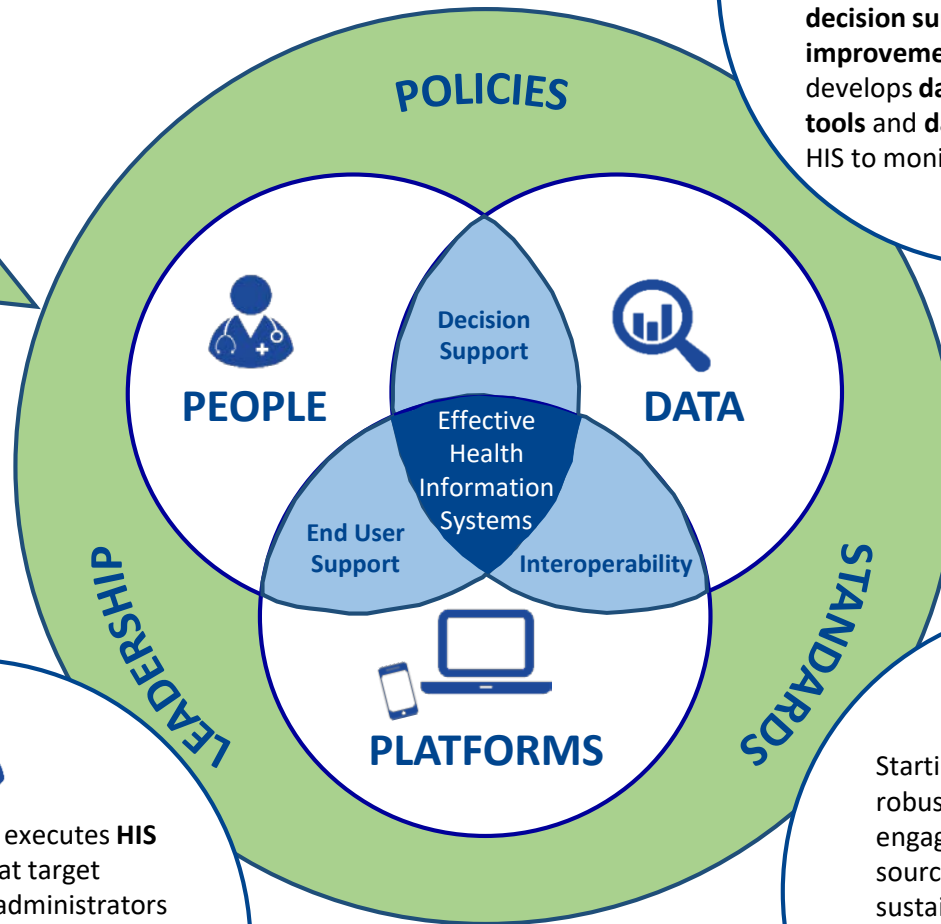# Health Information Systems at I-TECH

Health Information Systems (HIS) are the foundation of a strong health system. HIS allow clinicians quicker access to patient information; aggregate health data to help identify areas of high need; assist pharmacies to avoid stockouts of essential medicines; assist sites, districts and the ministry forecast revenues and outlays. Effective HIS transforms data into information that can guide decision-making and policy.

I-TECH's support of HIS facilitates analysis of aggregate data at the national level to **drive public health policy** while also integrating the data into the clinical work flow via **decision support alerts** and **quality improvement processes**. I-TECH also develops **data quality assessment tools** and **data quality reports** in the HIS to monitor key indicators.

I-TECH fosters an enabling environment where **strong leadership**, **appropriate policies and standards** are adopted and operationalized for effective HIS. I-TECH enables strong leadership and engagement by Ministries of Health through its Leadership in Health Information Systems seminar series. I-TECH's goal is to provide technical assistance to the MOH to define standards for eHealth architecture and introduce systems that adhere to international standards for development protocols, data security and information exchange.

POLICIES

LEADERSHIP

STANDARDS

PEOPLE

DATA

PLATFORMS

Decision Support

End User Support

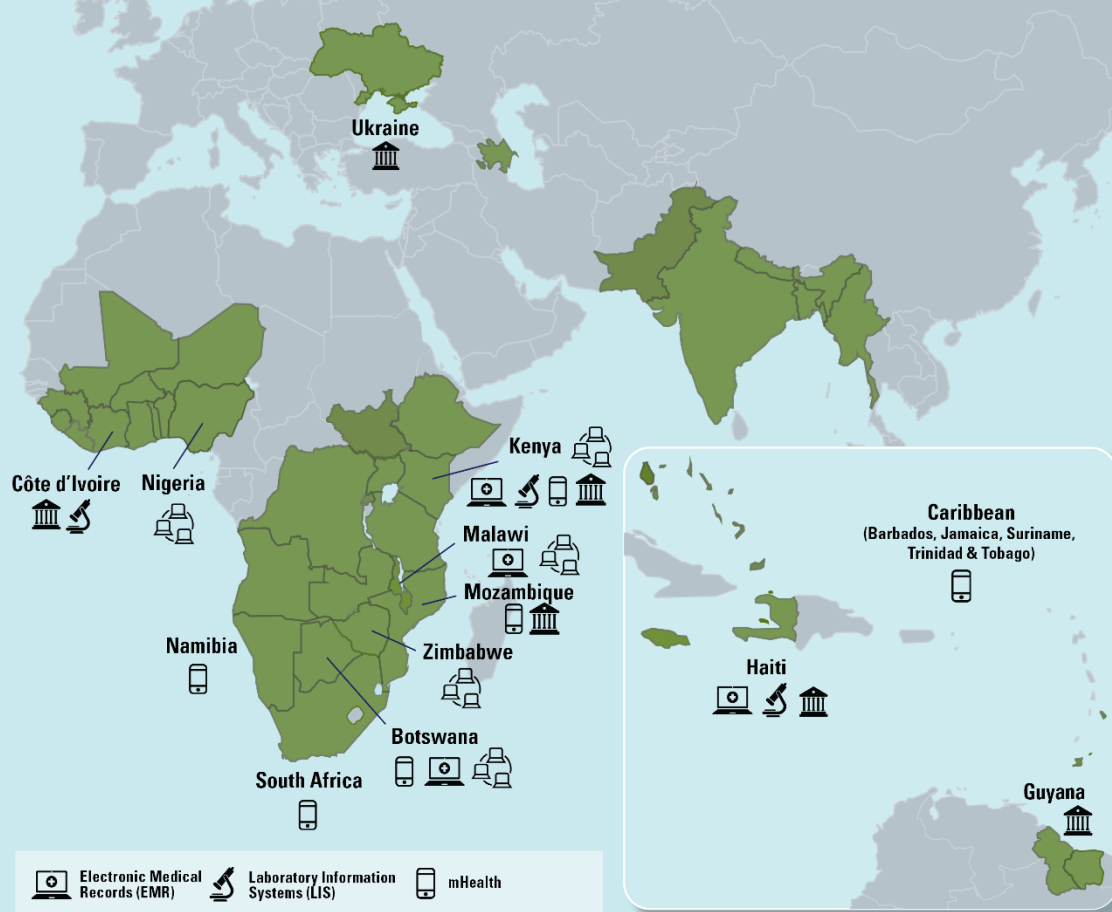Interoperability

Effective Health Information Systems

I-TECH designs and executes **HIS training courses** that target managers, system administrators and software developers, and facility level health care workers. I-TECH provides clinical mentoring to health care providers to use and interpret information presented at **point of care**.

Starting with a deliberative and robust discovery process, I-TECH engages local teams and open source systems to ensure greater sustainability and ownership of the systems by local stakeholders. We have experience with **mobile, desktop, and web-based applications, databases, and information exchange platforms**.

I-TECH
International Training & Education Center for Health

Program Reach

I-TECH leverages its deep experience in training and education to understand and value end users and better design solutions to relieve pain points at all levels of the health system. This is the cornerstone of I-TECH's approach to providing HIS technical assistance: by building local capacity to develop and maintain platforms and use the systems and the data they hold, I-TECH ensures the **sustainability** of the solutions we deliver. We have experience across many countries and implementing environments allowing us to leverage teams in multiple locations to share resources, build upon experiences to **bring interventions to scale**, and deliver the best solutions possible, rapidly and efficiently.

Data: Haiti

I-TECH research and evaluation staff have used longitudinal data from the iSanté electronic medical records system to assess ART prescription interval trends from nearly 1 million dispensing records. Multi-month scripting (MMS) has the potential to improve efficiency of health services and reduce the burden to patients of making frequent clinic visits. The data demonstrated a steady transition of patients to MMS, without unintended negative effects on retention in care. I-TECH clinical mentors and the MOH are using this information to promote MMS for stable ART patients.

People: Côte d'Ivoire

I-TECH trained 205 users and deployed a LIS at 13 national and regional level laboratories. In partnership with the Ivorian Ministry of Health and Public Hygiene's *Direction de l'Informatique et de l'Information Sanitaire,* I-TECH reinforced the capacity of local professionals to conduct electronic LIS training, deployment, and maintenance activities; leading to an increase in the total number of local professionals competent in eLIS deployment and support in Cote d'Ivoire in 2015: from 4 to 24. During this time ,the number of national eLIS trainers increased from zero to 27. Within ten months, local LIS IT providers deployed eLIS to 36 sites while national trainers trained more than 75 healthcare workers in LIS use.

Enabling Environment: Global HIS

I-TECH's Building Effective HIS project aims to strengthen the enabling environment by preparing ministry leadership at the national level to participate in conversations about strengthening HIS and lead high-level stakeholder meetings to develop strategic plans. In Tanzania and Namibia, I-TECH made the *Introduction to HIS eLearning* series available to key stakeholders at the MOH as well as health care workers. In collaboration with CDC-Atlanta, I-TECH integrated these same eLearning modules into a series of face-to-face and distance sessions with high-level Ministry officials in Guyana, culminating in a Ministry-led Strategic Planning meeting that raised the level of stakeholder commitment to improving Guyana's HIS.

Platforms: Kenya

Under the Global Health Security Agenda, I-TECH has worked with the Ministry of Health in the Vaccine and Immunization Program to develop an electronic platform, Kenya Immunization Platform (KIP) that collects immunization data on a tablet at point of care. KIP builds on the investments in Open Smart Register Platform (OpenSRP). The aim of deploying KIP across sites in Kenya is to improve population vaccination coverage through better follow-up with children defaulting on vaccinations, more accurately recording and reporting vaccination information, and ultimately, preventing outbreaks of vaccine-preventable diseases by ensuring susceptible children can be identified quickly.

Map labels

Ukraine

Côte d'Ivoire   Nigeria

Kenya

Malawi

Mozambique

Namibia

Zimbabwe

Botswana

South Africa

Caribbean
(Barbados, Jamaica, Suriname, Trinidad & Tobago)

Haiti

Guyana

Legend

Electronic Medical Records (EMR)

Laboratory Information Systems (LIS)

mHealth

Enabling Environment

Health Management Information Systems (HMIS)

Human Resources Information Systems (HRIS) (TrainSMART)

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For more information on individual projects, visit **www.go2itech.org/health-information-systems**.

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