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Addressing eHealth Silos: Systematic Integrations of OpenLMIS/eLMIS in Zambia (59)

Chris Opit

JSI R&T

Dir. IT and M&E

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  - Maureen Simuyandi , Deputy Country Director, JSI - AIDSFree
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Outline

- Case for integration of supply chain systems and other HIS systems in Zambia
- Supply Chain/eLMIS integrations, Opportunities and Benefits
- Process
- Pre-requisites
- Challenges
- Lessons learned

Case for Integration

Case for Integration

Hon Dr. Chitalu Chilufya MP
Minister of Health

"The Ministry of Health recognizes the potential of information and communication technology (ICT) in transforming healthcare delivery by enabling information access and supporting healthcare operations, management, and decision making. However, the Zambian health sector is still characterized by a fragmented landscape of ICT pilot projects and numerous data and health information system (HIS) silos with significant barriers to the effective sharing of information between healthcare participants."

(Zambia eHealth strategy (2017 – 2021)

Case for Integration

- A sense of urgency to curtail
  - Disruptive implementation of would be complimentary systems
  - Disruptive use – fragmented data
  - Lack of consistent audit trails
  - Diminished potential for compliance monitoring
  - Wastage of resources – duplicate initiatives
  - Lack of standardization for reference data
  - Demand driven – a more true and up-to-date picture

Opportunities

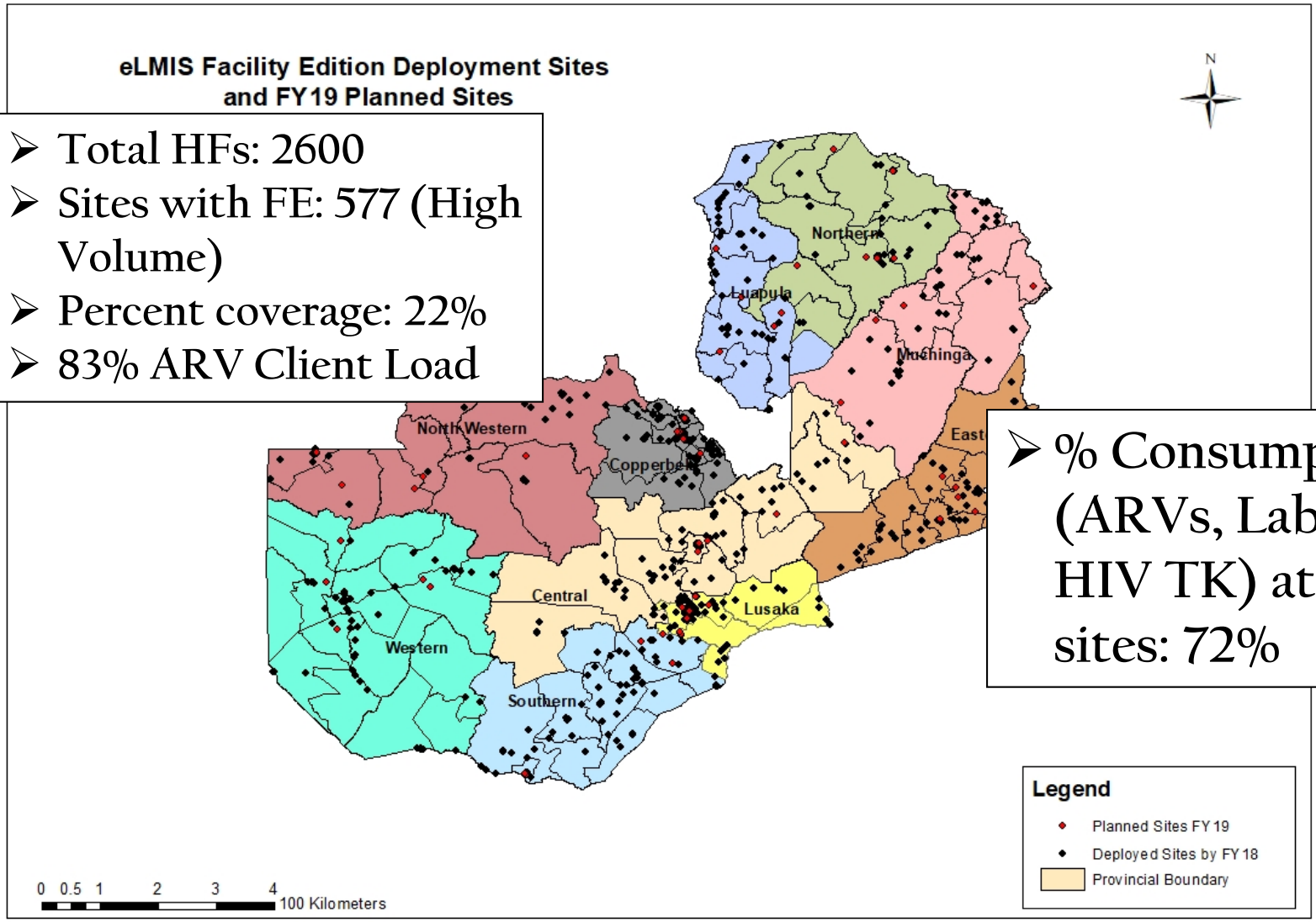
- Opportunities
  - eLMIS has more than 2 million records
  - EHR (SmartCare) has more than 10 years of data
  - eHealth strategy embeds the process in the National Strategic Plan
  - Governance – Leaders/managers understand and drive the eHealth agenda
  - Will enable lower level data validation across systems

Opportunities

- Readiness
  - Organizational culture – users understand the value of electronic systems in transforming service delivery
  - An engaged eHealth TWG and Supply Chain TWG
  - Product identification - OpenLMIS/eLMIS selected as the national Electronic Logistics Management Information System

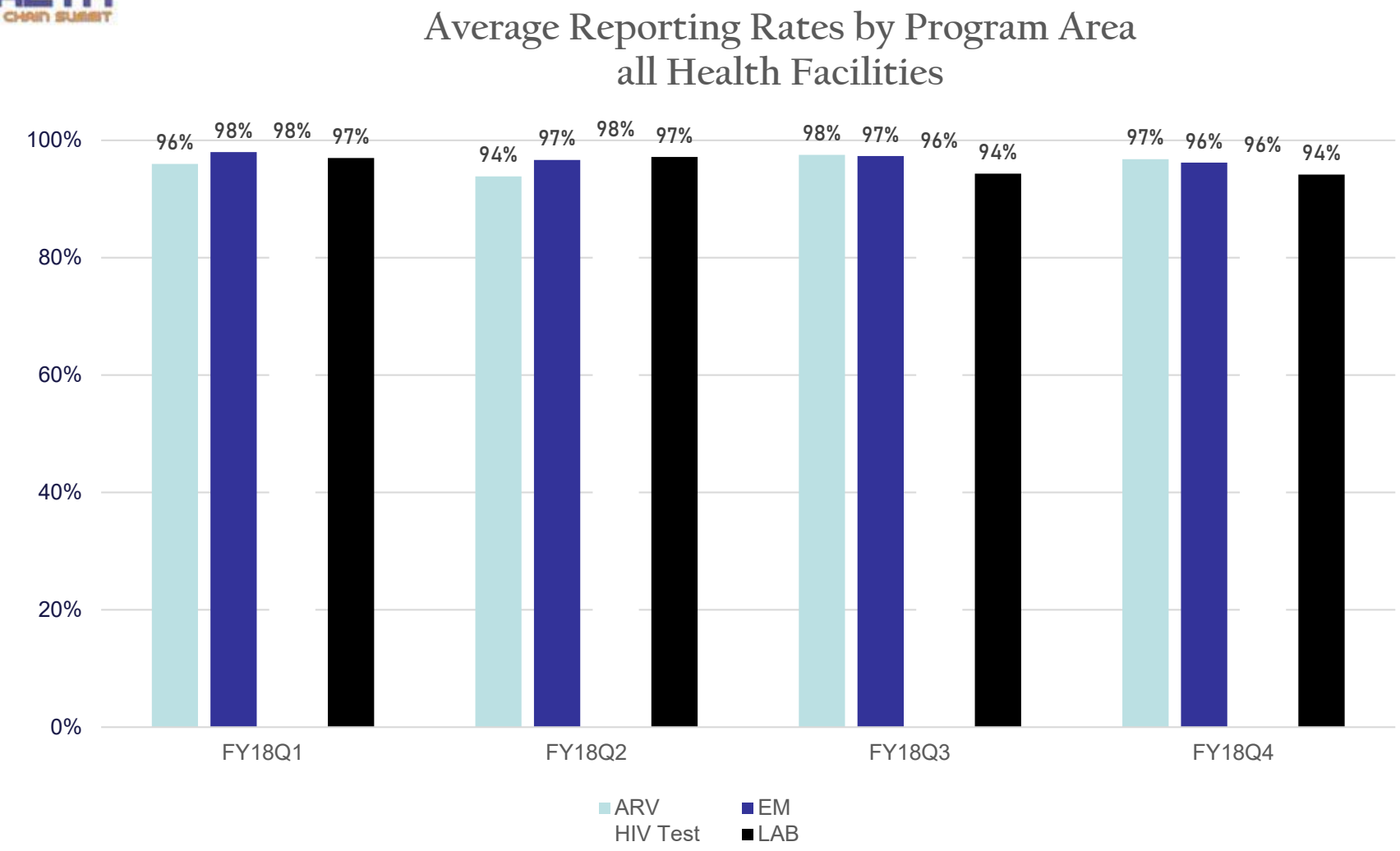
Opportunities: eLMIS FE Scale-up

- Total HFs: 2600
- Sites with FE: 577 (High Volume)
- Percent coverage: 22%
- 83% ARV Client Load

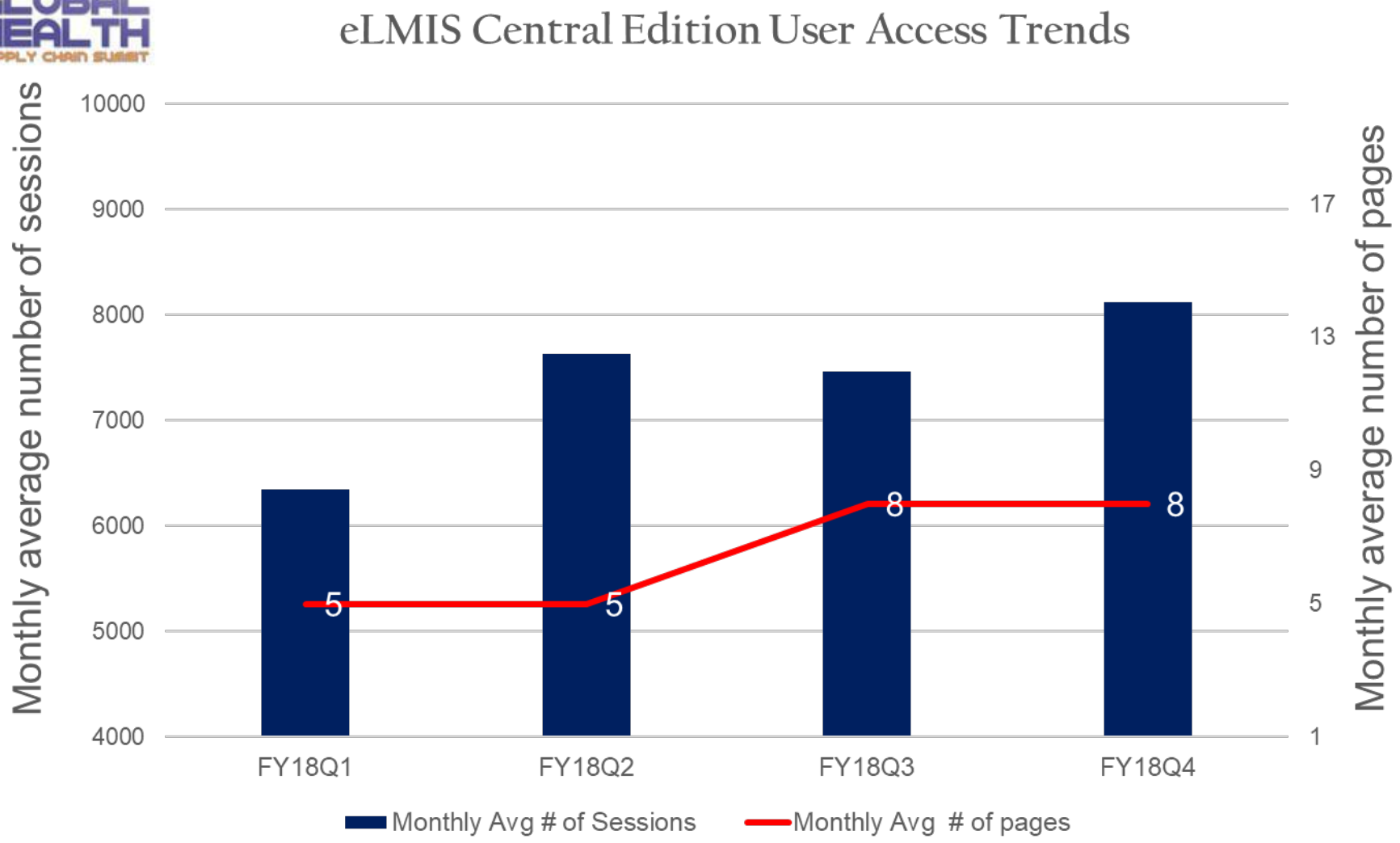


- % Consumption (ARVs, Lab, HIV TK) at FE sites: 72%

Consistent use: High reporting Rates

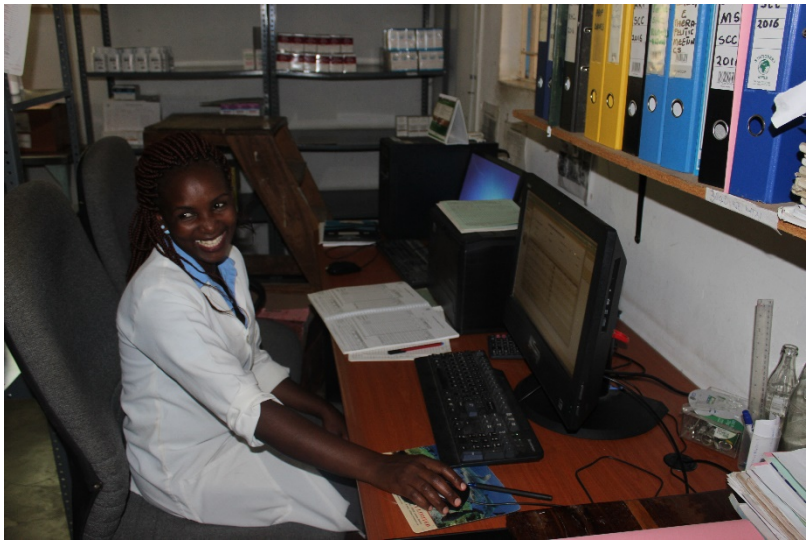


Consistent use: Increasing access



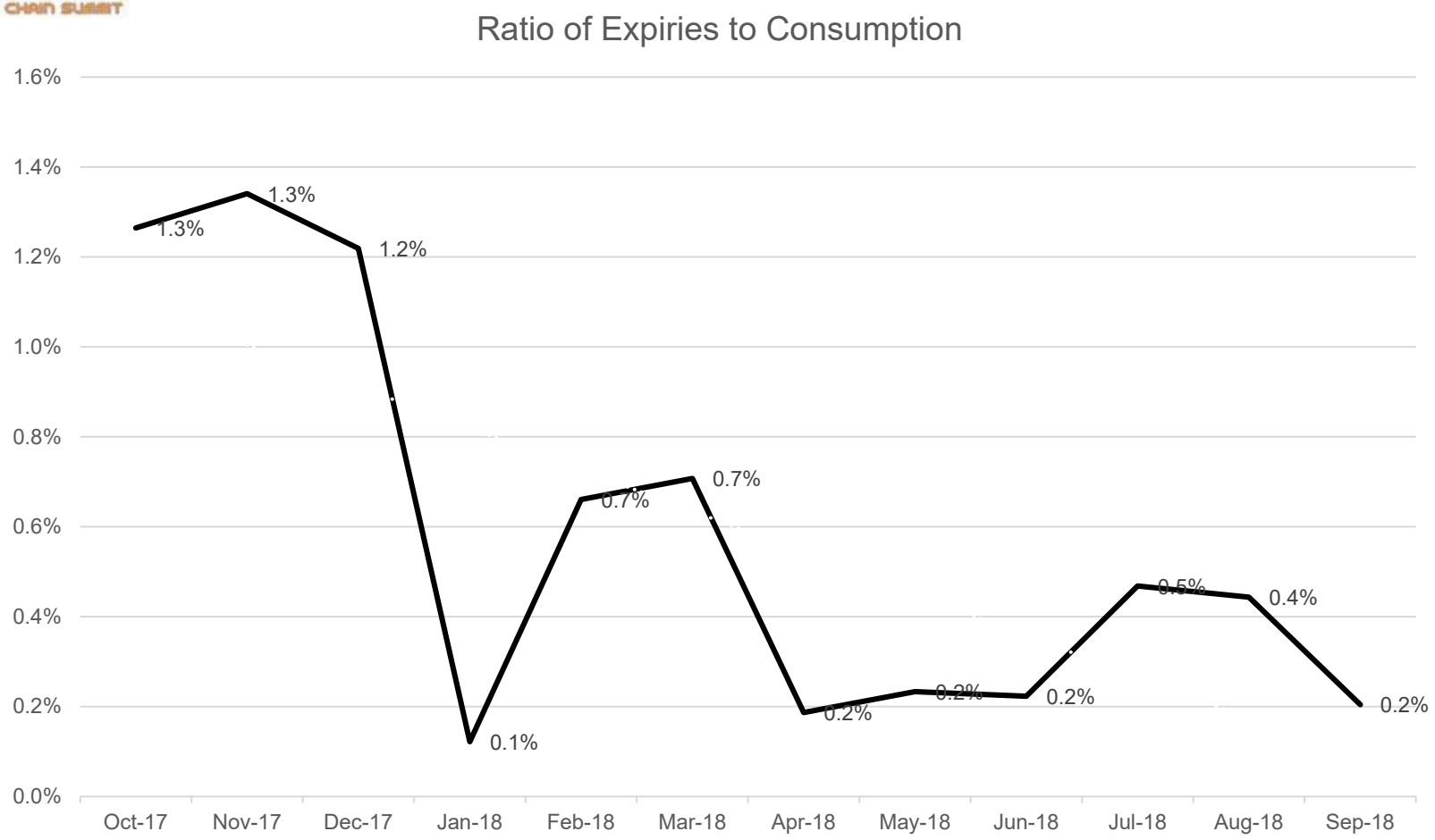
Opportunities: User satisfaction

"eLMIS has helped reduce expiries because we are able to re-distribute drugs which are about to expire through viewing the status of other facilities on the system," says Sichili Mission Hospital pharmacy technologist Elizabeth Galufu.



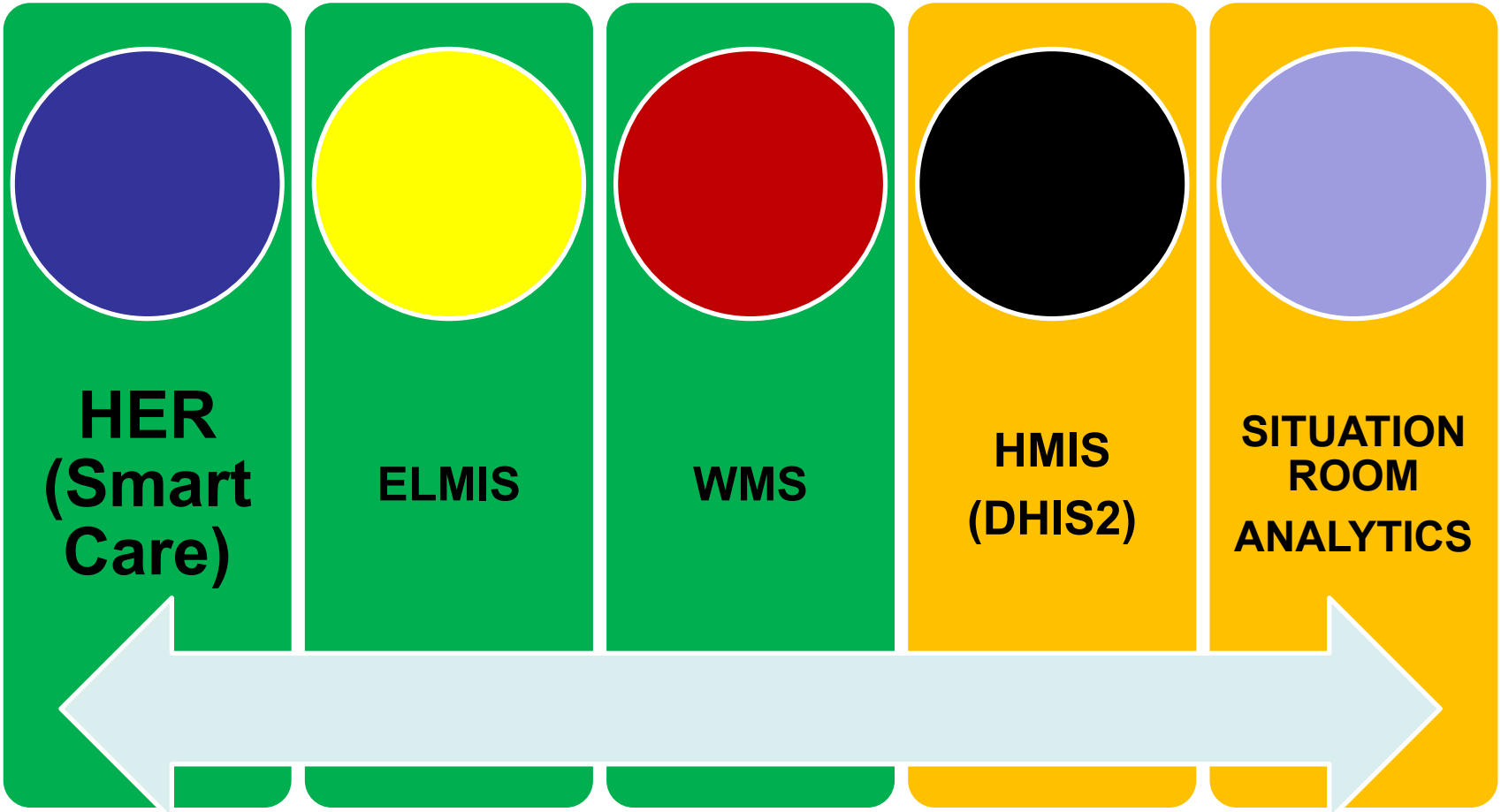
Sichili Pharmacist using eLMIS

Opportunities: Impact - Timely Interventions - Ratio of Expiries to Monthly Consumption (ARVs)

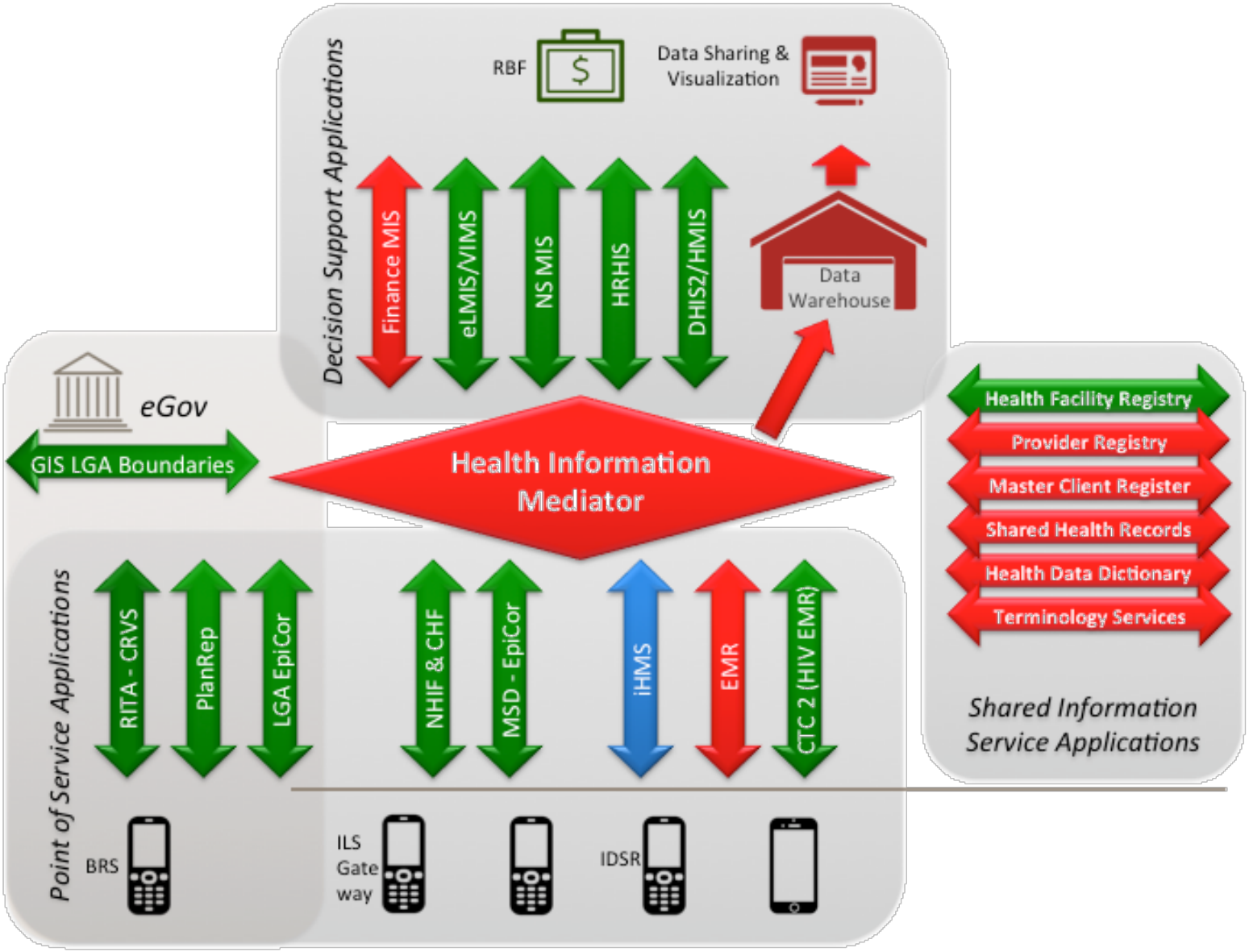


Supply Chain Integration Concept

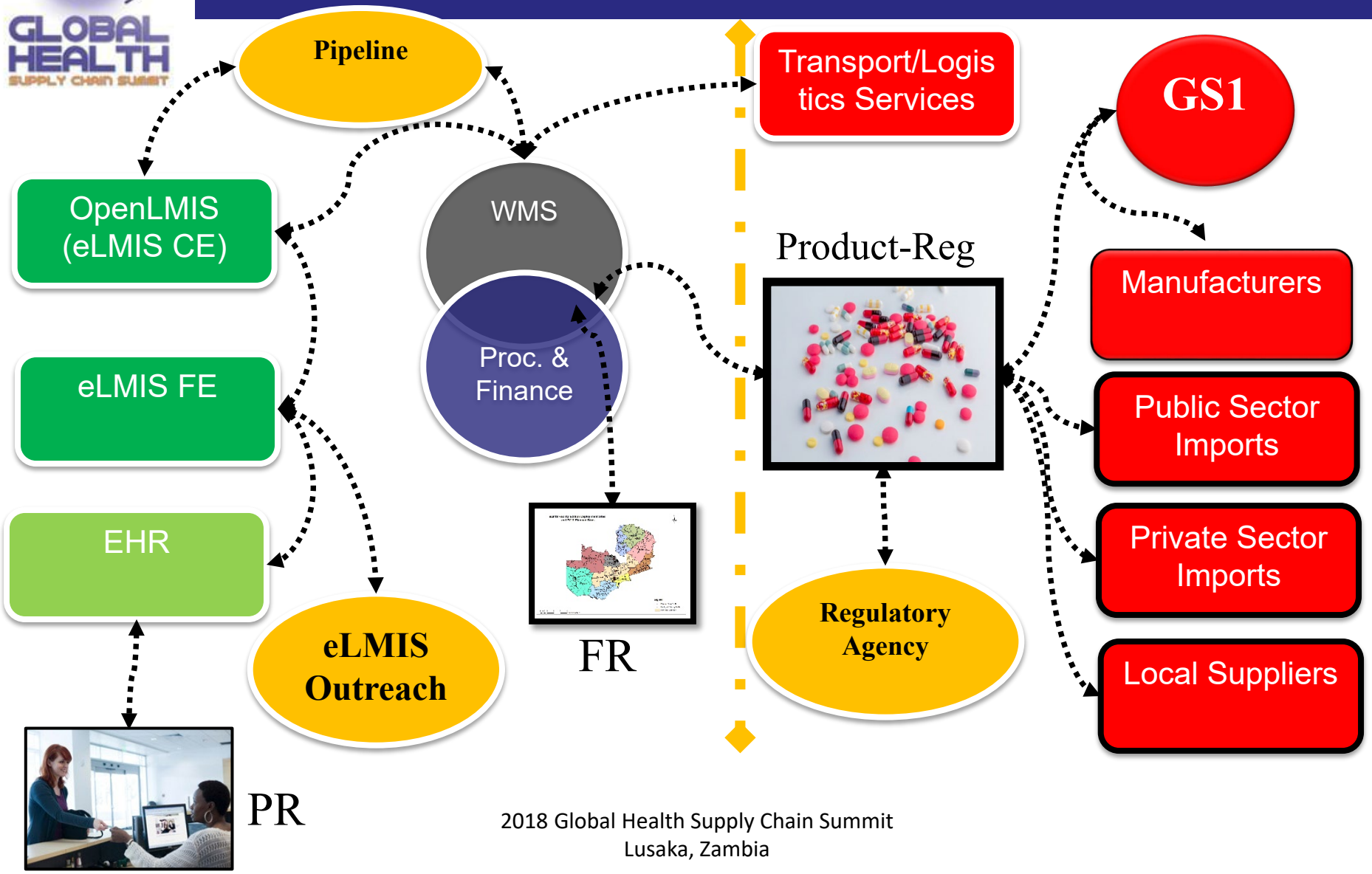
Systematic Process: Low hanging fruit



Process: HIE Framework - Adopt and Adapt



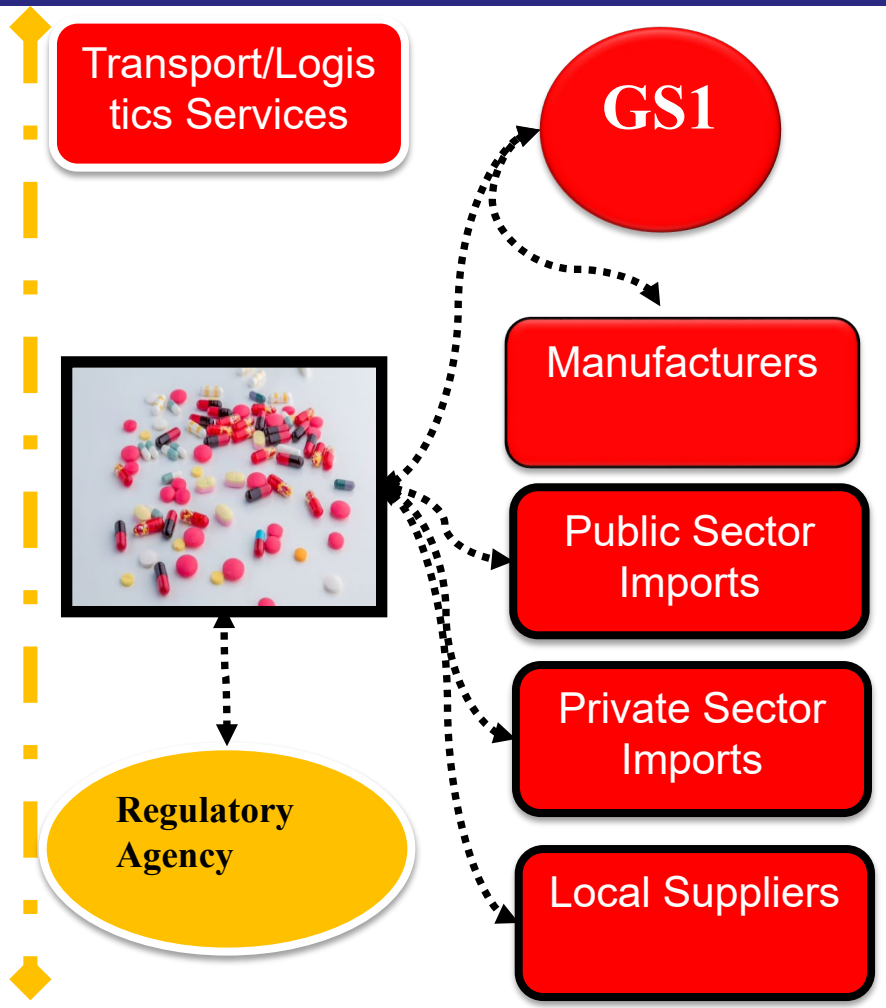
Supply Chain Systems: whiteboard conceptualization



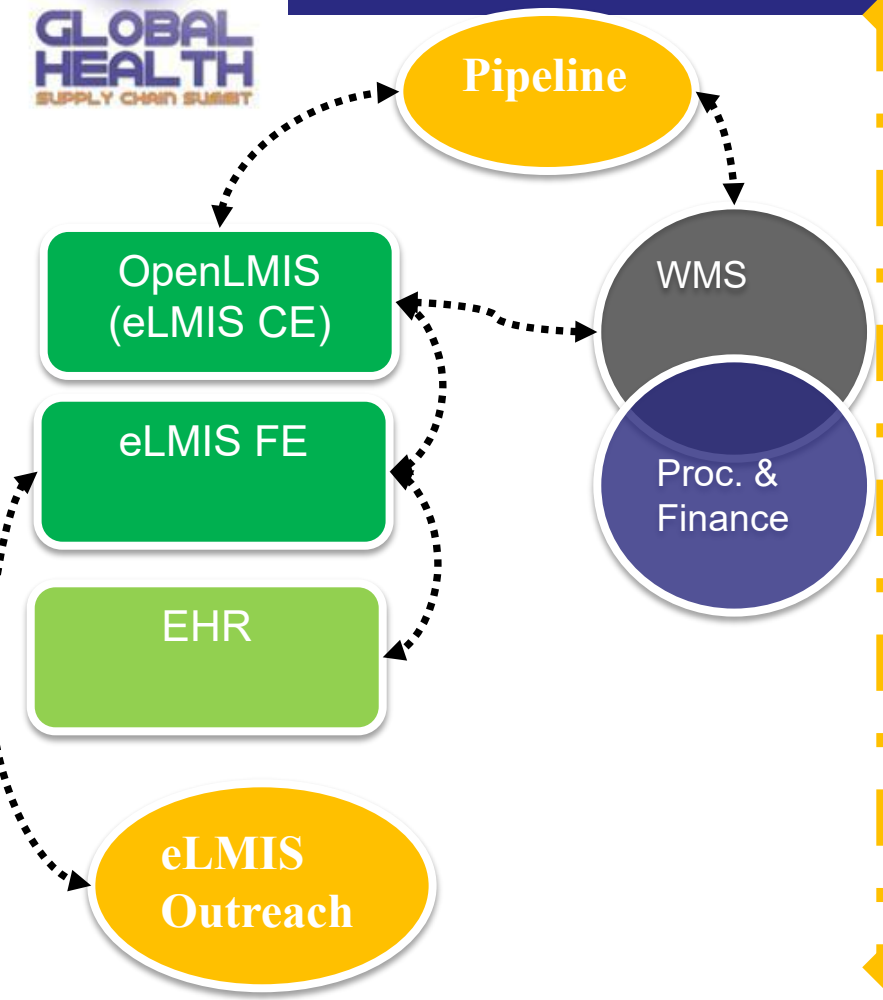
Benefits: Source Systems

Use cases:

- Barcode tracking
- Procurement tracking
- Enforcement of pack size standardization
- Advance shipment notice
- National regulation and commodity tracking

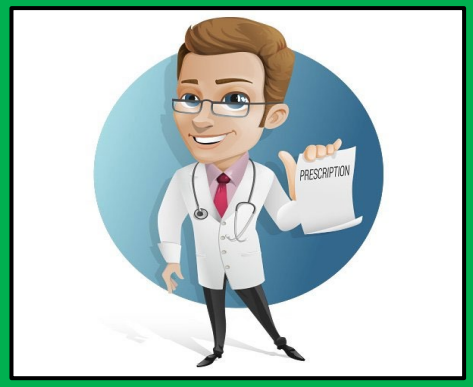


Benefits: Downstream Systems



- Registries
  - Product registry – Batch tracking, local sourcing at SDP and central level
  - Facility registry – service mapping
  - Patient registry – service record
- Transactional Data Exchange
  - Dispensation – accurate and timely demand monitoring
  - Stock status (all levels) – timely interventions
  - Wastage/expiries – timely avoidance

Benefits: SmartCare (EHR) & eLMIS FE



SmartCare

- Lab results
- Registration
- Prescription

- Dispensation

eLMIS FE

Pre-requisites

- Conduct a readiness assessment – aim to add value
- Standardization of health information collected and exchanged across clinical and public health enterprise
- Establish efficient business processes - workflows
  - Carefully adopted/developed – paying attention to dependencies that may become points of failure
- A coordination team

Challenges

- Need for resource harmonization
- Infrastructure needs
- Varying priorities and funding cycles for partners

Lessons

- A systematic bottom-up approach
  - A results oriented implementation strategy
- Coordinate systems integration achievable with strong governance structures
- Positive impact drives demand for data visibility at all levels
- The scope for supply chain data needs is wide - requires critical financial and technical resources

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