Systems for Improved Access to Pharmaceuticals and Services Program
Lesotho Final Report
(September 2011–September 2015)

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Almakio Phiri

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About SIAPS

The goal of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program is to assure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes. Toward this end, the SIAPS result areas include improving governance, building capacity for pharmaceutical management and services, addressing information needed for decision-making in the pharmaceutical sector, strengthening financing strategies and mechanisms to improve access to medicines, and increasing quality pharmaceutical services.

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Key Words

Antiretroviral Therapy, District Health Management Teams, District Logistics Officer, Global Fund Coordinating Unit, Logistics Management Information System, Ministry of Health, National Health Training Centre, National Strategic Plan, National University of Lesotho, Pharmaceutical management information system, Supply Chain Management, Supportive Supervision And Mentoring, Supply Chain Coordinating Unit, Supply Chain Management Leadership Development, Standard Treatment Guidelines, Technical Working Group
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<tr>
<td>ART</td>
<td>antiretroviral therapy</td>
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<tr>
<td>ARV</td>
<td>antiretroviral</td>
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<td>DHMT</td>
<td>District Health Management Teams</td>
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<td>DLO</td>
<td>District Logistics Officer</td>
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<tr>
<td>FY</td>
<td>fiscal year</td>
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<td>GOL</td>
<td>Government of Lesotho</td>
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<td>LMIS</td>
<td>Logistics Management Information System</td>
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<td>MOH</td>
<td>Ministry of Health</td>
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<td>MSH</td>
<td>Management Sciences for Health</td>
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<td>NHTC</td>
<td>National Health Training Centre</td>
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<td>NSP</td>
<td>National Strategic Plan</td>
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<td>PEPFAR</td>
<td>US President’s Emergency Plan For Aids Relief</td>
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<td>PMIS</td>
<td>Pharmaceutical Management Information System</td>
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<td>SCM</td>
<td>Supply Chain Management</td>
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<td>SIAPS</td>
<td>Systems for Improved Access to Pharmaceuticals and Services (Program)</td>
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<td>SSM</td>
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<td>SCCU</td>
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<td>SCMLD</td>
<td>Supply Chain Management Leadership Development (Program)</td>
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<td>STG</td>
<td>standard treatment guidelines</td>
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<td>TB</td>
<td>tuberculosis</td>
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<td>TWG</td>
<td>technical working group</td>
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<td>USAID</td>
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EXECUTIVE SUMMARY

Lesotho is a country threatened by HIV and AIDS. According to the 2009 Lesotho Demographic and Health Survey report, the overall adult prevalence in the country was estimated to be 23%. Challenges with managing this problem result from an unreliable supply chain of essential medicines, which is further compounded by a lack of knowledge surrounding the quality of the medicines that are circulating the country. Lesotho also has the third highest TB notification rate globally, which leads to the additional challenge of rising HIV and TB co-infection rates.

SIAPS’s predecessor, Strengthening Pharmaceutical Systems Program had made several strides in developing an integrated patient management information system. In 2009, the United States Government and Government of Lesotho achieved a momentous milestone in the development and adoption of the Partnership Framework to Support Implementation of the Lesotho National HIV and AIDS Response, resulting in a roadmap for improved collaboration and increased alignment between the two parties.

SIAPS built upon its predecessor’s progress from September 2011 to September 2015 to reduce morbidity and mortality and contributed to the provision of essential services to those in Lesotho living with, or affected by, HIV and AIDS. This was accomplished by expanding access to treatment, strengthening human resource capacity, strengthening the laboratory supply chain, and strategic information support. SIAPS’s strategic focus assured the availability of quality pharmaceutical products and services to achieve desired health outcomes. Additionally, SIAPS focused on improving metrics, monitoring and evaluation, capacitating local governments and organizations, and increasing country ownership in all its interventions.
BACKGROUND

The 2009 Lesotho Demographic and Health Survey confirmed that the country had a severe, generalized HIV epidemic with a prevalence of 23%,\(^1\) which has not changed since then. Lesotho currently has the second highest HIV prevalence in the world, after Swaziland.\(^2\) The 2011–2016 National Strategic Plan (NSP) aims to reduce the rate of new infections by 50% by 2016.\(^3\) As per the NSP, the Government of Lesotho (GOL) intends to have 80% of adults and children living with HIV receive antiretroviral therapy (ART) by that time.\(^4\) The GOL has maintained its commitment providing universal access to high quality preventative, treatment, care and support services to its citizens.\(^5\) Since the national scale-up of a comprehensive care and treatment program began in 2004, remarkable progress has been made in turning the tide of the HIV and AIDS epidemic in Lesotho.

The sustainability of progress made in HIV and AIDS also requires the inclusion of tuberculosis (TB) services. Eighty percent of people living with HIV in Lesotho are co-infected with TB.\(^6\) The rate of new TB infections in Lesotho has been rising steadily, making identifying, diagnosing, and treating TB patients an urgent health priority that must be addressed alongside HIV and AIDS.

Since fiscal year (FY) 2012, the SIAPS Program in Lesotho has provided support to the Ministry of Health (MOH) to ensure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes. SIAPS’ work is guided by the Partnership Framework to Support Implementation of the Lesotho National HIV and AIDS Response and the Partnership Framework Implementation Plan (PFIP), developed by both the GOL and the US Government in 2009. This work addresses the following challenges: (1) insufficient and outdated medicines laws that do not include medicines registration, safety, and quality systems; (2) lack of human resources; (3) a weak logistics information system, leading to inadequate use of information for decision making; and (4) unreliable supply of pharmaceutical and laboratory commodities that contribute to stock-outs, including those of essential commodities used to diagnose and treat HIV and AIDS and TB.

FY15 is the final year of SIAPS activities in Lesotho. SIAPS has helped achieve successful health outcomes in Lesotho by working closely with the MOH and key US President’s Emergency Plan for AIDS Relief (PEPFAR) implementing partners. The activities SIAPS has supported over the last four years have been pivotal to strengthening the pharmaceutical system in Lesotho and ensured continuous availability of quality pharmaceutical commodities to the public. Therefore, during FY15, SIAPS focused its activities on providing technical assistance to close gaps and bottlenecks in the key supply chain functional areas and transitioning the pharmaceutical system strengthening activities to the recently established MOH Supply Chain Coordinating Unit (SCCU) so that there is continuous availability of quality pharmaceutical commodities in Lesotho.

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\(^1\) MOHSW, 2009. Demographic Health Survey, p202-203
\(^2\) http://www.avert.org/professionals/hiv-around-world/sub-saharan-africa/lesotho
\(^3\) National HIV & AIDS Strategic Plan 2011/12 – 2015/16
\(^4\) Ibid.
\(^6\) http://www.avert.org/professionals/hiv-around-world/sub-saharan-africa/lesotho
THE SIAPS APPROACH

The USAID-funded SIAPS Program focuses on achieving positive health outcomes by assuring the availability of quality pharmaceutical products and effective pharmaceutical services. As shown in the framework below, SIAPS takes a holistic approach that looks beyond product availability to include other essential components of access, such as the availability of quality pharmaceutical services, ensuring rational use for improved health outcomes, and the ability of the patient to access both products and services.

![SIAPS Pharmaceutical System Strengthening Framework](image)

Figure 1. SIAPS Pharmaceutical System Strengthening Framework

SIAPS provides next generation technical leadership and assistance in pharmaceutical system strengthening with a deliberate focus on patient-centered services and health outcomes. The SIAPS technical approach emphasizes Global Health Initiative principles, especially country ownership, health system strengthening, developing capacity of local governments and organizations, sustainability, and improving metrics and monitoring and evaluation. Toward this end, the SIAPS framework and results areas reflect the dynamic relationships among five health system building blocks to provide technical focus and identify substantive areas of concern and their related corrective interventions. The ultimate objective of the SIAPS work in Lesotho was to improve coverage and access to evidence-based interventions, which would ensure sustainable, country-owned health outcomes in line with the GOL priority areas and USG strategic objectives.
KEY INTERVENTIONS

Strengthening the Availability of Health Commodities through Supervision and Mentorship

SIAPS collaborated with the MOH to conduct a capacity needs assessment to identify the causes of frequent stock-outs and expirations of tracer commodities at health facilities. The analysis found that senior health care workers required capacity building in management, including coaching, supervision, and team building, as well as requisite knowledge in monitoring and evaluation. After engaging with the district health management teams (DHMTs) to prioritize areas for improvement and developing strategies to address gaps identified, SIAPS and the DHMTs designed and delivered a supportive supervision and mentorship (SSM) program and the Supply Chain Management Leadership Development Program (SCMLDP) to health care workers at the national and district level. The SCMLDP builds leadership and management capacity, as well as supply chain knowledge and skills among the supply chain coordinating unit (SCCU), DHMTs, and health facilities.

To address the shortage of staff capacity in supply chain and logistics management, SIAPS supported embedding a supply chain manager in the MOH’s Disease Control Directorate to coordinate pharmaceutical and laboratory management at the central level, support quantification, procurement and warehousing, standardize tools, and process orders for antiretrovirals and ART-related commodities. Through SIAPS, two Supportive Supervision Coordinators provided supervision for the DLOs at all Lesotho hospitals. In addition, a Laboratory Logistics Advisor worked to improve the laboratory logistic information management system (LMIS) at the national and district level. Additionally, SIAPS placed five DLOs in the DHMTs (Berea, Botha Bothe, Mafeteng, Maseru, and Mohale’s Hoek districts) to improve the LMIS through supportive supervision and mentoring of health care workers.

Increasing Pharmaceutical Human Capacity through Pre-Service and In-Service Trainings

Health care workers in Lesotho continue to have underdeveloped skills to administer supply chain management tool. This lack of skills leads to reports that are not on time, complete, or accurate and results in stock-outs and overstocks of medicines and commodities. The MOH requested SIAPS’s assistance to improve the human capacity of health care workers at all levels. SIAPS conducted a needs assessment to identify constraints. It also worked with partners such as the National University of Lesotho, the National Health Training College (NHTC), National Drug Services Organization (NDSO), to review the curriculum for the NHTC pharmacy program and conduct pre- and in-service workshops. The NHTC pharmacy program was revised to become to be a competency-based program to ensure graduates have the skill set to manage pharmaceutical logistics. SIAPS worked with partners to install RxSolution in a simulation laboratory at the National University of Lesotho to improve the students’ competencies in the inventory management of pharmaceuticals.
Using Data for Decision Making in Supply Chain Management System

In 2012, using data for making decisions about supply chain management was poor because of untimely and often inaccurate data, low submission rates, and a lack of standardized, user-friendly data collections tools; these caused stock-outs of HIV-related commodities and other medicines and commodities (e.g. nutrition, family planning, and TB). SIAPS worked with the MOH to establish and improve governance structures, such as the Supply Chain Management Technical Working Group and the SCCU. As of March 2015, the SCCU oversees and coordinates national level forecasting, quantification, and procurement of all medicines and health commodities. In FY14, SIAPS assisted the MOH to revise the standard treatment guidelines and essential medicines list, and to develop the Procurement and Supply Chain Strategic Plan (FY15). These documents were used quantification and forecasting of medicines to improve the availability of health commodities at health.

To improve the quality of data and increasing the use of data for decision-making, SIAPS supported the National Drug Service Organization to compile monthly stock status reports on antiretrovirals and other HIV-related commodities to ensure that all commodities were stocked to set maximum and minimum stock levels, in adherence to the Procurement and Supply Chain Strategic Plan. Pharmaceutical and laboratory logistics management information systems (PMIS and laboratory LMIS) were set up in health facilities and in all 18 laboratories in the country. SIAPS supported the dissemination and training of both manual and e-tools for PMIS (daily dispensing tally sheets (DDTS) and RxSolution, respectively) and the design and implementation of laboratory LMIS in all laboratories. The MOH and SIAPS additionally standardized requisition forms for TB, family planning, and nutrition to encourage data collection and reporting of commodity stock level.
ACHIEVEMENTS

Strengthening the Availability of Health Commodities through Supervision and Mentorship

This intervention has effectively addressed capacity gaps of health care professionals at all levels and empowered leaders in the pharmaceutical sector to efficiently manage information for decision-making and perform logistic tasks to prevent stock outs and overstocks.

To date, there have been 664 SSM health facility visits, and SSM has successfully improved the skills of 1714 workers in pharmaceutical management and 134 workers in laboratory LMIS. By September 2015, 255 workers had been trained in SCMLDP. The SCMLPD is fully institutionalized, with the SCCU taking ownership for the program in October 2015 with financial support provided by the Global Fund Coordinating Unit (GFCU) (figure 1).

Figure 1. Number of facility Supportive Supervision and Mentorship (SSM) visits conducted
The percentage of health facilities that received feedback from the DHMTs and the DLOs on the previously submitted reports or data steadily increased from 73.9% in December 2014 to 88.4% by September 2015 (figure 3).

**Figure 2. Number of the health facilities using country appropriate ART requisition forms to report logistic and patient data**

**Figure 3. Percentage of health facilities receiving feedback from DHMT/DLOs on previously submitted reports or data**
Achievements

Increasing Pharmaceutical Human Capacity through Pre-Service and In-Service Trainings

The inclusive approach to increasing capacity in supply chain, guarantees that the current healthcare workforce and future generations have the skills to maintain an uninterrupted supply chain of health commodities. This intervention will ultimately save costs that arise due to poor management and through improved management of health commodities, save lives. The NHTC pharmacy curriculum was revised, reviewed, and is undergoing accreditation at the NHTC. As of September 2015, the number of healthcare workers trained in drug supply management, laboratory LMIS, and monitoring and evaluation of ART programs was 116. As previously mentioned, SIAPS has also been successful in enhancing skills of health care workers through mentoring and supportive supervision in the areas of pharmaceutical management, PMIS, laboratory LMIS, and leadership and management through the SCMLDP.

By September 2015, 82.75% of the SCMLDP trainees had successfully completed their post-training action plan that they developed during the SCMLDP training workshops. The target was 75% (figure 4).

![Figure 4. Percentage of Trainees Successfully Completing Post-Training Action Plans](image)

Using Data for Decision Making in Supply Chain Management

This intervention had a positive effect on supply chain management across the building blocks of pharmaceutical systems strengthening to improve inventory control, evidence-based forecasting, and supply planning. SIAPS has trained 17 health care workers in using RxSolution. This tool is currently installed in 17 hospitals across Lesotho. The improvements in capacity building in the
laboratory LMIS can be seen in reporting, where currently 100% of laboratories are submitting reports on time, an increase from 61% in December 2013.

Additionally, all SIAPS-supported health facilities are using ART Daily Dispensing Tally Sheets (DDTS). Accurate reporting on inventory has contributed to a decrease in the percentage of health facilities with stock-outs of a pre-selected group of medicines for three days or more in the last three months from 8.65% in June 2014 to 2.65% in September 2015. The target was to keep stocks outs to less than 10%.
CONTRIBUTIONS TO THE USG GOALS

These interventions have been guided by the Partnership Framework to Support Implementation of the Lesotho National HIV and AIDS Response, developed by the GOL and USG. The activities use partnerships to build capacity, strengthen supply management systems, and standardize information collection and data utilization to contribute to an AIDS Free generation, protecting communities from infectious diseases, and ending preventable maternal and child deaths. Establishing good governance structures and strengthening the supply chain management system ensures a continuous supply of medicines and commodities. Institutionalizing pre- and in-service trainings leads to improved pharmaceutical services and better health outcomes.
LESSONS LEARNED

- The use of competency-based in-service training programs, such as the SCMLDP that is centered on a team-based approach to capacity building, can promote a shared vision, reinforce leadership values and practices, and foster sustainable pharmaceutical system strengthening interventions.

- Involving the MOH personnel as the leaders and champions of intervention implementation can improve data ownership and reporting from facilities, DHMTs, and the MOH.

- Embedding SIAPS staff in the MOH and the DHMTs was a comprehensive mechanism for institutionalizing targeted capacity improvements. The embedded staff members were able to recognize challenges early on and resolve them before they can turn into problems.

- The availability of relevant tools and job-aids is critical for helping newly trained workers apply their skills in the workplace and facilitate transformation from individual skills to system-level practices.

- Standardizing data collection and reporting tools improves data accuracy and provides confidence in using the information for effective decision making. In addition, regular participatory data quality audits are critical for assuring long-term data quality improvements and institutionalizing a “culture of data.” Once validated, the use of electronic tools can be effective in ensuring data quality. In addition, electronic tools reduce paperwork and address human resource constraints by increasing efficiency and broadening access to information by using mobile and web-based communication approaches. However, electronic tools are not appropriate for all contexts and must be implemented with due consideration to contextual determinants.
SIAPS has effectively worked with the GOL, partners, and stakeholders so that after the program ends the pharmaceutical system will continue to improve. As FY15 was the last year of SIAPS’ presence in Lesotho, all the achievements made by SIAPS will be sustained through the SCCU. Through a continuous improvement approach, the SCCU will continue identifying supply chain challenges, developing and implementing interventions to address the challenges, and coordinating the procurement of health commodities. It will also institutionalize good supply chain management practices for both upstream and downstream logistics activities. Thus far, the SCCU is fully capacitated in the coordination of the Supply Chain Management technical working group, logistics and data management, quantification, supervision of DHMTs, and medicine distribution.