

Digital Health for Overcoming Barriers to Ending Preventable Child and Maternal Deaths and Achieving Universal Health Coverage

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What have we learned?

More Subs per minute than babies



71



406

SITUAÇÃO ACTUAL DA TELEFONIA MÓVEL

13.3 milhões
ligações moveis

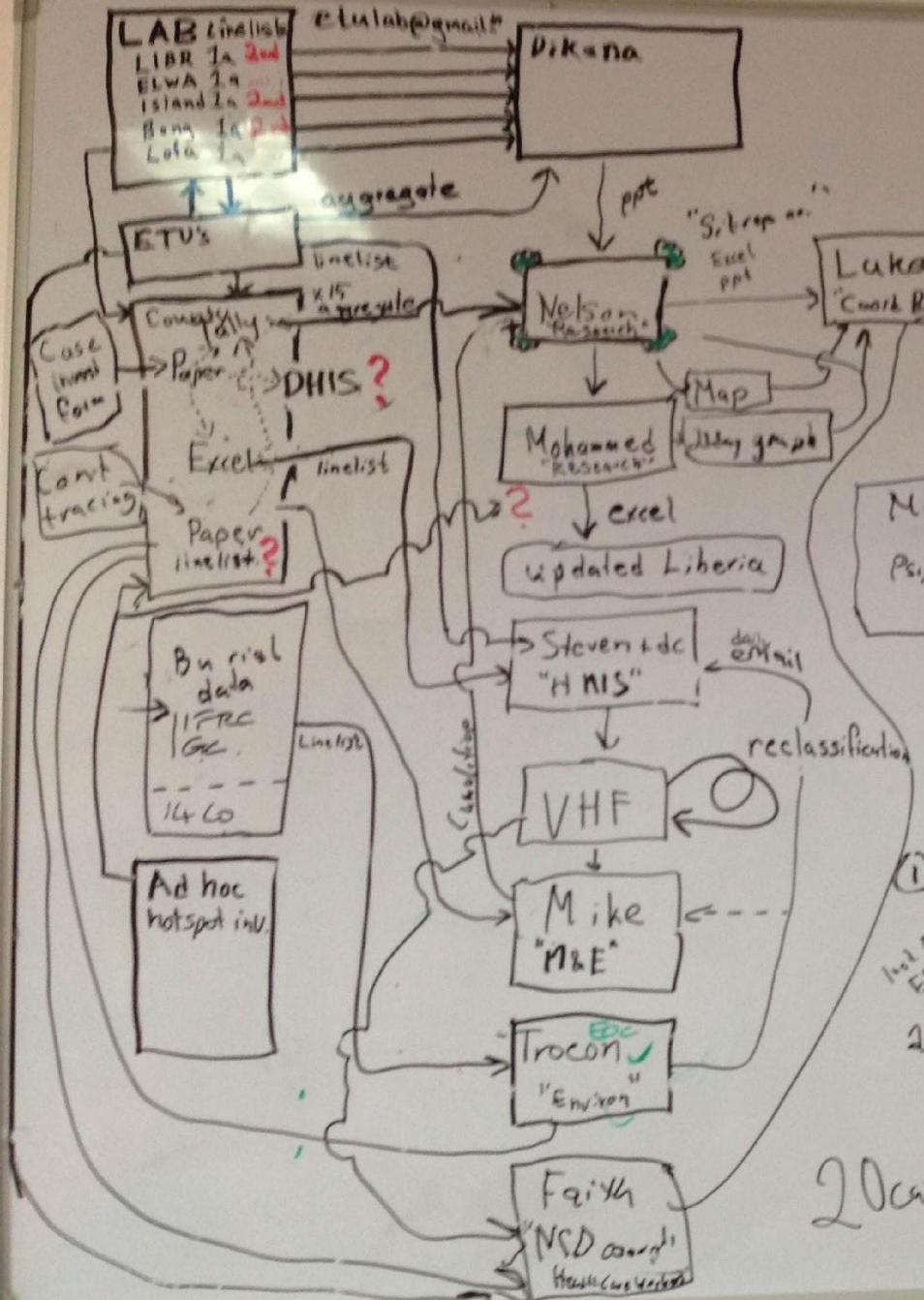
98% serviços
moveis prepagos

24 milhões de
população

91% das familias
urbanas com
acceso,
e 28% das rurais

1,600 milhões de
dólares de
investimento em
Telecomunicações
entre 2013 e 2017

61%
Penetração
SIM



PRIORITY

1. Assign pos lab results to countries

Done

- 1 Line 1st Lab Done
- 2 " " " ETU Not Done
- 3 " " County Case Finding Not Done
- 4 " " County burial team Not Done
- 5 Storage place, Google Drive! Done

2. Separate pos lab results by DEAD/ALIVE

3. List and Map Hotspots /outbreak to Saturday cases Rapid response

4. % new confirmed cases on contact monitoring lists.

5a Geotime viz format aggregate
5b Map each case!

- ① Expand MoHSW Ebola Epicenter team
 - 1) Budget
 - 2) Space
 - 3) National staff

2. DHIS and/or Excel + phone!



$$20 \text{ cas} \times 20 = 400 + 10 = 4000$$

eHEALTH STRATEGY & HEALTH SYSTEM



Health System

Mobile
Training
Apps

Data
Collect
ion

Mobile
money for
CCT

Mobil
e for
NHIS

Mobile for
RMNCH
demand
generation

eHealth Strategy

Governance & Leadership | Infrastructure | Services &
Applications | Strategy & Investment | Standards &
Interoperability | Legislation, Compliance & Policy | Workforce



Kenya M-health innovations

I(kenya (·)

Jamii Smart



Center For
Health Market Innovations
Identify. Analyze. Connect.



USAID
FROM THE AMERICAN PEOPLE

APHIA Plus

MHMtaani



one2one Youth Hotline



Successes since Addis Ababa (1II)

- Selected Developments in mHealth:
 - cStock - Scaled up to all Village Clinics in Mw
 - Chipatala Cha Pa Foni (Health Center by Phone)
 - mHealth Triage Intervention (ETAT)
 - CBMNH & CCM
 - Facility IMCI
 - Dial a Doctor
 - SMART
 - Mobile Order Entry Laboratory Information System
 - DHIS Mobile



Challenges



- Network reliability: SMS messages that run through third party aggregators generally get deprioritized against person-person messages. This can lead to long message queues and delays.
- Lack of centralised/regional support for repair of devices such as computers, modems that are distributed and used across the country
- Lack of clear understanding of human resource capacity gaps at different levels including community health workers
- Misuse by some malicious users of the anonymous hotline
- Data use by recipients/decision makers is still limited and this demotivated the data collectors.
- Limited investment in measuring impact on health outcomes over all.



Lessons Learnt



- Government leadership is key in the alignment, scale up and sustainability of ehealth/mhealth initiatives
- Strengthening existing processes is often less disruptive, and is an easier entry point when introducing new technologies. Avoid introducing new processes, workflows or data collection needs
- There should be careful assessment of implications for additional training support, system management, repair and maintenance of devices and power (either solar or grid).
- Surveillance data useful beyond just timely data. Example of CHW in Kotido - data showed increase in pneumonia cases. Surveillance team found VHTs were actually mis-diagnosing the disease. Organized a refresher training.

LESSONS LEARNT

- Government buy-in is essential
- Political will is required
- Multi-stakeholder involvement is critical
- *Intra-governmental* synergy is mandatory
- Leveraging on existing data is fundamental
- Human capital development is a



Demand generation /sms



JSI Research & Training Institute, Inc.



THE SOLUTION: mTrain

The development of a mobile phone-based learning application is to address these challenges.



The image shows a laptop displaying a web-based dashboard for the RBF Santé region Sud Kivu. The dashboard features a map of the region with data overlays, a header with logos and navigation links, and various performance metrics.

Header:

- RBF Santé région Sud Kivu
- dev.bluesquare.org/skvsante-newfrontend/data/showzone/2/2
- GESTION
- Cordaid
- FBR SANTÉ
- MINISTÈRE DE LA SANTÉ DE RDC @ SUD KIVU
- Actualités
- A propos

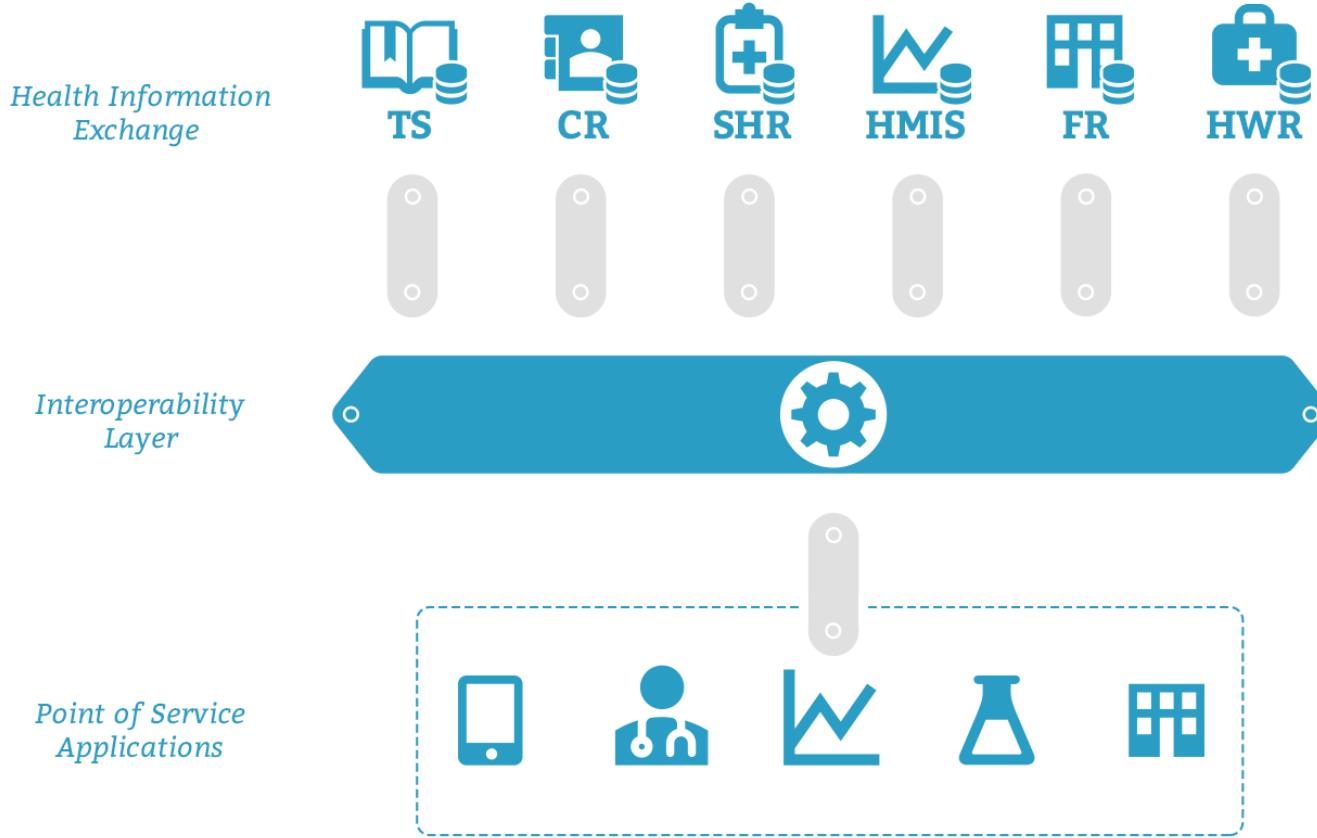
Map: A map of the Sud Kivu region showing administrative boundaries. Overlays indicate the number of entities (10, 20, or 40) and the percentage of target population reached (30% or 70%) across different areas.

Population Metrics (QIII 2014):

- BÉNÉFICIAIRES: 723 328
- Enfants < 1 an: 70%
- Enfants 1-5 ans: 30%
- Accouchements attendus: 70%
- QUALITÉ: 82%
- SATISFACTION: 67%

Results (QIII 2014):

- 112 345 ENFANTS < 1 AN VACCINÉS
- 23 650 PF: NOUVELLES ACCEPTANTES
- 8765 ACCOUCHEMENT ASSISTÉ
- 10 651 CONSULTATION SSR
- 233 650 CONSULTATION CURATIVE

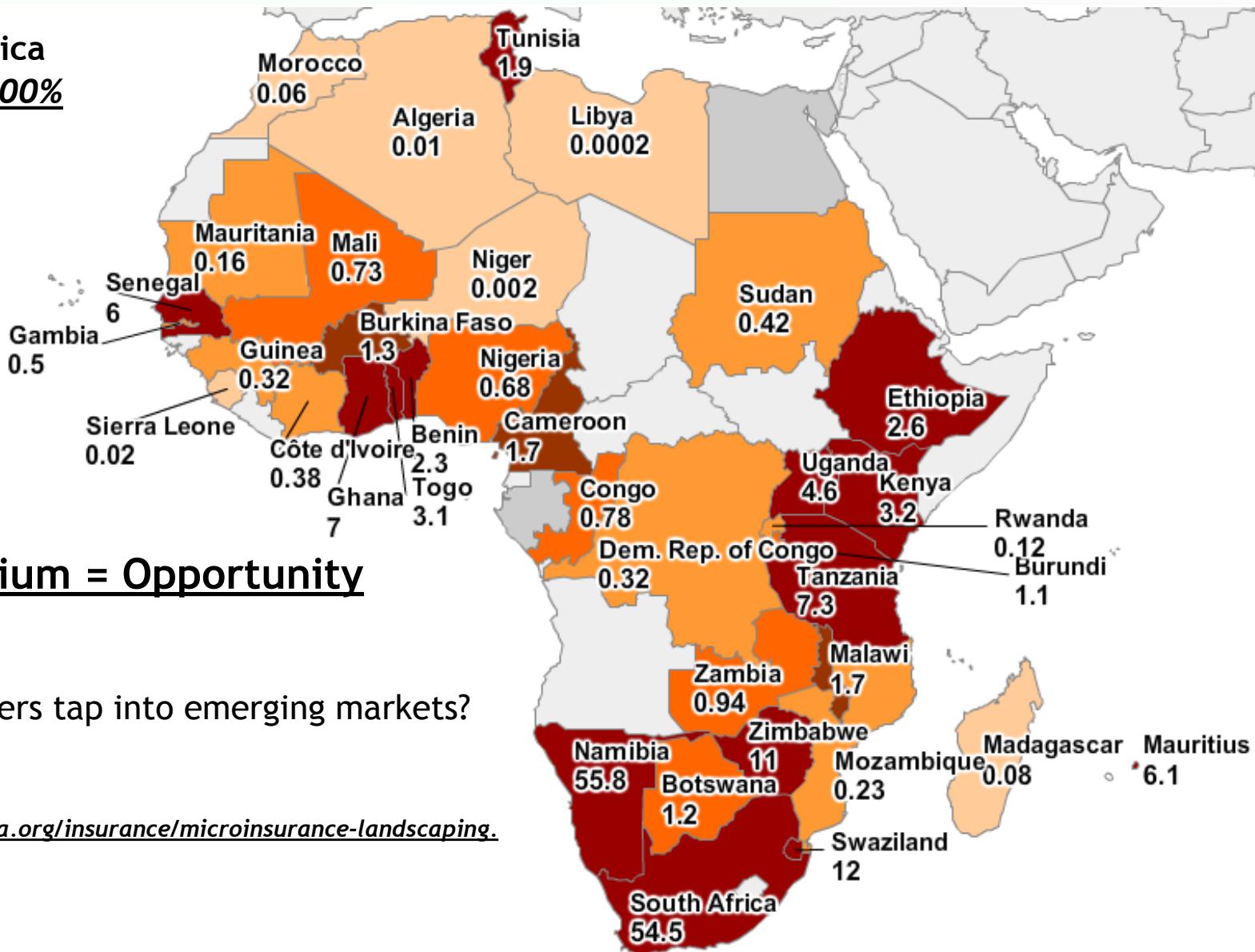


OpenHIE (www.ohie.org)

Improving health for the underserved

The Micro Insurance Boom in Africa

Growth in Africa
2010-2012: 200%

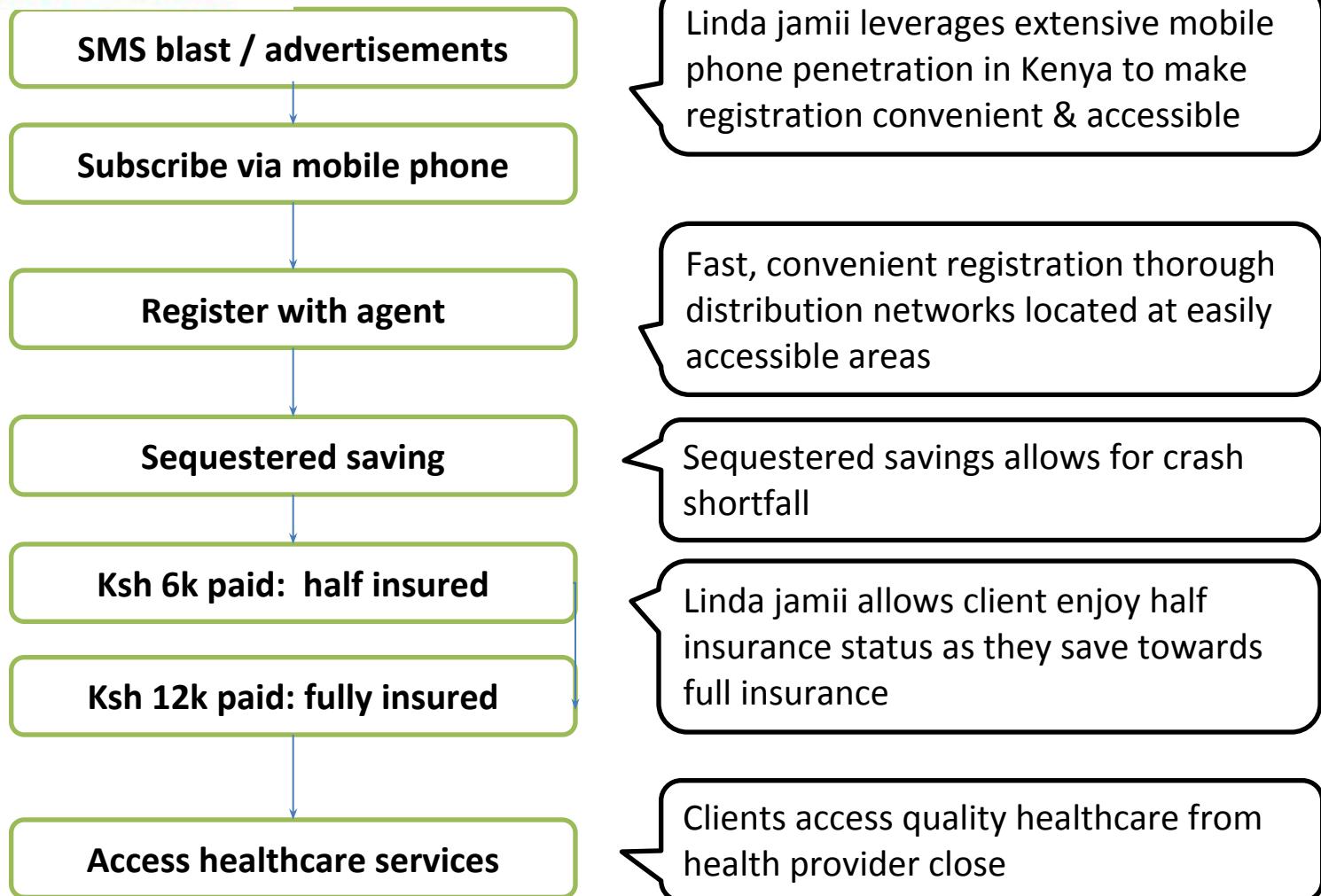


Disequilibrium = Opportunity

How can insurers tap into emerging markets?

Source: www.mfw4a.org/insurance/microinsurance-landscaping.html

Savings for insurance: mobile phone based MicroInsurance



Mobile Health Wallet: risk-sharing for health via the transfer of conditional mobile money

1

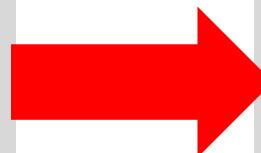
\$ in

- Private contribution
 - Subscriber (e.g. health savings)
 - (inter)national remittance
 - “Harambee” (fundraiser)
 - Private insurance
- Donor-funded benefits
- Government-funded benefits

2

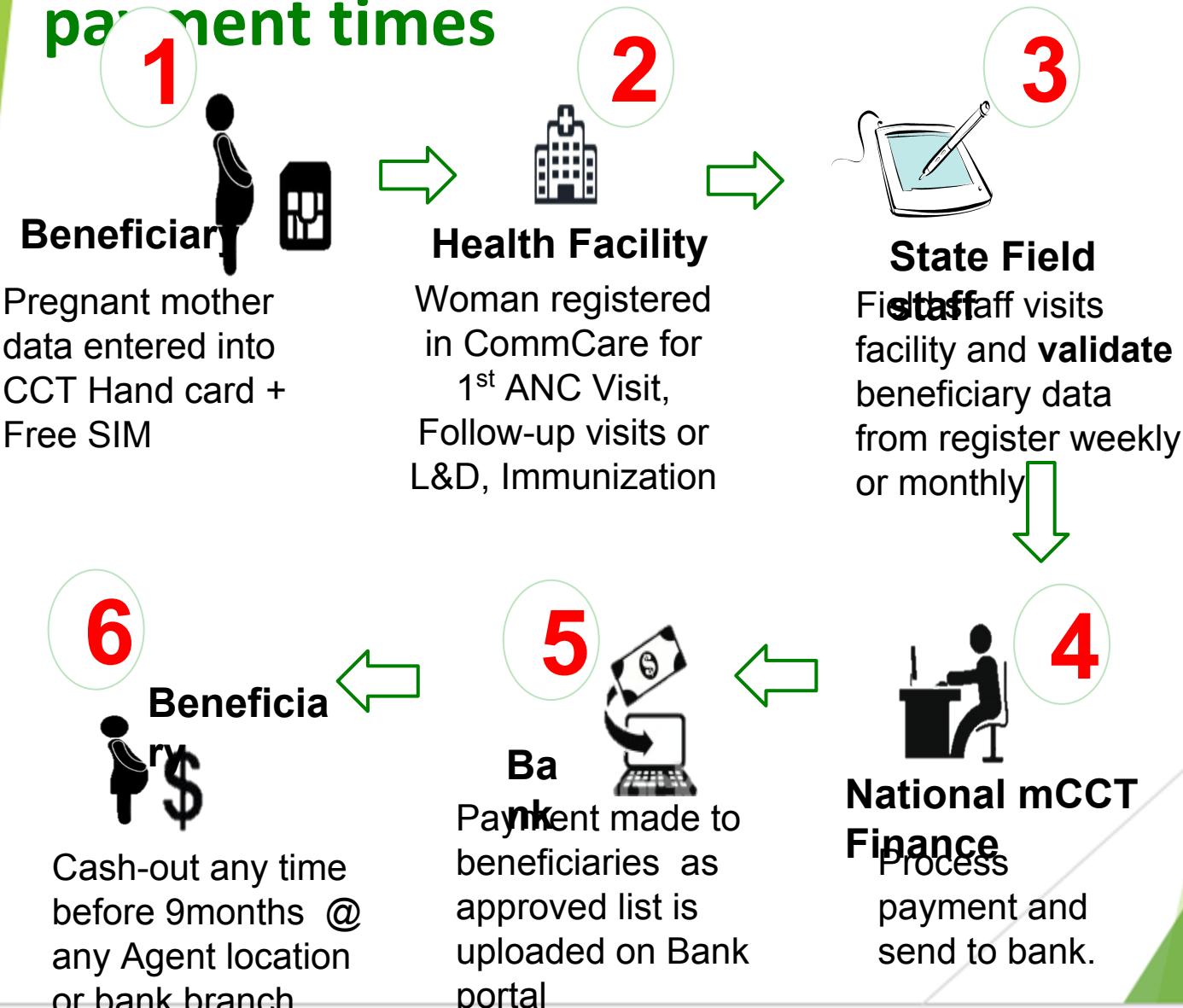
\$ out

- Restricted money transfer, e.g:
 - disease-specific
 - income group-specific
 - location-specific
- Contracted healthcare providers
- Quality assurance included
- Medical data collected with every transaction



Empowering the patient to make her own choices

The mCCT pilot was successful in reducing reporting, verification and payment times



How we use mobile money



- Transfer funds from D-tree to Community Health Worker (CHW) accounts
- CHW organizes transportation and pays drivers from account using mobile money
- CHW withdraws their incentive at end of month
- Audit transactions using application records, mobile money accounts and sign-in books at health facilities

VILLAGE REACH®



Starting at the Last Mile



MEDIC MOBILE™
MAMA

Mobile Alliance for Maternal Action

mHub



Baobab
Health



Enabling Technologies

Technologies

1. Unmanned aerial vehicles



2. Smart RFID



3. Smart delivery devices



Enabling:

Transformation of the supply chain

- UAV-based transport to hard-to-access locations
- Wireless ID and temperature history

Robust data collection

- Inventory management system tied in to point of care in real time
- Identify patients
- Record treatment type and capture administration

Faster transfer of patient samples

- UAV-based transport to higher-level testing facilities

CliniPAK COUNTRY IMPLEMENTATION - an effective demonstration of Public Private Partnership



**NPHCDA MSS/SURE P
MCH**
- Project Owner



Platform



Developer



Management

In partnership with



The GSMA Mobile for Development mHealth programme currently operates the mNutrition Initiative in Sub-Saharan Africa

Supporting Millennium Development Goals 4, 5 and 6 and is closely aligned to the UN's Every Woman Every Child Initiative, Scaling Up Nutrition (SUN) and the Global Nutrition for Growth Compact

Funders



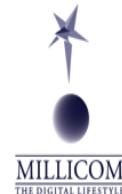
Research Partners



Content Consortium



Committed Partners



Provide customized solutions based on the cultural and environmental trends

Solution Generation



Using **our know-how** to provide the best solutions

Our experience basket

Quiz

SMS Quiz
Voice Quiz
Data Quiz

IVR

Data Collection

Push Messaging

USSD

Orange Money

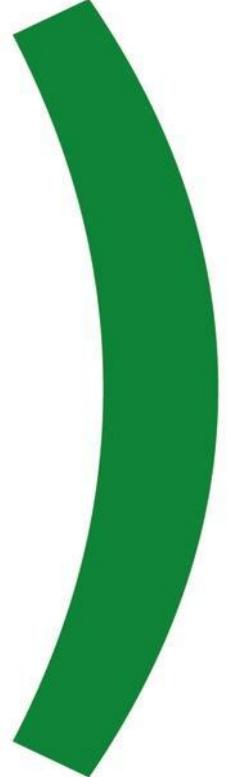
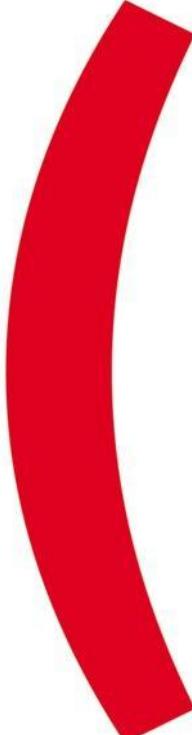
Virtual Call Center



Generating a solution using our professional experience and personalizing it to the country's characteristics

Benefiting also from the support of the multiple work groups we belong to, like M-education and informal group AFD, UNESCO, AUF





Critical outcomes of the partnership model

- Improved access to and use of information for better planning, resource allocation and policy development
- Standardization of applications
- Avoidance of duplication
- Enhanced service delivery
- Readily available local technical support

Improved health outcomes

Kenya (•)

Where
do we go from here?

Work together to strengthen country ownership and governance for Digital Health

Policies, strategies and regulatory frameworks

Strengthen basic building blocks

Enterprise architecture and data standards

Ensure interoperability of solutions

Human resources development

Strengthen human capacity for effectively managing Digital Health solutions at the country level

Work together to achieve economies of scale

Hardware

As digital devices become essential pieces of medical equipment, MOHs should be able to procure them through global channels

Software

Open-source software provides a leveraged return on investment, but requires support for the core

Services

By working with MNOs and other partners, services can be more rapidly scaled up within a country and scaled out to additional countries

Work together to strengthen knowledge-sharing and collaboration

Global Digital Health commons

Sites like mHealthKnowledge.org and
mHealthEvidence.org

Country-level communities of practice

Digital Health working groups led by the MOH

Regional communities of practice

Regional networks like ANDH, HealthE Africa, Acfee

Work together to develop and implement a Digital Health learning agenda

Effectiveness at scale

Impact on access, quality and efficiency at scale

Cost-effectiveness

Compared to traditional approaches

Vertical health interventions

PMTCT, skilled birth attendance, etc.

Cross-cutting health systems interventions

Health finance, training and supervision, etc.

Working together isn't always easy



Common Gives and Gets

Gives Gets

Passion Scale

Expertise Quality

IMPACT



KEEP
CALM
AND
WORK
TOGETHER

Digital Health Africa Summit

Digital Health Africa Summit

More: countries
donors
implementers
innovation hubs
universities
private partners



MERCI! OBRIGADO!
THANK YOU!