THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

Uganda's Roadmap for Integration of Digital Health Information Systems for Health Information Exchange

2018 Global Digital Health Forum Conference, Washington DC

December 11, 2018

Status Quo

- Several local and international digital health innovations exist.

- Ministry of Health has recognized e-health in the Health Sector Development Plan 2015/16 - 2019/20.

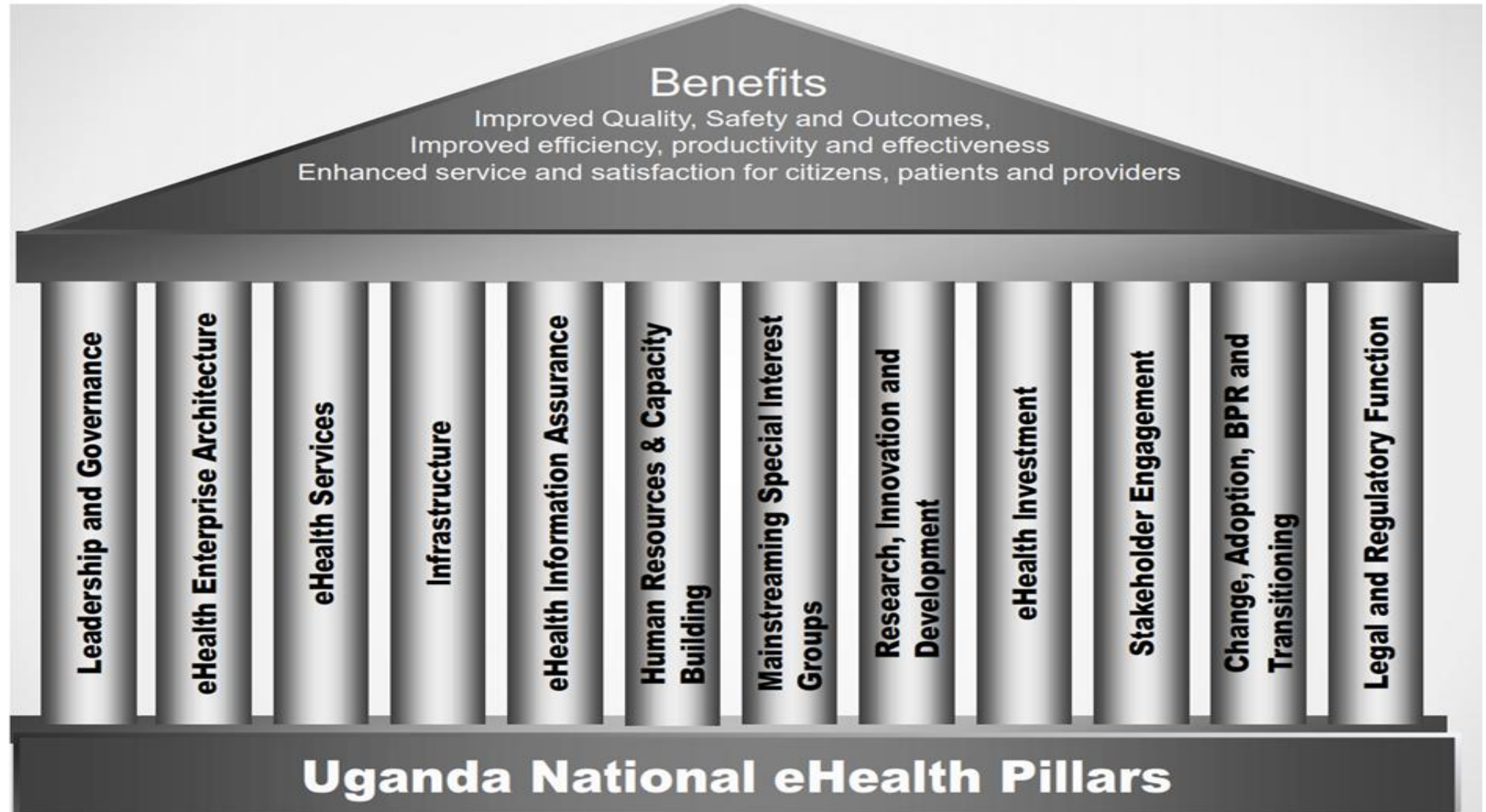- The National e-Health Policy and Strategy has been launched.

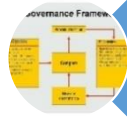Launch of the eHealth Policy and Strategy in May 2018

e-Health Policy and Strategy: Pillars

Immediate Strategy Implementation Areas

Setup, strengthen and operationalize eHealth Governance Structures

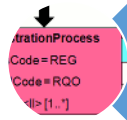eHealth Regulatory function development

Stakeholder Engagement Plan Development

eHealth Enterprise Architecture (EA) and Health Information Exchange (HIE) Development

Electronic Health Record (EHR) development

Health Provider, Facility and Client Registry Development

Strengthen existing eHealth Initiatives DHIS, HMIS, HRHIS

Workforce, Skills and Training

THE REPUBLIC OF UGANDA
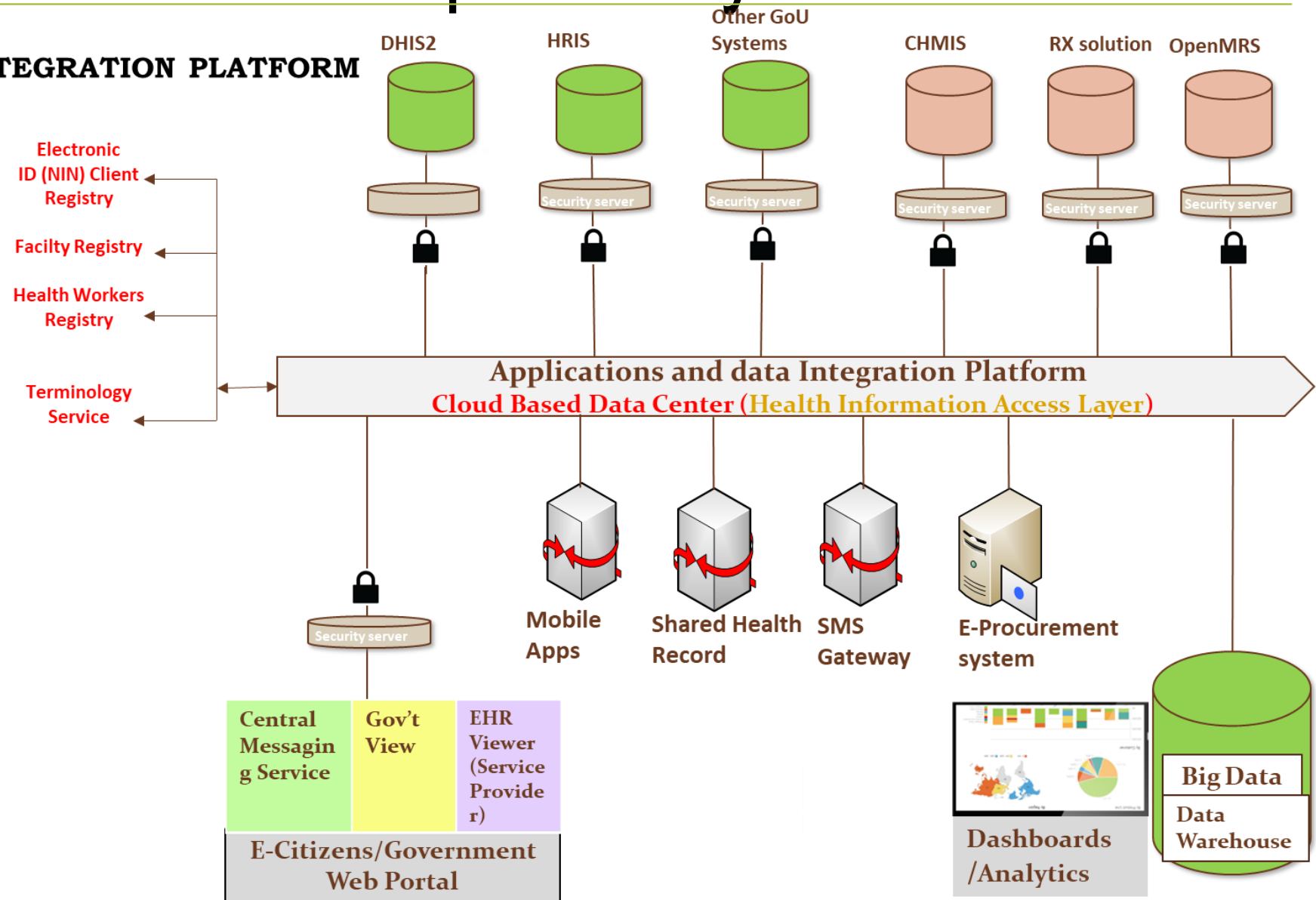MINISTRY OF HEALTH

Accomplished: eHealth Governance

THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

eHealth Interoperability Framework

On-going Activities

- Evaluation of digital health interventions (an accreditation subcommittee was set up, over 40 registered so far)

- Populating the Digital Health Atlas with interventions in the country

- Development of Master Facility Registry (list approved)

- Development of Health Worker Registry

- Development of Client Registry

On-going activities

- Formulation of data security guidelines (recommendation from interoperability maturity assessment)

- Formulation of the HIS Strategy (key output of the HIS SOCI assessment)

- Revised the RHIS (HMIS) –integrated all programs and refugee data into one system.

- Strengthening existing systems (DHIS, iHRIS, RapidPRO, OpenMRS)

Planned Activities

- Development of eHealth Roadmap Document

- Development of national information exchange standards

- Development of the interoperability layer

- Development of terminology standards

Success Factors

- Use of global goods (such as Maturity models by HDC, Digital Health Atlas, DHIS, OpenHIE, GDHI, among others).

- Support of the Ministry of Health Senior Leadership.

- Collaboration with various Partners and Donors.

- Multisectoral nature of the eHealth Technical Working Group.

Challenges

Challenge	Solution
• Resources (we still need more to move to another level)	• Lobbying
• Capacity challenges	• Two Health Informaticians joined the Ministry of Health
• Private sector involvement	• Engagement with PPP node of MoH has started
• Leadership gaps	• Increased support from MoH Senior Leadership, opening up eHealth TWG

Appreciation

- The Team
  - Caroline Kyozira, Assistant Commissioner Division of Health Information.
  - Mpiima Jamiru, Health Informatics Specialist.

- The eHealth Technical Working Group.

- Senior Leadership of Ministry of Health.

- All Partners and/or Donors.

THANK YOU

THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

UGANDA'S ROADMAP FOR INTEGRATION OF DIGITAL HEALTH INFORMATION SYSTEMS FOR HEALTH INFORMATION EXCHANGE

Bagenda Alfred

Senior Systems Administrator
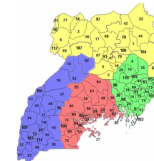
MINISRY OF HEALTH

11TH DECEMBER 2018

WASHINGTON DC

Uganda Facts

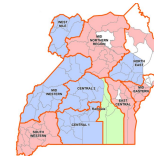**Population-** 34.6 million (NPHC-2014)

Population growth rate $\approx 3.2\%$

No. of districts -122

No. of Health Regions -13

Health system level – MoH HQ-NRH-RRH-DHS

HIV prevalence -XX

In Care -XX

Viral suppression -XX

BACKGROUND

The Government of Uganda - MOH has made a commendable effort to ensure automation of service delivery for the sector. However, most Technical Programs, Development Partners have put in place isolated systems, information and operate in data silos. This makes it difficult for Government to realize the full potential of ICT in ensuring better service Delivery.

WHY INTEROPERABILITY

UNHLS LMIS

HMIS tools (Paper based)

DHIS2

M-TRAC

Uganda EMR

Open MRS

Clinic master

Warehouse NMS - ERP

E-IDSR

Family Connect

iHRIS

MODULAB

A-LIS

Dashboard?

Unknown

Mobile Apps?

Warehouse JMS - ERP

MAUL - ERP

Pharmacy - Rx Solution

WAOS

Unknown

Unknown

MIS?

MIS?

Unknown

- Duplication of efforts across health sector amidst scanty and un-optimally utilized resources
  - Lack of standardization & low adoption of open standards
  - Lack of a transparent process for review and accreditation process for e-health innovations prior to pilot or scale-up
    - Lack of interoperable e-health initiatives
    - Lack of appropriate control of e-health initiatives
  - Scanty or very low use of data on health service delivery
    - Relaxed mode of enforcing national & international laws/regulations on health information management
- Security of health data? Privacy? Scalability? Several innovations stagnant at pilot stage? Proprietary e-health solutions that are not sustainable? Data governance?

DRAFT HEALTH INFORMATION EXCHANGE PLATFORM

Electronic ID (NIN) Client Registry

Facilty Registry

Health Workers Registry

Terminology Service

LMIS

EMR

HRHIS

LAB

HMIS

Applications and data Integration Platform
Cloud Based Data Center (Health Information Access Layer)

Security server

Mobile Apps

Shared Health Record

SMS Gateway

E-Procurement system

Central Messaging Service	Gov't View	EHR Viewer (Service Provider)

E-Citizens/Government
Web Portal

Dashboards /Analytics

Big Data

Data Warehouse

Webale

Eyalama

Asante

Danke dir

Merci

Je vous remercie

waita hako

Thank you!