## Deployment Guidance for the OpenLMIS COVID Instance

The purpose of this document is to outline the key considerations during the implementation of OpenLMIS for COVID response. This document is only for guidance and can be used as reference while framing the in-country implementation strategy. Additional information can be found in the Implementer Toolkit: <https://openlmis.org/get-started/implementer-toolkit/>

### Project Management / Governance

* Identify leadership and support roles at various levels
* Develop a governance framework to manage system deployment and implementation and to make key decisions
* Identify key stakeholders and roles
* CHAI Supply chain leadership, Project Team, Country team and end-users
* Assign relevant tasks according to work-plan and deliverables
* Identify the project team: A team should consist of
  + Project Manager/Owner – to manage the relationship with MoH leadership and lead the team in the implementation planning & execution
  + Project associates – to manage day to day implementation activities, train end-users/MoH and collaborate with OpenLMIS Global team

### Planning

* Identify human and financial resources required to undertake the implementation
* Create a work-plan to track progress against deliverables and ensure accountability
* Identify key risks/challenges for mitigation
* Define scope and scale of implementation

### Business Process

* The Minimum Viable Product offers a business process workflow that can be found here <https://openlmis.atlassian.net/wiki/spaces/COVSUP/pages/822542356/Workflows>
* Identify key decision points in the process including approval points in the process flow and individuals for these roles

### Infrastructure Readiness

* Ensure facilities/users have a computer (laptop of desktop)
* Ensure facilities/users have internet
* Servers and associated infrastructure are not required to start with - this is a cloud-based deployment
* Establish mechanism to pay for cloud hosting services and secure funds

### Country Data Gathering

Collect the following master data to be uploaded in the system using the data collection template provided by OL Global team. The data template can be accessed here: <https://openlmis.atlassian.net/wiki/download/attachments/821100553/OpenLMIS%20Data%20Collection%20Template%20v2.02.xlsx?version=4&modificationDate=1589519511153&cacheVersion=1&api=v2>

* Facility Master list, including type and hierarchy
* Location/Geography Master list, including type and hierarchy
* Collect name and contact information of facility in-charge and facility point of contact
* Product Master list, including product specifications
* Map user roles/profiles and document user access rights
* Stock management data and supply lines
* Equipment reference data

### Deployment

* Upload master data on to OpenLMIS (done by OL Global team)
* Validate master data and ensure the system configuration is accurate
* Go live (done by OL Global team)
* Upload current inventory/stock take data onto live system (done by end-users)

### Trainings

* Identify training requirements at all levels of deployment including number of trainees and their user type and facility affiliations
* Develop training plans for all types of users and work with MoH on how training will be delivered under COVID-related constraints. Trainings for super users and trainers can be recorded and made available for use in end user trainings especially if these would be conducted remotely. Training schedule for reference: <https://openlmis.atlassian.net/wiki/spaces/COVSUP/pages/892698675/Training+Agenda+Resources>
* Identify and secure resource requirements for delivering training – internet, computers, per diems, etc.
* Identify super users and trainers to be trained by OpenLMIS team
* Review training materials provided by OpenLMIS Global team and adapt it for your country setting
* Develop SOPs for key workflows for end users

### User Support

* Train, equip and set up a team to answer and resolve user queries (recommended at least 1 expert user per 25 end users – an expert user can be a trainer or a proficient end-user)
* Identify and set up platforms/forums for issue reports and user support
* Document bug reports and share them with OpenLMIS tech team

### Monitoring

* Define metrics and indicators for monitoring/evaluation
* Monitor system usage
* Evaluate system performance and report issues to OpenLMIS core team

### System Maintenance and Updates

* Report additions of new products as early as possible for inclusion on the product master
* Coordinate with OpenLMIS Global team to receive system updates and enhancements
* Set up SOPs for release testing & deployment

### Documentation and Repository

* Adapt system documentation and training assets provided by OpenLMIS core team for local use and reference
* Document and file project team deliberations and key decisions

### Handover Planning

* Start the system implementation on AWS cloud servers.
* Build local support capacity with support from OpenLMIS global team
* Migrate server to local servers, if MoH requested.

### Key Cost Considerations

The actual costs will depend on the scale of implementation, availability of existing hardware and local IT resources/experts.

* Implementation Set-up Costs
  + OpenLMIS hosting: procurement of server, network, power, backup, etc. or cloud hosting
  + User Access: user devices (laptop/desktop), user connectivity (network/data)
* Training Costs
  + Initial training (both master trainers and end-users), ongoing training/new feature release training, refresher training
* Implementation Ongoing Costs -
  + Monthly hosting costs - either power and data or cloud charges
  + Monthly end user internet costs
  + Periodic maintenance and repair of hardware - both server-side (if hosted locally) and end-user hardware
* Application Support - either support team or support from local firm
  + Resource Costs -
  + Tiered Application Support
  + Technical Support (server admin, database admin, network admin - if hosted locally)

Useful References:

* OpenLMIS for COVID Wiki: <https://openlmis.atlassian.net/wiki/spaces/OP/pages/821100553/OpenLMIS+for+COVID-19+Commodities>
* Demo system user credentials: <https://openlmis.atlassian.net/wiki/spaces/COVSUP/pages/852525114/Users>