

Continuous Results Monitoring and Support System Tracks Post-Ebola Recovery in Sierra Leone

OVERVIEW: EPIDEMICS AND SUPPLY CHAIN MANAGEMENT

The catastrophic Ebola epidemic that began in 2014 aggravated Sierra Leone's already weak pharmaceutical supply system. The country's pharmaceutical storage, handling, distribution, and waste disposal programs were in dire need of improvement. A "push system" of standardized medicine deliveries without reliable use data compromised inventory control and accurate forecasting, leading to frequent stock-outs or overstocks. Cost recovery also functioned poorly, potentially impacting future health care resources.

The Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program, implemented by Management Sciences for Health (MSH), received two years of funding in September 2015 from the US Agency for International Development (USAID) to provide technical assistance for rebuilding and strengthening the post-Ebola pharmaceutical supply chain management system in Sierra Leone. A country's ability to respond to and contain infectious disease outbreaks depends greatly on its competency in mobilizing appropriate staff and providing and resupplying its health system with select, essential infection prevention and control commodities during public health emergencies.

The project covers health management teams, medical stores, hospitals, and peripheral health units in all 13 districts and involves the country's Directorate of Drugs and Medical Supplies (DDMS), which is responsible for coordinating and providing pharmaceutical services (including promoting rational medicine use) in Sierra Leone; the National Pharmaceutical Procurement Unit, which is being restructured; and the Pharmacy Board of Sierra Leone.

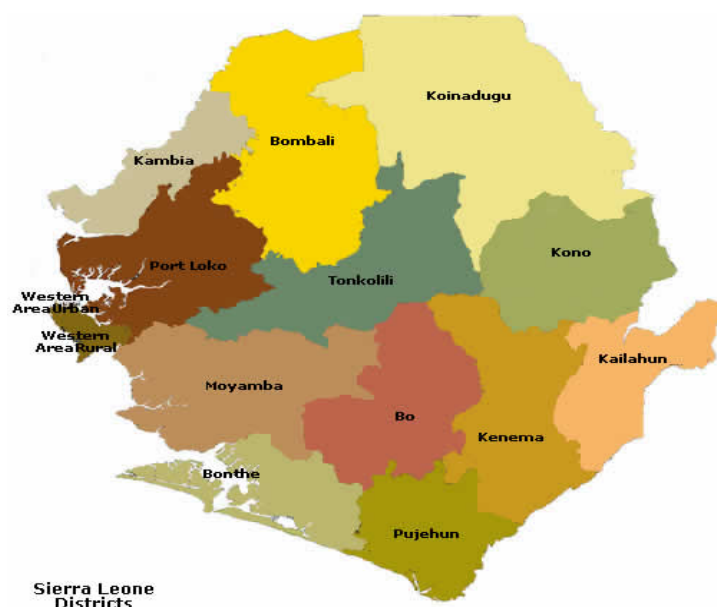


Figure 1. The 13 districts of Sierra Leone

TRACKING PERFORMANCE IMPROVEMENT

SIAPS uses a systems strengthening approach that supports and integrates all core functions of a country's health systems for greater impact and for global health security and emergency preparedness, including governance; human resources; information; financing; service delivery; and medical products (supplies, vaccines, and technology). SIAPS established a field office in Sierra Leone in April 2016 and recruited technical and support staff to help strengthen the country's pharmaceutical system, with a focus on supply chain management.

To that end, SIAPS helped the country institute a continuous results monitoring and support system (CRMS) to assess baseline challenges in pharmaceutical management and regularly track and support improvement in key areas. The CRMS uses a series of indicators to track and monitor factors that influence medicine availability and disease case management. Developed in Ethiopia in 2009 to bolster malaria treatment, the CRMS has proven valuable in tracking performance trends so that partners and stakeholders can come together to address service gaps. Its use has helped countries identify product delivery challenges, strengthen supply systems, improve operations, ensure the availability of resources, and improve data quality. It also allows health leaders to regularly measure progress in these areas.

For example, in the USAID-funded SIAPS/President's Malaria Initiative project in Ethiopia, a CRMS helped the country shift overstocked products to health facilities that were stocked out of them, thereby preventing the products' expiration and sending lifesaving medicines where they were needed. Analyzing the quantity of key medicines dispensed versus the number of patients treated helps monitor rational use and track accountability, and has led to more accurate needs forecasting and cost-effective procurement. Further, tracking expired products has helped facilities locate unusable products, helping them declutter and organize storage spaces for active medicines.

CRMS ACTION PLAN IN SIERRA LEONE



Figure 2. Implementing CRMS emphasizes engaging with central and local health leaders, one-on-one training, and in-person meetings to plan future activities

Sample performance indicators:

- Availability of medicines
- Availability of forms/tools
- Use of inventory control/management information system tools
- Testing, positivity, and treatment correlation
- Availability and practice of proper storage:
 - Adequate storage available
 - Drug boxes stacked on pallets
 - Boxes stacked away from wall
 - Loose drug containers shelved
 - Store organized
 - Expired drugs segregated for disposal
 - Expired drugs disposed

- Availability of staff
- Staff training and supervision/mentoring status
- Adverse drug reaction reporting

CRMS data are updated every two months, and the implementing facility or district shares a summary analysis of key indicators with stakeholders and partners. These groups then meet for a CRMS review to discuss the report, analyze gaps, and develop solutions for progress.

IMPLEMENTATION AND EXPECTED RESULTS

SIAPS has developed and introduced checklists for conducting bi-monthly CRMS checks on health facility performance and results. The program has been implemented in 11 out of the 13 districts in Sierra Leone, which include approximately 1,000 health facilities. In the first round of CRMS data reporting, SIAPS staff trained 268 district- and central-level staff in its principles and practices. Bombali and Bo districts conducted CRMS exercises and collected baseline data from 201 health facilities in May 2016. SIAPS, DDMS, and district health management teams will present results during CRMS review forums, and findings will be used to plan performance improvement in targeted health facilities. Bombali and Bo officials held a review meeting in September to discuss several areas of improvement identified by the CRMS, including challenges with oversupply, stock-outs, and expiration; reliable treatment registers; and adequate storage conditions.

The tracking system aims to help ensure the pharmaceutical supply system's accountability and efficiency, leading to timely and accurate reporting. Medicine distribution will be based on consumption and need to help facilities order the correct medicines in the right quantities and ensure uninterrupted supplies. Training data will help ensure that district medical store and health facility staff involved in managing medicines and medical supplies will have the basic knowledge and skills to better manage and report on stock status and consumption issues.

Implementing a CRMS will help ensure continuous performance monitoring and promote increased transparency and rational medicine use. Meetings and status reviews also offer a first-of-its-kind platform to bring partners together and learn about national guidelines; harmonize their activities; and address challenges in procurement, warehousing, distribution, and waste disposal. It also provides a reliable mechanism for peer monitoring and knowledge sharing.

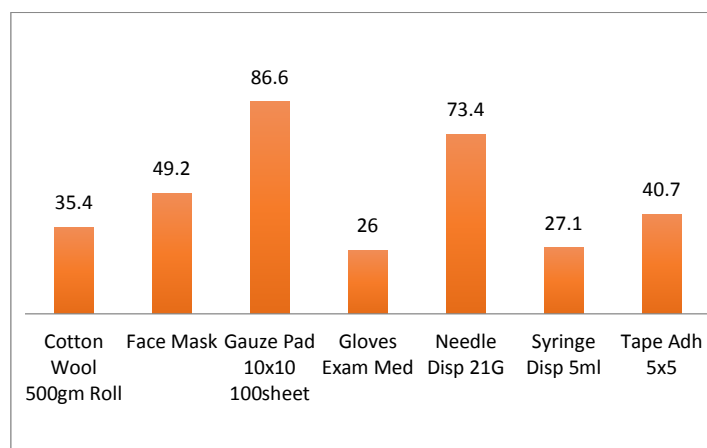


Figure 3. Percentage of PHUs with stock-out of medical supplies; data from first bi-monthly CRMS report for Bombali District, April 2016

CHALLENGES

Sierra Leone's current information system faces a number of hurdles, including poor data quality, a lack of user-friendly tools, weak reporting mechanisms, and a lack of accountability. Documentation is often weak, with delayed revisions of some manuals and guidelines and limited accessibility. There is also a severe shortage of skilled pharmaceutical staff at all levels, and volunteers run and work in many public health facilities. Poor storage and inventory management are persistent and pervasive.

SUCCESS FACTORS

The SIAPS program objectives are in line with the key results areas of the government's National Ebola Recovery Strategy and support a coordinated, systemic effort and national impact. The DDMS intends to assign four senior pharmacists to serve as regional pharmaceutical management system coordinators. Further, programs for specific health areas, such as human immunodeficiency

virus, tuberculosis, and malaria, have dedicated pharmacists in each district, which strengthens local leadership. SIAPS and its partners have positive and collaborative working relationships with central-level pharmacy units as well as district pharmacists.

NEXT STEPS

SIAPS works to bolster local capacity in general, and for this project focuses especially closely on the district level. Local resources, such as vehicles and venues, are used as much as possible to help ensure sustainability. SIAPS' technical efforts include mentoring district health leaders one-on-one to ensure that they understand and know how to apply CRMS methodology. This approach has helped encourage adoption of the system. Working closely with the central and regional governments to coordinate SIAPS events with leaders' schedules has made the work flow much more efficient. The CRMS has also been a reality check

on health facilities' status and service levels versus government records and expectations

MSH and its country partners aim to implement systemwide changes that include stronger leadership in health; more strategic planning; and clear targets, expectations, and deadlines, as well as regular performance monitoring and increased transparency to help Sierra Leone develop a robust pharmaceutical supply chain management system. A comprehensive approach will increase the health system's sustainability and resiliency and help to prevent future outbreaks of Ebola and other communicable diseases.

The tracking system is expected to help ensure the pharmaceutical supply system's accountability and efficiency, leading to timely and accurate reporting. Medicine distribution will be based on consumption and the need to help facilities procure the correct medicines in the right quantities.

ABOUT SIAPS | The Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program works to assure access to quality pharmaceutical products and effective pharmaceutical services through systems-strengthening approaches to achieve positive and lasting health outcomes. SIAPS is funded by the US Agency for International Development (USAID) and is implemented by Management Sciences for Health.

The information provided does not reflect or represent the position or views of the US Agency for International Development or the US Government.



USAID
FROM THE AMERICAN PEOPLE

SIAPS
Systems for Improved Access
to Pharmaceuticals and Services

4301 N. Fairfax Drive, Suite 400 | Arlington, VA 22203 USA

Tel: +1 (703) 524-6575 | Fax: +1 (703) 524-7898 | E-mail: siaps@msh.org | Web: www.siapsprogram.org