

**Track and Category Number:** E10

**Title:** Programming for Sustainability: The iSanté HIV Electronic Medical Record System in Haiti

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**Location of Project:** Haiti

**Key Words:** Electronic medical record, health information system, facility reporting, surveillance

**Implementation Area:** Strategic Information

**Abstract Text:**

Background and Implementation Approach: The Haiti Ministry of Public Health and Population (MSPP), the U.S. Centers for Disease Control (CDC), and the International Training & Education Center on HIV (I-TECH) implemented an HIV electronic medical record (iSanté) system for Haiti in 2005. The goals of iSanté are to: 1) promote high quality HIV care through readily accessible patient data; 2) ease program monitoring and case surveillance through automated facility reports; and 3) support evidence-based treatment guidelines in Haiti. As of February 2009, iSanté is operational at 44 clinics capturing records for more than 28,000 unique patients, and efforts are underway to continually improve, expand and ensure sustainability of the system.

Analysis Design and Methods: In addition to ongoing system enhancement, expansion to more clinics, and improved reporting capabilities, iSanté developers and system managers have focused on the following initiatives to foster long-term sustainability of the system: 1) documentation and dissemination of hardware and software setup and maintenance best practices among iSanté technicians; 2) development and roll out of a LAMP (Linux OS, Apache web server, MySQL database, and PHP scripting language)

version of the application that enables more streamlined installation and upgrades for existing and new sites; and 3) expanded information technology (IT) support through online messaging, a telephone hotline and in-person mentoring.

Results: With 44 clinics currently utilizing iSanté there exists a wide variety of complexities in system set-up and maintenance. The development of a LAMP version of the application has resulted in decreased susceptibility to viruses and database corruption; a streamlined installation and update process that is faster and reduces potential for misconfiguration; and platform independence (the application now runs in Linux or Windows operating system environments). In addition, functionality on multiple Internet browsers has been improved. iSanté user and technician experience, knowledge and best practices at one site have maximum impact when shared among the entire network of system users. Expanded online, on-site and telephone support provided by nine I-TECH and CDC IT staff within Haiti improves local technician's ability to problem solve and has resulted in quicker resolution of bugs and configuration issues.

Conclusions and Recommendations: Supporting and strengthening the human resource and IT infrastructure responsible for iSanté performance is critical for ensuring its long-term sustainability. Three key methods for sustaining iSanté as the national HIV medical record and surveillance system are: continued knowledge sharing and learning based on best practices; system improvements to increase security and decrease configuration error; and sustained and accessible user support.