Title: Patient level tracking through an electronic database in resource limited settings: Lessons learnt in implementation of an electronic database (EDB) in Zimbabwe

Track and Category: Track E Implementation Research, Economics, Systems and Synergies with other Health and Development Sectors

Author(s): Muchuchuti C[1], Chigariro T[1], Tachiwenyika E[1], Muchedzi A[1], Chadambuka A[1], Mahomva A[1]

Affiliation: Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)-Zimbabwe

Background: The urgent need to monitor the HIV and AIDS epidemic of affected populations has required health information systems to go beyond its traditional capacities. Electronic patient-level databases (EDB) have emerged as promising tools. In September 2011, EGPAF-Zimbabwe supported Ministry of Health and Child Care (MOHCC) to develop an EDB that collects prevention of mother-to-child HIV transmission (PMTCT) longitudinal client data for routine program monitoring, rapid assessments, and PMTCT outcome evaluation.

Description: The EDB was implemented in 36 public health facilities across five districts in three phases; (1) five district hospitals – September 2011, (2) 13 facilities – March 2012 and (3) 18 facilities July 2012. EGPAF and MOHCC sourced IQSolutions, an open-source database supportable in-country with limited resources. The database was customized to include indicators from six MOHCC PMTCT registers. Facilities were selected based on patient volume and accessibility from the district hospital using public transport. Eighteen data entry clerks (DECs) were recruited and trained to enter patient level longitudinal data into the EDB on an ongoing basis. Site support and supervision was provided by technical staff from MOHCC and EGPAF.

Lessons learned: Involvement of key decision-makers from the inception resulted in early buy-in of the database and utilization of an open-source system that did not require any licensing reduced the costs. Phased implementation enabled testing and modifications to refine the database in a small number of sites before scale up to additional sites. The database helped reduce the workload of the health workers on reporting and follow-up of defaulting clients as these were generated from the system easily. Site selection based on accessibility enabled one clerk to support more than one facility to reduce costs.

Next steps: The MOHCC started implementing a national level patient level database based on the lessons learned from EGPAF. DECs have been recruited and implementation in a phased approach was adopted. The goal is to eventually have the database in all the sites.