



TechNet-21
The Technical Network for
Strengthening Immunization Services



DEPLOYING AN ELECTRONIC LMIS: MAKING THE RIGHT CHOICE

A webinar series in association with the
COVID Digital Health Centre of Excellence (DICE)



We are TechNet! www.technet-21.org



Established by WHO and UNICEF in 1989, we are a global network of immunization professionals committed to strengthening immunization services by:



Building relationships



Sharing knowledge



Coordinating activities

Our goal

To improve immunization services

by **bringing together** immunization professionals

at **every level**,

in **every country**, and

from **every sector**



Our community



4,000+ immunization professionals, from 100+ countries, **come together** on our website to:

- Connect & make new contacts
- Ask questions, provide answers, share knowledge
- Join specialist communities of practice
- Participate in upcoming events
- Search for guidance & browse key publications curated by global experts



TechNet-21

The Technical Network for
Strengthening Immunization Services

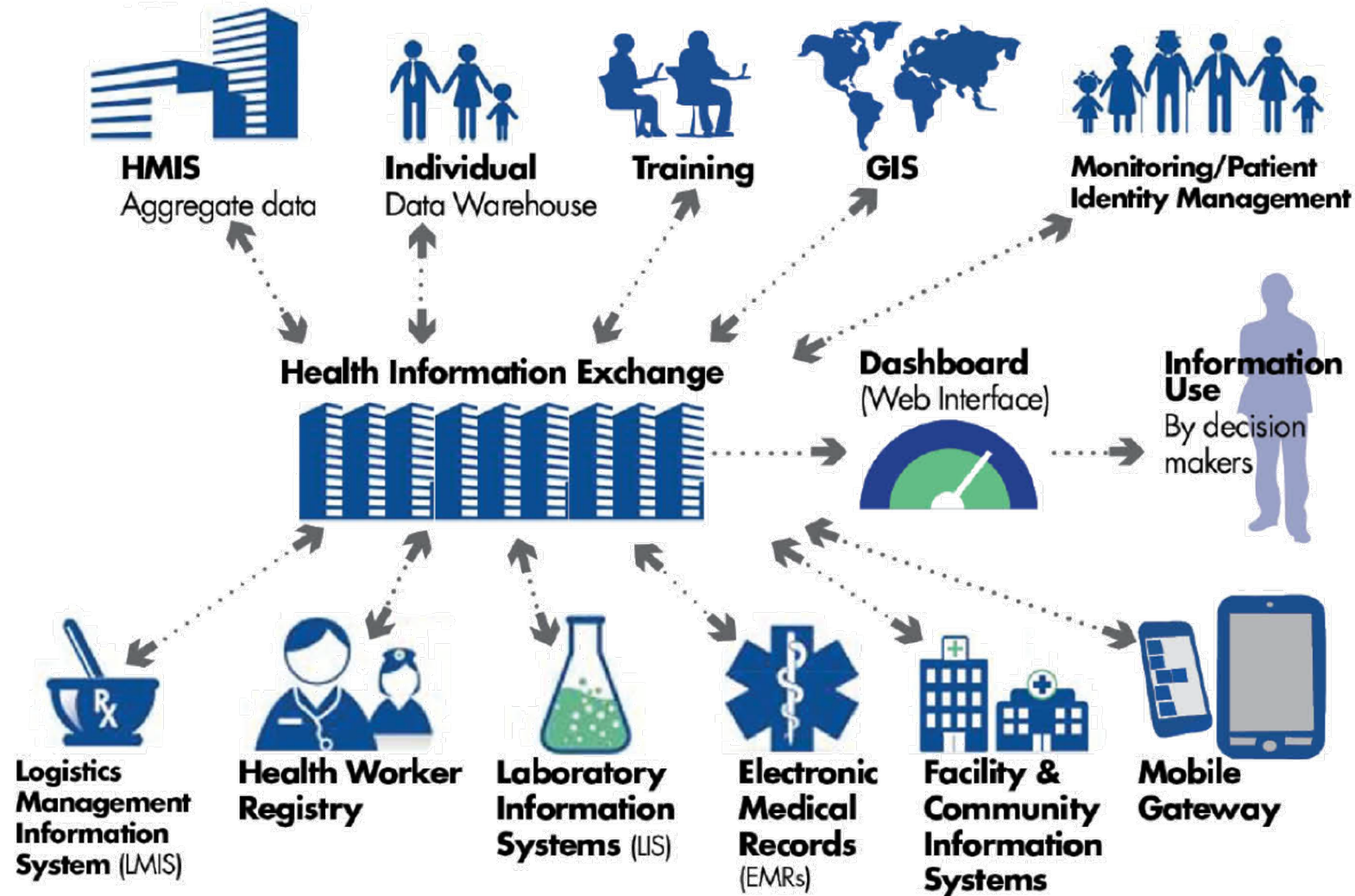
DEPLOYING AN ELECTRONIC LMIS: MAKING THE RIGHT CHOICE

You Want to Deploy an eLMIS. Now What?

Chris Wright, Consultant

September 20th, 2021

Context: The eHealth Evolution

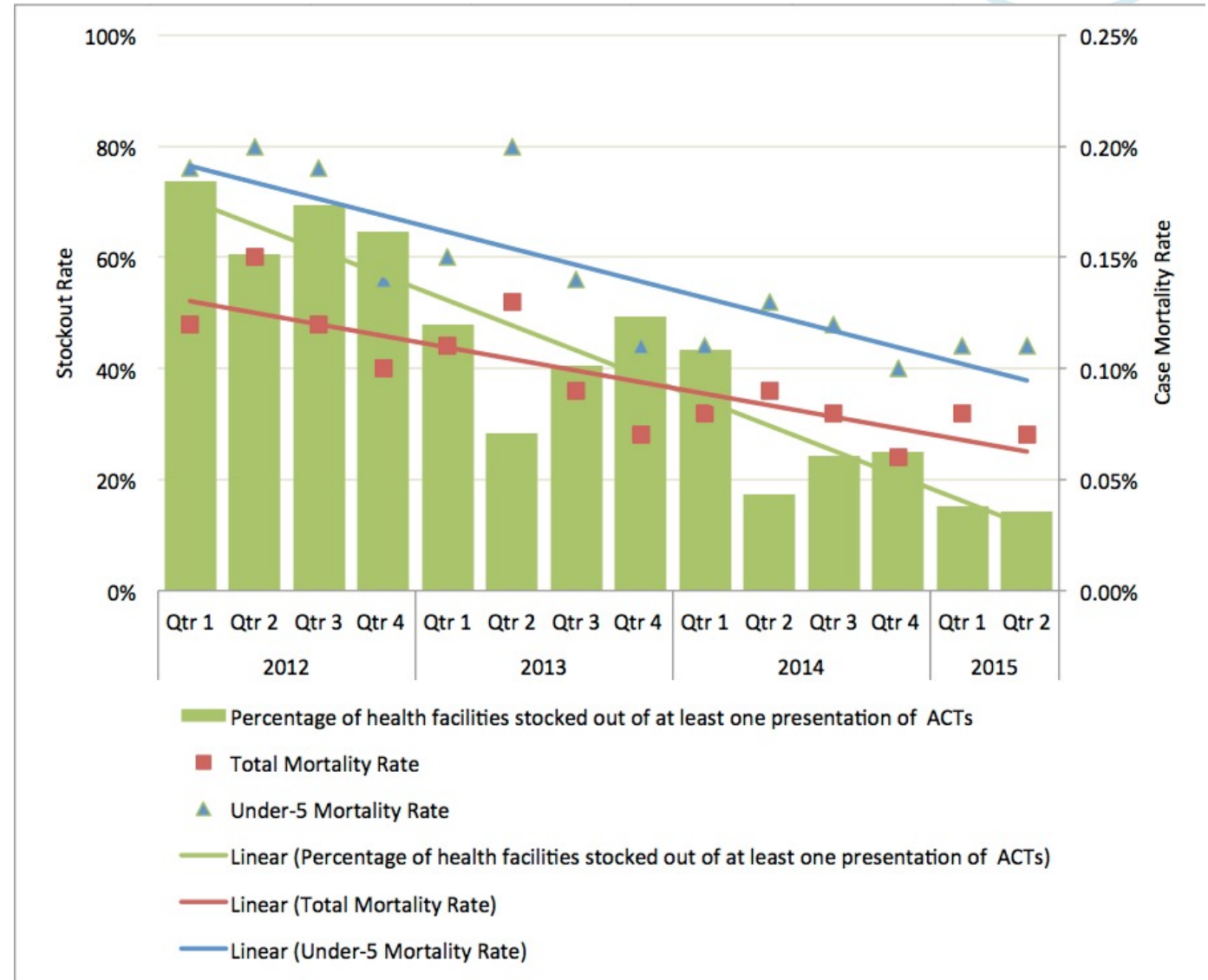


No Product No Programme



Supply chains are essential to health systems and health outcomes.

- Chart: Correlation Between Malaria Mortality Rates and Product Availability




Benefits of eLMIS

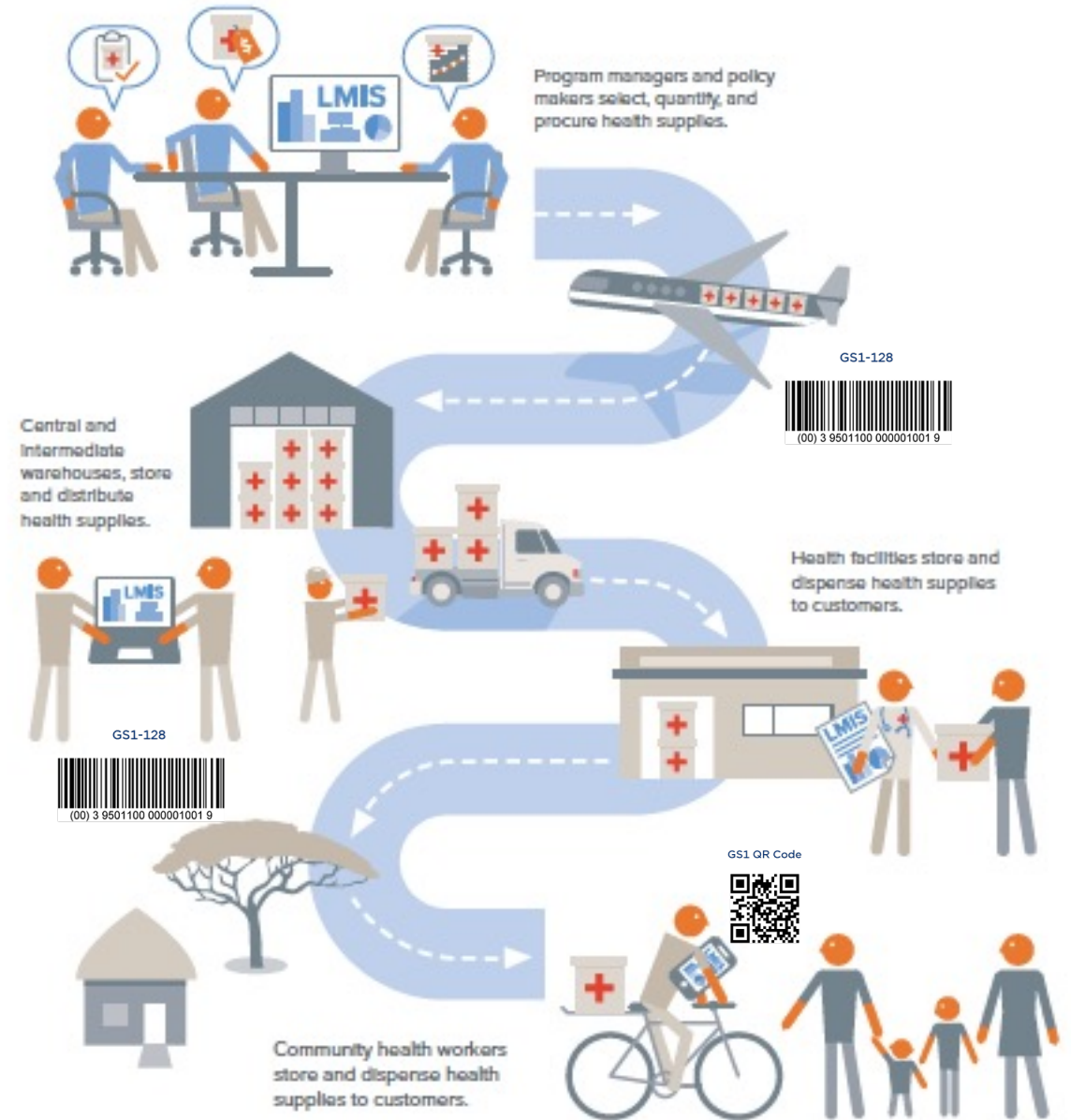
 Faster, easier, and more accurate reporting of data

 Better data visibility for managers

 Better decisions regarding stock levels

 Reduced stockouts

 Better health outcomes



Importance of Traceability for COVID-19 Vaccines and Medicines



- Falsified vaccines and medicines cost LMICs \$30 billion per year and over \$200 billion globally.
- Nigeria issued warning of “fake vaccines” in market. China detected fake vaccines ready to be shipped to Africa. And charging for C19 counterfeit vaccines in Mexico.
- Not just a LMIC issue: In the United States, \$3.2 million of “mislabeled, fraudulent, unauthorized or prohibited COVID-19 related products.”

28th WHO Regulatory Update on COVID-19

05 February 2021

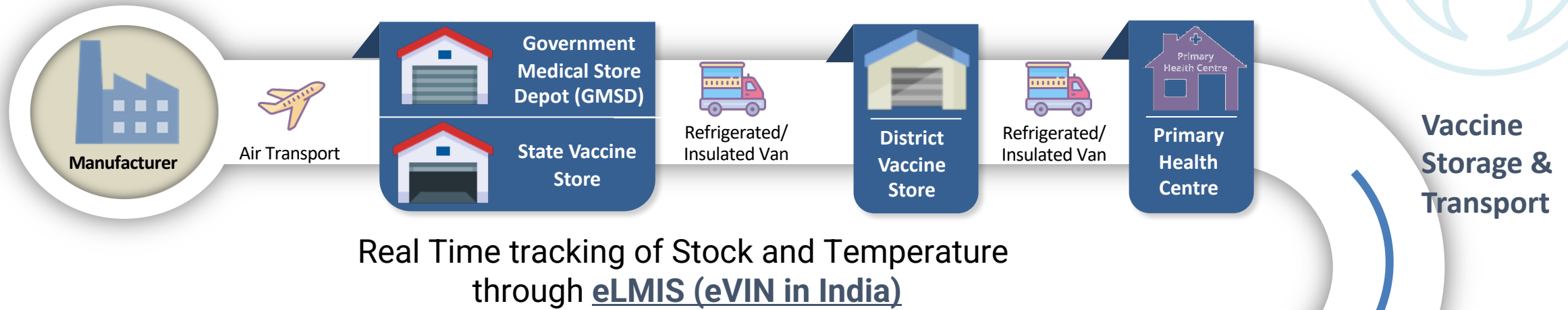


World Health
Organization

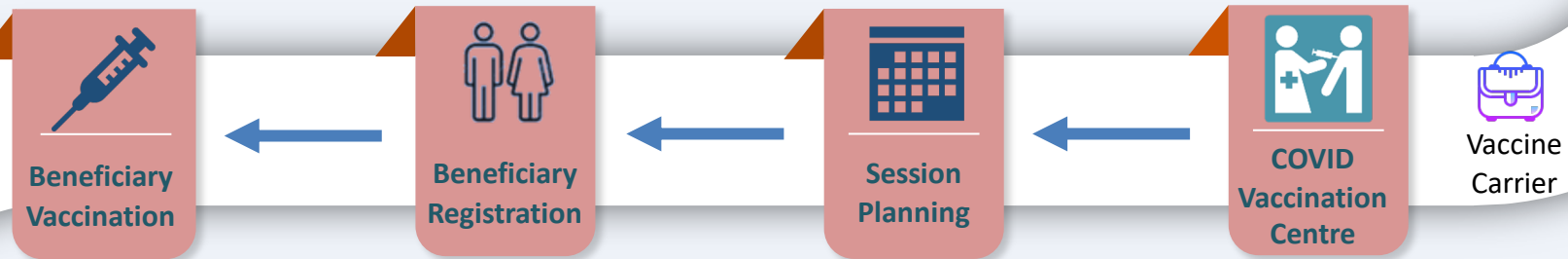
- WHO has received reports from multiple sources of suspicious offers to sell or supply COVID-19 vaccines to national regulatory authorities or Ministries of Health.
- These are attempts to defraud national regulatory authorities or Ministries of Health.

Sources: WHO, A Study on the Public Health and Socioeconomic Impact of Substandard and Falsified Medical Products, 2017; [ABPI Website accessed on 2 August](#); Times of India, [Surge in fake certificates as new players flood market with COVID-19 med products](#), accessed on 1 August 2020. BBC News April 2020, Coronavirus Fuels a Surge in Fake Medicine; Courtney, G., [European Pharmaceutical Review](#).

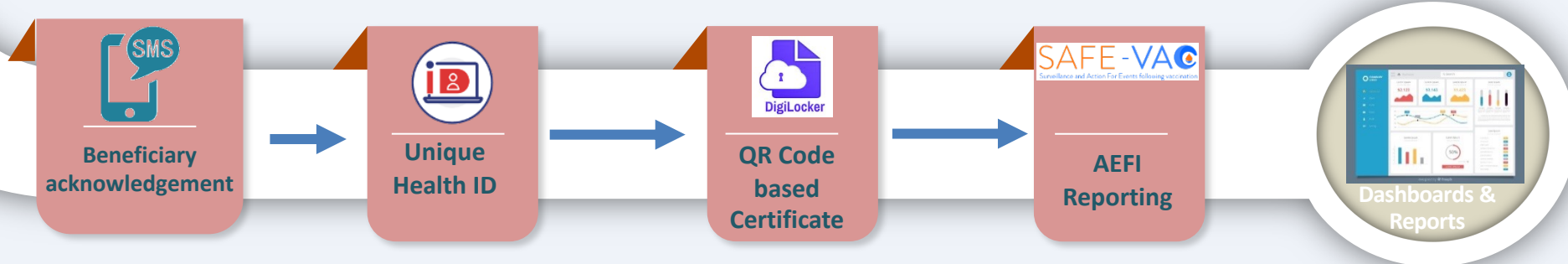
COVID -19 Vaccine Delivery Management System



Planning & Conducting Vaccination

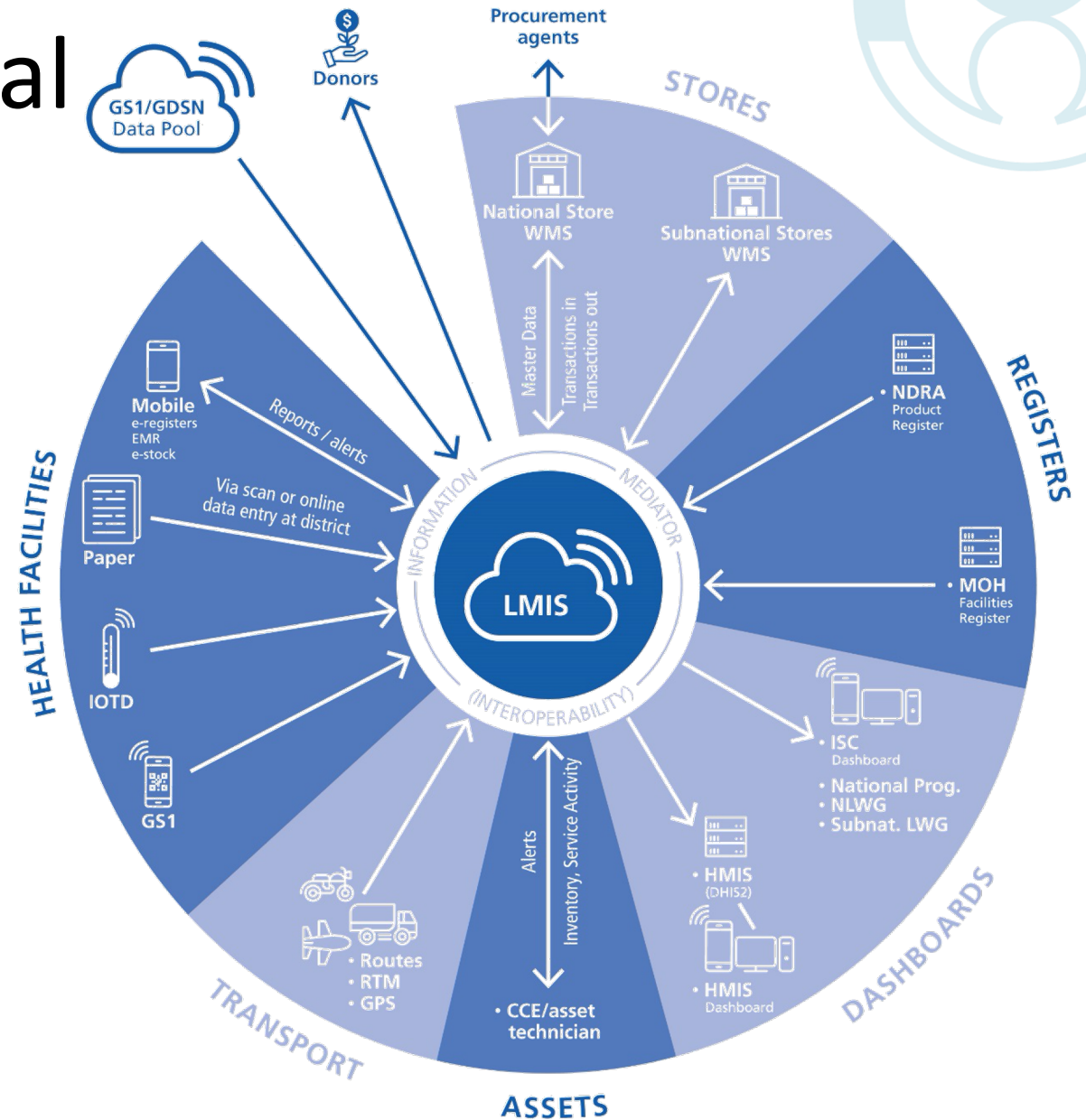


Real time recording of Vaccination event using digital tools (Co-WIN in India)



Digital LMIS Conceptual Model

- CCE:** Cold Chain Equipment
- GDSN:** Global Data Synchronization Network
- GPS:** Global Positioning System
- HMIS:** Health Management Information System
- ISC:** Immunization Supply Chain
- NDRA:** National Drug Regulatory Authority
- NLWG:** National Logistics Working Group
- RTMD:** Remote Temperature Monitoring Device
- WMS:** Warehouse Management System



Qualified LMIS Software Solutions



Software Solution	Requisition/ Allocation	Inventory Control ¹	Warehouse Management	Asset ² Management	Performance Dashboard	Business Intelligence	Mobile App Option	Software as a Service	Cloud Hosting Only
Logistimo	✓	✓	*	✓	✓	✓	✓	✓	
OpenLMIS	✓	✓	*	✓	✓	*	✓		
mSupply	✓	✓	✓	✓	✓	*	✓	✓	
Vitalliance LMIS	✓	✓	✓	*	✓	✓	✓	✓	✓
Entuition Vesta	✓	✓	✓	✓	✓	✓	✓	✓	✓
e-LMIS Medexis	✓	✓	*	*	✓	✓	✓	✓	✓
Field Supply	✓	✓	*	*	✓	*	✓	✓	✓

¹ at health facility or district store

² Inventory and functionality of cold chain equipment, diagnostic equipment, etc.

✓ Core functionality

* Achieved through interoperability with other applications

Project Management Activities



1. Project planning and management, including development of, and agreement on, implementation phases
2. Requirements review and business processes analysis
3. Hardware selection and procurement for servers and user devices (computers, tablets, or mobile phones)
4. Support for server environments set up and configuration (local or cloud hosted) including SMS Gateway
5. Configuration, integration, data migration, testing, and user acceptance testing (UAT) of all three systems including
6. Scope, budget, and develop new software features for essential functionality unavailable in existing versions
7. Support for establishing system backup and recovery /business continuity protocols, SOPs, and infrastructure
8. Change management including stakeholder communication and user training strategy for all phases of implementation
9. Developing a rollout plan and training plan
10. Planning and conducting Training-of-trainer sessions and supporting training rollout
11. Training and mentoring system administrators
12. Establishing and training a local help desk and user support team
13. Develop detailed system operations and maintenance document
14. Go Live support, including trouble shooting and bug fixes for at least six months after Go Live
15. System handover within 6 months of Go Live and mentoring for the duration of the contract



Cost components

- Server environment hardware (or cloud service) and broadband Internet service
- Implementation technical assistance (12 months minimum contract)
- Project office space and ICT hardware
- Devices for users: mobile phones/tablets/laptops
- Workshop costs for central level staff for 5 days: 20-30 people
- Training cost for regions in the capital: 4 days and for XX people
- Training cost for 4 days for XX people within each district.
- Printing of user guides/job aids for training (# pages and # users to be determined)
- Cost of project governance committee meetings at central level: every month and every quarter
- SMS costs and gateway cost

Implementation: Focus on people & processes



- Training:
 - Hands-on and hand-holding
 - Pre & post test analysis
 - Identifying those that need priority visits
- Post Training:
 - Monitor use: transaction within 24 hours
 - Prioritize HFs: new HCW, no activity, multiple stock counts, new HF?
 - Activity monitoring and mentoring
 - Capacity building of managers (district, state/regional, etc.)
 - Review meeting actions and results
- Application Updates:
 - Inform users and train on new features
- Health Facility Visits:
 - Visit every HF once in 2 months
 - Match Physical Stock to Registers and app entries and correct errors
 - Review SoP of LMIS and physical store with HCW
 - Check the inventory of cold chain equipment, and update any changes
 - Capacity building and mentoring
- Follow up after any physical transaction (e.g. issuing, receiving, dispensing):
 - Data should be updated in the eLMIS within 24 hours of physical transactions and any level
 - Monitor compliance with FEFO
 - Provide feedback and mentoring

Additional Resources



Name	Description	URL
Common Requirements for Logistics Management Information Systems.	Methodology for producing descriptions, models, and figures that accurately represented the views and needs of global health professionals. The document can be used by global health practitioners who are interested in applying it to inform software development related to health systems.	https://path.azureedge.net/media/documents/TS_lmis_crdrm.pdf
Results of Request for Information conducted jointly by Gavi and The Global Fund Qualified Software Solutions for Logistics Management Information Systems (LMIS)	Guidance for countries planning the selection, acquisition and deployment of new logistics management information system (LMIS) software. Identifies off-the-shelf applications and service providers meeting global standards and common requirements for health supply chain LMIS that are appropriate in challenging and resource-constrained environments.	https://www.theglobalfund.org/en/sourcing-management/updates/2020-04-07-guidance-for-countries-selecting-a-logistics-management-information-system/
Target Software Standards for Vaccine Supply Chain Information	Guide for identifying potential LMIS solution providers by defining formative standards for LMIS solutions adapted to the unique needs of immunisation supply chains in low- and middle-income countries.	https://www.gavi.org/sites/default/files/document/target-software-standards-for-vaccine-supply-chain-information-systemspdf.pdf
Digital Principles Maturity Matrix	An interactive tool to better align proposal evaluation with the Principles for Digital Development throughout all phases of the project lifecycle.	https://digitalprinciples.org/resource/digital-principles-maturity-matrix-for-program-design-and-proposal-evaluation/
Critical Success Factors for Deploying Digital LMIS	These critical success factors are based on real field implementation of eLMIS and are aligned with the Principles for Digital Development.	https://www.jsi.com/JSIInternet/Inc/Common/download_pub.cfm?id=18286&lid=3

Contact UNICEF or UNDP Country Offices for Help in Next Steps

Looking for the slides?



Presentation slides, as well links to the English and French **recordings** on YouTube, can be found on the eLMIS topic page on TechNet-21:

www.technet-21.org/en/topics/elmis

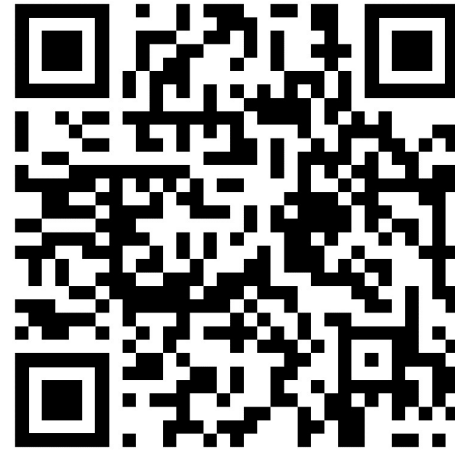
Coming up next in the eLMIS webinar series...



Webinars in the series will be held **every Tuesday at 15h CET.**

Date (tentative)	Title
September 23	Bileeta
September 30	Field Supply
October 7	Logistimo
October 14	Medexis
October 21	Vitalliance/OpenLMIS
October 28	DHIS2's Last Mile eLMIS Module
November 04	Panel discussion: What's the right solution for you?

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Telegram group for ISC:

<https://t.me/joinchat/30CWHNCpa44zODVk>

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Twitter: www.twitter.com/TechNet21Mod