

## case study ECHO AND EMR: USING TECHNOLOGY TO IMPROVE UGANDA'S HEALTH CARE

Strengthening client-centered health services with global, local, and virtual resources





ECHO orientation at Lira Health Center

### SCALING UP LOCAL RESOURCES WITH TECH

URC knows that localization and the cost effective scale up of integrated, client-centered health care requires technology. Local systems offer physical, educational, and social infrastructure for unlocking people's skills, commitment, and motivation to participate in improving their own health. Technology unlocks access to subject matter experts, data, knowledge transfer, and medical records. Extension for Community Healthcare Outcomes (ECHO), an online learning and mentoring platform, and EMR (electronic medical records), make expanding quality health care to hard-to-reach areas and populations as easy as logging in.

#### **EMR: CARE ANYWHERE**

EMR is an open-source medical records system that captures data in real time at each service delivery point. EMR has online and offline capabilities, allowing for the capture of data with or without the internet. URC has found that this flexibility enables:

- ► Reduced waiting with clear client flow systems
- Improved patient care and prompt follow up
- ► Enhanced quality of data collected and timely reporting
- ► Increased data utilization for improvement of service delivery

#### **EMR MAKES IT EASY**

"It is a point-of-care system that saves time because a client receives all services in one visit – vitals, viral load tests, drugs dispensing, and information queries."

Dora Kugonza, in-charge of records at the ART clinic, Katabi



Health facility EMR data entry screens refashioned for the UPDF.

# "ECHO has provided us with an opportunity to interact with experts."

Turyagenda Dennis, Kakiri Luwunga Health Center II

#### ECHO AND EMR IN UGANDA

The DoD HIV/AIDS Prevention Program (DHAPP) ECHO Program in Uganda promotes HIV/AIDS epidemic control and improved clinical outcomes for the Uganda People's Defense Force (UPDF) and its communities. It aims to improve access to care for military and community members with HIV/AIDS, address the needs of deployed and remote health care workers, expand training options, and improve access to quality care.

Logistically, the ECHO Program requires reliable internet connections, functioning computers, and quality data.

Based on Uganda's national EMR platform, UgandaEMR, URC supported implementation of a point-of-care (POC) EMR system for the UPDF to streamline client management, clinical documentation, data entry, and reporting within military health care facilities. With URC support, EMR is now scaled up at all the 31 military HIV antiretroviral therapy (ART) sites. This approach represents the highest level of interaction between the health care worker and the information system, and it requires that the interaction takes place during the clinic visit.

#### **ECHO: MOVING KNOWLEDGE, NOT PEOPLE**

ECHO is an online platform that operates as a knowledge learning loop between local, regional, national, and global subject matter experts (SMEs) and the community of practice. Teams discuss their cases, address common complex conditions, and share solutions.

By joining the ECHO community, URC has seen the following benefits to Uganda's communities of practice:

- Improved access to remote communities and decreased patient isolation
- Increased professional knowledge and sharing best practices
- ► Implemented workforce training
- Leveraged resources to provide cost effective care—reducing testing and travel

## UPDF + EMR + ECHO = EFFICIENT

- ► Data elements generated automatically from UgandaEMR were 100% complete and accurate.
- ➤ With EMR, only one staff member is required; manual generation requires four to six staff to complete data aggregation.
- ► ECHO provides access to SMEs who focus on military health care issues.
- On ECHO, UPDF can interact with other nation's military HIV/AIDS programs, sharing similar challenges, strategies, and solutions.

UgandaEMR and UPDF's ECHO program are aligned. They both need infrastructure, information, and interaction. They require computers, internet access, and health care workers to function. Together, UgandaEMR and Uganda's ECHO engagement localize integrated, client-centered health care.

#### CONCLUSION

Leveraging ECHO and EMR technologies is a sustainable approach in the ongoing scaling up and capacity-building of health care and its providers. ECHO improves quality of care through virtual training and mentoring for health workers. EMR improves quality of care by improving real time access to patient records and data. Together, they strengthen Ugandan health care.

#### **WORKING WITH URC**

URC has helped countries in Africa, Asia, Eastern Europe, and Latin and North America implement programs to create better health outcomes for underserved and vulnerable populations.

URC's work aims to:

- ▶ Scale up integrated health care with SMEs, local, technological and virtual resources
- ▶ Improve the quality, availability, and consistency of services and treatment
- Conduct research that helps us to carry out the most effective programs possible

If you share our approach and values, let's talk about coordinating our resources to manage HIV/AIDS.

If you share our approach and values, let's talk about scaling up HIV health services.

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