Riding the Digital Health Wave: Integrating Technology Innovations Improves Access to RH Commodities in Tanzania

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Overview

Three (soon four!) innovative technologies that form a fully integrated digital architecture that provides end-to-end visibility and operational control for the health commodities supply chain in Tanzania.
• Operates 4 vertical programs to deliver services to public health facilities

• Uses quarterly report and request forms to gather information from public health facilities

• In Tanzania, there are approximately, 6,000 facilities, each operates at least 2 programs.

• Distribution of medical supplies is handled by a Medical Stores Department (MSD) which has a central hub and depots in nine zones.
What kinds of problems do you experience with data management?

- Infrequent adherence to reporting groups
- Late reported orders
- Difficulties with ordering and reporting
- Data accessibility and accuracy
- HMTs require logistics data for supervision support
- Absence of facility level data for decision-makers
How can we addresses these problems?

electronic  Logistics  Management  Information  System
The eLMIS development process:

1. Needs assessment
2. Requirements development
3. Landscape analysis
4. Detailed system requirements specifications
5. System Development
Landscape of existing systems

ERP: Integrates Sales, Procurement, Finance, and Logistics functions into one place to facilitate transparent and efficient operations.

Paper system for reporting and requisitioning health commodities.

HMIS data such patient data, catchment population, treatment summary, etc.

A mobile health alert and reporting system designed to increase the visibility of logistics data and improve product availability.

DHIS2

E9

ILS

ILSGateway

2010

2013

2012

2005
Supply chains are people chains too!
Establishment of a Logistics Management Unit (LMU)

The LMU is responsible for organizing, monitoring, and supporting all supply chain activities within all logistics systems in the country. Key functions of the LMU include:

- Logistics Data Management
- Quantification
- Monitoring & Evaluation
- Coordination and Collaboration
- Supply Chain Intervention Planning
- Training & Capacity Building
- Supervision
Integrating with existing systems

All ILSGateway data are input into eLMIS and both ILSGateway and eLMIS data are entered to E9. All ERP order data, which was previously hand-keyed in, is now created from eLMIS.
eLMIS data Movement

1. District Delivery
2. Deliver Consignment
3. District
4. eLMIS
5. LMU/Zone
6. ILS Gateway Data
7. Health Facilities
8. Send R&R
9. Send and Review Reports
10. Instant
11. Proof of Delivery notification
12. Deliver Consignment
13. Central/MOH accesses ILS Gateway and eLMIS data instantly.
14. Paper
15. SCMS
16. PEPFAR Implementing Partner
Results of integration

- This ecosystem links 4,616 facilities through ILSGateway, 162 districts and the MOHSW central and regional offices through the eLMIS, and all nine MSD zones and central stores through the ERP

- Timeliness of stock-on-hand reporting rate increasing to 88 percent through ILSGateway, compared to 45 percent ILS reporting rate in 2009

- Increased availability of family planning commodities by 45 percent

- The ERP has reduced the time required by MSD for annual stocktaking from 30 to 17 days, using the ERP

- Increased accountability and transparency

- Improved adherence and redistribution of stock management for family planning commodities

- A new module for vaccines (VIMS) is currently being developed for addition to the eLMIS
More work to do!

“although substantial interest exists in linking LMIS and HMIS data, very few examples are in place where countries are successfully implementing” such a system

- Considerations for the Integration of HMIS and LMIS
  2014 UNCoLSC Report
  Systems for Improved Access to Pharmaceuticals and Services Program
Example HMIS/LMIS Indicators

1. Number of Female Condoms issued in the DHIS2 against the quantities of Female Condoms used per eLMIS reports.

2. Number of Combined Oral Contraceptive Cycles issued in the DHIS2 against the quantities of cycles used per eLMIS reports.

3. Number of Progestin Only Pills issued in the DHIS2 against the quantities of Progestin Only Pills used per eLMIS reports.

4. Ratio of implants used vis-à-vis the patients who received the equivalent services.

5. Number of Emergency Contraceptives issued in the DHIS2 against the quantities of Emergency Contraceptives used per the eLMIS reports.