**I-TECH AT A GLANCE**

Improving the Health of Communities Worldwide Through Strong, Compassionate, and Equitable Health Systems

UNIVERSITY of WASHINGTON

I·TECH
Fostering Healthier Communities

# Who We Are

The International Training and Education Center for Health (I-TECH) is a center within the Department of Global Health (DGH) at the University of Washington (UW). I-TECH comprises a global network, operating in more than 20 countries, that is committed to building long-term capacity in health systems strengthening; human resources for health; and targeted, data-driven interventions and research that are responsive to local needs. Our unique approach to sustainability and capacity building, through training and research, creates a strong foundation for contextually appropriate health programs. Our programs effectively tackle emerging health threats and address national health priorities to achieve high quality, compassionate, and equitable health care.

Founded in 2002, I-TECH's work is rooted in transformative education and reciprocal learning. Our global network uses these approaches to bring proven programs to scale, develop a skilled health care workforce, and ensure health system gains are sustainable and aligned to country priorities.
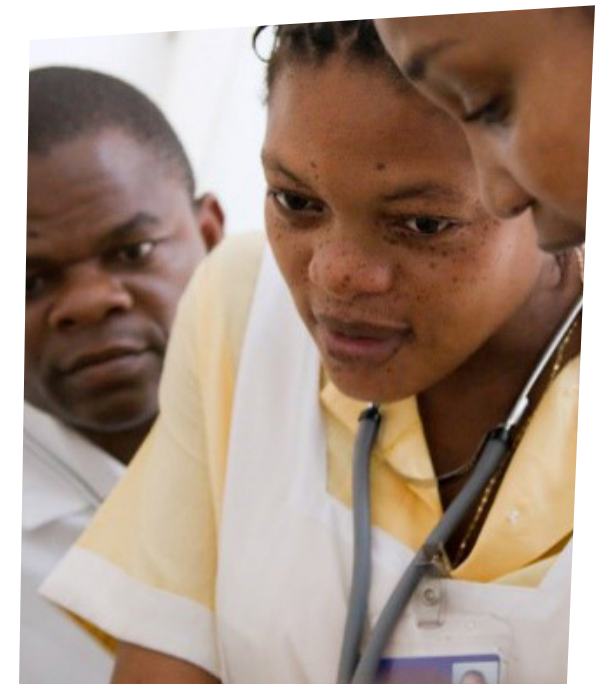
I-TECH is a culturally rich professional community that includes UW faculty, global partners, and U.S. and global staff and students. This community of people with diverse backgrounds, experiences, and opinions encourages learning from one another to improve our efforts for health equity.

At I-TECH, *transformative education* appreciates and centers the diversity and complexity of individuals' and institutions' learning experience and applies this to our programming for positive impact.

## Part of a Premier Academic Institution

I-TECH is uniquely positioned to leverage the expertise and resources offered by UW, a premier academic and research institution located in Seattle, Washington. I-TECH's home department, DGH, bridges the Schools of Medicine and Public Health and has active projects in more than 130 countries. In 2019, the UW received $1.58 billion in total research awards and was ranked the most innovative public university in the world by Reuters. UW receives more federal research dollars than any other public university in the U.S. and has a budget of $8.25 billion.
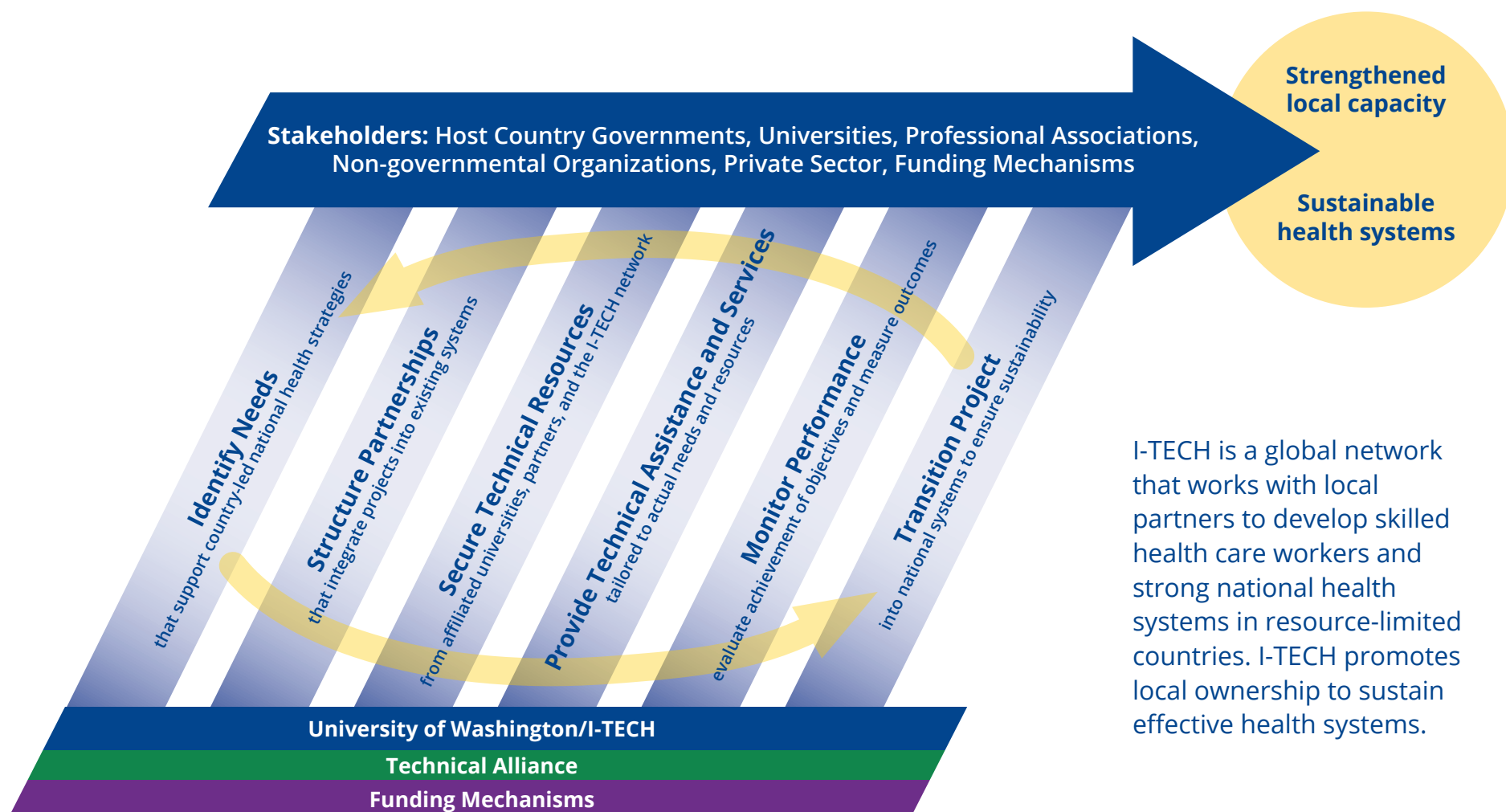
The I-TECH global network is committed to being antiracist, just, equitable, and inclusive. I-TECH **embraces the diversity** that characterizes our network. We acknowledge and work to disrupt the power imbalances that exist within our local contexts, in transnational relationships, and consequently in the work of global health.

# Strategic Partnerships Are Our Foundation

I-TECH was founded on a bedrock of partnership. From day one, we have worked at the request of—and in collaboration with—ministries of health to improve access to high-quality health care. Using a participatory approach, I-TECH partners with host country governments, universities, non-governmental organizations, civil society partners, and funders to design and implement locally relevant health programs within existing local systems and processes.

I-TECH's long-established Partnership Model (below) guides the provision of technical services and technical assistance toward local ownership and sustainability, creating projects and programs that can be integrated into national systems.



Strengthened local capacity

Sustainable health systems

**Stakeholders:** Host Country Governments, Universities, Professional Associations, Non-governmental Organizations, Private Sector, Funding Mechanisms

**Identify Needs** that support country-led national health strategies

**Structure Partnerships** that integrate projects into existing systems

**Secure Technical Resources** from affiliated universities, partners, and the I-TECH network

**Provide Technical Assistance and Services** tailored to actual needs and resources

**Monitor Performance** evaluate achievement of objectives and measure outcomes

**Transition Project** into national systems to ensure sustainability

**University of Washington/I-TECH**

**Technical Alliance**

**Funding Mechanisms**

I-TECH is a global network that works with local partners to develop skilled health care workers and strong national health systems in resource-limited countries. I-TECH promotes local ownership to sustain effective health systems.

# The Global I-TECH Network

Since its inception, I-TECH has led or supported programs in more than **30 countries** in Sub-Saharan Africa, South America, Asia, Eastern Europe, and the Caribbean.

Argentina
Botswana
Brazil
Colombia
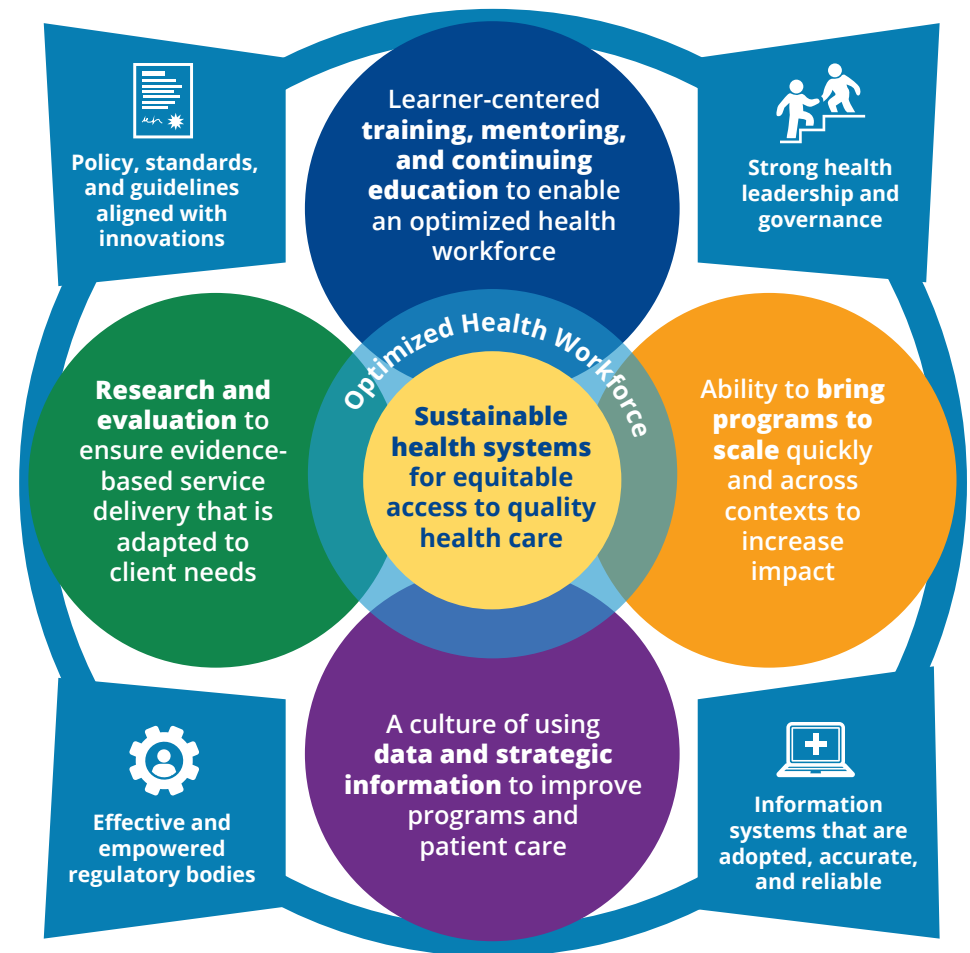Côte d'Ivoire ••
Ethiopia
Georgia
Haiti •
India •
Jamaica •

Kazakhstan
Kenya •
Kyrgyzstan
Malawi •
Mauritius
Mozambique •
Namibia •
Nigeria
Paraguay
Peru

South Africa
Tanzania
Thailand
Trinidad & Tobago
Uganda
Ukraine •
Uzbekistan
Zambia
Zimbabwe •

• Country office

• Country office transitioned to local organization

# Ensuring Sustainable Local Capacity and Health Systems

I-TECH takes a holistic, system-wide approach to building individual, local, and health system capacity to ensure sustainable outcomes. We work within existing national health systems, recognizing the multiple factors that affect health systems and those who work within it. We apply this approach to what we do, represented in the outer circles of the model (at right). The boxes in the outer ring represent an enabling environment that includes strong health leadership and governance; information systems that are accurate and accessible; effective and empowered regulatory bodies; and policies, standards, and guidelines that are aligned with innovations. I-TECH provides tailored technical assistance to advocate for, strengthen, and transfer these systems and processes to local governments to assure the success of the health workforce to deliver and improve access to quality health care services. For example, I-TECH provides leadership to the Government of Botswana to update and align cervical cancer guidelines to the World Health Organization (WHO) guidelines and inform the government's cervical cancer sustainability strategy.



**Policy, standards, and guidelines aligned with innovations**

**Learner-centered training, mentoring, and continuing education** to enable an optimized health workforce

**Strong health leadership and governance**

*Optimized Health Workforce*

**Research and evaluation** to ensure evidence-based service delivery that is adapted to client needs

**Sustainable health systems for equitable access to quality health care**

Ability to **bring programs to scale** quickly and across contexts to increase impact

**Effective and empowered regulatory bodies**

A culture of using **data and strategic information** to improve programs and patient care

**Information systems that are adopted, accurate, and reliable**

To date, I-TECH has transitioned more than **400 programs** to local entities and launched indigenous health organizations that have received **~$32 million** in funding.

## I-TECH Transitions Clinical Mentoring Program to Government of Namibia

Started in 2006, the I-TECH Namibia clinical mentoring program strengthened physician capacity to provide quality HIV care and treatment through concentrated clinical mentoring with experienced HIV physicians. Over the course of a two-year transition, I-TECH successfully transferred the program to the Ministry of Health and Social Services by 2015. The clinical mentoring program has now been integrated into the HIV treatment program in all regions of the country. This is just one of more than a dozen I-TECH clinical mentoring programs that have been adopted by countries in Sub-Saharan Africa, Asia, and the Caribbean Region.



In 2010, I-TECH implemented a project to determine whether nurse-initiated management of antiretroviral treatment (NIMART) was a feasible alternative to doctor-led models. In Namibia, NIMART was adopted by the MoHSS for use nationwide in 2013.

**I-TECH capacity development activities include:**

- Developing and adopting national-level policies and guidelines to support scale-up of successful interventions

- Fostering leadership and management skills development at national and regional levels; I-TECH's Leadership and Management in Health e-learning course has attracted more than 31,000 enrollees

- Strengthening workforce development by support of on-site and distance-based training, technical assistance, instructional design, advocacy, and policy development

- Creating and institutionalizing continuous quality improvement policies and approaches for effective HIV care and treatment

- Developing and supporting the implementation of national/regional clinical mentoring and supportive supervision standards

## Launch of Independent Organizations Ensures Country Ownership

Since 2018, I-TECH's offices in India, Haiti, Zimbabwe, Botswana, Côte d'Ivoire, and the Caribbean have transitioned to locally registered, independent organizations. These new, independent offices remain within the I-TECH network as primary partners, continuing to build in-country capacity to respond to changing community and government needs.

# Developing a Strong Health Workforce

I-TECH is a leader in global health workforce development. Our approach to education and training of an optimized health workforce is based on 18 years of experience, expertise, and lessons learned developing, implementing, and evaluating innovative, multilingual, face-to-face, distance, and blended learning training programs. An *optimized health workforce* is one that is performing at the top of its capacity with workers equipped with up-to-date knowledge and skills and the ability to access accurate data and support systems for decision making.

Learning is not a one-time event; I-TECH facilitates learning and application of new skills and behaviors through skills building within professional, practicum, and educational settings, followed by on-site mentoring and distance consultation, and continuing education. Our approach to training and education touches on these levels of learning and the systems in which health care professionals work to streamline organizational systems, processes, and routines. Well-trained health care professionals translate knowledge into practice and ultimately increase their impact.

More than **100,000 health care workers** have been trained with I-TECH support.

I-TECH has created more than **400 training programs and products** that have been adopted by ministries of health in Africa, Asia, and the Caribbean Region.

I-TECH was an early adopter of e-learning and distance learning platforms to reduce training costs, limit the time health care workers are away from the work site, and create standardized training packages. Created with the UW Department of Global Health E-Learning Program (eDGH), I-TECH's offerings include self-paced modules; UW graduate-level blended-learning courses and certificate programs; and interactive webcasts.

## Learner-Centered Education in the Classroom and Beyond

With an extensive background in instructional design and the practical application of adult learning theory, I-TECH's curriculum developers, trainers, translators, and media specialists produce and deliver innovative pre-service and in-service training programs for health care providers and educators. For example, in Ukraine, I-TECH has trained 245 trainers on effective models of teaching and learning and has developed 17 training packages to date. I-TECH also supports learning for health care workers throughout their careers. In Mozambique, I-TECH revised and supported implementation of the reformed 2.5-year pre-service course for *Técnicos de Medicina Geral* (mid-level clinicians), reaching 9,000 health care workers and 750 faculty.

In India, I-TECH developed a national HIV care and treatment training program to target multiple levels of clinical care and reduce stigma. The program integrates distance-learning-based platforms to extend reach to remote areas, provides clinician-to-clinician telementoring, and includes a local accreditation process for continuing medical education.

I-TECH has created e-learning modules for infection prevention and control for the Global Health Security Agenda in Kenya. The team pivoted quickly to conduct 16 COVID-19 trainings, reaching more than 600 health care workers.





I-TECH has led **national pre-service curriculum reform in five countries** and led faculty development efforts to strengthen delivery of competency-based courses and practica.

## Mental Health Integration in South Africa

I-TECH worked with the South African National Department of Health to strengthen the integration of mental health services into routine chronic care within the primary health care system. The Mental Health Integration (MhINT) Program increases access to care for common mental conditions, promotes adherence, and supports implementation of national policy. A core component of the intervention includes nurse-centered clinical diagnosis and referral of people with common mental health conditions within a collaborative care model. A related project, the Southern African Research Consortium for Mental health Integration (S-MhINT) is a research and capacity-building consortium that examines multi-level influences on the uptake, implementation, effectiveness, and sustainability of MhINT's service delivery activities.

I-TECH provided ongoing support to the government of South Africa to strengthen systems needed to ensure the success of community health workers (CHWs). I-TECH has strengthened Regional Training Centers to train CHWs to implement adherence guidelines, HIV care and treatment tools, monitoring and reporting tools, and capacity building of community-based organizations to implement the CHW program through primary care outreach teams. I-TECH's efforts reached more than 22,000 CHWs.

## Training for Providers Working with Key Populations in the Caribbean Region

I-TECH designed and launched the "Improving HIV Care for Key Populations in the Caribbean" preceptorship program to build clinicians' capacity to provide nonjudgmental, high-quality, comprehensive HIV care to most-at-risk communities. Using targeted role-play with patient-trainers from members of key population communities—sex workers, transgender people, men who have sex with men—clinicians receive meaningful training opportunities in controlled settings.

# Implementing Large-Scale Programs

I-TECH brings projects to scale rapidly through technical assistance at every phase of programming: collaborative work with local leadership, planning and piloting, operations and compliance, and quality improvement. Working closely with stakeholders, I-TECH has implemented national programs that support each level of a health system—from site level to governance—to monitor and refine its response to critical health threats. Throughout nearly two decades of implementing hundreds of programs, we have built a seasoned core leadership team, including Country Representatives, program management, and technical staff, many of whom have worked for I-TECH since its inception. These leaders and teams of recognized experts enable programmatic continuity that strengthens our relationship with ministries of health and provides us with a deep cultural and contextual understanding.

I-TECH has supported more than **660,000 voluntary medical male circumcisions** for HIV prevention.



In Zimbabwe, I-TECH has supported HIV testing for more than 3.5 million individuals, and the initiation of more than 180,000 clients on antiretroviral therapy.

### SUCCESS HIGHLIGHT

## HIV Care and Treatment in Zimbabwe

I-TECH's network partner in Zimbabwe, the Zimbabwe Technical Assistance, Training & Education Center for Health (Zim-TTECH), works with local consortium partners to increase the number of people living with HIV identified, enrolled, and retained in care. The consortium's approaches include customizing ART delivery approaches for different groups; Community Adolescent Treatment Supporters (CATS) who support increased availability of care and treatment services for children and young people living with HIV; and home visits to stable clients by CHWs and other community-based workers. Together, I-TECH and Zim-TTECH work in 20 districts covering approximately 44% of the estimated 1 million adults living with HIV, employing and supporting over 650 health care workers in hundreds of public sector health facilities.

Since 2015, I-TECH has supported
**HIV testing for more than
5 million people.**

In Namibia, I-TECH launched a national campaign to raise awareness of the importance of screening for and treatment of cervical pre-cancer in women. The campaign has been especially important during to the COVID-19 pandemic, when patients may be less likely to visit their health care provider for preventive care. To date, I-TECH has performed over 14,000 screenings and 1,700 treatment procedures for HIV-positive women.

**SUCCESS HIGHLIGHT**

## A Patient-Centered Model for HIV Services in Tanzania

I-TECH Tanzania conducted a study that informed national policies for implementation of differentiated HIV care in the country. Working closely with the Ministry of Health, Community Development, Gender, Elderly and Children, I-TECH developed policy guidelines and supported national-level training and implementation of differentiated service delivery models to scale-up nationwide.



I-TECH and eDGH collaborated on the In-Service Programme for Ordinary Diploma in Clinical Medicine, a blended distance learning program and the first in Tanzania to use tablets to deliver medical course material.

# Ensuring Accuracy and Use of Strategic Information

Together with its network of country offices—as well as the Digital Initiatives Group at I-TECH (DIGI)—I-TECH unites an expansive network of academic expertise related to health information systems, monitoring and evaluation, disease surveillance, and implementation science. By developing national standards for how data is transferred and how systems work together, I-TECH promotes a culture of using data for decision making.

## I-TECH has implemented more than **560 electronic health information systems.**



I-TECH's independent network partner in Haiti, CHARESS, was formerly the I-TECH Haiti office. CHARESS continues to oversee clinical mentoring activities at 20 sites.

**SUCCESS HIGHLIGHT**

## Deploying Electronic Records to Improve Care in Haiti

Electronic medical record (EMR) systems have the capacity to improve clinical decision making and quality of care at the site level but can also be leveraged to make data-driven, population-level public health decisions. In Haiti, I-TECH began developing the iSanté EMR system, which is now used at over 150 hospitals and clinics around Haiti and includes about 1.3 million patient records. iSanté is integrated with the open-source laboratory information system OpenELIS, which I-TECH developed in Haiti in partnership with the National Public Health Laboratory.

I-TECH began developing iSanté electronic medical records system in Haiti in 2005. iSanté is used at over 150 hospitals and clinics around Haiti and includes about 1.3 million patient records.

Since 2012, I-TECH has hosted OpenELIS Global, an open-source LIS platform, and has developed and implemented **215 LIS systems** worldwide.

## The Digital Initiatives Group at I-TECH (DIGI)

For more than 15 years, I-TECH has been a leader in digital health global goods communities. In 2018, I-TECH launched the Digital Initiatives Group at I-TECH (DIGI) to seamlessly deliver innovative and user-centered digital health solutions and integrated information systems to our partners. DIGI's team of experts develop and deploy digital health tools and provide training to promote data use for improved clinical service delivery via systems such as electronic medical records (EMR), lab information systems (LIS), human resources information systems (HRIS), and mobile applications. These solutions improve access to and use of strategic information for decision-making by health workers, patients, and communities. These systems enable more effective and efficient mobilization of resources and facilitate monitoring and validation of program outcomes toward epidemic control and quality patient care.

SUCCESS HIGHLIGHT

## Effective Data Management and Use in Malawi

The Kuunika Project: Data for Action is a consortium of organizations, including I-TECH, that have been working together since 2016 to improve health care service delivery through the effective use of data. A total of 800 health workers have been trained, including data handlers, facility- and district-level decision makers to utilize data as part of continuous quality improvement and inform decision making. I-TECH launched a mentorship program to support transferring knowledge into practice and oriented more than 100 mentors.

# Expanding Innovative Research and Evaluation

I-TECH's implementation activities provide a rich environment for layering research and practice. Our research portfolio helps to inform evidence-based implementation of training and treatment programs across the globe. I-TECH faculty and staff develop research studies worldwide to generate knowledge from the field, and we integrate robust assessments and evaluations into routine programming. We prioritize in-country collaborative relationships to provide research capacity-building opportunities for our partners.

I-TECH specializes in developing appropriate research designs and methods for application in resource-limited settings. We conduct research to inform every phase of programming, starting with assessments to clarify the underlying nature and parameters of a problem before an intervention begins. Within UW, we draw from experts in qualitative and quantitative methods in a wide range of disciplines, including implementation science, health economics, policy and law, anthropology, health sciences, medicine, nursing, and education.

**SUCCESS HIGHLIGHT**

## Creating a Mentoring Program to Improve Laboratory Quality in Cambodia

From 2014 to 2016, the I-TECH Laboratory Systems Strengthening team recruited four laboratory technicians in Cambodia to be mentors and trained them in mentoring skills, laboratory quality management practices, and international requirements for medical laboratories. Separately, they trained staff from 12 referral hospital laboratories in laboratory quality management systems implementation using the laboratory quality stepwise implementation (LQSI) tool. The tool, translated into Khmer, included a set of quality improvement activities grouped into four phases for implementation with increasing complexity. An evaluation of these training approaches concluded that on-site mentoring of laboratories using a detailed action plan in the local language allows staff to learn the concepts of a quality management system, on the job and without disruption to laboratory service provision.

**SUCCESS HIGHLIGHT**

## Using Mobile Technology to Improve Provider and Patient Satisfaction in Zimbabwe

In 2017, I-TECH conducted a randomized controlled trial (RCT) using two-way texting (2wT) for post-operative follow up in Zimbabwe's voluntary medical male circumcision (VMMC) program. Using 2wT, I-TECH's approach reduced in-person visits by 85%, increased identification of complications, and cut follow-up costs, suggesting that 2wT could make a dramatic difference in VMMC programs operating at scale. Additionally, both patients and providers found the approach highly usable and acceptable. Based on the results, I-TECH is scaling up 2wT in Malawi and South Africa.

# I-TECH Leadership



## Pamela Kohler, PhD, MPH, BSN
### Co-Director, I-TECH

Pamela Kohler, PhD, MPH, BSN, co-directs I-TECH and holds a joint appointment in Child, Family, and Population Health Nursing, and the Department of Global Health. Her research involves development and testing of health services interventions to improve engagement in HIV care. At I-TECH, Dr. Kohler has led multiple evaluations of programs and policies throughout Eastern and Southern Africa, including HIV differentiated care, cervical cancer screening and treatment, and cryptococcol meningitis services. Dr. Kohler completed her nursing training at Johns Hopkins University, and worked clinically in HIV care and Emergency Departments. She holds a PhD in Nursing and an MPH in Health Services from the UW.

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## Ivonne Ximena Butler, MPH
### Co-Director, I-TECH

Ivonne X. Butler, MPH, is a public health professional with more than 20 years of experience in program leadership and management, capacity building, technical assistance, and living and working in diverse global environments. As the Co-Director focused on business and administration of the Center, she is responsible for strategic leadership, directions, and management of the I-TECH Center and network of country offices. Ms. Butler works closely with Dr. Kohler and the Core Faculty Advisory Group to facilitate and catalyze integration of clinical and technical expertise within and across I-TECH's program portfolio.

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## Acknowledgments

## Connect with I-TECH

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