Electronic Logistics Management Information System implementation in Rwanda: Ensuring commodity security through effective management of logistics data

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Background

• Quality and timely logistics data is essential for efficient supply chain management for public health commodities
• Since 2010, Rwanda has been using harmonized paper based LMIS
• Challenges in the use of the paper-based system for the health LMIS included data accuracy, timeliness and feedback response time
• To address these challenges, the Ministry of health with the support from the Global Fund and USAID through the USAID Global Health Supply Chain Program- Procurement and Supply Management (GHSC-PSM) project implemented an e-LMIS to provide real-time inventory data, order visibility, coordinated order processing and warehouse management functionalities
• The e-LMIS was rolled out in 2014 to replace the paper-based LMIS reporting system
Objective

To share how using an electronic logistics management information system (e-LMIS) has improved real time data visibility to inform decision making.
Methodology

• In 2012, the MOH and partners (Global Fund and USAID) gathered eLMIS functional and system requirements

• In 2014, a phased approach was taken to roll out the system countrywide to 559 service delivery points (SDPs), 30 district pharmacies (DPs) and the central level warehouse store
  o Medical Procurement Production Division (MPPD)
    • Process orders from DPs and referral hospitals
  o District Pharmacies (DPs)
    • Order and receive commodities from the central medical store
    • Process orders from Service Delivery Points (SDPs).
  o Service Delivery Points (SDPs)
    • Use the e-LMIS to place and receive monthly orders for health commodities from DPs
    • Record daily consumption data from health commodity registers dispensed to the patients
**Key functions:**
Order management, inventory management, warehouse management, transportation management and supply and demand planning.
- Serialized item and lot tracking.
- Supply chain-wide shipment visibility, with event notifications.
- Integration with existing WMS ERP (Sage L500) and DHIS2 (HMIS).
- 6639 SKU Items
- 2026 active e-LMIS users
Results

• Accurate e-LMIS data are increasingly used by the Ministry of Health and partners to:
  o Track key supply chain indicators
  o Inform strategic activities in health supply chain management
  o To inform decision making
Results

The effort required to manage inventory reduced
- 1 Person
- 3 People

The effort required to process an order reduced
- 1 Day
- 4 Days

e-LMIS Utilization Improved
- Recording consumption: 95%
- Data accuracy: 95%
- Availability of health commodities: 90%
- Storage of health commodities: 85%
- On time delivery: 97%
Conclusions

• The e-LMIS has significantly strengthened health commodity management by automating supply chain and logistics processes from central level to service delivery points.

• Data visibility is readily available for decision makers to strategize supply chain interventions.

• Much as e-LMIS is a success story in the supply chain for health commodities in Rwanda, it continues to be work in progress with emphasis on monitoring and sustainability required.
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