



*We Develop, Implement & Sustain*



## Mobile Health (mHealth) Kenya Evaluation Study Partnership

Cardno manages U.S. Centers for Disease Control and Prevention's (CDC) and the President's Emergency Plan for AIDS Relief's (PEPFAR) Office of the U.S. Global AIDS Coordinator and Health Diplomacy (S/GAC) inputs to the mHealth Kenya Evaluation Partnership.



### Overview

The mHealth Kenya Evaluation Study Partnership is tasked with conducting evaluation studies of three innovative mobile technology solutions developed by mHealth Kenya. mHealth Kenya, the organization, serves as a link between public and private organizations to support, improve, optimize, and sustain quality health services in Kenya. The projects under evaluation include:

1. Text for Life (T4L) – an SMS and web-based system that enables Kenya National Blood Transfusion Service to grow the Kenyan blood donor base;
2. Early Infant Diagnosis (EID) – a system using SMS printers to transmit laboratory data from regional reference laboratories to public health facilities and clinical care providers; and
3. Kenya Medical Supplies Authority (KEMSA) eMobile – a new mobile system for the ordering, tracking, and supply of health commodities.

**Partner:**  
mHealth Kenya Limited



**Sector:**  
Health

**Key Services:**  
> Contracts & Funds Management  
> Technical Review of Evaluation Design and Protocols  
> Communication & Knowledge Management  
> Monitoring, Evaluation, and Reporting



**Location:**  
Kenya



**Award Value:**  
US\$300,000

**Client:**  
U.S. Centers for Disease Control and Prevention (CDC), CDC Kenya



**Duration:**  
July 2015 – May 2019

## Three Studies, One Outcome – Improving the Health of Kenyans

### Text for Life Evaluation (T4L)

The T4L partnership was initiated in 2010 among the Kenya National Blood Transfusion Service (KNBTS), Bloodlink Foundation, CDC, and mHealth Kenya. This partnership produced the first blood donor database in Kenya. This SMS and web-based system was designed to enable KNBTS to grow the Kenyan blood donor base by enhancing its ability to reach out to, engage with, and convert a wider audience of potential and eligible blood donors, as well as maintain existing blood donors. The key findings from the evaluation are:

- Increased availability of safe blood
  - > Safe blood units collected increased from 155,606 in 2012 to 182,952 in 2014
  - > T4L contributed to collection of 663,008 total blood units from 2012 to 2015
- Increased blood donor recruitment
  - > 9,021 donation sessions between 2013 to 2015
- Improved retention of blood donors
  - > 21% were repeat donors from 2013 to 2015
- Improved emergency blood appeals and responsiveness
  - > Highest number of blood donations documented in September 2013 (Westgate Mall terror attack) and April 2015 (Garissa University terror attack)
  - > Emergency blood appeal SMS sent in September 2013 reached 12,829 blood donors
- Increased identification and referral to care and treatment of HIV positive donors
  - > 0.62% in 2014 from 0.53% in 2012.

### Kenya Medical Supplies Authority (KEMSA) eMobile

The evaluation is aimed at conducting a comparative analysis to determine:

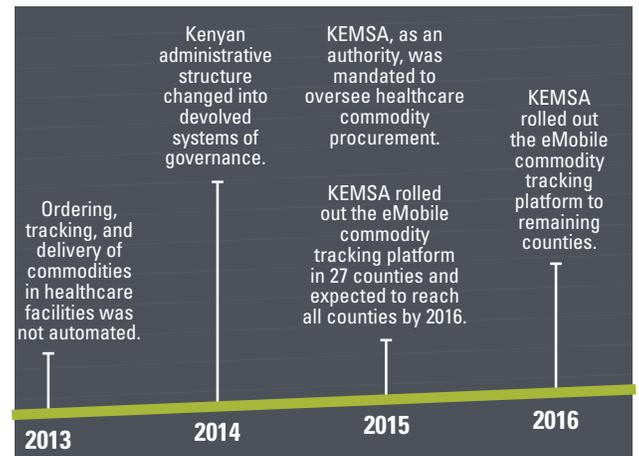
- efficiencies in time and transparency gained by implementing a new mobile system for the ordering, tracking, and supply of health commodities from KEMSA to healthcare facilities;
- impact on improving the efficiency of KEMSA supply chain management through mobile solutions.

This innovation included the use of mobile phone technology to help in ordering, managing, and tracking health commodities (from KEMSA warehouses to delivery at health facilities, and facility staff ordering commodities from KEMSA at the facility level).

### Early Infant Diagnosis (EID)

The evaluation will examine the turnaround time of receiving the EID lab results using SMS printers to transmit laboratory data from regional reference labs to public health facilities and clinical care providers. The standalone SMS printers were identified as solution to reduce turnaround times of up to 60 days. They are customized to receive and print EID results (e.g., polymerase chain reaction (PCR) results) from the testing labs to printers in remote facilities via the Global System for Mobile Communications network for SMS or GPRS network for data. Through mHealth Kenya and Clinton Health Access Initiative, SMS printers were installed nationally in 342 health facilities out of a total of approximately 2,523 health facilities offering antiretroviral therapy (ART) services in 36 counties. This evaluation will review routine Ministry of Health reference lab and National AIDS & STI Control Programme health facility DNA PCR data to determine the effect of this technology on delivering results and reducing turnaround time.

### Brief History of Healthcare Commodity Tracking



### Way Forward

The EID and KEMSA protocols received technical approval from the CDC Atlanta Associate Director of Science and local ethics approval from the University of Nairobi/Kenyatta Hospital Ethical Review Committee.

**For more information contact Cardno:**

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