committed to scale-up EID.

Methods: From May 2008 to June 2010, EGPAF expanded EID services to 137 sites and provided support to two national laboratories. Because no standardized national specimen transport system exists, several transportation strategies were used to send DBS to reference laboratories: private couriers, partner organizations, or site staff. Other pediatric entry points—nutrition, immunization, and pediatric wards—were also involved in the EID pilot. The number of children screened increased from 740 to 7,006.

Results: Creative DBS transportation reduced travel time to reference laboratories (29 to 25 days) and back to sites (34 to 29 days). The result turnaround time was reduced by two days, and monitoring of HIV-infected children was improved. Of the 7,006 children screened, 89% received test results and 13% (935) were HIV-positive. Children from PMTCT programs were less likely to be HIV-positive, with a prevalence of 9.9%, while 26.6% of children from other entry points tested positive. Ninety percent of the HIV-positive children were enrolled into care, 91% received an ART eligibility test, and 73% initiated ART.

Conclusion: Standardizing and strengthening provider-initiated counseling and testing at all entry points helped to increase children enrolment into care. A well organized transportation system improves result turnaround time and, potentially, treatment initiation.