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Maternal and Child Survival Program

MCSP Digital Health Showcase

December 12, 2018

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Maternal and Child Survival Program

Digital Health at MCSP

Steve Ollis, Senior Digital Health Advisor
December 12, 2018

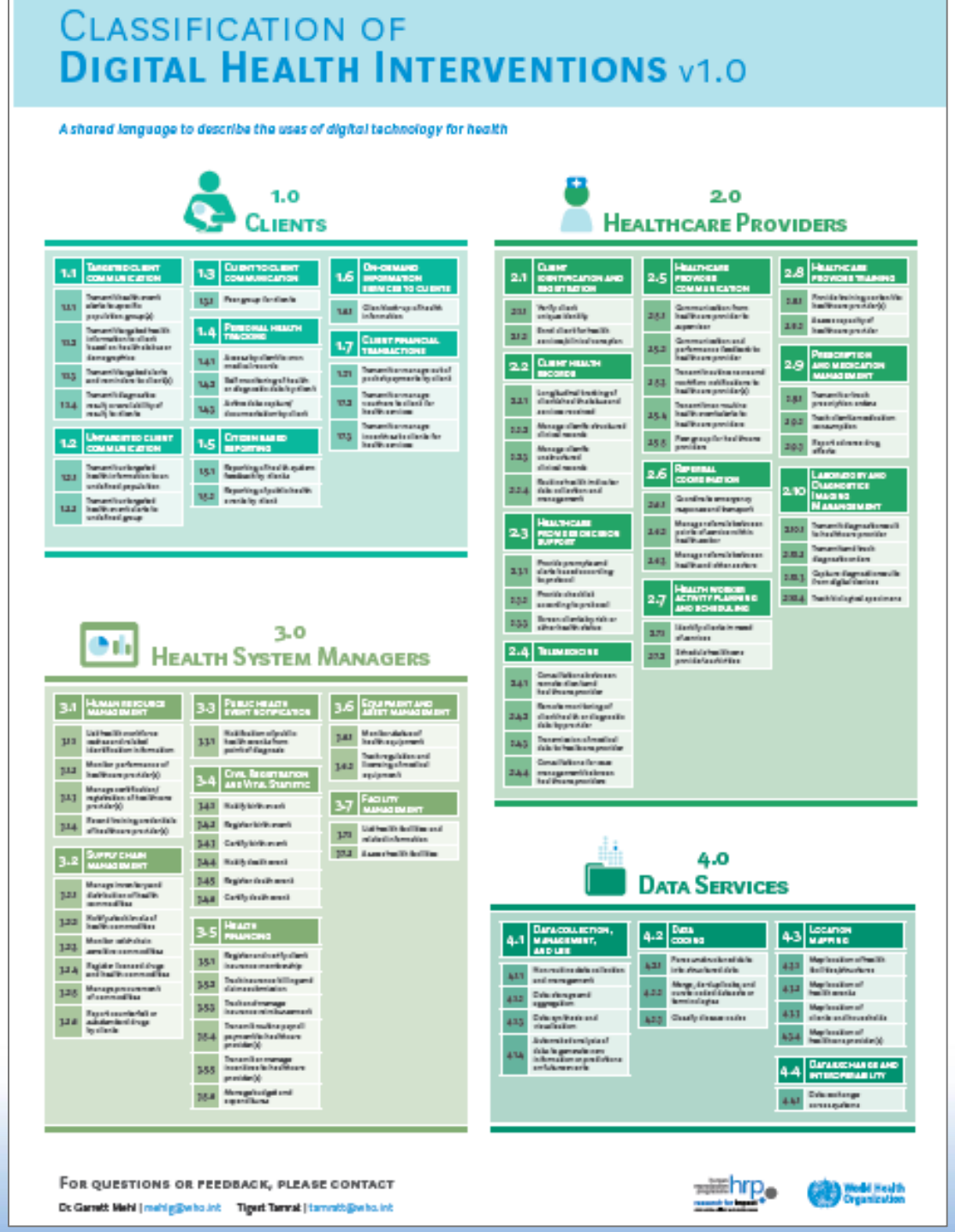
Agenda

- Digital Health background
- Digital Health at MCSP
- Global Goods supported

What is Digital Health?

- Digital Health, eHealth: Umbrella terms to encompass all concepts and activities at the intersection of health and information and communications technologies (ICTs), and encompassing three main functions:
  - the delivery of health information, for health professionals and health consumers,
  - the use of ICTs to improve public health services and
  - the use of health information systems (HIS) to capture, store, manage or transmit information on patient health or health facility activities.

*Broadband Commission Working Group on Digital final report "**Digital Health: A call for Government Leadership and Cooperation between ICT and Health"***



http://www.who.int/reproductivehealth/publications/mhealth/classification-digital-health-interventions/en/

Health System Challenges

1 Information

- 1.1 Lack of population denominator
- 1.2 Delayed reporting of events
- 1.3 Lack of quality/ reliable data
- 1.4 Communication roadblocks
- 1.5 Lack of access to information or data
- 1.6 Insufficient utilization of data and information
- 1.7 Lack of unique identifier

2 Availability

- 2.1 Insufficient supply of commodities
- 2.2 Insufficient supply of services
- 2.3 Insufficient supply of equipment
- 2.4 Insufficient supply of qualified health workers

3 Quality

- 3.1 Poor patient experience
- 3.2 Insufficient health worker competence
- 3.3 Low quality health commodities
- 3.4 Low health worker motivation
- 3.5 Insufficient continuity of care
- 3.6 Inadequate supportive supervision
- 3.7 Poor adherence to guidelines

4 Acceptability

- 4.1 Lack of alignment with local norms
- 4.2 Programs which do not address individual beliefs and practices

5 Utilization

- 5.1 Low demand for services
- 5.2 Geographic inaccessibility
- 5.3 Low adherence to treatments
- 5.4 Loss to follow up

6 Efficiency

- 6.1 Inadequate workflow management
- 6.2 Lack of or inappropriate referrals
- 6.3 Poor planning and coordination
- 6.4 Delayed provision of care
- 6.5 Inadequate access to transportation

7 Cost

- 7.1 High cost of manual processes
- 7.2 Lack of effective resource allocation
- 7.3 Client-side expenses
- 7.4 Lack of coordinated payer mechanism

8 Accountability

- 8.1 Insufficient patient engagement
- 8.2 Unaware of service entitlement
- 8.3 Absence of community feedback mechanisms
- 8.4 Lack of transparency in commodity transactions
- 8.5 Poor accountability between the levels of the health sector
- 8.6 Inadequate understanding of beneficiary populations

1.0 CLIENTS

1.1 TARGETED CLIENT COMMUNICATION

1.1.1	Transmit health event alerts to specific population group(s)
1.1.2	Transmit targeted health information to client based on health status or demographics
1.1.3	Transmit targeted alerts and reminders to client(s)
1.1.4	Transmit diagnostics result, or availability of result, to clients

1.2 UNTARGETED CLIENT COMMUNICATION

1.2.1	Transmit untargeted health information to an undefined population
1.2.2	Transmit untargeted health event alerts to undefined group

1.3 CLIENT TO CLIENT COMMUNICATION

1.3.1	Peer group for clients

1.4 PERSONAL HEALTH TRACKING

1.4.1	Access by client to own medical records
1.4.2	Self monitoring of health or diagnostic data by client
1.4.3	Active data capture/ documentation by client

1.5 CITIZEN BASED REPORTING

1.5.1	Reporting of health system feedback by clients
1.5.2	Reporting of public health events by client

1.6 ON-DEMAND INFORMATION SERVICES TO CLIENTS

1.6.1	Client look-up of health information

1.7 CLIENT FINANCIAL TRANSACTIONS

1.7.1	Transmit or manage out of pocket payments by client
1.7.2	Transmit or manage vouchers to client for health services
1.7.3	Transmit or manage incentives to clients for health services

2.0 HEALTHCARE PROVIDERS

2.1 CLIENT IDENTIFICATION AND REGISTRATION

- 2.1.1 Verify client unique identity
- 2.1.2 Enrol client for health services/clinical care plan

2.2 CLIENT HEALTH RECORDS

- 2.2.1 Longitudinal tracking of client's health status and services received
- 2.2.2 Manage client's structured clinical records
- 2.2.3 Manage client's unstructured clinical records
- 2.2.4 Routine health indicator data collection and management

2.3 HEALTHCARE PROVIDER DECISION SUPPORT

- 2.3.1 Provide prompts and alerts based according to protocol
- 2.3.2 Provide checklist according to protocol
- 2.3.3 Screen clients by risk or other health status

2.4 TELEMEDICINE

- 2.4.1 Consultations between remote client and healthcare provider
- 2.4.2 Remote monitoring of client health or diagnostic data by provider
- 2.4.3 Transmission of medical data to healtcare provider
- 2.4.4 Consultations for case management between healthcare providers

2.5 HEALTHCARE PROVIDER COMMUNICATION

- 2.5.1 Communication from healthcare provider to supervisor
- 2.5.2 Communication and performance feedback to healthcare provider
- 2.5.3 Transmit routine news and workflow notifications to healthcare provider(s)
- 2.5.4 Transmit non-routine health event alerts to healthcare providers
- 2.5.5 Peer group for healthcare providers

2.6 REFERRAL COORDINATION

- 2.6.1 Coordinate emergency response and transport
- 2.6.2 Manage referrals between points of service within health sector
- 2.6.3 Manage referrals between health and other sectors

2.7 HEALTH WORKER ACTIVITY PLANNING AND SCHEDULING

- 2.7.1 Identify clients in need of services
- 2.7.2 Schedule healthcare provider's activities

2.8 HEALTHCARE PROVIDER TRAINING

- 2.8.1 Provide training content to healthcare provider(s)
- 2.8.2 Assess capacity of healthcare provider

2.9 PRESCRIPTION AND MEDICATION MANAGEMENT

- 2.9.1 Transmit or track prescription orders
- 2.9.2 Track client's medication consumption
- 2.9.3 Report adverse drug effects

2.10 LABORATORY AND DIAGNOSTICS IMAGING MANANGEMENT

- 2.10.1 Transmit diagnostic result to healthcare provider
- 2.10.2 Transmit and track diagnostic orders
- 2.10.3 Capture diagnostic results from digital devices
- 2.10.4 Track biological specimens

3.0 HEALTH SYSTEM MANAGERS

3.1 HUMAN RESOURCE MANAGEMENT

3.1.1	List health workforce cadres and related identification information
3.1.2	Monitor performance of healthcare provider(s)
3.1.3	Manage certification/ registration of healthcare provider(s)
3.1.4	Record training credentials of healthcare provider(s)

3.2 SUPPLY CHAIN MANAGEMENT

3.2.1	Manage inventory and distribution of health commodities
3.2.2	Notify stock levels of health commodities
3.2.3	Monitor cold-chain sensitive commodities
3.2.4	Register licensed drugs and health commodities
3.2.5	Manage procurement of commodities
3.2.6	Report counterfeit or substandard drugs by clients

3.3 PUBLIC HEALTH EVENT NOTIFICATION

3.3.1	Notification of public health events from point of diagnosis

3.4 CIVIL REGISTRATION AND VITAL STATISTIC

3.4.1	Notify birth event
3.4.2	Register birth event
3.4.3	Certify birth event
3.4.4	Notify death event
3.4.5	Register death event
3.4.6	Certify death event

3.5 HEALTH FINANCING

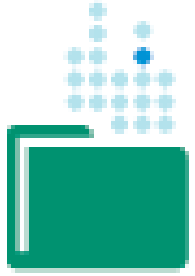
3.5.1	Register and verify client insurance membership
3.5.2	Track insurance billing and claims submission
3.5.3	Track and manage insurance reimbursement
3.5.4	Transmit routine payroll payment to healthcare provider(s)
3.5.5	Transmit or manage incentives to healthcare provider(s)
3.5.6	Manage budget and expenditures

3.6 EQUIPMENT AND ASSET MANAGEMENT

3.6.1	Monitor status of health equipment
3.6.2	Track regulation and licensing of medical equipment

3.7 FACILITY MANAGEMENT

3.7.1	List health facilities and related information
3.7.2	Assess health facilities



4.0 Data Services

4.1 Data collection, management, and use

4.1.1	Non routine data collection and management
4.1.2	Data storage and aggregation
4.1.3	Data synthesis and visualization
4.1.4	Automated analysis of data to generate new information or predictions on future events

4.2 Data coding

4.2.1	Parse unstructured data into structured data
4.2.2	Merge, de-duplicate, and curate coded datasets or terminologies
4.2.3	Classify disease codes

4.3 Location mapping

4.3.1	Map location of health facilities/structures
4.3.2	Map location of health events
4.3.3	Map location of clients and households
4.3.4	Map location of healthcare provider(s)

4.4 Data exchange and interoperability

4.4.1	Data exchange across systems

Principles for Digital Development

https://digitalprinciples.org/

Adapting and re-using

- GBV e-learning modules from Ghana to Madagascar
- Mentoring app and WhatsApp group from Nigeria to Guatemala
- Adapting cStock in Malawi to include EPI commodities
- Consolidating 3 systems into VIMS in Tanzania

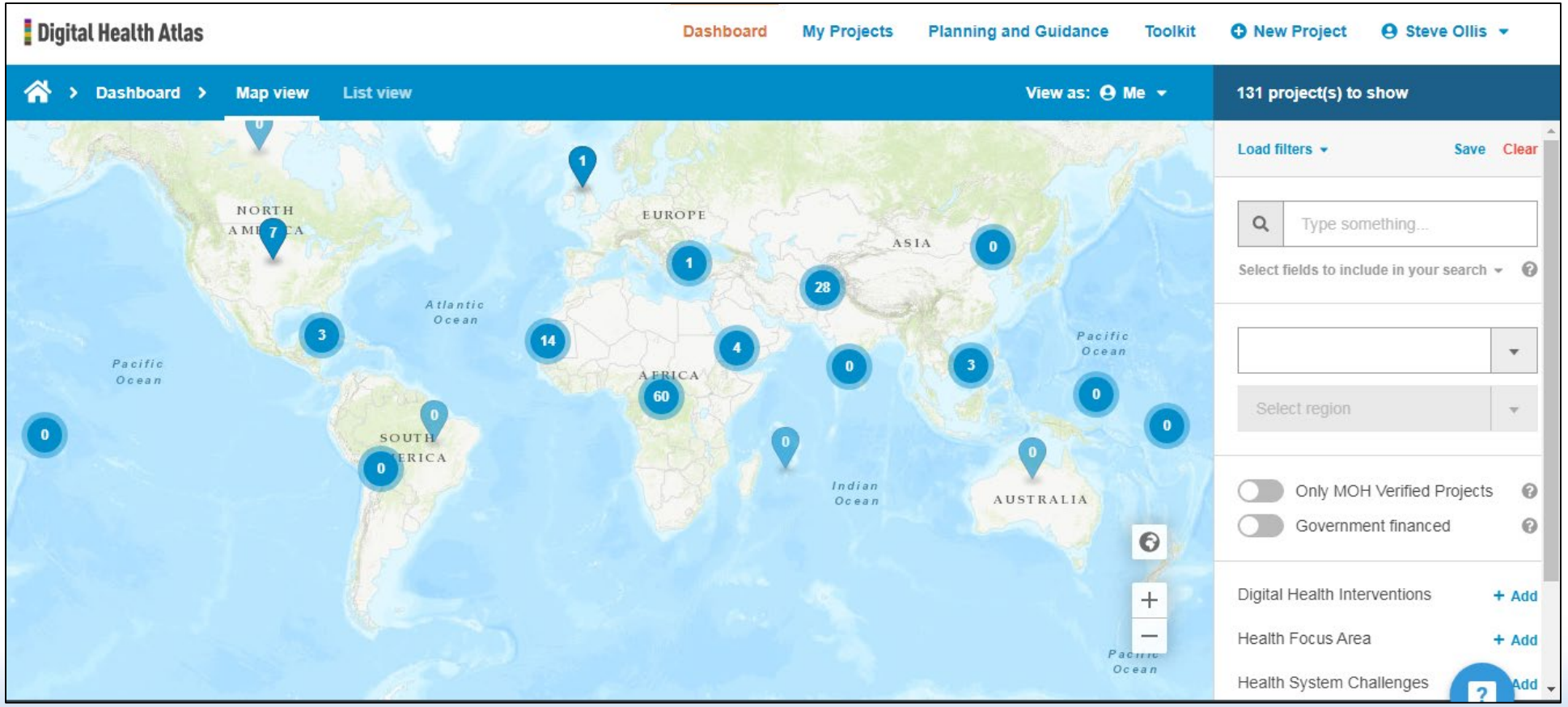
Strengthening the health system

- Governance
  - eLearning secretariat in Ghana
  - eHealth strategy in Tanzania and Namibia
  - Egypt –RR system as well as RR Strategy
- Pillars of Health Information Architecture
  - Master facility list in Namibia
  - Health information mediator in Tanzania
- Learning Legacy
  - Ghana, Zambia, Madagascar, Guatemala, Tanzania

https://www.mcsprogram.org/resource/digital-health-investment-review-tool/

Global Goods

- WHO Digital Health Atlas



Global Goods

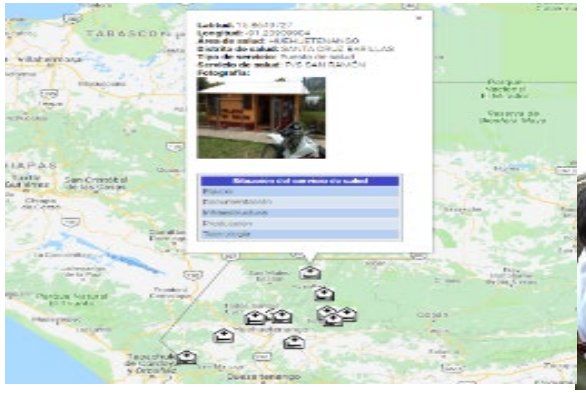
https://www.mhealthworkinggroup.org/

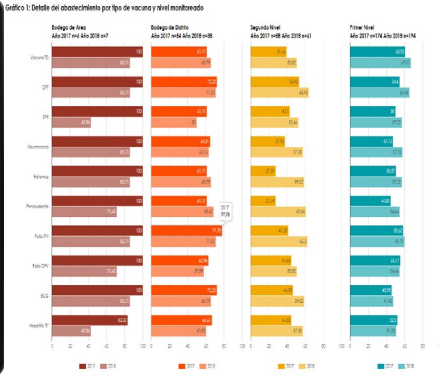
MCSP Resources

- Ghana
  - mMentoring in Ghana: Innovative use of technology improves midwifery care
  - eLearning Improves Health Training Institutions in Ghana
  - Skills Labs in Ghana's Midwifery Schools Improve Confidence of Trainers and Students
- Kenya
  - Use of cellular phone contacts to increase return rates for immunization services in Kenya
- Tanzania
  - Assessing the Effectiveness of a Web-Based Vaccine Information Management System on Immunization-Related Data Functions
- Nigeria HelloMAMA
  - HelloMama Project Brief
  - HelloMama Brief for Engagement with MNOs in Nigeria
  - HelloMama Messaging Service Delivers Vital Health Messages in Nigeria
- MAMA Lessons Learned
  - Executive Summary and Full Report

Maternal and Child Survival Program:
Promoting the use of digital tools in Guatemala

El monitoreo evidenció que continúan las carencias en los servicios de salud, que ponen en riesgo la ventana de los mil días. (Foto Prensa Libre: Hemeroteca PL)





Ana Maria Rodas, M&E Advisor / **Axel Moscoso**, Systems Analyst
MCSP Guatemala

What We Have Done?

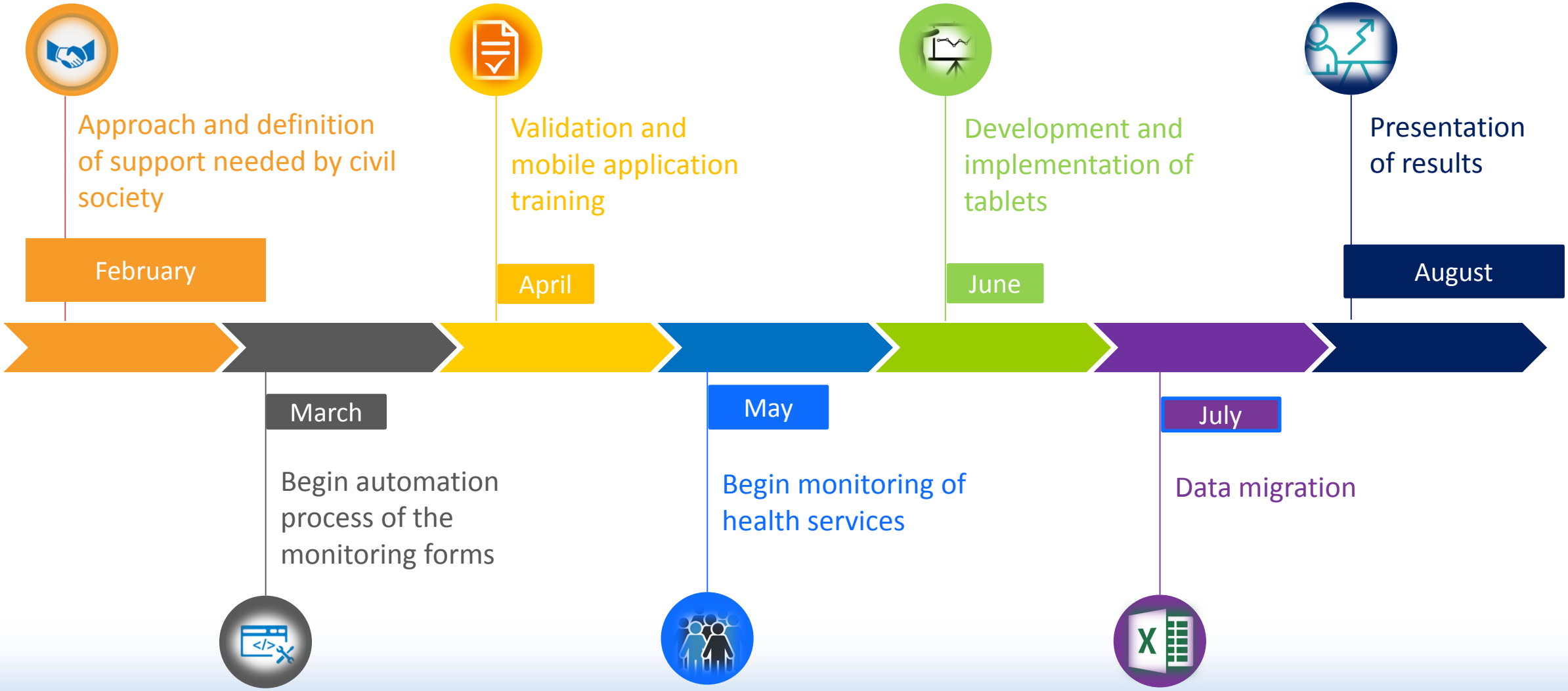
1. Designed a **tool to conduct social audits** of health and nutrition services provided by the Ministry of Health in Guatemala

2. Developed a **mobile tool to monitor the enabling environment** of health services prioritized by MCSP

3. Developed an **application to monitor care processes** in Microsoft Access

Tool to conduct social audits of health and nutrition services in public facilities

Tool for Social Audits – Development Timeline

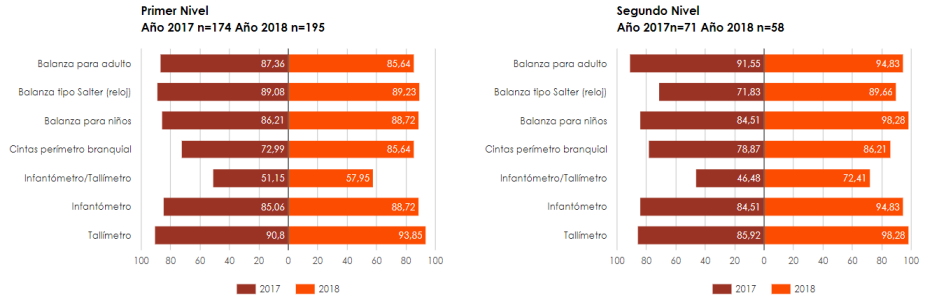


Development & Implementation

Mobile App (Android System)

Online dashboard

Gráfico 1: Disponibilidad de equipo antropométrico en buen estado

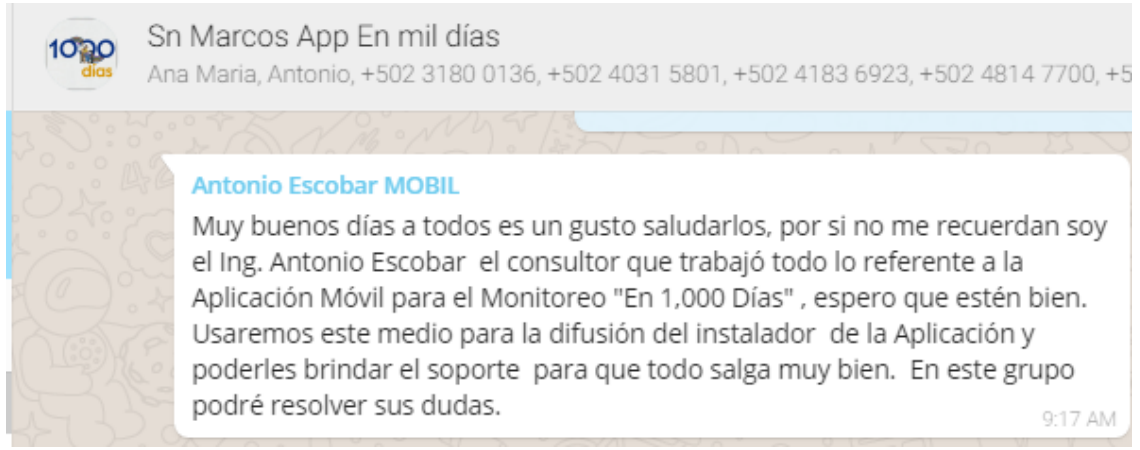


Creation of six WhatsApp groups:

- Training of young volunteers (50)

- Guidance on installation of mobile tool

- Follow-up of data collection



Share Results

http://52.45.240.73/new1000dias/

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Comunitario

Monitoreo de la Ventana de los Mil días revela carencias

La pertinencia cultural, infraestructura y abastecimiento de vitamina A y vacunas, son aspectos que deben mejorarse en los servicios de salud.

Por Ana Lucía Ola

21 de Agosto de 2018 a las 20:45h

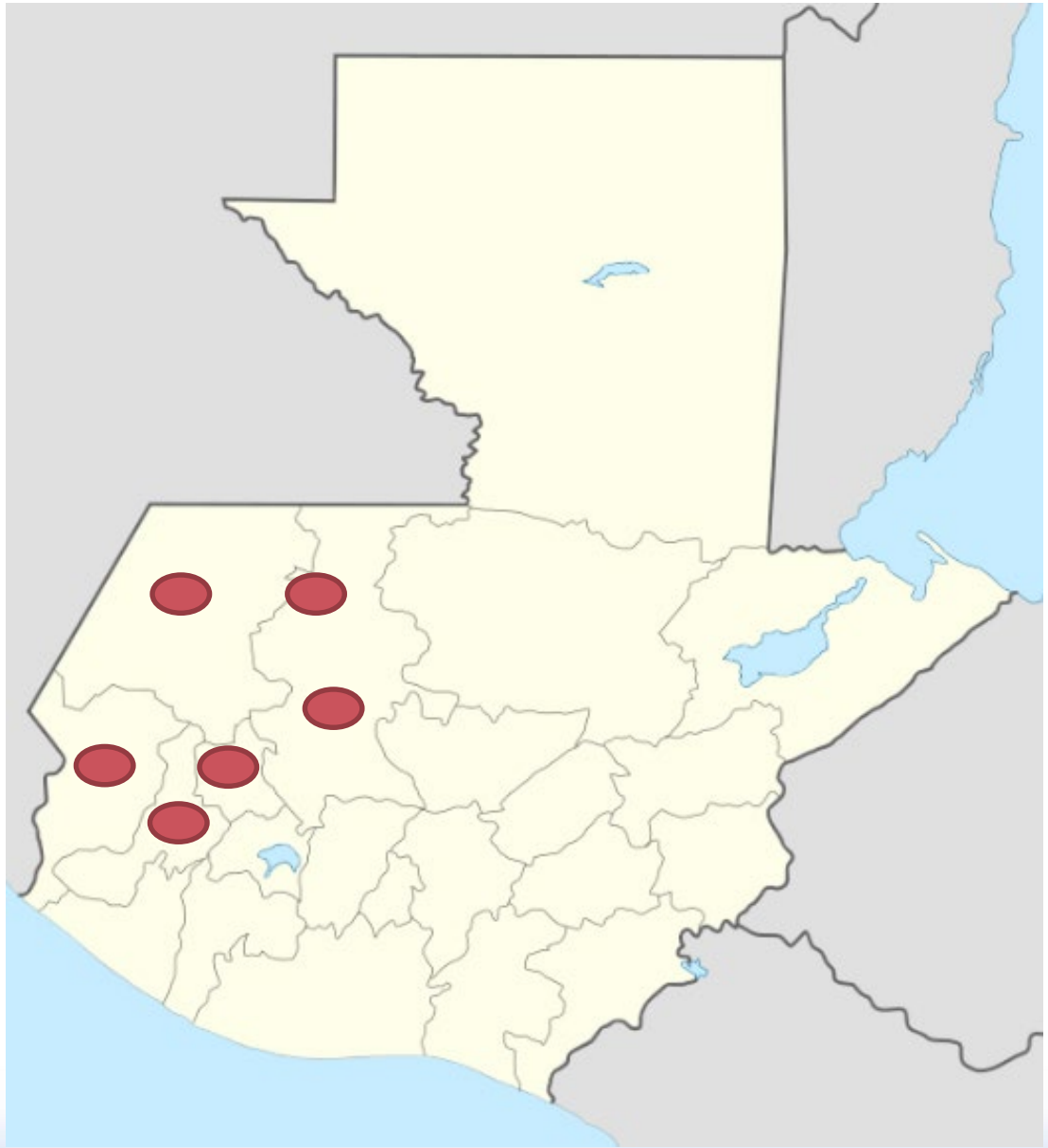
El monitoreo evidenció que continúan las carencias en los servicios de salud, que ponen en riesgo la ventana de los mil días. (Foto Prensa Libre: Hemeroteca PL)

News publication written by the *Prensa Libre* following the monitoring results presented at the national level

2017-2018

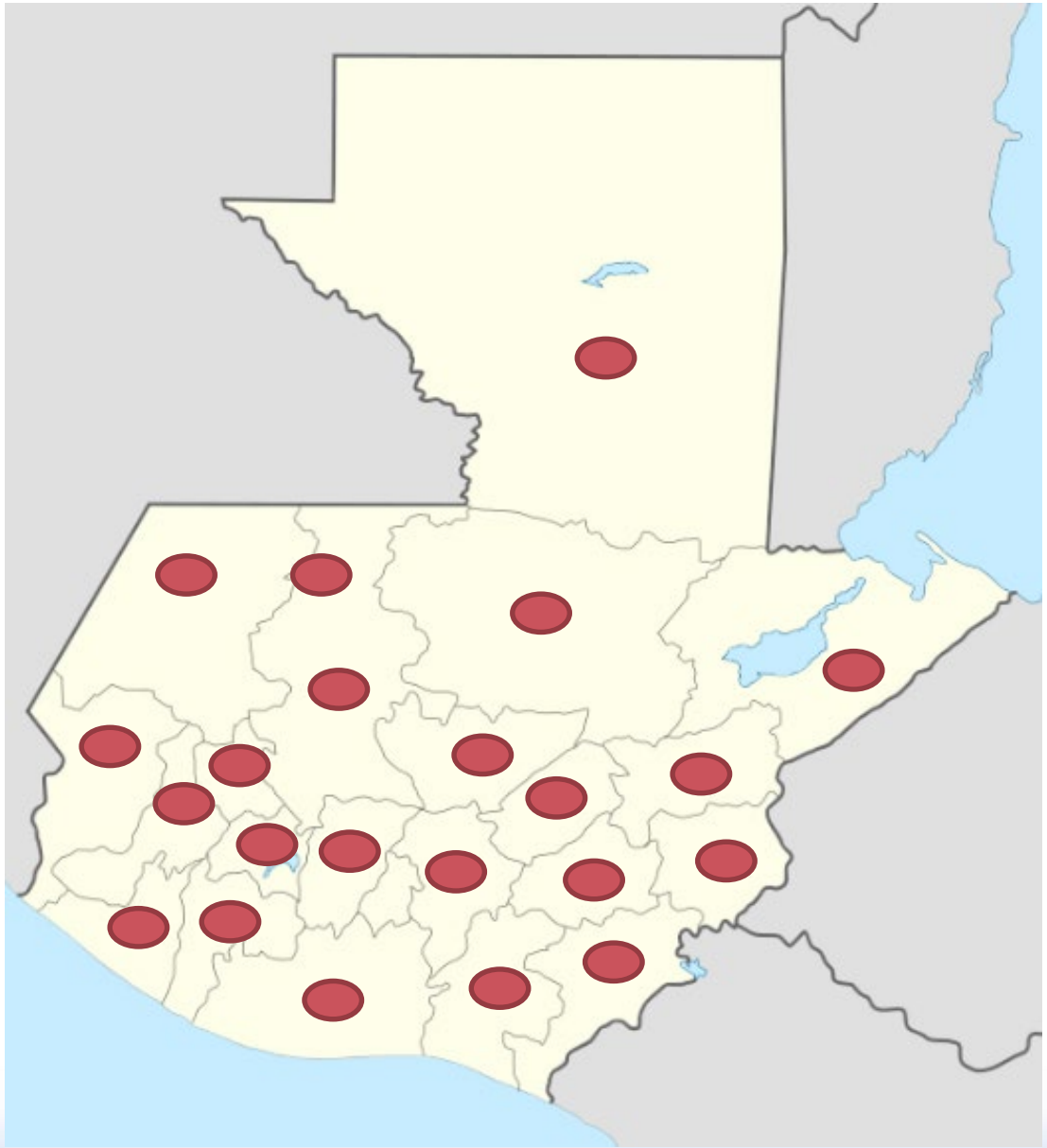
Samples solicited in 6 health areas:

- 253 facilities (195 health posts, 58 secondary level services)
- 950 interviews and review of health cards with mothers of children under five years of age
- 600 interviews and review of health cards with pregnant and postpartum women



2019

- Samples will be conducted nationally (29 health areas)
- The tool will be administered by the Human Rights Office
- Use by other civil society organizations will be expanded



Thank you!

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Maternal and Child Survival Program

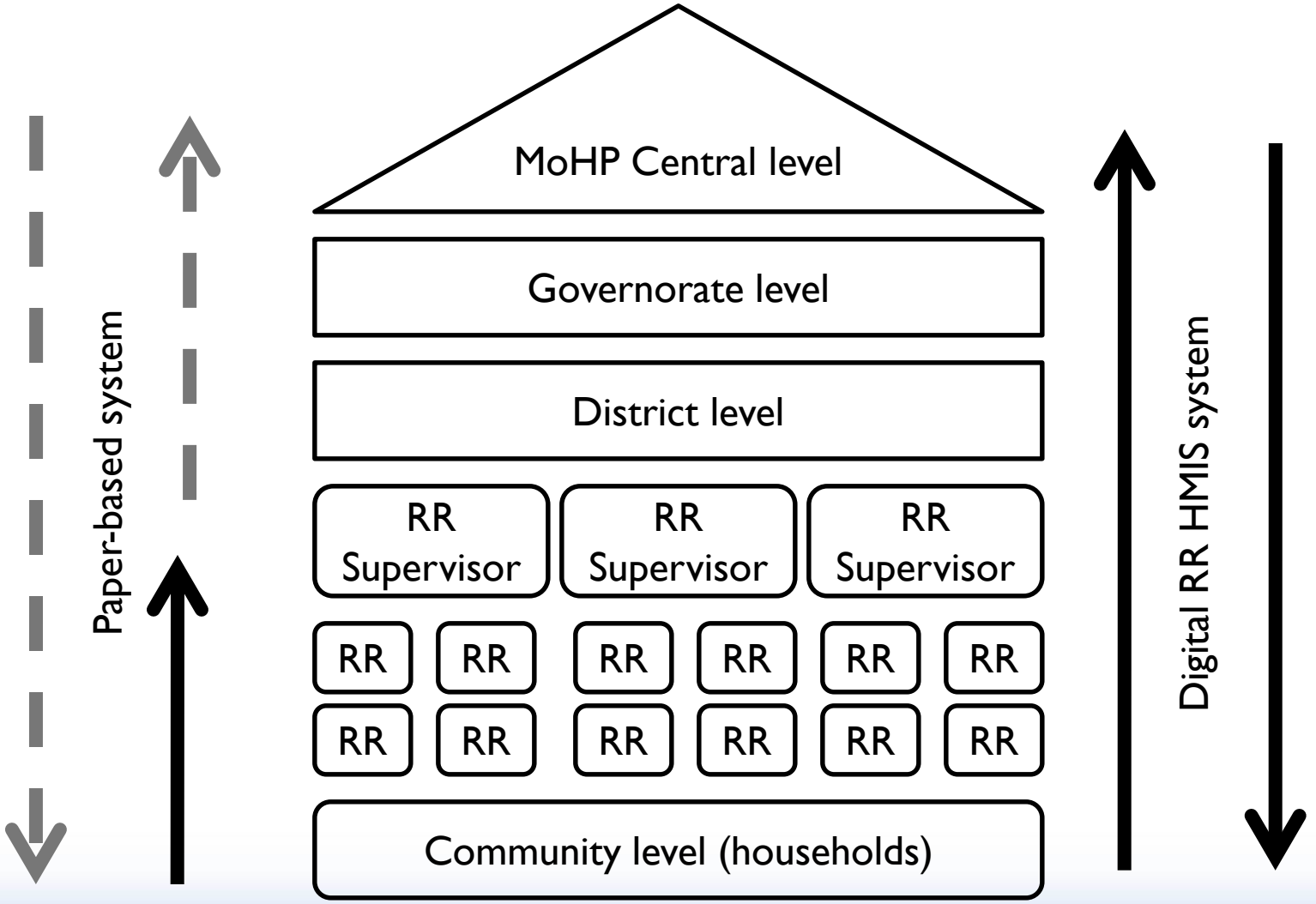
Adapting the Principles for Digital Development to Provide a Digital Aid for Egypt's Community Health Worker Cadres, the *Raedat Refiat*

Mohamed Elghazaly, MCSP Egypt
December 12, 2018
Washington, DC

Outline

- Background
- Adapting the Principles of Digital Development
- Applying the Principles
- Key takeaways
- RR HMIS potential

Background


MoHP Central level
Governorate level
District level
RR Supervisor
RR Supervisor
RR Supervisor
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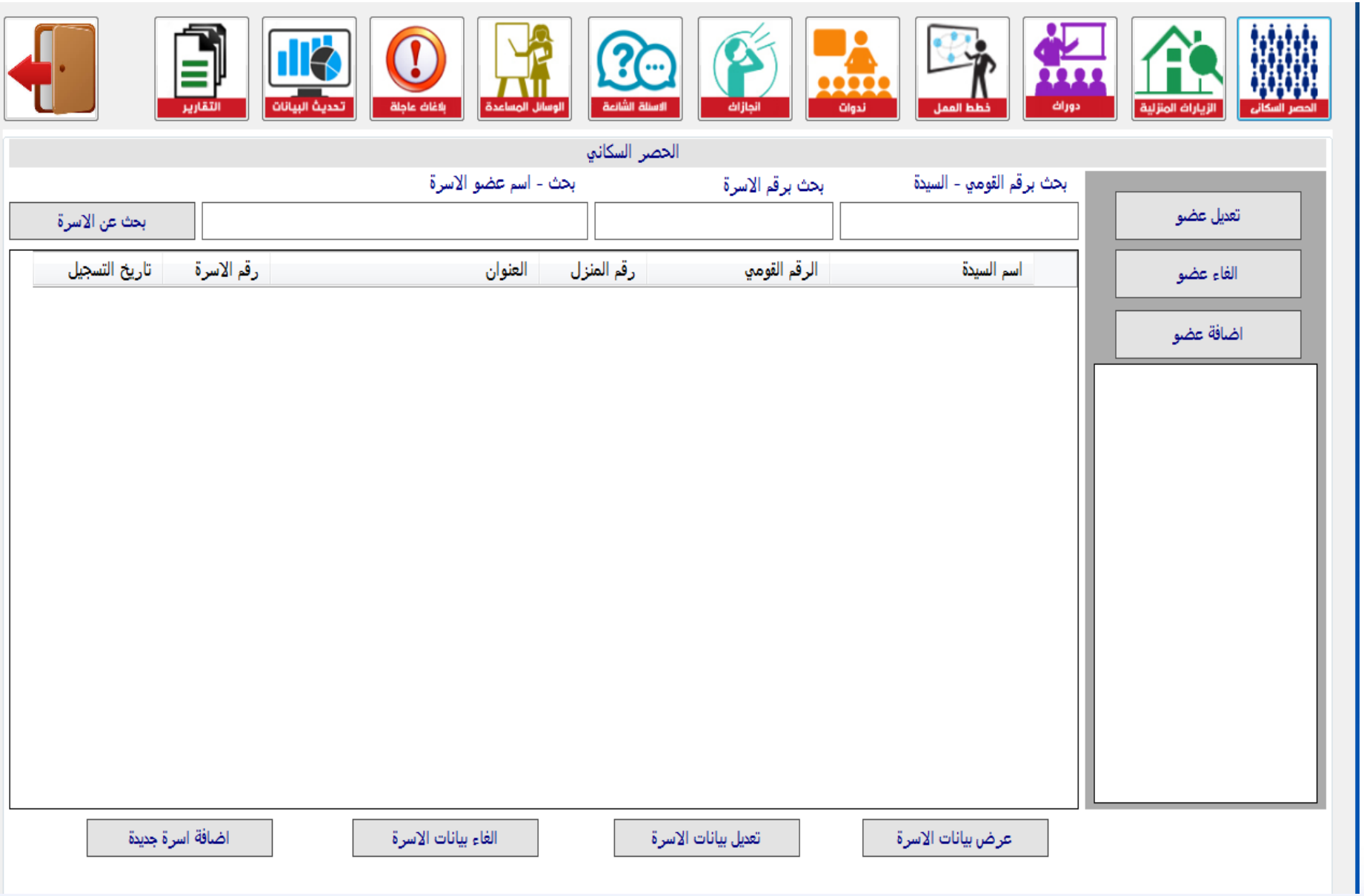
Community level (households)
Paper-based system
Digital RR HMIS system

Adapting the Principles of Digital Development

- Design With the User
- Design for Scale
- Address Privacy & Security
- Use Open Standards, Open Data, Open Source, and Open Innovation
- Be Collaborative
- Build for Sustainability
- Be Data Driven
- Understand the Existing Ecosystem
- Reuse & Improve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الزيارات المنزلية
دورات
خطط العمل
ندوات
انجازات
الاسئلة الشائعة
الوسائل المساعدة
بلاغات عاجلة
تحديث البيانات
التقارير
الحصر السكاني
بحث برقم القومي - السيدة
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بيانات الزيارة المنزلية
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--- اختر من أفراد الاسرة ---
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يوم
شهر
سنة
موضوعات / رسائل الزيارة / طرق الشرح
التغييرات في السلوك للاسرة
التطعيم ضد التيتانوس
ولادة فى مؤسسة صحية
استخدام وسيله لتنظيم الأسرة
رضاعة من أول نصف ساعة
رضاعة مطلقة لمدة ٦ شهور
إعطاء أغذية تكميلية للطفل إبتدا من الشهر السابع
استعمال أغذية غنية بالحديد
تنوع الغذاء
إعطاء محلول الجفاف عند إصابة الطفل بالأسهال
عرض الطفل على الطبيب عند الأصابة بالكحة مع نهجان
ملاحظات الزيارة
الوسائل المساعدة
الاسم
الحقوق الإنجابية
الحمل
علامات الخطر أثناء الحمل
الصحة الانجابية
التغذية
الحضن الدافئ
رعاية الطفل حديث الولادة
علامات الخطر في الطفل حديث الولادة
عرض
حفظ
خروج
الحصر السكانى

خطط العمل

نوفمبر | ٢٠١٨

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فهرس بيانات الاسر

م	رقم الاسرة	العنوان	عدد أفراد الاسرة	اسم السيدة	عد الاطفال		ملاحظات
					اناث	ذكور	
١	١	بجوار مدرسه طارق بن زياد	٣	احلام سعد الدين محمد عوض	١	٠	

Adapting the Principles of Digital Development

- Trainers/facilitators
- Application
- Participants

- Feedback
- Improvements

Key Takeaways

- Involvement of the Ministry of Health is critical to promote ownership and sustainability
- Consult with end users and stakeholders on the design
- RR HMIS must be flexible to adapt as the context changes

RR HMIS Potential

- Public health event notification
- Platform for information sharing across sectors
- M&E tool

Implementing Interoperability Layer to Support Information Exchange: Experience from Tanzania Health Sector

Fidelis Ronjino – ICT Officer (MOHCDGEC)

Edwin Nyella – Health Information Systems Advisor (JSI/MCSP)

Nsaghurwe Alpha – Senior Health Information Systems Advisor (JSI/MCSP)

Background

- Fragmented ICT pilots and numerous HIS silos
- Inadequate sharing/exchange of information across the sector
- Fragmented and uncoordinated business processes
- No common investment framework
- Emphasis on governance and partner coordination
- Need for a holistic approach

GoT HIE Commitment

Health Sector Strategic Plan 2015 – 2020

- Stimulate use of digital solutions & guide interoperability of systems

Tanzania eHealth Strategy 2013 – 2018

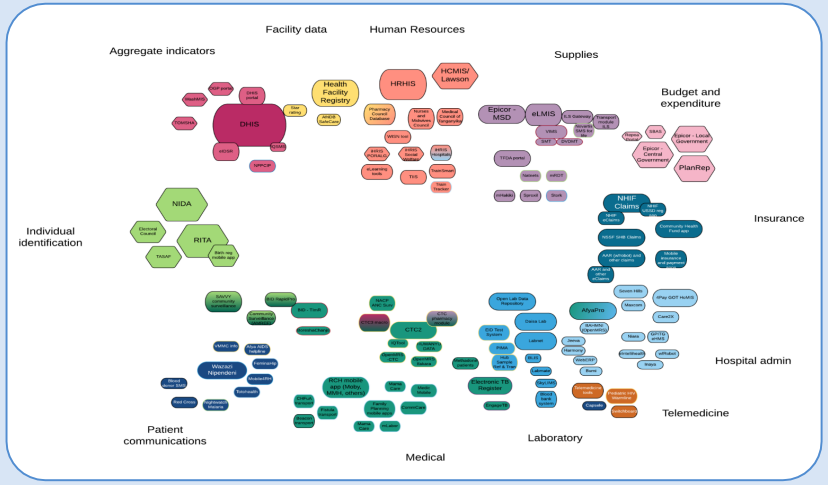
- Establish standards, rules, and protocols to facilitate information exchange

Establishment of eHealth Governance Structure

- National eHealth Steering Committee

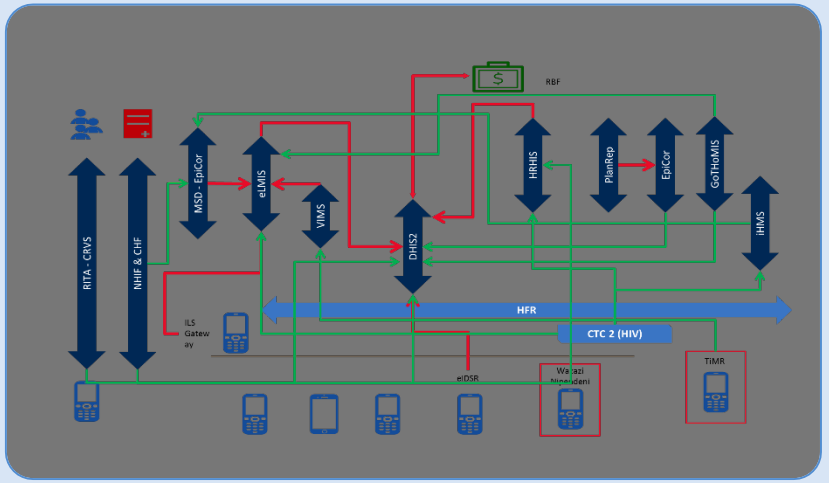
Tanzania Health Information System Integration Evolution

Ad Hoc



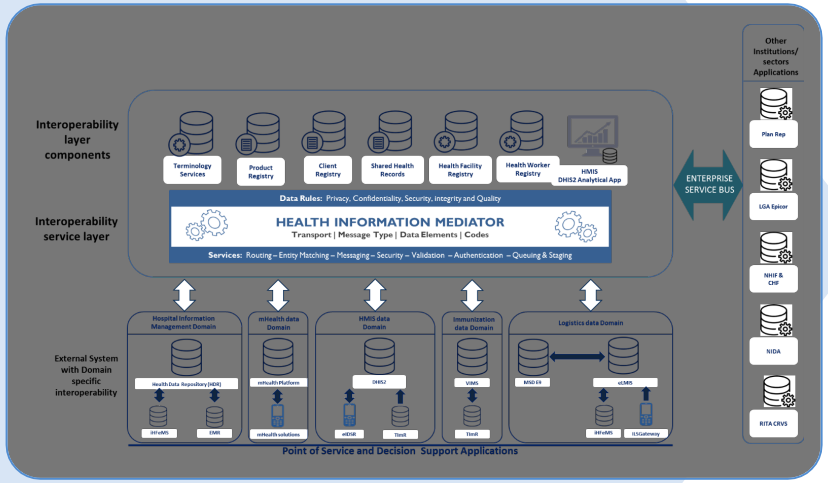
- Multiplicity of systems (128+)
- Business/program specific system silos
- No standards with redundancies and gaps
- Limited scale and no governance

Organized



- Some nationally scaled systems (DHIS2, eLMIS, VIMS, HRHIS, HFR etc)
- Limited peer-to-peer interoperability
- Key architectural gaps
- Limited governance (system specific)

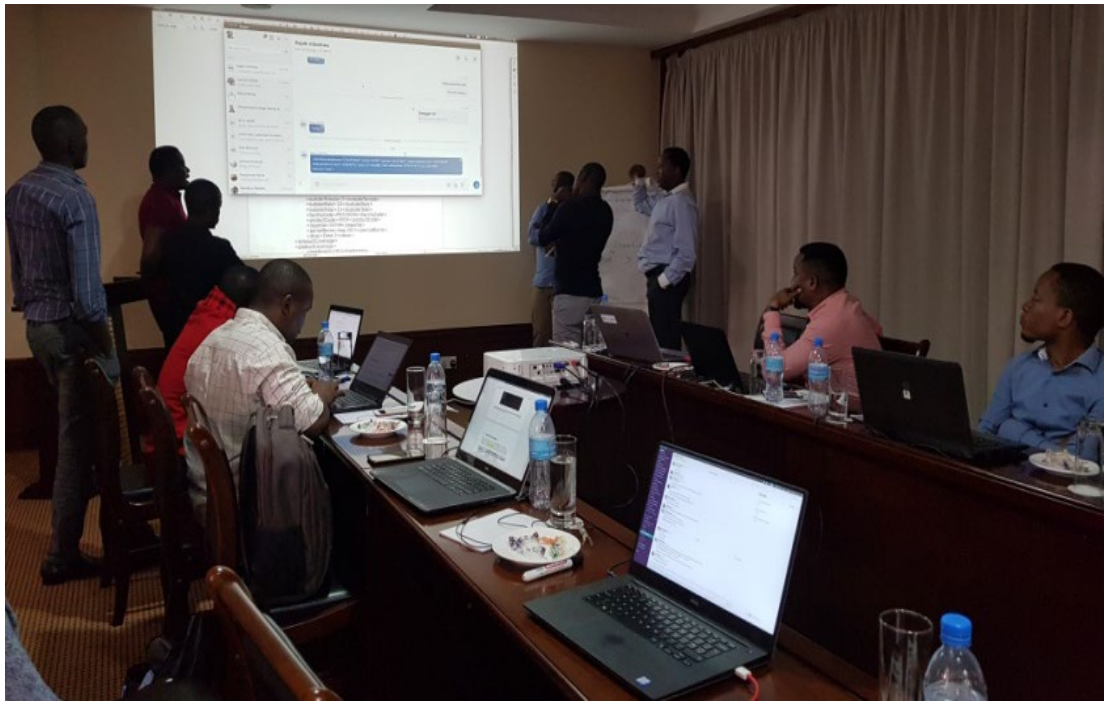
Integrated



- Enterprise Architecture (13+ Systems)
- Common standards and guidelines
- Formal governance (eHealth SC)
- Linked with other eGov systems (Muungano Gateway)

Phase 01 Use Cases (11 Systems are Integrated)

- **Use Case #01: Client level data exchange for hospitals**
  a. Tracking medical services received
  b. Tracking deaths by disease case
  c. Tracking bed occupancy rate
  d. Tracking hospital revenue
- **Use Case #02: Aggregate data exchange to DHIS2 through HIM**
  a. eLMIS: Count of stock received, consumed, and stock on hand at facility level
  b. Immunization data (VIMS): Monthly counts of children vaccinated
  c. E9: Count of stock received, consumed (distributed), and SOH at MSD
  d. HRHIS: Number of HCW for each cadre (MDs, Nurses, etc) by gender and employer
- **Use Case #3: Health Facility Registry Data Extract**
  a. HFR: Post facility information to DHIS2 through HIM
  b. HFR: Post facility information to VIMS through HIM



Support Multiple Transport Methods, Data Formats & Code Sets

- **Multiple data transport methods**
  - File uploads/downloads (Web Interface)
  - Web APIs
  - sFTP
  - FHIR
- **Multiple data formats**
  - Custom, HL7, XML, JSON, txt, xls, and csv
- **Multiple code sets**
  - Custom, ICD 9 & 10, CPT4, SNOMED, and LOINC

Future Uses of the System

- Increase the ability to triangulate and compare data across domains/tiers/functions
- Enhance the premise of collecting data once and using it multiple times
- Facilitate continuity of care across programs/facilities/health needs
- Support e-Referral from community to facility and lower to

Applying GIS Technology to Strengthen Routine Immunization (RI) Planning in Nigeria

Photo: Karen Kasmauski/MCSP

MCSP Digital Health Meeting
December 12, 2018

Leanne Dougherty, Masduq Abdulkarim, Fiyidi Mikailu

Current challenges with RI in Nigeria due to poor data quality

- Poor planning
- Inefficient/inequitable resource allocation
- Old data used to estimate target populations
- Imprecise monitoring based on inaccurate source data

Photo: Karen Kasmauski/MCSP

This leads to poorly informed decision making.

How can geospatial data be used to strengthen RI?

How can Nigerian states use GIS to produce ***more accurate*** PHC health facility catchment area ***maps*** and ***population estimates?***

1) What **processes** are required to generate PHC maps using GIS?

2) What are end user perceptions of map **accuracy** and **usability**?

3) How do **population estimates** and settlement **vaccination strategy** assignments differ between hand drawn and GIS maps?

What data are needed to produce health facility maps for RI microplanning?

1. Names of health facilities
2. Names and locations of settlements in the catchment area
3. Target populations for the settlements
4. Landmarks (rivers, hills, markets, churches, schools, boreholes, etc.)
5. Distances from the settlements to the health facilities

What steps are needed to produce GIS maps for RI microplanning?

Step 1: Information gathering—dataset identification, field data collection, and reconciliation

Step 2: Geospatial data processing and analysis

Step 3: Map production and validation

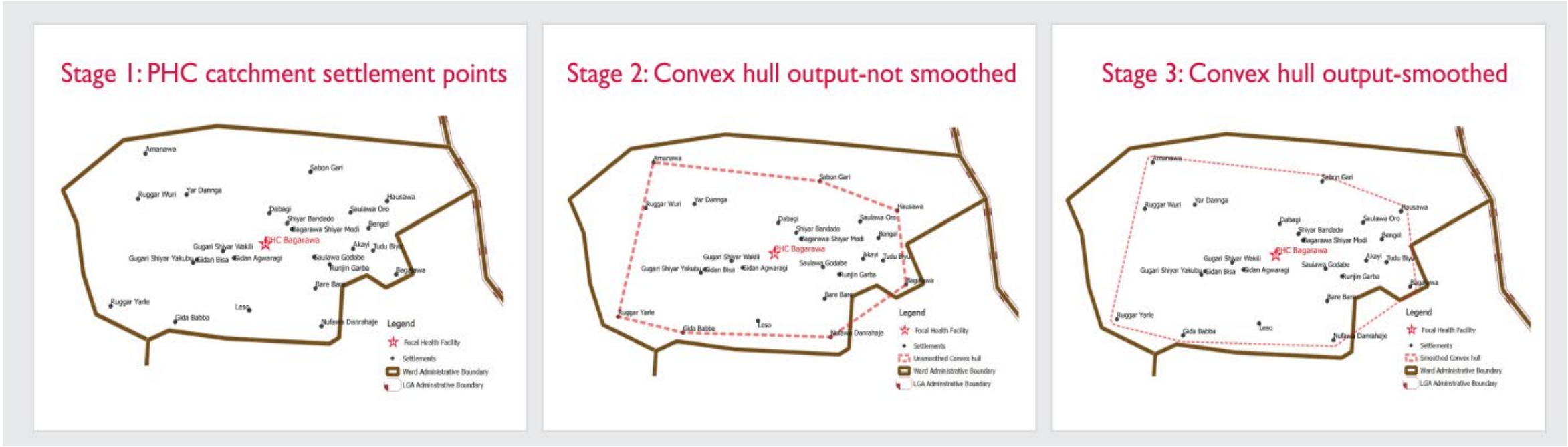
Photo: Karen Kasmauski/MCSP

Step 1: Information gathering – dataset identification, field data collection, and reconciliation

PHC facilities	Government lists of facilities offering RI
Settlements	Identified and captured using remote sensing techniques and high-resolution satellite imagery. Named through field data collection. Stored in the Vaccination Tracking System (VTS).
Population	Estimates for children < 5 years and 0-1 year are available through VTS
Points of interest	Office of the Surveyor-General of the Federation (OSGOF)
Roads, railways, waterways, water bodies	Open Street Map (OSM)
Administrative boundaries	Global database of administrative areas (GADM) and OSGOF-provided information on administrative boundaries at state and local government area (LGA) level

Step 2: Geospatial data processing and analysis

Geoprocessing Stages to Develop PHC Catchment Area Maps



Current RI Boundary Criteria:

< 2 km

Facility-Based Services

2-5 km

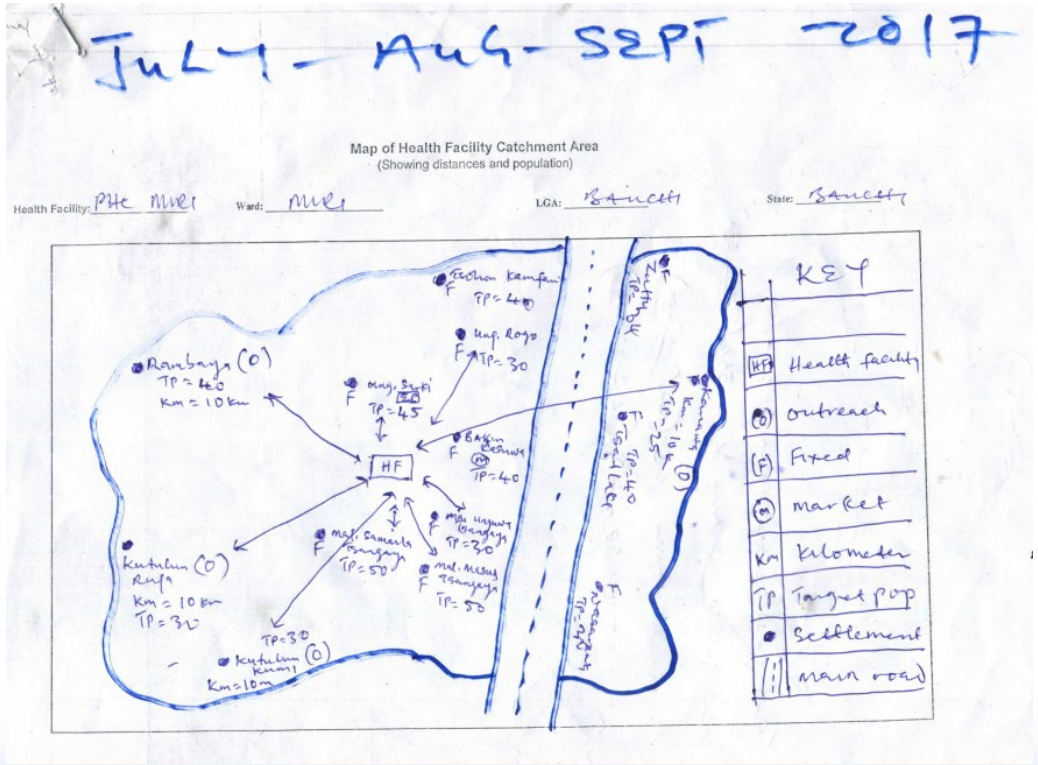
Outreach

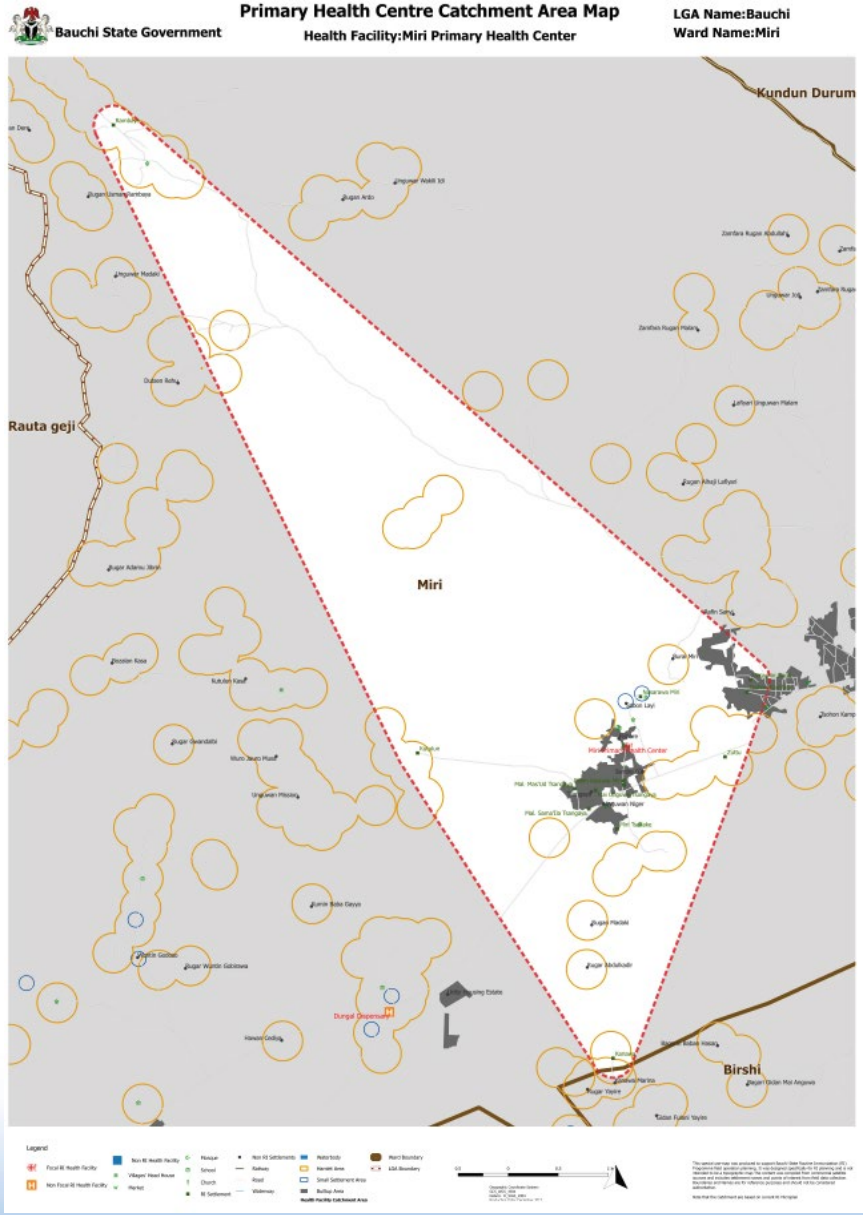
> 5 km

Mobile Sessions

Step 3: Map production and validation

Hand drawn map (below) and GIS map (right) of Miri primary health facility catchment area in Bauchi, Nigeria





Implementation Experience

Photo: Karen Kasmauski/MCSP

Users found the electronic maps that reflected their current understanding of the health facility catchment area **easy to use**

> *"When you look at maps, you think about things differently. You think about a settlement alone and the type of strategy you need. The visual depiction means something. [The settlement] is alone, far from the facility…."*
>
> *- Participant from Sokoto State*

Lessons learned:

- Map **iconography** should be culturally relevant
- People used to reading hand-drawn maps need time to **learn** how to "read" GIS maps
- Lack of a **Master Facility List** with unique identifiers limits the potential of this tool

Conclusions & Recommendations

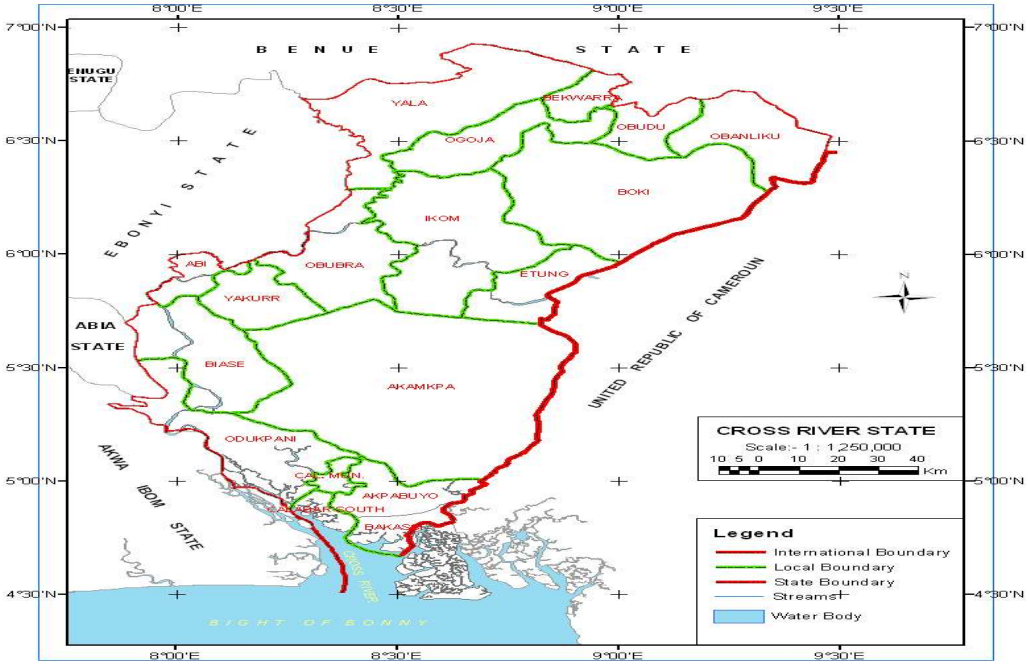
- Using satellite imagery to generate more accurate population estimates and settlement listings can enable an RI program to **overcome the limitations of outdated census data,** extend its **reach,** improve geographical **equity,** maximize **efficiencies** and improve **accountability**.
- Open data sources for GIS data are becoming more widely available and can be an option for increasing the use of spatial analysis for health planning.
- Establishing a **list of health facilities** providing services with a unique identifier can ensure more accurate source data and robustness of the health system.
- Putting GIS tools in the hands of health workers and decision makers **works** and leads to new norms for **planning**, increased **access** to RI services, and better **outcomes**.

Cross Rivers State Experience Implementing and Sustaining Digital Health Initiatives: HelloMama Case Study (2016-2018)

Presentation Outline

- State background
- HelloMama initiative and implementation model
- Value from HelloMama
- What we achieved from using HelloMama
- What we are doing differently
- What we leant

State Background



Cross River State is one of the south-southern states situated within the Cross River Basin. The Atlantic Ocean is to the south and it shares a border with the Republic of Cameroon. The State has 18 LGAs and its capital is Calabar. The 2015 projected population of Cross River State was 3,783,085 million persons (UNFPA).

HelloMama Initiative

- HelloMama is an initiative that aims to improve Maternal, Newborn and Child Health (MNCH) behaviors and health outcomes in Nigeria through age and stage based messages to pregnant women, mothers and household decision makers
- With funding support from USAID, MCSP and pathfinder SMGL worked with the State Ministry of Health at all levels, from the Commissioner for Health down to the heath care workers
- Starting in Oct. 2016, the project was piloted in 20 health facilities across 8 LGA. It has been expanded to an additional 50 facilities across the 18 LGA

What Is the Value of HelloMama?

- Health workers utilization – much enthusiasm from HW, improved and reported better HW and client relationships (clients now come with increased knowledge)
- Increased enrollment of pregnant women in the second trimester (third trimester was the norm) with marginal first trimester enrollment and retention in ANC
- 100% life births amongst women receiving HelloMama messages
- Enrolled HelloMama beneficiaries reporting improved behaviors and practices towards their health
- Women are encouraging others to visit health facilities (the excitement and appreciation of these women was palpable)

How did We Scale Up and Maintain Sustainability?

- The collaborative and partnership approaches with stakeholders made it easy for states to be willing to adopt and sustain

- HelloMama started the transition and scalability discussions with the state in 2017, with intentions to scale up to an additional 20,000 women (by integrating it into the state SOML work plan)

- Monthly engagements with the Ministry, SPHCDA and health workers enabled leadership to witness first hand the pulse of the project and the excitement it generated amongst the HW and end users

- There was mutual understanding and appreciation on how the state systems work, with both parties exploring strategy, resulting in the state executive buy-in

What Are We Doing Differently

- Ensured that sustaining and deploying digital health was approved at the State Maiden Council of Health in September 2018

- Promote digital health through the development of the state e-health strategic plan for 2018 -2022 (fulcrum for resource allocation and coordination). Cross River State became the first state in Nigeria to domesticate the national e-health policy and strategic framework

- Political leadership of the state is updated with upgraded content and scope

- The state stated that the cost of the technology was too expensive and unsustainable, we engaged an ICT developer to re-engineer the platform and integrate new content - to be launched in January

What Have We Learnt Together!!!

- Partnerships with mutual respect and interest can achieve much
- The digital health landscape in Nigeria is still largely uncharted and requires patience, agility and resilience (donors need to have this understanding)
- Working with government requires perseverance and political sagacity to navigate the terrain (we must learn what moves the politicians and how to deploy for health benefits)
- Cross Rivers State MOH still requires partners support to entrench digital health

“I am a mother of 3 children, with little information on pregnancy care. Due to HelloMama, I now know more on cord care, importance of facility birth, nutrition and hygiene. What stood out for me the most was the message describing the signs of labor; I was experiencing these signs the same time I got the message, which made me feel very secure. Secondly, the day after I had my baby I got another SMS congratulating me on my new baby and informing to go to the hospital to ensure I and my baby are doing fine.”

Gift Uche , Holy Family Hospital, Ikom Cross River State

“During my last pregnancy, I took a native medicine that made me very ill all through the nine months. When I got pregnant again, I registered in the hospital for HelloMama messages. I got some messages telling me the types of food I should eat and a call saying I should only use the drugs from my nurse. I have been following these instructions and see, I am doing very fine.”

Augustine, Lutheran Hospital Yahe, Cross River State

USAID
FROM THE AMERICAN PEOPLE

Maternal and Child Survival Program

mPowering Frontline Health Workers and Uganda Implementation of Open Deliver

December 12, 2018

Allen Nsangi, Makerere University College of Health Sciences
Alice Liu, Director of mPowering

mPOWERING FRONTLINE HEALTH WORKERS

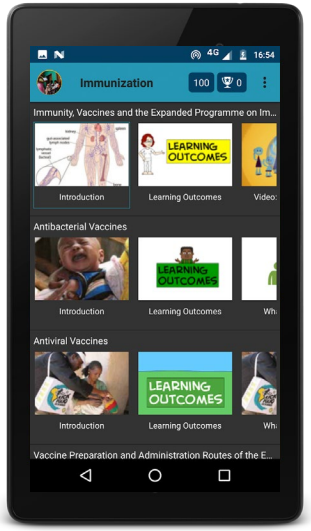
ORB

Open source library of vetted, free, digital training resources for health workers

http://health-orb.org/

Open Deliver

Flexible, open source digital training system that helps countries build + deliver national level health worker training and enhances supervision and mentorship



Current Situation

- **Insufficient Training:** 66% of CHEWs have basic training (trained for a total between 1-7days). Remaining 34% do not have any basic training at all (but are still working as CHEWs).
- **Literacy**: About 50% of all CHEWS completed Junior High School. In remote areas only about 20%.
- **Lack of coordination, constant duplication, inequitable access and no ownership**.

Strategy: Standardize Training for 15,000 CHEWS Over 5 years

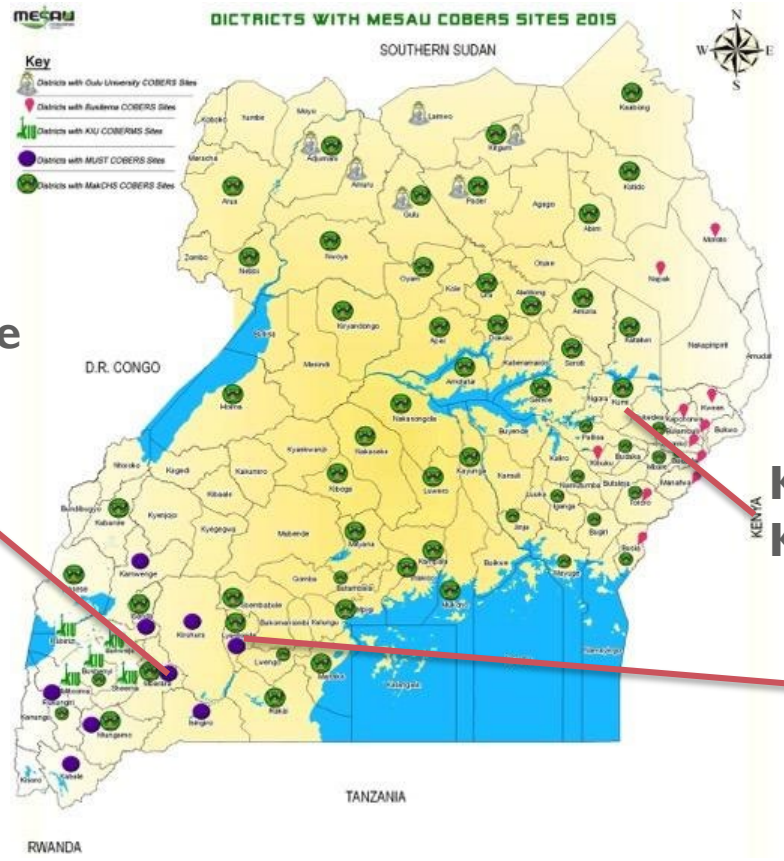
How? Blended Approach (classroom + mobile) using Open Deliver Technology

Guiding Principles:

- Government Owned
- Contextualized content
- Multi-Stakeholder Approach

Project Pilot Sites

Ntungamo District
Rubaare Health Centre IV

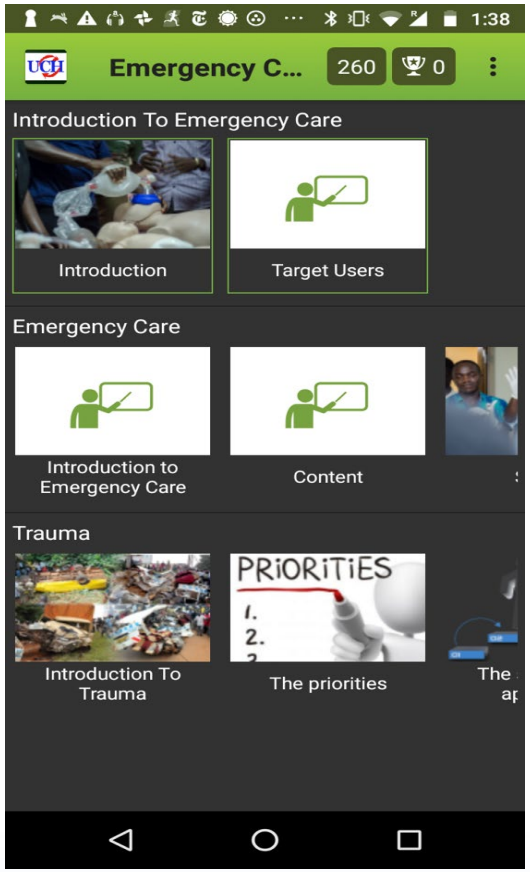


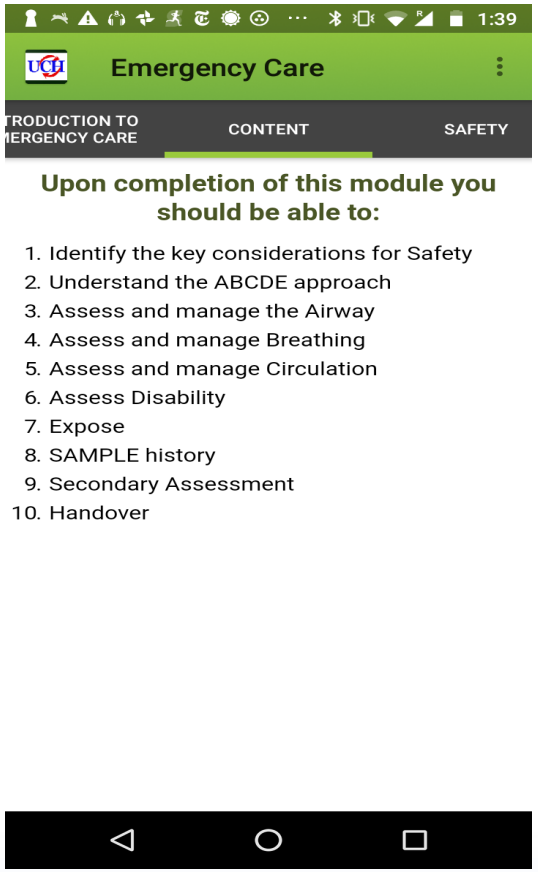
Kumi District
Kumi Hospital

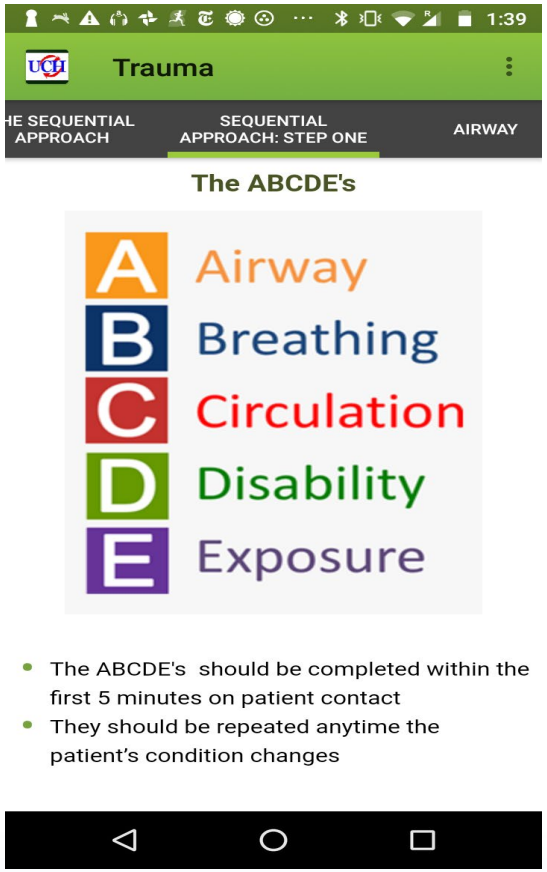
Lyantonde District
Lyantonde Hospital

70

Sample Module Emergency Medicine Care Course







Cost Model Estimates Uganda

- **15.57% projected savings on Overall Training Program**
- **40% projected savings on Training and Supply Costs**
- Cost assumptions for both classroom and blended training are starting points for the use of the model.
- Baseline costs based on estimates from CHEW MoH training program
- Estimates will be modified with ***real*** costing data as the program wraps up.
- Long term goal – a dynamic cost model incorporating actual costs + benefits -> CBA, CEA, CUA

Next Steps

- Setting up a Regional Center of Excellence or Academy Hub at Makerere University.
- Using Open Deliver as the Central Coordinating Technology for Digital Health Education in East Africa.

Thank you all, Mwebale nnyo

For more information, please visit
www.mcsprogram.org

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