The history of digital Health in Tanzania and the improvement of *quality health care*

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D-Tree International

Introduction

- 90 per cent of the world's population has access to mobile phone networks.
- Of the world regions, the African mobile phone market has the highest growth rate.
- The exponential increase in mobile phone use on the continent has inspired a new industry of health-related electronic applications and programmes for mobile phones, ranging from tools for data collection, public health education and communication, to specialized diagnostic tools.

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Digital health

- Digital health, also known as mHealth/eHealth, is the use of ICTs to improve human health, health systems, health services and wellness for the individuals and across populations.
- Tanzania is setting the stage worldwide for integrating eHealth as a component of the national health system.
- In 2009 the eHealth Community of Practice Group (CoP) was established as an official working group
- In 2011, Tanzania began developing a global first – National mHealth Strategy.

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Digital Health Tanzania Partnership

- Innovative public-private-partnership, working closely with the Ministry of Health Community Development Gender Elderly and Children Tanzania, USG CDC, and numerous Tanzanian and international public and private sector partners

- Convenes multiple sectors, combining expertise and resources to implement sustainable and scalable public health programs that leverage the booming mobile phone infrastructure in Tanzania

The partnership

- Scale nationally, mobile-centric information solutions that leverage mobile phones primarily, as well as PCs, smart phones, the web, and fixed line phone
- Work in concert with initiatives underway in the MOHCDGEC and COSTECH, including integration with the national enterprise architecture
- Leverage expanding private sector interest in ‘digitalHealth’’ to develop long-term sustainable PPPs
- Collaborate with other governmental and non-governmental implementing partners

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Tanzania mHealth Community of Practice

- Over 90 members from over 30 organizations across government, industry and non governmental sector
- Co-chaired by Ministry of Health Community Development Gender Elderly and children and D-tree International
- Quarterly meetings and 4 technical working groups
- Share experiences and challenges and identify potential collaborations

TANZANIA mHealth Community of Practice

- http://groups.google.com/group/tanzania-mhealth

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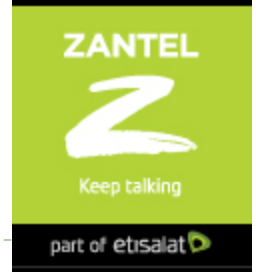
COSTECH
TANZANIA COMMISSION FOR SCIENCE AND TECHNOLOGY

fhi360
THE SCIENCE OF IMPROVING LIVES

COMPREHENSIVE COMMUNITY BASED REHABILITATION IN TANZANIA
CCBRT


ZANTEL
Keep talking
part of etisalat

AfyaPro

tigo

giz

HEKIMA NI UHURU

D-TREE INTERNATIONAL

ihi
IFAKARA HEALTH INSTITUTE
research | training | services

vodacom

UHURU
NA
UMOJA

UNIVERSITAS OSLOENSIS
MDCCCXI

psi

Pathfinder
INTERNATIONAL

ITIDO

Deloitte.

EngenderHealth
for a better life

JSI

TANZANIA
mHealth
Community of Practice

HEALTH
Tanzania
PUBLIC PRIVATE PARTNERSHIP

MEDA

Association of Private Health Facilities in Tanzania

Femina
HIP

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

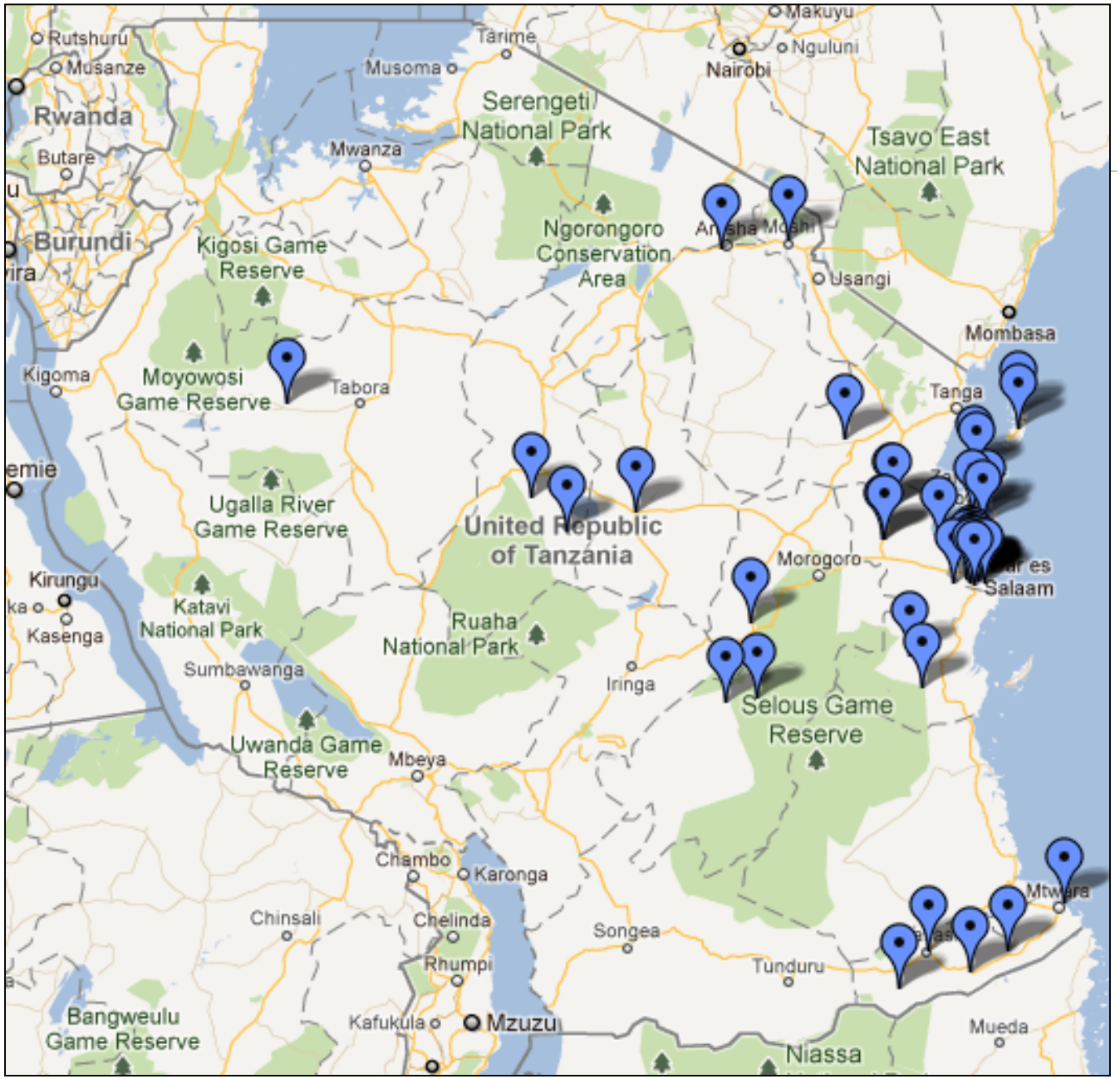
USAID

USAID
FROM THE AMERICAN PEOPLE

Jhpiego
an affiliate of Johns Hopkins University

Christian Social Services Commission
CSSC

UNFPA
INTERNATIONAL



- Disease surveillance
- Logistics
- Telemedicine
- Clinical decision support
- Health messaging
- Community Health workers
- Mobile money
- More!

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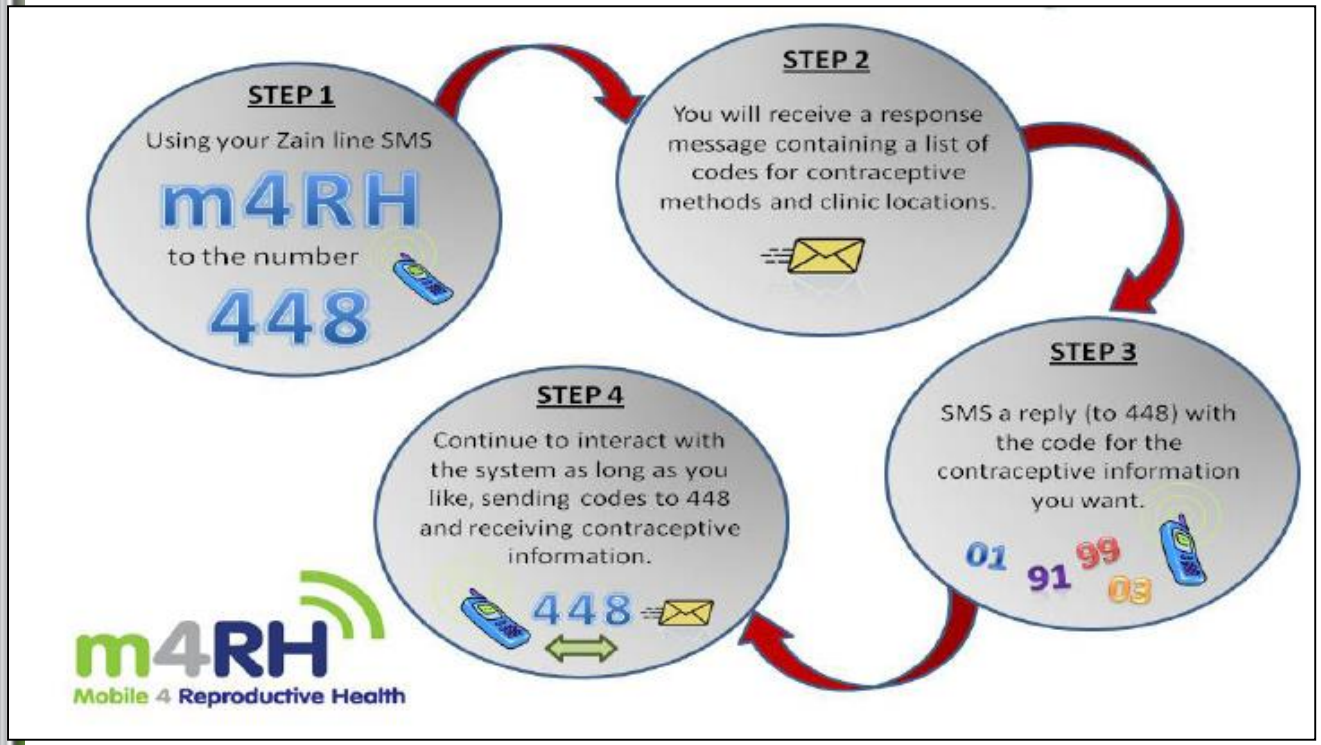
Direct to client communications



Clinical Decision Support

ODK Collect > Zanzibar SAM Clinical Exam

Does the child have a cough?

- yes
- no

ODK Collect > Zanzibar SAM Clinical Exam

Is there chest indrawing?

- yes
- no

ODK Collect > Zanzibar SAM Clinical Exam

This child should be referred to PHCC/hospital for treatment IMMEDIATELY

Acknowledge

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Integrated Disease Surveillance and response

- Health facility workers report disease surveillance data by making a free call from the field using any mobile phone
- Diseases reported follow WHO standards:
  - Diseases of Public Health Importance
  - Epidemic-prone Diseases
  - Diseases Targeted for Eradication / Elimination
- Real-time SMS & email alerts are generated by the system for follow-up and action

Other reporting System uses by MOHCDGEC

- Integrated logistics system (ILS)
- District health Information System (DHIS2)
- Care and treatment Clinic Database (CTC2)
- Electronic Tuberculosis and Leprosy Reporting System (ETBLR) System (underdevelopment)
- Electronic Medical record (EMR) (underdevelopment through funds from Bill and Mellinda)

"SMS for Life"

Improving medicine access through innovation

Problem Local shortages of anti-malaria medicines at health facilities in sub-Saharan Africa because of poor inventory systems with no visibility of stocks.

Solution A combination of mobile phones, SMS messages and electronic mapping technology used to track weekly stock levels and the distribution of inventory by district medical managers.

Impact The SMS for Life system provided visibility of accurate anti-malarial stock levels at the health facilities, and district management reacted with a significant reduction in stock-outs. At the start of the pilot, 26% of all health facilities had no malaria medicines of any dose type. By the end of the pilot this stock-out rate had been reduced to just 0.8%, almost full availability.

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Example of ongoing Inspirational digitalHealth project

- Since 2009, UNFPA in Tanzania has been partnering with Comprehensive Community-Based Rehabilitation in Tanzania (CCBRT) Disability Hospital on the Mpesa Fistula Ambassador Programme.
- The project has been tremendously successful in increasing access by women suffering from fistula to life changing surgery at CCBRT. Using Vodacom's M-PESA mobile-to-mobile banking technology, money is sent to women with fistula to cover the cost of their transport to CCBRT Disability Hospital in Dar es Salaam

Mobile money to facilitate care

Community Health Workers

- Over 250 HBCPs in Dar using mobile phones to provide care
- Reminder option for pending referrals and visits to clients
- Supervisors Update and reminders for overdue visits (SMS)

Pathfinder INTERNATIONAL

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Tanzania National digital Health Vision

mHealth in Tanzania, driven by the general public, will improve healthcare outcomes throughout the nation. Specifically, mHealth will be:

- Impactful
- Sustainable
- Scalable
- Secure
- Transparent
- Coordinated
- Innovative

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Challenges Identified from other digital health interventions

- Scale up
- Lack of Data Standards/Interoperability
- Trust
- Knowledge Gap
- Communication
- Privacy and Security
- Lack of private sector incentives
- Infrastructure: power and network coverage
- Funding
- MoHSW Procurement
- Human Resources Gap
- Managing Collaboration
- Phone Adoption

D-Tree International

Tusen Takk
Ahsanteni

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