

# SIAPS Angola End of Project Report

December 2017



**USAID**  
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**SIAPS**   
Systems for Improved Access  
to Pharmaceuticals and Services



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## **About SIAPS**

The goal of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program is to ensure 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.

## **Recommended Citation**

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## BACKGROUND

The Government of Angola Health Sector Development Plan (PNDS) 2012–2025 aims to promote universal access to health care, ensure equity in care, and improve the management and financing mechanisms of the National Health System, with a view to combat poverty and improve the well-being of the population. Challenges and priorities in strengthening the Angolan pharmaceutical system have been highlighted throughout PNDS projects.<sup>1</sup> SIAPS collaborated with and provided technical assistance to the Angola Ministry of Health (MOH) to strengthen the public health pharmaceutical system.

Key gaps in the pharmaceutical supply chain management (SCM) system included a shortage of qualified and skilled human resources at different levels of the supply chain; poor forecasting and supply planning at the national and peripheral levels, resulting in an imbalance between demand and supply and frequent stock-outs; poor coordination of SCM activities due to the lack of a national SCM strategy; a lack of or inadequate health information, including logistics management information, mainly due to improper use of available tools; inadequate use of data for decision making; and long, suboptimal, and inefficient administrative procedures in public procurement of medicines.<sup>2</sup>

Angola lacked a medicines registration system. There was no national quality control laboratory or local production unit for easy quality inspection, and the country had long and porous borders with neighboring countries that had similar or greater challenges. As a result, there was a high risk of illicit importation of products from questionable sources, including poor-quality and counterfeit medicines, with minimal chances of those products being tracked and removed from the market once detected.<sup>3</sup>

These weaknesses adversely impacted the availability of safe, quality, and cost-effective essential medicines and related health commodities in Angola, thereby hindering current national efforts to achieve the long-term goals of ending preventable child and maternal deaths; eliminating endemic diseases of importance to public health, such as malaria; and achieving an AIDS-free generation

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<sup>1</sup> Ministério da Saude de Angola. 2012. Plano Nacional de Desenvolvimento Sanitaria 2012–2025, Vol 2, pp 322–341.

<sup>2</sup> Addison D, Miller R, Goredema W. 2012. *Analysis of Angola Public Health Supply Chain System*. Submitted to the US Agency for International Development by the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program. Arlington, VA: Management Sciences for Health.

<sup>3</sup> Thumm M, Gaparayi P, Goredema W, Tjipura D. 2013. *Assessment of the Medicines Regulatory System in Angola*. Submitted to the US Agency for International Development by the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program. Arlington, VA: Management Sciences for Health.

## SIAPS STRATEGY IN ANGOLA

SIAPS/Angola endeavored to improve the availability of essential health commodities for sustainable and uninterrupted access to quality health products to improve outcomes at all levels of the health care system. Over the past five years, SIAPS/Angola has applied the SIAPS pharmaceutical system strengthening framework and relevant Management Sciences for Health/Pharmaceutical and Health Technology frameworks<sup>4</sup> in providing technical assistance to the MOH and responding to USAID/PMI and USAID/PEPFAR country plans to ensure sustainable systemic improvements to the SCM system. This is achieved by strengthening the coordination of pharmaceutical SCM planning and implementation and ongoing performance monitoring for the rational use of resources; increasing and enhancing individual and institutional capacity for pharmaceutical supply management; strengthening information collection and management for effective decision making in supply chain logistics management; and contributing to the improved availability of pharmaceutical products and services at the service delivery point level.

The program ensured that the approach was evidence based and that interventions were selected and designed based on the findings of baseline assessments. To ensure local ownership and sustainability, planning and implementation of the interventions was done through a locally led, integrated, participatory process involving MOH counterparts— namely, the MOH’s National Directorate of Medicines and Medical Equipment (DNME); the Central Procurement Agency for Medicines and Medical Supplies (CECOMA); the National Malaria Control Program (NMCP); the National HIV/AIDS Control Institute (INLS); the National Reproductive Health Program; the provincial directorates of health; schools of pharmacy; the Pharmacy Council of Angola; and other local stakeholders, donor agencies, and development partners.

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<sup>4</sup> Center for Pharmaceutical Management. 2011. *Center for Pharmaceutical Management: Technical Frameworks, Approaches, and Results*. Arlington, VA: Management Sciences for Health.

## **SIAPS INTERVENTIONS AND ACHIEVEMENTS**

### **Strengthened Supply Management in the CECOMA Warehouse**

In 2013, SIAPS conducted an assessment to identify gaps and challenges related to Angola's pharmaceutical regulatory and supply chain systems. In response to these assessments, SIAPS provided technical assistance to revive and strengthen the Inter-Agency Coordination Committee for Municipal Revitalization subcommission for logistics, procurement, and operations to provide the DNME with a framework for discussions with and coordination of all stakeholders in the public supply chain sector. Consequently, the subcommittee helped design and implement technical support for CECOMA to address immediate and mid-term recommendations from the assessment.

SIAPS worked with CECOMA to finalize and implement 14 standard operating procedures for strengthening warehousing and distribution management systems. Warehouse management transitioned from a product line-based structure to a function-based management structure, which was replicated in regional and provincial warehouses. Improvements included:

- A product coding system
- New warehouse job descriptions and job aids
- Appropriate dashboards, key performance indicator metrics, benchmarks, and other guiding documents
- A new pallet numbering system
- A new warehouse management spreadsheet
- Transport option guidelines

SIAPS further developed a stock location spreadsheet to simplify locating specific products within the warehouse and provide an indication of the number of days remaining before expiry. CECOMA management now has the capacity to monitor selected key performance indicators, identify bottlenecks, and suggest solutions for improvement.

In addition, SIAPS improved the warehouse operations management system (WMS), tools, and logistics management information system (LMIS); set up product identification and location systems; developed a WMS roadmap (i.e., foundational systems and procedures for future development and implementation of an automated WMS); and optimized warehouse layout to improve processes and efficiently utilize storage space. Security for sensitive products in the CECOMA warehouse was enhanced following rigorous stock monitoring and storage organization in a controlled area. These changes in CECOMA are now being led and monitored by CECOMA leadership for ownership and sustainability through regular technical meetings.

Finally, SIAPS assisted CECOMA in developing its annual work plans and revising its organogram based on functions rather than products. The new organogram was approved in the new law governing the CECOMA.

## **Increased Access to HIV/AIDS, Family Planning/Maternal and Child Health, and Malaria Commodities through Improved Quantification**

In an effort to increase the availability of necessary health commodities for HIV/AIDS, family planning (FP)/maternal and child health, and malaria case management, SIAPS staff adapted and translated quantification training materials on forecasting and supply planning to the Angolan context and trained key players from various MOH programs, hospitals, and provincial health directorates. Participants drafted the terms of reference for national and multi-institutional quantification technical working groups (TWGs) to take over and harmonize national forecasting and supply planning. The group comprised representatives of the MOH and stakeholder organizations. SIAPS trained the malaria and HIV/AIDS quantification TWGs to capacitate and equipped them with appropriate skills

With technical assistance from SIAPS, the TWGs used Quantimed—a tool designed to improve the accuracy of order planning and budgeting by providing a systematic approach to organizing and analyzing data—and Pipeline—a supply planning tool—and undertook new, structured, phased, consensus-based national quantification mechanisms for HIV/AIDS and malarial commodities. This effort involved government, nonprofit, and donor stakeholders.

SIAPS trained health staff at a two-week intensive training on quantification data collection and validation, assumptions, processes, and methods and on applying electronic tools for quantification of health products, with a specific focus on HIV/AIDS and malaria commodities.

Key achievements of the TWGs include increased availability of condoms at the health-facility level, especially in pharmacies, and the progressive introduction of new products that enhance patient adherence to treatment. Specifically, through better quantification:

- The distribution of the new recommended combination of tenofovir, emtricitabine, and efavirenz (TDF/FTV/EFV) for new treatment patients increased 11 fold (from 840 to 9,577 treatments per month)
- The distribution of zidovudine/lamivudine/EFV and TDF/lamivudine/EFV decreased 3.75 and 11 fold, respectively (5,644 to 1,505 treatments per month for TDF/lamivudine/EFV)
- Financial gaps in artemisinin-based combination therapies, rapid diagnostic test kits, and long-lasting insecticide-treated nets were estimated and submitted to government and development counterparts, such as PMI and the Global Fund, for funding mobilization as a result of the malaria TWG exercises

SIAPS worked closely with the National Reproductive Health Program, CECOMA, UNFPA, and Pathfinder to conduct regular physical inventories at the national level and to prepare annual forecasting and semi-annual distribution plans. In particular, Huambo Province was supported to improve its LMIS for FP commodities.

## **Improved Coordination among SCM Stakeholders**

SIAPS and the DNME provided technical and logistical support to the interagency coordination committee/subcommittee for Logistics, Operations and Procurement (CCI/SCLAO) to coordinate all the key stakeholders in public SCM, including the INLS, NMCP, DNME, CECOMA, implementing partners, and UN agencies, to identify specific bottlenecks that affect public health services and make recommendations for appropriate solutions. CCI/SCLAO also serves as a high-level advocacy platform for the pharmaceutical supply chain, and 60% of the committee's recommendations have been or are in the process of being implemented by the MOH and local stakeholders. As a result, information sharing among public health programs has improved the utilization of resources, leading to higher efficiencies through a more participatory and timely decision making process.

## **Strengthened Capacity of Human Resources in SCM**

SIAPS enhanced the pharmaceutical capacity of local institutions and individuals by working with a school of pharmaceutical sciences to implement preservice pharmaceutical management (PM) training and advanced training for Bachelor of Pharmacy final-year students on PM cycles; pharmacovigilance; quality assurance; and pharmaceutical policies, laws, and regulations. Sixty-two final-year students from two schools of pharmacy received preservice training in pharmaceutical SCM in collaboration with the DNME and the National Pharmacy Council.

SIAPS conducted hands-on, skills-based training for 249 staff from the central, peripheral, and preservice levels on pharmaceutical management and medicine regulatory systems. Staff from six provinces (Luanda, Cunene, Bie, Huambo, Huila, and Uige) participated in a training of trainers on pharmaceutical management, with a focus on antimalarial products. After the training, post-training action plans were developed and monitored. Senior staff from the DNME received on-the-job training in medicines registration systems. CECOMA technicians received warehouse management systems training, and two leaders conducted a study visit to a state-of-the-art warehouse in South Africa, run by SIAPS' warehousing resource partner Imperial Health Sciences, to complement the training.

As a result of these trainings and follow-up supervisory visits, health facilities and municipal and provincial warehouses have been continually upgrading their storage conditions for medicines, resulting in improved inventory management, storage, and distribution of public health products, including USAID-funded commodities. Wastage of public health products has decreased at the national and provincial levels as a result of improved warehouse and inventory management at health facilities.

SIAPS successfully designed and implemented a mentorship program to increase the capacity of pharmaceutical staff at nine health facilities and provincial warehouses in Luanda and to address identified issues in the pharmaceutical management of HIV/AIDS commodities. SIAPS and a team of consultants led trainings on stock management and dispensing antiretrovirals (ARVs), and pharmaceutical staff are now better able to record quality stock data. Some health facilities have begun dispensing ARVs at the pharmacy level, which has resulted in greater client

satisfaction because of the significant reduction in wait time at the clinic and has helped mitigate the stigma patients associate with going to an HIV treatment facility to refill their ARVs.

## **Strengthening the DNME in National Medicine Regulation**

SIAPS assisted the DNME to conduct a comprehensive review of Angola's national pharmaceutical strategic plan (2010–2015) and provided technical assistance to map progress, ascertain constraints to progress, and identify priority activities that can be addressed in the plan's final year. SIAPS realigned the priorities set out in the existing pharmaceutical strategic plan with the long-term national PND (2012–2025). With assistance from SIAPS, a task force conducted document reviews and key informant and focus group interviews and then synthesized and presented the findings to the DNME. The DNME used the findings to develop its 2014–2015 annual work plan, which included the establishment of a national regulatory body for medicines and medical products.

SIAPS' medicines regulatory systems assessment<sup>5</sup> encouraged the MOH to embrace regional initiatives to strengthen its national medicine regulatory functions, currently implemented by both the DNME and the General Inspectorate of Health. As a result, a high-level regional meeting of all ministers of health of African Union member countries and WHO country representatives was held in Luanda, Angola, in 2014 to discuss strategies and define guiding principles to set up an African medicines regulatory agency.

SIAPS was involved in the effort to establish a semi-autonomous institution that will serve as a national medicines regulatory authority. A policy brief document and statute governing the proposed National Medicines Regulatory Institute, including its structure and functions, was prepared by the DNME with technical input from SIAPS. This document was used to advocate for the establishment of this new entity to ensure that only quality, cost-effective, and safe pharmaceutical products, including commodities for the prevention, diagnosis, and treatment of malaria, HIV, and AIDS, are allowed to enter the country and are safely used by communities.

In 2016, SIAPS assisted the DNME to start developing a process for the national medicine registration process. The program also provided technical assistance to the MOH to conduct a situational analysis of the existing Angola medicines regulatory policy.<sup>6</sup> The report was disseminated to all key local stakeholders and used to advocate the MOH and local stakeholders to collaborate in implementing the recommended roadmap for establishing a product registration system in Angola.

SIAPS further supported the DNME's efforts to become a stronger institution with greater autonomy and build the capacity of the product registration unit. The DNME organized meetings

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<sup>5</sup> Thumm M, Gaparayi P, Goredema W, Tjipura D. 2013. *Assessment of the Medicines Regulatory System in Angola*. Submitted to the US Agency for International Development by the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program. Arlington, VA: Management Sciences for Health.

<sup>6</sup> Kim, E. 2016. *Situation Analysis: Introducing pharmaceutical product registration policy in Angola*. Submitted to the US Agency for International Development by the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program. Arlington, VA: Management Sciences for Health.

with multi-institutional stakeholders to advocate for the need to strengthen and expedite import controls for pharmaceutical products. As a result, stakeholders approved the allocation of additional resources to begin the formal process of medicine registration. SIAPS helped the DNME's registration unit develop a web-based database to list medicines that have been imported over the preceding three years. SIAPS also assisted DNME staff in developing product registration tools that are aligned with South African Development Community requirements and guidelines. Finally SIAPS developed a road map for product registration for the DNME and stakeholders to review and consider for adoption.

## **Increasing Utilization of Information for Decision Making**

To increase the use of real consumption data in quantifications for determining health facility needs, SIAPS supported the INLS in the revision of monthly reporting and request forms. The INLS took ownership of the new system, providing final input on the forms and organizing internal training for staff. Information contained in the revised forms was incorporated into the INLS electronic patient management system and is being implemented in all 18 provinces.

SIAPS also collaborated with INLS and Hospital Esperança to analyze the hospital's routinely collected patient management data for the previous 12 months, which provided the hospital team with a mechanism to effectively utilize those data for decision making to minimize the risk of ARV stock-outs and increased drug resistance. SIAPS implemented quarterly strategic tools to monitor procurement and stock levels of antimalarial and HIV/AIDS products, and findings from end use verification (EUV) surveys were used to advocate for improved availability and use of essential medicines.

Using the data collected on stock levels of HIV/AIDS, malaria, and FP commodities at the provincial (all 18 provinces) and national levels, SIAPS assisted in redistributing excessive stock in some provinces to other provinces in need, revising distribution plans, and monitoring supply plans more closely. The program also assisted the NMCP and DNME to conduct regular EUV surveys and develop procurement plans and monitoring reports for malaria (PPMRMs) to monitor the availability and use of selected essential medicines, especially antimalarial products.

When necessary, the program assisted the INLS to prepare HIV/AIDS commodity orders to avoid stock-outs and educate prescribers to change their prescription habits to the recommended pharmaceutical solid forms for pediatric patients and fixed-dose combinations instead of singular products that are difficult to manage and are linked to low adherence rates. The coordinated procurement planning (CPP) mechanism ensures improved commodity security by conducting timely analyses of the availability and pipeline of HIV/AIDS commodities at the central level, identifying bottlenecks, and recommending appropriate measures to avert stock-outs or wastages due to expiration. SIAPS collaborated with the INLS in implementing a bimonthly collection and analysis of CPP data and submitting the reports to the CPP's technical secretariat for further analysis.

## **Developed the First National Essential Medicines List**

With SIAPS support, a first edition of the national essential medicines list (NEML) was drafted, validated, and submitted to the MOH for approval. As a complement to the NEML, SIAPS has participated in the development of a national formulary manual to be submitted to the national medicine committee for endorsement and validation. Once approved and disseminated, the NEML will serve as a primary reference tool for the rational purchasing, distribution, and prescription of medicines, thereby reducing costs to the health system.

## **Launched the First Comprehensive National Supply Chain Strategy**

SIAPS supported the DNME and CECOMA to develop CECOMA's first comprehensive national supply chain strategy for health commodities in consultation with key national stakeholders. In June 2016, a stakeholder workshop was held to develop a strategic plan that outlined priority gaps and recommended appropriate interventions. Participants selected priority areas and established a committee to finalize the strategic plan to improve the availability and use of safe, efficacious, quality, and cost-effective medicines and other health products in Angola for the next five years.



## **CONTRIBUTION TO USG GOALS**

SIAPS/Angola interventions were closely aligned with the PEPFAR 3.0 agenda on impact, sustainability, partnership, and efficiency. SIAPS contributed to the USG goals of achieving an AIDS-free generation, protecting communities from infectious diseases, ending preventable child and maternal deaths, and increasing universal health coverage. SIAPS developed and strengthened participative forecasting and stock monitoring mechanisms to improve availability and management of medicines, including reproductive health, ARVs, and antimalarial commodities. Using available tools such as EUVs and PPMRMs, the program successfully collaborated with key partners in SCM of malaria, FP, and HIV/AIDS commodities to improve data visibility of stock levels at the national and provincial levels and to guide informed decisions aimed at improving their management. By strengthening the capacity of health care workers, pharmaceutical service delivery is improved.

## LESSONS LEARNED

Angola suffered a 27-year civil war that ravaged the country's health system with inadequate administrative infrastructures and weak social institutions. A third-generation health systems strengthening project such as SIAPS should take into consideration the level of preparedness of the implementing country, as some postconflict countries, such as Angola, are still struggling to build their health systems in general and pharmaceutical systems in particular.

SIAPS recognized the importance of the full engagement of country counterparts during the planning and implementation of the project. Full support from MOH leadership was paramount to ensuring ownership and sustainability of the activities implemented by SIAPS. However, the measurement of some outcomes and impact indicators in a weak reporting system has been difficult, as it requires additional funding, time, and staff.

## **SUSTAINABILITY**

For long-term sustainability and to enhance country ownership of public health supply chain systems, the government invested in improvements to CECOMA warehouse operations and distribution systems. As a result, four regional warehouses in Luanda, Huila, Malange, and Benguela have been set up.

SIAPS has developed and used locally customized, hands-on, skill-based training materials adapted to local context and needs or capacity-building sessions, trainings, and supportive supervision. The tools were developed and implemented collaboratively with the beneficiaries as part of capacity building to help local teams continuously enhance human resource capacity in pharmaceutical management.

Capacity building trainings used a hands-on, team-based problem solving approach, starting with a core group of motivated and dedicated staff who would then roll out the trainings. The trainings have been complemented with ongoing follow up, on-the-job capacity building, mentoring, and supportive supervision to build the capacity of MOH staff to continue implementing the activities.

SIAPS/Angola prepared a transition plan for activities that need to be transferred to government institutions or to other technical assistance mechanisms. Activities and related documents and tools that were developed by SIAPS were gradually handed over to stakeholders or beneficiaries responsible for their implementation. During transition meetings, MOH officials (DNME, NMCP, INLS, and reproductive health/FP) indicated that they are ready to collaborate as needed with follow-on projects and/or local stakeholders and partners in disseminating or scaling up implementation of the system improvements and tools.