

Stock Management and Visibility for COVID-19 Response Related Supplies

Background

Countries impacted by the COVID-19 pandemic have seen their health systems overwhelmed by the number of patients requiring care and ensuring adequate availability of supplies like personal protective equipment (PPE), diagnostic equipment like test kits and clinical care equipment like oxygen therapy, ventilators etc. As LMICs in Africa, Asia and Mesoamerica prepare to respond to a similar surge in patient load, they will need to quickly mobilize capacity to effectively manage their supply chains to deliver an uninterrupted supply of commodities. An electronic tool can help with real-time management of these supplies.

Proposed Solution

The Clinton Health Access Initiative (www.clintonhealthaccess.org) (CHAI) and VillageReach (www.villagereach.org) will work together to help rapidly deploy a cloud-based, free-to-use order, stock management and visibility system using OpenLMIS (openlmis.org) to achieve end to end visibility and management of COVID-19 commodities.

OpenLMIS is an open source, free to use eLMIS that is a designated Global Good and has been deployed at over 11,000 facilities across eight countries in Africa. OpenLMIS will be configured to create a lightweight COVID-specific health facility stock management and requisitioning tool that will require minimal training and can be rapidly deployed. With the support of our Country Teams, we will provide web-based trainings to system administrators, master users and other key personnel and adopt the train-the-trainer approach to disseminate trainings quickly.

System Functionality

We will deploy a minimum viable product (MVP - the core product) as soon as possible followed by rapid application development to add functionality. The MVP system will be configured with standardized workflows for COVID-19 commodity management, to minimize setup and deployment time, and will include support for the following workflows:

- Stock management from supply depot/warehouse to facility level
- Manage requisitions from and replenishments to facilities
- Proof of delivery to track shipments and order fulfilment
- Ventilator location and operational status monitoring and reporting
- Dashboard and reports for national, sub-national and facility level users – stock on hand and consumption trends
- Based on technical feasibility assessment – Interoperability with warehouse management system to enable requisition, order creation, order fulfillment and proof of delivery

Further additions to features and functionality will be based on feedback from countries and experience from initial deployments. These will be pushed into the system periodically without any interruptions to operations.



Timeframe

We expect to have a COVID-specific OpenLMIS instance ready for deployment by the end of April. Once the full set of country data, like facility master list, are available, it will take approximately 7-10 days to localize and deploy the instance.

Cost

OpenLMIS is an open-source tool with no ongoing license fee. We will provide full support to the MVP and any further additions to it for 12 months. Deployment costs will need to be covered by the country and is expected to include hosting costs estimated to be approximately \$200/month, training costs to train end users, support costs related to answering end user queries, collecting bug reports and any customization that is additional to the original version.

Additional Functionality Under Discussion

There are ongoing conversations at the global level involving organizations like the Bill and Melinda Gates Foundation and the Global Fund to ensure that provisions are made to quickly re-supply countries in urgent need of supplies and whose stocks are not expected to be replenished on time via existing orders. This may be done through a buffer stockpile facility and equitable, needs-based allocation and facilitated by visibility into dynamically tracked country stock levels and consumption trends.

Data Governance

A cloud-based deployment is the best approach to make the system rapidly available. In addition, sharing country data on aggregate demand and stock-levels will be critical to informing and supporting global commodity sourcing, planning and funding efforts and would benefit the global response as well as the individual countries themselves. We will work with each individual country to allay any data governance concerns and find acceptable solutions.

Demo Version

A COVID-specific demo will be available by the end of April. In the meantime, an OpenLMIS demo version can be found here: <https://demo-v3.openlmis.org#!/login>

Demo system usage instructions and multilingual videos can be found here:

<https://openlmis.atlassian.net/wiki/spaces/OP/pages/250249255/Version+3+Demo+Supporting+Documentation>

Some of the key user roles can be accessed with following log in credentials:

User Role: Super user with access to all functionality	User Role: Storeroom Manager
Login: administrator Password: password	Login: srmanager2 Password: password

