



Case-based Surveillance System Development

Goal and Proposed Outcomes

Via this ongoing activity, NASTAD's goal is to assess a subset of existing patient-level data and the related data collection processes to define whether criteria are in place to indicate that case-based surveillance of HIV is feasible in Ethiopia so that routine, supra-health facility data are available to guide HIV programming. Through this pilot phase, NASTAD and Ethiopian Ministry of Health (MoH) look to:

- Develop a quantitative description of the quality and completeness of key HIV case surveillance-related variables within one existing electronic medical record and the standard MOH paper-based data collection forms derived from 24 health facilities in Addis Ababa Health Bureau.
- Define a method to link patient data to each other (pseudo unique identifier (PUID)) and operationalize the method to assess patient duplication and document patient linkage and disease progression/clinical outcome.
- Refine the method to capture select case report variables (PUID, demographics) from non-EMR facilities so that patient duplication can be more fully assessed.
- Analyze patient-level data to demonstrate method by which linked CBS data can be used to describe patient linkages, disease progression and clinical outcomes.
- Provide recommendations for CBS design and implementation delivered to the MOH.



Strategy and Approach Used

NASTAD's technical staff in Ethiopia, with support from content experts from the U.S., are providing integrated capacity building to the partner MOH units through point-in-time training, opportunity-driven technical assistance, and day-to-day mentoring.

- NASTAD has developed partnerships to strengthen the capacity of the Ethiopian Public Health Institute (EPHI), the lead public health agency under the MOH to lead CBS initiatives. NASTAD is also collaborating with Tulane University, to explore opportunities to leverage the implementation of the SmartCare electronic patient (data) management system, and ICAP (Columbia University), the lead organization providing technical assistance to the MOH for clinical services in Ethiopia, to explore opportunities to leverage data stored within the five electronic medical records (EMRs) currently in use in Ethiopia.

This work was supported by the cooperative agreement #U2GPS001617 from the U.S. Centers for Disease Control and Prevention (CDC). The contents are solely the responsibility of the authors and do not necessarily reflect the official views of the CDC.

- NASTAD has provided routine support to the EPHI to assist with the design and implementation of the Proof of Concept, including technical guidance and support with protocol development, partnership negotiation, data collection strategies, data security and confidentiality, and data management processes.

NASTAD has provided training to national level MoH staff and partners on CBS. This curriculum will soon be adapted and cascaded to health facilities to support high-quality and standardized data collection and data management through the pilot phase.

To provide high-quality and consistent capacity building, NASTAD has leveraged the rich experience of U.S.-based and international technical assistance providers, including Maine State health department epidemiologists and senior managers, information technology consultants from the University of Florida, and NASTAD staff with experience and skills operationalizing case based surveillance in other countries (Haiti, Trinidad, Guyana). These resources have also helped to build NASTAD's local capacity in Ethiopia. The Senior Specialist for Strategic Information, based in the Ethiopia field office, receives individual support and assistance in developing tools, negotiating partner relationships, and developing a strategic vision for the short, mid, and long term goals. This staff person is the direct liaison with the Ethiopian Public Health Institute, and has established a productive rapport to assure progress.

Results

- 24 health facilities in the Addis Ababa City Administration Health Bureau to participate in the pilot, including 3 urban hospitals and 21 urban health centers
- It is estimated that 1,715 incident HIV diagnoses will be identified, based on an extrapolation of HIV counseling and testing data for the city
- It is estimated that up to 50,000 patient records will be assessed for quality and linked to develop the clinical cascade.

Summary of Outcomes and Impact from NASTAD's Technical Assistance

The Government of Ethiopia, in 2013, agreed to begin the implementation of HIV CBS using health service data. Agreement was found among key government institutions, including the Federal Ministry of Health, Federal HIV/AIDS Prevention and Control Office, and Ethiopian Public Health Institute. A technical working group was established to determine the implementation design of the program based on the country's health system context. A SWOT analysis was completed and a summary report produced.

The launch of the Proof of Concept Project for HIV Case-based Surveillance was organized by NASTAD in collaboration with EPHI in July 2014. All Government partners agreed on the timeliness and relevance of CBS implementation during the launch meeting. Key representatives from institutions such as UNAIDS, WHO, Tulane University and Columbia University ICAP were invited to participate in the technical workgroup, so they could continue to inform and receive updates on the project's progress.

Immediate next steps for this project include the execution of the data sharing agreement between EPHI and Addis Ababa Health Bureau. The assessment of data completeness and validity will be initiated after the training of facilities based data collectors in October 2014. During November 2014, NASTAD and EPHI, working together with CDC, will develop the pseudo unique identifier using EMR data made available by the Addis Ababa

Through this project, NASTAD hopes to provide Ethiopia's MoH with the ability to routinely profile and track their HIV epidemic such that data on incident cases and the related person-level HIV outcomes can be used to identify trends in HIV transmission and prevention needs, as well as gaps in rapid linkage to care, retention in care, access to treatment, treatment adherence, and ultimately, community viral load suppression.