To:      David Sarley, Lindabeth Doby

From:    Sarah Jackson, Jake Watson

CC:      Tim Wood, Anna Rapp, Kaleb Brownlow, Ramy Guirguis

Date:    March 11, 2016

Re:      New OpenLMIS Country Implementation Recommendations

---

OpenLMIS is currently planning a significant re-architecture (OpenLMIS Version 3.0). The overarching goal of this work is the implementation of a modular architecture that will maximize shared benefit and donor ROI by promoting code separation and reuse.

In preparation for the re-architecture, OpenLMIS Version 2.0 has recently been released. OpenLMIS 2.0 is a generic, stable install created specifically for new countries that are planning to start a new OpenLMIS deployment prior to completion of 3.0. OpenLMIS 2.0 includes code contributions from all OpenLMIS deployments to date.

Although the 2.0 release is targeted at new implementation countries, stakeholders have raised questions about whether countries considering an eLMIS implementation should proceed with deploying on 2.0 or wait for 3.0. Concerns include the potential time and cost of upgrading to 3.0, and the target timeline for 3.0 availability. The purpose of this memo is to outline general recommendations for countries currently considering an eLMIS project based on the information that is currently available. This memo will be updated when a specific timeline for the availability of 3.0 is released.

### Re-Architecture Project Status

A key consideration for country recommendations is the target timeline for the 3.0 release. Although we do not yet have a specific 3.0 delivery date, we can provide a brief status update on the re-architecture planning and when a timeline will be available.

In February the OpenLMIS global team briefed the community on the proposed re-architecture alternatives and began facilitating a conversation to gather community and donor feedback. Key messages received during this period included identification of the following priorities:

- Leverage existing investment as much as possible – reuse requirements and code where applicable
- Provide detail on project timeline – goal should be to minimize timeline to 3.0 Minimum Viable Product (MVP) release
- Provide detail on scope of features that will be included in 3.0
- Include community in scoping and technical design decisions
- Accommodate countries that want to deploy in 2016, and software development projects that want to go forward in parallel with the re-architecture

In order to address this input, the global team started a community-wide effort of analyzing the features in use in each OpenLMIS implementation. This analysis will inform the target scope of a 3.0 release and address the best way to maximize existing investments. At the same time, the global team has been

vetting potential software development partners and conducting preliminary technical design work. We are currently planning a week-long community technical design workshop to be held the week of March 28th or April 4th. The output of this analysis will include an OpenLMIS domain model and high-level technical design, which will allow us to derive specific cost estimates and timelines.

While the process of incorporating feedback and encouraging community participation takes longer than going it alone, we believe that this time invested in collaborative problem-solving and planning will pay dividends by keeping the community engaged and invested. The participation of partners is needed for the project to be successful. Based on the community-engagement approach, we anticipate providing a detailed proposal and 3.0 timeline in April.   Although it is too early to provide specific delivery dates, we feel that the delivery of OpenLMIS 3.0 can be brought in significantly given our due diligence done thus far.

In order to produce recommendations in advance of the delivery schedule, we have made the following *assumptions* – based on the best information we have available at this time – for the purposes of this memo:

- sufficient funding will be made available to accelerate the re-architecture
- an OpenLMIS 3.0 MVP will be released by early 2017
- the scope of the re-architecture will include a migration path from 2.0 to 3.0

This memo will be revisited in April and recommendations revised should any of these assumptions change.

## Country-Level OpenLMIS Deployment Recommendations

Given the above considerations, the immediate recommendations for a specific country considering OpenLMIS depends on their readiness for an implementation, the target implementation timeframe and the level of customization needed to support the country requirements. Potential implementing countries should review the following questions:

Readiness

- Are people and processes sufficiently advanced to begin an eLMIS implementation?
- Would the country benefit from a pilot prior to a full implementation?

Timeline

- What it the timeline for kicking-off an eLMIS project?
- What is the target for launching the new eLMIS?
- Are there hard dates that need to be met?

Functional Requirements

- Does OpenLMIS 2.0 meet the minimum requirements for the country for an initial eLMIS deployment?
- Is customization or expansion of OpenLMIS needed? Do new features need to be built?
- Are integrations required for an initial eLMIS deployment?

Countries that are not yet ready for a full implementation should proceed with conducting process improvement work and/or conducting an OpenLMIS pilot in 2016. Limited pilot funding is available in the current OpenLMIS grant and can be used to set-up and configure OpenLMIS for a country (country-level funding is needed for project management and training). A pilot is an excellent way to prepare a country for an implementation, ensure fit between OpenLMIS and the country needs, build capacity, and "ramp up" for a full-scale project.

Recommendations for countries that meet the readiness test are outlined in the table below.

| Target Deployment Date | Level of Customization Needed | Recommendation |
|---|---|---|
| 2016 | Low | • Deploy on OpenLMIS 2.0 in 2016<br>• Supported upgrade to 3.0 in 2017 |
| 2016 | High | • Work with OpenLMIS global team to conduct requirements analysis in 2016 to inform 3.0 development<br>• Deploy on 3.0 in 2017 |
| 2017 | Low | • Deploy on OpenLMIS 3.0 in 2017 |
| 2017 | High | • Work with OpenLMIS global team to conduct requirements analysis in 2016 to inform 3.0 development<br>• Begin software development on new modules, in coordination with re-architecture project<br>• Deploy on 3.0 in 2017 |

For countries hoping to deploy in 2016, we would strongly recommend that they *limit any new software development and product customization*. Customizations on 2.0 would either need to be redone on 3.0, or would lock the country in to staying on the 2.0 fork – both of which are ineffective uses of donor funding.

For countries that deploy on the standard 2.0 release, we can provide a clean upgrade path to 3.0 and commit to delivering the technical support to migrate the country to 3.0 in 2017 (via BMGF OpenLMIS funding). This would include installing OpenLMIS 3.0, configuring the system per the countries requirements, and migrating system and requisition data to 3.0. The country team would be responsible for in-country project management during the upgrade (via country-level funding).

The above recommendations are specifically relevant for Malawi. Malawi could move forward with a 2.0 deployment or pilot in 2016. A significant part of any deployment project is collecting and standardizing all the data necessary to configure the system (facilities, programs, products, etc.), as well as defining the business process flows in the system, and this could all be done as part of a 2.0 deployment or pilot. Proposed feature development, such as integration with additional systems, would be deferred until the 3.0 upgrade is complete. This example can be used as a template for other countries with a similar context.

If, instead, the country is seeking to add a significant feature to OpenLMIS and requires this feature be in place before deployment begins, we would recommend working with the country team (via BMGF OpenLMIS grant funding) to conduct requirements analysis in 2016. This effort would then be used to inform 3.0 software development and create a coordinated 2017 deployment plan.

In general, it takes significant time for countries to choose, plan, and kick-off an eLMIS project. Once a project actually begins, requirements analysis usually takes 3-6 months. In addition, we expect that with the GHSC PSM transition, countries will need time to onboard the new partner. Given all of this, it may be that most countries currently considering an eLMIS project would be realistically looking at a 2017 deployment regardless of the re-architecture. If time is of the essence, projects can get started with requirements, collection of system data, local capacity building, and a potential pilot in advance of the 3.0 release.

OpenLMIS 3.0 will provide an extensible, high-quality LMIS system with a high return on investment. Countries adopting either OpenLMIS 2.0—and then 3.0 via a supported upgrade—or OpenLMIS 3.0 will

be able to take advantage of new modules and software contributions that become available through the work of community members in the future at no or low software development cost. The OpenLMIS global team is committed to working with any country considering and OpenLMIS implementation to coordinate on requirements gathering, conducting a pilot, and/or planning a deployment that will ensure efficient use of donor investment.