SUCCESS STORY
Transitioning From Paper to Digital Delivers Improved Health Services

Hun Thourida, one of The Lake Clinic's medical doctors, uses the open source electronic medical record system to save time to retrieve and review her patients' medical records.

Photo Credit: Development Innovations

Find out more about The Lake Clinic here:
https://www.lakeclinic.org

Find out more about Development Innovations' activities and services:
www.development-innovations.org

Telling Our Story
U.S. Agency for International Development
Washington, DC 20523-1000
http://stories.usaid.gov

Like many health care facilities in Cambodia, The Lake Clinic's five outposts (TLC) largely rely on paper-based record keeping for its patients. Located in the Tonle Sap Lake region, TLC opened in 2008 with the mission to provide quality health services to the area's remote floating communities who do not typically have access to medical care. With over 10,000 potential beneficiaries, TLC medical staff found that their reliance on paper-based record keeping greatly decreased the efficiency and efficacy of the care they were providing. One solution was to build an electronic medical records system (EMR), however, many of the available systems were unaffordable, proprietary or difficult to deploy for TLC's unique context.

In 2016, with support from USAID's Development Innovations, TLC was able to adapt an open source clinic management tool called OpenMRS for their team of nine medical professionals across five strategically located clinics. OpenMRS has been available as open source software since 2006 and had proven itself to be a ready to use system for outpatient and outreach clinics in resource constrained contexts like TLC's.

Alongside their tech service provider, Mekom Solutions, TLC was able to update the tech to work in tandem with the guidelines of the Royal Government of Cambodia's Ministry of Health. The software was then customized to fit TLC's needs related to terminology, codes and processes aligned to TLC's own systems.

The clinical team uses a mobile phone network to provide internet hotspots to connect to the system. An offline data entry system is being optimized so that information synchronizes with the database when wireless internet connections have been re-established.

Since going from paper to digital, the new EMR has allowed TLC's medical team to see more patients. "The digital system allows us to take only five to ten minutes to complete service delivery for each patient. Before, it was 15 minutes or more," commented Thourida Hun, TLC's Medical Doctor. Other staff, like TLC Program Manager Sovann Ouk, noted that much of this time was spent handling a patient's physical file. "Previously, it took around ten minutes just to find it and put it back," he notes.

The migratory nature of the region's floating communities also benefited from the introduction of the digital record system. "The EMR makes it easy to access information for patients who move between villages since it is centralized on the server," added Sovann. Continuity of care, which allows a patient's treatment or medical history to be easily accessed by medical professionals across time and place, is much more accurate and efficient when done using electronic systems.

Since the transition, gains have become obvious to TLC and the communities it served. Despite the small number of people involved in using the system, a much greater number benefit. Only TLC's nine clinical staff use the system, but over 10,000 of their beneficiaries receive more efficient care from the improved system.

Creating patient-centric information systems, like TLC's, is directly in line with the Ministry of Health's own goals of moving towards a more centralized health information system that will help support policy and advocacy efforts. By building information systems like this, TLC will also be able to review data and tailor its services better across its clinics as well as contribute to the Kingdom's own health information systems in the future.