

Unleashing digital health to save lives

PATH's approach to digital health solutions addresses common health system challenges in a uniquely effective way.

PATH is an international organization with four decades of experience driving innovation to save lives and improve health, especially among women and children. We are headquartered in Seattle, Washington, and have more than 1,400 employees and offices in 20 countries. We receive support from foundations, governments, multilateral agencies, nongovernmental organizations, universities, corporations, and individuals.

PATH works across five platforms—vaccines, drugs, diagnostics, devices, and system and service innovations—that harness our entrepreneurial insight, scientific and public health expertise, and passion for health equity. By mobilizing partners around the world, we take innovations to scale, working alongside countries primarily in Africa and Asia to tackle their greatest health needs. Together, we deliver measurable results that disrupt the cycle of poor health.

When the right information is in the right hands, every country can overcome its health challenges, and more people can get the care they need.

As part of our work to improve health system and service innovations, PATH's Digital Health Solutions (DHS) program works across health domains such as immunization, supply chain, maternal and child health, and insurance to identify and address information management needs and improve data-driven decision-making at the country and global levels. The DHS team marries the rigor of commercial software development practices with a deep understanding of the practical health challenges on the ground to ensure digital solutions meet user needs.



A health worker in Tanzania enters child immunization data into an electronic medical record. Credit: Brian Taliesin.

Over the past few decades, the number of digital innovations has exploded and fundamentally changed the way people engage with information and with one another. There are 7.3 billion mobile connections on the planet and thirty percent of the world's population has access to and uses the Internet. Asia accounts for half of all mobile-phone subscriptions, and use of digital technology in Africa is growing rapidly, with roughly 170 million Internet users. An estimated one billion users in Africa will access the Internet through low-cost mobile phones by 2050. These consumer trends, coupled with declining hardware and communications costs globally, offer a huge opportunity to use information and communications technology (ICT) as a tool to address long-standing issues in health services delivery.¹

Our work spans the entire software development lifecycle, from analysis of information systems to deployment and long-term use of those systems. We are dedicated to scaling appropriate and effective ICTs in low- and middle-income countries. Through

publications such as *Planning an Information Systems Project: A Toolkit for Public Health Managers*,² *The Journey to Scale: Moving together past digital health pilots*,¹ and others, we provide guidance to ministries of health, ICT companies, the global health sector, and donors to improve the design, development, interoperability, and implementation of health management information systems.

In many developing countries, digital health leaders are grappling with the fact that there are multiple legacy health information systems used to collect data for managing health care service delivery. They are struggling with how to link disparate information systems and harmonize many primary care projects that are often funded outside of the official health system—projects that collect data in slightly different ways, each in different systems.³

Information systems are essential to improving health outcomes because the ability for a country to care for all of its citizens depends upon the ability to identify those citizens, ensure they have access to health care, treat them when they are ill, and follow-up when needed. In turn, providers need to be paid, governments need to be able to track expenditures, and the health financing mechanism must remain solvent in order to care for all citizens. These “actions” all require information and data exchange,

whether paper or electronic-based. However, many health information system projects fail due to a disconnect between the priorities and understanding of the donors, developers, and providers of technical assistance with the interests of the actual users of the system.

Collaboration and user-centered design are the foundations of our work. Externally, we partner with national ministries of health to understand the challenges they face, reach national consensus on their priorities and features, and support development and deployment of scalable information and communications technology solutions that can be used by health workers at all levels of the system. Internally, we partner with our own global health programs to define and enable end-to-end digital health solutions (e.g., rapid reporting of malaria, human milk banking) to solve real problems with low-cost innovative solutions. We help build links between the world of global health and the discipline of ICT. We see our role as a catalyst in helping to develop the initial design and approach, creating prototypes of potential solutions, then encouraging the development of a private-sector market for the technology and the partnerships that enable technology development.

¹ Wilson K, Gertz B, Arenth B, Salisbury N. *The Journey to Scale: Moving together past digital health pilots*. Seattle: PATH; 2014. Available at: https://www.path.org/publications/files/TS_dhs_journey_to_scale.pdf.

² World Health Organization, PATH. *Planning an Information Systems Project: A Toolkit for Public Health Managers*. Seattle: PATH; 2013. Available at: http://www.path.org/publications/files/TS_opt_ict_toolkit.pdf.

³ Ritz D, Althausen C, Wilson K. *Connecting Health Information Systems for Better Health: Leveraging interoperability standards to link patient, provider, payor, and policymaker data*. Seattle, WA: PATH and Joint Learning Network for Universal Health Coverage; 2014. Available at: <http://www.path.org/publications/detail.php?i=2493>.