Improving Interoperability of Health Information System in Tanzania

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Background

Vision:
National integrated health information system (NHIS)

Issues in consideration:
• Fragmented ICT pilots and numerous HIS silos
• Need of an interoperability Layer – Inadequate sharing/exchange of health information across the sector
• Fragmented and uncoordinated business processes
• Inexistence of common investment framework
• Governance and partner coordination
• Need for a Holistic Approach
Available systems - Across Health sector

Source: DUP Assessment findings, 2016
• We don’t know *to whom (beneficiary)* services are provided (EMR) except HIV care (CTC2) and some Hospitals through iHFeMS
• We cannot easily compare *what, where, who, which, or how much*
Health Information System
Could Be – Without Interoperability layer
THE QUESTION?

How do we harmonize HIS?
MOHCDGEC and Health Information Exchange (HIE) Commitment

Health Sector Strategic Plan (2015 – 2020)

- The health sector will embrace rapid development of ICT for improving administrative processes, patient/client recording and communication.
- The MOHCDGEC will stimulate development and guide interoperability of systems

The eHealth Strategy (2013 – 2018)

- Establish eHealth standards, rules, and protocols for information exchange and protection
- Establish comprehensive health facility, provider, and client registries with complete and current information that meets stakeholders’ needs
eHealth Strategy Strategic Objectives

eHealth Strategy identified three strategic objectives as eHealth Foundations:

1. Enhance ICT infrastructure and services to improve communication and information sharing across the health systems and at all levels.

2. Establish eHealth standards, rules, and protocols for information exchange and protection.

3. Establish comprehensive health facility, provider, and client registries with complete and current information that meets stakeholders’ needs.
**FIGURE 3. INVESTMENT RECOMMENDATION ROAD MAP**

**ROAD MAP: THE JOURNEY**

With these priority investments, Tanzania will be able to effectively use data to improve health.

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<tr>
<th>Year</th>
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<tbody>
<tr>
<td>Enhance government coordination data systems and use initiatives</td>
<td>$220,000</td>
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<td>Implement a client registry</td>
<td>$970,000</td>
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<td>Put in place an enterprise architecture, including governance, guidelines, and standards for interoperability</td>
<td>$1.21m</td>
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<td>Implement an administrative area registry</td>
<td>$1.22m</td>
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<td>Implement a terminology service</td>
<td>$1.23m</td>
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<td>Institute data use practices and capacity</td>
<td>$1.51m</td>
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**HIGH IMPACT**

Investment recommendations that will affect multiple areas of data use and systems

- Strengthen systems for facility performance management and supervision: $1.4m
- Enhance and scale notifiable disease surveillance: $4.11m
- Implement a health and social services workforce registry: $1.18m
- Implement a health data warehouse: $2.08m
- Improve HMIS indicators and reporting: $6.91m
- Compress hospital data: $13.05m
- Compress primary health care data: $34.27m

**QUICK WIN**

Investment recommendations with relatively short timelines for completion and low costs (under $2m)

- Develop standards for health insurance eClaims: $410,000
- Implement purification systems for birth and death recording: $1.74m
- Implement systems for client feedback management: $1.32m
- Enhance systems for management of supply chain data: $1.47m

**FOUNDERATIONAL**

Investment recommendations that lay the groundwork for the future

- Enhance Health Service Delivery
- Strengthen Health System Performance
- Optimize Resource Management
- Improve Data Supply and Demand
- Connect and Harmonize Data Systems
Project Advisors

Process Supervisor
JSI/MCSP HIS & Imm Team Lead; MCSP TZ Mgt team; MCSP TZ CST

Oversight Committee
National eHealth Steering Committee

PMO

Software Development Team Leads

Business System Analysts
4 System Analysts;

Software Developers
6 Developers

Quality Assurance
2 System Testers;
2 Lead System Analyst;
2 Lead Quality Assurance

Global Partners
Health Data Collaborative - Digital Health and Interoperability working groups

Program Technical Teams
MOHCDGEC Sr ICT Officers; MOHCDGEC M&E Officers; MOHCDGEC Directorate and Program Representatives

Dev. Partner
(In country representatives)
USAID

Operationalization Phase
Aug 2017 – Sept 2017

Conceptualization, Gap analysis & Mapping
Task Teams
Dec 2016 – Feb 2017

Initiation Phase 1
Task Teams
Feb 2017

Design Phase
Task Teams

Customization, Testing, Deployment
Task Teams
Feb 2017 – July 2017

Task teams are organized cross-functionally so that those who needs to work together are on the same team during each phase of the project.
Process for Prioritizing use cases and requirements

• Management identifies a need (possibilities to make data more easily accessible)

• Engage the decision makers in a participatory process to decide the priority use cases
  • Ministry Management
  • NeHSC/PMO

• Buy in from DPs & IPs

• Technical meetings:
  • Requirements gathering process
  • Digital solution selection process

• Stakeholders meeting to review and agree:
  • Requirements and the proposed digital solution

• Approvals and project initiation:
  • PMO/NeHSC
  • Ministry Management
Future uses of system

- Data sharing across systems
- e-Registry: Integrated and longitudinal care
- e-Referral from community to facility and lower to higher facility
- Improved decision-making at time of care
- Client feedback based on care received
THANK YOU!