

**Session Types:**

<http://exhibitionfloor.himss.org/gdhf17//custom/images/2017%20GDHF%20Abstract%20Submission%20Form.pdf>

[Abstract 1](#)

[Managing an Open Source Community - Successes & Challenges](#)

[Abstract 2](#)

[OpenLMIS: Data Visibility for Improved Supply Chains](#)

[Abstract 3](#)

[OpenLMIS Vaccine Module](#)

[Abstract 4](#)

[OpenLMIS community management \(alt. With expert roundtable\)](#)

[Abstract 5](#)

[Abstract 6](#)

[Agile Software Development for Global Health: How to make positive change and stay nimble](#)

[Abstract 7](#)

[DHIS2 and OpenLMIS: HMIS/LMIS Integration Demonstration](#)

Abstract 1

**Session Type: Facilitated Roundtable Expert Discussion**

Several Roundtable discussions will take place where an expert will make a brief presentation regarding their area of expertise, followed by a rich 15 minute discussion with a small group of participants. Only one presenter name allowed with abstract submission.

**Abstract Title (pithy, two line descriptive summary):**

Managing an Open Source Community - Successes & Challenges

**Presenter:** Tenly Snow

**Description of Session (1000 characters)**

OpenLMIS is an open source electronic logistics management information system (LMIS) built to manage health commodity supply chains in low- and middle-income countries, and is a growing initiative to provide a full-feature electronic LMIS solution to Ministries of Health to increase supply chain efficiency and data visibility. The OpenLMIS community, made up of a consortium of health, technical, and funding partners, is vibrant and active. These partners share an interest in aligning standards within global LMIS processes, and are strong supporters and advocates for open source software development. The session will be facilitated by the OpenLMIS community manager, who will discuss the strengths of the OpenLMIS community and explain how open source software is contributing to the development goals of LMICs and is benefitting both national health systems and the global health community. Special note: We are also submitting the idea of an open source community presentation as a panel presentation in case organizers feel that either session format is a better fit.

### **Learning Objectives (1000 characters)**

Following this session, participants will understand:

1. The meaning of 'open source software'
2. What an 'open source community' is and how the OpenLMIS community reflects this
3. How open source software has and can contribute to global health projects and programs
4. Best practices for open source community management - the strengths of the OpenLMIS community and how these match to the DIAL Open Source Community Maturity Model
5. Challenges faced by open source communities and how to address these challenges

### **Intended Takeaways (2000 characters)**

The intended takeaway for participants in this session is a greater understanding of the role that open source software plays in global development and the collaboration taking place between influential health, implementation, and funding partners in open source communities. The facilitator would like participants to leave the session feeling informed and able to discuss open source software development and existing tools, and have an appreciation for the collaborative processes currently being explored in community work. Additionally, participants would also come away from the session with a clear understanding of the specific makeup of the OpenLMIS community, the background on its open source development, the mission and vision of the initiative, and the strengths of the community as they relate to the DIAL open source community maturity model.

### **Why is your abstract important in the evolving digital health landscape? (2000 characters)**

Public health supply chains need accurate, timely logistics data in order to make informed decisions about procurement and supply of essential health commodities. Too often, this information is inaccurate or simply not available. As a result, health systems in many countries continue to experience stockouts of essential medicines, leaving people vulnerable to treatable illness and disease.

In many cases, countries have had to build and support their own custom logistics management information system (LMIS) solutions, or rely on costly commercial or proprietary systems. Globally, this approach is expensive, inefficient, and often results in inadequate solutions that become increasingly difficult to maintain over time. Countries are not able to leverage the work already done by their neighbors, and instead are forced to “reinvent the wheel” when new features are needed. Inadequate resources for ongoing country-level maintenance have led to information systems that are outdated and unable to effectively handle the growing number of health programs and products.

The OpenLMIS initiative incorporates a community-focused approach to develop open source and customizable LMIS systems specifically designed for low-resource settings. The initiative provides an environment where software modules and datasets from newly-developed code and existing systems are made available in a public repository for reuse by other implementations.

OpenLMIS is a leader in both the LMIS software development space and in global discussions on standardization of LMIS tools and practices. The OpenLMIS initiative contributes to the digital health landscape by providing leadership and innovation through a community of public health and LMIS experts. This abstract contributes to the digital health landscape by informing attendees of a key aspect of global health software development - open source initiatives and community management.

The OpenLMIS initiative seeks to improve supply chain efficacy in low resource communities to ensure that people—no matter where they live—have access to essential medicines and supplies when they need them.

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## Abstract 2

### **Session Type: Poster Presentation**

Poster presentations will be featured in their own session this year (not during lunch). All presenters will have an opportunity to present their work and interact with participants for Q&A. Only one presenter name allowed with abstract submission.

### **Abstract Title (pithy, two line descriptive summary):**

OpenLMIS: Data Visibility for Improved Supply Chains

**Presenter:** Tenly Snow

**Description of Session (1000 characters)**

OpenLMIS is an open source electronic logistics management information system (LMIS) built to manage health commodity supply chains in low- and middle-income countries. OpenLMIS is a growing initiative to provide a full-feature electronic LMIS solution to Ministries of Health to increase supply chain efficiency and data visibility. OpenLMIS is continually releasing new functionality within the new version 3 series, including all-new stock management functionality. In addition, work is currently underway to develop a vaccine module within the tool. The vaccine module is being developed with global stakeholder input and user-centered design practices in order to build the most responsive and comprehensive tool possible. The OpenLMIS poster will explain the background of the tool, the nature of the OpenLMIS Community, where the tool is currently implemented, and the current available functionality and product roadmap for future releases.

**Learning Objectives (1000 characters)**

The learning objective for a poster presentation on OpenLMIS is to provide poster viewers with a comprehensive understanding of:

1. Goals and objectives of the OpenLMIS Initiative
2. Partners within the OpenLMIS Community
3. Geographies where OpenLMIS is currently deployed
4. Ability of the tool to integrate/interoperate with other existing electronic supply chain management tools
5. Current functionality available within the tool
6. Future functionality planned in the product roadmap

**Intended Takeaways (2000 characters)**

Intended takeaways from the poster session on OpenLMIS are:

1. An understanding of exactly what OpenLMIS is as an electronic tool for supply chain management
2. An understanding of OpenLMIS as an open source initiative to lead electronic LMIS tool development and supply chain standardization discussions
3. Recognition of the geographies where OpenLMIS is currently deployed and at what scale
4. Familiarity with the current and planned functionality available within the tool
5. Clear path to contact OpenLMIS community members and to learn more about the tool and initiative

**Why is your abstract important in the evolving digital health landscape? (2000 characters)**

Public health supply chains need accurate, timely logistics data in order to make informed decisions about procurement and supply of essential health commodities. Too often, this

information is inaccurate or simply not available. As a result, health systems in many countries continue to experience stockouts of essential medicines, leaving people vulnerable to treatable illness and disease.

The OpenLMIS initiative incorporates a community-focused approach to develop open source and customizable LMIS systems specifically designed for low-resource settings. The initiative provides an environment where software modules and datasets from newly-developed code and existing systems are made available in a public repository for reuse by other implementations.

OpenLMIS is a leader in both the LMIS software development space and in global discussions on standardization of LMIS tools and practices. The OpenLMIS initiative contributes to the digital health landscape by providing leadership and innovation through a community of public health and LMIS experts.

The OpenLMIS initiative seeks to improve supply chain efficacy in low resource communities to ensure that people—no matter where they live—have access to essential medicines and supplies when they need them. The OpenLMIS poster submission will clearly state the mission, vision, scope, and scale of the OpenLMIS initiative so viewers understand and can explain the OpenLMIS software.

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## Abstract 3

### **Session Type: Interactive Workshop**

Interactive workshops will be 60 minutes and must be planned to engage participants in hands-on learning. Shorter than the Lab sessions, the Interactive workshops will aim to highlight an important digital health topic combined with an activity to further participant understanding of the topic. Up to two presenter names allowed with abstract submission.

### **Abstract Title (pithy, two line descriptive summary):**

OpenLMIS Vaccine Module

**Presenter:** Mary Jo and Rachel

### **Description of Session (1000 characters)**

In 2017 the Gates Foundation, along with USAID, renewed a collaborative effort to enhance OpenLMIS and expand functionality within the new architecture to best address the needs of the

low- and middle-income country space. The Bill & Melinda Gates Foundation prioritized creating a vaccine module, a bundle of features to manage supply chains for vaccines. The OpenLMIS community leveraged its expertise in software design and development to collaboratively define the essential features, minimal viable product, needed to provide a foundation for future feature development by the community. Leveraging the experience of the community in supporting a variety of software solutions, SELV, SIIL, VIMS, DVD-MT, SMT, mFLOW, vLMIS, and more, the community collaboratively prioritized and defined the features built into the newly architected OpenLMIS version 3.

The session aims to share the:

- Collaborative prioritization and design approach undertaken by OpenLMIS
- Vaccine featureset developed in OpenLMIS

### **Learning Objectives (1000 characters)**

Open source communities work together to define and prioritize features for the software's roadmap. OpenLMIS would like to share the approach we took for collaboratively defining the vaccine module featureset. We will focus on sharing our methodology and key lessons learned along the way. One key aspect to our approach is bringing together key stakeholders and users. We help a global stakeholder meeting to prioritize the features. Subsequently we brought together end users to participate in user centric design activities. Design thinking is a collection of methods to create solutions to problems in a participatory and iterative manner. Using these types of activities allows us to derive key insights from our end users across multiple countries. The software team in turn is able to build empathy and connection with the users in a way that provides solutions with their user's challenges and goals in mind.

### **Session Design (describe how you will set up the session and encourage interaction, 2000 characters)**

The beginning of the session will focus on providing participants with the context of the effort we undertook to define and build a minimum set of features to support a ministry of health or EPI program in managing the supply chain for vaccines. Once the context is set, we will walk participants through one design activity. There are a variety of different design activities we can choose from ranging from We will have participants participate in the activity itself and explain when and why to use this design approach. We will share lessons learned from our design workshop in Senegal.

We will finish with a brief demo of the new features available in OpenLMIS.

### **Intended Takeaways (2000 characters)**

We hope all participants walk away with understanding the value of using collaborative approaches to defining relevant features for software solutions. The collaborative process provides many positive outcomes, but it takes effort and time.

Takeaways

1. Understand the approach OpenLMIS took to identify, define and build out features.
2. Appreciate why design thinking and principles are essential to building relevant and usable software
3. Build shared understanding around what features are available in OpenLMIS at a high level

**Why is your abstract important in the evolving digital health landscape? (2000 characters)**

Public health supply chains need accurate, timely logistics data in order to make informed decisions about procurement and supply of essential health commodities. Too often, this information is inaccurate or simply not available. As a result, health systems in many countries continue to experience stockouts of essential medicines, leaving people vulnerable to treatable illness and disease.

The OpenLMIS initiative incorporates a community-focused approach to develop open source and customizable LMIS systems specifically designed for low-resource settings. The initiative provides an environment where software modules and datasets from newly-developed code and existing systems are made available in a public repository for reuse by other implementations.

OpenLMIS is a leader in both the LMIS software development space and in global discussions on standardization of LMIS tools and practices. The OpenLMIS initiative contributes to the digital health landscape by providing leadership and innovation through a community of public health and LMIS experts.

The session aims to emphasize the need for transparent collaborative approaches and learning from experiences of others. OpenLMIS undertook a transparent, community-driven approach to prioritization in combination with user centered design to build a the vaccine module. The digital health industry can learn from our successes and failures. We would hope to make connections with others doing similar endeavours and build a larger community around open collaborative software development.

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## Abstract 4

**Session Type: Panel Presentation**

Panel Presentations will feature 15-20 minute PowerPoint presentations accompanied by a Q&A discussion with session participants. You are submitting a presentation that the organizers will work to match to other presentations by thematic, geographic or technical area. Only one presenter name allowed with abstract submission.

**Abstract Title (pithy, two line descriptive summary)**

OpenLMIS community management (alt. With expert roundtable)

**Presenter:** Tenly Snow

**Description of Session (1000 characters)**

OpenLMIS is an open source electronic logistics management information system (LMIS) built to manage health commodity supply chains in low- and middle-income countries, and is a growing initiative to provide a full-feature electronic LMIS solution to Ministries of Health to increase supply chain efficiency and data visibility. The OpenLMIS community, made up of a consortium of health, technical, and funding partners, is vibrant and active. These partners share an interest in aligning standards within global LMIS processes, and are strong supporters and advocates for open source software development. The session will be facilitated by the OpenLMIS community manager, who will discuss the strengths of the OpenLMIS community and explain how open source software is contributing to the development goals of LMICs and is benefitting both national health systems and the global health community. Special note: We are also submitting the idea of an open source community presentation as an expert roundtable in case organizers feel that either session format is a better fit.

**Learning Objectives (1000 characters)**

Following this session, participants will understand:

6. The meaning of 'open source software'
7. What an 'open source community' is
8. How open source software has and can contribute to contribute to global health projects and programs
9. Best practices for open source community management - the strengths of the OpenLMIS community and how these match to the DIAL Open Source Community Ma
10. Challenges faced by open source communities and how to address these challenges

**Intended Takeaways (2000 characters)**

The intended takeaway for participants in this session is a greater understanding of the role that open source software plays in global development and the collaboration taking place between influential health, implementation, and funding partners in open source communities. The facilitator would like participants to leave the session feeling informed and able to discuss open source software development and existing tools, and have an appreciation for the collaborative processes currently being explored in community work. Additionally, participants would also come away from the session with a clear understanding of the specific makeup of the OpenLMIS community, the background on its open source development, the mission and vision of the initiative, and the strengths of the community as they relate to the DIAL open source community maturity model.

**Why is your abstract important in the evolving digital health landscape? (2000 characters)**



Public health supply chains need accurate, timely logistics data in order to make informed decisions about procurement and supply of essential health commodities. Too often, this information is inaccurate or simply not available. As a result, health systems in many countries continue to experience stockouts of essential medicines, leaving people vulnerable to treatable illness and disease.

The OpenLMIS initiative incorporates a community-focused approach to develop open source and customizable LMIS systems specifically designed for low-resource settings. The initiative provides an environment where software modules and datasets from newly-developed code and existing systems are made available in a public repository for reuse by other implementations.

OpenLMIS is a leader in both the LMIS software development space and in global discussions on standardization of LMIS tools and practices. The OpenLMIS initiative contributes to the digital health landscape by providing leadership and innovation through a community of public health and LMIS experts. This abstract contributes to the digital health landscape by informing attendees of a key aspect of global health software development - open source initiatives and community management.

The OpenLMIS initiative seeks to improve supply chain efficacy in low resource communities to ensure that people—no matter where they live—have access to essential medicines and supplies when they need them.

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## Abstract 5

### **Session Type: Pre-formed panel**

Pre-formed panels should include 3 to 4 presentations on the same topic, and should last no longer than 60 minutes including time for Q&A. Presenters will give a powerpoint presentation followed by guided Q&A. All pre-formed panels must also identify a moderator for the session. Pre-formed groups with interactive content should apply as an interactive workshop. Up to four presenter names allowed with abstract submission.

### **Abstract Title (pithy, two line descriptive summary)**

HMIS/LMIS Integration: A Tanzania Case Study in Integration, Interoperability, Analysis and Governance

**Presenters:****JSI**

Alpha Nsaghurwe

Chris Wright (will put name down for now on abstract submission, can change later)

**GHSC-PSM / RHSC SSWG**

Ellen Tompsett or Kyle Duarte (will put Ellen for now but Kyle may be subbed later)

**VillageReach / OpenLMIS**

Erin Larsen-Cooper (Putting Erin for now, may sub depending on availability)

**Description of Session (1000 characters)**

This panel will include three presentations by JSI and VillageReach, with a moderator/contributor from GHSC-PSM. JSI will facilitate two presentations:

- 1) **Chris Wright, JSI HQ:** HMIS/LMIS integration, the case for maintaining separate but interoperable technology applications for LMIS and HMIS data. As information systems become more prevalent, it's essential to deploy best-in-class solutions within an enterprise architecture instead of trying to make one solution meet every need. At the same time, simplifying data collection at the last mile, and combining data elements from different systems within a single dashboard at the central level, can improve data quality and enable greater insight through robust data analytics.
- 2) **Alpha Nsaghurwe., Tanzania Field Office:** Many countries are now moving away from siloed information systems requiring redundant data entry in an effort to harmonize data collection efforts across the HIS landscape. The Tanzania team will discuss successes and lessons learned in integration between OpenLMIS and DHIS2, through a Health Information Mediator, a platform with an extensible architecture that enables vital information to be shared across multiple systems, encouraging intelligent decision-making and increasing supply chain efficiency
- 3) **Mavere Tukai, GHSC Tanzania:** Looking beyond information systems and technology, organizational changes are needed to support and sustain these systems. In Tanzania, the change management process built ownership at the district level by helping administrators and health management teams see the value of the eLMIS and own it. As a result, district managers budgeted for their own computers, internet and additional data management personnel. They recognized the value of data visibility on stockouts and expiries to better manage health services and account for health commodity budget.
- 4) **Erin LC., VillageReach HQ:** Data considerations and objectives for integration between standalone HMIS/LMIS systems, referencing a UN Commission white paper and joint VillageReach, JSI, UN Commission case study

GHSC-PSM will provide moderation and additional commentary on the overall discussion, lending the perspective of a key implementer of health systems tools in LMICs.

### **Learning Objectives (1000 characters)**

The intended learning objectives for participants attending this panel are:

- Clear understanding of the types of data captured by health management information systems (HMIS) versus logistics management information systems (LMIS) and the existing electronic tools regularly used for their management in LMICs
- Reasoning behind utilizing separate, integrated electronic tools to manage each type of data (HMIS vs. LMIS)
- Integration and interoperability considerations between HMIS and LMIS systems and challenges relating to data, indicators, cadence, etc.
- The utilization of integrated data and the opportunities for HIS harmonization through interoperability
- An understanding of Tanzania (implementing partner in coordination with Ministry of Health) experience with integrated data collection tools, lessons learned, and broader interoperability and governance context

### **Intended Takeaways (2000 characters)**

Participants attending this session should come away with an understanding of the complex landscape of health information systems in LMICs, specifically regarding electronic systems to manage HMIS and LMIS data. Key takeaways regarding electronic systems should be that while some existing systems may have the capability to collect elements of both program and logistics data, there are existing systems purpose-built to manage logistics-specific workflows and functions. Integration or interoperability with these separate systems is preferable to the utilization of a single system for a number of reasons. By the end of the session, participants should understand the existing systems and the reasons behind a push for interoperability, and the role of governance in ensuring the use and continued support of these systems.

Additionally, participants should leave the session with a greater comprehension of the challenges faced by implementers and country programs when considering both governance of and interoperability between these types of systems. Participants should leave the session aware of the challenges in matching key performance indicators, data collection cadence, and other data considerations, and understand how these issues must be addressed in order to benefit from interoperable systems.

Finally, participants should also leave the session aware of the specific country experience with HIS interoperability in Tanzania, and should be able to speak to the specific challenges and opportunities faced by the implementing partner and Ministry of Health of Tanzania.

### **Why is your abstract important in the evolving digital health landscape? (2000 characters)**

Health information systems are essential for monitoring and aiding in the provision of key health service delivery in LMICs, and for aiding public health officials in making informed decisions about procurement and supply of essential health commodities. HMIS and LMIS systems are

the two pillars of health information systems in LMICs, and with advancements in infrastructure, many countries are turning to electronic tools to manage and streamline these processes. Integration or interoperability between these tools is a key consideration for health implementation partners and country governments in order to ensure a harmonized and efficient supply chain.

By harmonizing supply chains, achieving interoperability between existing systems in-country, and fostering good governance and use of these systems, Ministries and partners are able to avoid stockouts of key health commodities, identify obstacles and problems within the supply chain sooner, and make more informed, uniform decisions across health programs, resulting in faster delivery of care and resources.

Health implementation partners and funders within the global health community are focused on achieving integration between systems as a way of increasing return on investment and sharing benefit between initiatives. This abstract directly addresses these conversations, outlining critical, challenges, opportunities, and use cases to demonstrate what may be achieved by interoperability between dedicated electronic health system tools.

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## Abstract 6

### **Session Type: Panel Presentation**

Panel Presentations will feature 15-20 minute PowerPoint presentations accompanied by a Q&A discussion with session participants. You are submitting a presentation that the organizers will work to match to other presentations by thematic, geographic or technical area. Only one presenter name allowed with abstract submission.

### **Abstract Title (pithy, two line descriptive summary)**

Agile Software Development for Global Health: How to make positive change and stay nimble

### **Presenter:**

Brandon Bowersox-Johnson, VillageReach / OpenLMIS, Software Development Manager

### **Description of Session (1000 characters)**

Agile has become a best practice used by high-tech giants, start-ups and disruptive innovators. Attendees will gain an understanding of agile practices and leave with ideas for how to apply them to improve software development and project collaboration in global health.

Is your work with software or technology projects as effective as it could be? The software world is notorious for broken promises: Tools are not user-friendly or fail to meet user needs; Projects over-run their budget or never finish at all; Work is often scrapped and re-done or never used.

Agile provides a playbook for teams to improve the outcomes of software and technology projects. Working in global health presents challenges such as language and time zone barriers; a complex landscape of partners, decision-makers and community stakeholders; and constraints of last mile settings and low-resource environments. This session will provide an understanding of agile and lessons learned applying agile in global health.

### **Learning objectives (1,000 characters)**

This session will be valuable for anyone working in software or technology projects. Whether attendees are already familiar with agile or not, this session will provide a helpful toolbox of agile practices and ways to implement agile in global health. Topics will include:

- What is Agile? We will cover its principles and practices.
- The Agile project team members and Product Owner.
- How to efficiently translate end-user needs into technology solutions.
- The Agile process: Working in short “sprints” and showing regular progress.
- Example of how to be Agile in the context of long-term contracts, bureaucratic approvals, and regional or country scale.
- Radical transparency: Using a wall or board to see the status of everyone’s work.
- Continuous improvement: How a Retrospective helps the team guide its improvements.
- How does Agile handle timeline, scope, and budget commitments?
- Share examples of what works and lessons learned with last-mile technology solutions and low-resource environments.

### **Intended attendee takeaways (2,000 characters)**

Attendees will learn what agile is and gain an understanding of agile practices they can apply to software or technology projects. In addition, attendees will see examples of how agile practices are applied in global health technology projects. We will share lessons learned in overcoming barriers such as language and time zone and bringing technology solutions to low-resource environments. See the Learning Objectives above for a specific list of the topics.

### **Why is your abstract important in the evolving digital health landscape (2,000 characters)**

Technologies such as mobile phones and internet access are transforming the landscape of global health and development. Cutting-edge technologies such as the cloud, big data, machine learning and analytics are expanding the realm of what is possible.

Developing technology solutions in global health today involves applying cutting-edge technology solutions to global problems. The Agile software process has become an established best practice for large high-tech firms and start-ups. There is significant opportunity to apply Agile to software and technology endeavors in global health. When it works well, it can

help us work faster. We can deliver solutions that bring greater impact with less cost and effort. And we can speed up the pace of our learning and our innovation in order to stay ahead in a rapidly changing environment.

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## Abstract 7

### **Session Type: Lab Session**

Lab Sessions will be 2-3 hour sessions that will provide participants with tutorials and hands-on experience it using digital health platforms. Only submissions that focus on a broad digital health topic/need, such as GIS, and include use of more than one software tool or application, will be considered. An example of a Lab session would be training participants how to customize content and build a mobile training application to reach health workers. There will be a limited number of lab sessions accepted for the Forum and limited seating for participants in Lab sessions. Up to four presenter names allowed with abstract submission.

### **Abstract Title (pithy, two line descriptive summary)**

DHIS2 and OpenLMIS: HMIS/LMIS Integration Demonstration

### **Presenter:**

Mary Jo Kochendorfer

Nicola Hobby

### **Description of Session (1000 characters)**

Many LMICs considering their health information system (HIS) strategy are expressing a growing interest in incorporating systematic analysis of LMIS and HMIS data to improve supply chain performance and service delivery. Two systems in particular that function in a large number of supply chains across countries are DHIS2 to manage HMIS data and OpenLMIS to manage LMIS data. Participants in this lab session will view a demonstration of an integration between DHIS2 and OpenLMIS, and will be guided through a hands-on activity to view data comparisons between the two systems.

In this session, an actual demonstration environment will be displayed and participants will both view the software functionality within the integrated systems and hold a discussion on considerations for HMIS/LMIS integration in the country context.

### **Learning objectives (1,000 characters)**

This session addresses a major topic of interest expressed by a large and growing number of partners working in the global health space. Country programs, partners, and funders regularly

express the desire for integration between standalone health information systems managing various datasets within health commodity supply chains and programs.

LMIS and HMIS datasets are often managed by different departments within ministries of health. As a result of these silos, decision makers do not have easy access to all the data they need to effectively monitor and plan health systems performance. Both HMIS and LMIS systems are necessary and serve different functions, users, and workflows. While integrating the HMIS and LMIS systems is not necessary, systematically integrating the data from HMIS and LMIS systems has the potential to facilitate routine communication and data sharing between these silos, improving supply chain performance and health service delivery by enhancing data visibility and data use in decision-making among health system stakeholders.

### **Session Design (2,000 characters)**

The session will be a demonstration of a software integration between OpenLMIS and DHIS2. During the session, facilitators will walk participants through the data capture process in each system, demonstrating how data capture can be completed asynchronously and by different users in separate locations. An additional point to be demonstrated will be how a user can capture data in the same workflow but across two systems, allowing staff to focus on tasks specifically related to their work (for example health delivery versus supply management), or facilitating the ability of a single user to leverage multiple systems.

Once participants have walked through various processes for entering data, participants will be able to see how the data in each system can be used together in supporting the decision making process within a health program for resupplying facilities with stock/vaccines. Facilitators will then lead a discussion on the advantages and disadvantages of leveraging different systems for varying workflows as opposed to utilizing a single system to collect all data points.

### **Intended attendee takeaways (2,000 characters)**

The integration of two or more separate information systems, like an HMIS and LMIS, is likely not a simple, one-time investment. In order for the integration to be sustainable, the underlying technology—and the processes that support it—need to be planned and designed with ongoing support and maintenance for implementation, including considerations for data mapping, system synchronization, software updates, and customization.

Intended takeaways from this session are for attendees to understand:

- The country context that standalone HMIS and LMIS systems operate in and the considerations to be taken into account when integrating electronic data management systems
- The exciting potential that could be explored from integration of HMIS and LMIS systems, including numerous benefits to the accuracy of data relating to health services and the efficacy of supply chains for commodity provision

- A selection of the data outputs available from the integration of HMIS and LMIS data points
- Challenges to integration, including matching key performance indicators, data collection cadence, etc., and how these may be mitigated
- The technical backdrop to HMIS/LMIS integration and a demonstration of one potential way two software systems can integrate and share data

**Why is your abstract important in the evolving digital health landscape (2,000 characters)**