➔ *Strengthened data systems help governments and health workers make better decisions and improve patient care.*

South Africa

Focus Area: Health
Service Provided:

- Landscape analysis
- Stakeholder alignment
- Resource development

Partners:

- Bill & Melinda Gates Foundation
- South African National Department of Health

HIV/TB Data Systems Evaluation and Integration

Challenge

As the dual challenges of HIV and tuberculosis (TB) spread through South Africa, the government mobilized to tackle the problem. Policies were crafted, resources allocated, and no fewer than three digital health data systems were implemented to collect data to shape TB and HIV programs and monitor the spread of the diseases.

Each of these systems has its strengths. However, they reside in different program groups (i.e., HIV and TB) within the National Department of Health (NDoH), and each has a different array of funding and implementing partners. Another challenge is that while South Africa has a very high TB and HIV co-infection rate (approximately 62%), systems are contained in disease-specific siloes. There are separate data collection systems for HIV and TB, but also for regular TB and drug-resistant TB. In short, despite the allocation of significant resources and effort, the government's data-collection response to the HIV/TB crisis was fragmented.

➔ *Integrated HIV and TB data collection helps the South African government strengthen monitoring and reduce costs for maintenance and associated processes.*

80% of ICT4D implementation work is focused on nontechnical areas such as business models, interoperability, partnerships, and change management.

Solution

The NDoH realized that integrating HIV and TB data systems would help track and manage co-infected patients and simplify implementation and management of HIV and TB data collection. Greater integration of data systems would also help national and provincial health officials make better, data-driven decisions about resource allocation and program management.

In 2014, a global foundation, in cooperation with South Africa's NDoH, called on Vital Wave to evaluate existing HIV and TB health data systems and streamline them into one system for both disease areas. The NDoH did not want to create another new system; it wanted Vital Wave to help build the connective tissue between existing systems, enabling a more cohesive and efficient application of data from each system.

Vital Wave designed a multi-phase project to evaluate existing systems, and implement a nationally scaled solution. The company took an ecosystem approach to the evaluation of the disparate projects, weighing the original strategy for creating digital information systems and considering technical, functional, and infrastructure related issues for each solution. Extensive desk research, interviews, site visits, and system trials were completed. Sensitive to the time and energy invested in each project, the team based its recommendations on data quality and ease of use, and the potential for improved patient care. The time and effort required to gather comprehensive inputs and coordinate multi-stakeholder adoption illustrate a common tenet of ICT4D work: **80% of the work is non-technical**. This needs to be planned for in terms of scope, timing, and skill sets in ICT4D-related projects.

Vital Wave was able to leverage the knowledge and stakeholder relationships from the evaluation phase when the NDoH asked the company to oversee the planning for the implementation of the recommended solution. This subsequent phase necessitated careful project planning and deft management. Stakeholder engagement was also critical; Vital Wave played a 'bridging' role between groups unaccustomed to working together.

Results

The NDoH accepted Vital Wave's recommendation to collect TB data using an existing HIV data collection system (TIER.Net) via an added 'TB Module.' The TIER.Net system already had a large footprint and did not rely on constant connectivity. Integrated HIV and TB data collection means the government can strengthen monitoring and reduce costs for maintenance and associated processes (e.g. standard operating procedures, training). The TB Module is being piloted in three provinces, and a national rollout of the integrated HIV/TB system is scheduled for late 2015. Health officials report that the consolidated system offers a more complete picture of their HIV and TB treatment burdens. Instead of simply collecting data and sending it onward, they are able to use data to directly improve patient care.