

IMPLEMENTING A BIOMETRIC UNIQUE IDENTIFIER SYSTEM FOR HIV EARLY INFANT DIAGNOSIS FOLLOW UP

ABSTRACT

Loss to follow-up of HIV Exposed Infants (HEIs) after delivery contributes to suboptimal access and uptake of HIV Early Infant Diagnosis (EID) interventions. This could result in unidentified HEIs and potentially HIV-infected infants who are at risk of morbidity and mortality where interventions such as Anti-retroviral therapy are not commenced. Biometric identification of infants has been used successfully to increase immunization coverage. This study investigated the feasibility and acceptability of using biometrics for unique identification during EID follow-up of HEIs at the Kenyatta National Hospital High risk Clinic. The study used a mixed methods approach.

A baseline evaluation was carried out among the HEI mothers or Caregivers and healthcare workers using interviewer administered questionnaires to investigate processes of HEI follow-up and interrogate potential use of a biometric unique identifier system. In depth interviews with health workers and policy makers were carried out to investigate perceptions, knowledge and barriers of biometric identifier use. Focus group discussions with HEI mothers or caregivers were carried out to determine concerns, experiences and challenges of using a biometric system for EID follow-up. In the pilot phase, the study enrolled 78 infants and follow-up most of them for 4 months. During the follow-up period, fingerprint templates were collected to measure the accuracy of using fingerprints for HEI re-identification.

The qualitative study data was analyzed using AtlasTi Version 5.2 and the quantitative data analyzed using SPSS 18. We anticipated positive findings in the accuracy of the biometric system for infant unique identification. The insights from health workers and mothers on integrating biometrics in EID follow-up were useful in informing system design and implementation and potential roll out of a large scale biometric unique identifier system. The pilot also informed a preliminary costing estimate of implementing a National biometric unique identifier system for HEI follow-up.