

SIAPS Quarterly Report

Project Year 6, Quarter 1

October-December 2016



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SIAPS 

The SIAPS logo consists of the word "SIAPS" in a bold, green, sans-serif font. To the right of the text is a stylized blue icon of a person with arms raised in a 'V' shape, suggesting movement or achievement.

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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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ACRONYMS AND ABBREVIATIONS

AAH	Action Against Hunger
ACT	artemisinin-based combination therapy
AIDS	acquired immunodeficiency syndrome
AMI	Amazon Malaria Initiative
AMR	antimicrobial resistance
APTS	Auditable Pharmaceutical Transactions and Services (Ethiopia)
ART	antiretroviral therapy
ARV	antiretroviral
CAMEBU	Central Essential Medication Purchasing Agency (Burundi)
CDC	US Centers for Disease Control and Prevention
CECOMA	Central Medical Stores (Angola)
CENAME	National Essential Drugs Procurement Center (Cameroon)
CHAI	Clinton Health Access Initiative
CMS	central medicine store
CNLS	AIDS Control Program (Cameroon)
CRMS	Continuous Results Monitoring System
DGFP	Directorate General of Family Planning (Bangladesh)
DIGEMID	General Directorate of Drugs and Medical Supplies (Peru)
DNME	National Directorate of Medicines and Equipment (Angola)
DPML	Department of Pharmacy, Medicines, and Laboratory (Burundi)
DRA	drug regulation authority
DRC	Democratic Republic of the Congo
DRS	Direction Régionale de la santé
DTC	Drug and Therapeutics Committee
EDT	Electronic Dispensing Tool
EHRIG	Ethiopian Hospital Reform Implementation Guideline
EMF	Emergency Medicines Fund
EUV	end-use verification (survey)
FDA	US Food and Drug Administration
FMHACA	Food, Medicines and Health Care Administration and Control Authority (Ethiopia)
FP	family planning
FY	fiscal year
GDF	Global Drug Facility
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
HCW	healthcare worker
HIV	human immunodeficiency virus
HPD	Hospital Pharmacy Department
IMCI	Integrated Management of Childhood Illness
JSI	John Snow, Inc.
LMIS	Logistics Management Information System
M&E	monitoring and evaluation
MCH	maternal and child health
MDG	Millennium Development Goal
MDR	multidrug resistant

MNCH	maternal, neonatal, and child health
MOH	Ministry of Health
MOHFW	Ministry of Health and Family Welfare
MOHSS	Ministry of Health and Social Services
MSH	Management Sciences for Health
NDoH	National Department of Health
NHTC	National Health Training Centre (Namibia)
NMCP	national malaria control program
NMRC	Namibia Medicines Regulatory Council
NTP	national TB program
PAHO	Pan American Health Organization
PEP	post-exposure prophylaxis
PEPFAR	US President's Emergency Plan for AIDS Relief
PFSA	Pharmaceutical Fund and Supply Agency (Ethiopia)
PMI	President's Malaria Initiative
PMIS	pharmaceutical management information system
PMTCT	prevention of mother-to-child transmission
PNILP	national malaria control program (Burundi)
PNLP	national malaria control program (Guinea)
PNLS	national AIDS control program (DRC and Togo)
PNME	Program for Essential Medicines (Angola)
PPMRc	procurement planning and monitoring report for contraceptives
PPMRm	procurement planning and monitoring report for malaria
PSI	Population Services Inc.
PSM	procurement and supply management
PTCs	Pharmaceutical and Therapeutics Committees
PV	pharmacovigilance
RDT	rapid diagnostic test
SCMS	Supply Chain Management System (project)
SIAPS	Systems for Improved Access to Pharmaceutical Services
SOP	standard operating procedure
SPS	Strengthening Pharmaceutical Systems [Program]
STG	standard treatment guideline
SUGEMI	national pharmaceutical management system (Dominican Republic)
TB	tuberculosis
TIPC	Therapeutics Information and Pharmacovigilance Center (Namibia)
TOR	terms of reference
TOT	training of trainers
UCDC	Ukrainian Center for Disease Control
UNAM	University of Namibia
UNCoLSC	UN Commission on Life-Saving Commodities
UNICEF	United Nations Children's Fund
USAID	US Agency for International Development
WAHO	West Africa Health Organization
WHO	World Health Organization
XDR-TB	extensively drug-resistant tuberculosis

INTRODUCTION

The Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program, awarded by USAID in September 2011, strengthens the management of essential medicines and health supplies so that more people can access the health care they need. Now in its sixth year, SIAPS works with local counterparts and partners in 21 countries, and 2 regional programs in, Latin America and West Africa. SIAPS takes a comprehensive approach to improving pharmaceutical systems: enhancing countries' capacity to procure and distribute high-quality medicines and health technologies, while working with local partners to develop strong systems for pharmaceutical financing, human resources, governance, information, service delivery, and pharmacovigilance. By promoting local ownership of wide-ranging initiatives, stronger, more sustainable health systems overall are fostered.

The program's five result areas are as follows:

- Intermediate Result 1: Pharmaceutical sector governance strengthened
- Intermediate Result 2: Capacity for pharmaceutical supply management and services increased and enhanced
- Intermediate Result 3: Information for decision-making challenge in the pharmaceutical sector addressed
- Intermediate Result 4: Financing strategies and mechanisms strengthened to improve access to medicines
- Intermediate Result 5: Pharmaceutical services improved to achieve desired health outcomes

This report presents highlights of SIAPS's activities organized both by intermediate result area, representing multiple countries where we work, as well as by our global, regional, and country portfolios for the October through December 2016 period.

SELECT PROGRESS TOWARD RESULT AREAS

Intermediate Result 1. Pharmaceutical sector governance strengthened

The SIAPS approach to improving governance focuses on assisting countries in establishing policies and legislation that are supported by rule of law; organizational structures that can exercise appropriate decision making, authority, and oversight; transparent, ethical, and accountable systems and processes that are based on best practice norms and guidelines; and human resource management systems that promote effective performance and ethical practices. One of SIAPS' primary strategies for improving governance in the pharmaceutical sector is to strengthen regulatory systems that ensure the safety, quality, and efficacy of medicines by regulating pharmaceutical products, establishments, professionals, and practices. SIAPS provides support to national medicines regulatory authorities to build their technical capacity; adopt standards that are harmonized with relevant international and regional regulatory standards; reform processes to make them more efficient and transparent; and upgrade information management systems for improved transparency, oversight, and accountability to enable timely access to medicines and other health supplies.

Policy, Legislation, and Contractual Agreements

In **Swaziland**, the Medicines and Related Substances Control Bill was enacted into law on November 11, 2016. The new law, which replaces legislation dating back to 1929, provides for the establishment of the country's first National Medicines Regulatory Authority (NMRA), which is to be set-up in the next 12 months. The principal secretary of Swaziland's Ministry of Health (MOH) recognized SIAPS' contribution and support toward this landmark achievement. SIAPS continued to support the Chief Pharmacist's Office in advocating for the enactment of the Pharmacy Bill, which provides for the establishment of a Pharmacy Council to regulate the pharmacy profession. SIAPS helped the office prepare for the debate on the bill at a joint sitting of the Houses of Parliament. The Houses could not reach agreement on the issue of pharmacy ownership, so the bill will now be deliberated at the next joint House sitting scheduled for April 2017.

In 2015, SIAPS assisted two **Ukrainian** provincial (oblast level) procurement authorities in implementing framework contracts to foster competitive and transparent public procurement for health products. In this quarter, SIAPS signed memorandums of understanding with two additional oblast authorities to support introduction of framework contracts in their oblasts. SIAPS also helped update the national legislation that supports the use of framework agreements to align it with recent changes to the public procurement law. Once the legislation is approved and the module on framework contracting is integrated into Ukraine's online tendering system (Prozorro), SIAPS will finalize the associated training curriculum for local oblast tendering committees.

In **Guinea**, the ministerial decree that provides for the establishment of the Logistics Management Unit was finalized with SIAPS support and submitted to the minister of health for approval.

Standards, Guidelines, and Procedures

SIAPS is providing technical assistance to the Government of **Ukraine** to establish a national essential medicines list (NEML) that will be used nationwide as the sole list for public procurement and potentially for reimbursement. In this reporting period, the procedures and criteria for selecting medicines for inclusion in the NEML was approved by the Ministry of Justice and the expert committee finalized a draft for public comment. The publication of the draft NEML for public discussion in December 2016 marks an important milestone in this work. SIAPS also helped develop standard operating procedures (SOPs) to guide future work of the NEML expert committee and is supporting a public relations campaign to inform stakeholders about the new NEML.

SIAPS country teams worked with partners and counterparts to revise, finalize, and implement a number of guidelines, lists, and SOPs that provide the foundation for good governance and better practices in pharmaceutical systems. Some examples are listed below.

- SIAPS supported the development of the fifth edition of the **Namibia** national guidelines for antiretroviral therapy (ART), which were launched in November 2016. SIAPS contributed to the sections that address community dispensing of antiretroviral (ARV) medicines, appropriate dosing for adults and children, and safety of ARVs and other related medicines.
- In **Guinea**, SIAPS collaborated with the World Health Organization (WHO) to assist the Directorate of Pharmaceuticals and Medicines to convene consultation meetings and a validation workshop to finalize the revised NEML. The 17th edition of Guinea's NEML will be published and disseminated in the next quarter. In addition, the SOP manual for the integrated Logistics Management Information System (LMIS) was finalized, validated by stakeholders, and approved by the MOH in October 2016.
- SIAPS worked with the secretariat of the NEML committee in **Mozambique** to finalize guidelines for revising and updating the NEML and to update the TORs for the NEML committee. These documents will enable country counterparts to perform these activities independent of SIAPS after the program closes.
- In **Benin**, SIAPS provided technical assistance to establish a standard list of medicines and medical supplies for response to Ebola and other hemorrhagic fevers and used this list to quantify Ebola and Lassa fever supplies needed to respond to a one-month outbreak.
- SIAPS worked with **Angola's** MOH HIV/AIDS Control Program (INLS) and nine President's Emergency Plan for AIDS Relief (PEPFAR)-supported facilities in Luanda to develop an SOP manual for HIV/AIDS pharmaceutical management, which has been submitted to INLS for approval.

Transparency and Accountability

In **Sierra Leone**, SIAPS has been helping the Directorate of Drugs and Medical Supplies, which is the directorate within the Ministry of Health and Sanitation responsible for oversight and support in the pharmaceutical sector, to review its organogram and define the roles and responsibilities of its constituent units. In this reporting period, the director of drugs and medical supplies and the chief medical officer approved the organogram, which will help enhance accountability within the directorate. The organogram has now been formally put into force and the names of the officials who will lead each of the four key units have been announced. SIAPS also assisted the directorate in convening the first meeting of the public health pharmaceutical sector staff. This meeting enabled department heads and district pharmacists to review their proposed roles and responsibilities under the reorganization and propose improvements. Participants agreed to hold a follow-up meeting after six months to check on progress, and thereafter to make this an annual event.

Coordination, Partnership, and Advocacy

In the **Philippines**, SIAPS finalized the guide for expansion of the Barangay Health Management Council (BHMC) Initiative which brings together community-based groups, officials, and health providers to improve TB program management and service delivery in poor, urban settlements (barangays). SIAPS has been assisting the Quezon City Health Department in establishing BHMCs since 2012, and the model has now been rolled out to all six city districts. The guide will enable other Quezon City local government units and health officers to establish a BHMC in their own barangay.

SIAPS assisted the procurement and supply management thematic group of **Guinea's** national malaria control program to organize two meetings to review stock levels of antimalarial products. The group, which SIAPS helped to establish and continues to support, identified items that were at risk of stock-outs and made recommendations to request that suppliers speed up deliveries and that the national medical store distribute remaining stocks among facilities rationally to ensure that all facilities receive a minimum supply. In addition, SIAPS collaborated with the United Nations Population Fund (UNFPA) to help the Directorate of Pharmaceuticals and Medicines conduct the quarterly performance review of Guinea's reproductive health program. SIAPS and UNFPA supported the collection, aggregation, and analysis of data and the generation of key performance indicators in preparation for the meeting. MOH staff and partners, including UNFPA, WHO, United Nations Children's Fund (UNICEF) and Jhpiego, reviewed the indicators at the validation workshop and identified achievements and corrective actions needed.

Other examples of coordination efforts supported by SIAPS to promote more informed decision making, foster transparency and accountability, streamline supply chain management and service delivery, and improve the efficiency of planning, allocation, and mobilization of government and donor resources include the following:

- In **Mali**, SIAPS helped organize the quarterly meeting of the national coordination committee for pharmaceutical supply management, which includes representatives from MOH, USAID-implementing partners, UN agencies, and civil society organizations. In

addition to validating the quantification estimates for maternal, neonatal, and child health commodities, the committee assessed the stock status of and updated supply plans for essential medicines and made recommendations to address financial gaps. SIAPS also supported meetings of the malaria and family planning technical working groups (TWGs) and the updating of related supply plans.

- **Swaziland's** national quantification committee held meetings with stakeholders to validate quantification data and later to provide feedback on the outcomes of the three-year (2017-2020) quantification exercise.
- In **Burundi**, SIAPS supported the Department of Pharmacy, Medicines, and Laboratories to hold one of the monthly meetings of the thematic group on medicines, which brings together public and private pharmaceutical sector stakeholders. Issues discussed at this meeting, which is the last that SIAPS will support, included the national supply chain strategic plan and the department's annual work plan. Other development partners will support the group after SIAPS closes its office in Angola.
- SIAPS supported the last meeting in 2016 of the National Directorate of Medicines and Medical Equipment's (DNME) logistics, operations, and procurement subcommittee in **Angola**. The meeting of this group, which provides a platform for fostering coordination among pharmaceutical supply chain stakeholders in the country, was the final one held with SIAPS support.

Strategic Planning

The members of the TWG that will lead the end-term evaluation and review of **Swaziland's** national pharmaceutical strategic plan have now been appointed on the basis of the TORs document that was developed in the last quarter with assistance from SIAPS. In this reporting period, SIAPS developed a plan to guide the TWG in the review process and will subsequently support the review scheduled to take place in the next quarter.

In **Angola**, SIAPS has been assisting the DNME and the Central Procurement Agency for Medicines and Medical Supplies to develop a national supply chain strategy. The strategy was finalized and submitted to the MOH for approval in this reporting period.

Regulatory Systems Strengthening

Under the leadership of WHO, SIAPS has been working with a group of development partners to create a coalition that will enhance coordination of regulatory systems strengthening efforts at the country level. This coordinated "coalition approach" is being piloted in **Bangladesh** with the Directorate General of Drug Administration (DGDA), where SIAPS is assisting the agency in developing a five-year strategic plan for the regulatory system that will guide the engagement of the different partners. This quarter, SIAPS organized two workshops with all relevant stakeholders to gather information and reach consensus on the key components of the DGDA's five-year strategic plan, which will align

with the relevant components of the Ministry of Health and Family Welfare's (MOHFW) sector-wide approach.

During the quarter, SIAPS continued to provide assistance to countries to improve their medicine registration systems through a combination of process improvements, training, and deployment of information management software.

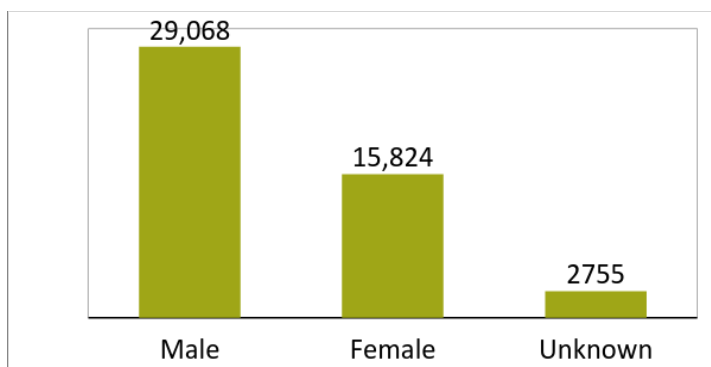
- On the basis of a request from the USAID Mission in **Benin**, SIAPS conducted an assessment of the medicine registration system, including information management, at the Department of Pharmacy (Direction de la Pharmacie, du Médicament et des Explorations Diagnostiques [DPMED]) of the MOH, provided recommendations for strengthening the system, and proposed an action plan. The activities in the action plan include the development and review of tools, training of registration staff in dossier evaluation, and the deployment of a customized version of SIAPS' Pharmadex medicine registration software.
- In **Bangladesh**, SIAPS worked with DGDA to finalize the country-specific version of the online medicine registration system, Pharmadex, and implementation of the common technical document (CTD) format for medicine dossiers. SIAPS helped test the current version of the software, prepare the user manual, revise the SOPs, and revise the various letter templates (e.g., for marketing authorization and sample request). In addition, SIAPS led a four-day practical training workshop for screeners, reviewers, and moderators. In discussion with DGDA, March 1, 2017, has been set for the official launch and implementation of Pharmadex.
- SIAPS continued to collaborate with the Ministry of Health and Social Services in **Namibia** to ensure that the web-based Pharmadex tool is finalized and ready to deploy. Advocacy meetings were held with the registrar of medicines at the Namibia Medicines Regulatory Council and his staff to plan for the training and end-user testing of the finalized tool.
- With support from SIAPS, staff in the registration unit at the Pharmacy Department (PD) in **Mozambique** started using Pharmadex for all new registration applications and introduced measures to monitor use of the system. This quarter, 86 dossiers were submitted, of which 62 were reviewed using Pharmadex. The average number of days to register a product increased slightly from last quarter; however this appears to be due to a higher number of full registrations authorized in this period compared to the previous period. In addition, the records of 4,232 products already registered in the country were transferred from the physical archive to the electronic archive to facilitate renewals and variation applications for those products.
- In **Angola**, as part of its handover of regulatory activities to the MOH, SIAPS developed and submitted to the DNME a technical report, "Situation Analysis: Introducing Pharmaceutical Product Registration Policy in Angola," which included a road map for establishing a product registration system in Angola. SIAPS recommended that the DNME convene a meeting with key local stakeholders to share

the report’s findings and roadmap and discuss how they can effectively collaborate in the implementation of the recommended actions. SIAPS also advocated for expedited approval of the necessary regulatory framework, giving the DNME the mandate to require importers to submit information on pharmaceuticals that have been imported—the proposed starting point for the implementation of a product registration system.

During this quarter, SIAPS also provided substantial support to the PD in **Mozambique** to strengthen the monitoring and evaluation (M&E) system, which it helped the department develop and implement last year as part of a broader effort to improve transparency, accountability, and use of strategic information within the regulatory system. Specifically, SIAPS assisted the PD’s M&E staff to submit nine key performance indicators and their respective performance indicator reference sheets to the MOH for review and approval; prepare and submit the department’s quarterly report; coordinate data review meetings with the relevant PD units; conduct internal data quality assurance (DQA) tests in select areas; and further institutionalize the indicators. Based on feedback from the MOH and the results of the DQA activities, the PD made adjustments to the system to ensure it is streamlined with the MOH’s M&E system and generates quality data.

Intermediate Result 2. Capacity for Pharmaceutical Supply Management and Services Increased and Enhanced

The lack of qualified pharmaceutical professionals, institutions for pharmaceutical training, and updated curricula are challenges faced by resource-constrained countries. SIAPS collaborates with stakeholders to assess their capacity to manage pharmaceuticals at all levels, identifies areas for improvement, and develops interventions to strengthen the system and build capacity. To date, SIAPS has trained over 47,500 professionals from 22 countries in several areas of pharmaceutical management—33 % female and 61% male (see figure below).



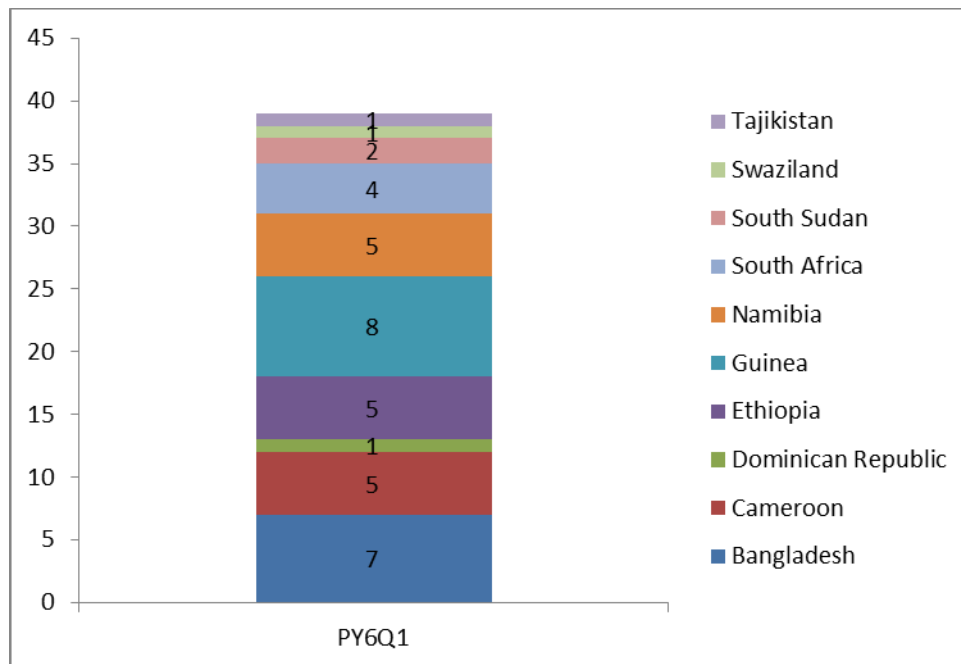
Pre-Service Training

SIAPS/**Dominican Republic** continued supporting the second certified course (diploma) on rational use of medicines. The final module and closing ceremony are scheduled for February 2017.

SIAPS supported the National Health Training Center (NHTC) in **Namibia** in training students on the Electronic Dispensing Tool (EDT) and facility electronic stock card (FESC) prior to their deployment at a rural ART site. NHTC identified inventory management as a challenge faced by health facilities and required their students to contribute to improvements in inventory management of ARVs and anti-TB medicines while working at rural health facilities. SIAPS organized a training of NHTC students to build human resource capacity in inventory management. The EDT and the FESC have been implemented in public health facilities to manage patients at ART sites and the inventory of ARVs and anti-TB medicines. A total of 40 students were trained before deployment to facilities in all of Namibia’s 14 regions where they will contribute to patient and inventory management.

In-Service Training

Through the end of December 2016, SIAPS worked on the development of in-service training programs to improve capacity for pharmaceutical supply chain management and services. To date, 10 countries have developed or revised 39 in-service health professional training curricula with SIAPS assistance (see figure below).



In collaboration with the IHP-B project managed by FHI 360, SIAPS/**Burundi** organized a training of 118 community health workers (CHWs) in Giteranyi health district in Muyinga

province to scale-up the integrated community case management of child diseases (iCCM). Following the training session (October 10-14, 2016), a one-week practical internship took place in the health facilities during October 17-20, 2016. On October 20, the official launching ceremony of the iCCM in Giteranyi and distribution of the basic kit of necessary equipment and supplies to CHWs was held.

In **Ethiopia**, 20 different training events were organized on APTS (16), RMNCH (3), and ART (1). These events were attended by a total of 563 professionals.

Additionally, in collaboration with PFSA and CHAI, SIAPS organized a training of trainers (TOT) course on ART/comprehensive HIV care for pharmacists based on the revised training curriculum; 42 pharmacists participated. The training was conducted by trainers with long experience in ART training and that were involved in revising the curriculum. The course was expected to equip pharmacists with sufficient and practical knowledge of comprehensive HIV care/ART service and ARV medications available in Ethiopia to enable them to train other pharmacy professionals on dispensing appropriate treatment regimens, successful management of treatment side effects and drug interactions, and counseling patients effectively to increase treatment adherence.

SIAPS/**Mozambique** supported the Hospital Pharmacy Department to perform one DTC workshop at Maputo Province October 28-November 2; 32 pharmacists, doctors, and nurses attended. The aim of the workshop was to strengthen hospital DTCs' capacity to continuously improve the safe use of medicines at the health-facility level. The Department of Hospital Pharmacy (DFH) and SIAPs staff provided training to hospital DTC staff on how to collect, analyze, and report prescription indicators, medication errors, and aggregate consumption studies.

In collaboration with the MoHSS Karas Regional Health Directorate, SIAPS/**Namibia** provided technical assistance to the region to train 22 health care facility staff (medical officer, pharmacist assistants [PAs], registered and enrolled nurses) on medicines therapeutic committees' roles and strategies for rational medicine use, prevention of antimicrobial resistance, inventory control, and good storage practices. The participants were drawn from the 3 health districts in the region (3 hospitals and 10 PHC facilities). The training enhanced the inventory management skills of PHC facility staff to ensure continuous availability of ARVs and other essential medicines at the facility level, thereby ensuring appropriate medicines storage conditions to avoid wastage and roles of health workers in improving medicines use and patient treatment outcomes. The training was accredited by the Health Professions Council of Namibia as a continuous professional development course for health workers.

In partnership with the National TB Reference Laboratory (NTRL), SIAPS/**Philippines** conducted a two-day supply management training in November 2016. The training used as reference the document Practical Guide for Management of Laboratory Supplies, designed to build the capacity in supply management of participants at the central level.

Supportive Supervision and Mentoring

To promote pharmacovigilance (PV) awareness and strengthening adverse event reporting practices in the Directorate General of Drug Administration (DGDA), SIAPS/**Bangladesh** and the Adverse Drug Reaction Monitoring (ADRM) Cell jointly visited six public hospitals. These efforts to expand the PV program were further supported by a half-day refresher training workshop arranged by DGDA for 45 hospitals.

During supportive supervision visits in **Benin**, SIAPS and its partners performed a physical inventory of Ebola products and estimated the amount of each product required to effectively respond to any outbreak situation. The team also checked storage conditions and data reporting. At the end of the visit, a list of recommendations was developed and shared with health-facility managers to facilitate the distribution of Ebola-related products where they are most needed.

In the **West African Region**, SIAPS supported the National AIDS Control Program of Togo (PNLS) in conducting supportive supervision in the five pilot sites where EDT software is already installed. The purpose of this supervision was to build the capacity of EDT users, identify issues affecting the use of EDT in the five sites before the roll-out nationwide of EDT, and also assess the quality of data through two indicators reported on the SIAPS monitoring and evaluation plan. The PNLS team was able to visit each ARV site once a week for four consecutive weeks. As a result, EDT is actively used in the five pilot sites to record patients and medicines used to treat HIV-positive patients. Four pilot sites have already abandoned the paper-based dispensing register; however, the Teaching Hospital of Tokoin (Centre Hospitalier Universitaire Tokoin) was still using both EDT and the paper-based log book because of a bug blocking the generation of the monthly Logistics Management Information System (LMIS) report to send to PNLS for resupply.

Institutional Capacity Building

SIAPS/**Philippines** provided technical assistance to the Laboratory Conference for Regional National TB Program Coordinators to identify the capacity-building needs of regional laboratory managers. During the three-day conference, meetings and workshops aimed at developing the leadership and management of the TB laboratory network. Staff from each region represented at the conference performed an analysis of their current NTP regional laboratory network status, identified problems and root causes, and utilized the information for creating a regional plan to address capacity gaps. The main regional technical assistance needs identified include building leadership and management capacity of the coordinators to manage the laboratory network; capacity to decentralize laboratory trainings; and capacity to lead and manage laboratory network expansion. These plans now become the basis for future technical assistance for the regions.

Tools for capacity building

To strengthen the logistics reporting system for essential MNCH commodities in DGHS, SIAPS/**Bangladesh** facilitated electronic LMIS training in 6 districts for 1,413 health managers of DGHS. After finalizing the subnational procurement document, SIAPS organized 4 workshops in 2 districts for 144 MOHFW procurement officials at the local level. The

participants found this training effective for aligning procurement at the local level with Government policy and procedures.

Additionally, in September 2016, SIAPS/Bangladesh facilitated an intensive hands-on training on the asset management system for 12 users from the Central Medical Store Depot, Moulvibazar District Hospital, and the National Electro-Medical Equipment Maintenance Workshop. In October 2016, the Technical Working Committee approved operational definitions and guidelines for the pilot implementation of the system.

In **Ethiopia**, a half-day orientation for 90 pharmacy and IT professionals drawn from 3 sub-cities in Addis Ababa region was organized to enable these professionals to effectively use EDT and manual tools for identification, prevention, and management of treatment errors for patients on ART. The orientations were conducted in three simultaneous events, and the participants were closely mentored on the proper use of EDT, including product management, report generation, and configuration and maintenance.

In **Swaziland**, SIAPS provided technical support to nine health facilities implementing RxSolution and ensure the optimal usage of the tool for HIV/TB inventory management. Some tasks carried out during the visits included conducting onsite mentorships on the use RxSolution, general troubleshooting tips for common system-related issues/bugs, and adding new regimens to the system.

In addition, SIAPS continued to provide technical support to health workers in health laboratory facilities already implementing the web-based commodity tracking system (CTS). Eight health workers were mentored on the use of CTS for monthly reporting and ordering across three laboratory sites. SIAPS also developed a job aid to guide laboratory staff on the required steps to access the webpage and complete their orders electronically. Support was also provided to the Data Management Unit being custodians of LMIS reports that are collected across all health programs.

Intermediate Result 3. Utilization of information for decision making increased

SIAPS' approach to management information systems is to harmonize and integrate the collection and presentation of accurate, quality pharmaceutical and other commodities data in a timely and consistent manner. This data is intended to assist decision makers and health workers at all levels of a country's health system make evidence-based decisions, manage health and laboratory commodities and pharmaceutical services, and measure, monitor, and evaluate progress. SIAPS' approach includes careful assessment of interventions related to information systems to determine the feasibility and long-term effect of their implementation; striving to find the best solution to address health-related data collection, processing, reporting, and decision-making challenges; and supporting country ownership and sustainability. SIAPS' pharmaceutical management information tools, such as RxSolution, Pharmadex, e-TB Manager, QuanTB, OSP-SANTE, OSPSIDA, Electronic Dispensing Tool (EDT), the Pharmacovigilance Data Collection and Analysis Tool (DCAT), and the recently launched Pharmacovigilance Monitoring System (PViMS), support both product and patient information. The demand for these tools in SIAPS

and non-SIAPS countries keeps growing, and SIAPS is working with various partners to expand the use of these tools.

Data Utilization

In **Ethiopia** during PY6Q1, SIAPS produced and shared one patient uptake and regimen breakdown report. Patient uptake data were collected from 681 health facilities and regimen breakdown data from 380 health facilities. According to the recent patient uptake report, 371,965 patients were on ART, of which 323,053 patients were covered in the regimen breakdown report (86.8% of those covered by the patient uptake report).

In **Burundi**, SIAPS collaborated with the National Malaria Control Program (PNILP); Department of Pharmacy, Medicines, and Laboratory (DPML); Central Essential Medication Purchasing Agency (CAMEBU); and other departments at the MOH to conduct the second end user verification (EUV) survey in FY16, which was combined with end-line data collection for the SIAPS Burundi program. Some of the findings included:

- Out of all malaria first-line commodities, artesunate/amodiaquine (AS-AQ) 50-135 mg experienced the most frequent stock-outs.
- 27% of suspected malaria cases are diagnosed with microscopy, exceeding the 20% established in the national standard treatment guidelines (STGs).
- In all 105 service delivery points (SDPs) and 15 district pharmacies, at least one staff person is trained in the main responsibilities that are specific to the SDP and the pharmacy.

SIAPS supported the analysis of results of the Short Messaging System (SMS) reminder intervention at 10 sites in **Namibia**. The results from the analysis show that from May to September 2016, 12,338 out of a potential 32,975 patients were enrolled from 10 ART sites to receive SMS messages.

In **Guinea**, and with the collaboration of the United Nations Population Fund (UNFPA), SIAPS supported the Directorate of Family Planning (DNPM) to conduct the quarterly meeting for the performance review of the reproductive health program for July–September 2016. Service statistics and logistics performance indicators calculated from data collected in health facilities served to gauge the progress towards achieving reproductive health commodities security in Guinea.

Medicines availability improved in **Swaziland** with the influx of more funding streams for ARVs. The central medical store and the national laboratory warehouse did not experience a stock-out of tracer medicines during PY6Q1, and only 4% of SIAPS-supported health facilities reported a stock-out of one of the tracer medicines.

In the **West Africa Regional Portfolio**, SIAPS assisted the HIV and AIDS programs in **Benin** and **Togo** to enter data into the OSPSIDA dashboard. Support was also provided to both countries to assess their national stock status and pipeline information based on September 2016 data.

The dashboard showed there were no stock-outs in the two countries. It also showed, however, that there is overstocking, and risks of stock-out in both countries:

Risk of stock-out	Benin	Togo
High (less than 6 months of stock)	24%	35%
Moderate (6-12 months of stock)	14%	25%
Low (12-24 months of stock)	31%	25%
Overstocked (more than 24 months of stock)	31%	15%

The pipeline analysis showed that all ARVs, which were at high and medium risk of stock-outs in Benin will not be affected in the medium term, if the ARVs ordered by the Global Fund and the Government are delivered as planned.

Information System Design and Collaboration

In **Angola**, SIAPS developed an e-LMIS that was used to collect, consolidate, and report health commodity data for the National Malaria Program. The tool can easily be adapted for use by other MOH programs and CECOMA under the auspices of the National Public Health Program (DNSP). SIAPS arranged for transitioning of the tool to the DNSP via PSM.

SIAPS met with the National Directorate of Public Health (DNSP) and the Directorate of Pharmacy, Medicines, and Laboratory (DPMED) in **Benin** to discuss SIAPS' upcoming technical assistance to strengthen the Ebola LMIS system. Although it was initially scheduled for early December, this technical assistance has been postponed to February 2017, due to the unavailability of local ministry staff.

In an effort to assure optimal usage of RxSolution for HIV/TB inventory management in **Swaziland**, SIAPS provided technical support to nine health facilities implementing the tool during PY6Q1. Specific tasks carried out during the visits included:

- Validating and updating system reports, including reports on patients on ART by regimen and protocol distribution by month, among others
- Conducting onsite mentorship on the use of RxSolution, including general troubleshooting tips for common system-related issues/bugs, updating stock cards, and adding new regimens
- Performing onsite and offsite server backups
- Maintaining version uniformity across all workstations in facilities

In **Guinea**, SIAPS completed the installation of the SAGE L100 sales module at the Pharmacie Centrale de Guinee (PCG) and the regional warehouse of Guinée Maritime. SIAPS helped the PCG upgrade and expand its information technology infrastructure to support the implementation of SAGE. This support included measuring the existing bandwidth utilization and modeling the expected SAGE traffic. SIAPS also completed the installation of SAGE L100 in five PCG regional warehouses. In addition, a user acceptance test was initiated, and SIAPS completed the training of 15 PCG staff on the SAGE L100 sales module; these staff are now

equipped with skills to operate the SAGE software to support purchasing, inventory management, and sales operations.

As part of reinforcing the Department of Pharmacy, Medicines and Laboratories' (DPML) leadership in **Burundi**, SIAPS completed the purchase of IT equipment. DPML will now be able to capture and archive all medicine-related information to ensure the safety of the population and share it with the National Pharmacy Council. The registration and PV systems have been implemented by the DPML. With SIAPS' support, the PV system now includes adverse drug reaction notification in 12 sentinel sites.

During PY6Q1, SIAPS hosted a stakeholder's orientation session for the implementing partners of the family planning program in **Bangladesh**. The event focused on how to access the SIAPS developed e-LMIS of the Directorate General of Family Planning (DGFP) and to interpret the data from the SDP dashboard module for improving health outcomes and also explore potential partnership collaboration with other partners. A total of 25 participants from DGFP, USAID, UNFPA, DFID, Save the Children, CARE Bangladesh, and other national and international organizations were in attendance.

Intermediate Result 4: Financing Strategies and Mechanisms Strengthened to Improve Access to Medicines

The SIAPS approach for strengthening financing strategies and mechanisms for improved access to medicines encourages proper use of existing financial resources, advocating for greater resource mobilization, and reducing monetary barriers prohibiting access to medicines by those most in need. During this quarter, SIAPS supported countries by working to identify pharmaceutical funding gaps, advocating for addressing gaps, and distributing donated pharmaceuticals. By fostering collaborative relationships among partners, SIAPS continued to strengthen countries' quantification plans for medicine procurements from the Global Fund, PMI, and other funders. Furthermore, SIAPS promoted transparent financial transactions at hospitals and health facilities, highlighting the need to develop alternative procedures for resource allocation after analyzing medicine utilization and spending.

Mobilizing Additional Financial Resources

Last quarter, SIAPS/**Bangladesh** assisted the National Tuberculosis Program (NTP) in conducting a quantification exercise for five second-line TB drugs used for patients with extensively drug-resistant tuberculosis (XDR-TB) and submit an emergency procurement order to the Global Fund. This quarter, because the NTP's Global Fund grant to procure first-line TB drugs ended in December 2016, SIAPS provided an analysis to NTP and relevant stakeholders on alternative procurement options. The Government of Bangladesh was investigating mechanisms for procuring first-line TB drugs to avoid stock-outs.

In the **Dominican Republic**, SIAPS convened a meeting of all stakeholders involved in ensuring the continuous supply of ARVs and communicated the need to adjust current projections for product need. The presentation also highlighted a potential funding gap if the budget allocation

from the Ministry of Finance (MOF) remains the same as in previous years. During the meeting, participants highlighted the successful strategies used to receive an increase in the budget allocation for FY17. Using previous experience, advocates for increasing the budget allotment for ARVs will reemphasize the rationale to the MOF.

In **Swaziland**, SIAPS continued to support the Swaziland Health Laboratory Services (SHLS) with their financial planning meetings. The discussions were held to review SHLS's fourth quarter budget as funds from the Global Fund and MOH were made available. In addition, the results of the annual ARV quantification were shared with the National AIDS Program (SNAP) and its stakeholders. The commencement of the Test and Start Initiative will increase enrollment of PLHIV into treatment throughout Swaziland, requiring increased funding allotments made by the MOF. SIAPS coordinated USAID's donation of pediatric, second- and third-line ARVs, which covered patients enrolled in treatment from December 2016 through until March 2017. In collaboration with the Central Medical Stores (CMS), SIAPS assisted with the preparation of the three-year budget for HIV, TB, malaria, and sexual and reproductive health commodities. A follow-up meeting will be held next quarter with funders to learn which disease areas should be expecting funding and from whom.

Analyzing and Tracking Costs

This quarter, SIAPS/**Ethiopia** introduced APTS at six hospitals and four health centers in Addis Ababa and the Oromia region. In the Oromia region, two pharmacists and one accountant successfully completed an APTS training of trainers (TOT), enabling them to provide on-site training to 17 staff members at their facility. Including the most recent introductions of APTS this quarter, APTS is now operational in 77 facilities throughout Ethiopia. Using APTS, 36 health facilities are currently tracking their medicine sales and reporting regularly to the health departments in their regions and to the Federal Ministry of Health (FMOH). An innovative action this quarter was the automation of the APTS system in Dessie Referral and Boru Meda Hospitals in East Amhara. This innovation will be adopted by other hospitals in the region. This quarter, Hiwot Fana Hospital in the Harari region conducted a one-year analysis of their APTS reporting system, highlighting the amount of medicines acquired by the facility and provided to patients. Upon completion of the analysis and its dissemination to stakeholders, medicines worth approximately 233,482.85 birr were transferred to nine health facilities to avoid expiry. This quarter, Dilchora and Adama Hospitals in the Oromia region completed ABC/VEN analyses and shared the results with the drug therapeutic committees. Because of the analysis and subsequent stock inventory, Dilchora Hospital transferred medicines valued at 131,798.54 birr to local health facilities.

Intermediate Result 5a: Supply Chain Management

During the first quarter of PY6, SIAPS supported capacity building through formal training, mentoring, assessments and planning, and supportive supervision for strengthening supply chain management systems. SIAPS conducted quantification and stock status updates of health commodities to identify funding gaps, inform procurement and distribution plans, and mitigate stock-outs and expiry of products. In partnership with government stakeholders and other donors,

SIAPS provided critical technical assistance to improve processes and systems pertaining to product selection, quantification, procurement, warehousing, distribution, and inventory management.

Last quarter, SIAPS **Angola** conducted a three-day multi-stakeholder workshop to draft Angola's national pharmaceutical supply chain strategic plan. This quarter, a core team of 18 stakeholders finalized and submitted the National Supply Chain Strategy to the MOH for approval. In addition, SIAPS supported procurement planning and monitoring in Angola for malaria and HIV/AIDS commodities. In collaboration with Angola's National Directorate of Medicines and Medical Equipment (DNME), SIAPS organized a meeting of the Logistics, Operations, and Procurement Subcommittee, bringing together public supply chain management stakeholders and organizations. SIAPS worked with the National Malaria Control Program (NMCP) to compile malaria case management reports from 18 provinces, while simultaneously monitoring stock status of antimalarial commodities at provincial warehouses and the Central Procurement Agency for Medicines and Medical Supplies (CECOMA). SIAPS assisted staff at Luanda's provincial warehouse in conducting regular inventories of HIV/AIDS commodities as well as provide supportive supervision and mentoring to pharmacy staff at health facilities to strengthen supply chain management. Health facilities in Luanda were encouraged to redistribute excess medicines to prevent expiry. Through collaboration with the Instituto Nacional de Luta contra a Sida (INLS), SIAPS assisted in the development of an HIV/AIDS pharmaceutical management manual for use at the nine PEPFAR-supported health facilities.

SIAPS launched the Supply Chain Management Portal (SCMP) Service Delivery Point dashboard module in **Bangladesh** this quarter. The new portal will strengthen procurement and logistics management in Bangladesh as well as contribute to reduced workloads, enhanced efficiency, and support product availability. In addition to launching SCMP, SIAPS demonstrated its TB Warehouse Inventory Management System to 21 officials from the National Tuberculosis Program after the system was updated with user feedback. SIAPS presented an updated version of QuanTB at a regional Global Drug Facility (GDF) workshop, furthering collaboration between GDF and regional TB control programs. To provide technical assistance to strengthen the logistics reporting system for MNCH commodities within the Directorate General of Health Services (DGHS), SIAPS provided training on the implemented electronic logistics management system in six districts. Approximately 1,413 health managers were reached through the trainings.

In **Benin**, SIAPS completed a quantification exercise for Ebola products and began working with the Directorate of Pharmacy, Medicines, and Laboratory (DPMED) to validate the quantification. A tool was developed to quantify products needed on the basis of morbidity and service utilization during a one-month outbreak of disease. To support future quantifications, SIAPS assisted the MOH to develop guidelines for the quantification of Ebola products. Thirty-four members of Benin's National Procurement and Supply Management Committee were trained this quarter on Ebola commodity quantification and use of the standard medicines and medical supplies list for Ebola response. Moreover, SIAPS and its partners performed physical inventory counts of Ebola commodities during supportive supervision.

In **Burundi**, SIAPS supported a meeting of the National Malaria Control Program's (PNILP) Department of Pharmacy, Medicines, and Laboratories (DPML) Thematic Group of Medicines (TGM) forum in October 2016, which brought together public and private stakeholders from the pharmaceutical sector to discuss the national strategic plan for supply chain and the 2017 DPML work plan. An additional accomplishment this quarter was the formation of a national commodity security committee. The committee was endorsed by the minister of health under the leadership of DPML. This quarter, SIAPS conducted an end-user verification survey in collaboration with its partners. The findings showed that warehouses have experienced fewer stock-outs than service delivery points, and stock outs of LLINs were common at all levels.

In the **Dominican Republic**, SIAPS developed guidelines for the quantification and programming of medicines and supplies after conducting a procurement needs assessment exercise for FY17. Standard operating procedures (SOPs) for PROMESE/CAL (Programming, Procurement and Distribution) were drafted last quarter. This quarter, SIAPS advocated to the director of PROMESE/CAL for immediate implementation of these SOPs. Additionally, SIAPS contributed to planning discussions on the distribution of family planning commodities to regional warehouses using the SUGEMI distribution cycle. SIAPS began supporting the distribution of ARVs from a rented warehouse to six regional health services centers. The distribution will be completed by the end of the next quarter.

In partnership with **Guinea's** National Malaria Control Program (PNLP), SIAPS provided technical assistance during the monthly meetings of the Procurement and Supply Management Technical Working Group. During these meetings, stakeholders analyzed the country's current stock level of malaria commodities, highlighted bottlenecks, and developed approaches to mitigate stock-outs and expiry of medicines. This quarter, the Central Pharmacy of Guinea (PCG) worked to complete a physical count of pharmaceutical products in its inventory in preparation for implementation a new computer-based inventory system. SIAPS technical advisors assisted PCG in carrying out the activity, organizing storerooms, and updating inventory records.

In **Mali**, SIAPS was involved, alongside other implementing partners, in the validation of the MNCH commodities quantification results and updating the family planning contraceptive supply plan and malaria commodity supply plan through the Comite National de Coordination (CNC) and various TWGs. Using data collected from OSPSANTE, SIAPS provided guidance to the MOH as procurement planning and monitoring reports (PPMRs) for malaria products and contraceptives were submitted to stakeholders for review. The National Malaria Control Program (PNLP) conducted an end-user verification survey with SIAPS' assistance to access the availability of malaria products at warehouses and health facilities.

In collaboration with the National TB Reference Laboratory (NTRL), SIAPS conducted a two-day supply chain management workshop in the **Philippines**. The training built the capacity of participants to manage laboratory supplies at the central and lower levels of the health system. This quarter, SIAPS also finalized the development of SOPs on supply management, which are to be approved by NTRL.

In **Swaziland**, SIAPS assisted the Central Medical Store (CMS) in conducting their national medicines quantification for ARVs, TB medicines, sexual and reproductive health commodities, medicines to treat opportunistic infections, and antimalarial commodities. CMS lead the quantification activity and completed the process within three months, demonstrating the capacity SIAPS built within CMS. SIAPS provided support to the Swaziland Health Laboratory Services (SHLS) supply chain meetings. SIAPS also coordinated the donation of pediatric, and second- and third-line ARVs to ensure that there are no stock-outs of commodities as additional patients are referred to treatment in line with the Test and Start Initiative. Currently, facilities have been able to maintain between two and three months of stock on hand for ARVs.

In **Sierra Leone**, approval from the Ministry of Finance was received to dispose of expired medicines. SIAPS provided technical assistance on reverse supply chain logistics as expired medicines were moved from the districts to the central level and then discarded. Representatives of the Pharmacy Board, Directorate of Drugs and Medical Supplies, and the Ministry of Finance were available to verify and witness product disposal. This experience demonstrated to officials at the national level how to conduct similar procedures in the future. Using information gathered through CRMS, SIAPS contributed to the responses given to questions posed on the quantification for 2017. The figures used in the six-month procurement for the second half of 2017 will be based on this quantification.

Through SIAPS' **West Africa Regional** portfolio, SIAPS assisted Benin and Togo's HIV/AIDS programs to input their OSPSIDA distribution data through September 2016. The two countries were able to assess national stock status and pipeline information. Countries were able to prepare analyses of ARVs that were in high and medium risk of stock-out. OSPSIDA reports will be used during both countries' national procurement and supply management coordination committee meetings to mitigate the risk of stock-outs.

In **Uzbekistan**, SIAPS is using QuanTB for quantification and as an early warning system to monitor actual and planned consumption of TB medicines. The objective is to avoid TB medicine stock-outs and expiries at the regional and facility levels. SIAPS has been providing training on the EWS during monthly supervision visits and through review of regional monthly reports.

In the **Ukraine**, SIAPS presented the final report of the National Supply Chain Assessment to stakeholders. An action plan is currently being developed for the MOH to address the recommendations drawn from the national assessment.

Intermediate Result 5b. Pharmaceutical Services Improved to Achieve Desired Health Outcomes

SIAPS improves pharmaceutical services by using a holistic approach that ensures that patients receive medicines optimized to their clinical needs in doses that meet their individual requirements for an adequate time and at the lowest cost to them and their community. During this quarter, SIAPS provided support to countries through various technical areas and strategies, including pharmacovigilance (PV), rational medicine use (RMU), pharmaceutical care, essential

medicines lists (EMLs), formularies, standard treatment guidelines (STGs), drug information and patient education, antimicrobial resistance (AMR), drug and therapeutics committees (DTCs), medicine use reviews, treatment adherence, and case management.

Pharmacovigilance

In **Swaziland**, SIAPS published the latest edition of the Medicines Safety Watch Newsletter to disseminate information regarding adverse drug reactions and other medicine safety alerts. The current edition of the newsletter indicated that 4,324 patients on ARVs and TB medicines are being monitored for adverse drug events (ADEs) and 1,429 ADEs have been reported and analyzed. The medicine safety work in Swaziland was also presented at the Union World Conference on Lung Health in October 2016.

In **Bangladesh**, as a part of promoting PV awareness and strengthening the ADE reporting system in DGDA, SIAPS and the Adverse Drug Reaction Monitoring (ADRM) Cell jointly visited six public hospitals in this quarter. DGDA arranged a half-day refresher training workshop for 45 hospitals (SIAPS supported the existing 30 and 15 newly selected hospitals) to expand the PV program. Adverse drug reaction (ADR) reports were received by DGDA and reviewed by the Adverse Drug Reaction Advisory Committee (ADRAC). ADRAC evaluated 173 new reports and uploaded them into the WHO Vigiflow database. The first PV newsletter was published in September 2016 to create awareness on the PV system and medicine safety.

In the **Philippines**, SIAPS continued its support to NTP and FDA to strengthen the PV system to ensure the safety of patients enrolled in operational research studies and roll-out of the standard shorter-treatment regimen (SSTR) for drug-resistant TB. During this reporting period, SIAPS conducted a training session for FDA and other key stakeholders on managing the operational research studies, and also conducted a PVIMS orientation session for participants from 10 health facilities who will be the first to implement SSTRs.

In **Ukraine**, six additional modules of the National Pharmacovigilance Guidelines were drafted. As of December 2016, modules 1-4 have been approved, 5-6 have been submitted for approval, and 7-16 are pending submission to the MOH.

In **Ethiopia**, 116 health care providers participated in discussions to raise awareness among health care providers on PV. PV tools and documents, including 120 ADE report forms, 200 newsletters, and 100 allergy cards were distributed to the health facilities where the face-to-face discussions were conducted.

Rational Medicine Use

In **Namibia**, SIAPS staff supported a comprehensive one-week workshop to orient 22 health care workers (HCWs) from the districts in the Karas region on various pharmaceutical management modules. The modules included medicines therapeutic committees' roles and strategies for RMU, prevention of AMR, inventory control, and good storage practices. The participants were drawn from the 3 health districts in the region (3 hospitals and 10 primary health care facilities).

SIAPS **Ethiopia**, in collaboration with the Ethiopian Pharmaceutical Association (EPA), and RHBs provided three RMNCH training events (at Dessie, Mekele, and Hawassa) to pharmacists in community pharmacies on rational dispensing and use of RMNCH medicines and appropriate referral to enable them to manage and/or refer illnesses, such as diarrhea and pneumonia, and provide appropriate counseling on family planning methods.

To document work in the area of pharmaceutical services, SIAPS is also developing a legacy technical report and a technical highlight showcasing SIAPS' work with DTCs. Both documents have been drafted and are currently undergoing internal revisions and reviews.

STGs, EMLs, and Formularies

In **Mozambique**, SIAPS collected input from the PD on the updated TORs and the M&E plan for the NEML committee. These documents were approved by the committee chairman and are pending submission to the MOH for approval. The National Medicines Formulary was also updated to incorporate input from the PD which is also pending submission to the MOH.

In the **Philippines**, in partnership with the NTP, expansion plans and waste management job aids were developed for the roll-out of the SSTR for the programmatic management of drug-resistant TB.

In **Namibia**, the National ART Guidelines were finalized and officially launched by the Minister of Health and Social Services, Dr. Bernard Haufiku, at the inaugural National AIDS Conference held in Swakopmund in November 2016. SIAPS supported development of the guidelines in the areas of RMU, medicine safety, and community models of dispensing ARVs.

In **Guinea**, SIAPS and WHO supported the DNPM in organizing consultation meetings and a subsequent workshop to validate and finalize the NEML. The workshop included representatives from the MOH, referral hospitals, the School of Medicine and Pharmacy, and the Guinea Pharmacy Council. Following the validation of the 2017 edition of the NEML, the document will be printed and disseminated in all regions, prefectures, and health facilities.

In **Ukraine**, with support from SIAPS, the methodology for selecting medicines for inclusion on the EML was approved by the Ministry of Justice. The Expert Committee developed a final draft of the EML in December 2016 which is currently being reviewed. A public relations campaign is also being developed to support the roll out of the EML.

In **Swaziland**, SIAPS continued to support the introduction of bedaquiline for the management of MDR and XDR-TB by printing and disseminating the bedaquiline clinician's pocket guide. SIAPS also participates in the Expert Committee on Clinical Access to ensure the continued safety monitoring of the more than 70 patients currently on bedaquiline.

Drug Information and Patient Education

During this reporting period, SIAPS **Ethiopia** supported six health facilities in Oromia, Dire Dawa, Harari, and Amhara regional states in organizing different medicine use education

sessions, where 1,059 people were reached (54% were females). ARV, opportunistic infection, RMNCH, and antimalarial medicines; medicine storage; risks of self-medication; and AMR and proper use of drugs were among the topics covered in the sessions.

AMR and Infection Prevention and Control

SIAPS **Ethiopia** supported the National AMR Advisory Committee in developing a plan of action to guide interventions described in the Strategy for the Prevention and Containment of Antimicrobial Resistance for Ethiopia, 2015 to 2020. The multi-institution and multidisciplinary National Advisory Committee meets regularly and serves as an advisor, advocate, and catalyst for the prevention and containment of AMR in Ethiopia.

Continuing its efforts to build local capacity for antimicrobial stewardship initiatives and activities in low- and middle-income countries (LMICs), SIAPS worked with the Ecumenical Pharmaceutical Network to support the conclusion of three AMR-related projects implemented by the Zimbabwe Association of Church-related Hospitals (ZACH), Gertrude's Children's Hospital (GCH) in Kenya, and the Christian Health Association of Malawi (CHAM).

- Activities led by ZACH aimed to increase awareness of AMR by increasing engagement with the media and improving accuracy of reporting on AMR. ZACH held a training workshop for 23 journalists from a variety of media networks and newspapers. A total of 23 publications and/or broadcasts were produced (10 print/electronic articles, 8 radio broadcasts, and 5 television segments) in the 5 months following the workshop, compared to approximately 20 articles published in the year prior to the workshop.
- In Kenya, GCH focused its efforts on improving adherence to STGs. Following a baseline assessment and educational interventions with 70 prescribers and 15 pharmacy staff, GCH conducted a post-intervention audit which showed a small improvement in STG adherence: an adherence rate of 31.2% compared to the baseline rate of 26.2%.
- In Malawi, CHAM conducted a baseline assessment on hand washing and hygiene which showed that both a lack of supplies and staff attitudes, and inactive infection prevention and control (IPC) committees contributed to low levels of hand washing. CHAM trained 109 HCWs on proper hand washing, restocked the two participating facilities with hand washing supplies, and supported recruitment of new members into the IPC committees. The results of the post-intervention assessments demonstrated the following improvements: availability of soaps in sinks (from 67% to 96%), presence of hand-washing posters (from 7.5% to 57.5%), HCWs carrying hand rubs (from 0% to 13%), and HCWs using hand rubs (from 0% to 20%). Hand washing committees were established in both hospitals and were supported during the project period.

Also during the quarter, SIAPS finished revisions to the new version of the guidance document entitled "Building Coalitions for Containing Antimicrobial Resistance: A Guide" (previously titled "Building Local Coalitions for Containing Drug Resistance"). The revisions include updates to 20+ implementation examples at local, national, and regional levels; updated information on AMR and important global AMR initiatives; and selected AMR-related

resources. SIAPS is also finalizing a manuscript to submit to a peer-reviewed publication based on the experiences of both SIAPS and SIAPS' predecessor programs in building coalitions to combat AMR. In addition, SIAPS revised and published a technical program update on our work in AMR in November to coincide with World Antibiotic Awareness Week, November 14-20, 2016 (document available at: <http://siapsprogram.org/wp-content/uploads/2016/11/AMR-TechUpdate-Nov2016-FORMAT2-1.pdf>).

Drug and Therapeutics Committees

During this quarter, SIAPS **Ethiopia** provided technical support and onsite orientation to DTCs in Dire Dawa city administration. The support was provided to the existing DTCs (Sabian Hospital, Legehare, and Genda Gerada Health Center) and to reestablish others (Genda Kore, Number One, and Melka Jebdu Health Center). The technical support included the development of action plans, revision of TORs, development of medicines lists, prescriptions reviews, ADR reporting, and improving pharmacy service at their health facilities.

SIAPS **Mozambique** supported the Hospital Pharmacy Department in holding a DTC workshop in Maputo province October 28-November 2, 2016; 32 pharmacists, physicians, and nurses attended the workshop which focused on how to collect, analyze, and report prescription indicators, medication errors, and consumption data. The training also supported efforts to establish continuous quality improvement actions to promote RMU in hospitals.

In **Ukraine**, a training workshop was conducted for DTC members from five regional AIDS centers on October 10-13, 2016. All five regions developed action plans for implementation of drug use reviews at their respective centers.

To support post-Ebola recovery efforts in **Sierra Leone**, SIAPS has developed and begun implementing a plan to re-establish DTCs at four hospitals (three in Freetown, one in Bombali Districts). As part of this process, SIAPS held a meeting with stakeholders from WHO, MOHS, the Pharmacy Board, and College of Medicine and Allied Health Sciences. Facility managers are in the process of nominating members to their respective DTCs and establishing TORs.

In **Swaziland**, SIAPS supported health facilities in implementing strategies to improve medicines use through pharmacy and therapeutics committees (PTCs). During the reporting period, four health facilities had at least one PTC meeting (Raleigh Fitkin Memorial Hospital, Dvokolwako Health Center, Nhlanguano Health Center, and Baylor Center of Excellence).

SIAPS is supporting the Karas regional management team in **Namibia** to promote self-evaluation among therapeutics committees (TCs) to assess their efforts to promote RMU. SIAPS supported the Karas regional management team in conducting a training of three TCs in their role in promoting RMU and preventing the development of AMR, including HIV-DR.

Treatment Adherence

SIAPS **Ethiopia** provided technical support on the identification and management of treatment errors, adherence counseling, and pharmaceutical care activities to patients on ART by

distributing a reporting template and training on how to use the tool. In this quarter, 6 health facilities (3 in Dire Dawa, 2 in Amhara, and 1 in Harari regions) have identified and managed 79 treatment errors. All of the medication errors were regimen changes and corrected immediately at the point of service.

In **Namibia**, SIAPS helped to analyze the results of the Short Messaging System (SMS) reminder intervention. From May to September 2016, 12,338 out of a potential 32,975 patients were enrolled from 10 ART sites to receive SMS messages, while 3,948 patients declined to receive messages. SIAPS is currently supporting the MoHSS in developing a comprehensive report with recommendations for ART program managers.

Also in Namibia, SIAPS is collaborating with Project HOPE, IntraHealth, the CDC, and other partners in supporting the MoHSS-DSP to implement community-based programs for improving access to ARV medicines. SIAPS provided off-site support to sites in the Oshana and Oshikoto regions to capture 71 CB-ART groups each comprising about 15 patients. SIAPS support in this collaboration includes ensuring that dispensing tools are adapted to make ARV medicines accessible to CB-ART groups while maintaining product quality, accountability mechanisms, and availability.

In addition, SIAPS Namibia finalized the 2016 annual early warning indicator (EWI) report for adult and pediatric patients from all ART sites (50 main sites, 163 outreach/integrated management of adolescent and adult illness sites) across the country. Data was abstracted on the following five indicators: on-time pill pick-up, retention in care, pharmacy stock-outs, dispensing practices, and viral load suppression. The report is currently being printed by the MoHSS. The 2014 EWI report was published in the PLoSOne journal (<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166649>).

During this reporting period, SIAPS disseminated the thought leadership document entitled “Improving Medication Adherence through Systems Strengthening Approaches.” The document was published on the SIAPS website (<http://siapsprogram.org/publication/systems-based-approaches-to-improving-medication-adherence/>) and disseminated through key listservs and social media channels along with an accompanying blog post (<http://siapsprogram.org/2016/11/09/improving-medication-adherence-it-takes-a-system/>).

Case Management

To strengthen malaria services in **Burundi**, SIAPS collaborated with the Integrated Health Project, the PNILP, and DODS to train 118 community health workers in Giteranyi district on integrated community case management (iCCM) and distribute the basic equipment needed to initiate case management of malaria among children aged 2 to 59 months. This completes the roll-out of iCCM in the five new districts as planned in Malaria Operational Plan FY16.

CROSS BUREAU

Objective 1: Strengthen pharmaceutical sector governance

As part of actions to document and share lessons learned, SIAPS is developing two technical briefs that describe strategies for improving governance in pharmaceutical systems and provide case study examples. In this reporting period, SIAPS drafted a technical brief that provides guidance for developing or updating TORs for any committee making decisions or providing oversight in the pharmaceutical sector. The draft is now being revised on the basis of inputs from SIAPS' internal reviewers. SIAPS also began work to draft the second brief, which will provide case study examples of SIAPS support to countries to enhance accountability, reduce wastage, and improve efficiencies in pharmaceutical systems.

In November 2015, SIAPS published the “Good Governance in the Management of Medicines” course through the Global Health eLearning (GHeL) Center with support from the Knowledge for Health (K4Health) Project. As of December 31, 2016, the course has been successfully completed by 215 learners from 54 countries.

Constraints to Progress

SIAPS' support to WHO's Good Governance for Medicines Program activities is pending the WHO piloting of the updated transparency and accountability tool and preparation of a draft code of conduct and conflict of ethics guidance.

Objective 2: Capacity for pharmaceutical management and services increased and enhanced

The pooled procurement guidance document entitled *Establishing Pooled Procurement Systems among Faith-Based Organizations: A Guidance Document for Successful Implementation* was finalized this quarter. It can be accessed at <http://siapsprogram.org/publication/establishing-pooled-procurement-systems-among-faith-based-organizations-a-guidance-document-for-successful-implementation/>.

SIAPS completed a draft of the monitoring and evaluation framework and proposed indicators for the African Medicines Regulatory Harmonization (AMRH) Program's Regional Centers of Regulatory Excellence (RCORE) this quarter. SIAPS will review and revise the framework and indicators next quarter in collaboration with the New Partnership for Africa's Development (NEPAD) Agency, and then pilot the materials with a sample of RCOREs. After the pilot, NEPAD will plan a workshop for all the RCOREs to deliberate the framework and indicators prior to finalization.

Objective 3: Information for decision-making challenges addressed in the pharmaceutical sector

In this quarter, the manuscript prepared by SIAPS that reviews the literature on pharmaceutical systems and pharmaceutical systems strengthening (PSS) and proposes definitions and components deemed critical for tracking progress in PSS was published in the peer-reviewed journal, *Health Policy and Planning*, as an open access article. Also in November 2016, SIAPS delivered an oral presentation based on the manuscript at the Fourth Global Symposium in Vancouver, Canada. In December, SIAPS published a blog post on the SIAPS website linking to the article: <http://siapsprogram.org/2016/12/27/pssmetrics/>.

Also this quarter, SIAPS subject matter experts worked with the indicators pilot team to develop and finalize the indicator reference sheets. These reference sheets clearly define the indicator; describe how to calculate the indicator; identify the indicator's purpose, issues, and limitations; and guide data collectors to likely data sources. The reference sheets are being incorporated into the data collection workbook and will also be included in the data collection manual for the pilot. SIAPS HQ staff have continued to communicate with in-country counterparts to identify staff and consultants for data collection for the in-country pilot. SIAPS has developed a concept note for the Kenyan MOH to support Kenya's participation in the pilot activity. So far, Afghanistan has granted approval of the pilot activity in writing.

Preparations are underway for solicitation of feedback on the selected components, elements, and indicators that will be included in the pilot from a select panel of external expert reviewers. These reviewers will also comment on how pilot results should be scored or weighted to assess PSS. This external review will occur while in-country data collection is underway, and feedback will be compiled with pilot results to form the basis for revisions as the data collection tool is finalized and prepared for scale-up. This quarter, expert reviewers were identified and the solicitation for feedback with instructions has been drafted.

Partner Contributions

Boston University School of Public Health provided insight for the identification of external expert reviewers and drafted the scoring and weighting methodologies and the preliminary draft of the expert solicitation and instructions.

Objective 4: Strengthened financing strategies and approaches

During this quarter, the final draft of the universal health coverage (UHC) policy paper which is aligned with the critical pharmaceutical systems components—pharmaceutical products and services; policy, laws, and governance; regulatory systems; financing; human resources; information; and innovation, research, and development—underwent technical and editorial review. The next step is to share the paper with the AOR team and two other external reviewers, after the internal review by subject matter experts has been completed. Once the external reviews are finalized, SIAPS intends to produce an e-learning advocacy video using animation to

advocate for the importance of addressing issues related to PSS when implementing UHC programs.

In this reporting quarter, an action plan was developed for creating the pharmaceutical expenditure tracking guide. Also, SIAPS started working on a matrix to map a list of policy questions and appropriate indicators that would inform policy makers in LMICs in the planning and monitoring of medicine financing policies. Once these have been finalized and vetted, they will inform the development of the content of the pharmaceutical expenditure tracking guide. The selection of these indicators will take into consideration the Health, Finance, and Governance (HFG) Project's initial observations and experiences in a data collection activity as part of the health account exercises in Ethiopia and Namibia. In the next quarter, SIAPS will identify those priority indicators and gather information on challenges or lessons learned on methodologies and data sources for tracking health or pharmaceutical expenditure data.

Constraints to Progress

Staff turnover affected progress on the expenditure tracking guide. SIAPS has identified other staff to take over the work.

Objective 5: Quality of pharmaceutical products and services improved

Continuing its efforts to build local capacity for antimicrobial stewardship initiatives in LMICs, SIAPS worked with the Ecumenical Pharmaceutical Network (EPN) to support the conclusion of three AMR-related projects implemented by the Zimbabwe Association of Church-related Hospitals (ZACH), Gertrude's Children's Hospital (GCH) in Kenya, and the Christian Health Association of Malawi (CHAM).

- Activities led by ZACH aimed to increase public awareness of AMR by increasing engagement with the media and improving accuracy of reporting on AMR. ZACH held a training workshop for 23 journalists from a variety of media networks and newspapers. A total of 23 publications and/or broadcasts were produced (10 print/electronic articles, 8 radio broadcasts, and 5 television segments) in the 5 months following the workshop, compared to approximately 20 total articles published in the year prior to the workshop.
- In Kenya, GCH focused its efforts on improving adherence to STGs. Following a baseline assessment and educational interventions with 70 prescribers and 15 pharmacy staff, GCH conducted a post-intervention audit that showed an improvement in STG adherence rate from a baseline of 26.2% to 31.2%.
- In Malawi, CHAM conducted a baseline assessment for handwashing and hygiene practices. The assessment indicated that a lack of handwashing supplies, inadequate staff attitudes, and inactive functioning infection prevention and control (IPC) committees all contributed to low levels of adequate handwashing practices. In response, CHAM trained 109 health care workers on proper handwashing, restocked the two participating facilities with handwashing supplies, and supported recruitment of new members for the IPC

committees. The results of these interventions demonstrated key improvements: availability of soap in sinks (from 67% to 96%), presence of handwashing posters (from 7.5% to 57.5%), and HCWs using hand rubs (from 0% to 20%). In addition, handwashing committees were established in both target hospitals and were supported during the project period.

During this reporting period, SIAPS disseminated the thought leadership document entitled *Improving Medication Adherence through Systems Strengthening Approaches*. The document was published on the SIAPS website (<http://siapsprogram.org/publication/systems-based-approaches-to-improving-medication-adherence/>) and social media channels along with an accompanying blog post (<http://siapsprogram.org/2016/11/09/improving-medication-adherence-it-takes-a-system/>). The document was also shared via USAID's Health Systems Strengthening Network listserv.

Also during the quarter, SIAPS finished revisions to the new version of the guidance document, entitled *Building Coalitions for Containing Antimicrobial Resistance: A Guide*. The new version includes updates to 20+ implementation examples of coalition building at local, national, and regional levels; provides updated information on AMR and important global AMR initiatives; and includes selected AMR-related resources. The document is undergoing final copyediting and design and will be published and disseminated during the following reporting period. SIAPS is also finalizing a manuscript to submit to a peer-reviewed publication based on the experiences of both SIAPS and SIAPS' predecessor programs in building coalitions to combat AMR.

As part of efforts to document SIAPS' work in pharmaceutical services, SIAPS revised and published a technical program update on our work in AMR in November to coincide with World Antibiotic Awareness Week (document available at <http://siapsprogram.org/wp-content/uploads/2016/11/AMR-TechUpdate-Nov2016-FORMAT2-1.pdf>). SIAPS is also making progress on a legacy technical report and a technical highlight showcasing SIAPS' work with drug and therapeutic committees (DTCs). Both documents have been drafted and are currently undergoing internal revisions and reviews.

As reported last quarter, SIAPS scaled-back revision of the Regulatory System Assessment Tool (RSAT) to provide an opportunity for the newly developed WHO Global Benchmarking Tool (GBT) to be applied and tested. This quarter, SIAPS made progress on the final revision of the RSAT and expects to finalize it next quarter.

Partner Contributions

With SIAPS support, EPN administered the grants for the three AMR-related projects conducted by ZACH, GCH, and CHAZ.

Objective 6: Contribute to the generation of new knowledge and dissemination of evidence-based approaches and best practices

As of January 2017, the WHO EMP Information Portal contained 5,673 documents, a modest increase from the 5,543 documents listed at the end of PY5 Q4. Of these, 212 are SIAPS documents.

According to Google Analytics, the portal saw a modest decline in the number of the new visitors it attracted from 81% to 79%. There were, however, more returning visitors this quarter (20% of total visitors). When compared with PY5Q3 data, which also consistently show higher numbers for new and returning visitors, one could speculate that the decline in new visitors is due to the timeframe (e.g., less new engagement during holiday months).

In terms of traffic, 82% came from organic searches via Google, Bing, and Yahoo; 81% of visitors accessed the website directly; and 63% were directed from the who.int website (a 4.5% increase from the previous quarter). Mobile Google traffic had a slight decrease (from 90% in Q3 to 89% in Q4), but mobile Facebook searches represented a 7.5% increase (from 85% to 92%).

Last quarter, the gap analysis of the WHO EMP Information Portal was completed and submitted to the AOR team.

The next task is the development of a sustainability plan that addresses how the portal will be maintained moving forward, to include a thorough analysis of maintenance costs, human resources, technical improvements, quality assurance of submitted documents, and continued promotion. Due to conflicting priorities, however, this activity was not completed before the end of PY5 as expected. SIAPS will resume this activity next quarter and engage a consultant to complete the plan.

This quarter, together with other USAID Implementing partners, SIAPS was invited by the HFG Project to review their respective contributions to the updated *Health Systems Assessment Approach: A How-To Manual Version 3.0*. Members of the public were also invited to provide feedback on the draft manual through <http://healthsystemassessment.org/health-system-assessment-manual-version-3-0/>. SIAPS will continue to work closely with HFG to finalize the module next quarter.

Partner Contributions

WHO contributed to the uploading of documents and maintenance of the WHO EMP Information Portal.

Constraints to Progress

Conflicting priorities with support to countries on end-of-project events and activities caused delays in the WHO EMP Information Portal sustainability plan. These have been addressed going forward.

East African Community Medicines Regulation and Harmonization Program Portfolio

The East African Community (EAC) is a regional intergovernmental economic organization of the six partner states: Republic of Tanzania (mainland Tanzania and Zanzibar), Uganda, Kenya, Rwanda, Burundi, and South Sudan, with its headquarters located in Arusha, Tanzania. The EAC-Medicines Regulatory Harmonization (MRH) Program is part of the African Medicines Regulatory Harmonization (AMRH) initiative.

Objective 1: To develop and implement harmonized pharmacovigilance requirements, guidelines, procedures, and practices for the regulation of medicines, health products, and technologies in the EAC region

During this quarter, SIAPS continued to work with the EAC secretariat, its Pharmacovigilance Expert Working Group (EWG), and AMRH partners to harmonize and strengthen PV systems in the EAC. SIAPS participated in and facilitated the following activities:

- **The 7th face-to-face meeting of the Pharmacovigilance EWG held in Zanzibar on October 17-19, 2016.** The meeting was convened to develop regional, harmonized PV guidelines. SIAPS co-facilitated the meeting with WHO and advocated for the next level of minimum requirements for functional PV systems. In addition, SIAPS advocated for revised timelines for pilot testing the harmonized PV indicators and baseline assessments of PV systems in EAC. Assessments are planned for January to March 2017, leveraging additional resources from the World Bank for data collection.
- **First International High-Level Multi-Stakeholder Conference on promoting pharmaceutical sector investments in the EAC held in Nairobi, Kenya on November 2-4, 2016.** During the conference, SIAPS presented on its support of PV systems strengthening in the region under the AMRH initiative. After the conference, SIAPS provided a detailed brief to NEPAD on support to EAC since 2014. This was used in strategic EAC and AMRH partners' meetings to fast-track formal engagement of SIAPS and other non-AMRH partners in the EAC-MRH agenda.
- **Third African Society of Pharmacovigilance (ASOP) Conference held in Mombasa, Kenya on December 7-9, 2016.** SIAPS gave two plenary presentations and was involved in the conference organization and execution. One presentation answered the question of the future of pharmaceutical systems resiliency, and the second presentation was related to capacity building for PV at the national and regional levels. At a preconference meeting, SIAPS participated in a WHO-led PV training on December 5-6 that focused on work-sharing for progress, data quality, causality assessment, and signal detection. A key highlight from the training was the planned transition of Vigiflow from using WHO-adverse reaction terminology to the Medical Dictionary for Regulatory Activities and the proposed roll-out plan for reporting countries.

GLOBAL PROGRAMS

Maternal, Newborn, and Child Health

Goal: Ensure the availability of quality medicines and supplies and effective pharmaceutical services to reduce maternal, newborn, and child mortality

Overall Quarterly Progress

SIAPS maternal, newborn, and child health (MNCH) activities continued to contribute to ensuring the availability of quality medicines and supplies and effective pharmaceutical services to reduce maternal, newborn, and child mortality. This quarter, SIAPS remained engaged at the global level, participating in key working groups and initiatives to enhance the dialogue on the importance of pharmaceutical management of MNCH medicines and supplies. SIAPS remained engaged with the Maternal Health Supplied Caucus (MHSC) of the Reproductive Health Supplies Coalition (RHSC) and contributed to the finalization of the MHSC work plan, defining areas to which the project could contribute. SIAPS also participated in the final meeting of the iCCM Financing Task Team (FTT) and helped finalize the French version of the documentation protocol for use in francophone countries to document iCCM implementation under the Global Fund's New Funding Model. SIAPS further contributed in planning the commodities session for the Institutionalizing Community Health Conference (IHC).

This quarter, SIAPS finalized data collection in three of the four countries selected for mapping financial flows of MNCH commodities: Nepal, Uganda, and Kenya. The results were shared with USAID and the country reports are being finalized.

Additionally, SIAPS attended the amoxicillin product presentation meeting and presented the study in DRC on job aids, dispensed envelopes for amoxicillin dispersible tablets, and participated in the discussions on next steps.

Objective 1: Global Awareness of the Importance of Pharmaceutical Management for MNCH Medicines and Supplies Increased

This quarter, Management Sciences for Health's global technical lead for family planning/reproductive health and senior technical advisor of the Family Care International Program represented SIAPS at the RHSC meeting held in Seattle and represented SIAPS in the Systems Strengthening Working Group and Maternal Health Supplies (MHS) Caucus meeting. SIAPS also participated in calls of the MHS Caucus and the Systems Strengthening Working Group of the RHSC and contributed to finalizing the MHSC work plan. SIAPS defined areas where the project could contribute, such as webinars and dissemination of tools and advocacy documents for integration of oxytocin in the cold chain. Next quarter, SIAPS will clarify its contribution to the webinars and help develop a package for dissemination.

SIAPS also chaired the meeting of the Supply Chain Management (SCM) Subgroup of the CCM Task Force, coordinating a presentation on the lessons learned from the Supply Chain for Community Case Management Project of John Snow Inc. This will be distilled into an easy-to-digest lessons learned document for dissemination by the subgroup. The subgroup was also invited to present at the Vancouver Health Systems Research Conference, and SIAPS coordinated its participation through two satellite sessions on district systems strengthening. During the conference, in one satellite session, VillageReach presented on the integration of HMIS and LMIS work conducted for the UN Commission on Life-Saving Commodities (UNCoLSC) supply chain technical resource team (SCTRT) under SIAPS funding. A representative from the Maternal and Child Survival Program (MCSP) presented on behalf of the SCM Subgroup in another satellite session.

For the iCCM FTT, SIAPS participated in a meeting to discuss documentation of the work of the FTT and reviewed the draft document. SIAPS participated in the final meeting of the iCCM FTT on November 29, contributing to the discussion on the transition and role of the CCM Task Force. Additionally SIAPS helped finalize the French version of the documentation protocol for use in francophone countries to document iCCM implementation under the Global Fund's New Funding Model. While SIAPS participated in the December CCM Task Force teleconference, the SCM Subgroup meeting was postponed to January as many members were not available because of the holidays.

SIAPS continued to be engaged in planning the commodities session for the ICHC. The session will focus on strong systems to ensure access and use of commodities at the community level. SIAPS worked with the Child Health USAID team to develop and submit an outline of the session to the organizing committee. The session outline was finalized during a meeting for ICHC session coordinators.

SIAPS also attended and actively contributed to the webinar on the RMNCH Landscape Synthesis and attended the Maternal Health Initiative presentation on "Putting the Lancet Maternal Health Series into Action." Additionally, SIAPS participated in the Core group meeting plenary session on Child Health Policy and Programming Transitions. SIAPS also provided the SIAPS AOR team with talking points about SIAPS MCH work and the Global Financing Facility (GFF) for the GFF meeting in Tanzania and gave feedback to the UNICEF Supply Division on their strategic plan.

Objective 2: Guidance and Tools for Improving Pharmaceutical Management for MNCH Developed and Disseminated

The final draft of the review of current pharmaceutical management policies and systems that affect access to essential MNCH medicines and supplies was developed and reviewed internally and sent to the Countdown health systems and policies working group chairs for their final review and approval before submission for publication.

A SIAPS representative traveled to Kenya to follow-up on the data collection conducted previously on sub-national procurement practices at the county level and to finalize the results of the assessment and share key findings with stakeholders. Two counties were visited and

additional information was collected, particularly for financial flow activity. On October 18, a short meeting was held in Nairobi with county representatives and other stakeholders, including the Kenya Medical Supplies Authority (KEMSA), Clinton Health Access Initiative (CHAI), and county pharmacists, to share the findings and seek inputs for recommendations. The report will be finalized and disseminated early next quarter.

The mapping of financial flows for MNCH commodities progresses. The consultant in Uganda has completed data collection and submitted a draft report. In Kenya, relevant information was collected from Elgeyo and Kakamega counties during the SIAPS technical advisor's visit. Results from Uganda and Kenya were synthesized and presented to the USAID MCH team in December. In Bangladesh, the consultant's contract was finalized, however, there was a delay in starting data collection as the consultant was waiting for a required letter of introduction from USAID Bangladesh; the letter was received in December and data collection began at the end of the quarter. Next quarter, a SIAPS representative will travel to Bangladesh in early January to work with the local consultant on data collection, and the individual country reports for Nepal, Kenya, and Uganda will be finalized and shared.

Objective 3: Evidence Base for Effective Strategies to Improve Access to MNCH Pharmaceuticals and Services Increased

Most of the UNCoLSC technical reference teams have now ended or are merging with other groups. The maternal health technical resource team (TRT) has now merged with the MHSC and as such, SIAPS contributions will be reported under objective 1.

In October, SIAPS finalized the SCTRT's legacy document and circulated it to the TRT for review, and the TRT has ceased to function.

SIAPS continued to participate in the chlorhexidine TRT bi-weekly calls and contribute when needed.

The pneumonia and diarrhea TRT has become a virtual group for information sharing for the time being. SIAPS attended the amoxicillin product presentation meeting hosted by UNICEF and presented the study in DRC using the dispensing envelopes and the job aids and contributed to the discussions on next steps. It was agreed to publish the studies of SIAPS, UNICEF, and PATH and to post the finalized generic files of the envelopes and job aids on the Every Breath Counts and lifesaving commodities websites.

Neglected Tropical Diseases

Goal: Ensure the availability of quality medicines and supplies and effective pharmaceutical services to increase efficiency of NTD control and elimination programs

Overall Quarter Progress

The SIAPS NTD portfolio completed the closeout documents for the program. SIAPS completed the development of the standard operating procedures (SOPs) for NTD supply chain management, which is currently with editorial for final review.

Objective 1: Strengthen NTD global coordination and oversight mechanisms

No activities this quarter.

Objective 2: Support NTD capacity building initiatives

No activities this quarter.

Objective 3: Support NTD medicine safety programs

During this quarter, SIAPS NTD submitted the final draft of the guidelines and SOPs, which is with editorial for final editing.

TB Core

Goal: Assure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve global TB goals

Overall Quarter Progress

This quarter, SIAPS continued to finish activities and transition them to local stakeholders as part of project close-out. SIAPS continued to serve as a leader in pharmaceutical governance and best practices for TB at the global level with a strong presence at the 2016 Union World Conference on Lung Health held in Liverpool. This quarter was marked by continued improvement in SIAPS-developed tools with the release of QuanTB version 4 and e-TB Manager version 3 to help countries use data for decision making.

Objective 1: Assure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve global TB goals

This quarter, SIAPS participated in the 47th Union World Conference on Lung Health organized annually by the International Union against Tuberculosis and Lung Disease. The conference took place in Liverpool, UK, from October 26-29, 2016, with the theme, *Confronting Resistance: Fundamentals to Innovations*. The conference attracted more than 1,400 delegates from around the world and is a leading platform for researchers, implementers, private industry, and civil society to discuss new scientific research on tuberculosis. SIAPS and its predecessor programs have actively participated in this conference since 2002 to disseminate our work and improve participant knowledge about pharmaceutical management system strengthening.

This quarter, SIAPS launched QuanTB version 4.0 at the conference, participated in side meetings and pre- and post-conference meetings and promoted SIAPS materials and new eCourses on QuanTB, new TB medicines under development, and the upcoming release of e-TB Manager version 3.0. SIAPS conducted two half-day workshops with partners, the first, *entitled Lessons Learned from Increasing Access to Bedaquiline and Delamanid for Management of Drug-Resistant TB*. During this workshop, SIAPS gave a presentation on lessons learned on providing technical assistance to build national TB program readiness to introduce bedaquiline. The second workshop, *entitled Digital Health Technology for the End TB Strategy: Developing Priority Products and Making Them Work*. During this workshop, SIAPS presented on harnessing the power of digital platforms for clinical decision making and program planning. In addition to workshops, SIAPS participated in and coordinated two symposia. SIAPS staff chaired the symposium *entitled Active TB Drug Safety Monitoring and Management: A Transformative Approach to Limit Treatment Related Patient Harm* and a SIAPS staff member also presented on Georgia's experience on improving TB patient safety and management. The second symposium SIAPS chaired was *entitled Early Warning System to Improve Patient Access to TB Medicines: From Quantification to Decision Making.* In addition, SIAPS presented eight abstracts during the conference, expanding the knowledge base on drug use reviews, implementation of digital health tools, such as e-TB Manager and QuanTB, and implementation results of an early warning system in several countries and regions.

Objective 2: Capacity for TB pharmaceutical supply management and services increased and enhanced

This quarter, modules 1 and 2 of the eCourse were updated following the release of QuanTB version 4.0. Following the module update by SIAPS, the consultant prepared the files to be uploaded onto the LeaderNet platform. During the quarter, all units (1-8) in module 1 were published on LeaderNet. Installation videos for MACs and PCs have been developed and links for these videos were created. The design for certificate completion was finalized. SIAPS started recording updated videos (according to version 4 revisions) for units 1, 4, 5, and 6 of module 2 by using Articulate Storyline. These will be provided to the eCourse developer for editing and customization according to LeaderNet specifications in the next quarter. It is expected that module 2 will be loaded and the final course published during Q2.

Constraints to Progress

During this quarter, SIAPS continued to experience delays in the completion and publishing of the eCourse because the updated tool was still undergoing small improvements to fix issues discovered during testing; therefore SIAPS adjusted the timeline for the QuanTB eCourse publishing to the end of February 2017. The eCourse plays well on PCs and MAC laptops, iPads, and Android phones and tablets, but there is an issue with iPhones. The LeaderNet team is still checking with the technical team on this, but SIAPS does not anticipate this to be a major issue, as the majority of users use Android devices, Apple products being relatively more expensive.

Objective 3: Improved utilization of information for TB control decision making

By the end of Q1, there were 340 downloads of QuanTB alone from the SIAPS website, bringing the total number of downloads to almost 2,000 since the tool's inception. Q1 also saw major modifications to QuanTB. A new version was developed and released, bugs were fixed, and calculation errors on additional costs were corrected. Wrong messages were corrected, unnecessary messages were removed, and all messages were clarified and simplified to make them easier to understand. Errors in translations were also corrected. This quarter, a significant challenge developed in the classification of medicines in the medicines list; corrections were made according to the latest WHO classification updates and the tool improved to avoid duplications of medicines. New medicines were added and obsolete ones were deleted according to the latest WHO and Global Drug Facility (GDF) recommendations. SIAPS also worked to further standardize naming of regimens in QuanTB. To clarify budgeting, SIAPS added the currency of USD for all monetary values. The dashboard feature of QuanTB was improved to display both graphs and the standard dashboard. The display of the dashboard was modified to correctly show potential expiries and respective quantities. The QuanTB webpage was simplified and now allows users to download Windows and MAC versions separately, reducing the size of the file to be downloaded by 50%.

By the beginning of Q1, a new version of e-TB Manager 3.0 was released during the Union Conference. This new version fully implements the new case management module, mobile support, indicator generators, and offline mode. In the beginning of December 2016, a feature was released that allows users to synchronize their work done in an offline version with the

online version. This module allows a user with poor internet connectivity to use e-TB Manager in offline mode because all data are stored in the computer's hard drive and, once connected to the internet, the user can synchronize the data with the web version. e-TB Manager use remains high and the platform is currently operating at 1,646 sites in 10 countries. Globally, 3,145 active users are managing 671,311 TB cases, DR-TB cases, and presumptive TB individuals. During Q2, SIAPS plans to offer improved interoperability between e-TB Manager and other information systems, such as PViMS and DHIS2.

The e-TB Manager end-of-program documentation is in progress. Country summaries for Namibia, Nigeria, Armenia, Azerbaijan, Cambodia, Philippines, Turkmenistan, and Uzbekistan have been completed. Two accompanying figures and two tables have also been developed. The summaries for these countries are pending: Bangladesh, Brazil, Indonesia, Ukraine, and Vietnam. Because this has been a multi-year effort over two global programs, any lessons learned are being drafted for the general development community. Relevant appendices for sharing with digital health implementers will be prepared.

The Lancet Global Health blog has published the summary findings of our global user experience survey on e-TB Manager: <http://globalhealth.thelancet.com/2016/10/24/empowerment-and-sustainability-web-based-technology-tuberculosis-care>. The USAID Office of Health Systems recognized this work and widely circulated the piece in their Health Systems Network mailing list and many global agencies have tweeted this post. Analysis of the global survey results was drafted in a manuscript, which is under external peer review.

Objective 5: Improved pharmaceutical services and access to TB products to achieve TB goals

This quarter, the report of the economic impact of stock-outs analysis in the Philippines was completed and distributed to stakeholders via the SIAPS website and social media. A technical brief was prepared and handed out at the Union Conference. A draft report of the analysis in Kenya and a technical brief were submitted to the Kenya NTP and to SIAPS staff members for follow-up with the NTP. SIAPS is awaiting the NTP's approval prior to finalization and dissemination.

SIAPS continued its review of QuanTB implementation and related SIAPS TB technical assistance to determine key achievements or results, experiences, and perspectives of tool beneficiaries, as well as challenges and lessons learned this quarter. SIAPS-supported countries have continued to progressively adopt and institutionalize QuanTB as the national quantification tool and main source of data informing NTP's decisions and actions related to procurement, supply planning, and monitoring stocks of TB medicines and related commodities. Data that was collected during the last three quarters through reviews of relevant background documents and reports; structured in-depth interviews with SIAPS TB home office staff, TB field advisors, and local beneficiaries of the technical assistance (i.e., active QuanTB users and senior NTP decision makers); and online experience and satisfaction surveys of country beneficiaries and global partners were analyzed. The questionnaire data for Bangladesh, DRC, Kenya, Myanmar, Nigeria, Philippines, Tajikistan, Tanzania, Uganda, and Zimbabwe were analyzed, and country briefs

drafted and shared with the SIAPS in-country or regional TB field advisors for their review and inputs this quarter. The draft reports for Bangladesh, DRC, Kenya, Nigeria, Philippines, Uganda, and Tanzania were then revised to incorporate field advisors' feedback and finalized. The home office continued to follow up on feedback from Myanmar, Tajikistan, and Zimbabwe.

Partner Contributions

The evaluation is being conducted in collaboration with local in-country beneficiaries (NTP counterparts) and global TB partners (GDF/Stop TB, Global Fund, KNCV Tuberculosis Foundation, and the Ely Lilly Project). In-country NTP beneficiaries participated in in-depth interviews and completed country beneficiary experience and satisfaction surveys. Global partners completed global partner beneficiary experience and satisfaction surveys.

Constraints to Progress

There were delays in receiving country feedback from Bangladesh, DRC, Myanmar, Uganda, Tanzania, Tajikistan, and Zimbabwe because field advisors were busy with competing commitments or have transitioned to other roles outside SIAPS. The Mozambique, South Sudan, Uzbekistan, and Zambia evaluations were abandoned because of non-availability of local beneficiaries to participate in the survey.

TB Add-On Portfolio

Objective 5: Improved pharmaceutical services and access to TB products to achieve TB goals

DRC

This quarter, SIAPS continued to provide support to the National TB Program (NTP) to overcome challenges in pharmaceutical management. SIAPS staff provided technical support in quantification, forecasting, and supply planning and generated an early warning system (EWS) report.

Kenya

As the SIAPS program draws near to a close, the technical support provided is increasingly focused on skills transfer for sustainability of interventions. During the quarter, one EWS report was generated in October 2016. The action points were discussed during the monthly commodity security meeting. A key outcome of the technical assistance provided by SIAPS was the aversion of a potential stock-out due to fast tracking a pending delivery of capreomycin. In addition, SIAPS provided technical inputs during the review of NTP integrated curriculum and training materials in October 2016. The review was meant to strengthen the modules on medicine safety and pharmacovigilance (PV) for multidrug resistant (MDR)-TB and anti-TB medicine inventory management.

Nigeria

During Q1, SIAPS continued to provide technical support to the NTP to strengthen pharmaceutical management practices and establish an EWS to avoid stock-outs. SIAPS staff provided technical support in quantification, forecasting, supply planning, active TB drug-safety monitoring and management (aDSM) and PV for the introduction of a new drug resistant (DR)-TB short-course regimen. With SIAPS support, Nigeria was able to avoid old pediatric formulations at risk of expiration as a result of the pipeline monitoring using QuanTB and technical assistance provided. This quarter, SIAPS staff also participated in procurement and supply management (PSM) meetings and a DR-TB program review meeting in Lagos state, facilitated a training on pharmaceutical care and logistics management information system (LMIS) of MDR-TB commodities, and built the capacity of providers and laboratory staff from North East (Bornu, Yobe) on commodity and patient management in drug-susceptible TB. Working to support the transition to shorter regimen DR-TB treatment, SIAPS staff participated in committee meetings and supported the NTP in determining the cost per patient for the different proposed regimens and quantification of medicines for each regimen to make sure resources were used appropriately.

South Sudan

During the quarter, SIAPS conducted a quantification review for pediatric anti-TB medicines and generated an EWS report in October 2016. This report was shared with GDF and a conference

call with GDF and the Global Fund was held on November 2, 2016, to plan a grant for new pediatric formulations.

Throughout the quarter, SIAPS conducted follow-up on action points that arose from the EWS report generated in October. One action point included fast-tracking first-line adult formulations and ethambutol 100 mg for children. Stocks for these commodities had been flagged as low and likely to go out of stock had action not been taken by the NTP.

Zambia

SIAPS continued to support Zambia to address challenges in TB medicine supply such as a lack of reliable information for decision making and limited skills in forecasting and quantification. During the quarter, an EWS report was generated and shared with stakeholders. Quantification was conducted and procurement of both first- and second-line medicines was initiated. In November 2016, a SIAPS senior technical advisor travelled to Zambia to participate in a WHO review of the NTP strategic plan for 2012-2016. During the review, a meeting was held with GDF staff to highlight the various supply chain issues that needed to be addressed. SIAPS supported the NTP to quantify the initial order of new pediatric formulations and drafted a transition plan to phase-out the old formulations and phase-in the new ones. SIAPS also provided technical support in planning the introduction of the short-course MDR-TB regimens. SIAPS provided technical support on patients' allocation on the new regimens based on WHO guidelines, quantification, and supply planning for the MDR-TB medicines. SIAPS also made recommendations on preparations to ensure that the NTP is ready to implement the short-course regimens in time.

Constraints to Progress

DRC

The demise of the NTP manager in DRC delayed activities.

Nigeria

Constraints included a lack of funding, supplies of old pediatric formulations (leading to an overstocked pipeline), a large volume of waste/expiries, staff attrition, hiring of new staff, and inadequate staff capacity in quantification and forecasting medicines.

South Sudan

This quarter was very challenging in South Sudan because the NTP manager was out of the country for the entire quarter. There was no hand over and he could not be reached to make key decisions on critical activities, leaving a leadership gap. This has resulted in slow progress on the finalization of key documents and a roll-out plan for the new pediatric formulations.

Zambia

This quarter, challenges included inadequate staff; only one staff at the NTP is in charge of PSM, managing both upstream and downstream sections of the pipeline. Zambia also is challenged by inadequate funding of PSM activities.

TB/HIV Add-On Portfolio

Overall Quarter Progress for Ethiopia

During Q1, SIAPS provided technical support to build capacity of key staff and work closely with Challenge TB to implement QuanTB (a forecasting and supply planning system) and its EWS. SIAPS monitored the stock status for anti-TB drugs at the Pharmaceutical Funds and Supply Agency (PFSA) on a regular basis and participated as a member of the national quantification team providing support to the NTP in building assumptions, generating data elements, and refining data inputs. This quarter, SIAPS attended several technical working group meetings on PSM-related issues and supported the NTP in the development of an SOP document for the distribution of small volumes of anti-TB drugs (pediatric anti-TB drugs, anti-leprotic drugs, second-line drugs, and medicines for retreatment TB cases) to health facilities. SIAPS provided technical guidance to the NTP to integrate the falcon tube and cartridge into the Integrated Pharmaceutical Logistics System to avoid the current lengthy and challenging procedure for acquisition of supplies. SIAPS provided data for decision making and contributed to evidence that led to the decision to completely transition to new pediatric formulations by January 2018. To this aim, SIAPS supported development of the first draft of the transition plan for introduction of new pediatric TB formulation. SIAPS also provided technical inputs into the discussion on starting the shorter MDR-TB regimen. Although the TWG was convinced to start the new regimen, higher officials of the ministry requested more evidence. The national TB/HIV TWG is closely working with the MDR-TB centers (St. Peter Hospital and ALERT Hospital) to generate evidence for the Ethiopian context.

This activity has been completed. The Challenge TB Project in Ethiopia will assume and continue support to the NTP and MOH to strengthen TB pharmaceutical supply and services.

TB Bedaquiline Implementation Program

Goal: Provide technical support to the bedaquiline implementation program for pharmacovigilance of new TB medicines

Overall Quarter Progress

Georgia

During the previous quarter, programmatic implementation of bedaquiline (BDQ) remained steady with 28 patients enrolled on the new TB treatment, 18 of which were on BDQ and 10 on delamanid (DLM). This enrollment data is on target with the expected 8-10 new patients enrolled on new TB drugs on a monthly basis, based on drug-susceptibility data and patient eligibility criteria. Overall, as of December 31, 2016, 311 patients were enrolled on new treatment regimens. Out of the 311 patients on new medicines, 246 were enrolled on BDQ (20 were through compassionate use, the remaining through the donation program); 65 patients were enrolled on DLM (12 through compassionate use). Of the 311 patients, 227 are still on treatment.

Q1 saw a sharp increase in serious adverse events (SAEs) in the active drug safety monitoring and management (aDSM) activity in Georgia. As of December 2016, 73 SAEs have been reported by 48 patients, thus around 15% of patients have developed at least 1 SAE; 36 SAEs were reported during the period September-December 2016, compared to just 37 SAEs that were reported from April 2015 to September 2016. This significant increase in SAE recognition and reporting comes after countrywide aDSM training that was conducted by SIAPS from August 24 to October 8, 2016. SIAPS substantially increased health care worker capacity in recognizing and reporting SAEs that would have been missed prior to training and, as a result, underreported.

In addition to overall better recognition of SAEs by clinicians, clinicians' capacity to report non-fatal SAEs improved following SIAPS' trainings. Out of the 36 SAEs reported in the last quarter, none were fatal SAEs, compared to the majority of reported SAEs that were death reports prior to training. The SAEs reported last quarter were comprised of 16 (44%) hepatitis, 3 (8%) QTc prolongation, 3 (8%) peripheral neuropathy, 3 (8%) acute GI events, and the remaining 11 were solitary cases of allergic reactions, delirium tremens, unstable angina, bronchopneumonia, pruritus, pneumothorax, empyema, meningitis, pompholyx, and hyperbilirubinemia.

Besides building clinician capacity, SIAPS worked to strengthen the health system processes and management around aDSM. In the period following the August-October 2016 trainings, the pharmacovigilance (PV) committee saw an increase in requests for routine support and supportive supervision by doctors completing SAE forms. This is in contrast to previous quarters where clinicians contacted SIAPS directly for technical support. Previously, the most frequent assistance needed by doctors was correctly choosing the appropriate SAE classification and assessing causality when there is a concomitant treatment for comorbidities. To further support the NTP and PV committee, SIAPS is developing nine job aids for the most common anti-TB drug adverse events. These job aids will list all the drugs and drug groups (other than TB drugs) that can cause the same adverse events. This will help guide the reasoning process of TB doctors

while assessing the causality in complex comorbidity cases of TB patients receiving several treatments for other diseases.

Kenya

Progress in implementing BDQ in Kenya has been halted because of several issues including infrastructure challenges. There is a desire by the NTP to create isolation wards to treat eligible patients using BDQ; however, funding for this has been difficult to access. At the request of the NTP, SIAPS technical support focus has been shifted to implementing the new short-course regimen.

Philippines

As of Q1, there are 68 patients enrolled on BDQ and 7 SAEs reported. Of the patients that have started treatment with BDQ as of November 2016, one had died and one withdrew consent.

Swaziland

There is ongoing use of BDQ in Swaziland, with over 70 patients on treatment. SAEs are also being tracked and reported appropriately.

Uganda

As of Q1, there were 12 patients on BDQ treatment. Additional orders for BDQ have been placed due to increased demand for the drug. The NTP has reviewed and approved the clinical guideline for BDQ developed by SIAPS for use at the facility level. The clinical guideline document is currently awaiting signature from the director general of the Ministry of Health, after which it will be disseminated nationwide. SIAPS is working with a local partner to help Uganda with the procurement of ECG machines and, in the interim, ECG services will be obtained from private hospitals.

eLearning course on new TB medicines

The eCourse on new TB medicines is in the final stages of development. The course has been through two rounds of editorial review and the next step is to load the content onto the Management Sciences for Health LeaderNet platform. Testing of the course and platform is anticipated to begin early next quarter with a planned launch data prior to the end of Q2.

PViMS

This quarter, SIAPS focused on deploying PViMS in the Philippines. Lessons learned from the Georgia deployment of the PViMS were incorporated into the application system to improve the experience and functionality in the Philippines. This quarter, SIAPS worked to introduce PViMS and conduct multiple trainings under the auspices of the NTP. An agreement was reached regarding interoperability between the Philippines TB case management system (ITIS) and PViMS, and application development support was provided to ensure interoperability. By the

end of the quarter, ITIS had functional interoperability with PViMS. Despite significant preparatory work for the launch of PViMS, deployment has been delayed due to administrative changes at Philippines FDA. The NTP is actively working with SIAPS to ensure implementation of the PViMS by February 2017. Planning is underway to ensure final testing and user acceptance by the NTP, platform availability for deployment of the system, personnel availability for training and implementation, and that the NTP has a MedDRA license.

SIAPS provided PViMS in Georgia with an updated version of the tool. This resolves issues relating to gaps in the analytical portal of PViMS that were discovered after deployment in Georgia.

Partner Contributions

Georgia

The Global Fund Tuberculosis Program is providing important support to the Georgian TB program. Specifically, a) procurement of all other second-line drugs essential to construct an adequate treatment regimen for MDR-TB patients; b) DLM has already been ordered using Global Fund money through the GDF in July 2016; c) equipment, cartridges, reagents, and consumables needed for the diagnosis and treatment of MDR-TB patients has been provided through the Global Fund; d) the Global Fund is supporting a “mobile consilium” approach that allows rapid roll-out of new TB drugs at the regional and district levels; e) salaries of treatment adherence consultants are being supported to ensure adequate treatment adherence of MDR-TB patients; f) a cash incentive scheme for compliant MDR-TB patients is being supported; and g) transportation costs for patients to attend daily DOT are being supported.

The Medecins Sans Frontiers (MSF)/France Program in Georgia is actively involved in the overall new drug implementation process. Their doctors are a part of the MDR-TB consilium that discusses cases twice a week at the NTP. They also participate in reporting SAEs to the NTP. MSF also serves as the source of programmatic DLM.

Constraints to Progress

PViMS

Progress is slow due to unexpected changes in Philippines staffing.

Philippines

Although enrollment has improved during this quarter, it continues to be slower than anticipated. Our in-country clinical consultant continues to work with clinicians, the NTP, and stakeholders to identify patients who would benefit from BDQ treatment and is motivating clinicians to help overcome their hesitancy to prescribe BDQ.

REGIONAL PROGRAMS

LAC Amazon Malaria Initiative

Goal: By the end of 2016, AMI countries will have institutionalized national and regional mechanisms to ensure a continuous supply of antimalarials as the key malaria control strategy, particularly in low-incidence locations and areas at risk for the emergence of ACT-resistant pathogens.

Overall Quarter Progress

Seven countries reported stock levels for antimalarials for the July–September quarter. The availability of antimalarials in central warehouses was 84%, which was a 1% decrease from the previous quarter. During this quarter, AMI countries started receiving antimalarials procured through the PAHO/Strategic Fund pooled procurement.

Objective 1: Pharmaceutical sector governance strengthened

SIAPS visited Bogota, Colombia, in October 2016 for the presentation to national and local authorities and technicians on the evaluation of malaria control strategies using an adequacy approach. The participants agreed on the implementation of low-cost local interventions to close the performance gap and on the inclusion of this type of evaluation in the regular malaria program activities. A final report was developed and distributed to all interested parties. No activities have been planned for the next quarter.

Objective 2: Pharmaceutical management information available and used for decision making at different levels of the health system

Seven regular AMI countries reported stock levels for antimalarials for the July–September quarter. The availability of antimalarials in central warehouses decreased slightly to 84%, compared to 85% in the previous quarter.

Objective 3: Pharmaceutical services improved to achieve desired health outcomes

Last year, SIAPS supported the systematization of interventions to improve access to malaria diagnosis and treatment in the gold mining areas of Para, Brazil. During this quarter, SIAPS monitored the progress in the implementation of these interventions and the results. A report was developed and distributed to national counterparts and AMI partners. No activities have been planned for the next quarter.

West Africa Regional

Goal: Facilitate the availability of quality pharmaceutical products, especially those related to HIV and AIDS, to achieve high-level desirable health outcomes in target West Africa countries

Overall Quarter Progress

SIAPS supported the National AIDS Control Program of Togo (Programme National de lutte contre le SIDA [PNLS]) to conduct formative supervision of users of the Electronic Dispensing Tool (EDT) in the five pilot antiretroviral (ARV) treatment sites.

SIAPS also supported PNLS Togo and PNLS Benin to input data into the HIV and AIDS commodity management tool (OSPSIDA) in West Africa and supported both PNLS Togo and PNLS Benin to analyze reports.

SIAPS supported the National AIDS Control Commission of Cameroon (CNLS) to run OSPSIDA from its own server.

Objective 1: Increase the use of pharmaceutical management information for decision making at national and regional levels

With SIAPS support, PNLS Togo conducted supportive supervision in the five pilot sites where EDT software is already installed. The purpose of this supervision was to build the capacity of EDT users, identify issues affecting the use of EDT in the five sites before the nationwide roll out of EDT, and assess the quality of data through two indicators reported on the SIAPS monitoring and evaluation plan.

The PNLS team was able to visit each ARV site once per week for four consecutive weeks.

The EDT is actively used in the five pilot sites to record patient data and medicines used to treat HIV-positive patients. Four pilot sites have already abandoned the paper-based dispensing register, but the Teaching Hospital of Tokoin (Centre Hospitalier Universitaire Tokoin) is still using both the EDT and a paper-based log book due to a bug blocking the generation of monthly logistics management information system (LMIS) reports to send to PNLS for resupply. Aside from this issue, which was reported by PNLS and shared with SIAPS, the use of the EDT has improved the completeness and timeliness of reporting according to PNLS.

Objective 2: Improve coordination among regional and national stakeholders involved in ensuring ARVs and HIV and AIDS commodity availability

SIAPS assisted the HIV and AIDS Program in Benin and Togo to input LMIS data through September 2016 into OSPSIDA. Support has also been provided to both countries to assess their national stock status and their pipeline information based on September 2016 data.

The dashboard showed no stock-outs in the two countries. Based on current stock status at the national level, the dashboard also showed that 24.1% and 35% of ARVs were at high risk of stock-out (month of stock [MOS] less than 6 months); 13.8% and 25% of ARVs were at medium risk (6–12 MOS); 31% and 25% were at low risk (12–24 MOS, which is the desired zone); and 31% and 15% were overstocked (more than 24 MOS with risk of expiry) in Benin and Togo, respectively.

The pipeline analysis showed that all ARVs at high and medium risk in Benin will not be affected by stock-outs in the coming months if ARVs ordered by the Global Fund and the Government are delivered as planned.

Unfortunately, PNLs Togo did not update its shipment data in OSPSIDA, and SIAPS was not able to assess the mitigation of the risk of stock-outs of ARVs that were at high risk in the coming months. Recommendations have been issued to Togo to complete shipment data entry as quickly as possible.

Benin and Togo used OSPSIDA reports to inform decision making to ensure the availability of ARVs during their national procurement and supply management coordination committee meetings.

Objective 3: Enhance capacity for pharmaceutical supply management

Following a capacity building exercise conducted in August 2016 on hosting and performing routine maintenance of OSPSIDA, SIAPS supported the CNLS to copy and transfer data from the regional dashboard (www.ospsida.org) to Cameroon's dashboard (www.ospsida-cameroun.cm), which is hosted on a server in Cameroon, with a “go live” date of December 5, 2016.

SIAPS provided remote capacity building exercises to CNLS staff to assist them in managing and monitoring the effective use of the OSPSIDA Cameroon to avoid any interruption of data entry. This transition has been completed successfully and was documented as a key achievement to ensure country ownership and the sustainability of OSPSIDA in Cameroon.

COUNTRY PROGRAMS

Angola

Goal: Improved availability of quality products for effective pharmaceutical service delivery and better health outcomes

Overall Quarter Progress

During this quarter, SIAPS/Angola prepared and implemented an end of project (EoP) technical transition and closeout plan to ensure smooth hand over of activities to the MOH and partners. The plan categorized interventions as follows:

Interventions implemented collaboratively with MOH programs and handed over to local counterparts:

- Pharmaceutical management, including quantification and distribution planning of HIV/AIDS, malaria, and reproductive health commodities: National HIV/AIDS Control Institute (*Instituto Nacional de Luta contra o Sida* (INLS)), National Malaria Control Program (NMCP) (*Programa Nacional de Controlo da Malaria*), National Reproductive Health Department (*Departamento Nacional da Saude Reprodutiva* (DNSR))
- Stock monitoring tool for HIV/AIDS commodities at the central level (INLS)
- Procurement, warehouse operations, distribution, and transportation management system strengthening (Central Procurement Agency for Medicines and Medical Supplies (*Central de Compras de Medicamentos e meios medicos de Angola* (CECOMA)))
- Pharmaceutical management manual for HIV/AIDS commodities (INLS)

Interventions that were ongoing at the end of SIAPS and transitioned to the MOH:

- Implementation of pre- and in-service training: National Directorate of Medicines and Equipment (*Direcção Nacional de Medicamentos e Equipamentos* (DNME)), NMCP, INLS, Luanda Provincial Medical Warehouse (*Depósito Provincial de Medicamentos e Meios Médicos de Luanda* (DPS Luanda))
- Development of National Essential Medicines List and National Formulary Manual (DNME)
- Development and implementation of quantification technical working group and related tools (INLS/NMCP)
- Monitoring of malaria case and logistics management (NMCP)
- Support to Logistics, Operations and Procurement Subcommittee of the Interagency Coordination Committee for revitalization (*Sub-Comissão para a Logística, Aprovisionamento e Operações* (CCI/SCLAO)) (DNME)
- Initiation of a medicines registration system (DNME)
- Development and implementation of a national supply chain strategy (DNME and local supply chain stakeholders)

Interventions that were ongoing at the end of SIAPS and transitioned to the procurement, supply, and management (PSM) project to implement in collaboration with MOH programs (all supply chain interventions)

- Facilitating port clearance, receipt, and distribution of USAID- and other donor-funded commodities (PSM/DNME)
- Technical assistance to the CECOMA central warehouse and regional warehouses (when functional) (PSM)
- Implementation of end user verification (EUV) and the procurement planning and monitoring report for malaria (PPMRm) (PSM/NMCP)
- Continuation of SIAPS technical assistance to the INLS, Luanda Department of Public Health (*Gabinete Província da Saúde de Luanda* (GPSL)) and nine PEPFAR-supported health facilities in Luanda (PSM)

Activities and related documents and tools that were developed by SIAPS were gradually handed over to stakeholders or beneficiaries responsible for their implementation. Although implementation of some activities ended during the previous quarter, SIAPS/Angola continued to implement key activities pending their handover, including the EUV planning and survey; the PPMRm; support to nine PEPFAR-supported health facilities in Luanda to implement good storage and dispensing practices of HIV and AIDS control services by mentoring pharmacy personnel; monitoring of provincial malaria case and logistics management; overseeing DNME-led partner coordination/SCLAO meetings; and managing the technical preparations, coordination, data collection, and initial phase of analysis of survey data.

SIAPS/Angola also collaborated with the NMCP to continue compiling malaria case management reports from all 18 provinces and to monitor stock status of antimalarial commodities at CECOMA and provincial warehouses. PPMRm data for the quarter were compiled and submitted to PSM, and EUV data were collected in six provinces in November and December 2016.

Per a USAID/Angola Mission request, the program worked on preparations for the EoP evaluation in collaboration with the Mission and the external evaluation team.

The SIAPS/Angola office officially closed on December 31, 2016.

Objective 1: Pharmaceutical supply chain system governance strengthened

During this quarter, SIAPS continued to support coordination among pharmaceutical supply chain stakeholders. SIAPS/Angola supported the DNME to organize the final ICC/SCLAO meeting of 2016 on November 1. The key agenda item was an update of activities implemented during September and October 2016 (DNME, IGS, CECOMA, MOH programs, central and general hospitals, and INLS).

The implementation of the online tool to register pharmaceuticals that have already been imported into Angola could not be initiated due to the lack of a regulatory framework that would give the DNME the mandate to require importers to submit such information. SIAPS/Angola developed and shared with the MOH/DNME a technical report on “Situation Analysis:

Introducing Pharmaceutical Product Registration Policy in Angola.” The report contains a road map for establishing a product registration system in Angola. The plan to support the DNME to hold a dissemination meeting with local stakeholders could not be implemented due to a shortage of time before the closeout of SIAPS. While handing over the activity on strengthening the medicines regulatory system to the DNME, the SIAPS country project director (CPD) advised the DNME to hold a meeting to disseminate the technical report to local stakeholders and explore how best to collaborate with stakeholders to implement the recommended roadmap. SIAPS also advocated for expedited approval of the necessary regulatory framework that would give the DNME the mandate to require importers to submit information on pharmaceuticals that have been imported into Angola in the past.

Following the supply chain strategy workshop in June 2016, a core team of 18 stakeholders finalized the national supply chain strategy, which was submitted to the MOH for validation and approval. SIAPS continued to follow its progress until the close of SIAPS/Angola.

In December 2016, SIAPS held transition meetings to officially hand over technical activities to heads of key MOH departments (DNME/CECOMA, NMCP, INLS, and Reproductive Health/Family Planning) and to PSM. During the meetings, the CPD highlighted to MOH officials the important pending actions that needed MOH action or follow up. These included validation and approval of the national supply chain strategy (MOH/DNME); validation and approval of the HIV/AIDS Pharmaceutical Management SOPs Manual (INLS); validation and approval of the national Essential Medicines List (EML) (MOH/DNME); expedited approval of the necessary regulatory framework that would give the DNME the mandate to require importers to submit information on pharmaceuticals that have been imported into Angola (MOH/DNME); revision of a recently developed procurement procedures document to align with the new public procurement law (MOH/CECOMA); and handover of the electronic logistics management information system (e-LMIS) to the National Public Health Program (PSM/DNSR).

Partner Contributions

- DNME: leadership role in organizing SCLAO and other meetings and in advocating for validation and approval of national EML, national pharmaceutical supply chain strategy, and regulatory framework
- DNME and CECOMA: coordination role in the validation and approval of the national pharmaceutical supply chain strategy
- INLS: coordination role in the validation and approval of the standard operating procedures manual for HIV/AIDS commodities

Constraints to Progress

- The plan to support the INLS in holding a meeting to disseminate the HIV/AIDS pharmaceutical management manual was cancelled due to the delay in obtaining INLS approval.
- Low participation of public health programs in SCLAO meetings
- Competing MOH priorities
- Delayed validation and approval of the national supply chain strategy, EML, and HIV/AIDS Pharmaceutical Management Manual due to competing priorities

Objective 2: Local capacity for pharmaceutical management enhanced

SIAPS continued to assist the provincial warehouse of Luanda to conduct regular inventories of HIV/AIDS commodities.

SIAPS also continued to coordinate and collaborate with the INLS and GPSL in providing mentoring support to pharmacy staff of nine PEPFAR-supported health facilities in Luanda to address issues in the pharmaceutical management of HIV/AIDS commodities and regularly track stock status.

Partner Contributions

- Provincial warehouse of Luanda: pharmaceutical management of HIV/AIDS commodities
- CECOMA: developing guiding documents in medicine procurement
- Nine PEPFAR-supported health facilities: coordination and collaboration with SIAPS in mentorship of their pharmacy staff

Constraints to Progress

- Insufficient skilled human resources at CECOMA and health facilities
- Poor dispensing conditions in some health facilities and poor storage conditions for pharmaceutical products
- Health facility staff still facing difficulties in independently using pharmaceutical management tools in the absence of SIAPS
- Inadequate internal supportive supervision to reinforce the use of pharmaceutical management tools

To address these constraints, SIAPS continued to advocate for health facility management to avail more staff, improve storage conditions for HIV/AIDS commodities, and conduct more internal supportive supervision and mentoring.

Objective 3: Information for pharmaceutical management decision making improved

The SIAPS-funded data analyst seconded to the NMCP continued to compile all provincial reports submitted by malaria provincial supervisors and regularly update the national NMCP database on malaria case management and logistics.

As part of the end of project technical transition, SIAPS collaborated with PSM and the Angola MOH/NMCP in the EUV survey planning, preparation, and data collection between October and December 2016. SIAPS drafted an activity plan and discussed and incorporated PSM feedback, trained the PSM and NMCP country team on managing and using the Magpi online application, and helped create EUV online questionnaires and share them using the data collection tablets. SIAPS also drafted and shared with PSM a brief document that provides options, recommendation, and related guidance for use in implementing future EUV surveys. The activity matrix, guide, and other EUV activity materials were handed over to PSM as part of the

transition. EUV data were successfully collected in six provinces (Luanda, Lunda Norte, Lunda Sul, Bengo, Benguela, and Moxico) between November 27 and December 9, 2016, by two data collection teams that included SIAPS, NMCP, provincial/district, and PSM representatives. Each team visited two provinces.

SIAPS developed an e-LMIS to collect, consolidate, and report health commodity data for the NMCP, including the PPMRm. The tool can easily be adapted for use by other MOH programs and CECOMA under the auspices of the National Public Health Program (DNSP). SIAPS arranged to transition the tool to the DNSP via PSM and informed the DNSP and DNME accordingly.

SIAPS compiled PPMRm data from October to December 23, 2016, and submitted the data to PSM as part of the transition for further consolidation and uploading to the global database.

SIAPS continued to assist the nine PEPFAR-supported health facilities and DPS Luanda in compiling and submitting monthly logistics reports and requisitions for HIV commodities.

Partner Contributions

- The NMCP and provincial malaria teams coordinated data collection for malaria case management and monthly stock status
- UNFPA, CECOMA, and DNSR collaborated in conducting physical inventories of family planning commodities
- The NRHP analyzed provincial monthly reports of family planning commodities and their use
- Health facilities compiled and submitting monthly logistics reports

Constraints to Progress

- Delays in sending monthly reports from the provinces due to unreliable or intermittent internet connectivity and not using collected data in monitoring and/or informing decisions to improve the provinces' daily activities
- Staff shortages that resulted in not using the proper patient registers and stock cards at the health facility level to capture all EUV indicators
- Remote collection of stock status data by telephone or email limits the possibility of validating these data for PPMRm through field visits

SIAPS will continue to advocate for adequate staffing at the National Public Health Program level and to collaborate and capacitate available staff to sustain the gains made during the SIAPS intervention. The mandatory use of pharmaceutical management tools at all levels of the health system will also be reinforced by supportive supervision and mentoring at health facilities.

Objective 4: Pharmaceutical service to achieve desired health outcomes improved

During this quarter, SIAPS activities were mainly focused on stock monitoring in the nine PEPFAR-supported health facilities. This included providing technical assistance in improving stock control; avoiding losses and excess of products in the PEPFAR-supported facilities; assisting in the timely preparation of emergency orders; making transportation available to take orders to DPS Luanda; and weekly collection and reporting of data on stocks of HIV/AIDS, tuberculosis, and opportunistic infection commodities to USAID.

SIAPS continued to support the health facilities in making product exchanges. For example, SIAPS advised Sanatorium Hospital to remove at least 100 vials of efavirenz 600 mg that the unit was not using for Viana I. Hospital Esperança exchanged 50 bottles of tenofovir/lamivudine 300 mg/300 mg with Viana I for 50 bottles of abacavir 300 mg. All nine health facilities exchanged medicines and appreciated the supply chain benefits of this process. Some hospitals exchanged or redistributed excess and unnecessary products to prevent them from expiring. For example, Divina Providencia Hospital sent 250 bottles of lamivudine suspension that were due to expire in January 2017 to a Viana I facility that treats children and therefore uses more of this product. SIAPS also assisted the facilities in preparing requests for timely procurement.

At the provincial depot level, SIAPS provided technical assistance in the preparation of quarterly emergency requisitions. SIAPS/Angola also helped transport products among health facilities as needed. SIAPS/Angola advocated for and assisted the INLS and DPS Luanda in completing the orders in a timely manner.

SIAPS assisted the health facility pharmacies in improving dispensing to patients; increasing inventories, proper storage, and stock management; and mentoring pharmacy staff. These actions resulted in eight of the nine facilities having improved availability of HIV products, including unigold, HIV test kits, TB medicines, medicines for opportunistic infections, and male and female condoms.

SIAPS supported the GPSL in the supervision visits and optimization of services in five health facilities and DPS Luanda. SIAPS/Angola actively participated in the monthly meetings of the HIV focal points in Luanda where the supply chain bottlenecks were addressed. As a result, the availability of antiretrovirals (ARVs) at eight of the nine facilities improved; all HIV/AIDS patients that presented to facilities were treated (as can be seen in the dispensing register); when ARVs are out of stock, the INLS recommends the use of alternative treatment regimens to ensure the patient is treated; and HIV test kits are always available (as reflected in the inventory records). Other data-supported results include:

- During this quarter, SIAPS technical assistance helped improve the use of the antiretroviral therapy (ART) treatment register and data collection in seven of the nine PEPFAR-supported health facilities. Hospital Sanatório is using another register where they combine data on HIV and TB patients, and they want to fully implement this model. Hospital Esperança often use the electronic system and not the dispensing register (Book 2). SIAPS/Angola supported most of the facilities in the regular and correct use of the

ART treatment register using a system of numbers that identifies the patients in the register and allows clinicians to regularly monitor ART.

- SIAPS/Angola conducted in-service capacity development mentoring of pharmacy staff of eight of the nine facilities in the management of ARVs, the proper filling of the ART treatment register, and monthly and quarterly stock reports and requisitions for ARVs. The ninth facility (Pediatrics Hospital) was not capacitated because the pharmacy does not manage ARV commodities.
- SIAPS collaborated with the INLS and the nine PEPFAR-supported health facilities in Luanda to develop the HIV/AIDS pharmaceutical management manual. The manual is currently awaiting INLS approval, dissemination, and implementation.
- SIAPS helped increase the number of patients starting treatment with ARVs in three additional hospitals (CS Viana I, Divina Providencia Hospital, and Sanatório Hospital). The specific trend data can be found in the last two DATIM quarterly reports. This was achieved mainly through in-service training of pharmacy staff in the proper requisitioning of ARVs and weekly monitoring of ARV supply, which resulted in improved availability of ARVs to match the increase in the number of patients undergoing treatment.
- SIAPS has supported the preparation and submission of routine and emergency orders by all nine health facilities at the provincial medical store or INLS as well as redistribution or exchange of HIV/AIDS medicines and related commodities among the facilities. SIAPS/Angola also supported the INLS in the dissemination of technical notes to guide clinicians on when to change or exchange ARVs.

SIAPS helped to improve availability of HIV commodities in all of the health facilities except Hospital Pediátrico David Bernardinho, where there is a need to first define and delineate tasks between the HIV clinical services and the pharmacy.

SIAPS/Angola continued to collaborate and support the NMCP and provincial malaria supervisors in monitoring stocks of malaria commodities and to advocate with CECOMA, NMCP, DNME, and the Global Fund for the official establishment of a national quantification technical working group for antimalarial commodities as a mechanism to improve stakeholder coordination and supply planning and avoid duplication of efforts.

Partner Contributions

- The INLS, DPS Luanda, and selected health facilities participated in the active distribution of selected HIV/AIDS commodities to avoid wastage due to imminent expiration
- The NMCP contributed to stock monitoring of antimalarial commodities

Constraints to Progress

- There is a continued gap between quantities of supplies needed by facilities and what is actually issued and distributed by the central and provincial warehouses.

- Inadequate staff in the PEPFAR-supported health facilities to collaborate with SIAPS advisors in implementing pharmaceutical management improvement interventions
- There are no standard forms or tools to register product exchange among facilities. Hospitals are currently using ordinary, often hand-written delivery notes to document issues and receipts. To address this gap, SIAPS assisted the INLS to develop a pharmaceutical management SOP manual that contains the standardized tools. However, the manual is still awaiting INLS validation and approval. During its technical transition/out-briefing meeting with INLS Deputy Director Dr. Jose Carlos Van-Dunem on December 22, 2016, SIAPS advocated for the INLS to expedite validation, approval, and implementation of the manual so that the needed tools could be used.
- Initially, Hospital Pediátrico David Bernardino did not collaborate with SIAPS to improve the pharmaceutical services and has not yet officially authorized its pharmacy staff to manage ARVs.
- The use of a “push” commodity management system (rather than a customer-driven, needs-based “pull” system) limited progress.

Transition Plan

Preparations for the EoP evaluation included:

- Sharing with the USAID/Angola Mission and the external evaluation team contact information for the senior manager and interim CPD for Angola as the points of contact for the evaluation at the SIAPS home office
- Providing contact information of key SIAPS local partners, collaborators, and stakeholders to be interviewed in December 2016 and January 2017 as part of the evaluation
- Reviewing and providing comments on and input into the evaluation scope of work
- Compiling and sharing a Google Drive with various program documents and information, such as workplans, technical documents, M&E documents, and progress reports
- Agreeing on a timeframe for key informant interview of the former SIAPS/Angola CPD and current interim CPD with the evaluation team in January and February 2017

Bangladesh

Goal: Improved availability of quality pharmaceuticals and effective pharmaceutical services to contribute to achieving desired health outcomes

Overall Quarter Progress

SIAPS organized the launch of the Supply Chain Management Portal (SCMP) Service Delivery Point (SDP) dashboard module on November 30, 2016, in the presence of the Honorable Minister of the Ministry of Health and Family Welfare (MOHFW) and other key stakeholders, including development partners.

Speaking as the chief guest, Honorable MOHFW Minister Mohammed Nasim, a member of Parliament, said that Bangladesh is truly moving toward becoming “Digital Bangladesh” and the launch of the SDP is a good example of that. He appreciated how the dashboard can be viewed from anywhere within seconds and hoped that the Directorate General of Family Planning (DGFP) will use the system to maintain stocks of commodities. As part of the program, the Honorable Minister congratulated the Meherpur District for remaining free from stock-outs of any contraceptive items at any level of service delivery between April and October 2016.

Md. Sirazul Islam, Secretary of the MOHFW, the Director General (DG) of the Directorate General of Health Services (DGHS), and the DG of the DGFP, acknowledged the USAID-supported SIAPS Program, implemented by MSH, as one of the trusted partners in Bangladesh. They explained the necessity of an electronic system to achieve the current government’s “Digital Bangladesh” agenda. They appreciated the work of SIAPS to develop the SCMP for the MOHFW to strengthen the country’s procurement and logistics management system. The DG of the DGHS thanked SIAPS for replicating and rolling out a similar system at the DGHS to track 25 essential commodities for maternal, newborn, and child health (MNCH) to community clinics. They also thanked SIAPS and USAID for their technical assistance for system strengthening and capacity building of the DGFP and DGHS; this support is expected to continue in the future. USAID Family Planning Advisor Brenda Doe stressed the importance of sustainability for such a system and said that USAID will continue to work closely with the MOHFW to achieve better health outcomes.

As part of strengthening the logistics reporting system for essential MNCH commodities in the DGHS, SIAPS facilitated electronic logistics management system (e-LMIS) training in six districts for 1,413 DGHS health managers. After finalizing the subnational procurement document, SIAPS organized four workshops in two districts for 144 MOHFW procurement officials at the local level. The participants found this training to be effective for efficient procurement in the local level that aligned with government policies and procedures.

SIAPS has successfully assisted the MOHFW with a pilot implementation of the Asset Management System (AMS) in a district to meet the disbursement linked indicator of USD \$10 million. The Technical Working Committee (TWC) in the MOHFW and development partners visited the pilot implementation site, and during a debriefing meeting, the visiting team

acknowledged SIAPS's technical assistance and decided to roll out the system in another three districts with assistance from SIAPS.

A milestone for this quarter was that the logistics reporting system began using the Upazila Inventory Management System. Nearly all (n=488) subdistricts were maintaining a high data quality standard by November 2016; of these, 99.8% (n=487) had uploaded reports on time compared to 88.1% in September 2016. The SDP dashboard module also reduced the stock-out rate for contraceptives at the SDP level to 1.1% (October 2016) compare to 2% in July 2016.

SIAPS successfully partnered with other USAID implementing partners, including the MaMoni Health Systems Strengthening (HSS) Project, MEASURE Evaluation, and the Routine Health Information System (RHIS), to incorporate the logistics module into the main data center management used by Save the Children. SIAPS also facilitated three clinical trainings for five doctors and three senior staff nurses from Khulna Shishu Hospital in collaboration with MaMoni HSS, the Integrated Management of Childhood Illnesses-Newborn, and the DGHS to save newborn lives.

As part of strengthening the Bangladesh pharmaceutical regulatory system, SIAPS was mandated to develop a five-year strategic plan for the DGDA. During this quarter, SIAPS organized two stakeholder workshops to gather information on the potential areas to be incorporated in the strategic plan.

The Bangladesh Country Coordination Mechanism (BCCM) oversight committee has visited SIAPS-implemented e-TB Manager sites at the Mohanpur UHC and Rajshahi Medical College Hospital (RMCH) DOT Center.

Objective 1: Supply chain management systems of the MOHFW and component procuring entities strengthened

During subnational level workshops, it was observed that local-level procuring entities are not following the Central Procurement Technical Unit's standard document even though they are using public funds. The capacity at the subnational level for procurement-related activities needs to be increased so that government rules and regulations are followed.

SIAPS participated in the seventh Joint Monitoring Mission (JMM) as part of the National Tuberculosis Program's (NTP) regular independent review of the program, which took place November 12–17, 2016. The JMM team reviewed overall TB prevention, care, and control activities. The team presented on "Harnessing Digital Application to Improve Recording and Reporting for TB Control in Bangladesh: Roll-Out Experience and Way-forward". A consensus was reached among all reviewers on the following key recommendations related to SIAPS TB activities:

- The NTP should conduct a systematic evaluation of existing electronic recording and reporting systems (e.g., e-TB Manager), including their ability to link to other systems, such as DHIS2.
- A decision on one standard electronic system to be used countrywide needs to be made at

the central level and communicated to staff at all levels.

- The excellent data currently available in the system should be analyzed at the site level and used to improve the program. SIAPS is coordinating with the MEASURE Evaluation team to conduct a performance assessment of e-TB Manager in January 2017.

SIAPS also started working with international experts to conduct a technical feasibility analysis on the integration plan of e-TB Manager and DHIS2.

The BCCM oversight committee, under the leadership of the Additional Secretary of the MOHFW, visited the Mohanpur UHC DOT Center; the RMCH DOT Center; and the TB Hospital, Rajshahi, December 7–8, 2016, to review the implementation status of TB and HIV activities.

SIAPS facilitated a one-day demonstration workshop on the TB Warehouse Inventory Management System for 21 NTP officials. The system has been updated with recommendations from workshop participants.

Because the Global Fund grant ended with the closeout of the funding period in December 2016, the country must procure first-line drugs (FLDs) using Government of Bangladesh resources to avoid stock-outs. SIAPS has provided a brief analysis to the NTP and stakeholders on the procurement options for FLDs using government funds.

SIAPS participated in the “GDF South East Asia Regional Workshop for Forecasting, Quantification, Supply Planning and Early Warning System” in Bangkok, Thailand. The workshop focused on the updated version of QuantTB and on further collaboration between Global Drug Facility (GDF) and TB control programs in the region.

A one-day orientation on standard operating procedures (SOPs) for Central Medical Store Depot (CMSD) officials was held on December 19, 2016.

The SCMP SDP dashboard module of the DGFP was launched on November 30, 2016. Mr. Mohammad Nasim, MP, Minister, MOHFW, presided over the launch in front of 200 participants, including senior officials from the MOHFW, DGFP, DGHS, USAID, development partners, and other international and national organizations as well as members of the media. The event was organized by the DGFP and facilitated by SIAPS. The DG of the DGFP chaired the event, and the MOHFW Secretary and DG of the DGHS were special guests. The Joint Secretary of the MOHFW, the Director (Logistics and Supply) of the DGFP, the USAID Family Planning Advisor, and the SIAPS Country Project Director also attended the event.

Two DGFP field officials shared their experiences on how the system has reduced their workload, enhanced efficiency, and helping ensure product availability. A video documentary on the SDP dashboard was shown.

SIAPS technical support for the disposal of unusable/obsolete items in eight DGFP stores and one DGHS health facility freed 8,200 cubic feet of space during this quarter.

Partner Contributions

- An MOHFW conference room was used for the Procurement and Logistics Management Cell (PLMC) quarterly meeting.
- The DG of the DGHS issued a call-up notice for e-LMIS trainings. Representatives from the MIS-DGHS and the Community Clinic Project contributed as resource staff for the trainings. MaMoni HSS and Saving Newborn Lives project staff from Save the Children participated in the trainings and provided input.
- DGFP officials from the divisional and district levels attended in the SDP launch event and assisted in presenting and sharing the module.

Constraints to Progress

- PLMC senior officers who are responsible for finalizing the PLMC profile have been delayed by other professional commitments.
- During the DGHS e-LMIS training, a few participants faced problems with outdated computer hardware. SIAPS flagged the issue to the DGHS.
- Timely availability of drug resistant TB enrollment data (particularly the descriptions of individualized regimens) is still a challenge when quantifying TB medicines.
- Analyzing and recommending procurement options for FLDs using government funds starting in 2018 has been a challenge. Quality assurance of local manufacturers and money transfers to the GDF need to be addressed quickly to ensure an uninterrupted supply of FLDs in the country.

Objective 2: Systems for evidence-based decision making established

In September 2016, SIAPS facilitated an intensive hands-on training of 12 users from the CMSD, Moulvibazar District Hospital, and the National Electro Medical Equipment Maintenance Workshop on the AMS. On October 5, 2016, the TWC approved operational definitions and guidelines for the pilot implementation. The TWC determined that assets (e.g., medical equipment, ICT and telecommunication equipment, electrical and electronics equipment) valued at or above Tk. 30,000 should be entered into the system.

In October 2016, SIAPS facilitated a field visit by TWC members, including the Joint Secretary of the MOHFW and the Line Director (Logistics and Supply) of the DGFP, to observe the status of the pilot implementation of the AMS. The team was happy to see that the robust system design could capture all necessary aspects of asset management. The Resident Medical Officer of the pilot hospital serves as the asset manager for this health facility to review and validate the asset register before generating bar codes. The team also recommended that the MOHFW consider scaling up the AMS in other health facilities. SIAPS prepared and submitted the draft final report on the pilot implementation to the MOHFW. SIAPS also presented an update on the pilot implementation of the system in a donors' consortium meeting on November 15, 2016. A delegation of development partners visited Moulvibazar from November 30–December 1, 2016, as part of a verification visit and expressed satisfaction with the implementation methodology. The team also provided recommendations to link the system with DHIS2 with few enhancements (e.g., add a legend by procurement entity, separate repair from maintenance, generate visual

alerts). The successful pilot implementation built trust in the MOHFW to roll out the system in three additional districts with technical assistance from SIAPS.

On November 14, 2016, SIAPS hosted a stakeholders' orientation session for family planning program implementing partners in Bangladesh. The event focused on how to access the SIAPS-developed e-LMIS of the DGFP, interpret data from the SDP dashboard module for improving health outcomes, and explore potential collaborations with other partners. The 25 participants represented the DGFP, USAID, United Nations Population Fund (UNFPA), DFID, Save the Children, CARE Bangladesh, and other national and international organizations.

SIAPS successfully completed the configuration, deployment, and testing of the RHIS logistics module on the client server (MaMoni HSS). SIAPS also assisted the RHIS team in designing, developing, and testing the data posting mechanism from the RHIS server to DHIS2.

The SDP dashboard module can visualize the end point stock situation in the country, which is monitored by DGFP managers. The DGFP is on track to complete the commitment they made to the Reproductive Health Supplies Coalition (RHSC) to reduce the stock-out rate to 1%.

A routine follow-up site performance analysis showed that e-TB Manager site performance decreased significantly during this quarter, indicating that some sites are not functioning, generally because of logistical issues (e.g., computers, modem refill/malfunctioning). These issues were brought to the NTP's attention.

SIAPS attended the 17th RHSC meeting in Seattle and participated in the following sessions:

- In Their Own Words: Country Perspective on Challenges to Achieving FP2020 and Beyond
- System Strengthening Working Group Meeting: FP2020 bottlenecks
- Within Reach: Strategies to Ensure Access to Maternal Health Supplies
- Take Stock Learning Cafe' Session

SIAPS also presented an ePoster on Harnessing Digital Application to Improve Recording and Reporting for TB Control in Bangladesh: Roll-Out Experience and Opportunities at the TB UNION conference in Liverpool.

SIAPS staff were included on a panel discussion on "Experts' Dialogue on Access to and Availability of Quality Life-saving Reproductive and Maternal Health Medicines: Current Status and Opportunities to Achieve" at the 2016 Bangladesh Youth Summit on Universal Health Coverage.

Partner Contributions

WHO, NTP, BRAC, DGHS, DGFP, WB, UNFPA, Global Fund, JSI, Save the Children, and the Damien Foundation are working together in the areas of TB, family planning, and MNCH.

Constraints to Progress

A lack of ownership (e.g., internet costs, showcasing the system to the external audiences) by the NTP for eTB Manager delayed its implementation.

Objective 3: Pharmaceutical regulatory systems strengthened

SIAPS has been working with the headquarters team to create a country-specific online medicine registration system (Pharmadex) and to adopt common technical document-based medicine dossier submissions at the DGDA. An international consultant worked with SIAPS in country to address concerns, including testing the Pharmadex system; revising the SOPs; preparing the user manual according to the present system; revising the marketing authorization letter template, sample request letter template, and review letter template; and correcting DGDA's address. A four-day hands-on training and workshop for screeners, reviewers, moderators, and others was organized. Pharmadex will be launched on March 1, 2017. SIAPS will continue to test the system and communicate with the headquarters team and developers to ensure the smooth operation of Pharmadex. SIAPS is already providing the NAS system to collect information to build a Pharmadex database comprising all necessary data required to launch the system.

In March 2016, the DGDA, WHO, and other stakeholders asked SIAPS to develop a five-year strategic plan for the DGDA as part of strengthening the Bangladesh pharmaceutical regulatory system. SIAPS engaged one international and one national expert who are working with the DGDA and other stakeholders. Two workshops were organized to share the primary skeleton of the strategic plan and collect feedback from stakeholders. The strategic plan will be supplemented by a short-term action plan for the DGDA to start the implementation. The strategic plan is expected to align with the relevant components within the framework of the MOHFW sectorwide approach.

As part of promoting pharmacovigilance (PV) awareness and strengthening the adverse event reporting system at the DGDA, SIAPS and the Adverse Drug Reaction Monitoring cell visited six public hospitals this quarter. The DGDA arranged a half-day refresher training workshop for 45 hospitals, 30 of which were receiving SIAPS support, to expand the PV program. Between September and November 2016, more than 100 adverse drug reaction reports were received by the DGDA and reviewed by the Adverse Drug Reaction Advisory Committee (ADRAC). ADRAC evaluated 173 new reports and uploaded them to the WHO-Vigiflow database. The first PV newsletter was published in September 2016 to create awareness on the PV system and medicine safety.

Partner Contributions

The DGDA organized the PV training.

Constraints to Progress

There were ongoing challenges with the senior officials at the DGDA regarding IT skills and time for regular technical activities.

Benin

Goal: Ensure the availability of quality products and effective pharmaceutical service delivery for better health outcomes

Overall Quarter Progress

Based on a request from the Benin Mission in October 2016, SIAPS conducted an assessment of the medicine registration system (including its information management component) of the Department of Pharmacy (Direction de la Pharmacie, du Médicament et des Explorations Diagnostiques [DPMED]) of the MOH and recommended actions to strengthen the system through the implementation and use of Pharmadex.

Objective 1: Enhance the capacity of Benin’s MOH for effective pharmaceutical system management

The assessment showed that the DPMED lacks an integrated and efficient system for registering medicines. The system lacks appropriate capacity to review dossiers and does not have standard operating procedures (SOPs) or clear description of roles and responsibilities of staff engaged in the registration process. Data related to medicine registration are usually fragmented and spread among manual and automated systems, which results in incomplete and unreliable data and makes producing statistics and information on registered medicines difficult.

The assessment concluded with recommendations and an action plan for strengthening both the registration of medicines in Benin and the country’s information system. A proposed cost extension will allow SIAPS to support the Benin Mission and DPMED to carry out this plan and to strengthen medicine regulation through the optimization of medicine registration. This will include developing and reviewing tools, developing and updating SOPs, and training and capacity building of medicine registration staff. The program will also support DPMED to improve its medicine registration management information system through the deployment of Pharmadex, a medicine registration software program developed by SIAPS. In doing so, the program will ensure customization of the generic software to be compatible with DPMED processes, adequate importation of legacy data, testing and verification of the software, and adequate IT infrastructure to support the tool. SIAPS will also ensure that DPMED staff and pharmaceutical industry applicants are trained to use the tool and that Ministry IT staff can maintain and troubleshoot Pharmadex as needed. As a result of these activities, the registration system will be much improved and will ensure the quality of medicines in Benin.

Benin Ebola Portfolio

Goal: To ensure the availability, accessibility, and rational use of effective, safe, and high-quality Ebola-related medicines and equipment at affordable prices by strengthening the national pharmaceutical management system

Overall Quarter Progress

SIAPS, in partnership with the USAID-funded Advancing Newborn, Child and Reproductive Health program, provided technical assistance to the Directorate of Public Health (Direction Nationale de la Sante Publique [DNSP]) and the Directorate of Pharmacy, Medicines and Laboratory (Direction de la Pharmacie, du Medicament et des Explorations Diagnostiques [DPMED]) to conduct supportive supervision of warehouses and health facilities that are managing Ebola and other hemorrhagic products across the country.

SIAPS completed the quantification exercise that began in April 2016 and supported the MOH to hold a stakeholder meeting to establish guidelines for the quantification of Ebola products. SIAPS started working with the DPMED to prepare for the validation of the quantification by the National Procurement and Supply Management Coordination Committee.

SIAPS attended a meeting of USAID partners working on the Ebola response to discuss key accomplishments since the intervention began and future technical assistance that will be required.

SIAPS supported the DPMED and DNSP to start preparing for the design and rapid assessment of the Ebola logistics management information system (LMIS).

Objective 1: Enhance the capacity of Benin's MOH for effective pharmaceutical system management

During the supportive supervision exercise, SIAPS and its partners used a standard list to perform a physical inventory of Ebola products and estimate the quantity required for each product to effectively respond to any outbreak. The team also checked storage conditions and data reporting.

At the end of the supportive supervision, a list of recommendations was developed and shared with health facility managers to facilitate the distribution of required Ebola-related products to areas where they are most needed.

SIAPS reviewed and completed product usage rates and assumptions to calculate the quantity of each medicine from the standard Ebola list. SIAPS collected the unit cost of each Ebola product using historical procurement data and other online sources. SIAPS also completed the development of an Excel model that was used to estimate the needed quantity of each product based on combined morbidity and service utilization statistics during a one-month outbreak.

SIAPS developed a technical report that outlined the Ebola product quantification methodology, including assumptions made, key findings, and challenges and recommendations. The report was shared with USAID and DPMED for review.

Prior to the meeting, SIAPS completed USAID's template by providing information on project objectives, key achievements during FY16, challenge and solutions, future actions, monitoring and evaluation plans, and potential future challenges and threats. The meeting took place November 29, 2016, at USAID, and all USAID partners working on the Ebola response were present.

In 2016, SIAPS established a standard list of medicines and medical supplies needed to respond to Ebola and other hemorrhagic fevers, trained 34 members of the national procurement and supply management committee on Ebola commodity quantification, and quantified Ebola and Lassa fever products for a one-month outbreak.

SIAPS identified potential future challenges, including coordination among donors, the need for a distribution and repositioning plan, substandard storage capacity and conditions, enhanced inventory management to improve the turnover of Ebola products at risk of expiry and wastage, and the need for real-time data and an early warning system dashboard for faster decision making. These challenges should be addressed in the future.

SIAPS has met with the DNSP and DPMED to discuss its upcoming technical assistance to strengthen the Ebola LMIS. Although it was initially scheduled for early December, this technical assistance has been postponed to February 2017 due to the unavailability of DNSP and DPMED staff.

It has been difficult for SIAPS staff to collect background information on the LMIS to facilitate activity implementation (the only document available is the DNSP strategic plan for Ebola, which does not include information about the Ebola LMIS). It also appears that there is no appropriate tool to collect data on Ebola products. As part of this technical assistance, SIAPS will conduct a rapid situation analysis of the Ebola LMIS and organize a consensus-building workshop to design the LMIS prior to rolling it out in the 35 targeted health zones.

Burundi

Goal: Contribute to a 75 % reduction in malaria-related morbidity and mortality in Burundi by 2017

Overall Quarter Progress

The quarter was marked by transition of staff to the new PSM-GHSC contractor and the physical closure of the office by December 31, 2016. The CPD collaborated with the Programme National Intégré de Lutte contre le Paludisme/National Malaria Control Program (PNILP) and Direction d'Offre et de Demande de Services (Department of Demand and Offer of Services [DODS]) to complete pending technical activities, conduct an end-user verification (EUV) survey, and data collection for the end-of-project evaluation.

SIAPS reinforced the capacity of the PNILP, Département de la Pharmacie, du Médicament et des Laboratoires/Department of Pharmacy, Medicines and Laboratories (DPML), DODS, and the National Pharmacy Council with procurement and set-up of IT equipment and software. Those institutions are playing key roles in the pharmaceutical sector and supply chain. Needs in IT equipment had been identified at the beginning of FY16, and the procurement and installation was completed during this quarter.

To collect data for evidence, Burundi collaborated with the PNILP, DPML, Centrale d'Achat des Médicaments Essentiels du Burundi/Burundi's Central Medical Store (CAMEBU) and other departments within the MOH to conduct a second EUV survey in 2016. The second EUV survey was combined with data collection of SIAPS indicators defined in the monitoring and evaluation (M&E) plan. The EUV survey was the eighth survey conducted throughout the life of the project. The national sample was two warehouses at the central level (CAMEBU and Population Services International [PSI]), 15 district pharmacies, and 105 health centers.

To strengthen malaria services, SIAPS, in collaboration with the Integrated Health Project-Burundi (IHP-B), assisted the PNILP and DODS in training 118 community health workers (CHWs) on integrated community case management (iCCM) in the Giteranyi district, organizing practical one-week internships at their health centers, and distributing basic equipment needed to start case management of malaria among children aged 2 to 59 months. This completes the roll-out of iCCM in five new districts as stated in the Malaria Operational Plan FY2016 and the SIAPS work plan.

During the quarter, SIAPS continued to assist the PNILP in communicating behavior change for malaria prevention. A launching ceremony to distribute long-lasting insecticidal mosquito nets (LLINs) to specific groups (e.g., boarding schools, hospitals, military camps, etc.) was organized to sensitize and emphasize on correct use of LLINs to prevent malaria. The LLINs were procured by the Global Fund to fight AIDS, Malaria and TB (Global Fund).

Objective 1: Leadership and governance for key institutions (PNILP, DPML, CAMEBU, and districts) improved

During the past five years, SIAPS Burundi has built the capacity of the PNILP, DPML, and other departments within the MOH by providing equipment, materials, and training to improve the work place, infrastructure, and their ability to manage daily activities; capacity was also built through the development of policies and strategic plans to reduce malaria-related morbidity and mortality.

In 2015, the Global Fund conducted a capacity assessment of the PNILP before selecting it as the principal recipient directly managing Global Fund money to fight malaria. One identified weakness was the absence of a strong and efficient IT system with a server and data back-up mechanism to improve communication and information inside and outside the PNILP. In 2016, SIAPS procured the server, and during this quarter, SIAPS completed the purchase of an additional five laptops and Kaspersky Endpoint Security 10 for Windows and completed set-up and configuration of the server. While PNILP is recruiting an IT person to manage the server and networking system beyond SIAPS, a staff member was designated for training on server management. To date, the PNILP has a domain name system and an active directory service to store information on its local network resources; 48 users grouped in 6 user groups were created and configured, as well as the file server management, to allow proper archiving of key documents and data, folder sharing, and daily back-up. Currently, the accounting software TOMPRO required for the Global Fund principal recipient is installed on the server and data is also backed-up on a daily basis. Additionally, the PNILP website was redesigned with SIAPS support to improve external communication and visibility of the PNILP.

Constraints to progress

Absence of a qualified and skilled IT person to properly manage the server and organize daily back-up; PNILP is advocating to recruit this person in the near future.

Objective 2: An uninterrupted supply chain mechanism for malaria commodities is in place

Activities related to quantification, supply planning, and distribution of malaria commodities from central medical stores to facilities were completely transferred to the new USAID-funded Procurement and Supply Management–Global Health Supply Chain (PSM-GHSC) Project prior to October 14, in the presence of USAID Burundi.

During the quarter, SIAPS continued to support the thematic group of medicines (TGM) under the leadership of DPML. The TGM is a forum regrouping all stakeholders involved in the pharmaceutical sector, both public and private sectors. In 2016, the TGM successfully rolled-out the new LMIS tools and formats in 12 of 46 districts with SIAPS and SCMS technical and financial support. The TGM also continued to discuss various subjects to improve in-country registration of medicines, harmonize pharmaceutical sector policies and regulations within the East African community, and collect data for evidence on the consumption of commodities to improve forecasting and availability of essentials medicines, including malaria and HIV/AIDS. A

national commodity security committee was formed and formally endorsed by the Minister of Health under the leadership of DPML. The committee will be in charge of forecasting and distributing commodities to ensure an uninterrupted system of essential commodities at all levels.

During the quarter, SIAPS supported one monthly meeting of the TGM in October 2016 where discussions focused on the national strategic plan for the supply chain developed by DPML under the guidance of SCMS and the 2017 DPML annual work plan.

As part of reinforcing the DPML's leadership, SIAPS completed the purchase of IT equipment for the DPML to install and manage the server and ensure adequate protection of IT equipment with Kaspersky Endpoint Security 10 for Windows. To date, 23 users have been regrouped into 6 user groups and the archiving and back-up daily system is in place. DPML will now be able to capture and archive all medicines-related information to ensure safety of the population and share it with National Pharmacy Council (Ordre National des Pharmaciens du Burundi [ONPB]). The registration system is implemented by the DPML, as well as the pharmacovigilance system, which, with SIAPS support, now has adverse drug reaction (ADR) notification availability at 12 sentinel sites.

To improve collaboration with the private sector, in 2014, SIAPS collaborated with the ONPB to organize a one-day meeting to sensitize 92 members of the council on national STGs for malaria, HIV/AIDS, and contraceptives. At the end of the meeting, ONPB expressed a need to create an information center to facilitate access to medicines information for pharmacists. The goal of establishing the center is to provide training to ONPB members and facilitate information sharing on new technologies available on the international market, medicines registered in Burundi, and counterfeit medicines. During this quarter, SIAPS equipped the newly established medicines information center with four desktops and two laptops with Internet connection. A local Microsoft Access database was created to manage information on both pharmacists and medicines in Burundi. Information exchange will be facilitated between the DPML, which is the General Inspector's Office and ONPB members to improve pharmacy practices.

In this quarter, SIAPS collaborated with the PNILP, DPML, CAMEBU, and other departments in the MOH to conduct the second EUV survey in FY16, which was combined with end-line data collection for the SIAPS/Burundi program. In October 2016, a technical committee composed of eight technical staff was formed and appointed by the MOH. The committee drafted the terms of reference including methodology, sampling of facilities to be visited, a list of indicators, and a list of commodities. The EUV questionnaire was adapted to include additional questions related to the end-of-project evaluation and a database was developed. In October 2016, a team of 30 data collectors (15 males and 15 females) was oriented to the methodology, questionnaire, and database that had been created. Data collection was conducted from October 24–November 4, 2016, in 122 stores and facilities: 2 warehouses at the central level (CAMEBU and PSI warehouse for LLNIs), 15 districts pharmacies at the intermediate level, and 105 health centers at the peripheral level. Data from the community were included in health center level.

The main findings are:

- Warehouses experienced fewer stock-outs than service delivery points (SDPs).

- Stock-outs for LLINs observed at all levels, from central/PSI to SDPs.
- For malaria first-line commodities, AS-AQ 50-135 mg experienced the most frequent stock-out. A quinine lot is being removed from stock after failing DPML quality control standards.
- All suspected malaria cases are diagnosed and confirmed with microscopy or rapid diagnostic tests (RDTs) before treatment; 27% of cases are diagnosed with microscopy, exceeding 20% established in the malaria STGs.
- The majority of confirmed malaria cases in the under-5s are treated with ACTs according to the national STGs.
- Among 405 pregnant women in their first term of pregnancy, 80 of them (20%) were incorrectly treated with ACT; health district managers will follow-up.
- In all 105 SDPs and 15 district pharmacies, at least one person is trained in the domain in which they work (i.e., diagnosis in lab services, dispensing practices at dispensing windows, stock management in pharmacy, IPTp in ANC, etc.). Over 80% of the trained staff was still working in the same facilities.
- The percentage of pregnant women receiving at least three doses of SP during antenatal care services is still low (19%). This is due to the roll-out process which was gradually completed in all 46 districts from October 2015 to July 2016.

The EUV report was shared with the PNILP, DPML, CAMEBU, other departments of the MOH, and district bureaus in early January 2017 to allow appropriate decisions and actions to be taken to improve the availability of commodities at all levels.

Constraints to progress

Frequent reported stock-out of malaria commodities indicated that facilities were under-stock during this quarter. The PNILP had organized a nationwide supervision in December to analyze consumption data, review average monthly consumption, and analyze bottlenecks to improve commodity security management.

Objective 3: Pharmaceutical services are improved to ensure best practices in malaria case management

In collaboration with the IHP-B project managed by FHI 360, SIAPS organized a training of 118 CHWs in Giteranyi health district in Muyinga province to scale-up iCCM. The training October 10-14 was completed with a one week practical internship in respective health facilities during October 17-20, 2016. The official launching ceremony of the iCCM in Giteranyi and distribution of the basic kit of necessary equipment and supplies to CHWs was October 20.

SIAPS has now completed the roll-out of iCCM in the five districts as planned in this FY; four districts were handed over to CARITAS and one district to IHP-B to ensure continuity of support to CHWs in correctly managing malaria and other key illnesses among children under 5 years (aged 2 to 59 months).

At the end of October, data collected in three districts (Bubanza, Mpanda, and Mutaho) showed that CHWs have seen 3,568 children with fever. Among them, 2,616 (73%) were seen within 24

hours of the onset of fever. All the 3,568 were tested with RDTs; 2,184 (63%) were confirmed positive for malaria and all (100%) of those were treated with ACTs.

In response to the upsurge of malaria cases encountered in Burundi since 2015, SIAPS assisted the PNILP in sensitizing campaigns on prevention of malaria with correct use of LLINs, early diagnosis, and treatment. During this quarter, SIAPS assisted the PNILP in organizing a one-day launching ceremony of a distribution of LLINs to targeted groups, such as orphanages, boarding schools, military barracks, hospitals, etc. The LLINs were procured with Global Fund money.

Democratic Republic of the Congo

Goal: Ensure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes

Overall Quarter Progress

During this quarter, SIAPS supported the Faculty of Pharmaceutical Sciences (FOPS) to finalize the competency framework and training curriculum for pharmacist to ensure that graduate pharmacists are trained using predefined competencies and that the training curriculum addresses those competencies.

On November 18, 2016, the SIAPS Program in the Democratic Republic of Congo (DRC) celebrated five years of pharmaceutical systems strengthening in a closeout ceremony at the Kempinski Fleuve Hotel Congo in Kinshasa.

During the event, which was held jointly with the USAID-funded Supply Chain Management Systems Project and the DELIVER Project, SIAPS highlighted achievements and lessons learned from its five-year partnership with the Ministry of Health and other stakeholders to strengthen pharmaceutical systems through improved governance, patient-centered services, and service delivery.

During the event, presentations on SIAPS technical assistance to the National Pharmacovigilance Center (CNPV), National Program for Essential Medicines Supply (PNAM), Drug Regulatory Authority (DPM), and Kinshasa University FOPS provided participants with a broad range of perspectives on pharmaceutical system strengthening and supply chain interventions, such as building the institutional and individual capacities of DPM, PNAM, and CNPV; ensuring appropriate preservice training for the potential pharmacy professional by supporting the curricular revision process; and strengthening the medicine distribution and data collection and reporting processes, thereby improving the availability of medicines, including antiretrovirals.

The project succeeded in strengthening governance in the DRC pharmaceutical sector by, for example, enabling proper medicine registration at the DPM, which operates at the central level, and producing a national list of registered medicines. Governance was further enhanced by deploying medicines therapeutic committees at the provincial and hospital levels to ensure rational medicine use. Another key component of governance was addressing the lack of quality health professionals by revising the pharmacists training curriculum at the University of Kinshasa FOPS.

Objective 2: Capacity for pharmaceutical supply management and services increased and enhanced

Since 2014, SIAPS DRC has been supporting the FOPS of the University of Kinshasa to revise its training curriculum. During previous quarters, significant achievements were made in collaboration with the US Accreditation Council for Pharmacy Education, based in Chicago; these include the development of the five-year strategic plan, operational plan, and competency

framework for pharmacists. During the last quarter, SIAPS supported FOPS to hold two curricular revision sessions during which the curricular mapping was conducted based on directives received from the consultation team in Chicago. From the curricular mapping process, course modules for the 10 competencies for pharmacists (as described in the competency framework) were identified, and credits were allocated for each course. In addition, a coursework description fact sheet template was developed and distributed to all FOPS departments and services to provide specifications for each course and related modules that included general information (e.g., course title, number of credits/hours, teaching language, period/semester); course prerequisites and links to other courses; the course description, objectives, and content; teaching methodology; evaluation method; and references.

As part of its support to the FOPS, SIAPS organized two sessions in October and November 2016 at which the different departments and services presented their completed course description fact sheets to the Curriculum Committee for validation and adoption. The compilation of all data from the fact sheets resulted in the first draft of the revised training curriculum. During the next quarter, the final draft will be produced, and the revised curriculum will disseminated and presented to other pharmacy training institutions in the country for possible rollout.

Objective 3: Utilization of information for decision making increased

SIAPS/DRC received a mandate from the USAID mission to pilot the Electronic Dispensing Tool (EDT) at five selected antiretroviral therapy (ART) sites in the Haut Katanga and Lwalaba provinces to improve data collection and reporting regarding HIV/AIDS commodities and patient management at the site level. EDT is the only tool used at the site level that provides real-time information in relation to patient and commodity management. The EDT implementation is expected to improve HIV/AIDS data management, the decision-making process, and the provision of patient care.

During this quarter, SIAPS supported the HIV/AIDS program in the Katanga and Lwalaba provinces to conducted ART site assessment for the implementation of the EDT. Five sites (two in Lwalaba and three in Haut-Katanga) were assessed to determine their readiness for EDT implementation. The ART site assessment report was compiled and submitted to SIAPS to help the software setting process. In addition, a training-of-trainers (TOT) was organized in December 2016. The TOT's objective was to prepare facilitators for the coming EDT user training at the facility level. The EDT user training is scheduled to take place in January 2017.

Dominican Republic

Goal: Increase the availability of critical medicines and diagnostic materials, including those used for HIV/AIDS and tuberculosis, through the implementation of different elements of the SUGEMI system and build the capacity of national counterparts to effectively and efficiently operate the integrated system

Overall Quarter Progress

The SUGEMI pharmaceutical management system continued to operate as expected this quarter, with the majority of health facilities reporting their data and receiving feedback. Adult antiretroviral (ARV) availability in health facilities remains high (93%), as does the availability of essential medicines used at the primary health level (92%). SIAPS received additional USAID/DR resources to extend its technical assistance until April 2017.

Objective 1: Pharmaceutical sector governance strengthened

The decentralized estimation of needs exercises and programming for procurement in 2017 was carried out in June 2016 and submitted to health authorities in July. The reports and presentations included a financial gap analysis to be used for the mobilization of additional resources. The Ministry of Finance approved the necessary budget for the procurement of all ARVs and diagnostic materials in 2017.

SIAPS developed guidelines for the quantification and programming of medicines and supplies. These guidelines include links to all electronic applications for data entry and analysis and will facilitate future programming exercises without the need for external technical assistance. During the next quarter, SIAPS will test the electronic tools and train personnel on their implementation.

Objective 2: Capacity for pharmaceutical supply management and services increased and enhanced

SIAPS continued supporting the second Certified Course (diploma) on Rational Use of Medicines. The final module and closing ceremony are scheduled for February 2017.

SIAPS developed visual aids (“prescription grafica posters”) to promote the rational prescription of AVR’s following national therapeutic guidelines. In December 2016, SIAPS participated in a meeting for the official introduction of these visual aids at all HIV/AIDS treatment posts.

Partner Contributions

The certified course on rational medicine use is being implemented in partnership with the Universidad Central del Este.

Objective 3: Pharmaceutical management information available and used for decision making at different levels of the health system

SIAPS supported the development of three standard operating procedures (SOPs) for PROMESE/CAL (programming, procurement, and distribution). During this quarter, SIAPS had a meeting with the new PROMESE/CAL Director to advocate for the prompt implementation of these SOPs and to offer USAID/SIAPS support.

Early this year, PROMESE/CAL and the National Health Service signed a service contract that includes a requisition and dispatch report that PROMESE/CAL must submit monthly with information on the correspondence regarding requisitions made by health facilities and dispatches by PROMESE/CAL. During this quarter, SIAPS participated in a meeting with PROMESE/CAL technicians to discuss the final format of the report and agree on a release date. The dissemination of the report was rescheduled for early January 2017.

Constraints to Progress

The dissemination of the first PROMESE report to the National Health Service was rescheduled for early January 2017 due to delays in the entry of information into the database.

Objective 4: Improved allocation of resources for procurement and pharmaceutical management-related operations

During this quarter, SIAPS presented the adjustment to the estimation of needs to all participants in ARV pharmaceutical supply, as well as the potential final gap if the budget allocation follows historical patterns. Given that the Ministry of Finance approved the necessary budget for the procurement of all ARVs and diagnostic materials in 2017, the participants in a meeting held this quarter identified the successful advocacy strategies that led to an increase in the Ministry of Finance budget allocation to plan future lobbying interventions.

Objective 5: Pharmaceutical services improved to achieve desired health outcomes

During this quarter, SIAPS supported a meeting to agree on a plan for the transfer of family planning methods to regional warehouses, after which the SUGEMI distribution cycle will begin. Maternal and Child Health Program authorities, Regional Health Service Directors, and coordinators of Pharmaceutical Management Units at the central and regional levels agreed with the plan.

During this quarter, SIAPS continued to support the transfer of ARVs from a rented warehouse to Regional Health Services El Valle (SRS 6), Valdesia (SRS 1), Metropolitano (SRS 0), Cibao Oriental o Nordeste (SRS 3), Enriquillo (SRS 4), and Cibao Central (SRS 8). It is expected that by the end of the next quarter, AVRs will be stored at and distributed from six regional health services.

The National Health Service Director issued a communication requiring the implementation of SUGEMI in the public hospital network.

Ethiopia

Goal: Strengthen pharmaceutical system to ensure access to quality pharmacy services that will lead to improved health

Overall Quarter Progress

During the quarter, SIAPS provided technical support to nine hospitals in Amhara and Benishangul Gumuz regional states on recording and documentation of clinical pharmacy service. With the support of SIAPS, hospitals served 617 patients, of which 317 (51.4%) were documented with a patient medication profile form. In the same period, 118 drug therapy problems were identified, and of those, 115 (97.5%) were intervened. Of the interventions made, 96 (83.5%) were fully accepted. Similarly, 208 ward rounds, 110 morning meetings with multidisciplinary teams (MDTs), and eight pharmacy-only morning sessions were conducted. Of the nine health facilities, three hospitals (Debre Markos, Finoteselam, and Motta) provided clinical pharmacy service to pediatric patients. Through this service, 293 children benefited and 201(68.6%) were documented. Documented records indicate that 52 drug therapy problems were identified and interventions were made on all problems. Of those interventions, 44(84.6%) were fully accepted by prescribers.

In Q1 of FY17, 6 health facilities in Oromia, Dire Dawa, Harari, and Amhara regional states organized different medicine use education sessions that reached 1,059 people (54% females). Antiretrovirals (ARVs); opportunistic infection (OI); reproductive, maternal, neonatal, and child health (RMNCH); antimalarial; medicine storage; risks of self-medication; AMR; and proper use of drugs were among the topics covered in the sessions.

In addition, SIAPS provided technical support on identification and management of treatment errors, adherence counseling and pharmaceutical care activities to patients on ART by distributing a reporting template prepared for this purpose and mentoring on how to use the tool. In this quarter, six health facilities (three in Dire Dawa, two in Amhara and one in Harari regions) have identified and managed 79 treatment errors. All of the medication errors were regimen changes and corrected immediately at the point of service.

SIAPS Ethiopia supported a coordinated national effort through the National AMR Advisory Committee on implementation of the Strategy for the Prevention and Containment of Antimicrobial Resistance for Ethiopia, 2015 to 2020, to develop a plan of action to guide interventions. The multi-institutional and multidisciplinary national advisory committee meets regularly and is being used as a national platform for members to play an active role in their respective institutions. The committee has also served as an advisor, advocate, and catalyzer in the prevention and containment of AMR.

For the past 12 months, preparations were underway to formally close the SIAPS/Ethiopia and transition to the follow-on project. Because the follow-on project has been postponed and on the basis of guidance from the local Mission, SIAPS/Ethiopia has been transitioning all activities to stakeholders and partners. During the quarter, SIAPS has organized end-of-project meetings to update its staff regarding the status of the project, review and celebrate achievements, and

discuss processes to close the program responsibly. A similar project close-out meeting was organized in the Tigray region with government stakeholders (RHBs; Pharmaceutical Fund and Supply Agency (PFSA); Food, Medicines, and Health Care Administration and Control Authority [FMHACA]; and selected health facilities). During this meeting, a five-year interventions and achievements of pharmaceutical systems strengthening program in Ethiopia and the way forward was presented and thoroughly discussed; stakeholders opined on the joint achievements. Finally, all relevant documents were handed over to the Tigray RHB in electronic and hard copy form.

Objective 1: Pharmaceutical sector governance strengthened

Support to the Federal Ministry of Health (FMOH) and FMHACA has been continued to develop, print, and distribute the formulary list for priority RMNCH medicines and supplies. During the reporting quarter, final editorial work has been done following the feedback from the national drug advisory committee and a pediatrician. FMHACA endorsed printing of the formulary, SIAPS will facilitate the printing, and FMHACA will be responsible for distribution to health facilities.

With regard to development of the health extension worker's medicines management handbook, the consultants submitted both English and Amharic final versions for printing. Translation of the handbook into Tigrigna and Afan Oromo languages is in progress.

Objective 2: Pharmacy services at facility level improved

In Q1 of FY17, 20 different training events were organized on APTS (16), RMNCH (3), and ART (1). These events were attended by a total of 563 professionals.

SIAPS organized training of trainers (TOT) course on ART/comprehensive HIV care for pharmacists in collaboration with PFSA and CHAI, based on the revised training curriculum. The training was conducted by experienced ART trainers who were involved in the curriculum revision. They were drawn from universities, PFSA, RHBs, and partners. The course was expected to equip pharmacists with sufficient and practical knowledge of HIV care, ART services, and ARVs available in Ethiopia to enable them to train other pharmacy professionals on dispensing appropriate treatment regimens, successful management of side effects and drug interactions, and counseling patients effectively to increase treatment adherence. This knowledge would also enable them to provide effective ART mentoring activities. A total of 42 pharmacists participated in this training.

SIAPS, in collaboration with the Ethiopian Pharmaceutical Association and RHBs, provided three training events (at Dessie, Mekele, and Hawassa) to pharmacists in community pharmacies on rational dispensing and use of RMNCH medicines and appropriate referral to enable them to manage and/or refer illnesses, such as diarrhea and pneumonia, and be able to provide appropriate counseling on family planning methods.

During the quarter, furniture, equipment, and reference books were supplied to 10 hospitals in Oromia (2), Amhara (6), Tigray (1), and Somali (1) regional states to establish drug information

services (DIS) to provide evidence-based drug information to health care workers and patients. Onsite training has been provided to DIS focal persons at each health facility. Furthermore, reference books, notice boards, and bookshelves have been supplied to the drug information center at Wollo University.

Face-to-face discussions were carried out at four health facilities in the Addis Ababa region to create awareness among health care providers on pharmacovigilance; 116 health care providers participated. Pharmacovigilance tools and documents, including 120 ADE report forms, 200 newsletters, and 100 allergy cards, were distributed at these health facilities.

During this quarter, SIAPS provided technical support and onsite orientation to drug and therapeutic committees (DTCs) in Dire Dawa city administration. The support was provided to existing DTCs (Sabian Hospital, Legehare and Genda Gerada Health Centers) and to re-establish others (Genda Kore, Number One, and Melka Jebdu Health Centers). The technical support focused on the development of an action plan, revision of the terms of reference (TORs), and development of medicines lists, as well as plans for prescription review, ADR reporting, and improving pharmacy service at their health facilities.

SIAPS has supported health facilities in Dire Dawa, Somali, and Oromia regional states in reorganizing their dispensing areas; 460,000 birr was allocated by the Dire Dawa RHB to build a new pharmacy and to procure dispensary shelves and counters for the Genda Gerada Health Center. The Legehare Health Center has allocated 120,000 birr for further improvement of its APTS infrastructure. The health center has been practicing APTS for the past the years. Similarly, two hospitals in Oromia region (Bulehora and Melkaoda) improved their dispensing room with their own budget to address APTS requirements. SIAPS also distributed dispensing shelves to Shashemene, Yabello, and Nedjo Hospitals as part of improving the dispensing practice by fulfilling APTS requirement to enhance patient satisfaction.

Partner Contributions

- Assella Hospital management has acknowledged the support and promised to work on sustainability of the system and encourage pharmacy staff.
- Southern Nations, Nationalities, and Peoples (SNNP) RHB and Kulito Hospital facilitated APTS training at the Kulito Hospital.

Constraints to Progress

- Poor commitment on the part of hospital management, resulting in poor dispensing practices and lack of readiness to implement APTS and DIS.
- Human resource shortages and internet unavailability in most health centers, resulting in reports not being shared in a timely manner.
- Staff turnover, workload, and unwillingness to record activities performed.
- Delay in the procurement of office furniture for DIS due to unavailability of some of materials locally.

To address these challenges, communication was made with RHBs and health facility managers to closely follow-up activities.

Objective 3: Capacity to use information for decision making strengthened

A half-day orientation for 90 pharmacy and IT professionals drawn from three sub-cities in the Addis Ababa region was organized to enable these professionals to effectively use EDT and manual tools for identification, prevention, and management of treatment errors for patients on ART. The orientations were conducted in three simultaneous events and the participants were closely mentored on the proper use of EDT, including product management, report generation, and configuration and maintenance.

In Q1, a patient uptake and regimen breakdown report was produced and shared. Patient uptake data were collected from 681 health facilities and regimen breakdown from 380 health facilities. According to the recent patient uptake report, 371,965 patients were on ART, of which 323,053 patients were covered in the regimen breakdown report (86.8% of those covered under the patient uptake report).

As part of ensuring continuous patient information recording at the health facilities and generation of various reports for decision making, computer maintenance support was provided to two health facilities, and 10 health facilities were supported on managing information by using EDT.

A Continuous Results Monitoring System (CRMS) review meeting was conducted at Tulubolo Health Center in the presence of two representatives each from Oromia RHB and South West-Shoa Zonal Health Department. The meeting was organized to create ownership of the CRMS monitoring tool at the health-facility level and make the health center use the findings from CRMS to assess progress, analyze gaps, and set priorities for future interventions to improve malaria treatment and the management of antimalarial drugs; 24 participants from the health center attended the meeting. The health center was finally graduated.

As part of supporting patient education and ensuring continuous patient information recording at the health facilities, SIAPS distributed 30 copies of the formulary, 150 copies of the AMR strategy, 25 copies of the malaria guideline, 10 antimalaria drug registration books, 88 adult and pediatric ART dispensing registers, and 11,500 patient information sheets to PFSA, RHBs, and health facilities.

Constraints to Progress

- Frequent requests from facilities to get training and onsite support
- Inconsistent reports and lack of proper back-up
- ARV dispensing without any manual registration, i.e., patient information sheet, adult and pediatric registers which leads to medication errors

To solve these problems, training was provided for sub-city staffs so as to better engage them in PMIS activities and follow-up of practices at health facilities. They were also advised on the

need to make regular back-ups and supported on how to properly update patient information on both manual and electronic systems in order to get consistent data. A meeting was also organized with the Addis Ababa RHB and discussions were held on how to transfer PMIS activities and the RHB's responsibilities to ensure the sustainability of the ART pharmacy information recording and reporting system.

Objective 4: Revenue from sales of medicines increased

In this quarter, APTS was implemented at 10 hospitals in 5 regional states, i.e., Addis Ababa (4), Amhara (3), Tigray (1), SNNP (1), and Oromia (1). Of the 10 health facilities that started implementing APTS, 4 were health centers in the Addis Ababa (3) and Amhara (1) regions. As of the end of this quarter, APTS is being implemented in 77 health facilities throughout the country. Out of these 77 health facilities, 36 (46.7%) track their sales of medicines by using APTS and report regularly to respective regions and FMOH.

To efficiently implement APTS, two hospitals in East Amhara (Dessie Referral and Boru Meda Hospitals) made the system automated by investing a substantial amount their budget. Two other hospitals in the same region (Woldia and Debre Berhan Hospitals) are following suit in automating APTS.

Fiche Hospital was chosen by the Oromia RHB to implement APTS; three staff (two pharmacists and one accountant) participated in the TOT on APTS. As expected, the TOT gave the beneficiaries a better insight in preparations for implementation of APTS at Fiche Hospital. Major activities accomplished by these staff include store de-junking and rearrangement, renovation of the outpatient department pharmacy by merging adjacent rooms, taking baseline data, completion of before-inventory in the store, completion of internal coding by adopting the national code, and updating the drug list with VEN classification. Onsite training was given to 17 staff at Fiche Hospital in two rounds (5 pharmacy professionals, 1 auditor, and 11 cashiers). Trainers of the events were experts from FMOH, North Showa Zonal Health Department, and SIAPS.

During this quarter, technical support was provided to Hiwot Fana Hospital in the Harari regional state to summarize 12 monthly APTS financial reports (purchased, sold [in cash, free, and credit], stock on hand, profit, transferred medicines to nearby health facilities, and expired medicines) and service reports into one report to be shared with FMOH, Harari RHB, SIAPS, and senior management at Haromaya University. Hiwot Fana Hospital has shown great improvement after APTS implementation; for example, the wastage rate of the hospital has declined from 3.6% to 1.22%, below the national target of 2%. Based on the results of earlier stock status analysis for all program and budget medicines in the hospital, medicines worth 233,482.85 birr (approximately USD \$10,600) were transferred to nine health facilities and saved from expiry. The pharmacy EHRIG standards implementation level also improved after APTS implementation, which is currently 92% (11 of the 12 standards are currently being implemented).

SIAPS provided follow-up and technical support to Dilchora Hospital in Dire Dawa city administration and Adama Hospital in Oromia regional state to conduct an ABC value analysis

with VEN reconciliation. Dilchora Hospital also conducted stock status analysis, which showed medicines worth 131,798.54 birr (approximately USD \$6,000) needed to be moved to save them from expiring. Accordantly, at the hospital CEO's request, the items were transferred to a nearby health facility that needed the medicines and saved from expiry. The results of both hospitals' ABC/VEN analyses were presented to the DTC and possible interventions for observed gaps are being put into action.

Partner Contributions

- Commitment from St. Peter Specialized Hospital to organize APTS orientation; fulfill required HR, facilities, and materials to strengthen implementation of APTS.
- Cooperation of management and pharmacy accountants to generate financial and service reports.
- Oromia RHB, FMOH, West Arsi Zonal Health Department, and Shashemene and Melka Oda Hospitals played a major role in realization of the training and launching of the APTS.

Constraints to Progress

- Time and budget constraints in providing the full package of technical assistance to the hospital newly implementing APTS.
- High turnover of pharmacy accountants and hospitals' inability to generate monthly reports using the available daily summary.
- Inability to submit reports on a timely basis because of internet connection problems and weak commitment from some pharmacy professionals and pharmacy accountants.
- Absence of incentive packages related to APTS and shortage of pharmacy professionals in some district hospitals, compromising pharmacy service provision.

All gaps and challenges identified at APTS implementing sites were communicated to hospital management to take corrective measures. Site-level mentoring support was provided to staff at these hospitals to build capacity on how to generate daily summary and monthly reports.

Guinea

Goal: Improve the availability of quality pharmaceutical commodities and efficient pharmaceutical services to achieve desired health outcomes

Overall Quarter Progress

During this quarter, SIAPS provided technical assistance to the Direction Nationale de la Pharmacie et du Médicament (DNPM) to collect data for the assessment of Guinea's public health supply chain system, carry out data analysis, and present the preliminary results to the Ministry of Health (MOH) and supply chain stakeholders. The one-day workshop gathered MOH stakeholders together and enabled the DNPM and SIAPS to collect additional input and comments that will be used to finalize the technical report.

For PY6, SIAPS/Guinea aims to enhance the capacity of its National Malaria Control Program (PNLP) to sustain quantification activities. SIAPS assisted the PNLP to conduct monthly meetings of the Procurement and Supply Management Technical Working Group (PSM-TWG), which analyzes the malaria commodity supply levels, identifies bottlenecks, and develops solutions to mitigate stock-outs and expiries.

SIAPS/Guinea's target for PY6 relates to improving the management capacity of the regions, prefectures, and health facilities. Seven SIAPS Regional Technical Advisors (RTAs) hired during the previous quarter started activities in the regions early in October 2016. Among other activities, the RTAs conducted introductory meetings with the leadership teams in the regions who served as first points of contact and helped identify priority interventions for the first quarter of 2017. The RTAs also supported Central Pharmacy of Guinea (PCG) regional depots to conduct the annual physical inventory of all commodities, including malaria and infection and prevention control commodities, at the end of December 2016.

During FY17 Q1, SIAPS' efforts in improving the use of pharmaceutical management information in decision making were focused on supporting the PNLP to conduct quarterly performance review meetings in President's Malaria Initiative (PMI)-supported regions. These meetings helped stakeholders agree on interventions that would be implemented to address the identified supply chain challenges affecting commodity availability at the health facility level.

As the PNLP plans to integrate its management information systems (MIS) with the MOH MIS (i.e., DHIS2 and the integrated logistics management information system [LMIS]), it was necessary to review and adapt the PNLP reporting tools to the DHIS2 and LMIS report formats. SIAPS supported the PNLP in finalizing these tools.

In collaboration with the United Nations Population Fund (UNFPA), SIAPS supported the DNPM to conduct the quarterly meeting for the performance review of the reproductive health program for July–September 2016. Service statistics and logistics performance indicators calculated from data collected in health facilities served to gauge progress toward achieving reproductive health commodity security in Guinea.

Continued support was provided to the DNPM to finalize the National Essential Medicines List (NEML). In collaboration with WHO, SIAPS assisted the DNPM to organize the validation workshop for the NEML. This workshop gathered central-level health professionals from the MOH, its programs, and the referral hospitals as well as selected pharmacists from the Guinea Pharmacy Council. It served to collect and integrate comments from workshop participants and later led to the validation of Guinea's 2017 NEML. Next steps will include printing the edited version and disseminating it in all regions, prefectures, and health facilities.

Objective 1: Pharmaceutical sector governance strengthened

In May 2015, SIAPS began working with the DNPM to conduct a national assessment of the Guinea public health supply system. During this quarter, SIAPS supported the DNPM to collect supply chain “capacities’ maturity” and performance data from more than 140 health facilities, including six PCG regional depots, 44 hospitals and Centres Médicaux Communaux, and 90 health centers. Additional data were collected from 47 health posts and 92 community health workers. Data were also collected from all central-level institutions and health programs that manage one or more supply chain functions, including the DNPM, PCG, PNLP, National AIDS Council, and National TB Program. After completing the data analysis, SIAPS helped the DNPM organize a one-day stakeholder meeting to validate the preliminary assessment findings. Thirty-four participants from different MOH programs and supply chain stakeholders attended the workshop. SIAPS facilitated the stakeholder discussions, including the formulation of practical solutions to identified challenges in Guinea's pharmaceutical supply system. Following the validation of the assessment results, SIAPS will work with the DNPM to finalize the technical report, taking into consideration the stakeholder comments. The premise is that the assessment will serve as a baseline for future pharmaceutical system strengthening efforts, including the development of a five-year supply chain strategic plan scheduled for late February 2017.

Objective 2: Capacity for pharmaceutical supply management and services increased and enhanced

One of SIAPS/Guinea's major activities under this objective is to support the PNLP to coordinate procurement planning and regularly monitor the malaria supply status across the supply chain system. During this quarter, SIAPS supported the PNLP to organize two meetings of the PSM-TWG. Using the consumption data reported by health facilities, the PSM-TWG conducted analyses to identify whether the available stock for all malaria commodities was adequate. Results from the analyses revealed lower levels of stock for artemether-lumefantrine for the age ranges of <1 year and 1–5 years. Recommendations were made to both PMI and the Global Fund to speed up deliveries of existing orders to avert supply interruptions. An additional recommendation was made to the PCG to institute a rational distribution of the available quantity to ensure that all health facilities receive a minimum supply until the arrival of pending deliveries.

As part of the effort to strengthen the management capacity of regions, prefectures, and health facilities, SIAPS deployed RTAs in seven regions of Guinea. Key activities completed by the RTAs during this quarter include consultation meetings with regional management teams to introduce the RTAs' role and scope of activities and to learn and understand the supply chain

activities being implemented in the regions while identifying priority interventions that SIAPS can support.

As the PCG prepared to move toward using new software (SAGE L100 i7) for managing its inventory and warehousing operations, it became necessary to conduct a complete physical inventory and evaluation of the stored pharmaceutical products. The PCG approached SIAPS to request technical support. SIAPS deployed eight technical advisors (including one based at the PCG) to support this activity. Over five days, SIAPS staff worked with PCG staff to organize storerooms, count usable products, and update stock-keeping records.

Partner Contributions

- The introductory meetings in the regions conducted by the SIAPS RTA were attended by other partners supporting the Direction Régionale de la Santé (DRS), including representatives of RTI/Stop Palu, JHPIEGO/Health Service Delivery, and UNICEF regional focal points.

Objective 3: Pharmaceutical management information available and used for decision making

The MOH has identified the integration of the supply chain system as its key priority. A re-design of the LMIS took place that led to the definition of an integrated system for the flow of both products and logistics information. A standard operating procedures manual was expanded and validated that contains the LMIS procedures and tools that will be used to manage all health programs' commodities in health facilities. As part of these efforts and with SIAPS support, the PNLP organized a one-day meeting to review the proposed integrated LMIS tools and their alignment with PNLP's data requirements. Participants at the meeting recommended that the PNLP adopt the MOH integrated reporting forms because the newly recommended LMIS was designed based on evidence from the existing malaria program's LMIS.

In collaboration with RTI/Stop Palu and the Leadership Management and Governance (LMG) project, SIAPS supported the PNLP to organize the malaria program quarterly performance review in the regions of Conakry, Boke, Kindia, and Labe. The aim of these meetings was to review the performance of the malaria control program between July and September 2016 and to highlight the achievements, current challenges, and perspectives for the following quarter. The meetings gathered health professionals from the DRS, Direction Préfectorale de la Santé, and health facilities as well as PNLP partners (SIAPS, LMG, RTI/Stop Palu, WHO, and Catholic Relief Services). With regard to pharmaceutical management, the PNLP seized the opportunity to share the results from the end user verification (EUV) survey concluded in August 2016 and discuss and validate the findings and recommendations with participants. The quarterly performance review meetings serve as experience-sharing platforms where health professionals share common challenges and practical interventions that have been proven to address them. During the meetings, the Roll Back Malaria regional committee was established in the regions. This committee is expected to provide early warnings to the PNLP in the event of a change in the malaria epidemiological situation in its region, including critical issues affecting the management of antimalarial commodities.

Partner Contributions

- RTI/Stop Palu and LMG coordinated with SIAPS in funding the organization of the workshops in the four regions.
- RTI/Stop Palu and LMG also worked with SIAPS to facilitate regional-level stakeholder discussions during the workshops.

Objective 4: Financing mechanisms and strategies to improve access to medicines strengthened

In support of the MOH's efforts to increase the efficient use of existing resources, SIAPS worked with the PCG to initiate an evaluation of the cost of managing priority public health commodities in Guinea. This study aims to determine direct and indirect operation costs and will develop recommendations for the allocation of adequate resources to manage key public health commodities. The goal is to ensure the financial sustainability of the PCG to meet its mandate of ensuring adequate availability of health commodities down to service delivery points. Working sessions with the PCG and in-country stakeholders helped to validate the costing methodology, tools, and study timeline. Data collection tools were developed with the PCG and shared with PCG units to allow for timely collection of financial data. Next steps will include submission of the available data by the PCG, analysis and discussion of the collected data with the PCG senior management team, and presentation of the study findings before the end of the first quarter of 2017.

Constraints to Progress

- Data collection was burdensome in some areas because the PCG uses a paper-based warehouse management system.

Objective 5: Pharmaceutical services improved to achieve desired health outcomes

As part of the quarterly performance review of the Family Planning (FP) program activities, the DNPM, in collaboration with Direction Nationale de la Santé Familiale et Nutrition (DNSFN), organized the collection of routine indicator data on the use of FP services and contraceptive products in all health facilities in Guinea. Data collection was carried out with technical and financial support from SIAPS and UNFPA. A database was developed by SIAPS that helped to aggregate and analyze the collected data. SIAPS later supported the DNPM and DNSFN to organize a validation workshop with MOH staff and partners, including UNFPA, WHO, UNICEF, and JHPIEGO. The performance indicators collected and evaluated on a quarterly basis provide information for improved decision making by highlighting key program successes and challenges and identifying corrective actions as needed.

Following the regional workshops conducted during the previous quarter, SIAPS continued to support the DNPM in finalizing the NEML. Consultation meetings were held with experts from different domains, including representatives of different programs of the MOH (e.g., malaria,

HIV, TB, immunization, reproductive health, nutrition, neglected tropical diseases) and specialists from the three referral hospitals, the School of Medicine and Pharmacy, and the Guinea Pharmacy Council. The experts deliberated on the older version of the NEML and new additions and deletions, and their recommendations were compiled by the DNPM and SIAPS and later presented at a validation workshop for further deliberation and approval. Anticipated benefits of the revised NEML include safe and effective treatment of priority diseases, increased rational use, and optimization of available health resources.

Partner Contributions

- WHO provided financial support for the NEML validation workshop.

Constraints to Progress

- There was a lack of commitment from DNPM leadership in regard to this activity which caused delays in the process.

Guinea Ebola Portfolio

Goal: Ensure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes

Overall Quarter Progress

SIAPS continued supporting the Central Pharmacy of Guinea (PCG) with the implementation of the SAGE software program. This quarter, SIAPS support focused on training PCG staff on the SAGE L100 i7 modules, assessing the existing IT infrastructure, coordinating procurement and installation of network equipment, and initiating the test phase of the SAGE system.

The support to the Direction Nationale de la Pharmacie et du Médicament (DNPM) was mainly around the validation of the terms of reference (TOR) for the Logistics Management Unit (LMU), recruitment of LMU staff, finalization and validation of the logistics management information system (LMIS) standard operating procedures (SOP) manual, and training of trainers.

Objective 1: Pharmaceutical sector governance strengthened

SIAPS supported the DNPM to finalize the draft of the Ministerial decree for the creation of the LMU. The final version was submitted to the Minister's office for endorsement. At the request of the Minister of Health, SIAPS developed a proposal of the TOR for the Steering Committee that will oversee and manage the implementation of LMIS activities at a higher level. The TOR and a detailed LMIS project matrix were submitted to the Minister of Health. The matrix will help the Steering Committee closely monitor e-LMIS activities and ensure timely completion of the e-LMIS project.

Pending the signing of the Ministerial decree for the creation of the LMU, SIAPS supported the DNPM to complete the recruitment of staff for two key LMU positions: the LMU manager and the statistician. Working with the DNPM, SIAPS also rented and equipped the LMU office.

Constraints to Progress

A lack of strong leadership and buy-in from the DNPM.

Objective 2: Capacity for pharmaceutical supply management and services increased and enhanced

To support the PCG in automating its operations, SIAPS completed training 15 PCG staff on the SAGE L100 sales module to support purchasing, inventory management, and sales operations. SIAPS also completed the recruitment of a database specialist (SAGE super user). This person will provide on-the-job training to PCG staff and system support to ensure the daily operational efficiency of SAGE L100. Working with other partners, including Catholic Relief Services (CRS) and the European Union/Projet d'Appui a la Santé, SIAPS coordinated efforts to kick start

the procurement process for the computer hardware and network equipment required to support the deployment of SAGE L100 in six PCG regional depots.

SIAPS also completed the installation of SAGE software at the PCG and the regional depot of Guinée Maritime. SIAPS helped the PCG upgrade and expand its information technology infrastructure to support the implementation of SAGE. This support included connecting all computer devices to the SAGE system, measuring the existing bandwidth utilization, and modeling the expected SAGE traffic. In addition, a user acceptance test was initiated that will help SAGE users at the PCG test common scenarios and daily tasks within the SAGE system over the next 2.5 months, prior to the go-live on January 31, 2017.

SIAPS and the PCG leadership team met to review the project's implementation status. The major recommendations from that meeting were to strengthen the internal PCG Steering Committee and to hold biweekly meetings to allow for timely decisions regarding project changes, alignment, and efficient execution. This will help ensure that the project stays on course and achieves the desired benefits by championing the project within the PCG.

As the SAGE L100 go-live draws near, a number of implementation activities have taken place, including successful completion of the SAGE L100 set up and testing application with the active involvement of PCG users in Conakry. In addition, SIAPS completed the installation of SAGE L100 in five PCG regional depots and the set up to grant all PCG regional depot staff access to SAGE L100, which is housed in Conakry. To date, users have been trained to effectively operate the system. Coordination efforts by the PCG with SIAPS support allowed for on time delivery by CRS (a Global Fund Principal Recipient) and the installation of IT equipment (computers and remote connectivity devices) in six PCG regional depots.

Partner Contributions

- CRS funded the SAGE project at the PCG through the procurement of IT infrastructure for interconnection of 5 out of 6 PCG regional depots.
- EU/PASA funded the SAGE project at PCG through the procurement of IT infrastructure for interconnection of 1 PCG regional depot.

Objective 3: Pharmaceutical management information available and used for decision making

To support the MOH to improve and extend the implementation of the LMIS in Guinea, SIAPS supported the DNPM to develop a draft SOP manual for an integrated LMIS. This draft was shared with all supply chain stakeholders for review. An implementation plan was finalized that will guide the rollout of the revised/harmonized LMIS tools and the SOP manuals, as well as the training of users at all the levels of the Guinea supply chain system.

SIAPS further supported the DNPM to finalize the SOP manual and present it at a validation workshop involving all MOH programs and supply chain stakeholders in Guinea. The SOP manual for Guinea's integrated LMIS was validated by national stakeholders and endorsed by the MOH in October 2016. The approved manual leveraged evidence-based gains from the malaria program LMIS and included specific improvements that provide for the integration of

the supply chain of all health commodities in Guinea, such as harmonized quarterly ordering of commodities by health facilities and monthly reporting of LMIS consumption data (i.e., dispensed to users). In addition, new tools were included that will help health facilities prevent expiry of products.

The next steps involved preparing the national pool of LMIS trainers. SIAPS conducted a training of trainers for 25 supply chain staff at the central level with the expectation that they will become trainers themselves while supporting the roll out of the LMIS countrywide

During this quarter, SIAPS finalized a subcontract with John Snow, Inc., for the configuration and setup of OpenLMIS, the selected e-LMIS for Guinea. This has been submitted to USAID/Washington for approval.

SIAPS worked with the DNPM to finalize the LMIS training materials. The first training of LMIS users was organized and facilitated by trainers from the pool of national trainers with support from SIAPS. In total, 29 supply chain professionals (17 males and 12 females) from Conakry were trained on the integrated LMIS SOPs and the corresponding forms for ordering, monitoring, and managing health commodities. A training plan for the paper-based LMIS has been developed that sets the timeline for the completion of cascade trainings at all health facilities in the remaining regions of Guinea before the end of the first quarter of 2017.

Finally, a coordination meeting was organized with the PCG to prepare a stakeholder workshop, particularly for those from different vertical programs within the MOH, on the integration of the pharmaceutical product distribution system as recommended by the revised integrated LMIS SOPs. This workshop is planned for February 2017.

Constraints to Progress

- The DNPM's multiple agenda and conflicting priorities delayed the training of LMIS users that was scheduled to begin early in January 2017.
- Confusion regarding roles and responsibilities around the e-LMIS implementation with the announced funding from the Bill and Melinda Gates Foundation (BMGF) has caused SIAPS to put this activity on hold until further clarification is received from the MOH, USAID, and BMGF.

Mali

Goal: Ensure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes

Overall Quarter Progress

During the first quarter of PY6, SIAPS supported the Ministry of Health (MoH) and its partners to implement several activities with the aim of strengthening pharmaceutical governance, building the capacity of individuals and institutions in pharmaceutical management, making available logistics data for decision making to improve the availability of commodities, and strengthening pharmaceutical services. To reinforce pharmaceutical governance, SIAPS supported the MoH through the Department of Pharmacy and Medicines (Direction de la Pharmacie et du Medicament [DPM]) to organize the quarterly meeting of the National Coordination Committee of Pharmaceutical Supply Management (Comite National de Coordination [CNC]) and meetings of the Family Planning Technical Working Group (FP TWG) and Malaria TWG.

The CNC validated maternal, newborn, and child health (MNCH) commodities quantification results, assessed stock status, and reviewed the supply plan for essential medicines. The FP TWG updated the contraceptive supply plan, and the malaria TWG updated the malaria commodities supply plan.

Participants from the MoH, USAID implementing partners, UN agencies, and civil society organizations (CSOs) attended these meetings. As result, the number of supply plans updated with SIAPS support increased from 18 to 19.

SIAPS provided technical assistance to the central medical stores (Pharmacie Populaire de Mali [PPM]) to complete the vendor selection for the foundation work on the warehouse-in-box in Bamako. SIAPS also supported the PPM to review the project implementation

SIAPS/Mali assisted the MoH to make data for decision making on pharmaceutical management available. The Procurement Planning and Monitoring Reports for malaria (PPMRm) and contraceptives (PPMRc) were developed and submitted to USAID/Washington. These reports were developed in collaboration with the MoH and key partners in health commodities management who made recommendations on procurement, supply planning, and inventory management. In addition, specific support was provided by SIAPS to the MoH through health districts to support the data entry process into OSPANTE. As a result, the number of health facilities that completed and submitted a logistics management information system (LMIS) report for the most recent period increased from 8.3% in October 2012 at baseline to 92.8% in December 2016.

SIAPS also provided technical assistance to the MoH through the National Malaria Control Program (PNLP) to conduct an end user verification survey to assess the availability of malaria products at warehouses and health facilities.

Objective 1: Pharmaceutical sector governance strengthened

During this quarter, SIAPS supported the DPM to organize the CNC, FP TWG and Malaria TWG meetings. The CNC meeting was chaired by the MoH's technical advisor for medicines and hosted by the DPM. It took place on December 22, 2016 and included representatives from the MoH; nongovernmental organizations; USAID implementing partners; and donors, including USAID, UNFPA, and CSOs. The main purpose of the CNC meeting was to validate MNCH commodities forecasting and update supply plans based on assumptions and logistic data presented by the TWGs.

The main challenges faced during the meetings were related to financial gaps in the supply plans and stock-outs. To address those challenges, participants proposed several actions, and a technical note was signed by the MoH's special advisor for medicines that summarized all recommendations to send out to all partners. The next step is monitoring the implementation of these recommendations.

To build new warehouses at the central and regional levels, SIAPS assisted the PPM to prepare the selection criteria and technical specifications for local vendors to be contracted for site preparation and construction of the foundation for the prefabricated warehouse installation in Bamako and to develop draft specifications and the associated request for quotation for the procurement and installation of the fire systems.

SIAPS also worked closely with the PPM and the Dutch Cooperation, which was responsible for the construction of the three prefabricated regional warehouses, to ensure harmonization between the central and regional projects in all aspects necessary for the successful completion of the project.

Partner Contributions

The following partners participated in national and/or regional coordination meetings on supply chain and identified bottlenecks and solutions:

- MoH
- DPM
- CNC
- Donors: USAID, Global Fund/PSI, UNFPA
- CSOs: Fédération Nationale des Associations de Santé Communautaire, PSI, Keneya Jemu Kan (KJK), Marie Stopes International, Futures Group, USAID ASSIT

Constraints to Progress

Effective use of data generated by OSPSANTE to make decisions.

Objective 2: Capacity for pharmaceutical supply management and services increased and enhanced

As part of the ongoing effort to build sustainable capacity in the pharmaceutical management area, during this quarter, SIAPS built the capacity of local partners, such as the DPM and the National Agency of Telehealth and Medical Informatics (Agence Nationale de Télésanté et d'Informatique Médicale [ANTIM]), to take over the management of OSPSANTE. A two-day training was conducted by SIAPS on OSPSANTE's front- and back-end systems. SIAPS also provided all of the system requirements for hosting OSPSANTE on a server owned by national entities.

Partner Contributions

- DPM led the training and discussion.
- ANTIM participated in all discussions.

Constraints to Progress

- Effective implementation of the post-training action plan.
- Agreement has not been reached yet between the DPM and ANTIM about hosting and maintaining OSPSANTE.

Objective 3: Pharmaceutical management information available and used for decision making at different levels of the health system

SIAPS supported the MoH through the DPM to collect all data needed to complete the PPMRs for malaria, family planning, and reproductive health commodities. The DPM and SIAPS worked closely with the PPM and with key partners (PMI/Mali, PSI/GF, USAID/KJK) in charge of procurement of donor-funded products to collect data on stock on hand and quantity in order, which are needed to assess commodity stock status and develop recommendations to improve the availability of those commodities.

SIAPS continued to provide assistance to 50 districts to support the LMIS data entry process into OSPANTE. This activity has significantly impacted data availability for decision making. The use of information generated by OSPSANTE enabled appropriated decisions to be made to make key commodities available at the lowest level.

SIAPS assisted the MoH to develop a new module for the management of Ebola program commodities.

Partner Contributions

- PPM, PSI, DPM, DSR, USAID, KJK, and UNFPA provided data and participated in the data analysis and validation for the PPMRm and PPMRc.
- DRS; PPM regional warehouses; and 50 health districts in the Kayes, Koulikoro, Sikasso, Segou, Mopti, and Bamako regions participated in data collection and entry into OSPSANTE.

Constraints to Progress

- Poor ownership of participants at all levels in analyzing data and making relevant decisions.
- Inadequate use of data generated by OSPSANTE at all levels.

Objective 4: Pharmaceutical services improved to achieve desired health outcomes

SIAPS supported the PNLP to conduct an end user verification survey in August 2016 based on a sampling protocol that has been revised and introduced by PMI in 2011. The findings of this exercise were disseminated nationally in November 2016.

Attendees at this dissemination workshop were from the MoH and the national and regional levels.

Partner Contributions

PNLP, DRS, PPM

Mozambique

Goal: To ensure access to safe, efficacious, and quality pharmaceutical products and services that help achieve desired health outcomes

Overall Quarter Progress

During this quarter, SIAPS/Mozambique collected input from the Pharmaceutical Department (PD) for the design of the national essential medicines list (NEML), the guide for future revisions of the NEML, the updated terms of reference for the NEML Committee, the monitoring and evaluation plan, the distribution plan, and the concept note to review the National Formulary Manual. These documents are with the PD and will be sent to the Minister of Health for approval. SIAPS supported the PD M&E staff to prepare and submit the PD quarterly report and held PD unit data review meetings. In addition, SIAPS supported the PD to test the quality of data at the province level, verify internal data quality assurance, and conduct a pilot verification of data quality and data flow at Gaza. A total of 4,232 product market authorization files containing information needed to process market authorization renewals and variations were converted from paper to electronic format. SIAPS also provided technical assistance to hospital pharmacy departments (HPDs) to train 32 health professional in rational medicine use.

Objective 1: Governance in the pharmaceutical sector strengthened

SIAPS collected input from the PD regarding the design of the NEML, which is awaiting final input. SIAPS worked with the National Essential Medicines Committee secretariat to gather input for future revisions of the NEML, the updated terms of reference, and the M&E plan. These documents were approved by the committee chair and are awaiting submission to the MOH for approval.

To strengthen the PD M&E system, SIAPS supported M&E staff to prepare and submit the quarterly report for July–September 2016, coordinate data review meetings, perform the second internal data quality assurance assessment, and develop a process to institutionalize the indicators. The data collection showed a slight increase in the average number of days to register a product, from 176 days at the beginning of June to 281 days at the end of June and 283 days by the end of September. The percentage of NEML products that are registered (68%) remained stable compared to the previous quarter. The number of adverse drug reaction (ADR) reports continues to grow; however, the Pharmacovigilance (PV) Center is still not able to review and respond to these notifications in a timely fashion. A total of 390 individuals have been trained on PV, bringing the total in country to 1,768.

SIAPS and the PD M&E staff held unit data review meetings that resulted in actions plans to overcome the PD's limitations. In October 2016, nine indicators with the respective Performance Indicators Reference Sheets were submitted for to the MOH for approval. However, the PD and SIAPS were asked to use Ministry of Health (MOH) forms to submit the indicator information and update the goals for 2017. In November 2016, SIAPS and the PD initiated supervision activities at four sites, including the Gaza Pharmacy Division, Xai-Xai Provincial Hospital, the Chokue District medicines warehouse, and the Xai-Xai City medicines warehouse, to verify data

quality for the main indicators, which depends on reporting by provinces. Required data include the number of ADRs reported by province, the percentage of analyzed samples, and the number of health professionals trained in PV. The data verification was followed by the data triangulation method and use of the data quality assurance tool. The main findings were poor data management, data discrepancies, a lack of some source documents to respond to the indicators, source documents that do not have complete information to respond to the indicators, no official registration for trainings in the pharmaceutical area, and the number of professionals trained not broken out by gender.

To overcome these gaps, an action plan was developed with key stakeholders. In addition, collaboration with the MOH Director of Training helped to define interventions to be used in all pharmaceutical trainings.

In December, internal data quality was assessed and very little missing information was noted. It is still necessary to train staff on the archiving system and database management and to designate a staff person who will be responsible for data verification. In October 2016, PD users started using Pharmadex for all new registration dossiers. A total of 86 products had been submitted and 62 had been reviewed using Pharmadex this quarter. Information on 4,232 products was transferred from paper archives to Pharmadex, which will improve the time needed to track information of these products, perform renewals, and obtain product market authorization. The SIAPS team developed measures to perform weekly monitoring of the use of the Pharmadex, which will allow users to determine the status of their work and whether intervention is required rather than waiting until the problem has escalated.

Partner Contributions

- Two PD M&E staff were very active in the technical working group and contributed to the data collection and the quarterly report and, working with PD stakeholders, the Director of Trainings, and the Directorate of Planning and Cooperation, reviewed the impact indicators to be submitted to the MOH.
- The Directorate of Planning and Cooperation participated in developing the performance reference sheet according to the MOH standardized template for indicators.
- The registration sector contributed to improving the system by reporting errors and requesting changes.
- During the Pharmadex user/trainer manual training, PD staff worked as co-facilitators.

Constraints to Progress

- Delays in assigning targets for the PD indicators.
- The PD M&E is still in its early stages, which is a major challenge for the department.
- The mechanism to institutionalize M&E indicators in the MOH general framework is very bureaucratic.
- EML Committee Secretariat members were often unavailable.
- A lack of confidence from some Pharmadex users.
- Registration staff are still use two data recording mechanisms (Excel and Pharmadex), which increases the time needed for new registrations.

Objective 3: Pharmaceutical services improved to achieve health outcomes

During this quarter, SIAPS supported HPDs to perform one Drug and Therapeutics Committee (DTC) workshop at Maputo Province October 28–November 2, 2016. More than 30 pharmacists, doctors, and nurses attended the workshop, the goal of which was to strengthen DTC capacity to continuously improve the safety of medicine use at the health facility level. HPD and SIAPS staff provided training to hospital DTC staff on how to collect, analyze, and report prescription indicators, medications errors, and aggregate consumption studies and to implement continuous quality improvement actions to promote rational medicine use in hospitals. As a result of this activity, 811 people were trained (119% of the life of project (LoP) target) and 13 sites implemented medicine safety activities and PV (162.5% of the LoP target).

Partner Contributions

- The HPD co-facilitated the DTC workshop.
- Ariel Glazier was responsible for all workshop logistics, including venue, MOH staff per diems, and transportation

Namibia

Goal: To improve the quality and safety of pharmaceutical products and services for sustained HIV epidemic control in Namibia

Overall Quarter Progress

SIAPS supported the Ministry of Health and Social Services (MOHSS) to ensure that the web-based Pharmadex tool is finalized and ready to deploy. Advocacy meetings were held with the Registrar of Medicines at the Namibia Medicines Regulatory Council (NMRC) and his staff to plan for the training and end-user testing of the finalized tool. This was a significant achievement given the challenges experienced by the team in ensuring that the tool is finalized.

The Namibia National ART Guidelines were officially finalized and launched by the Honorable Minister of Health and Social Services, Dr. Bernard Haufiku, at the inaugural National AIDS Conference held in Swakopmund in November 2016. The guidelines were developed with SIAPS technical assistance on areas related to rational and safe medicine use, as well as models for community dispensing of ARVs. SIAPS also took the opportunity at the AIDS conference to sensitize more than 300 delegates on the Pharmaceutical Information Dashboard and the facility electronic stock card (FESC).

SIAPS staff supported a comprehensive one-week workshop to orient health care workers from the districts in the Karas region on various modules of pharmaceutical management. The modules included medicine therapeutic committee's (TC) roles and strategies for rational medicines use (RMU), prevention of antimicrobial resistance (AMR), inventory control, and good storage practices. The participants were drawn from the three health districts in the region, three hospitals, and 10 primary health care (PHC) facilities.

SIAPS supported the analysis of results of the Short Messaging System (SMS) reminder intervention at 10 sites. From May to September 2016, 12,338 (37.4%) out of a potential 32,975 patients were enrolled from 10 ART sites to receive SMS messages, whereas 3,948 (12%) patients declined to receive messages. SIAPS is supporting the MOHSS in developing a comprehensive report with recommendations for ART program managers and an abstract to disseminate lessons learned at recognized international conferences.

SIAPS continued to work with the MOHSS, partners, and institutions, such as the University of Namibia and the Namibia University of Science and Technology (NUST), in implementing strategies to improve ART patient adherence, combat and reduce AMR, including HIV drug resistance (HIV-DR). SIAPS staff participated in lecturing NUST students on the MOHSS Pharmaceutical Information Dashboard.

In the quarter under review, the 2016 annual HIV-DR survey was concluded, and a paper published in the *PlosOne* journal on the results of the 2014 annual HIV-DR survey.

Objective 1: Quality and safety of ARVs and medicines for opportunistic infections assured

SIAPS provided technical assistance to the NMRC to conduct medicine quality post-market surveillance (PMS) in Karasburg District Hospital, which had never been involved in any of the PMS rounds. Eight batches of medicine samples were collected: four were ARVs, three were opportunistic infections medicines, and one was a furosemide tablet. The samples were forwarded to the NMRC/Quality Surveillance Laboratory for quality testing. In addition, pharmacy staff in the hospital were sensitized on the purpose and relevance of medicine quality surveillance and introduced to pharmaceutical product-quality reporting forms.

SIAPS played a key role in providing technical information to help facilitate the early adoption and uptake of TDF/FTC for the pre-exposure prophylaxis (PrEP) of HIV in Namibia. This is in line with the recommendations of the fifth edition of the Namibia HIV Treatment Guidelines. SIAPS followed up on the regulatory approval of TDF/FTC formulations for PrEP. As of the end of December 2016, only one applicant had submitted an application to NMRC for the licensure of TDF/FTC for PrEP. By the end of quarter one, this application was still under review by NMRC.

SIAPS tested and finalized the web-based Pharmadex in readiness for deployment in Q2. SIAPS held consultative meetings with the registrar of medicines to plan for the formal training of the medicines registration pharmacists at NMRC. The training was scheduled for the first week of January 2017.

Partner Contributions

- NMRC provided feedback and guidance toward implementation of Pharmadex for medicine registration.
- NMRC collaborated with SIAPS on the surveillance of medicine quality.
- MOHSS' Directorate Special Programs (DSP) in the review of the National ART Guidelines.

Objective 2: Human resource capacity in pharmaceutical management and service delivery strengthened for improved HIV and AIDS treatment outcomes

In collaboration with the MOHSS Karas Regional Health Directorate, SIAPS provided technical assistance to Karas region to train 22 health care facility staff (medical officer, pharmacist assistants [PAs], registered and enrolled nurses) on medicine TC's roles and strategies for RMU, prevention of AMR, inventory control, and good storage practices. The participants were drawn from the three health districts in the region, three hospitals and 10 PHC facilities in the Karas region. The training enhanced the medicine and related supplies inventory management skills of PHC facility staff to ensure continuous availability of ARVs and other essential medicines at the facility level, ensuring appropriate medicines storage conditions to avoid wastage, and roles of health workers in improving medicine use and patient treatment outcomes. Keetmanshoop and Lüderitz are some of the urban hotspots prioritized for intensified PEPFAR-funded prevention and treatment scale-up interventions, such as decentralization of ART services through nurse-

initiated and managed ART with the aim of bringing the epidemic under control. The training was accredited by the Health Professions Council of Namibia (HPCNa) as a continuous professional development course for health workers.

SIAPS supported the National Health Training Center (NHTC) to train students on the EDT and FESC prior to their deployment for a work-based practical attachment at rural ART sites in Namibia. NHTC has identified inventory management as a challenge faced by health facilities and requires their students to contribute to improvements in inventory management of ARV and anti-TB medicines during their deployment. This training of NHTC students is part of SIAPS strategy to build local human resource capacity in inventory management. The EDT and the FESC tools are currently being used in public health facilities to manage pill pick-up appointments of patients on ART, as well as the inventory of ARVs and anti-TB medicines. The 40 students who were trained will be deployed to health facilities in all of Namibia's 14 regions where they will contribute to patient care and inventory management of ARVs and anti-TB medicines at the ART sites.

As part of the US Government's commitment to accelerate Namibia's HIV/AIDS response, the MOHSS began recruiting more pharmacists and PAs. SIAPS provided technical support in the development of job descriptions and specifications for pharmacy staff and various public health facilities offering ART services. SIAPS also participated in interviewing short-listed candidates and advising on their placements.

Partner Contributions

- MOHSS: Karas Regional Health Directorate on training TCs in the Karas region
- HPCNa: Accrediting the Karas region TC and inventory management training
- MOHSS: NHTC on training PAs on FESC and EDT

Objective 3: Availability and use of pharmaceutical service data is enhanced for improved quality of ART services

SIAPS assisted the MOHSS with the implementation of FESC in district hospitals and selected health centers. SIAPS provided remote support to the Omuthiya and Karasburg District Hospitals to address challenges encountered with the system. Two newly recruited PAs at Keetmanshoop Hospital were trained on the use of the FESC so that it could be used as part of normal operations at the pharmacy. The FESC is expected to improve the efficiency of pharmacy operations by saving time used in manual inventory control processes so that staff can dedicate more time to patients; in addition, the visibility of facility-level stock status data improve, accountability will increase, and decision making for pharmaceutical services at the health-facility level will improve.

Offsite support and follow-up on electronic tool-related issues was provided in Suayemwa Clinic, Kaisosi Clinic, Nankudu District Hospital, and Rundu Intermediate Hospital.

In FY16, SIAPS supported the MOHSS in developing and implementing a dashboard for information on pharmaceutical services. The dashboard for pharmaceutical services aggregates

information from SIAPS' implemented tools including the EDT, FESC, and the pharmacy management information systems (PMIS). Reports from these tools are represented on the dashboard in easy-to-interpret charts and tables. These allow MOHSS managers to use the reports in evidence-based decision making. In this quarter, SIAPS continued to support the development of the dashboard by upgrading the PMIS module to allow health facility staff to be able to upload PMIS reports that are aggregated by the dashboard to produce national trends on PMIS indicators.

SIAPS supported the Division of Pharmaceutical Services in orienting 42 MOHSS managers and health facility staff attending the national TB training on how to access and use the dashboard for pharmaceutical services in decision making.

SIAPS supported the analysis of results of the SMS reminder intervention at 10 sites. From May to September 2016, 12,338 (37.4%) out of a potential 32,975 patients were enrolled from the 10 ART sites to receive SMS messages, while 3,948 (12%) patients declined to receive messages. SIAPS is supporting the MoHSS to develop a comprehensive report and an abstract to share at a recognized international conference.

Partner Contributions

- MOHSS sub-division of National Medicines Policy Coordination: Support to health facilities using EDT, FESC, e-TB Manager and implementation of FESC and the dashboard
- MOHSS DSP: Support to PHC facilities using the mobile EDT for ART data capture
- MOHSS district hospitals: Implementation of FESC and data upload to the dashboard
- MOHSS: Coordinating Health Information System TWGs to discuss issues such as interoperability of electronic tools

Constraints to Progress

- The EDT SMS reminder gateway was unstable because of the use of a trial version. SIAPS will procure a full once-off license in Q2.
- Not all district hospital pharmacies were able to upload their data from the FESC into the dashboard, due to internet connectivity problems. SIAPS brought this challenge to MOHSS managers for their resolution.

Objective 4: Quality, efficiency, and accessibility of pharmaceutical services strengthened to attain 90% treatment coverage and 90% viral suppression

SIAPS supported the development of the fifth edition of the Namibia ART Guidelines which were officially launched by the Minister of Health and Social Services, Dr. Bernard Haufiku, at the first Namibia AIDS Conference held in Swakopmund. SIAPS focused on ensuring that all aspects of pharmacy were adhered to in the differentiated care model, which advocates for community-based (CB) ARV dispensing. Appropriate dosing in adults and pediatrics and safety of medicines were other areas for which SIAPS provided technical assistance.

SIAPS participated in a consultative meeting to develop the third medium-term plan for TB and leprosy. As a key partner in TB/HIV program implementation, the MOHSS' National TB and Leprosy Program (NTLP) requested that SIAPS provide technical assistance for the review of the TB medicines and commodities supply chain management system and other aspects of pharmaceutical services, the basis for this plan. A consensus-building meeting will be held in the next quarter to finalize the plan.

SIAPS is collaborating with Project HOPE, IntraHealth, the CDC, and other partners in supporting the MOHSS DSP in implementing CB programs to improve access to ARV medicines. SIAPS provided off-site support to sites in the Oshana and Oshikoto regions to capture 71 CB-ART groups, each comprising approximately 15 patients. SIAPS support includes adapting dispensing tools so that ARV medicines are accessible to CB-ART groups while maintaining product quality, accountability mechanisms, and availability. EDT at these ART sites was adapted to enable dispensing to CB-ART groups.

In this quarter, SIAPS/Namibia finalized the 2016 annual early warning indicator (EWI) report for adult and pediatric patients from all ART sites (50 main sites and 163 outreach and integrated management of adolescent and adult illness sites) throughout the country. Namibia abstracted the following five indicators: on-time pill pick-up, retention in care, pharmacy stock-outs, dispensing practices, and viral load suppression. The report is currently under official printing with MOHSS. Namibia continues to publish work on EWIs of HIV-DR. The 2014 EWI report from the data abstracted from EDT and analyzed by the Namibia team was published in *PLoSOne* journal (<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166649>).

The National AIDS Conference in Namibia was organized by stakeholders to chart the way forward in policies and initiatives to end the AIDS pandemic in Namibia. The conference was attended by over 300 participants. SIAPS supported the MOHSS to present/co-present 10 abstracts on the activities implemented by SIAPS to manage and control HIV and AIDS. SIAPS also presented the dashboard for pharmaceutical services to participants at the conference to improve awareness on how the dashboard can be used for decision making in HIV and AIDS interventions (<http://siapsprogram.org/2016/12/07/siaps-at-namibias-first-national-aids-conference/>).

The Karas Regional Pharmacist identified inventory management and performance of TCs as challenges in the region. SIAPS therefore supported the Karas regional management team in conducting a training of three TCs in their role in promoting RMU and preventing the development of AMR including HIV-DR.

Partner Contributions

- USAID and Project HOPE: Compiling a success story on ART patients previously loss-to-follow-up but returned to care in the Kavango region
- MOHSS HIV Case Management Unit and DSP: ART adherence and retention initiatives
- MOHSS NTLP: Consultative meeting for the third medium-term plan for TB and leprosy

Philippines

Goal: To strengthen key institutions in reducing TB burden through increased access to quality and effective pharmaceutical and laboratory services

Overall Quarter Progress

Building on the achievements from PY5, SIAPS continues to strengthen key institutions to address the TB burden in the country. Its firm partnership with the National TB Program (NTP) sustained the gains in delivering quality and effective laboratory network management; community health leadership, management, and governance; pharmaceutical management capacity at facilities (pharmacies and laboratories); pharmaceutical supply chain management; and pharmacovigilance (PV).

In our partnership with the NTP, SIAPS provided technical assistance in different strategic areas, specifically:

- 1) The SIAPS-supported Drugs and Supplies Management (DSM) Sub-TWG identified the expansion plans of the program to roll-out the standard shorter treatment regimen (SSTR) for the programmatic management of drug-resistant TB (PMDT) and integrated directly observed treatment short course (iDOTS) centers for 2017.
- 2) SIAPS participated during the revision of the PMDT implementing guidelines and administrative order, providing inputs specifically on logistics management and PV.
- 3) Using the SIAPS-developed QuanTB software, the NTP quantified TB medicine needs for Q1 and Q2 of 2017 for procurement and to ensure uninterrupted supply of medicines
- 4) SIAPS finalized the guide for Barangay Health Management Council (BHMC) expansion for use by local government units.
- 5) SIAPS also provided inputs and recommendations for the revision of the Philippine Action Plan to Control Tuberculosis (PhilPACT 2010-2015) and the National Strategic Plan (NSP) to eliminate TB in the country.
- 6) SIAPS also supported the NTP in finalizing health care waste management job aids based on the DOH health care waste manual.
- 7) SIAPS conducted training on the use and management of the Pharmacovigilance Information Management System (PViMS) for the Lung Center of the Philippines– National Center for Pulmonary Research (LCP-NCPR) staff.
- 8) Together with the NTP and Knowledge Management Information Technology Services (KMITS), SIAPS conducted an orientation and training on the use of PViMS for staff from 10 PMDT health facilities; alongside this, SIAPS provided technical leadership in the development of interoperability between the country’s official TB information system and PViMS

During this quarter in PY6, SIAPS continued to provide technical assistance to the National TB Reference Laboratory (NTRL) in leadership, governance, and management. Specifically:

- SIAPS provided technical assistance for the Laboratory Conference of Regional National TB Program Coordinators which identified the capacity building needs of regional laboratory managers.
- SIAPS conducted a two-day supply management training in November 2016 at the NTRL using the document Practical Guide for the Management of Laboratory Supplies Laboratory Management (PGML).
- SIAPS provided assistance in the finalization of the 2014 NTRL Annual Report, highlighting the accomplishments of NTRL as a reference laboratory and as the manager of the NTP laboratory network.
- SIAPS provided technical assistance in the development of NTRL 2017 Annual Work Plan in support of the NSP.

SIAPS also developed the draft report for the NTP Laboratory Network Assessment that contains the current status and gaps in the performance of the different diagnostic technologies including sputum microscopy, GeneXpert, culture and drug susceptibility testing, and line probe assay and the status of the different laboratory support systems.

In our partnership with the Quezon City Health Department, SIAPS also developed the guide for BHMC expansion for use by other Quezon City barangays and health officers to establish their own BHMC. SIAPS also finalized documentation of the Quezon City Health Department District III experience of using the TB supply tracking tool.

Objective 1: Capacity for pharmaceutical and laboratory leadership, governance, and management improved

In partnership with NTRL, SIAPS conducted a two-day supply management training in November 2016. The training used the PGML to build capacity in supply management of 17 participants at the central level. SIAPS also supported finalization of the developed SOPs on supply management, which is now ready for approval by NTRL management.

SIAPS provided technical assistance for the Laboratory Conference for Regional National TB Program Coordinators to identify the capacity building needs of regional laboratory managers. The conference was the first of its kind in a series of meetings and workshops for the regional staff aimed at developing leadership and management of the TB laboratory network. During the three-day conference, each region performed an analysis of the current NTP regional laboratory network status, identified problems and root causes, and utilized the information to create a regional plan to address capacity gaps. These plans will now become the basis for future technical assistance for the regions. Regional technical assistance needs identified were building leadership and management capacity of the coordinators to manage the laboratory network; capacity to decentralize laboratory trainings; and capacity to lead and manage laboratory network expansion.

SIAPS finalized the 2014 NTRL Annual Report with inputs from NTRL and other partners. This annual report provides information on the accomplishments of NTRL as a reference laboratory and as the manager of the NTP laboratory network. Furthermore, SIAPS provided technical assistance in development of the NTRL 2017 Annual Work Plan. Twenty-two NTRL staff from five technical units TUs, the Administrative Unit, and management participated in the creation of these plans, which focused on improving the capacity of NTRL to provide technical assistance to regional laboratories, decentralizing training, expanding laboratories, and laboratory support for the NTP. The work plans are aligned with the ongoing development of the NSP.

SIAPS also developed the draft report for the NTP laboratory network assessment. The report contains the current status and gaps in the performance of the different technologies including sputum microscopy, GeneXpert, culture and drug susceptibility testing, and line probe assay and the status of the different laboratory support systems. It describes the gaps in critical areas: sputum collection; specimen referral and transport system; analytical procedures; recording and reporting; external quality assessment; training and supervision; monitoring and evaluation; human resources; financing; supply management; equipment and facility management and maintenance; biosafety, infection control, and waste management; and laboratory network management. The report provides recommendations to the NTP laboratory network to improve overall performance and support the National TB Elimination Plan.

In its partnership with the NTP, the DSM Sub-TWG identified the expansion plans of the program to roll-out the SSTR for the PMDT TB and iDOTS centers for 2017. This includes managing procurement of medicines needed for the expansion plan. Further, SIAPS also supported NTP in the development of the health care waste management job aids based on the DOH health care waste manual. Finalized this quarter, these job aids will be ready for reproduction and dissemination to health facilities.

SIAPS also developed the guide for BHMC expansion. It provides the general principles for leadership, management, and governance used by successful BHMCs in Quezon City. It also provides the steps in organizing the BHMC and conducting the planning and monitoring and evaluation of performance. The document will be used by other Quezon City barangays and other interested municipalities and cities for establishing their own BHMCs.

Partner Contributions

- NTRL provided the venue for the training conducted on the PGML. NTRL also invited and coordinated with the staff chosen to involve in the training.
- NTP provided the venue for the DSM sub-TWG meeting.
- NTRL organized and financed the first National Laboratory Network Conference.

Constraints to Progress

- Storage space is still a problem of NTRL in ensuring proper supplies management.
- Incomplete data, delay in submission of reports, and need for data verification slowed the progress of the laboratory network assessment.

Objective 2: Capacity for transparent and evidence-based decision making improved

At the request of the NTP, SIAPS collaborated with DOH Knowledge Management, and this quarter, NTP revised its target for the PMDT considering the expansion plan to roll-out the SSTR and expansion of iDOTS centers for 2017. To ensure an uninterrupted supply of medicines for all patients, NTP, with support from SIAPS, quantified medicines needed for Q1 and Q2 of 2017 by using QuantTB. The tool was developed by SIAPS and utilized by NTP to forecast and quantify medicines for the PMDT. As part of the quantification process, SIAPS continues to provide assistance to NTP in reviewing the DSM reports from the access sites to retrieve the data needed to produce the forecast for next year. SIAPS continues to build the capacity of the DSM sub-TWG of NTP to enhance their capacity on supply planning, quantification, and forecasting. Next steps include validating the forecast for early Q1 of 2017 and reviewing the need to adjust procurement orders.

SIAPS also finalized the documentation of Quezon City Health Department District III's experience of using the TB supply tracking tool.

Partner Contributions

- NTP provided the venue and meals for the quantification meeting. NTP also collected and provided the data needed for the quantification.

Constraints to Progress

- There are still delays in the submission of reports and issues with data quality, which is a concern in producing a high-quality forecast.

Objective 3: Capacity of NTP to deliver pharmaceutical and laboratory services improved

SIAPS continues its support to NTP and FDA to strengthen the PV system to ensure safety of patients enrolled in the operational research and roll-out of the SSTR. In this quarter, SIAPS conducted one batch of training and one batch of orientation on the use of PViMS. The first batch for training was composed of personnel from FDA and LCP-NCPR managing the operational research. The second PViMS orientation was conducted in partnership with NTP and KMITS with participants from 10 health facilities who are the first implementers of the SSTR under programmatic conditions. The PViMS user guide is used during training and orientation.

SIAPS provided technical leadership in the development of interoperability between the country's official TB information system and PViMS. SIAPS also enhanced PViMS on the basis of recommendations of users from the LCP-NCPR and FDA. However, the recent change in FDA transitioned the system ownership of PViMS to the DOH's Pharmaceutical Division (PD). From here on, SIAPS will support NTP and DOH PD to strengthen the PV system in the country.

Upon request from NTP, SIAPS participated in the revision of the PMDT implementing guidelines and administrative order, providing inputs specifically on logistics management and PV. Further, SIAPS provided inputs and recommendations in the revision of the PhilPACT 2010-2015 and to create the NSP to eliminate TB in the country. SIAPS provided inputs specifically on the regulation and supply management of pharmaceuticals, laboratory supplies, and services.

Partner Contributions

- NTP, through Philippine Business for Social Progress, facilitated and funded the logistics on PViMS orientation.

Sierra Leone Ebola Portfolio

Goal: Strengthen pharmaceutical management systems to ensure the availability of quality pharmaceutical products and rational use to achieve desired health outcomes

Overall Quarter Progress

The Chief Medical Officer (CMO) signed the revised organogram, and the Director of the Directorate of Drugs and Medical Supplies (DDMS) confirmed that all ongoing USAID SIAPS/DDMS collaborative activities will be assigned to a specific functionary within the Directorate, in line with the organogram.

At least one cycle of a continuous results monitoring and support system (CRMS) has been conducted in all 13 districts in the country. Review meetings have been held in seven districts.

As a spin-off response of the CRMS implementation, disposal of expired medicines retrieved from peripheral health units (PHUs), the district level, and the central level took place on October 26, November 2, and November 16, 2016, respectively. This not only freed up significant storage space by removing unusable and potentially harmful stocks but also allowed for better organized stores.

As part of the inherent capacity building, a survey of basic infrastructure supply needs was carried out by SIAPS, and a procurement process to support basic infrastructure needs is under way to support the reorganized DDMS.

SIAPS technical assistance to the National AIDS Secretariat (NAS) and National AIDS Control Programme has been initiated, and a memorandum of understanding has been signed. A dashboard consultant who arrived in the country in November has submitted the first draft version of the Software Requirements Specification document and activity plan for the Sierra Leone Health Commodity Dashboard.

A detailed program for re-establishing drug and therapeutics committees (DTCs), starting with four hospitals (three in Freetown and one in the Bombali District), has been drawn up. This included a meeting with key stakeholders, such as the WHO, the MoHS (CMO/district medical officer [DMO] and Director of Hospitals and Laboratories), the Pharmacy Board, and the College of Medicine and Allied Health Sciences. Following a presentation of the results of the recent rapid assessment, facility managers have moved ahead to nominate members of their respective DTCs with clear terms of reference.

Objective 1: Directorate of Drugs and Medical Supplies' ability to effectively support health facilities is strengthened

The DDMS Organogram

The DDMS Director and the CMO have signed off on the new DDMS organogram, which has been formally implemented with the nomination of designated officials to head the identified

departments. A SIAPS-supported annual review meeting allowed a formal opportunity for each department head and district pharmacist to openly examine their expected roles and responsibilities in the new dispensation and make any necessary improvements. Although this will be an annual event, it was suggested that a mid-year review be held to assess progress. It was also announced that identified issues will feed into a proposed meeting for all DMOs, directors, and health program managers in the second quarter. The names of the officials heading the four key units were announced. On behalf of the Ministry of Health and Sanitation, the DMMS Director expressed profound appreciation to SIAPS for its significant contribution to health sector recovery.

SIAPS and the LMG project provided leadership training for the malaria program for all 13 DMOs, district pharmacist monitoring and evaluation officers, district health sisters, and malaria focal points.

Through SIAPS, contact has been established with the Ministry of Health in Namibia, which will serve the host for the planned study tour, tentatively scheduled for late February/early March 2017.

Drugs and Therapeutic Committees

Based on initial discussion with the DDMS, including a wider forum at the DDMS/SIAPS/Pharmacy Board of Sierra Leone/Pharmaceutical Society of Sierra Leone program retreat, preliminary discussions were followed up during the quarter with Pharmaceutical Department officials at Connaught Hospital, which is the premier tertiary institution in the country, as well as two other hospitals in Freetown. The ground work was laid for setting up a DTC steward mechanism for facility-based pharmaceutical management and as a platform for promoting rational medicine use, as well as part of the CRMS operationalization, including data collection and utilization for supply chain decision making. Four DTCs have been set up in four hospitals, including the Regional Hospital in the Bombali District. Each committee has between 12 and 15 members.

Support to National AIDS Secretariat

Although there is a direct relationship with the NAS, the intricate connection between SIAPS and the DDMS presents a good opportunity for better coordination between the NAS and DDMS. A draft memorandum of understanding between NAS and SIAPS has been signed, and technical assistance was provided to develop a supply chain management dashboard. Substantive work has been done on the dashboard, with clarifications remaining to be made on regimens from the NAS before it can be finalized.

Reverse Supply Chain

After encountering a number of bureaucratic bottle necks, including approval from the Ministry of Finance and the Auditor General's Department, all important procedural issues were resolved, and the disposal of expired medicines returned from the districts has commenced at the Hasting CAIPA facilities on the outskirts of Freetown. To date, three disposals of expired medicines have taken place. This involved the participation of representatives from the Pharmacy Board,

National Pharmaceutical Procurement Unit/DDMS and the Ministry of Finance to verify and witness the destruction of products. This paves the way for a more routine procedure that will be incorporated into the national guideline being developed by the DDMS with technical assistance from SIAPS. This process appears to have been fine tuned, and although CAIPA has been replaced by AECON, it has been confirmed that the Department for International Development (DFID) will continue to support the process, which indicates its satisfaction with the process and its value. SIAPS/Sierra Leone's role in escalating this issue and helping to concretize its action is well acknowledged.

National Quantification Committee

All partner-requested clarifications on the quantification for the 2017 procurement of free health care supplies funded by DFID have been completed. Data collected through the CRMS process were used in the quantification by a subcommittee comprising the Clinton Foundation HIV/AIDS Initiative, DDMS, and SIAPS.

Partner Contributions

The DDMS continues to provide dedicated office space for SIAPS, which enables SIAPS to work with their team when necessary. At the district level, the District Health Management Teams (DHMTs) are continuing to provide vehicles to be used during the CRMS exercise.

Constraints to Progress

The health sector, and in particular the DDMS and DHMTs, have many other activities, which can make it difficult to get their attention and participation. The government announced severe austerity measures effective through March 2017 during the reporting period, making it more difficult for DHMTs to function optimally.

Objective 2. Strengthen supply chain management from the district to the PHU level

The CRMS activity has been rolled out in all 13 districts in the country and includes 1,055 of 1,241 health facilities (85%). Review meetings and action plans have been held in seven districts. Quick fixes for storage capacity problems have been initiated in four PHUs in the Western Area, and an assessment is under way in the Tonkolili District. To build capacity and strengthen supply chains, the SIAPS/Sierra Leone team now works with key district representatives, the district pharmacist monitoring and evaluation officer, district information officer, and district logistics officer to organize, clean the data, and perform the analysis in a participatory manner. This will build representatives' capacity to handle CRMS and other data in their districts to guide decision making.

Partner Contributions

The DHMTs provided support in finding a suitable time for planning meetings and orientation trainings and provided space for several meetings. They also provided vehicles to be used for the CRMS activity.

Constraints to Progress

During the orientation training, a few members who were trained for the program may not be available during the implementation. This may be due to impromptu activities in the district. If additional personnel are not trained, it will have a negative effect on the CRMS exercise.

Objective 3: Utilization of information for supply chain decisions is increased

Using data collected through the CRMS process and other tools and sources, all clarifications have now been made on the quantification for 2017. It has been unanimously agreed that the six-month procurement for the second half of 2017 will be based on this quantification process and that the process will be used in the future. The documented CRMS information on expired medicines during the supervision is being used for the procedural exercises during disposal.

Partner Contributions

The DDMS remained fully engaged with project activity, including convening, coordinating, and providing staff to support DHMTs during CRMS supervisions.

Constraints to Progress

It appears that there are a number of narrow and parallel data/information collection requirements at the district/PHU level. These interventions may not necessarily, on their own, resolve the overarching national supply chain problems. The challenge for SIAPS/Sierra Leone from a systems strengthening perspective is how to identify these interests and reconcile them into a common systemic intervention.

Swaziland

Goal: The goal of the SIAPS Program in Swaziland is to ensure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes for HIV/TB care and treatment.

Overall Quarter Progress

SIAPS has been supporting the Ministry of Health (MOH) in Swaziland for the past five years, focusing on product availability and delivery of quality pharmaceutical services for the HIV/TB programs. The project has achieved significant results in that time and has also contributed to various initiatives to strengthen the pharmaceutical sector.

The Medicines and Related Substances Control Bill was enacted into law in November 2016 and paved the way for the establishment of the Medicines Regulatory Authority (MRA) which will become operational before November 2017. The support provided by SIAPS toward this achievement has been recognized by the principal secretary in the MOH. Sustainability of all pharmaceutical sector governance interventions will now be guaranteed with the establishment of the MRA.

Medicines procurement continues to be an area that requires significant technical assistance. The demand for quality medicines, including ARVs, has necessitated that SIAPS puts more effort on effective governance of the procurement function in the MOH. The procurement procedure manual (PPM) developed in FY16 was submitted to the Swaziland Public Procurement Regulatory Agency (SPPRA) for approval. Consultations are ongoing between SIAPS and SPPRA, with the expectation that the PPM will be approved in quarter 2.

The annual antiretroviral (ARV) quantification was completed in this quarter and the results were shared with stakeholders including the Ministry of Finance, PEPFAR Swaziland, and the Global Fund local fund agency and principal recipient. The forecast shows that the National AIDS Program will require USD \$21 million for adult and USD \$1.3 million for pediatric antiretroviral treatment (ART) in FY 2017/18. The approved budget is yet to be confirmed by the Ministry of Finance in the next quarter. The increased funding requirement in 2017/18 has been in part due to the increased enrollment of people living with HIV (PLHIV) into treatment as part of the national test-and-start initiative.

SIAPS/Swaziland continues to coordinate USAID's donation of pediatric and second- and third-line ARVs to support the MOH. An order of approximately USD \$5 million worth of tenofovir + lamivudine + efavirenz adult ARVs was placed with USAID's Procurement and Supply Chain Management (PSM) Project with an expected delivery date of December 2016. This stock will cover the additional patients to be enrolled into treatment as part of the test-and-start initiative for the period ending in March 2017. There were no stock-outs of ARVs reported during this quarter; facilities were able to maintain the recommended two to three months of stock for all key ARVs. SIAPS participated in discussions with clinicians and the national AIDS program on transitioning patients to the atazanavir/ritonavir (ATV/r)-containing regimen for second-line HIV treatment, from the lopinavir/ritonavir (LPV/r)-based treatment. According to the national

guidelines, the LPV/r-based regimen is recommended for third line. There is adequate stock of ATV/r for all second-line ART patients. SIAPS is also participating in discussions on the introduction of community ART (CommART) refill and the protocol for the management of cryptococcal meningitis among PLHIV. SIAPS provides guidance on supply chain, rational medicines use, and good pharmaceutical services for these initiatives.

Swaziland is taking bold steps to improve access to ARV treatment and expects to achieve the 90+90+90 UNAIDS goals by 2020. SIAPS is committed to contributing and ensuring that the government's targets are achieved and hence reversing the negative impact of HIV in Swaziland.

Objective 1: Strengthen Governance in the Pharmaceutical Sector

SIAPS continued to support the Office of the Chief Pharmacist (OCP) in advocacy activities to enact pharmaceutical legislation. The Medicines and Related Substances Control Bill received royal assent in October and was gazetted into law on November 11, 2016, as act number 9 of 2016. The Pharmacy Bill was commissioned for a joint Parliament House sitting by the king in October, and the first seating took place at the end of October. The follow-up joint sitting is scheduled for April 2017 as the Houses did not reach an agreement.

Further support was provided to the OCP in the functioning of the three committees that facilitate improved medicines availability, pharmaceutical service delivery, and patient safety and treatment adherence for patients on ARVs, anti-TB and antimalarial medicines, and FP commodities. The activities included:

- Supporting the National Quantification Committee (NQC) in conducting a quantification data validation meeting with supply chain stakeholders and later a feedback meeting with the same stakeholders on the outcomes of the three-year (2017-2020) quantification activity.
- Presenting the guidelines and policy documents developed by the Pharmaceutical Importation and Exportation Committee to MOH senior management for endorsement.
- Supporting the Pharmaceutical Recruitment and Training Committee in the implementation of minimum competency standards for pharmacy personnel and minimum quality standards for pharmacy training programs to ensure that pharmaceutical services offered to PLHIV are provided by competent personnel who can also ensure robust supply chain management.

SIAPS facilitated the appointment of the technical working group (TWG) responsible for reviewing the 5-year Swaziland Pharmaceutical Strategic Plan (SPSP). SIAPS further developed a plan to guide the TWG in the review process. The next step is to support the TWG conduct the SPSP end-term evaluation and review.

SIAPS also supported and participated in the Swaziland Health Laboratory Services (SHLS) financial planning meetings to review the SHLS quarter 4 budget in view of funds released by the MOH and those availed by the Global Fund.

Constraints to Progress

The Houses of Parliament could not agree on the issue of pharmacy ownership in the Pharmacy Bill during the first joint House sitting. This means that the Pharmacy Bill will only be deliberated in another joint House sitting in April 2017, delaying enactment of the bill.

Objective 2: Increase capacity for pharmaceutical supply management and services

SIAPS provided technical assistance to the Central Medical Stores (CMS) in conducting the national medicines quantification for ARVs, anti-tuberculosis medicines, sexual and reproductive health (SRH) commodities, medicines for opportunistic infections (including isoniazid preventative therapy), and antimalarials. Health commodity quantification has been successfully transitioned to MOH, and this time, CMS led the entire process. The exercise was completed in less than three months, from collection of quantification data inputs to the development of three-year budgets for the above mentioned program areas. This is further evidence that the CMS personnel responsible for quantification have been adequately skilled to lead and undertake the exercise.

SIAPS continued to support the weekly SHLS supply chain meetings. During these meetings, SIAPS has provided technical guidance on laboratory supply chain issues ranging from supplier performance, warehouse and distribution, stock status, tendering, and demand planning. This forum also provides an opportunity to preview early warning indicators for impending stock-outs and make suggestions to avert such situations.

Technical assistance has been provided to health facilities through supportive supervision, focusing on pharmaceutical inventory management, good dispensing practices, counseling of patients on ARV/TB treatment, and monitoring adverse drug reactions (ADRs) to improve treatment outcomes. This quarter, SIAPS supported the Wellness Centre in Manzini to transform a data room into a functional storeroom for medicines. The Wellness Centre provides confidential HIV care and treatment services for health workers and PLHIV. This included developing a floor plan for the storeroom and improving patient flow within the facility for optimal access to medicines. SIAPS also participated in one site improvement monitoring systems visit at Mkhuzweni Health Centre, where the facility performed well on pharmaceutical indicators.

Constraints to Progress

During the review period, SIAPS only provided minimal supportive supervision to health facilities because of project close-out activities.

Objective 3: Address Information Utilization for Pharmaceutical Management Decision Making

To ensure optimal usage of RxSolution for HIV/TB inventory management, SIAPS provided technical support to nine health facilities implementing RxSolution in the quarter. Specific tasks carried out during the visits included:

- Validating and updating system reports, i.e., patients on ART by regimen, protocols distribution by month, monthly patient HIV care reporting, etc.
- Conducting onsite mentorships on the use RxSolution, maintaining stock card updates, and adding new regimens to the system.
- Troubleshooting system-related issues that impede uptime operations of the application, including network connection, database restore failures, corrupted database files, virus infected system files, removing unwanted programs competing with the application for memory, unresponsive/freezing application modules, and delayed runtime of generating system reports.
- Performing onsite and offsite server backups to ensure restoration in the event of disaster.
- Maintaining version uniformity across all workstations in facilities.

SIAPS continued to provide technical support to health workers in health laboratory facilities already implementing the web-based commodity tracking system (CTS). In the quarter, eight health workers were mentored on use of CTS for monthly reporting and ordering across three laboratory sites. SIAPS also developed a job aid to guide laboratory staff on how to access the webpage and complete their orders electronically. Support was also provided to the Data Management Unit (DMU), which is the custodian of the Logistics Management Information System (LMIS) reports that are collected across all health programs in facilities. Additionally, site maintenance procedures were also performed on the system backend database; these include:

- Truncating the SQL log file
- Monitoring automatic backups and performing offsite backups on a monthly basis
- Troubleshooting frontend and backend system-related bugs
- Managing system admin modules and user requests

Objective 4: Improve Pharmaceutical Services to Achieve Desired Health Outcomes

SIAPS supported the CMS in compiling a three-year budget for ARVs, TB, malaria, and SRH commodities. These budget forecasts were presented by the CMS pharmacist at the NQC meeting held in November. The overall objective was to sensitize the MOH and stakeholders on the funding requirement for medicines for the next three years. Through SIAPS support, CMS performed an in-depth analysis of the current funding landscape and funding gaps for the coming three years. As an outcome of the NQC meeting, a follow-up financial planning meeting has been scheduled. Funding agencies are expected to present on what they will be supporting in the next two years.

During quarter four, MOH with technical assistance from PEPFAR, adopted Test and Start, whereby all PLHIV are eligible to starting ARV treatment regardless of their CD4 cell count. To support the initiative, SIAPS facilitated the USAID-funded purchase of adult first-line ARVs to ensure adequate stock levels. SIAPS also continued to coordinate USAID procurements of pediatric ARVs, and adult second- and third-line ARVs. Medicine availability improved with the advent of more funding streams for ARVs. CMS and the national laboratory warehouse did not experience a stock-out of tracer medicines during the review period. Only 4% of SIAPS-supported health facilities reported a stock-out of one of the tracer medicines.

SIAPS published the latest edition of the Medicines Safety Watch Newsletter to share adverse ADR data analyzed during FY16 and other medicine safety alerts; 4,324 patients on ARVs and TB medicines are being monitored for ADRs, and 1,429 ADRs have been reported and analyzed. The medicine safety work in Swaziland was also shared at the Union Conference on Lung Health and TB held in October.

SIAPS continued to support the National TB Control Program (NTCP) in the management of MDR- and XDR-TB patients through printing and disseminating the bedaquiline clinician's pocket guide. SIAPS also continued to support the selection and monitoring of patients on bedaquiline by supporting the functioning of and participation in the bedaquiline clinical access program expert committee. Further, SIAPS supported the NTCP to monitor key bedaquiline implementation indicators so as to contribute to ensuring the safety of the more than 70 patients on this medicine and to ensure non-interruption of the bedaquiline supply.

The TB Alliance in partnership with WHO has developed child-friendly, fixed-dose combinations to treat drug-sensitive TB in children. The new formulations provide more accurate pediatric dosages and are flavored and easily dissolvable to facilitate administration. SIAPS supported the TB program in developing a transition plan for the introduction of new pediatric TB medicines. The purpose of the plan is to ensure that there are no expiries and wastages of the current medicines and no delays or stock-outs as the country switches to the new medicines. This included the development of the plan, quantifying national needs of the new medicines, and placing an order for the new medicines.

SIAPS supports health facilities in implementing strategies to improve medicine use through pharmacy and therapeutics committees (PTCs). For the health facility PTCs to be considered active, they are expected to have at least one meeting in the three months of the review period to discuss and address issues and gaps related to medicine use in order to improve health outcomes of patients. In the review period, four health facilities have had at least one PTC meeting namely, Raleigh Fitkin Memorial Hospital, Dvokolwako Health Center, Nhlanguano Health Center, and Baylor Centre of Excellence.

Constraints to Progress

In Q3, the total supply plan needs for ARVs was approximately 101 million emalangi and only 73.5 million emalangi was disbursed. This resulted in the supply planning team having to revise the supply plan down to 73.5 million. The consequence of these revisions was that certain medicines would not be restocked to the desired levels.

Ukraine

Goal: Ensure the availability of affordable quality pharmaceutical products and effective pharmaceutical services to achieve the desired outcomes for HIV and AIDS patients

Overall Quarter Progress

During the first quarter of PY6, SIAPS Ukraine reached several significant milestones for each objective.

- For Objective 1, the final report on the National Supply Chain Assessment (NSCA) was presented to stakeholders, and the implementation plan is now in development.
- For Objective 2, two additional oblast AIDS centers have joined the drug use review (DUR) process.
- For Objective 3, the new national essential medicines list (EML) has been finalized and published for public comment.

During this quarter, SIAPS/Ukraine also continued to provide technical assistance to the government of Ukraine to develop medicines procurement reform and health care financing reform, as well as a national policy for the reimbursement of medicines at the primary health care level.

Objective 1: Support improvements in national supply chain management

A report on the results of the NSCA was presented to stakeholders in October 2016. A draft action plan for the MOH is being developed to implement the recommendations.

Objective 2: Improve pharmaceutical services for HIV and TB programs

Training for Drug and Therapeutics Committees at five regional AIDS centers (Kyiv city, Chernihiv, Cherkasy, Odesa, and Vinnytsia oblasts) was held October 10–13, 2016. Two additional AIDS centers (Vinnytsia and Cherkasy) joined the DUR process after training. Memoranda of understanding (MOUs) were developed and agreed upon but have not yet been signed. Kick-off meetings with the heads of the Vinnytsia and Cherkassy oblast AIDS centers were held. Action plans were developed for all five regions to implement DURs in AIDS centers.

Partner Contributions

Representatives of the Ukrainian Center for Disease Control and the State Expert Center served as trainers for the Drug and Therapeutics Committees.

The Ukrainian Center for Disease Control, the State Expert Center, and AIDS centers contributed to the development of the action plan for implementation of DURs.

Objective 3: Improve pharmaceutical management and governance

EML

The methodology for the selection of medicines to be included in the EML was approved by the Ministry of Justice. The EML Expert Committee continued working on a draft EML. In December 2016, the final draft was published for public comment. Standard operating procedures for the EML Expert Committee were developed and are being reviewed. A public relations campaign in support of the new EML is under way.

Pharmacovigilance Guidelines

Six additional modules for the National Pharmacovigilance Guidelines were drafted. As of December 2016, modules 1–4 had been approved, modules 5 and 6 had been submitted to the MOH but not yet approved, and modules 7–16 had been developed but not submitted to the MOH. The State Expert Center is developing a cover letter to submit the developed modules to the MOH for approval.

Partner Contributions

The Renaissance Foundation continues to support the work of the EML Expert Committee, including the public relations campaign in support of the new EML.

Constraints to Progress

Because of the performance of the head of the EML Expert Committee, not all phases of EML development were completed by the deadline. The MOH replaced the head of the EML Expert Committee after a draft of the EML was posted on the MOH website. Work on the EML is now progressing under new leadership after five months of little progress. The new leadership is negotiating a transition plan with the MOH because the EML is tied to other reform timelines.

Objective 4: (Anticorruption) Support improvements in national supply chain management

MOUs were signed with the Chernihiv oblast and the Ministry of Economics. The new draft of legislation on framework contracting (FC) was prepared to align with recent changes to the law on public procurement. Unfortunately, this legislation has not yet passed, which has caused delays in development of the FC module in ProZorro (the online procurement system) and the related training curriculum.

Partner Contributions

Chernihiv oblast and the Ministry of Economics cooperated in the MOUs.

Constraints to Progress

The delay of approval of the FC legislation led to subsequent delays in development and training.

Objective 5: (Anticorruption) Improve pharmaceutical management and governance

Reimbursement

Two decrees of the Cabinet of Ministers of Ukraine on reimbursement and price regulations were approved in November 2016 without taking into account recommendations made by SIAPS. Strong backlash followed from pharmacists and industry. A legal analysis indicated that these decrees are not implementable and would create serious risks related to access to reimbursable medicines. A comprehensive alternative solution was developed and submitted to the MOH in December 2016.

Health Technology Assessment

A draft health technology assessment (HTA) roadmap was sent to the MOH for approval. Key activities from the HTA roadmap were included in the MOH operation plan. A vendor was selected to conduct a legal review of legislation related to the process of medicine selection and the functioning of the HTA agency. A request for comments (RFC) was developed to provide assistance to activities related to implementation of the HTA by the EML Expert Committee. The RFC is being reviewed by Ruth Lopert of SIAPS.

Constraints to Progress

The major constraint to a successful launch of the reimbursement system is the recent adoption of nonimplementable legislation.

Uzbekistan

Goal: Strengthen the TB control system to address the threat of increased MDR-TB

Objective 5: Improved pharmaceutical services and access to TB products to achieve TB goals

SIAPS continued to work with all 14 regions of the Republic of Uzbekistan to use QuanTB for quantification and an early warning system (EWS) to monitor actual versus planned consumption of TB medicines, with the goal of avoiding TB medicine stock-outs and expiries at the regional and TB facility levels during this quarter. SIAPS presented a poster at the 47th Union World Conference on Lung Health in Liverpool in October 2016 that was entitled “Uzbekistan’s new approach to tackling MDR-TB burden through an institutionalized early warning and quantification system.” SIAPS provided technical support on the EWS piloting, including data collection, reporting, data analysis, and monitoring based on monthly supervision visits conducted between July and September 2016 and monthly reports from the regions.

Partner Contributions

Project Hope continues to support EWS pilot monitoring visits in four regions of the Republic of Uzbekistan: Navoiy, Bukhara, Kashkadarya, and Khorezm.

Constraints to Progress

Progress during this quarter was challenged by delays with the transfer of funds from SIAPS to UNKLAF Corp., the vendor that facilitates monthly supervision visits to support EWS piloting in the regions. In addition, drug use reviews planned for October and November 2016 were not conducted due to delays in vendor payment. In the SIAPS/Uzbekistan work plan for July 1, 2016–June 30, 2017, there were six EWS pilot monthly supervision visits planned between July and December 2016. To complete the commitment, SIAPS will support supervision visits in January and February 2017 to make up for the missed supervision visits. A new purchase order for the vendor was developed, and the Ministry of Health of the Republic of Uzbekistan updated the schedule of monitoring visits. The monthly visits were reestablished in December 2016.