

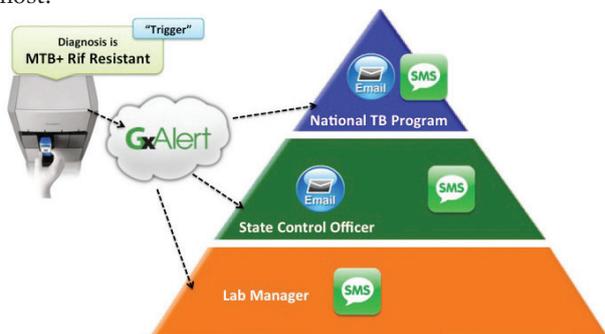
eHealth and Technology



The rapid expansion of capacity of information and communications technologies (ICTs) around the world is creating opportunities to accelerate the flow of information to those who can use it. **eHealth reflects the application of ICTs to health for all purposes:** data capture, transmission, analysis and dissemination of health information to improve the quality of service delivery, to improve the rational allocation of funding and resources across the system, and to strengthen governance and transparency. **Abt Associates** works with clients from the health facility to the international level to ensure that eHealth activities are being implemented with the appropriate governance and policy structures in place to promote transparency while protecting patient privacy, and in locally sustainable ways.

Rapid Diagnosis and Dissemination of TB Test Results in Nigeria

In many countries, tuberculosis (TB) test results are manually transcribed into lab registers. Those registers are then keyed into an existing central monitoring and evaluation (M&E) system for analysis weeks or months later, leading to potentially harmful delays in treatment. Abt is incorporating a 3G USB modem into the GeneXpert™, a rapid TB diagnostic tool, to automatically send the results to GxAlert, a web-based database designed by Abt that aggregates Multi-Drug Resistant (MDR)-TB test results, sends the information in real-time directly into the Federal Ministry of Health's (FMOH) national TB M&E system and automatically sends notifications to State TB Control Officers and Lab Managers. The GxAlert system enables the FMOH to begin MDR treatments for patients faster and, based on test result patterns, move second line TB treatment drugs to remote facilities where they are needed the most.



Abt's Core Competencies in eHealth

- Health information systems
- Mobile health (mHealth)
- Open data
- Web-based databases
- Electronic clinical record systems
- Human resource information systems
- Geographic information systems and mapping
- Data integration across systems
- e-Learning tools

National eHealth System to Strengthen Health Reform Efforts in Georgia

Georgia has traced a number of its health system challenges to information weaknesses, including a lack of reliable data and inadequate use of data in the planning, management and use of health services. To address these gaps and increase the government's capacity to guide and monitor health reform, Abt developed a unified electronic health management information system (HMIS) that connects the government, health providers and facilities, the pharmaceutical industry, and the Georgian population.

The HMIS collects data from 200 primary healthcare facilities, 300 hospitals, 1,300 rural doctors, and 12 insurance companies.



The HMIS enables stakeholders to make informed decisions and increases efficiency by streamlining business processes and improving the

administration, execution, and monitoring of health expenditures. For example, the system has enabled the government to reduce costs by identifying 5,000 double-insured beneficiaries. Public access is a particularly unique feature of the system. For example, patients can use the HMIS to find health providers and pharmacies according to criteria such as location, price, and availability.

Development of a Unified National Health Information System in Kenya

In Kenya, Abt has worked under Health Systems 20/20 and now under AfyaInfo to support the Government of Kenya's efforts to move toward a single unified and integrated National Health Information System (NHIS) which will replace the many, disease-specific vertical monitoring and reporting systems. Abt's role is to build the information system infrastructure and to support the Ministry of Health (MOH) to develop the human and management capacity to support the NHIS to become the sole source of data for all the health sector stakeholders.

At the center of these efforts has been Abt's technical assistance to the Ministry of Health to design and customize the District Health Information System v.2 (DHIS2) software, a decision support system for the district level to provide complete, accurate, and timely health service data to users according to the MOH's defined information needs. AfyaInfo is also providing comprehensive training in information use to health managers at all level. Finally, AfyaInfo is developing the leadership and management capacity of the MOH needed to assume a leadership role in developing, managing and sustaining current and future information system components over time.

Using Smartphones to Improve TB Supportive Supervision in Nigeria

In Nigeria, the use of paper-based checklists during supportive supervision visits contributed to human error in data entry and a delay in the availability of data to health facility managers and policymakers for use in quality improvement interventions. In 2010, Abt introduced Personal Digital Assistants (PDAs) in 16 facilities across four states in Nigeria to improve the TB system by harmonizing checklists into one checklist. Data from the PDAs was also synchronized with a central database to track facility results over time. The use of PDAs improved data quality with built-in validation, skip patterns and calculations, and the rapid results feature allowed supervisors to quickly identify performance issues and develop quality improvement action plans while at the facility. Preliminary results show a 66% increase of TB-HIV patients on co-trimoxazole preventive therapy (CPT) and 64% increase of TB-HIV patients on antiretroviral (ARV) drugs in Abia. Positive initial results led the government to endorse scale up of the activity with smartphones with Abt's support to over 600 facilities across seven states by October 2013.

Contact

For more information on Abt Associates and our work in *eHealth* technical support, please read **Mobilie Money for Health** and **mHealth in West Africa** or contact:

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