

HMIS/LMIS Interoperability

Tenly Snow • Mary Jo Kochendorfer March 24, 2017



DHIS2 Symposium 2017



Context Opportunities Challenges

Example Integrations

Life Saving Commodities Improving access, saving lives

UN Commission Dashboard Project

- Essential strategies for building interoperable systems and keeping them in sync
 - MFLs, master product lists, interoperability layer(s) (ie. OpenHIE)
 - Coordination strategy for data integration, including ongoing maintenance and upgrades
 - MOU for defined roles/responsibilities
 - Ongoing stakeholder engagement and coordination meetings
- LMIS HMIS : Proof of concepts in Tanzania and Senegal



Technology, People, & Processes:

Enabling Successful HMIS/LMIS Integrations

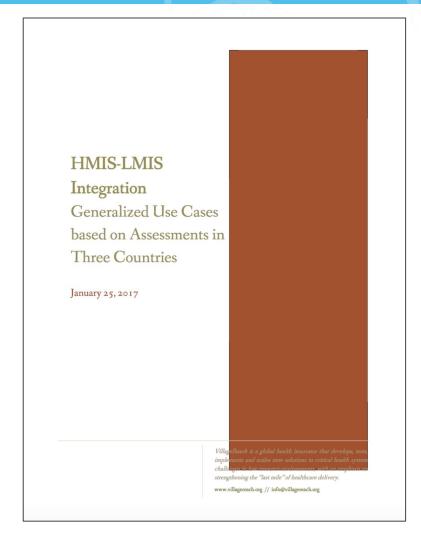


<u>2016:http://www.lifesavingcommodities.org/wp-content/uploads/2016/09/UNC_Integr</u> <u>ated-Dashboard-White-Paper-FINAL.pdf</u>

Benefits to Integrating

Growing interest in integration between Health Management Information Systems (ex. DHIS2) and Logistics Management Information Systems (ex. OpenLMIS) to improve:

- Supply chain performance
- Service delivery
- Data quality and burden
- System harmonization





HMIS and LMIS

HMIS

Type of Information collected

- Disease incidence
- Client/patient information
- Health service utilization
- Program KPIs
- ...varies

Data Frequency/Granularity

- Point in time information based on country reporting cycle (can vary by program)
- Can be event based with tracker

Data Capture Location

- Health post, CHW, etc.
- Facility
- District, Regional, etc.

LMIS

Type of Information collected

- Commodity stock levels by product
- Stockouts
- Quantities dispensed/consumed
- Inventory management : record stock adjustments, transfers

Data Frequency/Granularity

- Point in time information based on country replenishment cycle (can vary by program)
- With each transaction (stock movement)

Data Capture Location

- Health post, CHW, etc.
- Facility
- District, Regional, etc.



Opportunities

- Forecasting : Aids countries in making accurate estimations of commodity consumption and predict future requirements
 - Combining disease incidence and commodity consumption to estimate national commodity needs.
 - Combining consumption, population statistics and service delivery
- **Single Data Repository :** Allows decision-makers to access data in a streamlined way, increasing efficiency
 - Single log-in to access all relevant facility, district, and national information
 - Allows performance of analysis, visualizations, and dashboards of relevant indicators from multiple data sources
- **Data for Management :** Verify data, identify problems and help managers make data driven decisions
 - Review key indicators, highlight data quality issues, reveal trends
 - Creates context for decision-makers, allowing them to build a case for known issues, identify new ones, and investigate accordingly



Who As a national Malaria Program manager,

What I want to review and compare consumption of malaria commodities and diagnosed malaria cases,

Why so that I know if consumption is reasonable for the number of cases, or if there are issues with presumptive treatment, diversion, etc.



Challenges

- Data quality
 - Poor data quality in = poor data out
 - Lack of specificity in data
 - Mismatch of data sets requires careful planning and consideration before integration (for example, do the data sets have large amounts of missing data across different time periods)
- System harmonization
 - Siloed data can mean variations in indicators and reference data (facility names, product data, etc.)
 - Data collection frequencies may not align
- Data interpretation
 - Just comparing data may not be enough identifying issues still requires investigation
 - Processes must be in place to regularly review and clean data



Thank you

PLANE NEW PLANE NEW PLANE NEW PLANE NEW PLANE PLANE NEW PLANE

low kisgs



info@openlmis.org openlmis.org