

## **SIAPS Quarterly Report**

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Project Year 3, Quarter 1

October 2013–December 2013



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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 graphic of a person with arms raised in a 'V' shape, symbolizing achievement or progress.

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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.

## Recommended Citation

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## ACRONYMS AND ABBREVIATIONS

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
CNLS	AIDS Control Program (Cameroon)
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)
DRC	Democratic Republic of the Congo
DTC	Drug and Therapeutics Committee
EDT	Electronic Dispensing Tool
EHRIG	Ethiopian Hospital Reform Implementation Guideline
eTBM	eTB Manager
EUV	end-user verification (survey)
FDA	US Food and Drug Administration
FMHACA	Food, Medicines and Health Care Administration and Control Authority (Ethiopia)
FY	fiscal year
GDF	Global Drug Facility
HIV	human immunodeficiency virus
IMCI	Integrated Management of Childhood Illness
JSI	John Snow, Inc.
LMIS	logistics management information system
M&E	monitoring and evaluation
MDG	Millennium Development Goal
MDR	multidrug resistant
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
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)
PNME	Program for Essential Medicines (Angola)
PPMRc	Procurement Planning and Monitoring Report for Contraceptives
PPMRm	Procurement Planning and Monitoring Report for Malaria
PSM	procurement and supply management
PTCs	Pharmaceutical and Therapeutics Committees
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
STGs	standard treatment guidelines
SUGEMI	national pharmaceutical management system (Dominican Republic)
TB	tuberculosis
TIPC	Therapeutics Information and Pharmacovigilance Center (Namibia)
TOT	training of trainers
UCDC	Ukrainian Center for Disease Control
UNAM	University of Namibia
UNICEF	United Nations Children's Fund
USAID	US Agency for International Development
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 third year, SIAPS works with local counterparts and partners in 22 countries, including 2 regional programs in Latin America. 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 health 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' 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 2013 period.

## SELECT PROGRESS TOWARD RESULT AREAS

### **Intermediate Result 1. Pharmaceutical sector governance strengthened**

Under SIAPS, our approach to improving governance and accountability focuses on establishing transparent management systems grounded in policies based on best practices, legislation supported by the rule of law, and regulation supported by appropriate technology and capacity.

This quarter, 12 countries have improved medicines policies, laws, regulations, norms and standards; 11 countries developed/updated pharmaceutical management guidelines, lists, or SOPs and submitting for adoption; 6 countries developed/updated national pharmaceutical policies and submitting for adoption; and 2 countries report developed/updated pharmaceutical sector legislations (or regulations) and submitting for adoption. Further highlights of SIAPS achievement under this intermediate result are presented below.

#### ***Standards and accreditation***

SIAPS has been supporting the National Department of Health (NDoH) in South Africa to develop a system for effective oversight on the provision of pharmaceutical services in the country. NDoH had drafted a set of standards and related data elements to benchmark pharmaceutical service delivery in the provinces. SIAPS received, analyzed, and submitted to the NDoH the first set of provincial reports on the standards and data elements.

SIAPS supported the Food, Medicines and Health Care Administration and Control Authority (FMHACA) of Ethiopia to develop standards for pharmaceutical services delivered by health facilities. In this quarter, SIAPS prepared an assessment tool to guide two regional health bureaus and FMHACA to evaluate existing pharmacy practices against the new standards to identify gaps and allow the regional health bureaus and facilities to take action to meet the standards.

#### ***Policies and procedures***

SIAPS in South Africa met its target for the year with the finalization of five policy and procedural documents—

- *2012 Adult Hospital Standard Treatment Guidelines and Essential Medicine List*
- Mpumalanga medicines formulary
- Tertiary and quaternary level essential medicine recommendations
- North West standard operating procedures
- Guidelines for implementation of pharmaceutical and therapeutics committees (PTCs) in Gauteng Province

### ***Pharmaceutical registration and licensing***

SIAPS has been helping Swaziland with developing and finalizing guidelines for listing medicines and registration of importers, engaging a data entry officer, and calling for the registration of importers and listing of medicines marketed in Swaziland. As a result, all of the targeted importers have registered and provided lists of the medicines they import into the country. An Excel database was created to store the list of importers and available medicines.

### ***Strategic planning***

SIAPS has been helping to develop a plan to establish a medicines regulatory authority (MRA) in Swaziland. In this quarter, the MRA implementation plan was finalized and approved by the Ministry of Health (MoH) Principal Secretary. The MoH is currently using the plan to establish new positions within the Ministry and inform its staffing budget for the 2014/15 fiscal year.

### ***Transparency and accountability***

In an effort to streamline procurement activities, minimize institutional costs, and optimize patient care, SIAPS submitted a concept note and terms of reference for the establishment of a national essential medicines list (NEML) committee in Mozambique, as well as procedures and guidelines for updating and reviewing the NEML. These have now been approved by the Pharmacy Division and the MoH. Committee members have been selected, agreed on, and submitted for final approval and nomination. During this quarter SIAPS also prepared the supporting documents and information needed for the committee to start quickly to carry out its mandate.

SIAPS collaborated with the Eastern Cape, Limpopo and North West provinces (South Africa) to develop results frameworks and related sets of indicators through a series of monitoring and evaluation (M&E) workshops held with provincial, district and institutional pharmacists. These objectives and indicators, which will be used to track performance, were incorporated into the provincial strategic plans in the Eastern Cape and Limpopo provinces for implementation in 2014. In North West, a follow-up workshop is required to finalize the frameworks and indicators.

SIAPS also continued its efforts to support good governance in medicine procurement by supporting South Africa's Directorate: Affordable Medicine to manage tenders for pharmaceuticals and medical consumables. During this quarter, SIAPS helped develop transparent tenders for oncology and contrast media which are on track to be awarded in January 2014.

## **Intermediate Result 2. Capacity for pharmaceutical supply management and services increased and enhanced**

SIAPS works with stakeholders to assess the country's capacity to manage pharmaceuticals at all levels. Then with consensus, identify areas for improvement and develop interventions to strengthen the system and build individual and organizational capacity. This quarter, three countries have supported local institutions or organizations providing training or technical

assistance in pharmaceutical management while one country developed a pre-service health professional training curricula to address pharmaceutical management topics.

### ***Leadership and management***

Teams use the “challenge model” to systematically address challenges in their work environments through the SIAPS-led Pharmaceutical Leadership Development Program (PLDP) in South Africa. SIAPS conducted the fourth PLDP workshop for a group of pharmacists from KwaZulu-Natal. With the assistance of a facilitator from the Office of the Premier of KwaZulu-Natal, participants were guided through human resource management issues related to their job function as well as sessions on governance and ethical practice within the pharmaceutical sector. A new session introduced teams to basic principles of pharmacoeconomics, including how to calculate cost savings from their quality improvement projects.

### ***Pre-service training***

SIAPS continued to support the development and use of the medicine supply management module for the pharmacy technician certificate provided by the Nelson Mandela Metropolitan University in South Africa’s Eastern Cape Province. SIAPS staff facilitated lectures and practical sessions and set mid-term and final examinations. A practical session at Dora Nginza Hospital exposed students to the public sector pharmacy working environment. They also had to review stock cards and calculate average monthly consumption to determine maximum stock levels and whether there was potential for overstocking or items at risk of expiry. SIAPS provided input to university staff on developing curriculum for pharmacy law and ethics for the pharmacy technician course which will start in 2014.

### ***In-service training and supervision***

In Angola, SIAPS staff adapted quantification training material containing essential concepts of forecasting and supply planning to the Angola context, and then they were translated into Portuguese. A training using this adapted material was held in December for 20 participants from various MoH programs, hospitals, and provincial health directorates. During the training, participants drafted the terms of reference for national and multi-institutional quantification technical working groups to conduct national forecasting and supply planning for malaria and HIV/AIDS commodities. These groups will take over and harmonize the quantifications that have done by individual programs or donors. Participants also recommended that the same training be provided at provincial level to increase capacity.

In this quarter in Ethiopia, SIAPS provided onsite training and mentoring on Auditable Pharmaceutical Transactions and Services (APTS) to hospital chief executive officers, pharmacists, cashiers, accountants, and auditors drawn from four hospitals, three health centers, and two regional health bureaus. In total, 197 professionals were trained. Of the health facilities that received APTS training, four of them started implementing APTS. In addition, two hospitals started implementing APTS in Amhara region following training that they received during the previous quarter.

Selected additional activities include the following—

- In the Dominican Republic, SIAPS facilitated the finalization of the training modules for the second certified course on pharmaceutical management during this quarter. The certified course (diploma), conducted by the Universidad Central del Este, started in November 2013. USAID/SIAPS funded tuition for 20 course participants.
- In Limpopo, SIAPS worked in collaboration with the NDoH, the World Health Organization (WHO) and the provincial Department of Health to facilitate two vaccine management workshops for 60 hospital pharmacists, district immunization coordinators, and district pharmacists. Participants were trained on various aspects of vaccine management including quantification and inventory management.
- In the reporting quarter, 141 Ethiopian professionals attended in-service training sessions on APTS, rational medicines use, and drug and therapeutic committees (DTCs) in collaboration with PFSA and the regional health bureaus. Close to 45% of the trainees were women.
- SIAPS conducted training in medicines supply management for 399 health care professionals in Eastern Cape (159), Limpopo (205) Mpumalanga (7) and KwaZulu-Natal (28) provinces in South Africa.
- SIAPS representatives attended the global health supply chain summit in Addis Ababa in November. Staff members from Bangladesh and Swaziland presented two abstracts that had been accepted.
- SIAPS was nominated to represent MSH on the board of People that Deliver.” SIAPS will also continue to participate on two of People that Deliver working groups: advocacy and knowledge management and technical.

### **Intermediate Result 3. Information for decision-making challenges in the pharmaceutical sector addressed**

SIAPS approach is to integrate pharmaceutical data collection, processing and presentation of information to help staff at all levels of a country’s health system make evidence-based decisions to manage health and laboratory commodities and pharmaceutical services. During this quarter, six countries generated improvements in functional pharmaceutical management information systems that support both product and patient information while three countries strengthened appropriate tools to regularly monitor the availability of essential medicines.

#### ***Data utilization***

SIAPS collaborated with Angola’s national AIDS control program (INLS) and Hospital Esperança to—

- Extract routinely collected data for the electronic database
- Review patterns in the previous 12 months including the distribution of patients by regimen, prescription/refill patterns and medicine coverage
- Recommend modifications to the electronic data base and the process of managing patients using the electronic system to achieve efficiency and high quality data.

The analysis provided the Hospital Esperança team with a mechanism to effectively utilize data collected through routine patient management for decision making, especially with regards to minimizing the risk of antiretroviral (ARV) stock-outs and the development of drug resistance. In addition, SIAPS coordinated with NMCP and the National Directorate of Medicines and Equipment (DNME) to conduct semi-annual end-user verification in 50 health facilities in six provinces: Luanda, Huila, Kwanza Sul, Lunda Norte, Lunda Sul, and Bie. Facilities included provincial and municipal warehouses and hospitals, health centers, and health posts. Findings suggest a need to increase the availability and use of pharmaceutical management tools, to improve storage conditions, and conduct regular regular supervisions at facility level.

SIAPS also worked with the MoH in Burundi to conduct their fourth end-user verification survey of stocks status and case management practices. The survey was conducted in September and October 2013 in 62 facilities: the central warehouse (CAMEBU), 17 health districts' warehouses, and 44 health centers. The preliminary report showed that of 1,724 fever cases analyzed, 41.8% had uncomplicated malaria, 0.6% had severe malaria, and 57.5% had other diseases. Also, one health provider per health center had been trained in only 18 districts out of 45 on new STGs.

QuanTB, SIAPS's downloadable forecasting, quantification, and early warning tool, was refined and launched at the 44th Union World Conference on Lung Health. Since then, the tool has been downloaded by almost 200 users representing 42 institutions in 56 countries. QuanTB was also used in the WHO training course "Implementing the new Stop TB strategy: skills for managers and consultants" in Italy. SIAPS also worked with the Global Drug Facility (GDF) and WHO staff to define minimal requirements for integration with the GDF early warning stock-out system.

### ***Data quality and reporting***

With the launch of a new, electronic malaria reporting system in Guinea, SIAPS provided Internet USB keys to all 19 district data collectors. One hundred percent of the health districts in PMI zones have Internet access, which was the target. Since then, SIAPS has provided limited monthly credit for Internet connection to the districts and to the national malaria control program's (PNLP) M&E and pharmacy teams. This has facilitated improvement in the transmission of reports. PNLP and SIAPS have regular sessions to review reports, send reminders to the districts, and provide detailed feedback. This work-intensive tracking mechanism was considered critical in the initial months after launching the new reporting system, and it led to better reporting rates—80% for the quarter ending in September 2013—and above 80% in October and November, exceeding the year's target.

In Namibia, SIAPS conducted a workshop to train technical staff on all aspects of e-TB Manager's operation in support of the planned rollout of the tool to all 13 DR-TB centers in the country. More than 40 health care workers including nurses, doctors, pharmacists, and pharmacy assistants from all 34 district hospitals attended. In addition, the workshop also provided an opportunity to enter drug resistant (DR)-TB patient files into e-TB Manager—the number of cases registered in the system increased from 336 to more than 670 cases.

In Ukraine, SIAPS and UCDC resumed regular joint monthly meetings to advance the scale-up of e-TB Manager and enhance its functionality. With SIAPS and UCDC providing routine support to regional users, all 27 oblasts are entering data into e-TB Manager. As of December 2013, 101,463 had been entered into cases entered, which is 20,463 cases more than in Q4 2013. Steps were taken toward assuring e-TB Manager data quality and its ability to support effective decision-making: TB case numbers generated by e-TB Manager were cross-checked with paper based reports, and results indicated 77% consistency for Q1 and 85% for Q2—a 10% improvement in data quality.

### ***Information system design and collaboration***

SIAPS facilitated the installation of Infomaker<sup>®</sup>, which is off-the-shelf report-building software, at pharmaceutical depots in all provinces except North West. To date, 60 standard reports have been developed to collect information from depot inventory management systems. During the quarter, SIAPS conducted visits to pharmaceutical depot staff in Limpopo, Mpumalanga, and Northern Cape provinces to provide ongoing support in using of the software.

SIAPS also helped develop, review, and finalize a TB concept paper on pharmaceutical management and data management for the East, Central and Southern Africa (ECSA) health secretariat as well as contributing to the creation of tools to assess ECSA countries' TB drug management and data management situation.

Other SIAPS information management-related activities this quarter include the following—

- In the Dominican Republic, 87% of facilities used consumption data to inform ordering and submitted logistics reports appropriately, both exceeding the targets for the year, 80%.
- SIAPS installed RxSolution in 280 health facilities in South Africa. SIAPS also made 45 site visits 39 upgrades to the latest version of the software. Formal training on RxSolution was conducted for 137 health care professionals in the Eastern Cape (52), and Gauteng (85).
- For the previous two quarters, 97% of health facilities that completed and submitted a logistics management report in Swaziland. The report's information is used in pharmaceutical procurement, ordering and supply.
- To facilitate PMI Washington and Mission-specific procurement decisions, SIAPS aggregated data and reported on stock status of malaria commodities from Angola, Burundi, DRC, Ethiopia, Guinea, Kenya, Mali, South Sudan and Uganda.
- SIAPS helped Angola's AIDS control program organize a workshop to review proposed reporting and requisition forms for HIV/AIDS health commodities. Inputs from the workshop were incorporated in the new forms and INLS leadership approved them.

#### **Intermediate Result 4. Financing strategies and mechanisms strengthened to improve access to medicines**

SIAPS supports analyses to inform policy decisions regarding cost containment, greater efficiency, and options for mobilizing financing. SIAPS also helps countries to support programming beyond the current funding cycle by building the capacity of stakeholders to successfully respond to The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) requests for proposals. This quarter, two countries received additional funding as a result of SIAPS assistance. Two additional countries were supported by SIAPS to develop and submit GFATM proposals.

As part of SIAPS's technical support in assessing and documenting medicine benefits management gaps in Namibia, SIAPS conducted comprehensive interviews with stakeholders on medicine financing and universal health coverage and prepared a detailed report with a transcript of interviews. From this, SIAPS will recommend options to strengthen medicines benefits management under the existing health insurance system and for the planned universal health coverage program to ensure better access to antiretrovirals (ARVs) and other essential medicines for treatment and care of people living with HIV.

SIAPS also works with health facilities in Ethiopia to conduct ABC analysis and ABC/VEN reconciliation activities as part of its effort to improve maximize their medicines budgets. In this quarter, two hospitals successfully conducted an ABC value analysis.

#### **Intermediate Result 5. 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. This includes support to countries in supply planning and management; rational medicines use; pharmcovigilance; facility and community-based case management; medicine and therapeutics information; and infection control

As part of our global technical leadership activities this quarter, a set of eight papers developed by the members of a United Nations interagency task team's working group on child survival was published in a special edition of *Journal of the International AIDS Society*. SIAPS staff contributed to "Pediatric treatment 2.0: ensuring a holistic response to caring for HIV-exposed and infected children." The set of papers present state of the art knowledge on HIV exposed infant and HIV positive children follow up and treatment.

#### ***Community case management***

In Burundi, SIAPS worked with the national malaria control program (PNILP) to train 88 newly recruited community health workers (CHWs). At the end of the training, the CHWs were able to (1) understand the community case management strategy; (2) use the malaria algorithm to

evaluate a child with fever and identify danger signs; (3) perform malaria rapid diagnostic tests (RDTs) with a job aid; (4) treat malaria cases in children under five; (5) follow up with the patient; and (6) properly use the data collection and reporting tools on malaria cases. In October and November 2013, 5,041 children under five years with fever had access to CHWs. Among them, 4,464 received treatment within 24 hours. A total of 4,996 were tested for malaria with an RDT and 3,486 tested positive.

### ***Pharmacovigilance and rational use***

SIAPS carried out a knowledge, attitudes, and perception study to assess access and use of medicines in Suriname gold mining areas in coordination with the Pan American Health Organization and Global Fund. A draft version of the report was disseminated for revision among national and international Amazon Malaria Initiative partners.

SIAPS continued to support South Africa's National Pharmacovigilance Centre to implement the decentralized patient-focused pharmacovigilance system in Mpumalanga, which comprises 28 "clusters." SIAPS conducted two workshops to strengthen pharmacovigilance and monitoring of adverse drug reactions (ADRs). We also provided support to two clusters that had not been reporting, and now they are submitting an average of 30 ADR reports per month. To date, 2,709 ADR reports have been received in Mpumalanga since 2010.

SIAPS and the pharmacovigilance focal point person in Swaziland collected and analyzed adverse event data for TB and HIV patients. They disseminated the findings in the pharmacovigilance quarterly bulletin for MoH and partners. In addition, SIAPS participated in the development of Swaziland's national treatment guidelines for HIV, pediatric HIV, and PMTCT.

In Ethiopia, SIAPS distributed 402 adverse drug event (ADE) reporting forms, 1,220 allergy cards, 280 pharmacovigilance frameworks, 2,719 pharmacovigilance newsletters, 300 preventable adverse event bulletins, and 105 training manuals for teaching institutions and health facilities throughout the country. In addition, SIAPS organized discussions on how to identify, prevent, and report ADEs for 132 health care providers in 6 health facilities in Ethiopia. During the quarter, 74 ADE reports were entered into the national pharmacovigilance database. As a result, regulatory decisions were made on Ringer's lactate preparation; health care providers had reported a product quality defect using the reporting mechanism. Regulators sent a letter to the manufacturer to recall the product from the market.

### ***Supply management***

SIAPS worked with the Regulatory Affairs and Quality Assurance department in Limpopo to implement the "Adopt-a-clinic" project, which requires community service pharmacists to oversee inventory management at up to 10 clinics for the period March to October 2013. Where necessary, the pharmacists carried out interventions such as mentorship, stock rotation, and re-arrangement of store rooms to improve supply management. These interventions contributed to the province increasing medicine availability from 70 to 73% at the 364 adopted clinics. Also, the accuracy of stock cards in clinics in Vhembe and Waterberg districts improved from 43% in

March to 71% in October. Teams of CSPs presented their achievements to senior management during the quarter.

In Tajikistan, SIAPS worked with the national TB program to respond to Global Drug Facility concerns and provide the quantification needed to finalize a grant agreement with them to supply pediatric anti-TB medicines worth of about US \$48,000. SIAPS also made recommendations to avert a stock-out of injectable second line anti-TB medicines.

SIAPS collaborated with WHO EURO and GDF to organize the 1st Conference on Pharmaceutical Management for TB and M/XDR-TB for the WHO European region in December 2013. The objective of the conference was to identify specific priority action areas on pharmaceutical management for TB and M/XDR-TB for the region by building on the WHO EURO road map, ensure universal access to quality TB medicines and commodities, and contain drug resistance through their appropriate use. The conference included 70 participants representing 16 high priority TB countries in the region and 11 international organizations.

SIAPS also conducted a technical discussion meeting on quantification involving Uganda, Kenya, and Zambia, focused on building capacity to quantify first- and second-line TB medicines, ancillary medicines, and other TB commodities. Nine participants from the three countries attended including core national program staff and partners. The technical meeting helped participating countries identify existing quantification challenges including limited availability of information on second-line patient regimens resulting in incorrect assumptions that increase stock out risks. The workshop was preceded by a five-day QuanTB skills-building package and practice exercise. SIAPS has remained in communications with all three countries to track progress on deliverables and identify areas where they might need technical support.

### ***Antimicrobial resistance***

SIAPS supported two events this quarter as a follow-up to a June 2013 workshop in Namibia where participants developed an implementation plan and call-to-action statement promoting the rational use of medicines to fight AMR. In November, a multidisciplinary coalition that receives SIAPS support, Namibians Against Antimicrobial Resistance, conducted a workshop at the University of Namibia School of Pharmacy for 82 health care workers and academicians. The coalition is a key stakeholder in AMR interventions in Namibia. Also, the Ministry of Health and Social Services (MoHSS) and the Pharmaceutical Society of Namibia organized an AMR workshop attended by 35 academicians and health care personnel during the 2013 Pharmacy Week with the theme “Pharmacy against Antimicrobial Resistance.”

### ***Drug and therapeutics committees***

During this quarter, SIAPS provided technical assistance to the Rational Medicines Utilization sub-committee of the Gauteng Pharmaceutical and Therapeutics Committee in South Africa to design and carry out interventions to improve the use of vitamin B12 and antibiotics. The committee sent letters to each facility with their respective expenditure and usage of antibiotics over the past nine months, the recommended level of care as per the essential medicines list for each antibiotic, and a recommendation to set-up an antimicrobial stewardship program.

During this quarter, SIAPS helped DTCs at two hospitals in Ethiopia (Bulehora and Negelle Borena ) to conduct prescription reviews and design and implement interventions to improve prescribing practices based on the findings. SIAPS discussed with the hospital DTCs and management the importance of regularly reviewing antimalarial medicine use to identify problems and take actions to improve quality of pharmacy service.

Additional activities this quarter include the following—

- In Swaziland, SIAPS helped conduct single-and multi-year supply plans for HIV and AIDS, TB, laboratory, and family planning commodities. The results of the supply planning exercise were used to generate purchase requests and orders.
- In addition, SIAPS tracked the availability of highly consumed HIV/AIDS products at the Central Medical Stores in Swaziland and there were no stock-outs recorded during the past two quarters. These results illustrate the continuous effort to strengthen supply planning, logistics information use, and rational medicine use. The country also did not record any stock-outs of essential PMTCT products.
- The tool for estimating “unmet” needs of maternal health commodities was finalized this quarter along with the two country case studies from Democratic Republic of Congo (DRC) and Bangladesh.
- SIAPS finalized operational procedures and electronic tools to requisition and dispatch malaria medicines in Honduras and Colombia. The electronic tool has been implemented in Colombia, but delayed in Honduras.
- SIAPS coordinated a symposium on pharmacy engagement and a symposium on rational drug use for MDR-TB at the 44th Union Conference in November 2013; each symposium featured SIAPS work in the respective areas.

## COMMON AGENDA

### **Objective 1: Strengthen pharmaceutical sector governance**

SIAPS is using Common Agenda funding to develop an e-learning course entitled “Governance in the Management of Medicines” for USAID and other users with Internet access. In this quarter, SIAPS revised the draft course materials based on feedback from SIAPS technical reviewers, USAID/Washington Office of Health Systems staff, and USAID reviewers. SIAPS submitted the course to USAID/W-OHS and Knowledge for Health (K4H) project staff for an in-depth review at the end of November 2013. Comments were received from K4H in December 2013 and the next draft is now pending USAID review. In preparation for uploading the course, a SIAPS staff member completed the required K4H training on course uploading, and SIAPS staff had discussions with K4H staff and their contractors on animating selected content and managing the development of graphics and test questions. The K4H website was also reviewed to identify photos for the course and the first draft of knowledge recap questions developed.

Also in this quarter, Common Agenda funding was used to support SIAPS review of the WHO “Good Governance for Medicines Model Framework 2012” document. The comments were submitted in October 2013 and SIAPS has been asked to attend the WHO Good Governance for Medicines Technical Working Group meeting in March 2014. The objectives of this meeting include reviewing WHO training materials and the WHO transparency assessment instrument in addition to discussing and defining indicators and methodologies for good governance monitoring and evaluation.

#### *Constraints to progress*

It took some time, but agreement has been reached on the approach to organizing the content of this course enabling SIAPS to move forward with this activity.

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

This quarter, SIAPS continued to promote supply chain workforce development through participation in key global meetings. SIAPS had representatives from HQ, Bangladesh, and Swaziland attend and present at the global health supply chain summit in Addis Ababa in November. SIAPS had two accepted abstracts presented, one from Bangladesh and the other from Swaziland. Both presentations were well received.

During the quarter, SIAPS was nominated to represent MSH on the Board of “People that Deliver - PtD”; SIAPS will continue to participate in two PtD working groups, (1) advocacy and knowledge management and (2) technical. SIAPS will continue to collaborate with PtD by supporting two of its strategic objectives: (1) global recognition that strong supply chains are essential for positive health outcomes and require a competent, recognized, and supported supply chain workforce with significant technical and managerial capacity and (2) a repository of

evidence-based resources for HR for supply chain management (SCM) is established, accessible, used, and disseminated. Additionally, PtD is planning to organize an international conference on HR for health SCM around September 2014 to refocus attention on what has been achieved and to share evidence and experiences regards HR for SCM.

On the other hand, SIAPS continued to work with ACPE to develop the framework for pharmacy education accreditation. A draft document depicting how an accreditation program for continuing education and training has been developed and presented is with SIAPS for comment.

SIAPS also worked with EPN to develop a concept note aimed at strengthening Pooled Procurement by EPN members in Cameroon.

### *Constraints to progress*

There has been some delay in completing the deliverable from ACPE. The framework is expected in next quarter.

Also, change in the position of the EPN executive director meant delay in the named activity.

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

A detailed outline of the standard treatment guidelines (STGs) how-to manual was developed based on the compilation of evidence and recommendations related to STG development, implementation, and monitoring completed in the previous quarter. The outline includes chapter and section headings, specific content ideas, references, and relevant examples/stories from SIAPS/SPS/RPM Plus and external sources. The outline was used as the basis for writing the initial draft. The next step is to have the full manual reviewed and finalized.

This quarter, Village Reach tested the data collection tools that were developed and drafted a report based on the findings. SIAPS technical staff in Arlington then reviewed the draft and commented. A conference call with Village Reach was held to discuss the findings, particularly in terms of the functionality of the tools, organization of the report, and next steps. During this meeting, it was agreed that SIAPS would define one or two countries in which to collect data, using a revised set of tools to be developed by Village Reach. Village Reach shared the revised tools (including instructions for data collectors) with SIAPS technical staff, who provided comments. SIAPS also decided that, because of time and budget constraints, data collection in only one additional country would be feasible. As a next step, Village Reach will present a revised version of the tools. SIAPS will then define the country for data collection and work with Village Reach to train staff and initiate such data collection.

In this reporting period, SIAPS shared an initial draft of the terms of reference (TORs) for the Technical Advisory Group (TAG) with USAID and reached broad agreement on the role of the TAG and timing of the meetings. In the next quarter, SIAPS will share the revised TORs and work with USAID to agree on the objectives, membership, and scheduling of TAG meetings.

The targeted literature search to identify frameworks and approaches that are or have been proposed or used to characterize a pharmaceutical system continued this quarter; they are also looking for metrics that have been used to assess a pharmaceutical system or to track pharmaceutical strengthening initiatives. Subsequently, in the next quarter, SIAPS will prepare a draft framework and an initial set of metrics for internal review.

With respect to identifying facility-level behaviors that affect upstream HIV and AIDS supply chain indicators, the concept note and scope of work have been developed. The literature review was completed and the draft report is under review. Cameroon, Namibia, and Swaziland were selected for this activity. The implementation approach, methodology, interview schedules, and data collection tools were developed. Consultations and key contacts with countries were completed. The data collection is now scheduled for the end of January and beginning of February 2014.

### *Constraints to progress*

There was a slight delay in progress as the Village Reach activity lead went on maternity leave earlier than anticipated. The new activity lead was quickly brought up to speed and progress is expected to continue at a regular pace next quarter.

To address competing priorities and to expedite work progress related to the metrics activity, SIAPS is contracting a consultant to assist the technical team in synthesizing the findings of the literature search to support the development of the discussion paper.

In relation to the activity on facility-level practices, the lack of “upstream” indicators defined as yet by the SCMS project has slowed the definition of these indicators for this study. In response, upstream indicators had to be developed based on what was found in the literature. Fortunately most of these indicators have been defined through the work that the SCMS project itself has accomplished.

### *Partner contributions*

The facility-level indicators activity is supported by Harvard School of Public Health. The partner leverages its experience in supply chain studies to enhance this behavioral research study with suspected or hitherto unknown other behaviors. HSPH also provides a great opportunity for disseminating this work and triangulating these results with other literature.

## **Objective 4: Strengthened financing strategies and approaches**

During this quarter, SIAPS contracted out with R4D to develop a tool and methodology for tracking financial flows for pharmaceuticals at the country level. A draft outline was shared with SIAPS and a face-to-face meeting was also held in mid-December which helped to shape the next steps. We decided that R4D will work on the following:



Review of existing tools that track pharmaceutical expenditures, with some analysis of what they do and don't do and how the new tool can fill in the gaps

- Draft a suggested list of questions that could be incorporated into existing household surveys for improved data on pharmaceutical expenditures at the household level
- Continue to flesh out the approaches outlined in the concept note:
  - Use National Health Accounts analysis to track financing flows along the value chain
  - Identify a resource tracking tool that is more forward looking and that will support a gap analysis
  - Develop the list of indicators and prepare guidance on data sources

A draft incorporating the tool review and survey questions will be developed and shared with SIAPS by mid-January.

### **Objective 5: Quality of pharmaceutical products and services improved**

A SIAPS framework for strengthening systems to improve medication adherence was developed this quarter to describe micro, meso, and macro health system factors affecting adherence. In addition, a diagram on capacity building for improving medication adherence was created, outlining strategies to enhance structure, systems, and roles capacity; facility and community capacity; individual capacity; and performance capacity.

Using the SIAPS framework as a basis, a detailed outline of the medication adherence guidance document was developed. Included in the outline are chapter and section headings, specific content ideas, references, and relevant examples/stories from MSH and external sources. The next step is to draft the medication adherence guidance document using the SIAPS framework and detailed outline.

Additionally, further revision of the technical content of the draft USAID e-learning course on antimicrobial resistance (part 2) continued this quarter.

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

In November 2013, the set of eight papers developed by the members of the Child Survival Working Group of the UN Inter Agency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers, and Children and two staff from SIAPS were published in a special edition of the *Journal of the International AIDS Society*. The set of papers presents state-of-the-art knowledge on follow-up and treatment for HIV-exposed infants and HIV positive children. SIAPS staff contributed to the paper "Pediatric Treatment 2.0: Ensuring a Holistic Response to Caring for HIV-Exposed and Infected Children." Treatment 2.0 is an initiative launched by UNAIDS and WHO in 2011 to catalyze the next phase of treatment scale-up for HIV; this paper discusses how to do that for infants and children.

Also in November, the SIAPS project director represented SIAPS at the Global Fund High Impact – Africa II Department Regional Meeting in Lusaka, Zambia. The focus of the meeting was “Preparing for the New Funding Model (NFM)”; the aim was to provide information on the NFM, share experiences and lessons learned by countries that have been involved in the early and interim process of the NFM, and solicit suggestions on how the process can be enhanced. It was attended by pharmaceuticals and health products specialists, procurement specialists, and fund portfolio managers, facilitated by the manager of the Health Product Management Hub.

SIAPS continues to support the platform hosting the WHO EMI Portal through an IT subcontractor. Illustrative tasks from the past quarter include enhancing digital library features and interface; including new classification terms for use in cataloguing documents (by target group and document type); adding the RSS syndication feature for easier content integration with other websites; improving interface and visibility of sub-collections; and automating monthly updates to sub-collections to refresh with content added between refresh cycles. SIAPS also engaged WHO staff in discussions to plan for integration of the WHO EMI Portal into the SIAPS knowledge management (KM) plan. Results of those discussions have been included in the draft plan and are under review in January 2014.

#### *Constraints to progress*

Changes in management within WHO with Richard Laing’s retirement have meant a reassessment of focus for the portal. No significant changes are expected and the current results of discussions with WHO in November have been included in the SIAPS KM plan.

#### *Partner contributions*

WHO collaborated extensively in reviewing technical modifications to the WHO EMI Portal, continues to add documents to the collection, and collaborated on a paper outlining the features of the system.

## GLOBAL PROGRAMS

### Malaria Core

#### ***Objective 1: Improve coverage of malaria interventions***

To improve coverage of malaria interventions, monthly coordination meetings were held with PMI/Washington to discuss implementation of PMI activities in countries. To strengthen implementation of activities at the country level, a technical discussion was held with country project directors and deputies who were attending the capacity building seminar here in Arlington. The feasibility of doing regional capacity building for malaria in francophone countries was discussed at length.

A workshop to disseminate the malaria quantification manual to countries continued in the DRC during the quarter (October 23–26, 2013). The workshop was attended by 24 participants (16 males and 8 females) from the NMCP and other key MOH institutions and partners (PMI, SANRU, IHP, PSI, SCMS) involved in malaria case management at the central level. The main recommendations from the workshop were to strengthen coordination of all partners supporting the malaria program and the National Quantification Committee.

#### ***Objective 2: Improve metrics and monitoring and evaluation of malaria commodities***

During this quarter, the end use verification (EUV) survey was conducted in Burundi and reports from the last Liberia EUV were finalized and submitted. Support was provided in reviewing the findings and providing feedback on viable follow-up activities and interventions based on EUV survey results. To facilitate procurement decisions at PMI, SIAPS aggregated data and reported on stock status of malaria commodities (PPMRm) from Angola, Burundi, DRC, Ethiopia, Guinea, Kenya, Mali, South Sudan, and Uganda.

## **Maternal, Newborn, and Child Health Core**

**Goal: Assure the availability of quality medicines and supplies and effective pharmaceutical services to reduce maternal and child mortality**

### ***Overall Quarter Progress***

This quarter, the SIAPS/Maternal, Newborn, and Child Health Core (MNCH) portfolio continued to advance the development of tools and guidance related to maternal and child health, such as the approach to assessing unmet need for maternal health medicine, the inventory of maternal health tools, and the guide to developing interventions to improve access to medicines for children. SIAPS also remained engaged in the UN Commission on Life-Saving Commodities for Women and Children (UNCoLSC), raising awareness on the importance of pharmaceutical management for MNCH commodities by participating in regularly scheduled meetings of the technical resource team (TRT) and various working groups. SIAPS also attended a meeting of conveners of the TRTs held in New York. SIAPS also advanced work on activities for the specific UNCoLSC working groups for which it is directly responsible, such as the review of best practices in supply chain management, development of quantification guidance, and the introduction of chlorhexidine (CHX) in the DRC. Besides commission work, SIAPS was also represented in expert consultations, technical presentations, and meetings of other technical working groups over the course of the quarter, such as the Community Case Management (CCM) Task Force and the Reproductive Health Supplies Coalition (RHSC).

### ***Objective 1: Global awareness of the importance of pharmaceutical management for MNCH medicines and supplies increased***

During this quarter, the SIAPS/MNCH team discussed the proposal for the Countdown 2015 paper on how policies and pharmaceutical systems affect access to essential MNCH medicines and supplies in select Countdown countries, both internally and externally. Our discussions with WHO touched on establishing synergies and ensuring complementarity. WHO is in the process of conducting surveys that can provide some of the data needed for the paper. SIAPS and WHO agreed that SIAPS would explore how to facilitate data collection for the WHO regulatory and procurement survey in countries where SIAPS is present. The data from that survey could be included in the Countdown paper. Next quarter, the indicators for the Countdown paper will be finalized and we will determine what data is available with WHO and the other co-authors. We will develop any in-country data collection method needed and start data collection. WHO promised to share other relevant survey data and promised to connect with colleagues in WHO working on financing MNCH to further define the financing piece and see what data sources exist.

The SIAPS/MNCH team participated in three monthly meetings of the Supply Chain Sub-Group of the CCM Taskforce. During these meetings, we discussed the development of generic tools, participation in CORE group meetings, the sub-group workplan for 2014, and the next webinar

on quantification. The generic supply chain tools for the CCM central website will be finalized next quarter. SIAPS/MNCH further participated in one meeting of the CCM Taskforce on November 20 and presented the update of the Supply Chain Sub-Group. SIAPS also participated in the briefing session on the integrated community case management (iCCM) Global Fund consultation in Nairobi in December 2013. It is expected there will be technical assistance needs in supply chain and other pharmaceutical management issues that SIAPS could respond to. SIAPS/MNCH will discuss these opportunities with USAID next quarter. In addition, next quarter, SIAPS will also attend the CCM evidence review symposium and co-facilitate the supply chain session in March 2014.

SIAPS/MNCH also conducted one final review of the supply chain chapter of the WHO/UNICEF handbook for “Countries to Introduce and Scale up Caring for Newborns and Children in the Community,” including comments from the Supply Chain Sub-Group.

In November, SIAPS attended the International Conference on Family Planning (ICFP) in Addis Ababa, Ethiopia, and sat in on various pre-conference meetings, plenary sessions, and conference sessions on best practices for improving access to family planning products and services, including counseling. SIAPS also attended sessions on programs that have successfully implemented policy changes at the national level to increase access to family planning in the immediate post-abortion period.

During the ICFP, SIAPS/MNCH was asked to co-facilitate the round table discussion on use of CHX for umbilical cord care, organized by the Chlorhexidine Working Group of the UN Commission, led by PATH. The round table discussions followed the high-level panel, which showcased the efforts by the UNCoLSC to enhance equitable access to lifesaving commodities across the continuum of care—from reproductive, maternal, and newborn to child health.

SIAPS continued to facilitate the monthly collection of the data for the Jadelle Access Project from SIAPS project countries. This data includes a summary of Jadelle availability in the countries, based on review of the order information received from various data sources, and includes data (e.g., current stock on hand and average monthly consumption) on the anticipated months of stock.

This quarter, SIAPS also participated in a meeting of the Systems Strengthening Working Group of the RHSC. SIAPS also provided additional feedback on the RHSC’s new strategic plan.

***Objective 2: Guidance and tools for improving pharmaceutical management for MNCH developed and disseminated***

The tool for estimating unmet need of maternal health commodities has been finalized, along with the two country case studies from DRC and Bangladesh. The report is with the editorial team and SIAPS/MNCH plans to disseminate the tool early next quarter, including a brown bag presentation at USAID.

The outline for the document on introduction of new technologies for MNCH was revised this quarter. During the meeting with the USAID MCH team, the idea to convene an expert review group was discussed. This group would be convened next quarter to review the outline and gather existing supporting documentation. Both the revised outline and the suggested list of participants in the expert review group were sent to the MCH team at USAID for comment.

From September 26 to October 10, 2013, SIAPS traveled to Bangladesh to collect data for the sub-national procurement assessment. During the trip, SIAPS traveled to the Dhaka and Sylhet divisions and selected one district in each division to collect the information. Data was collected from both Directorate General for Health Services (DGHS) and Directorate General for Family Planning (DGFP) facilities, specifically, the civil surgeon offices and the maternal and child welfare centers (MCWCs). SIAPS also collected stock data from district hospitals, family planning stores, MCWCs, and civil surgeon offices. From November 6 to 9, 2013, SIAPS/Bangladesh staff collected and submitted the data from the final division, Khulna. The data was cleaned and analysis of the data is currently underway. Gaps in data were also communicated to the SIAPS/Bangladesh team, and they are currently in the process of collecting the remaining data from both central and district levels. Next quarter the data analysis and report will be finalized and a dissemination workshop is tentatively planned to take place at the end of February 2014, depending on the political situation in Bangladesh.

Discussions continued this quarter with USAID Washington on possible countries in which to conduct the validation of the intervention guide for increasing access to and appropriate use of medicines for the management of child illnesses. Currently, Zambia is an option, and once the mission in Zambia has been approached and if they are in agreement, planning will proceed for the validation. Further revisions were made to the guide and it is being bundled as a package of linked PDF files so that the document is not too long and difficult for a user to navigate.

#### *Partner contributions*

Harvard has been a partner in the development of the intervention guide. Currently they are awaiting the decision on the choice of country to validate the tool.

#### *Constraints to progress*

The political unrest in Bangladesh has caused delays in collecting the pending data requirements from the central and district levels. While data analysis is underway, we hope to receive the rest of the data by the end of January 2014.

### ***Objective 3: Evidence base for effective strategies to increase access to pharmaceuticals and services increased***

This quarter, the SIAPS/MNCH team regularly participated on scheduled calls in the following working groups for the UN Commission: maternal health commodities, CHX, neonatal resuscitation, injectable antibiotics, pneumonia and diarrhea, and Recommendation 6. In November, SIAPS also attended a meeting of the Conveners of the Technical Resource Teams in

New York. During this meeting, the future of the TRTs was discussed as were plans for country engagement in strategic planning for MNCH.

For Recommendation 6, SIAPS continued to work on the development of the briefs on best practices in supply chain management under Outcome 1. SIAPS also provided comments on the proposed supply chain indicators and the integration of the health management information system/logistics management information system brief. SIAPS continued to work on the quantification guidance package. By the end of the quarter, a rough draft was circulated internally. Finally, SIAPS provided input to finalize the private sector engagement tool kit that was developed by the Recommendation 6 Working Group.

For the maternal health TRT, SIAPS finalized *Inventory of Maternal Health Tools* at the end of the quarter. The final document will be disseminated to the Maternal Health Technical Resource Team and posted on the RHSC website in the first week of January 2014.

SIAPS participated at the beginning of the quarter in a two-day, in-person meeting of the Diarrhea and Pneumonia Working Group in Washington, DC, and in a conference call of the Monitoring and Evaluation Sub-Group to finalize the standard indicators for countries to measure performance. SIAPS will participate in the next Diarrhea and Pneumonia Working Group meeting in New York next quarter.

As part of the Injectable Antibiotics Working Group, SIAPS contributed to the development of a landscape analysis for injectable antibiotics and a possible quality study. Next quarter, SIAPS will coordinate with PATH to plan the field test of the amoxicillin job aids developed under the amoxicillin workplan and contribute to the landscape analysis on injectable antibiotics in DRC and Bangladesh.

The SIAPS/MNCH core portfolio also provided support to DRC to revise the EML and assist the Chlorhexidine Technical Committee in developing the country strategy for the introduction and use of CHX 7.1% for umbilical cord care. The EML revision is almost completed and includes three key MNCH products that had not been listed in the previous version: CHX 7.1%, amoxicillin dispersible tablet 250 mg, and misoprostol 200 µg. The first draft of the strategy document is now being reviewed for finalization. Next quarter, SIAPS/MNCH will continue to support finalization of the strategic plan for the introduction of CHX and provide technical assistance to the country team for its implementation.

Also this quarter, SIAPS traveled to Ouagadougou, Burkina Faso, from November 29 to December 6, 2013, to participate in the Regional Meeting for Francophone West Africa on CHX 7.1% for umbilical cord care hosted by the Chlorhexidine Working Group. The purpose of the meeting was to share scientific and programmatic evidence and country experiences on the use of CHX 7.1% to raise awareness of its importance for the prevention of infection. SIAPS facilitated the session on the DRC country experience.

This quarter, SIAPS also continued to support CCM implementation in Guinea and Burundi. In Guinea, SIAPS is developing an information system to track consumption and availability of medicines at the community level. This will be piloted as a parallel system, as there is no

functioning system to integrate it into. During this quarter, the forms and instructions were further developed and will be presented to the Integrated Management of Childhood Illness (IMCI) coordination unit early in the next quarter. SIAPS continues to monitor the stock levels of CCM commodities at central and regional stores with the aim to set up a system for the IMCI coordination unit to continue. SIAPS' local consultant participated in supervision visits to the zones of iCCM implementation funded by Muskoka and implemented by MoH. The two supervision teams were able to visit all prefectures, covering 23 of 37 health centers and 102 of 185 CHWs that were trained and are operational. While knowledge of and observed quality of care and availability of medicines was found to be good, reporting was weak, demonstrating the importance of regular supervision. SIAPS, with other partners, is working to strengthen the supervision and to improve the reporting. SIAPS has received Mission MCH funds for this year and the team is planning with the Mission how those funds will be used, but it is expected that these same activities will continue. Next quarter, monitoring systems to track consumption and availability of medicines and supplies among CHWs and at the health center level in Guinea as well as to track availability at the central and regional stores will be piloted.

SIAPS/MNCH continues to provide technical assistance to Burundi in the analysis of the evaluation of CCM. The data collection and analysis of the costing study, both of CCM and a projection of the costs for iCCM, were completed. Finalization of the report and the dissemination workshop planned for late December was moved to early next quarter due to conflicting priorities in MoH.

#### *Partner contributions*

Village Reach is the lead on the documentation of best practices in supply chain management undertaken for the Recommendation 6 working group.

## TB Core

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

### ***Overall Quarter Progress***

Overall, SIAPS TB Core portfolio continued to make progress in addressing its objectives. The most important achievements include:

- Continuous improvement of the GDF performance and its increasing role in the Global Funds' strategy for global market shaping. In December 2013, UNITAID's Executive Board committed \$14.9 million USD to the GDF to expand the Strategic Rotating Stockpile (SRS) for multidrug-resistant tuberculosis (MDR-TB) medicines. This support will be linked to the Global Fund Rapid Response Mechanism and GDF aims to move the SRS program toward longer-term funding sources and a new operating model (objective 1)
- A consultant was hired to review the first eLearning module course learning objectives prior to moving on to the next step of storyboarding how the course will look on the screen (objective 2)
- Official launch of QuanTB version 1.0.1 at the 44th Union World Conference on Lung Health, accompanied by technical and promotional materials. The tool has been widely disseminated and, to date, has been downloaded by almost 200 users representing 42 institutions in 56 countries (objective 3)
- SIAPS coordinated a symposium on pharmacy engagement and a symposium on rational drug use for MDR-TB at the 44th Union Conference in November 2013; each symposium featured SIAPS work in the respective area (objective 5)
- SIAPS held the 1st Conference on Pharmaceutical Management for TB and M/XDR-TB for WHO European Region Fighting Drug-Resistant TB in the 21st Century: Novel Approaches to Improving Access to Anti-TB Medicines and Pharmaceutical Services; the conference was attended by over 70 participants from 16 countries, representing a wide range of stakeholders

### ***Objective 1: Pharmaceutical governance for TB strengthened at the global and country levels***

SIAPS, in collaboration with WHO Europe and the GDF, organized the 1st Conference on Pharmaceutical Management for TB and M/XDR-TB for the WHO European Region from December 10-13, 2013. The objective of the conference was to identify specific priority action areas on pharmaceutical management for TB and M/XDR-TB for the WHO European Region by

building on the WHO EURO Road Map--ensuring universal access to quality TB medicines and commodities and containing drug resistance through their appropriate use. The conference included 70 participants representing 16 high TB priority countries in the region and 11 international organizations.

The conference featured two days of plenary sessions on various aspects of TB pharmaceutical management, followed by a day of group work. Group work included five break-out sessions dedicated to different themes of TB pharmaceutical management. Each group presented their recommendations as priority action areas on pharmaceutical management for TB and M/XDR-TB for the WHO European Region. Following these presentations, country teams developed suggestions for updating their national TB control strategic documents and presented them during the poster session on the fourth day.

#### *Partner contributions*

WHO Europe and GDF supported SIAPS in organizing the 1st Conference on Pharmaceutical Management for TB and M/XDR-TB for the WHO European Region. The conference objectives and agenda were developed jointly and WHO Europe country offices helped in communicating with participating governments to nominate participants. Representatives of WHO Europe and GDF chaired several sessions and took part in discussions.

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

A consultant was hired to review the first eLearning module course learning objectives prior to moving on to the next step of storyboarding how the course will look on the screen.

#### *Constraints to progress*

Two senior training specialists resigned from their positions with SIAPS at the beginning of the quarter. Recruitment for replacements is ongoing.

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

##### **e-TB Manager general updates**

QuanTB, the downloadable, desktop forecasting, quantification and early warning tool, was refined and version 1.0.1 launched at the 44th Union World Conference on Lung Health. To date, the tool has been downloaded by almost 200 users representing 42 institutions in 56 countries. QuanTB was also used in the WHO training course “Implementing the New Stop TB Strategy: Skills for Managers and Consultants” in Cepina, Italy. SIAPS worked with the GDF and WHO staff in Geneva to define minimal requirements for integration with the GDF Early Warning Stock-out System (EWSS).

The Desktop version of e-TBM, a stand-alone application for case management, was tested for corrections and improvements. Testing is ongoing to finalize the first version and initiate adaptation for pilot testing in Bangladesh by next quarter.

The annual e-TBM retreat was held in Arlington, VA, in November 2013. During the 5 days meeting, the implementation process in all eTBM countries was reviewed to identify challenges and prioritize remedies. In addition, new features, tools, and IT issues for platform enhancement were defined, and a detailed activity plan for the current FY was agreed upon by all participants.

### **emHealth Group**

The most recent emHealth group meeting was held during the 44th Union World Conference on Lung Health. There it was decided that SIAPS TB Core will collaborate with KNCV in leading upcoming meetings and actions. The group decided on the following future steps: (1) the draft dictionary for electronic data exchange will continue with pilot testing in different countries; (2) QuanTB will be promoted as the data collection and analysis tool for forecasting and quantification for countries and will also serve as the GDF EWS; and (3) the SIAPS website will host a forum for discussions regarding electronic system interoperability and unique identifiers.

### **Namibia**

SIAPS conducted a workshop to train technical staff on e-TB Manager operations, support, and maintenance; complete installation and troubleshooting of the system in the local server; initiate the roll-out of the tool countrywide; and develop the handover strategy. Over 40 healthcare workers including nurses, doctors, pharmacists and pharmacy assistants from all the 34 district hospitals in the country attended the workshop. In addition to the training, the workshop also provided an opportunity to enter DR-TB patient files into eTBM. Through the course of the training the number of cases registered in the system increased from 336 to more than 670 cases. In addition, the training marked the initial step towards the rollout of the system to all 13 designated DR-TB centers in Namibia.

A separate parallel session was conducted for the pharmacy staff for in-depth discussions on the medicines management module of the system. e-TBM for Namibia was upgraded and the computer server settings were adjusted for optimal performance. These activities marked the phasing out of e-TBM Namibia under TB Core. Beginning next quarter, the implementation of the medicines management module of e-TBM as well as supervision and monitoring activities for the 13 DR-TB centers currently using the case management module of e-TBM have to be included in the local Namibia work plan to ensure sustainability..

### **Pilot test practical guidelines for using information for TB decision making**

The generic, semi-structured questionnaire to collect key information for decision making was adapted by the SIAPS Bangladesh team and forwarded it to the NTP director for review. Next quarter the document will be reviewed to assess the reliability and validity of the methodology to be tested in other countries.

### *Constraints to progress*

Lack of SIAPS country presence (e.g., in Vietnam, Cambodia, and Indonesia) and strong champions to conduct and monitor implementation activities (e.g., high turnover or deficiency of local MIS and TB specialists)

### *Partner contributions*

Local partners have provided important feedback for system enhancement and development of new features and tools. In countries where SIAPS/MSH presence is significant, local partners' support for system implementation, monitoring and reporting of key activities has been crucial for successful outcomes.

## **Objective 5: Improved pharmaceutical services and access to TB products to achieve TB Goals**

### **Provide technical leadership to global and regional GLC group and Stop TB MDR-TB activities**

SIAPS coordinated with the East, Central, and Southern African (ECSA) health community, USAID's East Africa regional office, and the USAID Washington, East Africa office on potential collaboration. In addition, SIAPS help develop, review, and finalize the TB concept paper on drug management and data management for the east, central and southern Africa health secretariat – there is a concurrence on this activity from USAID (Washington and east Africa regional office). Last, SIAPS contributed to the development of the assessment tools to assess ECSA-region countries' TB drug management and data management situation.

SIAPS participated in the meeting of the regional Green Light Committee chairs, WHO, the Global Fund and the GDF, and conducted a session on TB medicines quantification with a demonstration of the SIAPS QuanTB tool. In the discussion that followed, SIAPS, the GLC, and the GDF agreed to work on a unified system, based on QuanTB, for collecting the data on cases and medicines availability, and establishing country, regional, and global early warning systems.

### **Pilot active surveillance for monitoring the safety of TB/HIV co-medication**

SIAPS, in collaboration with the pharmacovigilance focal point in Swaziland, collected and analyzed adverse event data for TB and HIV patients. The findings were disseminated in the PV quarterly bulletin for MOH and partners. This activity is ongoing.

### **Develop risk management algorithms for TB/HIV co-medication**

In quarter 1, the SIAPS editorial team reviewed and finalized the guidance protocol "Preventing and Minimizing Risks Associated with Anti-tuberculosis Medicines to Improve Patient Safety". The editorial team is currently working on finalizing the accompanying information, education and communication posters for display at health facilities.

### **Global and regional technical assistance: quantification technical discussion meeting, Uganda**

SIAPS held a technical discussion meeting on quantification for three countries—Uganda, Kenya, and Zambia. The meeting focused on building capacity to quantify first and second line TB medicines, ancillary medicines, and other TB commodities. Nine participants attended seven from Uganda and one each from Zambia and Kenya. These included core NTP staff and partners. The technical meeting helped participating countries to identify existing quantification challenges, including the limited availability of information on second line patient regimen mix, which results in incorrect assumptions that increase stock outs risks for TB medicines. The workshop was preceded by development of 5-day QuanTB skills building package and practice exercise. Following this meeting, SIAPS has remained in communications with all three countries to track progress on deliverables and identify areas where technical support would be beneficial.

### **Monitoring and evaluation for regional support**

SIAPS finalized selection of country level reporting indicators and SIAPS monitoring indicators for measuring progress across countries receiving SIAPS regional support. Data collection will begin in March 2014 and occur quarterly. SIAPS will continue to support countries trained on QuanTB to ensure regular monitoring and reporting on TB stock status.

### **QuanTB**

SIAPS initiated correspondence with GDF RSO for the EMRO region, NTLP Tanzania, Malawi, Liberia, DRC, Zimbabwe, South Sudan and Somalia to make them aware of the newly launched QuanTB tool-- developed to support quantification of TB medicines-- and its ability to work as early warning system for alerting countries on impending stock-outs or overstocking. SIAPS also began planning for QuanTB trainings in Africa region.

## REGIONAL PROGRAMS

### LAC AMI

**Goal: By the end of 2013 Amazon Malaria Initiatives countries will have put in place national and regional mechanisms to assure a continuous supply of antimalarials as the key malaria control strategy, particularly in low incidence areas.**

#### ***Highlights of Results***

Looking at the percentage of special groups/remote areas with alternative pharmaceutical management strategies designed and implemented, the FY 12 target was to design and implement alternative pharmaceutical management strategies in two regions. Currently, SIAPS is focusing resources in Suriname and Brazil. At the end of the first quarter FY13, access and use of antimalarials studies had been completed in Suriname and Brazil and an implementation plan with alternative pharmaceutical management strategies will be designed with local counterparts on FY14.

The percent of malaria medicines available in central stores medicines is 81%. The goal for the year is to have 80% availability. The goal is being met because of donations made between the countries based on the Regional Monitoring System for Antimalarials, donations for severe malaria medicines from the AMI through the PAHO Strategic Fund, and improved medicine management at the program level.

The final version of SOPs distributing malaria medicines and commodities in Loreto, Peru, was finished. This document will help improve pharmaceutical supply in remote areas of the country. The FY12 target for was two SOPs and both were completed during the year.

#### ***Objective 1: Pharmaceutical sector governance strengthened***

Operational procedures and electronic tools for requisition and dispatch of malaria medicines were finalized in Honduras and Colombia. The electronic tool has been implemented in Colombia, but the validation and roll-out of the tool has been postponed in Honduras. The data collection to assess the impact of introducing malaria pharmaceutical management guidelines for primary health facilities was completed in Choco, Colombia. A final report will be finalized and presented next quarter.

#### ***Constraints to progress***

The Honduras NMP has postponed meetings for the presentation, validation and scale up of SOPs and tools supported by SIAPS.

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

SIAPS designed EpiInfo, an electronic application, to consolidate the information generated by the malaria supervision system in Guyana. During the last six months, the Guyana NMP has not incorporated this tool into their regular operational routines so this activity will be discontinued.

The bulletin corresponding to the third quarter of 2013 was distributed by the PAHO/Strategic Fund in July 2013. Eight countries from Central and South America provided data.

During this quarter, SIAPS finalized and translated into Portuguese reports on the performance of malaria control strategies in nine Brazilian states.

*Partner contributions*

The coordination for the production of the quarterly monitoring bulletin of antimalarial stocks in AMI countries is coordinated by PAHO. SIAPS provides technical assistance for collecting and analyzing country data.

**Objective 3: Pharmaceutical services improved to achieve desired health outcomes**

The USAID/AMI diagnosis of the structural conditions of the department medical stores in Honduras is still not pending this quarter. . The presidential elections and a major reorganization in the pharmaceutical directorate and the central warehouse delayed the implementation of technical assistance plans. This activity has been rescheduled for next quarter.

In Suriname, SIAPS finalized the technical report for a knowledge, attitudes, and practices study in gold mining areas. A workshop to present results and design interventions to confront the problems identified by the study is scheduled for next quarter.

*Partner contributions*

The Pan American Health Organization and Global Fund helped coordinate the implementation knowledge, attitudes, practices study.

## West Africa Regional

**Goal: Ensure the availability of quality pharmaceutical products, especially those related to HIV and AIDS, to achieve high-level, desirable health outcomes**

### ***Objective 3: Increase availability and use of pharmaceutical management information for decision making at national and regional levels***

In an effort to outline and coordinate a plan for the West Africa portfolio, two SIAPS staff members traveled to Ghana, Senegal, and Burkina Faso. The general purpose of the travel was to hold consultations with relevant regional organizations and stakeholders in West Africa on the USAID/SIAPS proposed regional initiative to enhance information sharing and coordination for HIV and AIDS commodities management in the seven portfolio countries—Togo, Burkina Faso, Benin, Cameroon, Guinea Conakry, Mauritania, and Niger. SIAPS staff also met with Joint UN Regional Team on AIDS in Senegal to discuss regional coordination mechanisms.

Program goals are

- Develop an early warning system for HIV and AIDS commodities to prevent recurrent stock-outs

The system should enable stakeholders to identify red flags for stock-outs and predict possible stock-outs before they occur. It should also enable stakeholders to identify countries that have an overstock and a risk of wastage so that these products can be redistributed to where there is a shortage (cognizant of regulations).

- Compile logistics and patient information and to ensure that this information is available to key stakeholders
- Facilitate reliable and timely access to Global Fund commitments without delay or interruption
- Guide countries through an emergency

During the trip, SIAPS staff met with the following individuals and organizations in an effort to leverage efforts and initiate key collaborations.

- JURTA member Dr. Jean-Marie Milleliri, Strategic Intervention Advisor, Treatment, UNAIDS-Dakar, Senegal
- ACAME (Association Africaine des Centrales d'Achats de Médicaments Essentiels—African Association of Purchasing of Essential Drugs): Dr. Yves Barjaud, Conseiller du Secrétaire Permanent; Ouagadougou, Burkina Faso (10/04/2013)
- West African Economic and Monetary Union (UEMOA): Dr. Ouattara Ouedraogo Nati

Safiatou, Officer of the Secretariat for the Harmonization Regulation and Pharmaceutical, Ouagadougou, Burkina Faso

- John Snow Inc., USAID | DELIVER: Parfait Nyuito K. Edah, Country Director; Ouagadougou, Burkina Faso
- West African Health Organisation: Dr. Carlos Brito, Director, Department of Epidemic and Disease Control; Bobo Dialassou, Burkina Faso
- USAID West Africa: Laurent Daniel; Accra, Ghana
- RAME (Réseau Accès aux Médicaments Essentiels—Network for Access to Essential Drugs): Simon Kabore, Executive Director, and Pascal Sobgo, M&E Manager

Subsequent to this trip, staff developed country profiles for the seven focus countries in the West African region. In addition, staff completed the development of a draft situational analysis protocol and finalized a data collection protocol and tool to be implemented in the seven focus countries in the next quarter.

## COUNTRY PROGRAMS

### Angola

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

During the reporting period, SIAPS implemented different planned activities towards achieving its objectives and ultimately the overall goal of the project. SIAPS assisted the National Directorate of Medicines and Equipment (DNME), to organize the monthly meeting of the ICC/R sub-commission of logistics and operations in November to coordinate different stakeholders in the public supply chain. In terms of improving CECOMA processes and procedures, SIAPS agreed with the consultant from Imperial Health Services (IHS) on the time-frame and deliverable to provide technical support to CECOMA after getting formal approval from USAID Washington. This support will start with the month of January and will cover a period up to 9 months.

The Procurement Plan and Monitoring report for malaria health commodities covering all 18 provinces for the period of July to September and the semi-annual end-user verification in 6 provinces were conducted in October and November, respectively. SIAPS also participated in the five-day National Malaria Control Program coordination meeting where all malaria provincial supervisors, essential medicines provincial supervisors and the malaria provincial officers assembled to evaluate the past six months and plan for the new semester. In this meeting, SIAPS co-facilitated sessions for pharmaceutical management and logistics information systems for antimalarial products. SIAPS supported Huambo Provincial Health Directorate to conduct a post-training supportive supervision in selected municipalities and health facilities that had received pharmaceutical management training.

To improve the logistics management information systems, the revised requisition and reporting tools for HIV/AIDS health commodities that SIAPS assisted INLS to develop were validated in a workshop and approved by the INLS management. A plan is underway for their dissemination. An analysis of HIV/AIDS patients on antiretroviral therapy (ART) in the INLS referral hospital, Hospital Esperança, was conducted to enable INLS to benefit from the wealth of data collected through routine patient management and to use this data for decision making, especially in guiding ART supply chain-related decisions to minimize the risk of antiretroviral stock-outs and development of HIV Drug Resistance. SIAPS organized a five-day training on the general concepts of quantification where participants not only learnt different methods and data used in quantification but also developed the terms of reference and the action plan of the quantification technical working groups for malaria and HIV/AIDS health commodities. SIAPS collaborated with Pathfinder and SASH to organize monthly meetings of all Province of Luanda municipal reproductive health/family planning leaders to discuss on the monthly logistic reports and other logistics issues.

SIAPS staff also attended the third International Conference on Family Planning held in Addis

Ababa, Ethiopia, November 12-16, including a one-day mHealth meeting organized by USAID with theme of scaling up mobile Technology Applications for Accelerating Progress on Ending Preventable Maternal and Child Deaths in the sidelines of this conference. SIAPS facilitated the participation of one representative from the Ministry of Health in this meeting. SIAPS concluded a baseline survey in the four SIAPS-targeted provinces of Bié, Cunene, Huila and Luanda, covering all SIAPS indicators and in a convenient sample of 29 health facilities including provincial warehouses, some municipal warehouses and selected hospitals and health centers. An internal evaluation was also conducted in the province of Huambo to measure changes that are linked to SIAPS interventions in Huambo and to use lessons learned in other provinces.

### ***Objective 1: Pharmaceutical sector governance strengthened***

One of the three planned monthly Interagency Coordinating Committee Subcommittee for Logistics meetings was held at the Instituto Nacional de Luta contra a SIDA (INLS) so representatives from this Institute could easily attend. This meeting, which focused on discussions concerning achieved and planned activities related to pharmaceutical supply chain management, was chaired by the National Director of Direção Nacional de Medicamentos e Equipamentos (DNME) and included staff of the DNME, National Essential Medicines Program (PNME), National Malaria Control Program (PNCM), Instituto Nacional de Luta contra a SIDA, the National Reproductive Health Program, UNFPA, Pathfinder, SIAPS, and USAID. The low meeting attendance, especially for MoH programs, was discussed again; some participants suggested reducing the number of the meetings to every other month instead of monthly and to continue to hold them at the National Directorate of Public Health where many of the programs are located. Participants also suggested circulating meeting minutes and meeting invitations with the agenda to all participants earlier in the planning process, and follow up with all programs to ensure their availability in the meeting.

The contract to support improving Angola's central medical stores (CECOMA) processes and procedures between SIAPS and Imperial Health Services was approved by USAID and a time frame together with different deliverables of the consultancy were set up and discussed with CECOMA for approval. It is planned that this support will start in January 2014.

#### ***Constraints to progress***

Absence of the Director and other senior officials of DNME due to travel outside the country

#### ***Partner contributions***

- The DNME helped coordinate meeting preparations and proceedings
- IHS: Preparations of CECOMA technical support to improve its processes and procedures
- CECOMA: Buy-in and full availability of their staff in the planned technical support

### ***Objective 2: Local capacity for pharmaceutical supply management enhanced***

SIAPS worked with Huambo Provincial Health Directorate to conduct supervisory visits to selected municipalities that have been able to organize cascade training as a follow-up of the July pharmaceutical management training of trainers. A post-training supervisory tool was developed and used by Huambo provincial team during these visits. Five municipalities have been able to organize their own trainings using the materials that they received in the training of trainers.

In addition, quantification training material covering forecasting and supply planning concepts was revised, adapted to Angola priorities, and to malaria and HIV/AIDS health commodities, and translated into Portuguese. The training in quantification using this adapted material was held in Benguela, December 9–13, 2013, for 20 participants from Instituto Nacional de Luta contra a SIDA, National Malaria Control Program, National Pediatric Hospital David Bernardino, HIV/AIDS Referral Hospital (Hospital Esperança), CECOMA, MoH cabinet of planning and statistics, the PNME, and Provincial Health Directorates of Luanda and Benguela. During the training, participants drafted the terms of reference of the national and multi-institutional quantification technical working groups (TWG) for both malaria and HIV/AIDS health commodities. The TWGs will continue to conduct forecasting and supply planning at national level as one of the best practices in quantification, instead of quantification being done by the programs or donors individually. Although attendance of the training was satisfactory, some other key stakeholders like representatives from the Global Fund's Principal Recipients, WHO and UNDP, the clinical and epidemiology departments from INLS and the Technical Coordination Unit of the Global Fund projects at the Ministry of Health, were not able to attend because of another ongoing workshop with representatives from the Global Fund-Geneva on the new funding mechanism. Participants also recommended that the same training should be provided at provincial level as they also handle quantification. It is anticipated that another advanced training in quantification with introduction of the electronic quantification tools will be organized, as a follow-on, once the recommended quantification technical working groups are in place and functioning.

### *Constraints to progress*

The PNME lacks funds and staff to help building capacity on pharmaceutical management, including training, supervision and follow up of the availability and use of the pharmaceutical management tools.

### *Partner contributions*

- Provincial Health Directorate of Huambo: Coordination of post-training supervisions in selected municipalities.
- Municipalities of Huambo: Organization of the cascade training at municipal levels
- DNME: Coordination of the quantification training
- INLS: Coordination of the quantification training
- NMCP: Coordination of the quantification training
- NMCP: Coordination of the national meeting of all provincial malaria and essential medicines supervisors
- Provincial Health Directorate of Benguela: facilitation of logistics of quantification training

### **Objective 3: Information for decision making in the pharmaceutical sector**

In this reporting period, SIAPS assisted the National Institute against HIV/AIDS to organize a validation workshop to review the new suggested reporting and requisition forms for HIV/AIDS health commodities. Input from the workshop was incorporated in the new forms and presented to Instituto Nacional de Luta contra a SIDA leadership, who approved the form. Plans are underway to print and disseminate the new forms.

SIAPS provided technical support to Instituto Nacional de Luta contra a SIDA/Hospital Esperança to extract routinely collected data, analyze it, and share the key findings with INLS and Hospital management. This analysis can enable the hospital team to use data collected through routine patient management to make decisions, especially concerning ART supply chain to minimize the risk of antiretroviral stock-outs and development of HIV drug resistance. Specifically, SIAPS assisted the Hospital Esperança staff with extracting data for the electronic database. The data were then analyzed to provide ART-related information the last 12 months included distribution of patients by regimen, prescription/refill patterns, and medicine coverage. SIAPS also provided recommendations on possible database modifications and how to manage patients using the electronic system to achieve efficiency and high quality data.

SIAPS supported the National Malaria Control Program to follow-up on stock status and completion of logistics reports from national and provincial levels. The Procurement Planning and Monitoring report for malaria (PPMRm) for quarter 4 was done in all 18 provincial warehouses. In addition, a semi-annual End-User Verification was conducted in 6 provinces under the coordination of NMCP and DNME. Those provinces selected by the national malaria control program were Luanda, Huila, Kwanza Sul, Lunda Norte, Lunda Sul, and Bié. Data collection was done by staff from NMCP, PNME, and SIAPS in 50 health facilities including provincial and municipal warehouses and hospitals, health centers, and health posts. Findings suggest that there is a need to reinforce the availability and use of pharmaceutical management tools, especially stock cards, at all levels; to improve storage conditions of pharmaceutical products; and conduct regular supervisions at facility level. SIAPS also participated in the monthly meetings of all reproductive health representatives from all municipalities of Luanda, in collaboration with USAID's implementing partners Pathfinder and SASH.

#### **Constraints to progress**

- Key pharmaceutical management tools, especially stock cards, where the key data used during end-user verification and PPMRm is recorded, are unavailable or not used. SIAPS will continue to advocate at DNME and provincial level to ensure that the available models of the tools are distributed to the lower level of health facilities and regularly used.
- Provincial level reports are incomplete, which complicates the use of reported data.
- There are delays in approving any new LMIS form and the forms are expensive to disseminate.

#### **Deliverables**

- PPMRm October-December 2013 report
- November 2013 EUV report (draft)
- David Mbirizi's November 2013 trip report
- Validated requisition and reporting forms for INLS
- Minutes of DPS Luanda meeting with all reproductive health municipal focal points

#### *Partner contributions*

- DNME and the National Malaria Control Program: Coordination for the organization of PPMRm and EUV
- National Institute against HIV/AIDS: Coordination and facilitation of validating the reporting forms
- Hospital Esperança: collaboration in analysis of HIV/AIDS patients' data
- DPS Luanda: Meeting coordination of reproductive health municipal focal points
- Pathfinder and SASH: Collaboration to the organization of the reproductive health municipal focal points meeting

#### **Objective 4: Pharmaceutical services improved to achieve desired health outcomes**

During the reporting period, SIAPS assisted Huambo to finalize the reorganization of its second warehouse reserved for essential medicines, HIV/AIDS, TB, and reproductive health commodities. SIAPS continued to assist USAID in getting letters from the Ministry of Health, Ministry of Transport, the national airports authority, and the customs office regarding tax exemptions and other authorizations to receive PMI-funded health commodities as it was the case for USAID-funded condoms and pediatrics antiretroviral drugs that were received in August and May 2013 respectively.

To establish the national quantification technical working groups for both malaria and HIV/AIDS health commodities, participants in the quantification training were helped with drafting the terms of reference and plans of action for both technical working groups to be presented to the NMCP and INLS management for endorsement and official nomination.

SIAPS assisted the Ministry of Health to send one representative to the Third International Conference on Family Planning that was held in Ethiopia, November 12–16, 2013. SIAPS also participated in a high-level one-day meeting on the application of mobile technologies in health (mHealth) with the theme of “Scaling Up Mobile Technology Applications for Accelerating Progress on Ending Preventable Maternal and Child Deaths.” Meeting participants shared promising practices for scaling up the use of mobile technology for health through development of viable business models, exploring innovative financing opportunities, and sharing models for mHealth programs that are already operating at scale.

#### *Constraints to progress*

- Although the concept of the technical working group in quantification has been widely accepted, there is a delay in institutionalizing it. In addition, programs are still doing their own quantification without consulting other stakeholders due to lack of planning. This results on tight deadlines to submit their needs for budget purposes. SIAPS will continue to advocate and provide TA for a proper planning and an inclusive process in forecasting and supply planning.
- Huambo Provincial warehouse team: challenges to have the needed space for storage and easy stock movement.

## **Bangladesh**

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

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

SIAPS is working with the Ministry of Health and Family Welfare (MOHFW) to improve procurement processes. SIAPS supported the MOHFW to establish the Procurement and Logistics Management Cell designed to centralize procurement and logistics functions.

SIAPS helped the MOHFW to develop final versions of the Procurement Operations Manual and the Framework Agreement Standard Bidding Document. The manual will provide standards for efficient procedures and the framework agreement is expected to improve efficiency by preauthorizing vendors and enabling multi-year agreements that allow for staggered and more flexible delivery schedules. Both documents were cleared by the World Bank and are awaiting approval from the Government of Bangladesh's Central Procurement Technical Unit.

To promote transparency and governance, SIAPS helped MOHFW facilitate two interactive bidders' orientations for the prospective suppliers of DGFP and DGHS. Nearly 200 bidders in attendance asked questions and exchanged experiences with the procuring entities.

Building on efforts from last quarter, the Ministry of Health and Family Welfare (MOHFW) procurement plans for the fiscal year 2013–14 for all 32 Line Directors were successfully developed, consolidated, and submitted using the Supply Chain Management Portal. The World Bank approved the plans through a “no objection certificate.”

To further institutionalize the DGFP Procurement Procedures Manual, workshop was held for all procurement desk officers of the seven Directorate General of Family Planning (DGFP) units and Procurement and Logistics Management Cell members. MOHFW leadership presence was strong with the event attended by the DGFP Director General, Additional Secretary (Medical Education and Development) of MOHFW, and seven DGFP directors.

SIAPS continued to assist the MOHFW to update their table of equipment which outlines equipment requirements for each level of health facility. The draft table of equipment and specifications for major medical equipment was shared for feedback among a small group of medical professional experts. The draft will be finalized at a workshop in the upcoming quarter.

As part of system strengthening work with the Directorate General of Family Planning (DGFP) and the Directorate General of Health Services (DGHS), three key meetings were held—the monthly procurement and supply chain meeting, the quarterly Logistics Coordination Forum, and the quarterly Supply Chain Coordination Forum. In the DGFP monthly procurement meetings, a decision was made that MOHFW staff will learn on how to prepare the monthly

DGFP stock status report. In the Logistics Forum, a decision was made that DGFP will procure at least two items using the framework agreement mechanism in the current fiscal year.

The Supply Chain Coordination Forum was help with DGHS Line Directors and development partners (U. K. Department for International Development, World Bank, USAID, Japan International Cooperative Agency) in November. The key decisions were:

- Line Directors were requested to appoint a focal person from each unit to liaise with the Central Medical Store Depot (CMSD) on procurement and distribution issues.
- SIAPS will engage work with committee members to draft a pricing guide of medical equipment based on market prices and facilitate workshops to finalize the guide.
- A working group will be formed by Procurement and Logistics Management Cell to update the MOHFW's product catalog in the Supply Chain Management Portal (SCMP). As part of strengthening Procurement Cell, two meetings were held to discuss procurement status of goods and services, introduce logistics reporting forms and information management systems to DGHS, and conduct a five-year forecasting exercise for the UN Commission "lifesaving commodities."

DGFP master trainers continued to troubleshoot the Upazila Inventory Management System (UIMS) through visits and on-call support. During this period, around 20 visits and 40 calls were provided to UIMS end users. Support included Windows re-installment, checks of data validation errors, and orientation of new users. Additionally, logistics management training is planned for relevant staff from DGFP and National TB Program (NTP).

SIAPS and the Engineering Staff College of Bangladesh, signed a Memorandum of Understanding to facilitate 10 batches of 5 days basic training on procurement and supply chain management over the upcoming year. During the last quarter, the first batch of five-day training was conducted for 75 MOHFW professionals in collaboration with Central Procurement Technical Unit. In addition, a two-day basic training has been planned for national level managers.

Two meetings of the Procurement and Supply Management unit of NTP were held. Key decisions included (1) emergency procurement of three fixed-dose combination (FDC) medications for pediatric TB drugs, and (2) number of eligible children for isoniazid prophylactic therapy will be reported by implementing nongovernmental organizations.

At an NTP coordination meeting, key stakeholders reviewed 13 e-TB Manager sites that had been identified as performing poorly and made plans for NTP to contact health authorities at these sites to develop an improvement plan.

Standard operating procedures (SOPs) for TB drug and supply management were finalized and are being prepared for printing.

Improving warehousing systems is a SIAPS priority. SIAPS facilitated networking activities in Central Medical Store Depot adding additional functions to existing Inventory Management System tools available to CMSD Store Keepers at their workstations. SIAPS's partner, the

Logistics Management Institute, visited DGFP warehouses and DGHS/CMSD to develop a warehouse management system to contribute to healthy commodity security.

A rapid assessment report was prepared on the feasibility of piloting a suitable inventory management system tools for District Reserve Stores/Upazila Health Complexes under DGHS.

As part of SIAPS's technical and capacity building assistance to the MOHFW and its directorates, the program sponsored key MOHFW officials to attend international conferences and trainings. During this quarter oral presentations were made at two international conferences by MOHFW and SIAPS representatives; a representative of government and SIAPS participated in an international forecasting and quantification course; and a SIAPS representative and two MOHFW representatives attended the annual International Union against Tuberculosis and Lung Disease conference.

### *Constraints to progress*

- High turnover of officials/managers in CMSD
- Re-occurring political instability, i.e., strikes, road blockades, has hindered free movement and delayed project activities.

### *Deliverables*

- Final draft of Procurement Operations Manual presented to government
- Procurement plans in SCMP
- Orientation workshop report on DGFP Procurement Procedures Manual
- Framework Agreement bid document
- Draft report of equipment
- Bidders orientation workshop report
- SOP for TB supply management
- Abstracts, presentations and trip reports

### *Partner contributions*

CMSD senior officials and staff members collected data and documents necessary for developing a warehouse improvement plan.

## ***Objective 2: Systems for evidence-based decision making established***

As part of new intervention to expand the Upazila Inventory Management System (UIMS) to the service delivery point level, SIAPS updated the UIMS and introduced a service delivery point dashboard module into the existing SCMP-LMIS. A total of 20 upazilas have been selected for piloting, with five of these sites located in the USAID partner, MaMoni's working area. An MOU between SIAPS and MaMoni is expected to be signed to clarify the roles and responsibilities of each party. A technical meeting was held to select Mamoni Health System

Strengthening intervention sites (5 upazilas selected) and SIAPS received approval from DGFP for piloting in the selected upazilas.

An in-house technical discussion was held to identify the feasible options and next steps to introduce the recently developed Maternal, Neonatal, and Child Health (MNCH) logistics reporting forms in DGHS.

The demonstration version of TB-LMIS was shared with the national TB program and other key stakeholders. The TB-LMIS will be piloted in four districts starting next quarter.

As part of NTP's priority information needs for decision making, SIAPS developed a questionnaire to determine whether NTP's existing surveillance methods meet decision maker's needs. The SIAPS team conducted interviews of key NTP personnel to test the tool and feedback was shared to finalize the tool. Another new aspect for the SCMP, "Equipment Tracker and Maintenance Module" has been developed and discussed in the monthly PLMC meeting to get feedback from the group.

Through an official notification, DGFP assigned a Procurement Officer and an Assistant from Logistics & Supply Unit to take over the responsibility of preparing the Monthly Stock Status Report in a phased manner. SIAPS will provide necessary assistance to ensure adequate skills have been transferred to relevant officials to prepare this management report. The notification also stated that relevant officials of DGFP will take over the responsibility for forecasting and supply planning exercises, logistics data monitoring through SCIP/LMIS, and sharing the monthly receipt information of commodities with all concerned. SIAPS prepared an abstract on "Electronic Information Management System to Improve Recording and Reporting for TB Control in Bangladesh: Initial Experience and Opportunities" and submitted to the South East Asia Regional Union conference to be held in Dhaka in March 2014.

SIAPS contracted a local IT firm to maintain and support the handover of existing management tools, e.g., SCIP and SCMP, from SIAPS to MOHFW.

The quarterly newsletter to showcase key successes to wider stakeholders and partners was published in December.

### *Constraints to progress*

Political unrest hampered numerous activities including undertaking the rapid assessment for the Service Delivery Point pilot, assessing the performance of e-TB Manager sites, and routine data quality improvement.

### *Deliverables*

- Service delivery point dashboard in the SCMP/SCIP
- Government order for selected sites for the service delivery point pilot
- DGFP notification transfer of responsibility for forecasting supply planning, stock
- status report equipment tracker and maintenance module under the SCMP

- Equipment tracker and maintenance module in the SCMP
- TB-LMIS orientation report and a concept note on TB-LMIS
- Training report submitted by ESCB

### **Objective 3: Pharmaceutical regulatory systems strengthened**

The notification for the MOHFW's Adverse Drug Reaction Monitoring Cell was issued during this quarter. The ADRM cell is now meeting regularly to examine adverse drug reaction reports from different hospitals.

The National Pharmacovigilance Program of Bangladesh was launched in September 2013 and is currently implemented in 20 public and private hospitals. In this quarter, a follow-up workshop for pharmacovigilance focal persons from 20 selected hospitals and employees from several pharmaceutical companies focused on adverse drug reactions reporting forms. The program was presided over by Mr. A. A. Salim Barami, Director, Directorate General of Drug Administration (DGDA), also the Head of the Adverse Drug Reaction Monitoring Cell (ADRM cell) and National Drug Monitoring Centre; and was closed by Mr. Jahangir Hossain Mollik, Director General, DGDA.

On November 13, 2013, DGDA become an associate member in the WHO program for International Drug Monitoring. This is a key step toward achieving full membership.

DGDA officials participated in users acceptance testing of the DGDA website to ensure reports are generated using real time data on the DGDA website. The objectives of the training were:

- Conduct on-the-job training for the DGDA officials who will be the main users of the website
- Identify defects/bugs, communicate all known issues to the SIAPS team, and ensure that all issues are addressed in an appropriate manner
- Provide an in-depth knowledge in terms of quality of the system, usage, and benefits

### **Deliverables**

- Notification for ADRM Cell
- Pharmacovigilance launch report
- Workshop report with pharmacovigilance focal persons
- Certification of DGDA associate membership in the WHO program for International Drug Monitoring
- Users Acceptance Testing report

## **Burundi**

**Goal: Strengthen keys institutions (the National Malaria Control Program [PNILP], Department of Medicines, and Laboratory [DPML], MOH central warehouse [CAMEBU], and districts) in reducing mortality and morbidity due to malaria through strong case management and availability of malaria commodities.**

### ***Objective 1: Organizational structure, governance, and accountability of PNILP and DPML improved***

In October 2013, SIAPS assisted the PNILP and all the Roll- Back Malaria (RBM) in-country stakeholders to organize their quarterly coordination meetings to monitor and evaluate the implementation of the joint annual work plan.

SIAPS also assisted PNILP to finalize its strategic plan for 2013–2017. The strategic plan defines objectives, key strategic interventions, activities, indicators, and means of verification, budgets, and potential funding sources. It will enable the PNILP to monitor and evaluate its progress. A stakeholder’s workshop was conducted to validate the plan. Next step will be further disseminate the strategic plan and assist the PNILP to mobilize and organize resources necessary to successfully implement it.

In 2014, a nationwide mass campaign to distribute long-last insecticide-treated nets will be organized to ensure universal access. SIAPS participated in the steering committee meetings for logistic planning of this important event.

SIAPS in collaboration with SCMS and other key stakeholders contributed to the development of DPML 2014 annual work plan. A two-day retreat was organized to evaluate achievements made during 2013 and set up objectives for 2014. This work plan outlines steps necessary to establish an autonomous National Medicines Regulatory authority, implement a harmonized logistic management information system, develop laboratory policies, and implement a pharmacovigilance system in Burundi.

In addition, SIAPS continued to support the DPML in building staff capacity through basic trainings in English language skills. Further, IT equipment and office furniture were donated to DPML.

#### *Deliverables*

- Draft of 2014 DPML annual work plan

### ***Objective 2: Pharmaceutical capacity of PNILP, CAMEBU, DPML, and health districts strengthened***

SIAPS assisted DPML to build a strong partnership with key partners by setting up a thematic group on medicine [technical working group] (MTG). A MTG monthly meeting was held to

improve coordination of all stakeholders involved in the pharmaceutical sector.

During the same reporting period, three meetings were held to harmonize pharmaceutical regulation across the five East Africa Community (EAC) member countries, including Burundi, but Burundi is still facing major challenges in aligning, harmonizing, and standardizing national pharmaceutical regulations and procedures. For this, stakeholders agreed to develop a strategic roadmap and lobby the Ministry of Health authorities to take appropriate actions to meet encountered challenges. SIAPS will continue to support the DPML towards the development of the strategic plan.

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

To strengthen the supply chain management of essential medicines, in collaboration with SCMS, SIAPS supported the DPML to revise and propose an integrated LMIS from central to peripheral levels.

SIAPS, in collaboration with the PNILP and SEP/CNLS-Malaria, completed and submitted the PPMRm files with supply chain data from January through September 2013 and analyzed the pipeline of ACTs and RDTs to identify and anticipate problems of stock-outs/expiries. All expected ACTs and RDTs were supplied by December 2013, and ample stocks of commodities are available.

SIAPS in collaboration with the Ministry of Health conducted the fourth end-users verification survey for effective monitoring of stock status and case management practices. The survey was conducted from September 30 to October 4, 2013, in 62 facilities—at the central warehouse (CAMEBU), 17 health districts' warehouses, and 44 health centers. The survey was validated in December 2013 by the steering committee. The preliminary report showed that of the 1,724 fever cases analyzed, 41.8 percent had uncomplicated malaria, 0.6 percent severe malaria, and 57.5% other diseases. One health provider per health center was trained in only 18 districts out of 45 on new STGs through September 2013.

During the same reporting period, a joint supportive supervision visit composed of PNILP, DPML, USAID, SEP/CNLS-Malaria, and SIAPS representatives, was conducted in 3 provinces in the North of Burundi. A total of 7 health facilities in 3 health districts (Ngozi, Musema, and Vumbi) were visited. This supervision visit focused on compliance to the new Standard Treatment Guidelines for malaria including diagnosis and pharmaceutical management of malaria commodities.

In the facilities visited, malaria commodities were available with only two facilities having a stock-out of one ACT formulation due to delay in requisition. As far as the laboratory confirmation is concerned, the situation shows that some health facilities using RDT Ag/Pan for the rapid diagnosis of malaria are finding potential presence of species other than *Plasmodium falciparum*. It was agreed that recommendations and findings of the supervision visit will be shared among Rollback Malaria (RBM) in-country partners to provide proper guidance to health facilities in regards to diagnosis.

**Objective 4: Pharmaceutical services improved to ensure best practices in malaria case management**

Initially, SIAPS supported PNILP to review malaria STGs and disseminate the revised version at the district level in all 45 districts and at the facility level in 258 health centers of 18 districts. During this reporting period, 232 health providers were trained with the support of the Global Fund. At the end of the training, copies of STGs and algorithms were handed over to participants from the health centers.

To support community case management (CCM) of malaria, SIAPS assisted PNILP to train an additional 27 trainers for supervising community health workers (CHWs). Training focused on adult learning methodology, epidemiology and burden of malaria in Burundi, malaria prevention, new standard guidelines of malaria treatment, use of algorithm of CCM of malaria, use of RDT to diagnose malaria, completing data collection tools, and reporting.

SIAPS also supported PNILP to train 88 newly recruited CHWs who were elected in 2013. At the end of the training, CHWs were able to (1) have a comprehensive understanding of the CCM strategy, (2) use the algorithm of CCM of malaria to evaluate a child with fever and identify danger signs and reference need, (3) perform malaria RDTs using the RDT job aid, (4) treat malaria cases in children under age five, (5) follow-up on patients, and (6) properly use the tools designed for collecting data and report malaria cases accordingly. A total of 5,041 children under five years with fever had access to CHWs' services during October and November 2013. Among them, 4,464 received treatment within 24 hours. A total of 4,996 were tested for malaria and 3,486 were diagnosed positive using RDT. A total of 4,447 malaria cases were treated with ACTs, 3,103 within 24 hours.

During the last quarter, SIAPS, in collaboration with Concern Worldwide, supported the PNILP to evaluate the pilot phase of CCM of malaria; data collection was conducted in three pilot districts (Gahombo, Gashoho, and Mabayi). During this quarter, a preliminary report was produced and will be presented to the technical committee in January 2014. A workshop for disseminating results of the evaluation is planned to take place early in February 2014.

To support the introduction of intermittent preventive treatment of malaria for pregnant women (IPTp), SIAPS supported PNILP and PNSR in meeting with key institution and stakeholders to define the roadmap for introducing the IPTp policy. A meeting was held with participation of key institutions such as UNICEF, USAID, the National Reproductive Health Program (PNSR), DSPP (MOH department in charge of health projects and programs), and SIAPS. MOH has showed interest to formally introduce IPTp in June 2014 during the mother and child week. Key activities identified were the following: (1) develop implementation guidelines of IPTp and related training modules, (2) quantification and procurement of sulfadoxine-pyrimethamine. UNICEF committed to hiring an international and a national consultant to develop an implementation plan for IPTp. SIAPS shared a draft of quantification of sulfadoxine-pyrimethamine with PNILP and PNSR for validation; USAID committed to procure the necessary quantity for the first year of implementing the IPTp policy.

*Constraints to progress*

- High turnover at the PNILP: 3 key PNILP staff (Director, In-Charge of malaria case management of malaria, In-Charge of M&E) resigned and were not immediately replaced; activities have stagnated.
- Conflict of agenda with the Ministry of Health (mother and child health week) did not allow to training of new CHWs on CCM of malaria to be completed.

*Deliverables*

- CHW training report
- Quantification report for SP used in IPTp

## Cameroon

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

### *Highlights of Results*

Findings from “Assessment on storage and distribution capacity in Cameroon” conducted during FY13 showed limited management capacity at the regional medical stores (CAPRs), and poor inventory management and storage practices at CAPRs and health facilities; this likely contributes to unexpected stock-outs of ARVs and other commodities.

Trainings conducted this quarter allowed SIAPS to reach the target for number of trained professionals in pharmaceutical management. Thus, SIAPS has to focus its current TA on strengthening monitoring and supervision at the health facility level to ensure that the 100 pharmacy managers trained will use their knowledge acquired into practice to improve management of HIV and AIDS commodities.

Over the past two years, the country has experienced stocks-outs partially due to limited availability of funding to address proper procurement planning and the absence of the coordination mechanism between different stakeholders and partners. It has become clear that effective coordination between institutions involved in the National AIDS Control Committee (CNLS), Direction de la Pharmacie, Médicaments et Laboratoires (DPML), Central Medical Stores (CENAME), and CAPR is key to address effective procurement and supply planning in timely keeping available data and resources needed for commodities quantification. Therefore, there is a need to reinforce a coordination mechanism for quantification at the national level. During this quarter, as part of emergency mechanism to address HIV and AIDS commodities stock outs set up by donors and Cameroon MoH partners, SIAPS supported the CNLS to quantify and place the order for HIV and AIDS commodities worth \$20 million (purchased with the Global Fund New Funding Mechanism).

In the last quarter, 3% of ART health facilities were using country tools to report on logistic and data utilization. Consumption and stock-level data are required by the CNLS, CAPRs, and CENAME for preparing orders at the regional and central levels. SIAPS is working closely with the CNLS, central, and regional teams to establish a coordinated systems for data collection, submission, collation, and analysis (at all levels) of logistics management information. SIAPS will be focusing on 34 targeted health facilities to support producing timely and complete reports on patients and stock data (solving data discrepancies). Based on the training findings, SIAPS helped with printing and issuing some strategic drug management tools and reporting tools. SIAPS also helped print stock card and monthly ART synthesis report to increase the ability of ART health facilities HFs to manage properly their stock and therefore increase the quality of consumption and patient report.

**Objective 1: Pharmaceutical sector governance strengthened.**

Under this objective, SIAPS is supporting the finalization of standards operating procedures for HIV and AIDS commodities management at health facilities. SIAPS will also continue to provide technical assistance to CNLS and the Central Medical Stores (CENAME) to conduct HIV and AIDS commodities quantification and to establish a coordinated mechanism for quantification, procurement, and distribution system.

During this reporting period, SIAPS worked jointly with CENAME and CNLS to ensure that ARVs were distributed rationally through the country while the country awaited additional shipments. SIAPS had closely worked with the National AIDS Control Committee (NACC) to develop effective ARV distribution plans by monitoring and reconciling stock levels at central and peripheral levels with the number of patients on treatment and the number of patients targeted.

SIAPS has worked with CNLS to quantify HIV and AIDS commodities for the USD 20 million from the Global Fund New Funding Mechanism and EUR 6.4 million from Phase 1 of the Round 10.

At the request of USAID, SIAPS provided TA to forecast additional \$10 million for the Prevention of Mother to Child Transmission program and analysis on the additional coverage these funds will provide.

***Constraints to Progress***

The main challenge faced by the formal quantification committee and the National Aids Control Commission, CNLS is the complexity and lack of clarity of the Global Fund disbursement fund process for the procurement of HIV and AIDS commodities. Also, the lack of trust between the Global Fund and the CNLS has increased the back and forth exchange on the forecasting, ordering, and supply plan despite the technical assistance provided by SIAPS and the Clinton Health Access Initiative.

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

Under this objective, SIAPS is technically assisting to improve the internal management and storage capacity of regional medical stores (CAPRs) to make available high-quality commodities at distribution points and improve their coordination with CENAME. SIAPS will leverage efforts with the Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation), UNFPA, and others to strengthen the CAPRs' computerized inventory control system and establish a link between them with CENAME.

SIAPS will also provide TA to improve inventory and information management for HIV and AIDS commodities at the ART health facilities through targeted training to pharmacy managers in selected ART health facilities as needed.

During this quarter, SIAPS had officially handed over equipment to Adamawa Regional Medical Store CAPR of a total value of USD 49,000.

SIAPS also supported training of 83 pharmacy managers of health facilities in the regions of Adamawa, South West, and North West.

### ***Objective 3: Utilization of information for decision making***

Under this objective, SIAPS works with the National Aids Control program, CNLS, and the MOH Division of Pharmacy to improve the information system for stock and patient management through supervision of 34 targeted ART health facilities.

During this quarter, SIAPS and CNLS conducted joint supervision visits in 10 ART health facilities within the Center Region. The supervision aim was to monitor ARV consumption and distribution and to help health facilities solving data discrepancies between patients and stock reports to increase quality data availability. SIAPS also printed and provided drug management (stock cards, ART registers) and reporting tools (Monthly Program Synthesis form) to the health facilities to maintain and improve data collection and reporting systems.

#### ***Partner contributions***

The CNLS regional team, GTR, has worked closely with SIAPS during this quarter to plan the formative supervision to ART health facilities. The team's involvement in the supervision gives credibility to SIAPS as a partner of the MOH and CNLS here and will improve the monitoring of patient information, and consumption and distribution data. This will led to ensure an interrupt supply chain at regional and peripheral levels.

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

Under this objective, SIAPS will support CNLS to meet pharmaceutical-related performance requirements of the Global Fund Round 10 Phase 1 so that they can comply with Phase 2 funding. Also, as Cameroon is eligible to access the Global Fund's New Funding Mechanism, SIAPS will support CNLS to meet the pharmaceutical-related requirements to access these funds (USD 71 million).

During this quarter, SIAPS supported the CNLS to review the procurement, supply, and management plan for the procurement of commodities using the Global Fund template.

#### ***Partner contributions***

During this quarter SIAPS collaborated with CHAI to support the revision of the CNLS PSM plan using the Global Fund template.

## **Democratic Republic of the Congo**

**Goal: Improved access to pharmaceuticals and services to assure access to safe, efficacious, and quality pharmaceutical products and to effective pharmaceutical services to help achieve desired health outcomes**

### ***Objective 1: Governance in the pharmaceutical sector strengthened***

With SIAPS financial and technical support, the quarterly MoH/Directorate of Pharmacy (DPM) medicines registration session began on September 30, 2013; 323 applications for registration were processed and 258 approved. The cumulative total is 1,835 products registered in the MoH database. The DPM continued to demonstrate transparency in the registration process by publicly posting the lists of newly registered medicines at the end of each quarter.

The review of the registration process was postponed to the next quarter because MoH staff was preoccupied with the review and finalization of the National Essential Medicines List (NEML). Between September 13 and October 25, 2013, the NEML Review Committee met to finish the draft of the NEML. SIAPS advocated for the inclusion of a number of key life-saving commodities into this version of the NEML (misoprostol, chlorhexidine 7.1%, artesunate suppositories, etc.). The final draft of the NEML was adopted in a session chaired by MoH's Permanent Secretary in the presence of delegates from all stakeholders (UN agencies, USAID, partners, universities, Pharmacy Council, Kinshasa main referral hospitals). The final NEML has been sent to SIAPS HQ for printing.

During this reporting period, SIAPS organized three monthly meetings under the leadership of MoH with all partners involved in the national malaria program, including USAID and its various projects. The meetings focused on the procurement and supply chain for malaria commodities. This monthly exercise was to review and analyze stock and consumption levels in USAID-supported health zones to redeploy commodities between health zones to avoid overstocking, expiry, and stock-outs. As a result of these meetings, 579,866 malaria RDTs due to expire in January 2014 were redeployed to other health zones in need.

#### ***Constraints to progress***

MOH staff is heavily committed to many activities and are not always available to work with SIAPS.

#### ***Deliverables***

- List of newly registered medicines
- Final NEML
- Monthly meetings minutes

#### ***Partner contributions***

WHO provided a conference room for the three-day validation session.

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

Under the leadership of the National Malaria Control Program, SIAPS provided technical and financial support to train 24 persons (8 females and 16 males) in the quantification of malaria products on October 23–26, 2013. A national quantification subcommittee was also established for malaria products, and a plan for improvement of the quantification cycle has been adopted. The NMCP intends to combine at least two quantification methods: consumption data for health zones (where they are available) and morbidity data for the other health zones.

On November 18 and 19, SIAPS also provided technical assistance in a gap analysis exercise organized by the NMCP with assistance from Roll Back Malaria. SIAPS then shared information on PMI procurements planned for 2012 to 2015.

*Deliverables*

Training reports

***Objective 3: More information made available to support decision making***

From November 13 to 25, 2013, SIAPS worked with a multidisciplinary team from SCMS, DELIVER, and MoH (national and provincial levels) to assess the Logistics Management Information System (LMIS) in Katanga and Kasai Oriental provinces. The purpose of the assessment was to design a common LMIS system that will ensure that USAID-supported commodities reach end-users in a timely and efficient manner, thereby averting both expiries and stock outs.

On October 9, 2013, SIAPS submitted a PPMRm report for July to September 2013. This report showed a one-month stock of ASAQ in the two Kasai provinces and 1.2 million doses of ASAQ (more than six months of stock) for Province Orientale in transit in Kinshasa. Upon agreement with the USAID Mission, 50 percent of the Province Orientale consignment was redirected to the two Kasai provinces.

On November 9, 2013, SIAPS submitted the PPMRc report for July to September 2013. Data were collected from PSI, UNFPA, and IHP. The report indicated that:

- Health zones still have challenges in providing consumption data
- Postinor (levonorgestrel) is not yet registered in DRC and had to be replaced with norlevonorgestrel in UNFPA supported facilities

*Deliverables*

- PPMRm
- PPMRc

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

There are no activities planned under this objective this year.

***Objective 5: Pharmaceutical services to achieve desired health outcomes improved***

TB medicines have been successfully transferred from the Kasai Oriental and Sud Kivu TB provincial offices to the respective provincial warehouses with SIAPS technical and financial assistance.

Following the recommendations of the policy makers' sensitization workshop on the introduction and use of chlorhexidine digluconate 7.1% for newborn umbilical cord care (organized with SIAPS financial and technical assistance), MoH established a 16-member Chlorhexidine Committee made of MoH departments and workers, partners (SIAPS, ASF/PSI, PNIRA, and IHP) and two hospitals in Kinshasa. With technical and financial assistance from SIAPS, in November 2013, this committee developed a strategy and a related roadmap for the introduction of chlorhexidine.

## **Dominican Republic**

**Goal: Increase the availability of critical medicines and diagnostic materials including those used for HIV/AIDS and tuberculosis by implementing the different elements of the national pharmaceutical management system (SUGEMI) and building the capacity of national counterparts to effectively and efficiently operate the integrated system.**

### ***Highlights of Results***

The percentage of health facilities that received feedback on previously submitted reports or data: The target for FY 13 is 80% with a baseline of 60%. Reporting rate increased from 56% in the fourth quarter of FY12. The country is showing good progress in meeting the FY 12 target.

Reporting performance of the health facilities has been excellent during the implementation and scale up of SUGEMI. The percentage of facilities that submitted their LMIS reports to SUGEMI was 86.5 percent. The FY13 target was 80% and it was exceeded in the first quarter. During the quarter, SIAPS looks to maintain the current reporting level and to possibly achieve FY14's target of 90%.

In the last assessment, 86.5% of facilities used consumption data to inform ordering. The FY13 target is 80%, which has been exceeded in the first quarter of FY13. During the quarter, SIAPS looks to maintain the current reporting level and to possibly achieve FY14's target of 90%.

### ***Objective 1: Pharmaceutical sector governance strengthened***

SIAPS is supporting the operations of the National Pharmaceutical Unit through the work of three short-term consultants. The Ministry of Health has opened two positions for the UNGM, but no personnel have been hired during this quarter.

Based on the results of a baseline study, SIAPS supported the production of SOP for the integration of MoH hospitals to SUGEMI. Training for all personnel is scheduled for next quarter.

The revised version of the National Essential Medicine List and the technical report on the availability and consumption of laboratory reagents for clinical tests will be finalized next quarter.

### ***Deliverables***

Standard operational procedures for the integration of MoH hospitals to SUGEMI were completed.

**Objective 2. Capacity for pharmaceutical supply management and services increased and enhanced**

The training modules for the second certified course on pharmaceutical management were edited and printed during this quarter. The certified diploma course conducted by the Universidad Central del Este started on November 2013.

*Deliverables*

Edited and printed versions of the training modules for the second certified course on pharmaceutical management were completed.

*Partner contributions*

The certified course is being given by the Universidad Central del Este. Twenty tuition fees were sponsored by USAID/SIAPS.

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

The SUGEMI pharmaceutical management electronic tool includes monitoring indicators. During this quarter, the National Pharmaceutical Unit technicians worked on the final details for the upload of this information to the institutional MoH web site. The SUGEMI quarterly bulletin was disseminated on schedule.

*Deliverables*

The final version of the SUGEMI web portal was completed.

*Partner contributions*

Activities coordinated by MoH information unit technicians for the upload of information to the MoH institutional web site.

**Objective 4: Pharmaceutical services improved to achieve desired health outcomes**

SIAPS consultants visited DR in November 2013 to train local counterparts on implementing SOPs for the integration of laboratory supplies and reagents into SUGEMI.

*Constraints to progress*

Even though the implementation of SUGEMI is now a Ministerial and Presidential mandate, disease control program coordinators seem to be reluctant to hand over the supply management of medicines and commodities. Therefore, incorporating additional disease control programs was postponed until 2014.

*Deliverables*

SOPs for incorporating TB laboratory supplies and reagents and bringing MoH hospitals into SUGEMI

## **Ethiopia**

**Goal: To ensure access to quality pharmacy services, that will lead to improved health outcomes, by strengthening pharmaceutical systems**

### ***Overall Quarter Progress***

In this quarter, USAID/SIAPS provided onsite training and mentoring on APTS to hospital chief executive officers (CEOs), pharmacists, cashiers, accountants and auditors drawn from five health facilities (four hospitals and three health centers) and two regional health bureaus (Dire-Dawa and SNNPR). In total, 197 professionals were trained. Out of the five health facilities that received APTS training, four began implementation of APTS (two from Dire-Dawa and two from SNNPR regions). In addition, APTS is being implemented at two hospitals (Enat and Borumeda Hospitals) in the Amhara Region following the training conducted during the last quarter of FY 13. USAID/SIAPS/E set a target to implement APTS at 12 hospitals. During the first quarter of the plan year, APTS has been implemented at a total of six health facilities. The target figure has been met at 50 percent.

USAID/SIAPS has been providing short-term training on clinical pharmacy to hospital pharmacists; familiarization to CEOs and health bureau officials; developing and distributing documentation and reporting forms; and mentoring and supportive supervision. These activities have been implemented jointly with PFSA and universities.

In collaboration with the Twinning Center and the Ethiopian Pharmaceutical Society, USAID/SIAPS worked with Addis Ababa University to carry out a familiarization workshop attended by a number of hospitals from Addis Ababa and its environs. The purpose of the workshop was to clarify misunderstandings and to discuss challenges and the ways forward for clinical pharmacy services provided at hospitals. USAID/SIAPS, in collaboration with pharmacy experts at the PFSA head office and its regional hubs, conducted a rapid assessment of the status of clinical pharmacy services at health facilities. The assessment showed that clinical pharmacy services are provided by 38 hospitals (86 percent) that benefited from in-service clinical pharmacy training. The pharmacists performed chart reviews of inpatients, conducted MDT/Pharmacy morning sessions, participated in ward rounds, and provided chronic care pharmacy service and DIS. In addition, the assessment result revealed that 504 (92 percent) of the patients have improved clinical responses, indicating successful interventions by clinical pharmacy practitioners in averting drug therapy related problems.

### ***Highlights of Results***

During this past quarter, APTS was implemented at six hospitals, 50 percent of the annual target. As a result of this output, we expect to be on track with this expected result. We believe that APTS will contribute to the targeted facilities' improved efficiency in the use of budget by increasing incomes from medicines sales and reducing misuse of medicines.

A rapid assessment of the status of clinical pharmacy services at health facilities revealed that clinical pharmacy services are provided by 38 of hospitals (86 percent) surveyed who benefited from in-service clinical pharmacy training.

Of the pharmacists trained by SIAPS, about 68 percent implemented post-training action plans developed with SIAPS' assistance. SIAPS Ethiopia expects to achieve the annual target of 75 percent by the end of the project year. The pharmacists performed chart reviews to inpatients, conducted MDT/Pharmacy only morning sessions, participated in ward rounds, and provided chronic care pharmacy service and DIS. In addition, the assessment result showed that 504 (92 percent) of the patients have improved clinical responses for which the clinical pharmacy practitioners contributed their share in suggesting interventions to avert drug therapy related problems.

During the quarter, 74 ADR reports were collected from the health facilities, and all reports were reviewed and entered into the national pharmacovigilance database. Based on this information a regulatory decision was made on a specific Ringer lactate IV fluid 1000ml preparation. This decision was made based on a product quality defect that was observed and reported by health providers using the ADR reporting mechanism. A communication was sent to the manufacturer to recall the product from the market.

### ***Objective 1: Pharmaceutical sector governance strengthened***

In this reporting quarter, an assessment tool was prepared to help two regional health bureaus and FMHACA to evaluate the existing pharmacy practices against the new standards. Using the tool, the assessment will be carried in selected health facilities drawn from the two regions to examine health facilities compliance to pharmacy service standards and identify the gaps. The result of the assessment is expected to be used by RHBs and health facilities to take measures in order to narrow the gaps as part of meeting standards thereby ensuring the provision of quality pharmacy services

In order to advocate for and support in reorganizing and benchmarking the management and organization of pharmaceutical services, a draft proposal was developed and shared with Amhara Regional Health Bureau for input. This document is expected to serve as a resource material for discussion at a consultative meeting planned to be organized by the RHB with relevant stakeholders.

Equipping Health Regulatory Information Center (HRIC) at FMHACA with necessary equipment/facilities is a follow on activity from the previous plan period. In this quarter, winner of the equipment procurement package was identified. Remaining activities include contract signing and monitoring performance, data capturing tool development, procurement of computers and furniture for the center. Completion of this activity will ensure the establishment of a functional HRIC at FMHACA.

As part of establishment of system for transparent and accountable pharmaceutical transactions and services, USAID/SAIPS supported the FMOH and RHBs in developing and enacting

legislation. During the quarter, Addis Ababa Health Bureau was supported to draft APTS regulation. The draft document has been submitted for the management of RHB, was approved, and sent to the Addis Ababa Justice Bureau for comment. In addition, consultation with the Federal Ministry of Health is underway and APTS process map was developed and submitted by USAID/SIAPS as per the request of FMOH. The process mapping document shows the cross functional relationship of major activities and the roles and responsibilities of each stakeholder in implementing APTS (including drafting and enacting legislation, revising/adapting APTS tools, infrastructure improvements, recruitment of additional staff, training and monitoring & evaluation). This will help to speed up the enactment of legislation at federal level which will in turn be used to enforce implementation of APTS at Federal and University hospitals. So far, two regional states endorsed APTS as legislative (Amhara) and as directives (Dire Dawa City Administration). Another two regions, Tigray and Harari, drafted the directives and are awaiting endorsement by their respective regional governments.

The Food, Medicines and Health Care Administration and Control Authority (FMHACA) of Ethiopia developed standards for pharmaceutical services with the support of USAID/SIAPS and this standard is approved by the relevant authority. These regulatory standards are believed to bring accountability in the quality of pharmacy services provided by health facilities. However, implementation of these standards is not progressing as expected. Therefore, it is found necessary to identify the gaps at health facilities and assess their status in relation to meeting the standards. This will ultimately help health facilities to plan and work towards complying with standards and secure their license. The major activity planned under this sub objective is “Support RHBs to evaluate existing pharmacy practice against the health facilities regulatory standards”. The progress made with regard to this activity is just initiating the preparation of a guide for the overall approach to conduct the assessment and the actual tool which will be used to carry out the assessment. In addition, the criteria for selection of sites to be included in the assessment are being developed.

#### *Partner contributions*

- FMHACA has been supporting the implementation of regulatory standards.
- FMHACA was involved actively during technology selection, tender evaluation and vender selection for the establishment of a functional HRIC and Amhara Regional Health Bureau has shown interest to revisit its pharmacy services organizational structure. SNNPR and Tigray are moving forward and keen to accept USAID/SIAPS recommendations for scaling up implementation of APTS.

#### *Constraints to progress*

As the technology selection for HRIC was complicated, the procurement decision took more time than expected.

## **Objective 2: Pharmacy services at facility level improved**

In this reporting quarter, a USAID/SIAPS provided in-service training to a total of 141 professionals on EHRIG/APTS, Rational Medicines Use and DTC in collaboration with PFSA and RHBs. The trainees were approximately 45 percent female and the majority of participants were drawn from the regions of Dire-Dawa (45 percent) and SNNPR (28 percent).

USAID/SIAPS provided technical assistance to hospitals on drug information services to health care providers, patients and the general public to improve the quality of patient care and contribute to improved outcomes. USAID/SIAPS has collected and distributed soft copies of national guidelines and manuals to four hospitals. To date, drug information services have been established at 46 hospitals around the country.

USAID/SIAPS organized face-to-face discussions on how to identify, prevent, and report adverse drug reactions (ADRs) at six health facilities that included 132 health providers. During this quarter, 74 ADR reports were entered into the national pharmacovigilance database. Based on the information generated from this database, regulatory decisions were made on a Ringer lactate IV fluid 1000 ml preparation. This decision was made based on a product quality defect that was observed and reported on by health providers using the ADR reporting mechanism. A letter was sent to the manufacturer to recall the product from the market. As part of an ongoing effort to collect adverse drug event (ADE) reports, USAID/SIAPS distributed 402 ADE reporting forms, 1220 allergy cards, 280 pharmacovigilance frameworks, 2719 pharmacovigilance newsletters, 300 preventable adverse event bulletins, and 105 training manuals for teaching institutions and health facilities throughout the country.

USAID/SIAPS carried out training on RMU/DTC and APTS, organized jointly with PFSA to build the capacity of newly assigned staff at PFSA and FMHACA to implement RMU and pharmacy service strengthening activities, while also providing technical assistance to health facilities; 44 participants took part in the training. This activity is part of USAID/SIAPS effort to build the capacity of government stakeholders to take ownership of supportive supervision and mentoring activities.

During this quarter, USAID/SIAPS contributed to the improvement of patient outcomes of malaria treatment by strengthening the pharmacy practice at health facilities. Two hospitals (Bulehora and Negelle Borena) conducted prescription reviews, and developed and implemented interventions based on the findings to improve prescribing practice. USAID/SIAPS held discussions with the respective hospitals with DTCs and management on the importance of undertaking regular antimalarial medicine use evaluation to identify the gaps and undertake interventions that eventually lead to safe and improved quality of pharmacy service at these hospitals.

One of the most important interventions to improve pharmacy service at health facilities is APTS, which involves a set of activities that includes improving the workflow; rearranging the dispensing area; and recruitment of additional staff based on workload analysis. USAID/SIAPS has continued consulting with RHBs and health facilities to renovate their dispensing areas and rearrange patient flow according to APTS requirements. USAID/SIAPS provided technical

assistance to three facilities (Lemlem Karl in Tigray Region, Boru-Meda hospital in Amhara region and Legehare health center in Dire-Dawa. The facilities spent a combined amount of 427,000 birr from their own budget to rearrange and renovate their pharmacies in preparation for APTS implementation.

### *Partner contributions*

All activities related to clinical pharmacy services were performed with direct involvement of PFSA. Health facilities renovated their premises for APTS implementation using their own internal funds.

### *Constraints to progress*

Lack of rooms at some health facilities to run DIS

### ***Objective 3: Capacity to use information for decision making strengthened.***

In quarter 1, USAID/SIAPS distributed PMIS forms/tools to 22 ART sites; and provided supportive supervision to health facilities on using the PMIS manual. USAID/SIAPS provided guidance on collecting and using ART and malaria-related information, as well as onsite training and mentoring to 13 dispensers on real-time dispensing. USAID/SIAPS compiled one bimonthly report on patient uptake and regimen breakdown and shared it with the USAID Mission and relevant stakeholders.

We collected, compiled and disseminated patient uptake reports from 623 health facilities and regimen breakdowns from 200 facilities to partners and stakeholders. PMIS formats were distributed to 22 health facilities nationally as per their request, for the purpose of strengthening pharmaceutical information recording and reporting activities.

The antiretroviral dispensing tool (ADT) was converted to EDT at three sites in the Addis Ababa city administration, and at one hospital in the Amhara Region. USAID/SIAPS provided on-the-job training to 13 dispensers of the three health facilities that had begun implementing EDT in Addis Ababa. The training was focused on how to manage patient and pharmaceutical information by using the dispensing tool and to use its outputs. EDT software has been networked at Adama Hospital for parallel dispensing at the facility. Adama Hospital management provided a new computer from their own stocks to support data capturing and aggregation using EDT software. This demonstrates a growing understanding by health facilities on the benefits of maintaining EDT, as a system, to manage ART and support decision making. Hardware and software maintenance support was also provided to 15 health facilities.

During this quarter, USAID/SIAPS collected CRMS data and discussed the findings with health facility DTCs. We provided feedback to further improve providing AMDs to patients, follow up of ADRs related to AMDs and other pharmaceuticals, rational prescribing, dispensing and patient use.

### *Partner contributions*

SCMS LDPs, CS- EHNAT M&E officers and mentors for Amhara and Tigray Regions were involved in collecting patient uptake report from ART sites.

Adama Hospital provided one high capacity computer from their stock for networking EDT.

### *Constraints to progress*

- Trained staff turnover at some health facilities
- Power interruption is an obstacle to implement real time dispensing. Computer failure at some HFs
- Absence of updated antivirus for all HFs

### ***Objective 4: Optimal use of financial resources ensured***

In the reporting quarter, six health facilities began APTS implementation (200 per cent of the target set for the quarter and 50 percent of the annual target). The facilities are two hospitals in the Amhara regional state (Enat and Boru Meda), two in Dire-Dawa region (Dilchora Hospital and Legehare health center), and two in SNNPR (Hossana and Butajira).

Implementation of APTS in Legehare health center in Dire-Dawa region, which is the third of its kind after Kolfe, and Woreda 3 health center in Addis Ababa region shows the applicability of APTS at lower levels of health care delivery system.

USAID/SIAPS provides technical assistance to health facilities to conduct ABC analysis and ABC/VEN reconciliation activities as part of its effort to improve the efficacy of medicines budgets. In this quarter, Enat Hospital in Amhara and Dilchora Hospital in Dire-Dawa have successfully conducted ABC value analysis.

USAID/SIAPS organized three training sessions on APTS in two regions (Dire-Dawa and SNNP), where a total of 97 participants were in attendance. The trainings were convened at APTS implementing facilities with participation from the respective RHBs and auditors' bureau. Training on APTS enables these participants to capture knowledge on:

- 1) Transparent systems, tools and methodologies as part of ensuring transparency and accountability in medicines and financial transactions
- 2) Methodologies for evaluating and auditing transactions and services to improve performance
- 3) Reorganization of work premises to improve patient and work flow
- 4) Estimation of human resource needs
- 5) Effective utilization of medicines budget
- 6) Enforcement of APTS implementation using legal instruments
- 7) Implementation of EHRIG pharmacy chapter at full scale
- 8) Methods for reducing medicines expiry in order to avoid wastage and save resources.

USAID/SIAPS provided onsite training and mentoring on APTS in four hospitals and one health center--three hospitals in SNNP (Hossana, Butajira and Arba-Minch), one hospital and one health center in Dire-Dawa region (Dilchora Hospital, Legehare health center). Four of these health facilities have already begun implement APTS --two in SNNPR and one in Dire-Dawa region. In addition, one review meeting on APTS was held in Addis Ababa to share experiences concerning the achievements and challenges encountered at health facilities.

*Partner contributions*

Health bureau and health facilities have assigned finance and pharmacy professionals to do the ABC value analysis on their own so USAID/SIAPS provided only technical assistance.

*Constraints to progress*

- Improper storage arrangement in Dilchora hospital created a challenge on taking inventory. Some resistance on the implementation of APTS observed by some professionals.
- Shortage of human resources (pharmacy and cashiers) in SNNP region.

## **Guinea**

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

During this first quarter of the new fiscal year, SIAPS Guinea focused on end-of-year reporting and lessons learned, but also on strategic planning and streamlining of activities for the upcoming year. In addition to the usual quarterly report, the team submitted a customized annual report to the USAID Mission, complete with the deliverables/activity reports for FY 2013, success stories, and specific templates and indicator tracking for the USAID PPR and the PMI annual report. A senior management visit from SIAPS headquarters reviewed the status of technical activities as well as financial and administrative aspects of the program, and provided opportunities for important discussions with USAID/PMI Guinea and key in-country partners (PNLP, PCG, Stop Palu and CRS) that will shape future activities and accelerate progress towards objectives 1 (good governance), 2 (capacity building for pharmaceutical management), and 4 (service delivery/malaria commodity distributions).

Progress continued in this quarter toward meeting objective 3: improving the availability of information (reporting) for decision making. Data analysis was completed for the third EUV survey, and results/recommendations were presented to national, regional, and district health authorities, resulting in an action plan. PNLN and SIAPS worked together to track and provide feedback to the districts on the monthly malaria reports that are now being emailed to PNLN and done on the new PMIS system introduced last year. Finally, the third quarterly regional meetings took place in early December 2013 in Conakry, Labe, and Boke, focusing on EUV discussions; next steps with the malaria reporting system; refresher sessions on stock cards, product order, and delivery forms; and improving the data quality of the monthly malaria reports.

### ***Highlights of Results***

One out of four quarterly review meetings was conducted, thus meeting the target for the quarter. The December meeting involved approximately 80 participants at 3 locations. These regular meetings have proven to be a very useful forum for discussion, consistent follow-up and refresher trainings, contributing to progress in reporting, and bringing to the forefront critical issues identified during the EUV surveys, which are now shaping other regular supervision visits by the districts/regions to facilities.

As part of these quarterly review meetings, refresher training sessions were held for the regional/district pharmacists and health directors (40 persons) on specific aspects of pharmaceutical management, including the proper completion of stock cards, the new product order, supply and receipt form, and monthly reports.

The percentage of health districts in PMI zones that have Internet access continues to be 100 percent, which is the target set. With the launch of a new, electronic malaria reporting system, SIAPS determined that it was important to provide Internet keys to all 19 district data collectors

(this was done in July 2013). Since then, SIAPS has provided a limited monthly credit for Internet connection to the districts to facilitate reporting activities (and to PNLP's M&E and pharmacy teams to have access to the reports and to respond). Connectivity has greatly helped with the transmission of reports on a monthly basis. In December, SIAPS also provided USB keys to the 19 district data collectors, the 5 regional supervisory data collectors, and PNLP.

Following an average reporting rate of 80 percent for the quarter ending in September 2013, reporting rates continued to stay above 80 percent for October and November 2013 (exceeding the target set for the full FY 2014). We report the indicator "percentage of health facilities that completed and submitted a PMIS report for the most recent reporting period" as 80 percent, corresponding to the combined rate of reporting for the three months of the previous quarter (July, August, and September 2013). This strong result shows the benefits of electronic reporting, accomplished with minimal investments in IT infrastructure at the national, regional, and district levels.

### ***Objective 1: Pharmaceutical sector governance strengthened***

A workshop in August 2013 organized by the National Regulatory Authority (DNPL) and financed by SIAPS led to the revision of the National Pharmaceutical Policy (NPP); a second workshop was organized by DNPL and supported by the World Health Organization (WHO) in December 2013 with the goal of drafting an implementation plan for the NPP. The last workshop in the series in early 2014 will again be funded by SIAPS and will serve to validate these new documents at the country level. DNPL and SIAPS are currently in discussions for planning the final workshop. The implementation plan for the NPP was a deliverable in SIAPS's work plan for FY 2013; however, it was delayed because of competing priorities at DNPL and the political environment (legislative elections) in Guinea in September 2013.

In December 2013, SIAPS Guinea and HQ representatives participated in a high-level meeting where the European Union presented results of its 2012 audit of the Central Medical Store of Guinea (PCG); this meeting was held under the auspices of the deputy minister of health and involved officials from the Ministries of Health (MoH), Finance, Budget, Cooperation; donors and implementing partners; NGOs; and the private sector. The audit evaluated the system of internal controls and organization of PCG, the financial situation, and technical aspects, such as procurement and distribution of medicines.

Among the key recommendations were the following:

- MoH should revive its convention with the PCG and provide funding so that the PCG can balance its budget and recover from debt
- PCG should revise its manual of internal procedures (an activity in the SIAPS work plan) and improve operations
- MoH should reorganize the DNPL and make it more efficient
- Partners and donors should better coordinate their activities and support the PCG in its central role for distribution of medicines in Guinea

A second meeting at MoH established a committee to follow up on the recommendations of the audit; it was suggested that SIAPS be part of this committee. In addition, the EU announced that SIAPS, EU, and UNICEF will take the lead in organizing a partners' coordinating committee focused on pharmaceutical management, with discussions starting in January 2014.

### *Constraints to progress*

There is currently momentum at the highest levels to build capacity at the PCG and support reforms. It is important for USAID/PMI and SIAPS Guinea to be a part of this support network for the PCG to encourage country ownership and health system strengthening. However, the process will be long term, as MoH will have to find ways to inject much-needed funds into the PCG to improve its operations, human resources, accounting, procurement, and transparency.

### *Partner contributions*

Many public and private partners have listened to the recommendations of the EU audit and have publicly committed to supporting the PCG as part of an integrated logistical framework.

### *Deliverables*

A draft of the implementation plan of the NPP is currently available (the final is expected in early 2014).

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

Following specific problems identified during the EUV surveys and based on requests for training from the field, SIAPS conducted a refresher session on stock cards at the health facility level, including how to properly fill them out, during the third-quarter review meetings in December 2013. Health directors and pharmacists (from the district and regional levels) were the targeted audience for these sessions, as they are responsible for training at the health facilities and conducting supervisory visits. Other training sessions incorporated into the quarterly review meetings included a recap of the new product order, supply, and receipt form and the "pull" system for malaria commodities. Regional and district pharmacists were encouraged to remind facilities that going forward, they must submit quarterly product orders based on the previous quarter's consumption and that distributions will no longer be conducted by the central level (PNLP and PCG) by allocation. The district is now the first level of review for the facilities' product orders, and the region has final approval of product orders, coordinating deliveries with the regional depot.

### *Constraints to progress*

One of the key activities in SIAPS' work plan is to provide technical assistance to strengthen a national task force for quantification, procurement, and supply chain management of malaria commodities. Although the creation of this operational task force was one of the main

recommendations of the quantification workshop organized by SIAPS and PNLP in August 2013, to date, progress has been slow; PNLP has not initiated regular meetings of the task force, despite assistance offered by SIAPS with drafting the terms of reference and organizing the meetings. SIAPS will continue to follow up on this activity, with a proposal for the task force to meet at least quarterly and include all key stakeholders involved in malaria procurement and supply chain management in Guinea, including technical partners such as SIAPS, CRS, DELIVER, etc.

### *Partner contributions*

The refresher training sessions held at the third-quarter regional meetings were conducted jointly by the PNLP pharmacist and the SIAPS country program director and were aimed at the regional and district health directors and pharmacists.

### *Deliverables*

A draft of the terms of reference for the task force is currently available (meeting minutes will serve as deliverables once the task force commences regular meetings).

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

During this quarter, the data from the third EUV survey, conducted in September 2013, were analyzed and reported to PMI and the national, regional, and district levels as part of the quarterly, regional review meetings. The September EUV results were similar to the ones from April; the resulting recommendations focused on improving the quality and frequency of supervisions, inviting the hospitals and health centers to district-level meetings, providing written feedback to facilities on their monthly reports, training facilities on the new malaria treatment guidelines, completing patient registers with key information such as the results of malaria tests, training facilities on stock management, and submitting product orders for malaria commodities based on consumption and stock status. The next EUVs are proposed for February/March and August 2014, with an expanded geographical scope (countrywide).

SIAPS worked closely with PNLP's M&E team in tracking the monthly malaria reports that are now transmitted via email to a generic address (RapportPalu@gmail.com). A tracking tool has been set up in Excel which assigns a monthly (then quarterly) score to the districts, based on the rate of completion, timeliness, data quality and e-delivery of the reports. Regular working sessions between PNLP and SIAPS have allowed for reviewing reports, sending reminders to the districts, and providing detailed feedback. This work-intensive tracking mechanism was considered critical in the initial months after launching the new reporting system, and it led to further improvements in the rate of completion. For the three months of the quarter ending in September 2013, the average completion rate for reports was 80 percent.

The third-quarter regional meetings on malaria took place in Conakry, Labe, and Boke (two days each) in early December. A PNLP and SIAPS delegation led the meetings which included the

regional and district health directors, pharmacists, data collectors, and the regional supervisory physicians. EUV results and recommendations were presented, along with reporting progress and next steps, particularly improving data quality. Practical sessions focused on the presentation of the epidemiological and pharmaceutical management situation at the district level. Other sessions addressed the most common errors found in reports and concrete strategies for analyzing data at the district and regional levels.

Three districts were announced as the winners of the second reporting competition, and received prizes (a laptop, printer, and scanner). A fourth district received a certificate of accomplishment.

SIAPS invited PNLP, Stop Palu and CRS for a brainstorming session in December to discuss expanding the new reporting system to non-PMI districts (this is expected to take place in January with CRS support) and how the existing data will be aggregated, cleaned, and analyzed for decision making. Stop Palu plans to support by working directly with the health facilities (through their regional representatives) to ensure better quality and better sources of information. A follow-up meeting to discuss data analysis will take place in early January with the National Health Information System, WHO, PNLP, Stop Palu, MCHIP, PCG, and CRS at SIAPS's office.

### *Constraints to progress*

Although great progress was made in the completion rate of reports, data quality remains an issue that SIAPS, PNLP, and its partners will next focus on. CRS and PNLP trainings in the other 19 districts of the country were initially planned by the end of the calendar year, but were postponed to January due to a Global Fund audit. PNLP would like to begin producing a regular report/publication with aggregated data from the monthly reports, but data quality in PMI zones will first have to be improved, and facilities outside of PMI zones will have to begin sending in the new reports for the information to be issued at the national level.

### *Deliverables*

A draft summary of the EUV results presented at the quarterly meetings and a draft of the corresponding recommendations/action plan are available (the final versions are expected in early 2014).

### ***Objective 4: Pharmaceutical services improved to achieve desired health outcomes***

To prevent stock-outs, a key priority during this fiscal year will be the identification of a long-term solution for the regular distribution of products to Guinea's regions and districts. This solution should support SIAPS' efforts to revive the "pull" system for malaria commodities (based on product orders initiated at health facilities) rather than the current "push" system (products pushed from the central level to the facility level, irrespective of consumption needs).

SIAPS plans to coordinate with DELIVER so that data from the newly-launched information system is used to support the distributions. In addition, SIAPS will need to brief DELIVER on

the system of quarterly product orders and deliveries and the new forms introduced by SIAPS, PNL, and PCG at the district and facility levels. During this quarter, further discussions took place between SIAPS Guinea, SIAPS HQ, and the USAID/PMI Mission, which resulted in the Mission connecting DELIVER and SIAPS to discuss and arrange the January distribution. SIAPS will conduct this distribution with funding, likely transferred from DELIVER.

*Constraints to progress*

The timeline for DELIVER's initial assessment in country is now late January 2014, which means that a temporary solution had to be found for the January distribution, with support from SIAPS, PNL, and PCG.

## **Lesotho**

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

### ***Overall Quarter Progress***

In order to ensure that pharmaceutical sector governance is strengthened, SIAPS continued to work with MOH to finalize the STGs and EML.

SIAPS conducted country-wide quantification of HIV rapid test kits (RTKs) with MOH. Relevant partners were consulted during this quantification including the Clinton Health Access Initiative (CHAI), Global Fund Coordinating Unit (GFCU), and National Drug Service Organization (NDSO).

SIAPS participated in ongoing consultative meetings to establish the Supply Chain Directorate at MOH. It is envisioned that the supply chain directorate will coordinate the procurement and logistics management of all health commodities including ARVs and ART-related commodities including RTKs.

SIAPS procured 16 refrigerators, pallets, lin bins, and lin bin stands to facilitate proper storage of pharmaceuticals including heat-labile ARVs at health centers. Currently, health centers store pharmaceuticals on the floor and pre-packed medicines are placed in the old and unsanitary boxes.

During the quarter, SIAPS coached and mentored 34 health care workers at the hospital, health center, and district levels to improve ART patient monitoring, inventory, and data management.

SIAPS procured a license for the electronic PMIS (ePMIS) software. The ePMIS is web-based and can be accessed at: [www.eartepmis.co.ls](http://www.eartepmis.co.ls). SIAPS further procured 20 cell phones for mobile health (mHealth) technology use in 20 health centers to be piloted in the next quarter.

SIAPS conducted mentorship on RxSolution at hospital level on capturing data for ARVs and use of paper-based daily dispensing tally sheets to backup RxSolution.

SIAPS worked with MOH to conduct supervision and mentoring in hospital laboratories in the 10 districts. The exercise supported the collection and processing of hospital-level LMIS data including routine data quality assessments.

SIAPS developed a tool to capture the number of people turned away for HIV testing services because of stock out of HIV test kits at health centers. The information from consumption records and information from this tool can be used to derive actual consumption to best quantify for HIV test kits at health center level.

### **Highlights of Results**

SIAPS and MOH conducted supervision and mentoring visits in 16 hospital laboratories in 10 districts. The exercise was conducted to support the implementation and routine collection and processing of LMIS data at hospital level. The laboratory reporting rates in LMIS rose to 69 percent, up from 64 percent in the previous quarter. SIAPS supported MOH with close supervision and monitoring of the laboratory LMIS to ensure that reports are completed and submitted. Sixty-nine percent of health facilities completed and submitted an LMIS report for the most recent reporting period, against the annual target of 80 percent. SIAPS worked with the laboratories to draw action plans to ensure that post-supervision activities are successfully implemented.

SIAPS supported MOH by updating the daily dispensing tally sheet to factor in timely pick up of all prescribed ARVs for both adults and children. The tally sheet was handed over to the ministry for printing and distribution to health facilities. The tool will enable MOH to track the indicator “percentage of ART patients (adults and children) picking up all prescribed ARV drugs on time” (WHO-Early Warning Indicator 1).

During the quarter, there were no reported stock-outs of tracer items for three days or more. All of the district hospitals were stocked with RTKs with no reported stock-outs lasting for three days or more. The stock-outs should remain at less than ten percent of the target.

A total of 45 out of 186 health facility visits were conducted during the quarter and 58 health care workers were mentored and coached on data collection and use to properly quantify their monthly health commodities requirements. The annual target for mentorship and coaching of health care workers in pharmaceutical commodity management is 186. Post-mentoring action plans are developed with the health center and followed for continuous strengthening of the system.

SIAPS mentored 21 hospital laboratory staff on laboratory commodity management for proper ordering and quantification of RTKs to ensure that they are continuously available. SIAPS exceeded the target of 18 as a result of mentoring not only laboratory heads but also other laboratory staff as well.

### **Objective 1: Pharmaceutical sector governance strengthened**

SIAPS continued to work with MOH to work on finalizing the STGs and EML. This activity is, however, moving very slowly and is hoped to be completed in the next quarter.

### **Constraints to progress**

SIAPS has continued to work closely with the Pharmaceutical Directorate so that it can prioritize and finalize the STGs and EML.

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

SIAPS provided support to MOH logistics activities. SIAPS worked with MOH to conduct a quantification exercise of RTKs starting in December 2013. The exercise was conducted in consultation with other relevant partners, including the CHAI, GFCU, and NDSO. The quantification activity was conducted as part of SIAPS' ongoing support to MOH and the national SCM TWG to improve quantification and performance tracking of the SCM system for ART-related commodities including RTKs.

SIAPS also worked with MOH to draft a letter of request to PEPFAR to make an emergency procurement of RTKs in order to avoid a stock-out of HIV test kits. This letter of request was particularly important since the next GF procurement will only be approved in April 2014 and the Government of Lesotho is planning the scale up of HIV testing in line with 2014 National Strategic Plan (NSP). Additionally, SIAPS worked with the GFCU to conduct a budget gap analysis for the procurement of the RTKs.

SIAPS participated in ongoing consultative meetings to establish the Supply Chain Directorate at MOH. It is envisioned that the Supply Chain Directorate will coordinate the procurement and logistics management of all health commodities including ARVs and ART-related commodities, such as RTKs. The unit will ensure that there is continuous availability of health products and contribute to the achievement of desired health outcomes in Lesotho. The establishment of this directorate is in the national PSM plan that is yet to be finalized and adopted.

SIAPS participated in the National Supply Chain Assessment carried out by SCMS. SIAPS, as the main supply chain implementing partner, took part in the exercise to assess the capability and performance of the nation's supply chain in order to provide information for evidence-based decision making and to ensure access and availability of health commodities.

SIAPS, MOH, and the NDSO started monthly coordination meetings that have streamlined the SCM of ARVs and ART-related commodities including RTKs.

On the basis of a recommendation from the capacity needs assessment study, SIAPS procured 16 refrigerators that will be donated to the MOH pharmaceutical department for use in health centers to store heat-labile ARVs, such as boosted Lopinavir (Kaletra) syrup. Moreover, SIAPS also procured pallets, lin bins, and lin bin stands for proper storage of pharmaceuticals at health centers.

SIAPS provided support for coaching and mentoring of staff at hospital, health center, and district levels on patient, inventory and data management. In this quarter, 34 health care workers were mentored and coached on how to collect and use data to quantify monthly requirements for ARVs, OI, TB, FP, and nutrition commodities. The mentoring emphasized the need to accurately and consistently capture data on the daily dispensing tally sheet (DDTS) for both adults and children on ART.

During the quarter, the Zion health center in Berea was accredited to offer ART, and SIAPS is planning a mentoring visit in the next quarter. A mentoring visit was conducted for new staff in Butha-Buthe district on the use of data collection tools for ART program, including training on the DDTS, bin cards, and ART requisition book.

### *Partner contributions*

SIAPS conducted the quantification exercise of RTKs with CHAI, GFCU, and NDSO to ensure that the quantification processes are understood by all partners involved.

### *Constraints to progress*

There is a need for MOH to take a leading role in finalizing the PSM plan. SIAPS is working with the GFCU and other relevant implementing partners, to facilitate the finalization of the PSM plan.

Challenges identified during the reporting period included inconsistent and inappropriate use of the DDTS (an issue at 24 of 44 health centers visited), and irregular transport to health centers from the district health management team (DHMT). These challenges are seen more in health centers located in hard-to-reach areas, with many centers neither submitting reports on time nor in a consistent manner. This is particularly difficult in the Butha-Buthe district where three (Rampai, Motete, and Boiketsiso) of the 10 facilities are located in hard-to-reach areas. SIAPS has a planned meeting with the Riders for Health so that they collect these reports at the time they collect clinical specimens from the health centers.

### ***Objective 3: Utilization of information for pharmaceutical and laboratory decision-making increased across all levels of the Lesotho health system***

Previously, RxSolution was implemented in 15 out of the 17 hospitals, however implementation was inconsistent as there were not enough computers to run both the dispensing and inventory management modules of RxSolution. At least four computers at each hospital (one for registration of patients, one for inventory management, and at least two for dispensing) are needed for RxSolution to be fully functional.

The lack of computers at some health facilities prevented data from being collected and submitted to MOH and limited MOH's ability for informed decision making. A mapping exercise was conducted and revealed that a number of facilities were not running all of the RxSolution modules. Only eight hospitals had both the dispensing and inventory management modules of RxSolution functioning. To help address this issue, SIAPS procured 24 computers to be installed at the hospitals in the next quarter. Previously, computers were installed at six government hospitals to ensure that both modules are present and functioning.

After procuring a license for the ePMIS software, SIAPS continues to test and train MOH staff. The ePMIS is web-based and can be accessed at: [www.eartepmis.co.ls](http://www.eartepmis.co.ls). Additionally, SIAPS

procured 20 cell phones that will be used for mobile health (mHealth) technology to be piloted in 20 health centers in the next quarter.

SIAPS provided technical assistance and mentoring to eight RxSolution users at four of the 17 hospitals on how to capture ARV data and use paper-based daily dispensing tally sheets as a backup for RxSolution. These data provide accurate ARV consumption data and are important for proper quantification and forecasting at both facility and national levels. Further support was provided to hospitals to conduct inventory stock count, and then cross-check and enter the data into RxSolution.

SIAPS worked with MOH in this quarter to increase maximum stock levels of RTKs at hospital laboratories from 2 months to 3 months in order to ensure continuous availability of RTKs. This aligns the maximum stock level at the facility level with the stock level of ARVs. The increase in maximum stock level will improve consumption recording data, lead to accurate quantification, and avert stock outs. There is a need to identify a minimum stock level for RTKs as none exists currently.

SIAPS, together with MOH, conducted supportive supervision and mentoring visits in 16 out of 18 hospital laboratories in the country to support implementation of the LMIS and improve routine collection and processing of data at the hospital level. During these visits, data quality assessments were conducted by comparing physical inventory to the stock record in order to measure the accuracy of LMIS data. Nine out of the 16 hospitals showed varying discrepancies between the physical stock and bin card record for Determine 100 test kits and four hospitals showed discrepancies between physical stock and bin card records for UniGold test kits. Twenty-one laboratory personnel were mentored on inventory and records management for laboratory commodities especially RTKs. There was an improvement in reporting rates by the laboratories from 64 percent to 69 percent from the fourth quarter of FY13 to first quarter of FY14.

SIAPS and CHAI reviewed the laboratory LMIS reporting tool for health centers in order to document consumption data from the health centers and to have an appropriate record of transactions from the end-user point of view. Consumption data will be used by the health centers to order test kits from their respective hospital laboratories.

#### *Partner contributions*

The activity to review the laboratory LMIS tool for the health centers was conducted in collaboration with CHAI.

#### *Constraints to progress*

Inconsistencies in data collection and data entry into RxSolution were noted especially in Berea and Butha-Buthe districts primarily due to a shortage of staff.

There are challenges in reporting and timely submission from the laboratories to central level. The submission of all other reports from the district level, apart from the laboratory LMIS reports, is done through the DHMTs. SIAPS advocated with MOH for the LMIS reports from the

laboratories to be included on the list of items that are sent to the DHMTs every month. Since the laboratories are closer to the DHMTs than to the central level, this would facilitate more timely report submissions.

There is no standard way to report the usage of RTKs at health center level. This is due to the fact that LMIS has not been implemented at the health centers. SIAPS is advocating that MOH implement LMIS tools at health center level. Mafeteng and Mohale's Hoek district logistics officers mentored 17 (13 in Mafeteng and 4 in Mohale's Hoek) health center staff in monthly submission RTKs usage and the importance of updating bin cards for RTKs.

## **Mali**

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

### ***Overall Quarter Progress***

SIAPS provided assistance to the National Malaria Control Program (NMCP) by developing two distribution plans for malaria commodities. SIAPS also provided technical assistance to the Direction de la Pharmacie et du Médicament (DPM) by helping prepare for the quantification of contraceptives and by participating in a workshop to elaborate and validate the strategic plan for securing reproductive health and blood products. The strategic plan provides the direction and vision for 2015-2018 and strengthens governance in the area of family planning and maternal and child health.

SIAPS also assisted MoH, through the DPM, and Regional Directions of Health (Directions Régionales de la Santé), to establish a pool of trainers who can train additional users in the new LMIS SOPs. These 24 trainers come from national (DPM, NMCP, and PPM) and regional (DRS Kayes, Koulikoro, Sikasso, Segou, Mopti, Tombouctou and Kayes) levels, as well as from partner organizations, such as Population Services International (PSI). This activity strengthened individual and institutional capacity to carry out optimal stock and logistic information management.

During the quarter, SIAPS made progress towards making medicines information available for decision making at all levels of the health system. Working closely with various partners such as the DPM, the NMCP, the Pharmacie Populaire du Mali (PPM), and PSI; SIAPS helped to develop the procurement, planning, and monitoring reports for malaria commodities (PPMRm) and contraceptives (PPMRc). Information on the quantities of malaria and family planning commodities distributed throughout the country was collected at the central level by PPM and in the public sector by PSI. Recommendations from the PPMR allow USAID to plan, procure, and ship commodities as needed in order to improve medicines availability and avoid stock outs.

### ***Highlights of Results***

#### *Indicator 2.d.1. # of persons trained in pharmaceutical management*

From September 30 to October 10, 2013, SIAPS supported MoH (through the DPM) in conducting a ToT workshop for 24 trainers. These trainings were focused on providing participants with the resources necessary to be able to train others on warehouse management, storage, logistic reporting, and use of job aids and tools to help with common LMIS processes. Participants included national-level stakeholders from DPM, NMCP, and PPM, as well as regional pharmacists and warehouse managers. This added capacity will help improve the quality of implementation of the new LMIS and SDADME (Schéma directeur d’approvisionnement et distribution des médicaments essentiels) and build capacity of users in the field to report LMIS

data to higher levels. It is intended that this activity will improve stock management, data collection, and reporting rates at all levels of the health system for evidence-based decision making.

The objective for this fiscal year is to train 400 warehouse managers on the new LMIS SOPs in the five southern regions of Mali and increase the reporting rate of LMIS data from 8.3 percent to 40 percent. The pool of regional trainers developed action plans to train users at the peripheral level in order to meet the target.

*Indicator 1.b.3 # of pharmaceutical management guidelines, lists and SOPs developed or updated and submitted*

For the ToT workshop, three LMIS training manuals were finalized and validated with MoH. These manuals are (1) the facilitator's manual for the central and regional levels, (2) the participants' manual, and (3) the facilitator's manual for the peripheral level. These manuals provide standardized guidelines for the trainers that describe the LMIS training process.

*Indicator 1.2 # of distribution plans developed with SIAPS contribution*

In November 2013, SIAPS provided technical assistance to NMCP to develop distribution plans for two PMI deliveries of malaria commodities. For each delivery, a distribution plan was developed to ensure that adequate quantities are allocated following transparent assumptions (based on epidemiologic or logistic data).

### **Objective 1: Pharmaceutical sector governance strengthened**

SIAPS provided technical support to the NMCP as part of the development of distribution plans for Malaria commodities delivered by PMI. These distribution plans were developed for artemether-lumefantrine tablets (ALU 6, ALU 12, ALU 18, ALU 24) and sulphadoxine-pyrimethamine tablets received on October 24, November 4, and November 18, 2013. In the new LMIS system that the DPM is putting in place with SIAPS support, the distribution of all commodities, including donated malaria products, will follow a pull system from the central level to the centre de santé communautaire (CSCOM) and a push system between the health community workers and the CSCOM. SIAPS will provide support to MoH to roll out the new LMIS SOPs in the coming months. During the transition period, SIAPS will continue to assist the NMCP in developing distribution plans of malaria commodities at the regional and district levels to ensure that the quantities allocated are adequate and follow transparent assumptions.

Support was also provided to the DPM to prepare for the quantification of contraceptives. SIAPS helped the DPM develop a framework document describing the quantification process for contraceptive commodities including planning, data collection, forecasting, procurement, and validation of the results. This document will be submitted for approval to the quantification committee to increase transparency and improve governance.

To improve the availability and the use of pharmaceutical management tools, norms, and standards for drug management; SIAPS supported the DPM in producing stock cards, the logistic data report tool (CRGS), and the new LMIS SOPs manual. Over 43,000 stock cards, 400 CRGS, and 850 LMIS SOPs are being produced. The tools will be disseminated to health centers during the next quarter at training workshops. Production and provision management tools in health centers will enable managers to better manage their stock and to report logistic data to higher levels in order to facilitate evidence-based decision making.

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

During the quarter, SIAPS provided technical and financial assistance to the DPM and DRS to train a pool of 24 trainers on LMIS SOPs. Knowledge and skills acquired by the trainers will ensure the roll out of the LMIS. The ToT was held from September 30 to October 10, 2013, at the Hotel Salam where 24 trainers (19 men/5 women) including regional pharmacists (Kayes, Koulikoro, Sikasso, Segou, Mopti, Timbuktu, District of Bamako), pharmacists from the national level (DPM, PPM, NMCP), and staff from PSI were trained. Each region developed a post action plan for the roll out and as a next step, will be training users on LMIS tools, coaching, and supervision.

***Objective 3: Information for decision making challenge in the pharmaceutical sector addressed***

SIAPS worked closely with the DPM and the NMCP to produce the quarterly PPMRm. The PPMRm is a mechanism that was established by PMI/Washington to provide specific information on the availability of artemisinin-based combination treatment, sulphadoxine-pyrimethamine, and rapid diagnostic test kits for malaria at the Central Medical Store on a quarterly basis.

The PPMRm report submitted contained the following information:

- Stock on hand at the Central Medical Store (reported as months of stock)
- Upcoming expected shipments for each antimalarial commodity (per partner, including PMI, Global Fund)
- Recommendations on critical actions to be taken by USAID and partners to respond to any problems

The lifting of the suspension on family planning activities allowed SIAPS to collect information on contraceptives distributed by PPM, combine it with data from PSI on couple-year protection, and sharing the quarterly PPMRc with USAID/Washington and DELIVER. Currently available as a draft, SIAPS will next validate the PPMRc before submitting it.

## **Mozambique**

In general, SIAPS/Mozambique did not made significant progress towards meeting targets in this quarter. One of the reasons is that concept notes and preparation activities needed to start certain activities, such as the National Essential Medicines List (NEML), pricing system, and the development of PharmaDex, were not approved.

### ***Objective 1: Governance in the pharmaceutical sector strengthened***

In an effort to streamline procurement activities, minimize institutional costs, and optimize patient care and to build on work begun last quarter, SIAPS submitted a concept note, terms of reference (TORs), and procedures and guidelines for updating and reviewing the NEML. These have now been approved by the Pharmacy Department (PD) and the Ministry of Health (MISAU). Selection of committee members was agreed upon and submitted for final approval and nomination. During this period, SIAPS prepared the supporting documents and information (available STGs, an updated list of registered drugs in Mozambique) to facilitate a quick start for the committee to review and update the NEML. It is expected that before the end of January 2014 the committee will start meeting, and that the first draft of the NEML will be ready in two to three months. The result will be a list of all medicines approved for procurement and use in Mozambique's public health sector, providing the basis for the development of regional, hospital, and clinic formularies.

#### ***Constraints to progress***

- MISAU did not finalize the nomination of the NEML members the last quarter. It is expected that the final nomination will be made before the end of January 2014.
- The issue of MISAU's delay in nominating the committee members was raised officially with USAID Mozambique and the head of the PD.

### ***Objective 2: Utilization of strategic information for decision making increased***

SIAPS has previously recommended that the software tool Pharmadex be used to improve the registration of pharmaceuticals in Mozambique. Once systems are in place and/or strengthened, SIAPS will work with the pharmaceutical sector to ensure that the information is being used and applied appropriately and that the use of strategic information for decision making is institutionalized in relevant processes and procedures.

During this period, the PD, in cooperation with the resident advisor, started collecting the PharmaDex customization requirements information that SIAPS needed to start the process of software customization. This included logos, staff photographs, a narrative for introduction of the PD and the registration process, links to external websites, forms, documents, guidelines and

guides to post on the PharmaDex website, and explanations of the registration processes, including complete product registration and renewal and the types of users illustrated by their roles.

*Constraints to progress*

- Customization of PharmaDex was not completed because the process for determining what was needed and actually gathering the material was much slower than anticipated.
- This constraint was also raised with USAID Mozambique and the head of the PD.

**Objective 3: Financing strategies and mechanisms strengthened to improve access to medicines**

SIAPS previously proposed a new roadmap to enforce the pharmaceutical price control system and to build staff capacity to properly control and enforce the system within the current pricing laws. In this quarter, the assessment/roadmap report was translated and presented to the head of PD and the management team. Several discussion meetings were held with the administration and inspection departments of MISAU as a follow-up. A stakeholder workshop was proposed to the PD as a means of presenting and discussing this plan, however this was not accepted by the PD.

*Constraints to progress*

- Despite continued discussions with the PD director, the head of the inspection sector and the head of finance and administration sector within the PD, and several attempts by the resident advisor to elaborate in more detail the proposed medicine pricing system and action plan, no progress was made this quarter.
- There is only one newly appointed pharmacist in charge of the pricing system, whereas a minimum of two staff members are needed to handle pricing regulations and two more staff members for price-related inspection.
- There are no laws in Mozambique to empower the price control system and support its enforcement.
- This activity delay was also raised with USAID Mozambique and the PD director.

**Objective 4: Pharmaceutical services to achieve desired health outcomes improved**

Building on work from FY 2013, SIAPS will continue to support Drug and Therapeutic Committees (DTCs) at hospitals to improve medicine use, improve the collection and analysis of medicine use information for decision making, provide technical support for implementing the pharmacovigilance (PV) system, contain AMR, and implement integrated supportive supervision and other supportive materials (e.g., guidelines, SOPs, training materials, job aids) to raise pharmaceutical management and services to established standards. This work is being conducted in conjunction with the Hospital Pharmacy Department at the National Directorate of Medical Assistance (DNAM).

In this quarter, SIAPS supported the DTC meetings at two pilot hospitals in Maputo: Jose Macamo General Hospital (six meetings) and Mavalane General Hospital (four meetings). In both hospitals, SIAPS assisted with the drafting of the TORs and a work plan for the DTC committee. At Macamo Hospital, a list of proposed DTC members was also prepared. In addition, SIAPS initiated the procurement of computers, printers, and Internet connections to support the DTCs.

SIAPS also sponsored an evening meeting of the Association of the Pharmacists of Mozambique that brought together about 50 pharmacists from the public and private health sectors and nongovernment companies. The meeting addressed a number of issues, including the role of the hospital pharmacy in the development of pharmaceutical profession in Mozambique, the role of SIAPs and its support to the Department of Hospital Pharmacy, and an international perspective on the future of the pharmaceutical profession. Keynote speakers included José António Aranda da Silva, ex-director of INFARMED (National Authority of Medicines and Health Products) of Portugal and a member of the management board of the European Medicines Agency, and Dr. Feliciano Cumaquela, an academic teacher of hospital pharmacy (as a discipline), and head of Pharmaceutical Services of the Central Hospital of Maputo.

#### *Constraints to progress*

- The DTC members are part of the hospital staff and are overwhelmed with work
- Although computers and Internet connections are being procured, the current lack of access makes it difficult to make contact, connect, and share information
- Adequate office space is not available

Although the goal is to eventually make the national PV system operational, nothing was done in this quarter because the professional staff is scheduled for training in February, March, and April. A representative from the PD PV sector will join the DTC training team in their visits.

DNAM has expressed the need for the support from SIAPS for the development and/or review of standard treatment guidelines (STGs) for the treatment of priority diseases and conditions in Mozambique.

During this quarter, SIAPS assisted in developing the TORs for a national STG committee. Nomination of the committee members is expected in the second quarter.

The full inventory and hard copies of the four available STGs were compiled and prepared for sharing with the committee. These are for HIV and AIDS, TB and MDR-TB, malaria, and hypertension and other cardiovascular risk factors.

#### *Constraints to progress*

- The feedback from the original DTCs for the updated information for the STGs is taking longer than expected.
- The hospital pharmacy department (two staff plus the head of the department) is

overwhelmed with their existing job responsibilities. The SIAPS technical advisor is continuously providing technical support to advance implementation of the related activities.

*Output/deliverables*

- The process for the review of the existing STGs has started.

## **Namibia**

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

### ***Highlights of Results***

Two antimicrobial resistance (AMR)-related fora organized by AMR stakeholders following the SIAPS-supported AMR/rational medicine use (RMU) workshop in July 2013 show a growing realization of the role of pharmacy-based clinical and managerial interventions in helping to curb and prevent inappropriate antibiotic use in hospital settings; 66 participants attended the workshop in which a multi-stakeholder implementation plan and call-to-action statement promoting the rational use of ARVs, anti-TB, and other medicines were developed. During the 2013 annual pharmacy week, the Ministry of Health and Social Services (MoHSS) and the Pharmaceutical Society of Namibia (PSN) organized a pharmacy against AMR workshop attended by 35 academicians and healthcare personnel. In November 2013, a multidisciplinary coalition, Namibians Against Antimicrobial Resistance (NAAR), whose creation was supported by SIAPS, conducted a workshop at UNAM SoP for 82 healthcare workers and academicians. NAAR is one of the key stakeholders in AMR interventions in Namibia.

Participants of the SIAPS-supported AMR workshop interactively developed action plans which, coupled with the on-going technical assistance to partner institutions, have contributed to the ongoing AMR interventions. The knowledge of AMR enhancement is yet to expand to the regional level to impact the number of health facilities (HFs) implementing activities to monitor or promote adherence to recommended ARV treatment (from 36 HFs in July-September to 45 HFs targeted annually).

Since its start, SIAPS has cumulatively trained 66 people on pharmaceutical management information system (PMIS) and 87 people on EDT and enhanced capacity of the MoHSS ART logistics pharmacist and chief pharmacist to compile reports. With the knowledge and skill gained, the PMIS and EDT trainees report on patients and medicines, including ARVs. The percentage of HFs that completed and submitted an LMIS report (consumption data section of the ART monthly report ) for the most recent reporting period increased from 86 percent (43 of 50) at baseline in December 2012 to 88 percent (46 of 52) in July-September 2013. Information on patients and medicine stock has been used in forecasting and planning for ART and other programs.

### ***Objective 1: Pharmaceutical regulatory system strengthened***

SIAPS continued to build the capacity of local institutions to address pharmaceutical related challenges hindering the availability, access to and effective utilization of ARVs and other essential medicines. The SIAPS team, in coordination with the Namibia Medicines Regulatory Council (NMRC) and MoHSS, adapted Pharmadex user requirements for Namibia. SIAPS

drafted a manual to support the implementation of Pharmadex. SIAPS engaged a consultant to help the Health Professions Council of Namibia (HPCNa) develop a framework for regulating pharmacy education providers and practitioners in Namibia. A SIAPS-funded consultant conducted a preliminary assessment to support MoHSS in designing a system for managing medical equipment.

### *Constraints to progress*

Slow progress with some planned activities because technical staff was unavailable. Activities affected include—

- Installation of the Pharmadex system
- Training pharmaceutical personnel on evaluation of medicines registration dossiers and pharmaceutical Good Manufacturing Practices

### ***Objective 2: Capacity of pharmaceutical human resources and local institutions in managing the pharmaceutical system and supply chain in delivery of sustainable ART and other pharmaceutical services strengthened***

SIAPS Namibia has been supporting the MoHSS Division of Pharmaceutical Services to conduct annual national pharmaceutical SSVs aimed at strengthening the delivery of ART and other pharmaceutical services. Through experience, lessons learned and gaps identified, SIAPS is updating the SSV checklist with an improved scoring mechanism and increased emphasis on pharmaceutical system maturity and capability aspects. The scored checklist is used to measure and monitor performance of facilities in the various pharmaceutical management aspects.

SIAPS held meetings with UNAM SoP staff and consultants to get insight on planned activities and programs from UNAM for possible inclusion in the strategic document to be developed with support from SIAPS. Follow-up meetings were held with other stakeholders to map out areas for collaboration with UNAM. These included NMRC, private sector pharmacists, and MoHSS (Division of Pharmaceutical Services).

A SIAPS team of technical resource persons is helping UNAM SoP develop a module for supply chain management to be used for pre-service teaching of BPharm students at UNAM. A draft module was completed and is under review by UNAM SoP. This is an FY 2013 continuing activity.

### ***Objective 3: Pharmaceutical metrics developed and the availability and use of data for making strategic evidence-based decisions improved***

SIAPS supported the National Tuberculosis (TB) and Leprosy Programme (NTLP) of MoHSS to conduct a four-day training on e-TB Manager. This comes after the system was successfully piloted at Intermediate Hospital Oshakati and Walvis Bay District Hospital. Forty healthcare workers including nurses, doctors, pharmacists and pharmacy assistants from all 34 district

hospitals in Namibia attended the training October 22-25, 2013. The system is expected to provide evidence-based information on the management of drug-resistant TB (DR-TB) patients including those co-infected with HIV at 13 designated regional DR-TB centers in Namibia.

SIAPS supported installation of the updated version of the EDT and testing data upload and import into the EDT database system to ensure that delays during data import are minimized. The updated EDT will enable pharmacy staff to easily update it with data from the mobile EDTs (mEDTs) in use at IMAI sites.

SIAPS supported MoHSS to upgrade the computerized pharmacy management system (Rx Solution) to host the database application to support stock management and dispensing at the hospital. In addition to upgrading the newer and more efficient Rx Solution server to host the database application, SIAPS enhanced the capacity of MoHSS IT staff based at Intermediate Hospital Oshakati to troubleshoot and support Rx Solution.

SIAPS supported MoHSS to train and enhance capacity of two IT staff from two regional directorates (Oshana and Kavango) to strengthen analysis and reporting of data from the EDT. The trained staff is expected to maintain the EDT software support at ART sites in Kavango and four northern regions to minimize interruption of essential pharmaceutical services. SIAPS also supported the development of an EDT IT administration manual to guide system users.

#### ***Objective 4: Financing strategies and mechanisms to increase access to medicines strengthened***

SIAPS met with and interviewed various stakeholders on medicine financing and universal health coverage (UHC). A detailed report with the transcription of interviews was prepared. This is part of SIAPS technical support to MoHSS through the Namibian Association of Medical Aid Funds (NAMAF) to assess and document the medicine benefits management gaps.

SIAPS will also recommend options to strengthen medicines benefits management under the existing health insurance system and for the planned UHC program, to ensure more affordable and easier access to ARVs and other essential medicines for treatment and care of people living with HIV.

#### ***Objective 5: Strengthen pharmaceutical services delivery to improve adherence to HIV/TB treatment, enhance achievement of health outcomes, and contain AMR***

SIAPS provided technical assistance to the Directorate of Special Programs (DSP)/MoHSS in the translation and graphics design of treatment literacy materials (flip charts) for improving patients' treatment literacy of antiretroviral therapy. Printing 250 copies of the 9 flipcharts will be completed in Q2.

MoHSS also approved the reproduction of audio-visual (DVD) materials aimed at improving ART patient treatment literacy. Reproducing 200 DVDs will be completed early in Q2.

SIAPS provided technical assistance in the drafting of two manuscripts based on the 2012 national baseline adherence survey report for publication in peer-reviewed journals and also a PowerPoint presentation for rolling out ART treatment literacy interventions to 10 hospitals. The documents will be finalized in Q2.

The ART logistics pharmacist at MoHSS (Division of Pharmaceutical Services) with support from SIAPS is coordinating implementation of some of the interventions in the early warning indicators report (of HIV drug resistance) including (1) strengthening of EDT and EPMS record systems at the facility level by populating all EDT records with EPMS' unique number and (2) enforcing the use of facility-level ART data-quality assessment forms developed with SIAPS support.

Collection, entry into SPSS software, and cleaning and processing of data for the STG post-implementation assessment was completed in Q1. SIAPS, in liaison with MoHSS, provided technical oversight throughout the process to ensure high-quality data management and output. A report of the assessment will be ready in Q2.

SIAPS engaged a consultant to further explore the option of making the STGs available to private practitioners as a cost recovery mechanism; the consultant started the task in Q1.

SIAPS supported MoHSS to reprint 3,000 copies of the Namibia STGs. MoHSS received 1,000 copies; UNAM SoP received 500 copies for use in pre-service pharmacy student training. The additional 1,500 will be distributed to NHTC for training and to the HPCNa as "seed stock" as part of the planned mechanism for sustainable STG reproduction and availability to health care workers. STGs are crucial for improving the rational use of medicines and standardizing health care practice across the country. Use of the STGs is expected to improve patient treatment and health outcomes.

SIAPS participated in an antibiotic forum organized by NAAR in collaboration with UNAM SoP; 82 people including academicians and healthcare workers from public and private health facilities attended. The forum was the second antibiotic forum organized since the SIAPS-supported workshop and stakeholder call-to-action forum on AMR and promoting the rational use of ARVs and anti-TB and other medicines held at UNAM in July 2013. The forum showed that there is a growing realization of the role of pharmacy-based clinical and managerial interventions in curbing and preventing inappropriate antibiotic use in hospital settings.

SIAPS supported MoHSS with layout and printing of the ICAT (Infection Control and Assessment Tool) and 4,000 copies of hand hygiene posters. This is part of SIAPS' assistance to MoHSS: Division of Quality Assurance in preventing and controlling healthcare-associated infections and slowing down the emergence of AMR. SIAPS supported MoHSS to prepare a poster entitled "Application of the Multi-Method Tool and Approach for Measuring Adherence to Antiretrovirals in Public Health Settings" for presentation at the International Conference on AIDS and STIs in Africa (ICASA) that was held in South Africa.

## Philippines

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

### ***Objective 1: Capacity for pharmaceutical and laboratory supply management improved***

Continuing SIAPS support to human resources system strengthening, SIAPS successfully advocated for the acceptance of the National TB Reference Laboratory human resources assessment report (SIAPS 2012) to the National TB Reference Laboratory/Research Institute for Tropical Medicine leadership. Acceptance of the assessment paved the way for the revision of the National TB Reference Laboratory's (NTRL) organizational structure. In the previous quarter, SIAPS helped redesign the NTRL organizational chart and started drafting a proposed staffing pattern. Both documents will be presented to the National Tuberculosis Program (NTP) for comments and approval.

SIAPS participated in the NTP joint program review and prepared technical reports for the sections on laboratory network and drug management.

SIAPS staff helped the Quezon City health department present the model on grassroots leadership and management in the 45th Union Conference on Lung Health in Paris. In the Quezon City pilot, TB cases initiated on treatment in 2012 increased by 23 percent as compared to previous years. The Quezon City team's participation in the conference was financed by the local government. After the presentation, interest on the model has increased in the city with one district councillor now exploring the possibility of crafting a city ordinance to support the scale-up of the model city-wide. This is a major step towards local community stewardship and sustainability of their TB programs.

To help strengthen laboratory systems, SIAPS also helped NTRL develop the 2014 operational plan and budget for the laboratory network strategic plan. SIAPS also continued supporting the finalization of the updated Philippines Plan of Action to Control TB, called PhilPACT, with SIAPS staff facilitating workshops and writing sections of the final document. SIAPS staff drafted the narrative for the sections on laboratories and drug supply management and outlined the cost of activities. These costs were incorporated into the draft PhilPACT budget.

SIAPS participated in the discussions to develop the NTP disaster response guidelines (laboratory, diagnostic and treatment algorithm, supply management) for the areas affected by the recent super typhoon. The document was issued as a Department of Health (DOH) memorandum in December for implementation in disaster areas.

Working with NTP, NTRL, and other partners, SIAPS helped develop the NTP harmonized technical assistance plan based on the needs identified in the joint program review, revised PhilPACT, and the NTP laboratory strategic plan.

SIAPS conducted a couple of TOT sessions with the Lung Center of the Philippines training team and Drugs and Supplies Management (DSM) officer on forecasting and quantification of TB medicines. The TOT was designed in a series of sessions to deal with the challenge in scheduling. The TOT sessions will continue to the next quarter.

During this quarter, SIAPS collaborated with the NTP and the Global Fund Principal Recipient (Philippines Business for Social Progress) to describe the root causes of why several second-line drugs expired. In support to the Global Fund Principal Recipient, SIAPS assisted in the procedure for and coordination of handling the expired and expiring medicines.

Also, SIAPS participated and provided comments during the demonstration of a software called “Unstructured Supplementary Service Data” (USSD) information system that was proposed by PBSP to NTP as a new information system for the TB program.

### *Constraints to progress*

Programmatic Management of Drug-Resistant TB (PMDT) staff have concerns on the changes in organization structure coming in 2014.

### ***Objective 2: Capacity for transparent and evidence based decision making increased***

The planned activities for the assessment of the Integrated TB Information System (ITIS) as part of the assessment of the NTP information system were not implemented because of the unavailability of the consultant initially engaged for this task. However, a draft preliminary report for the finished parts of the assessment has been prepared and is currently under technical review. We plan to implement these activities in the next quarter.

SIAPS is also supporting the revision in the NTP recording and reporting system through the revised NTP *Manual of Procedures*. The revised MOP will be implemented in 2014. In addition, we have started working with NTRL to improve the reporting process for laboratory services as well as planning for strengthening the laboratory information system and building the capacity of its M&E unit.

SIAPS, at the request of NTP and USAID, supports the supply chain management of NTP by tracking the availability of key TB medicines and supplies in selected warehouses and treatment facilities. SIAPS developed a TB medicines and supplies monitoring/tracking tool. The tool provides an early warning of potential stock-outs and overstock of TB medicine and supplies. It also illustrates the distribution flow of TB medicines and supplies from the upper level down to the lower level. The information will help decision makers take critical and swift actions to prevent an impending stock out or overstock of TB medicines and supplies.

### *Constraints to progress*

The consultant engaged for the ITIS assessment was unavailable. Because of the recent disasters that hit the country, activities with DOH were limited and all DOH technical staff was told to focus on supporting the disaster relief and recovery efforts.

### **Objective 3: Pharmaceutical services strengthened for improved outcomes in TB case management**

In support of strengthening pharmacovigilance, SIAPS participated in the discussions with the Filipino Food and Drug Administration (FDA), National Epidemiology Center (NEC), and Information Management Services (IMS) to harmonize the data collection tools and information systems used for adverse drug reactions (ADRs). Currently, several ADR tools and data systems are being used by different institutions and not all of these reach the FDA for consolidation and assessment. During these meetings, stakeholders agree that pharmacovigilance-related information should go to FDA and tools should be standardized by FDA. SIAPS will continue to support FDA to standardize and customize the ADR information system, as well as develop guidelines and regulation.

Also, SIAPS and FDA planned a causality assessment workshop for key FDA central and regional staff to increase their capacity in analysing ADR reports received. In the next quarter, SIAPS will develop and finalize the scope of work for this planned workshop.

SIAPS, with the laboratory working group, provided support in the development of the guidelines for the scale up of GeneXpert, particularly in setting the criteria for identifying the areas where GeneXperts will be deployed, identifying essential activities, and establishing the referral and specimen transport system. A draft document has been completed and will be presented for technical review to DOH and partners. In addition, SIAPS will assist NTRL in monitoring the implementation of GeneXperts in the country.

In the past quarter, SIAPS participated in the technical assistance mapping and research agenda with NTP, Global Fund, and other USAID cooperating agencies.

### *Constraints to progress*

- SIAPS faced a challenge responding to ad hoc requests. Recruitment of new staff in the next quarter is expected to enable SIAPS to implement planned activities and respond to ad hoc requests.
- Unforeseen adverse events such as calamities or disasters that hit the country in recent months.

### *Partner contributions*

IMPACT and TASC projects provided additional technical assistance.

## South Africa

**Goal: Strengthen the capacity of pharmaceutical systems at all levels to support the South African Government's priority health programs and initiatives to improve health outcomes**

### ***Overall Quarter Progress***

SIAPS continued its efforts to support good governance in medicine procurement by building capacity in the Directorate: Affordable Medicine for management of tenders for pharmaceuticals and medical consumables. Awards of the second cycle of pharmaceutical tenders managed by the Directorate began with the development of the oncology and contrast media contracts which are on track to be awarded in January 2014, in time for them to commence on April 1, 2014. Five of the eight medical consumables tenders were published, and the remaining three were awarded during this quarter.

The National Department of Health (NDoH) distributed the draft set of standards and related data elements aimed at benchmarking pharmaceutical service delivery to the provinces. The first set of provincial reports on the standards and data elements were received, analyzed, and submitted to the NDoH. This is the development phase of a system to provide NDoH with oversight on providing pharmaceutical services.

SIAPS continued to build capacity for provincial pharmaceutical depots to provide information on service delivery to the NDoH. A total of 60 standardized Infomaker<sup>®</sup> reports have been developed to enhance reporting at the eight pharmaceutical depots which use Infomaker.

SIAPS continued to support 280 health facilities where one or more of the stock management and dispensing modules of RxSolution are installed. During this quarter, 45 site visits were conducted, which included 39 upgrades to the latest version of the software. The first phase of testing for the integration of RxSolution with Delta 9 was completed at Livingstone Hospital in the Eastern Cape (EC).

An initiative by the Limpopo (LP) Department of Health to utilize community service pharmacists to improve medicine supply management (MSM) resulted in more accurate stock cards in clinics in Vhembe and Waterberg district—accuracy improved from 43 percent in March to 71 percent in October. The Adopt-a-Clinic initiative also contributed to 364 clinics being able to maintain medicine availability in the range of 70–73 percent in the same period.

A revised version of the mobile application of the Adult Hospital Essential Medicines List (EML) 2012 was presented to the NDoH for final review. It is envisioned that the use of the application will contribute to improved compliance with standard treatment guidelines within the public sector. The application is expected to be launched in the following quarter.

SIAPS continued to provide support to NDoH National Pharmacovigilance Centre in implementing the decentralized patient focused pharmacovigilance system in Mpumalanga (MP).

To date, 2,709 adverse drug reaction (ADR) reports have been received from the 28 clusters in the province since the inception of the project. An additional 19 clusters were established in North West (NW) province as the initial phase of scaling up the system to the rest of the country.

### ***Highlights of Results***

SIAPS committed to supporting the development of guidelines/lists/SOPs during FY 2012. SIAPS has met the target for this year, having helped develop five documents by December 2013. They are—

- 2012 Adult Hospital Standard Treatment Guidelines and Essential Medicine List
- MP medicines formulary
- Third- and fourth-level essential medicine recommendations
- NW SOPs
- Guidelines for implementation of Pharmacy and Therapeutics Committees (PTCs) in Gauteng Province (GP)

One of the strategies expected to contribute to improved medicine availability in South Africa is improved accuracy of quantification of medicine at national, provincial, and facility levels. SIAPS provided technical assistance for the quantification for the antiretroviral tender which went into effect in 2013. As of December 2013, the actual quantities purchased as a percentage of forecasts was 60 percent—the deviation from the 80 percent target is largely due to the phased rollout of fixed-dose combination (FDC) ARVs which were included in the tender for the first time.

The Challenge Model is used by teams to systematically address challenges in their respective work environments through the Pharmaceutical Leadership Development Program (PLDP). Since the inception of the PLDP, a total of 122 facilities have helped with quality improvement initiatives, meeting the FY 2012 target of 120 facilities.

### ***Objective 1: Pharmaceutical sector governance strengthened***

SIAPS continued to work in collaboration with the South Africa Pharmacy Council (SAPC) to review the Pharmacy Act 53 of 1974 and the regulations published in terms of this Act. By the end of the previous quarter, amendments to the Act and drafts of regulations relating to the following were submitted to the SAPC by the consultant engaged to support this process—

- Ownership and licensing of pharmacies
- Registration and maintenance of registers
- Holding of enquires
- Pharmacy education and training and pharmacy practice

Although the oncology and contrast media contracts are on track, the process for the award of medical consumables tenders was behind schedule. Five of the eight tenders, namely Bandages (HM02), Crutches (HM03), Sundries (HM04), Surgical Gloves (HM05), and Pharmaceutical

Packaging (HP14), were published in November. Three additional contracts namely, Sterilization Materials (HM06), Catheters (HM07), and Syringes and Needles (HM08), were awarded in December 2013. SIAPS will continue to work with the Directorate to streamline process flows for tender management to reduce the time taken to award contracts.

The system to monitor medicine stock-outs in provincial depots introduced has been completed and is being managed by the NDoH. Technical assistance was provided to LP, MP, and the Northern Cape (NC) provinces to ensure that their inventory management systems could generate the required weekly reports.

It was planned that, by the end of FY 2013, two service-level agreements between provincial depots and their clients would be accepted. In the EC, the draft agreement was discussed with the head of pharmaceutical services. Technical assistance was provided to GP to review a draft agreement which had been developed by the province using the Free State SLA as a template. In KwaZulu-Natal (KZN), the first step towards the development of a similar service-level agreement was the facilitation of a brainstorming session with the provincial pharmaceutical services team and the district pharmacists.

The Office of Health Standards Compliance is in the process of identifying National Core Standards (NCS) which would be regulated under the recently amended National Health Act. During this quarter, a workshop organized by the NDoH was facilitated by SIAPS where representatives of the provinces provided input on proposed amendments to the NCS at the level of standards and criteria—the input was finalized and submitted. SIAPS was later invited to attend a National Consultative Health Forum where, as part of the proceedings, selected standards, including those relating to pharmaceutical services, were addressed. Further input on these standards was subsequently prepared and submitted to the Office of Health Standards Compliance by SIAPS.

In the previous quarter, SIAPS supported the drafting of a set of M&E standards and related data elements aimed at benchmarking and tracking progress on service delivery. During this quarter, SIAPS supported the collation and analysis of the first set of reports on these standards that the provinces submitted to NDoH. SIAPS will provide technical assistance in reviewing the standards and the reporting tool, based on comments received during this first reporting cycle, and will work with NDoH on developing a data dictionary.

Previously, SIAPS worked in collaboration with EC, LP, and NW provinces to develop results frameworks and related sets of indicators through M&E workshops held with provincial, district, and institutional pharmacists. In EC and LP provinces, objectives and indicators developed during these workshops were incorporated into the provincial strategic plans developed for implementation in 2014. In NW, a follow-up workshop is still required to finalize the frameworks and indicators. In KZN, a mid-term review meeting was supported by SIAPS where performance against the provincial indicators was assessed. The performance of the province against the recently introduced national standards was also reviewed.

### *Constraints to progress*

Changes in leadership in the EC have led to delays in the adoption of the depot/demander SLA.

**Objective 2: Capacity of personnel for the provision of pharmaceutical services enhanced**

SIAPS continued to provide support for the development of qualifications and curricula for specialist pharmacists. Three draft qualifications (clinical pharmacist, radio pharmacist, and pharmaceutical public health specialist) had previously been submitted to the SAPC Education Committee for review. During this quarter, a revised set of qualifications were resubmitted to the SAPC based on input received from the committee. These qualifications will be tabled for discussion at the next committee meeting scheduled for March 2014.

SIAPS continued to support the development and implementation of the MSM module for the pharmacy technical assistant certificate provided by the Nelson Mandela Metropolitan University in EC. Lectures and practical sessions were facilitated and mid-term and final examinations were set for these students. A practical session was held at Dora Nginza Hospital where students were exposed to the public sector pharmacy working environment for the first time in their training. Students also had to review stock cards and calculate average monthly consumption to determine maximum stock levels and whether there was potential for overstocking or items at risk of expiry. Input was also provided by SIAPS to Nelson Mandela Metropolitan University staff on the development of the curriculum on pharmacy law and ethics for the pharmacy technician course which will commence at this institution in 2014. Lectures in MSM for second-year pharmacy students and pharmacy law and ethics for final-year pharmacy students were also facilitated, and final examinations set and graded.

A SIAPS staff member played the role of co-promoter to a master's student from Nelson Mandela Metropolitan University in the undertaking of research toward a master's thesis entitled "Cost Comparison between Re-Packaging Bulk Oral Solid Medicines and Manufacturer-Prepared, Patient-Ready Packs in the Public Sector in South Africa." The student's results were also reviewed before a presentation at the Annual Conference of the Academy of Pharmaceutical Sciences and before the preparation of an article for submission to the *South African Pharmaceutical Journal*.

By the end of December 2013, SIAPS had supported the successful implementation of an approach for participatory and continuous performance improvement for 122 health facilities through the PLDP. The fourth PLDP workshop was conducted for the second group of pharmacists from KZN currently enrolled in the program. With the assistance of a facilitator from the Office of the Premier of KZN, participants were guided through pertinent aspects of human resource management as they relate to their job function and to their province. Sessions on governance and ethical practice within the pharmaceutical environment were also presented. A new session introduced teams to basic principles of pharmacoeconomics. Teams learned about calculating basic cost-savings that can be affected by their quality improvement projects. Progress on the quality improvement work conducted by the eight teams was reviewed and feedback was provided to the teams. The teams are expected to complete their projects in the next quarter.

In the Western Cape, a meeting was held with the Northern Tygerberg sub-structure management team to discuss a program that could provide managerial and leadership skills as part of their Succession Planning Project. Planning was undertaken and dates set for the Leadership Development Program which will be conducted for the Klipfontein/Mitchells Plain sub-structure in 2014. Meetings were also held with the University of Limpopo (Medunsa campus) to discuss integration of the leadership approach into their public health and medicines management track of the MSc (Med) in pharmacy program.

Accreditation of the PLDP by a suitable authority is one of the key elements of ensuring sustainability of the initiative in South Africa. During this quarter, work commenced on the PLDP manual which will be used for accreditation. Draft chapters of this manual are currently undergoing internal review.

***Objective 3: Use of information for decision making in pharmaceutical services improved***

SIAPS has assisted with installing Infomaker, commercial report-building software, at pharmaceutical depots in all provinces except NW; this is in response to NDoH's and depot management's need for information on provincial pharmaceutical services.

To date, 60 standard reports have been developed to facilitate the extraction of information from depot inventory management systems. During the quarter, SIAPS conducted mentorship visits to pharmaceutical depot staff in LP, MP, and NC provinces as ongoing support for the software. Further support was provided in building capacity for depot stock availability reporting as well as cleaning the depot's inventory management system database.

SIAPS continued to support 280 health facilities where one or more of the stock management and dispensing modules of RxSolution are installed. During this quarter, 45 site visits were conducted, which included 39 upgrades to the latest version of the software. Formal training on RxSolution was conducted for 137 health care professionals in EC (52) and GP (85).

The NDoH has identified the implementation of a direct delivery (DDV) procurement model as a priority strategy to improve medicine availability in South Africa. In response, SIAPS supported this process by implementing a customized version of RxSolution to facilitate inventory management. In LP, RxSolution is being used to facilitate orders and supplier performance monitoring for 40 hospitals receiving ARVs and oncology medicines via the direct delivery model. In GP, SIAPS is working in collaboration with the NDoH to install RxSolution in 20 hospitals to facilitate direct delivery orders.

During this quarter, the first phase of testing for integrating RxSolution with Delta 9, a patient administration system, was completed at Livingstone Hospital in EC. During the quarter, work commenced on designing and creating a workable demo for implementation of barcoding in RxSolution to enable use of hand-held scanners to retrieve patient and medicine information.

### *Partner contributions*

SCMS is supporting the contract management aspects of the DDV processes in LP and GP.

### *Constraints to progress*

Additional workload with the increased demands for RxSolution driven largely by the NDoH

### **Objective 4: Access to medicine improved by implementing new strategies**

The NDoH Central Procurement Unit (CPU) manages the procurement of 19 line items, all ARVs, using money from the Global Fund. The CPU also ensures distribution of these medicines to identified sites. These sites send regular reports to the CPU which consolidates them into a single quarterly report that is submitted to the Global Fund. SIAPS provided technical support to the NDoH Global Fund cluster to improve the quality of the reports received from the CPU. SIAPS reviewed and commented on the CPU report for the period July to September 2013.

The SIAPS country program director chairs a Ministerial Task Team that is evaluating the feasibility of direct delivery procurement models versus the depot approach. This evaluation was delayed because of a lack of clarity from the NDoH regarding the necessity of the work in light of the fact that implementation of the DDV model is already underway. Because the NDoH requested that the feasibility study be carried out anyway, the task team is in the initial phases of appointing a consultant to conduct the evaluation. The task team's other objectives included examining factors affecting medicines availability at the facility level and assessing the CPU's capacity to deliver on its envisaged responsibilities.

### **Objective 5: Improved medical products availability**

In October 2013, the South African Government announced the full implementation of FDC ARVs to replace current single agents. This announcement is expected to drive an increase in the uptake of FDCs from the current 60 percent of forecast. Use of single agents was continued because of insufficient FDC manufacturing capacity to meet the demand for a complete rollout and a large pipeline of single agents as well as variances in uptake across the nine provinces. SIAPS continued to provide technical support for the implementation of the phased approach for introducing FDCs. During the quarter, mentorship visits were conducted for relevant staff in LP, MP, and EC provinces focusing on reinforcing the principles of quantification. Follow-up support will be provided at the district and facility levels. SIAPS also assisted the NDoH with quantification of vaccine requirements for 2014. The NDoH's focus on completing the rollout of FDCs and other competing priorities has resulted in a delay in the implementation of new models for quantification as planned by SIAPS.

In project years one and two, SIAPS committed to building capacity for the licensing of pharmaceutical depots by the Medicines Control Council. To improve the availability of medicines within facilities, the South African Government has prioritized the implementation of direct delivery models within the provinces. In response to this shift in priorities, SIAPS will

focus on building capacity for implementing the direct delivery model. Formal training on pharmaceutical depot SOPs was conducted for 34 pharmacy auxiliary workers at Mthatha depot in EC.

SIAPS continued to work toward strengthening the capacity of pharmacy personnel and local partners to facilitate MSM training and provide technical assistance at the facility level. In MP, a training of trainers (ToT) workshop was held for seven pharmacists to enable them to undertake similar training and mentorship at the district and facility levels.

In LP, SIAPS worked in collaboration with the NDoH, the World Health Organization (WHO) and the provincial Department of Health to facilitate two effective vaccine management workshops for 60 hospital pharmacists, district EPI coordinators, and district pharmacists. Participants were trained on various aspects, including quantification and inventory management.

SIAPS worked with the Regulatory Affairs and Quality Assurance department in LP to implement the Adopt-a-Clinic Project. This project required community service pharmacists (CSPs) to be responsible for inventory management at a maximum of 10 clinics in the province for March to October 2013. The CSPs were responsible for monthly stock availability reporting, conducting stock takes, and NCS assessments at the clinics. Where necessary, interventions such as mentorship, stock rotation, and rearrangement of store rooms were carried out to improve MSM. These interventions contributed to the province maintaining medicine availability in the range of 70–73 percent at the 364 clinics adopted. A marked overall improvement was noted in the accuracy of stock cards in clinics in Vhembe and Waterberg districts from 43 percent in March to 71 percent in October. SIAPS will continue to support this initiative for the new intake of CSPs in 2014. SIAPS also facilitated the CSPs' quality improvement project presentations in NC. This was the first time that CSPs were requested to undertake such projects. Successful projects will be scaled up to other facilities; those that were not finished will be undertaken by the new CSPs starting in 2014.

Also in NC, reference materials, which are one of the legislative requirements for Good Pharmacy Practice at the facility level, were procured and delivered at the new Upington Hospital pharmacy and two central dispensing units. One of the dispensing units is based in the Pixley Ka Seme District which is the National Health Insurance (NHI) pilot district.

In Free State, a consultant was appointed for six months to strengthen MSM activities in 12 facilities within the Mangaung Health District as part of the Health Facility Improvement Project (HFIP). MSH's inventory management assessment tool (IMAT) was adapted to identify gaps to improve MSM. The tool was field-tested across 12 facilities in Mangaung Metro on November 25–December 6, 2013. Assessments were conducted in conjunction with the acting district pharmacy manager, the SIAPS appointed consultant, and a pharmacist and pharmacist's assistant from the local hospital. Preliminary results indicate a number of discrepancies relating to the accuracy of records (electronic and paper) when correlating physical stock and the recorded stock balance. Work to address these shortcomings will commence in the following quarter. The district was also provided with reference materials for all the primary health care clinics so as to meet legislative requirements.

A pre-sub agreement approval was received for the consultant conducting the assessment of pharmaceutical management for tuberculosis within the Department of Correctional Services. The goal of the assessment is to measure three aspects of the pharmaceutical management framework namely, procurement, distribution, and use for first-line TB medicines. The development of assessment tools and the planning of the data collection are underway. A letter requesting approval to conduct the assessment was sent to the acting national commissioner of Correctional Services.

Formal training in MSM was conducted for 399 healthcare professionals in EC (159), LP (205), MP (7), and KZN (28).

### *Partner contributions*

Training in KZN was conducted in collaboration with IYDSA (local partner).

### ***Objective 6: Improved rational use of medicine and patient safety***

SIAPS continued to work on finalizing a smartphone application of the Adult Hospital Essential Medicines List (EML) 2012: 21 chapters of the mobile EML application were finalized. The application was presented to the task team at NDoH, who will review it along with NDoH staff, the National Essential Medicine List Committee and SIAPS staff. IT personnel and NDoH staff members were trained by the consultant engaged to develop the application on its use and maintenance. The EML web smartphone user guide was sent to editing. The launch of the application is scheduled for the following quarter.

SIAPS supported the NDoH in conducting a market analysis for oncology medicines as well as a price comparison in preparation for the publication of the oncology medicines tender. The South Africa team worked in collaboration with the SIAPS home offices to review materials for a TOT in pharmacoconomics. The material reviewed included PowerPoint presentations, case studies, and relevant reference materials for use in low- and middle-income countries. SIAPS continued to work on populating the formulary tool developed during the Equity Project as per the requirements of the National Essential Drugs Program. The Adult Hospital EML and HIV clinical guidelines were added to the formulary tool.

In LP, SIAPS worked with the provincial PTC to add pharmaceutical information, EML status, and contract information to the LP code list to facilitate the decision-making process during the review of the formulary. A presentation on the rationale and process for updating the formulary was shared to encourage provincial PTC members to provide input. In NC, SIAPS reviewed the draft formulary and provided comments and recommendations to strengthen alignment with the EML. The finalization of formularies in EC, LP, and GP is expected to continue in the following quarter.

SIAPS facilitated a discussion on the treatment of MDR/XDR TB during the Mpumalanga Clinical Platform in November 2013. The NDoH convened this symposium to ensure the rational use of second-line TB drugs in the management of these diseases in MP. Following the

workshop on medicine utilization review for MDR-TB, SIAPS adapted the MDR-TB utilization tool to better suit the South African context. The tool will be presented to the TB Directorate at NDoH in the following quarter.

SIAPS continued to build capacity in evidence-based decision making for rational medicine use through the provincial, district, and institutional PTCs. During this quarter, SIAPS provided technical assistance to the Rational Medicines Utilization Subcommittee of the Gauteng PTC for the design and implementation of interventions to improve the rational use of vitamin B12 and antibiotics. Letters were sent to each facility, stating their respective expenditure and usage of antibiotics over the past nine months; the recommended level of care, according to the EML, for each antibiotic; and a recommendation to set up an antimicrobial stewardship program. The SIAPS manual on how to investigate antimicrobial use in hospitals was also included in this communication.

SIAPS assisted the Ekurhuleni District PTC in developing a medicine use review data collection tool for anti-epileptic medicines. In a similar manner, data collection and analysis tools for cefixime were developed for the West Rand district. Following a request from Ekurhuleni district chief director, SIAPS conducted a follow-up workshop for 12 pharmacists on the role of PTCs in ensuring quality of therapeutic care. A presentation on the same topic was made during the PTC and Baragwaneth internal medicine Johannesburg district down-referral meeting. The guidelines for implementation of PTCs were distributed and are expected to serve as the basis for the revitalization of the district PTC.

SIAPS is providing technical support to Gauteng Pharmaceutical Services to establish a VEN classification of the items listed in the draft formulary. The review team included pharmacists from all levels of care. The findings from the review were presented and discussed during the Gauteng pharmacy managers meeting in November. A poster presenting some findings from the research (understanding the factors influencing the duration on first-line regimens in the context of an aging ART program) was presented during the 17th ICASA conference.

SIAPS continued to provide support to NDoH-NPC in implementing the decentralized patient focused pharmacovigilance system in MP. Two new clusters were formed (KwaMhlanga and Mmametlake) in Nkangala district, bringing the total number of clusters in MP to 28. Two workshops were conducted to strengthen pharmacovigilance and monitoring of ADRs. Working in collaboration with the head of the cluster and hospital managers, two clusters that were not reporting (Carolina and Embhuleni) were supported and are now submitting an average of 30 ADR reports per month. To date, 2,709 ADR reports have been received from the various clusters in MP since the project began in 2010.

As part of the scale-up of the decentralized, patient-focused pharmacovigilance model, the first phase of the implementation started in NW province during the quarter. Training was conducted for 95 healthcare professionals in the four districts. A total of 19 sub-district clusters were formed following the training.

SIAPS developed an eQuiz and co-hosted an internal MSH World AIDS Day event in collaboration with the BLC project to enhance and strengthen staff members' knowledge of HIV and AIDS.

SIAPS provided technical assistance to the secretariat of the National Antimicrobial Resistance Working group for the development and review of the terms of reference and review of the minutes of the first meeting held in November.

The infection prevention and control (IPC) policy and proposed strategy were provided to the GP Department of Health, along with hand hygiene posters. Support was provided for three IPC specialists and one biologist to attend the 5th FIDSSA conference along with one SIAPS staff member. The ICAT manual was submitted to the home office editorial team for finalization, following the signing of the foreword and the statement by the national minister of health and the director general of health, respectively.

The system introduced to monitor medicine stock-outs in provincial depots has been completed and is being managed by the NDoH. Technical assistance was provided to LP, MP, and NC provinces to ensure that their inventory management systems could generate the required weekly reports.

## South Sudan

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

### ***Overall Quarter Progress***

In line with the 2014 work plan, SIAPS carried out a series of de-junking activities (reorganizing stores, costing usable and expired inventory and updating inventory records) in various counties in the Central Equatorial State (CES) and Western Equatorial State (WES). These activities prepared the groundwork for the delivery of the Emergency Medicines Funds to all counties in CES and WES. To ensure the availability of much needed pharmaceuticals and to initiate the 2014 procurement of ACTs and ITNs, SIAPS updated the USAID | DELIVER Project Commodity Procurement Information Request (CPIR) document. Based on the quantification exercise carried out by SIAPS, a total of 800,000 doses of ACTs and 350,000 ITNs will be procured under this CPIR.

The renovation of the CES medical warehouse was completed this quarter. The US ambassador, Susan Page, and other dignitaries including representatives from UNICEF, which contributed funding to the renovation project, attended the official MoH commissioning of the warehouse. With the warehouse now renovated, CES is ready to initiate use of the pull system for procurement.

SIAPS, in collaboration with the MOH/Directorate for Pharmaceuticals and Supplies and the Office for Pharmacy Policy and Practice, reviewed and updated pharmaceutical management, procurement, quantification, rational medicine use, drug and therapeutic committees, and quality assurance components of the draft South Sudan National pharmaceutical management training manual. SIAPS supported the data collection on stock status of tracer medicines from selected facilities in CES to the Logistics Management Unit (LMU). These facilities provided monthly data on tracer medicines, which was reviewed, verified, and analyzed by SIAPS. The first quarterly report is currently being finalized to provide feedback to the facilities that provided the information. Initial results showed stock-out of some commodities, such as antimalarials and antibiotics, at these facilities. This stock situation was a reflection of the stock-out situation at the national or central level. The data was collected nine months after supplies, which were expected to last for only five months, were delivered to facilities. SIAPS supported Jhpeigo and Mundri East County to dispose of expired misoprostol (at Lui Hospital in WES). SIAPS first assisted the facilities with stock taking and facilitated the paper work with the County health team for approval of the disposition process. This was an important activity that ensured expired misoprostol would not be circulating in their communities. In all, 355 doses (1,065 tablets) of misoprostol were disposed of.

The Program supported establishing an office at Juba airport to screen pharmaceuticals entering the country for quality. SIAPS provided a minilab register for the Juba Airport quality control office to record daily quality control work. The Program has analyzed the quality control data from Kaya's minilab collected from 2010 to 2012. A success story on achievements and challenges of the rollout of the minilab QC work in South Sudan is pending editorial finalization.

**Objective 1: Pharmaceutical services improved to achieve desired health outcomes**

A number of county stores in WES and CES appear unorganized, overstocked with expired medicines, and do not have the appropriate inventory management tools. In some instance, large quantities of usable and unusable stocks are mixed together in the same storage space. These conditions makes it difficult for the county personnel to provide accurate stock status data for making supply chain decisions. To improve the stores situation, SIAPS carried out a series of de-junking activities in various counties in the CES and WES. These activities involved preparing the groundwork for the delivery of the emergency medicines funds that were to arrive in all the counties in CES and WES. Four counties in CES (Yei, Lanya, Morobo, and Terekeka) and five counties warehouses in WES (Nagero, Tambura, Ezo, Mundri West, and Mvolo) have been de-junked, which involved the removal and documentation of expired medicines and rearrangement of the stores. In all, 16 counties are expected to be de-junked. SIAPS also supported the HPF to carry out a de-junking workshop using USAID/SIAPS resource materials and technical expertise. To ensure availability of much needed pharmaceuticals, SIAPS updated the CPIR document for procuring ACTs and ITNs for USAID | DELIVER Project to initiate the 2014 procurements. In all, 800,000 doses of ACTs and 350,000 ITNs will be procured under this CPIR The quantities to be procured was an outcome of the needs quantification exercise undertaken by SIAPS for antenatal care (ANC) visits and stock-outs in WES and CES

The renovation of the CES medical warehouse was completed this quarter, The US ambassador, Susan Page, as well as other high level dignitaries and partners such as UNICEF attended the official commissioning of the warehouse by the federal MOH. With the warehouse now renovated, CES is ready to initiate the pull system.

**Partner contributions**

- The Program collaborated with UNDP to train, in a phased manner, four store keepers at the newly renovated CES medical warehouse. Currently, one storekeeper has begun training.

**Constraints to progress**

- The main challenge was how to engage the other states in in creating storage space for the incoming EMF supplies to be distributed throughout the country.

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

USAID/SIAPS facilitated a five-day training in Ezo on pharmaceuticals that was organized by Catholic Medical Mission Board (CMMB) in Ezo County. The training was attended by 12 participants from 11 health facilities—Madoro PHCU, Andari PHCU, Napare PHCU, Baragu PHCU, Pariguana PHCU, Nagidi PHCU, Bandiguyo PCHU, Bafuka PHCU, Yangiri PHCC, Ezo

PHCC (2), and Naandi PHCC. All of the participants were dispensers except one who is a clinical officer. The Catholic Board is managing ART clinics and providing services to HIV and AIDS patients in Ezo County.

Together with the MoH/Directorate for Pharmaceuticals and Supplies and the Office for Pharmacy Policy and Practice, SIAPS facilitated the South Sudan pharmaceutical management training manual review November 18 to 20, 2013. SIAPS helped support and supervise training on data management and trained commodity managers on how to fill out the reporting tool correctly. The training also provided an opportunity to introduce our data officer to the state and county health team so that his role in the implementation of the LMU is formalized. Part of the supervision was also to identify the gaps in information management and flow, and to see how the SIAPS can address them with the MOH counterparts.

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

SIAPS carried out a tools gap analysis that identified pharmaceutical management gaps such as the availability of tools, pallets, shelves. This information will be useful for other implementing partners, such as Jphiego and the Health Systems Strengthening Project (HSSP), to help them use resources to fill those gaps and improve overall health outcomes. SIAPS facilitated Mvolo's request for misoprostol resupply to UNFPA and Jhpeigo. SIAPS reviewed the information on the request with the facility to ensure that the correct amount needed was requested having considered the quantity of misoprostol projected to expire by October 2013.

SIAPS continued to provide information on the stock status of the medicines supply to partners interested in knowing what the MoH had planned to do to avert the imminent stock-out of essential medicines. The Program has collected monthly data on tracer medicines through the LMU implementation from selected facilities in CES. The data was reviewed, analyzed, and verified. The report is currently being finalized to provide feedback to the facilities that provided the information. Generally, there was stock-out of some commodities, such as antimalarials and antibiotics, which was consistent with the current stock-out situation in the country as the last supplies to facilities was in January 2013 and expected to last for five months.

***Partner contributions***

- PEPFAR has expressed the desire to provide funding to support the LMU through the recruitment of a pharmaceutical technical advisor.
- HPF supported six states in South Sudan and has also met with SIAPS to discuss ways of ensuring that data from their states can be fed into the LMU.

***Constraints to progress***

- SIAPS needs a data officer for WES to facilitate the data collection. This has led to a delay in coordinating data flow from the state. Recruitment of a data officer will begin in the next quarter to address this challenge.

**Objective 4: Pharmaceutical sector governance strengthened**

SIAPS worked on draft documents for establishment of the Quality Assurance and Governance Technical Committee and also established a road map to ensure the smooth implementation of the review process. The Program has also sent a comprehensive document outlining the step-by-step process of this review to HQ for technical input.

SIAPS continues to support the Drugs and Food Control Authority (DFCA) through the establishment of an office at the Juba Airport to support control at the entry point and has recently recruited a pharmaceutical advisor to support quality assurance activities. SIAPS prepared a program and presentations for a one-day sensitization workshop at the Kaya port of entry to sensitize stakeholders on quality assurance and to create a framework for collaboration. The workshop was intended for customs, police, immigration, and security staff at the port and was planned for the second week of December 2013.

SIAPS has analyzed the data for the Kaya minilab quality control work for 2010 to 2012; in addition, a success story was written on the achievement and challenge of the minilab QC work in South Sudan is being finalized.

**Objective 5: Scale up of malaria interventions accelerated, better coordinated, and documented**

The Program has also reviewed WHO guidelines for the development of the Malaria National Strategic document. SIAPS will be supporting the NMCP in the forthcoming process of developing the National Malaria Control Strategic Plan 2014–2018.

The Program drafted and reviewed the MIS core supervisory team checklist and terms of reference for effective supervision of key supervisors at the central, state, and field levels. SIAPS assisted with developing these documents to ensure accountability and to define roles for the key staff during the MIS exercise. The plan is to have a central supervisory team based in Juba, who will have overall supervisory responsibility for the state malaria coordinators. The state malaria coordinators will in turn supervise field supervisors. There will be four data collectors to be supervised by field supervisors.

The Program reviewed a draft WHO guideline for developing National Insecticide Resistance Monitoring and Management plans which was developed by the Global Fund in South Sudan. SIAPS supported the NMCP to provide feedback on the documents and meet with the Global Fund on the issues identified. It was agreed to establish a National Coordination Mechanism for developing the plan including all relevant sectors and stakeholders to IRM. The SIAPS Malaria advisor, the NMCP officers, and staff from UNICEF visited Malakal for an MIS field supervision exercise on November 19–25, 2013.

*Partner contributions*

The Global Fund, through PSI, has supported the NMCP with funding for implementation of some key activities. WHO has also recruited selected staff to support the program. USAID, through commodity procurement, has also supported the program to ensure that antimalarials are always available in-country.

*Constraints to progress*

Limited staffing at the NMCP continues to be a constraint to progress. Consultants recruited by Global Fund and WHO have joined the full-time SIAPS malaria advisor to ensure the smooth and timely implementation of activities.

## **Swaziland**

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

### ***Overall Quarter Progress***

As this quarter coincided with the Government's budget cycle, SIAPS has worked to inform the commodity procurement plans for the 2014/15 fiscal year. We have carried out targeted activities to ensure that adequate resources are secured for the procurement of HIV, laboratory, and reproductive health commodities. Significant progress was made in strengthening the leadership in the Central Medical Stores (CMS) with the appointment of the Assistant Director to lead Ministry of Health (MoH) supply chain interventions. In addition, the acting Chief Pharmacist at MoH headquarters was also appointed.

These MoH appointments will ensure the sustainability of SIAPS's continuing work in improving pharmaceutical and supply management interventions.

### ***Highlights of Results***

During this quarter, highly consumed medicines such as TDF/3TC/EFV or AZT/3TC/NVP (70% of adult ART patients are prescribed these medicines) and male condoms were tracked for stock-outs at the Central Medical Stores; no stock-outs were reported in the last two quarters. This shows strengthening supply planning, logistics information use, and rational medicine use. The forecasting and supply planning activities that SIAPS institutionalized last year are contributing to an uninterrupted availability of priority products.

SIAPS helped establish and supports a pharmacy training program at Southern Africa Nazarene University, Swaziland; currently a total of 43 students are enrolled into program. This quarter, the diploma program was approved by the Dean's Committee and is pending approval by the university's senate. SIAPS secured services of a lecturer for the training program at the university and helped to establish the course by supplying educational equipment. This strengthened capacity by increasing availability of qualified personnel in country to perform pharmaceutical functions.

SIAPS Swaziland has maintained the LMIS facility reporting rate at 97% for the last quarter. This can improve the use of accurate information by CMS to ensure adequate procurement and supply. SIAPS conducted LMIS and inventory management training for 38 health workers from 29 mini-laboratories in the Lubombo region. SIAPS helped participants develop facility level LMIS implementation plans, which formed a benchmark to gauge progress and improvement in health facilities post-training. SIAPS Swaziland continues to improve capacity as a means for improved service delivery.

### **Objective 1: Strengthen governance in the pharmaceutical sector**

SIAPS activities in Swaziland continue to ensure that all interventions aimed at improving product availability and effective pharmaceutical services are delivered within the proper governance principles.

SIAPS has supported stakeholders' efforts to see the Pharmacy Bill and the Medicines and Related Substances Control Bill legislated by the Swaziland Parliament. A new parliament, senate and cabinet were appointed in October following the national general elections in August/September 2013. SIAPS conducted a number of advocacy activities to lobby the new parliamentarians for the enactment of the pharmacy bills. A meeting, led by the acting chief pharmacist, was held with the Clerk to the House of Senate and the House of Assembly Presiding Officer, as well as the Legal Officer in the Ministry of Health, on the next steps to enacting the bills. Currently, the bills are awaiting the commencement of cabinet discussions for endorsement.

The MoH principal secretary finalized and approved the Medicine Regulatory Administration (MRA) implementation plan. This plan included an outline of key positions necessary for the administration's functioning, such as the Head of the MRA, technical leads for pharmacovigilance, licensing, and Medicines Quality control. These positions were included in the MoH staffing budget for the 2014/15 fiscal year. Moreover, an interim MRA structure, as proposed in the MRA implementation plan, was used to promote establishing the proposed positions during the MoH budgeting process.

SIAPS was invited by MoH to participate in Operation "Giboia"—an initiative of the Royal Swaziland Police and Interpol. The operation involved inspecting pharmacies and other establishments that function as de facto pharmacies. This was conducted over two days (October 2–3, 2013) in four regions of Swaziland. The selected team assessed the establishments for compliance with the Pharmacy Act of 1929; the Opium and Habit-Forming Drugs Act of 1922; and Good Pharmacy Practice standards. SIAPS participation in this activity was also an opportunity to observe the pharmacy practice at the different pharmacy establishments visited.

Following the development and finalization of guidelines for listing medicines and registration of importers, SIAPS engaged a data entry officer to record all medicines available in the health sector based on the Essential Medicines list. Furthermore, SIAPS, working with MoH, made a call for registration of importers of pharmaceutical commodities. As a result all the targeted importers registered and provided the lists of the medicines they import into the country. This activity was conducted successfully; with an excel database currently containing five importers and over 6000 medicines.

Reflecting on quarterly progress, SIAPS successfully supported 12 activities. These include: coordinating the support provided by partners in the pharmaceutical services department; developing draft terms of reference for the NEMC; advocating for the enactment of the pharmacy and the medicine bills; beginning to establish the MRA; maintaining Swaziland's participation in regional harmonization initiatives; helping implement the reviewed CMS structure; strengthening CMS security; strengthening the use of PipeLine and Quantimed tools;

institutionalizing quantification; collaborating with other Ministries, public agencies, partners and stakeholders on pharmaceutical management; and finalizing the baseline survey report.

SIAPS was invited by MoH to participate in the European Medicines Agency (EMA) training on European Union Good Clinical Practices in preparation for the establishment of the MRA. SIAPS submitted and presented an abstract at the 1st Biennial Scientific Conference on Medicine Regulation in Africa conference. The Conference was held in Johannesburg, South Africa on December 2-3 2013 and was organized by NEPAD in collaboration with WHO. SIAPS Medicines Policy Advisor and the MoH Acting Chief Pharmacist were supported to attend this conference in Johannesburg and present on the establishment of a pharmacovigilance system in Swaziland, an activity supported by SIAPS.

The Pharmaceutical Services Baseline Survey Report was reviewed by the core team and finalized in preparation for editorial and signing by the MoH Principal Secretary and Director of Health Services.

### *Constraints to progress*

The changes in Parliament and the Cabinet have meant that the process leading to the legislative discussion and approval by Parliament will be delayed until the new cabinet has had an opportunity to study the bills before presenting to parliament. SIAPS continued to maintain relations and advocate for legislative enactment with the Clerk to the House of Senate, the House of Assembly Presiding Officer, Legal Officer, and Acting Chief Pharmacist.

The presentation of the Bills to Cabinet and the launching of the SPSP are dependent on meeting with the Minister of Health—the date is undetermined. The dissemination meeting for the SPSP has been scheduled for discussion in a pending meeting with the MoH Senior Staff and the Minister of Health to introduce them to the activities in the Pharmaceutical Services Department, after which the Minister can then determine the dissemination date.

### ***Objective 2: Strengthen pharmaceutical supply management and services***

Pharmaceutical capacity building remains the main focus of SIAPS work in Swaziland. Activities in this reporting period included training and mentoring health workers on implementing inventory management, LMIS implementation, store management and utilization of inventory control tools such as stock record cards according to stipulated guidelines in selected sites. SIAPS conducted LMIS and inventory management training for 38 health workers from 29 mini-clinic laboratories in the Lubombo region. The participants were trained in developing facility level action plans, which will be used to measure the progress and improvement in the health facilities post-training.

SIAPS supported the printing of the clinic laboratory LMIS tool. This tool is being used across clinic laboratories to complete their reports and requisitions to the main laboratories and central warehouse.

SIAPS conducted mentorship in nine facilities (three main and six mini-clinic laboratory sites) reaching 14 health workers on inventory management, LMIS implementation, store management, and use of inventory control tools such as stock record cards. Trainings are ongoing but the targeted number of trainings during the quarter was achieved. SIAPS participated in the regular Centers for Disease Control and Prevention and the President's Emergency Plan to Fund AIDS Relief (PEPFAR) monitoring visits to health facilities. A technical officer has been engaged to support mentoring activities at regional level. His responsibilities will primarily be to support pharmaceutical and supply chain activities at clinics and health centers in the regions.

SIAPS adapted, printed, and distributed a warehousing poster entitled "Proper Storage Practices for Health Commodities." This poster provides guidance to health facilities at facility level post-training sessions on inventory management to ensuring proper inventory management. SIAPS also assisted in the procurement and custom clearance of GeneXpert™ machines and cartridges purchased by USAID/PEPFAR and donated to the National Clinical Laboratory Services.

In FY 2013, SIAPS supported Southern Africa Nazarene University in the development of a Diploma in Pharmacy curriculum. The curriculum was approved by the Deans Committee and pending approval by the Senate, scheduled in the next quarter. The Certificate in Pharmacy program, continuing with 43 students registered in both the first (22) and second years (21). SIAPS continues to provide technical support and resources to the delivery of this important pre-service program. A second lecturer was seconded to the university to support the health of department.

### *Constraints to progress*

The delays in the approval of the diploma program at the university have led to some uncertainties in the 2014 academic year. It is important that the program be approved as soon as possible in order for the government to allocate funds for scholarships.

### ***Objective 3: Address information for decision making challenges in the pharmaceutical sector***

In this quarter, the availability of quality information system has been useful in the quantification and forecasting for the 2014/15 fiscal year. SIAPS has supported MoH in developing, installing and implementing APMR patient management software or RxSolution for ART medicine management inventory in 38 facilities. In FY2013, SIAPS subcontracted with a contractor to redesign APMR to become Rx Patient Management Information System which will include other priority health programs such as PMTCT, TB, and HIV testing and counseling. The development of the new software takes into consideration the recommendations of the recently completed HMIS review in the Ministry of Health. This quarter SIAPS received the updated software from the subcontractor, IHM. The new software contains modules on HIV, TB, PMTCT, and HTC. Work is continuing between SIAPS and MoH to guide the progress in the RxPMIS redesign.

Active support is provided to all 38 sites using RxSolution and the APMR software for patient management. SIAPS has worked with the laboratory team to address problems in the use of the software in inventory management of laboratory commodities in the warehouse.

SIAPS supports the implementation of active surveillance for TB and HIV patient. Six pilot sites were selected for piloting of the active surveillance project. SIAPS provided guidance through mentorships to the six pilot sites on the uses of an active surveillance software tool (SSASSA and DCAT) to record all adverse events. SIAPS continues to support facilities to produce reports from the SSASSA and DCAT tools. The pharmacovigilance unit at CMS has also been assisted to analyze and interpret the reports.

SIAPS has initiated development of a web based Commodity Tracking system to assist inventory management at all levels. A firm was contracted to provide support in the use of the web-based commodity tracking system for logistics information.

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

During this reporting period, SIAPS has supported and facilitated the 2014/15 HIV and AIDS two-year commodity quantification and budget requirements, submitted to the MoH planning and procurement units. SIAPS has facilitated the quantification processes from data collection to data presentation and use. The total estimated budget requirement was \$17 million and \$20 million for the 2015/16 fiscal year. SIAPS participated in the MoH quantification consultative workshop with all stakeholders involved in HIV and AIDS care and treatment. Considering the new (2013) WHO ART guideline recommendation, the scope of the quantification was for two years, which assumes the new guideline including Option B+ will be in operation as of July 2014. The one-year quantification of laboratory commodities exercise has also been facilitated with the support of SIAPS and other stakeholders. The quantification process has taken new WHO recommended guidelines into consideration, particularly for viral load supplies and CD4 reagents. The budget requirement for laboratory is estimated at \$8 million for all priority supplies for HIV and TB.

SIAPS partnered with UNFPA Swaziland to assist MoH in conducting a five-year quantification of family planning commodities including condoms.

SIAPS facilitated supply planning of HIV and AIDS, TB, laboratory, and FP commodities. The result of the supply planning exercise has been used to generate purchase requests and orders for procurement purpose. SIAPS facilitated development of a two-year supply plan for HIV and AIDS commodities, a one-year supply plan for laboratory commodities, and a one-year supply plan for TB commodities. This target was achieved.

SIAPS also assisted in the appointment of the CMS assistance director responsible for supply chain management in MoH. The creation of this position was in response to a need identified after an assessment conducted by SIAPS and endorsed by Global Fund.

**Objective 5: Improve pharmaceutical services to achieve desired health outcomes**

SIAPS Swaziland continues to strengthen pharmaceutical services and improve product availability to support priority health programs such as HIV, TB, and reproductive health. The terms of reference for the National Essential Medicines Committee (NEMC) were drafted and shared with pharmacists in the public sectors and WHO. The terms were shared with WHO so as to seek their assistance in advocating for forming the NEMC. SIAPS continues to work with the Acting Chief Pharmacist to encourage the MoH Principal Secretary to appoint members of this committee. All the necessary components for functioning of the committee have been advocated for in the MoH. The committee remains an important vehicle to promote rational medicine use and oversee the implementation of the EML/STGs in the country.

The active surveillance for TB/HIV medicines has been implemented at six health facilities across the country. Monitoring and supportive supervision for TB/HIV active surveillance to six participating sites was conducted during the period under review. SIAPS worked with the MoH pharmacovigilance expert to visit facilities and provide on-site support in the implementation of the active surveillance program. All the six pilot sites were visited to monitor their performance in enrolling patients into active surveillance.

The post-implementation survey is a follow-up assessment on the changes in prescribing practices in the country following the EML implementation. A post-implementation survey protocol has been drafted and is pending approval from the Swaziland's Scientific and Ethics Committee.

The *Medicine Safety Watch* newsletter, volume 2, issue 2, was released. This edition of the newsletter highlighted the first findings of the active surveillance project. Five hundred copies were printed and distributed to all health facilities in the country and additional copies were sent to stakeholders through the electronic pharmacovigilance mailing list. A total of 30 ADRs were reported from the six participating facilities: six clients were reported to have rash, five with peripheral neuropathy, and four reported kidney failure and dizziness.

SIAPS continues to work with the NTP to support adherence monitoring of patients on TB medicines. This is an important activity in ensuring that the treatment completion rate among patients on treatment is improved. This activity is led by the NTP with the team of treatment supporters distributed in various communities around the country.

Condoms are the most trusted and proven intervention in preventing HIV infection. A great deal of progress has been made in the country to ensure availability of condoms as part of the national combination prevention of HIV. SIAPS continues to support the condom supply chain in collaboration with UNFPA. The national stock levels are sufficient for 12 months based on the current consumption.

SIAPS supports the essential commodity supply chain for PMTCT/MNCH. The success of the goal to eliminate MTCT rests on an uninterrupted supply and availability of essential medical and laboratory commodities. The country recorded a zero stock-out of essential PMTCT

products (AZT/3TC, NVP, CTX, folic acid). SIAPS provided assistance to the national laboratories in forecasting and procurement of Alere Determine™ Syphilis TP rapid test kits.

SIAPS participated in the development of the national treatment guidelines for HIV and Pediatric HIV guidelines and PMTCT. The drafts for these were finalized and are being edited by the MoH. The guidelines will see an increased enrollment of eligible patients on treatment and hence the importance of interventions of promoting rational medicine use and patient safety.

*Constraints to progress*

Delay for finalizing activities, particularly the NEMC, is a result of reshuffling the Ministry of Health directorate that is supposed to spearhead and lead the approval of NEMC members. SIAPS continues to work with the acting Chief Pharmacist and WHO to continue advocating for the establishment of the team.

## Tajikistan

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

***Objective 1: Capacity for pharmaceutical management and services increased and enhanced***

SIAPS provided technical assistance to the NTP on different aspects of TB pharmaceutical management and trained the NTP drug manager. The SIAPS consultant in Central Asia traveled to Tajikistan November 10-16, 2013. The consultant provided technical assistance to the NTP to quantify the next order of pediatric medicines and finalize a grant agreement with the Global Drug Facility (GDF) for about \$48,000. The consultant also provided support to the NTP to assess the rational use of pediatric anti-TB medicines and respond to GDF's concerns in this regard. The consultant also provided technical assistance to assess the current stock of anti-TB medicines, particularly the shortage of injectable, second-line anti-TB medicines, and provided recommendations to avoid stock outs until the new shipment arrives. The drug manager of NTP was involved in all of these mentioned activities and was trained during this work on use of QuanTB for quantification of anti-TB medicines.

*Partner contributions*

SIAPS collaborated successfully with WHO, UNDP, Project Hope, and KNCV to obtain information needed for accomplishing the tasks of the consultant.

*Deliverables*

A trip report, which contains a detailed technical report, was developed.

***Objective 2: Information for decision-making challenges in the pharmaceutical sector addressed***

No actions were taken on this objective in the current quarter. SIAPS will start working on this objective in Q2.

## **Turkmenistan**

**Goal:** The goal is to strengthen the TB control system to address the threat of increased MDR-TB.

### ***Objective 1: Strengthen the NTP through improving the TB management information system***

The Ministry of Health (MoH) created a working group for eTB Manager, and WHO hired an IT specialist in Turkmenistan to support piloting of eTB Manager in the Ashgabat and Mary regions. SIAPS works with him remotely to familiarize him with eTB Manager, set up a Turkmenistan workspace and administration module in the system, and prepares for training the staff of NTP who will be piloting eTB manager. The training will be conducted in the first week of February.

#### ***Constraints to progress***

The bureaucratic procedures in Turkmenistan are very burdensome and create a lot of obstacles; for example, about two months are needed to get a visa to travel to the country.

#### ***Partner contributions***

SIAPS collaborates with WHO in Turkmenistan. WHO procured IT equipment for eTB Manager and they hired an IT specialist who will work closely with SIAPS to prepare the pilot of eTB Manager.

#### ***Deliverables***

A work space for the IT specialist has been created in Turkmenistan and the administrative module has been set up.

## Ukraine

**Goal: Through a health systems strengthening approach, build local capacity and develop strategic partnerships to improve access to, use of, and accountability for life-saving medicines and health commodities of assured quality to support priority health services**

***Objective 1: Strengthen pharmaceutical management information systems (PMIS) to support the HIV/AIDS and TB Programs***

During the quarter, joint monthly e-TB Manager (e-TBM) meetings were reinitiated between SIAPS and the Ukrainian Center for Disease Control (UCDC) division of MoH to coordinate and scale up e-TBM implementation and enhance its functionality. With routine support from SIAPS and UCDC, regional e-TBM users from all 27 oblasts are now entering data into e-TBM. As of December 14, 2013, the total number of cases entered in e-TBM was 101,463—over 20,000 more cases than were entered in Q4 2013.

The number of oblasts piloting e-TBM doubled, from three to six. The three new oblasts using e-TBM joined of their own initiative, based on the success demonstrated in the initial three oblasts, notably, an observed improvement in the collection and reporting of TB data. The addition of new oblasts shows both an increase in buy-in and a greater understanding of the potential benefits of e-TBM by regional users.

SIAPS took important steps to ensure the quality of e-TBM data and to support its use in effective decision-making processes. The first quarter case reports required by MoH were automatically generated in e-TBM for the three pilot oblasts and were submitted along with the corresponding paper-based reports to the UCDC. All 27 oblasts successfully submitted second quarter case reports in both electronic and paper copy. The TB case numbers generated by e-TBM were cross-checked with paper-based reports. Results indicated 77 percent consistency for Q1 2013 and 85 percent for Q2 2013, indicating an 8 percent increase in data quality. SIAPS and UCDC also established an e-TBM help desk in November 2013 to provide efficient support to the growing number of e-TBM user requests.

In collaboration with the UCDC, SIAPS continued to refine the e-TBM medicines management module to include national-level data entry. National warehouse data were entered into the module for all medicines provided under the Global Fund Round 9 program. The medicines data are now available for all 12 Global Fund-supported oblasts, and UCDC is expected to formally initiate the piloting of medicines management.

Visits were conducted to four oblasts to support e-TBM users and provide on-the-job training. Three out of four visits were conducted by joint teams consisting of SIAPS, UCDC, and USAID personnel. Twelve regional users received on-the-job refresher training on how to generate e-TBM reports and record accurate patient information.

In November 2013, at the request of MoH, SIAPS organized a meeting to review progress of e-TBM implementation with national- and regional-level counterparts, USAID/Ukraine, e-TBM coordinators, and other stakeholders. During this meeting, MoH recognized the effective partnership forged between SIAPS and UCDC during the implementation of e-TBM. MoH confirmed its strategic vision of e-TBM as the comprehensive management information system for the National TB Program and expressed readiness to consider eliminating paper-based TB reporting.

In November 2013, SIAPS conducted an e-TBM training of trainers (ToT) in Kyiv (city) for 17 representatives from regional TB facilities. SIAPS and UCDC staff, along with two ToT trainers, delivered selected training sessions. The training showed a 25 percent increase in the knowledge and self-confidence of participants in preparing, designing, and conducting e-TBM trainings in their oblasts. In December 2013, in line with the objective of fostering sustainability, SIAPS supported oblast-level ToT-trained practitioners to conduct an e-TBM training in Kyivska oblast for 51 nurses and TB physicians.

At the request of the UCDC, SIAPS started to explore the technical possibility of using e-TBM to generate Ukraine's annual TB country report submitted to WHO.

Two working group meetings were held to help develop an HIV-patient electronic information system under the CDC-funded ACCESS project, and progress was made in finalizing the scope of work for the electronic system. SIAPS shared with the group best practices and lessons learned during e-TBM development and implementation.

### *Constraints to progress*

- Unresolved problems with Internet connections remain, and the lack of computers in a few oblasts requires additional attention from the UCDC and SIAPS.
- UCDC staff time is still too limited to effectively support and respond to issues related to e-TBM implementation and use.
- There remains a substantial difference in the level and completeness of data entered into the e-TBM among some oblasts.

### ***Objective 2: Improve supply chain management systems for HIV/AIDS and TB commodities***

SIAPS continues to support UCDC in strengthening pharmaceutical management monitoring and supervision (M&E). Three monitoring visits were conducted with the UCDC to TB and HIV and AIDS facilities in Poltava and Kyiv. Medicines storage facilities, drug dispensing practices, and recordkeeping were reviewed. The joint team found that storage conditions for TB medicines are a key area for improvement. The situation is especially critical for HIV medicines due to an expected threefold increase in the number of patients on ART, based on national projections.

SIAPS helped the UCDC analyze supply chain management data from the TB health facilities in two oblasts. The analysis identified gaps that have also been observed in other oblasts. At the

request of the UCDC, SIAPS developed a list of recommendations to improve supply chain management, which the UCDC shared with all oblast health facilities in October 2013.

Using data from e-TBM, SIAPS supported the UCDC in planning for the Global Fund quarterly replenishment of second-line TB medicines for 12 oblasts.

On November 20-23, 2013, SIAPS trained 12 non-pharmacist UCDC regional coordinators responsible for conducting site monitoring visits in “Pharmaceutical Management of Medicines: Monitoring Performance and Evaluation.” The sessions were led by four trainers from SIAPS, UCDC, and the State Administration of Ukraine for Medicinal Products (SAUMP), who used an interactive and practical teaching approach. Participants piloted the use of a monitoring checklist developed jointly by UCDC and SIAPS. The checklist will be used by UCDC staff in daily activities, as well as by HIV and TB facilities for self-audits. The training also focused on developing capacity in (1) auditing the medicines storage and dispensing areas of TB and HIV/AIDS health facilities; (2) writing post-visit reports that highlight key areas for improvement and potential solutions; (3) understanding the differences between M&E and tracking performance; and (4) understanding key legislation related to the storage and distribution of medicines. Participants requested additional training in supply chain management, which is planned for later this fiscal year.

SIAPS was invited to participate in the Second National HIV/AIDS Conference “For Every Life–Together!” held October 24-26, 2013, in Kyiv, Ukraine, where, along with the State Expert Center (SEC), SIAPS co-facilitated the first-ever session on pharmaceutical management at a national HIV meeting, underlining the growing recognition and importance of pharmaceutical management and medicines availability. Presenters from the SEC, the Global Fund, and SIAPS addressed topics in this session, including quantification and supply planning, challenges in scaling up antiretroviral therapy, new regulations to streamline drug registration, and medicines safety.

In conjunction with preparations for the National HIV Conference, SIAPS and other key stakeholders developed strategy recommendations for the National HIV Program, which were reviewed and discussed during the conference. One of the key recommendations was initiation of a working group for supply planning for HIV and AIDS medicines and other commodities to ensure regular access to quality assured medicines.

SIAPS also participated in meetings on refinement of the Global Fund Round 10 (HIV) procurement and supply management (PSM) plan with the co-Principal Recipients: the UCDC, All-Ukrainian Network of People Living with HIV/AIDS (the Network), and HIV/AIDS Alliance in Ukraine (the Alliance). These meetings resulted in a mapping of key processes for ARVs and other commodities. In addition, SIAPS is supporting development of indicators for monitoring supply chain management through a working group of key implementing organizations and the UCDC (see objective 4).

### *Partner contributions*

- The UCDC continues to take an active role in conducting monitoring and supervision visits to the TB facilities, using a team of key specialists. Medicines management supportive supervision was also provided as part of these visits in close cooperation with the UCDC.
- UCDC collaborated with SIAPS on the “Pharmaceutical Management of Medicines: Monitoring Performance and Evaluation” training for and development of training materials and the M&E checklist.
- A SAUMP representative facilitated a drug quality session during the “Pharmaceutical Management of Medicines: Monitoring Performance and Evaluation” training

### *Constraints to progress*

- The cross-training of non-pharmacist UCDC regional coordinators was well-received; however, further monitoring visits in the field are not supported by State or Global Fund R9 budgets.
- Conducting quantification of TB medicines will likely be complex, as changes in the STGs are anticipated in 2014. Once the new guidelines are approved, it will be necessary to incorporate the changes into e-TBM and reevaluate existing quantification and planning efforts.

### ***Objective 3: Improve pharmaceutical services for the TB and HIV/AIDS Programs***

SIAPS made progress in three major pharmacovigilance (PV) activities: (1) automating information systems to increase reporting of adverse drug reactions and lack of medicine efficacy (passive surveillance), (2) implementing active surveillance, and (3) conducting PV audits.

The Pharmacovigilance Automated Information System (PAIS) is intended to be a web-based mechanism for reporting adverse drug reactions and lack of efficacy. The project was started as an add-on to e-TBM to facilitate reporting on TB medicines; however, in defining the needs of the project and to support its sustainability, the PAIS scope was expanded to enable reporting for non-TB medicines in the future. After issuing an RFP in the previous quarter for the development and implementation of PAIS, SIAPS conducted an evaluation of the proposals and selected a firm to begin development of the system in the next quarter.

In partnership with the SEC, SIAPS proceeded with active PV implementation. Initial discussions with the SEC and MoH yielded broad support for the development of an active PV system for people living with HIV and AIDS, incorporation of active surveillance in the national health care system, and support for establishing a PV working group.

In an effort to establish the working group on PV, SIAPS and the SEC (1) finalized the active PV protocol, (2) developed an action plan for the PV working group, and (3) prepared the portfolio of documents needed for MoH to establish the group. The documents were presented to MoH;

however, the composition of the MoH group differed from the one that had previously expressed support, and the proposal for establishing an official working group was not upheld.

SIAPS participated, presented, and/or served on the organizing committee at the following national and international conferences during the reporting period:

Second Scientific and Practical Conference "For Every Life–Together" (HIV conference) held on October 24-26, 2013. In addition to leading presentations the supply chain management track, SIAPS also presented on active PV and the results of the SIAPS independent PV system analysis. The conference was an opportunity to share findings of the PV assessment, as well as recent achievements to a broader public health community, where reporting on adverse events or lack of efficacy has been relatively minimal. Preparation for the conference also allowed for strategy and policy discussions related to supply chain management and medicines safety to occur, resulting in the inclusion of these areas in the overall HIV strategy for 2014-2018.

Third Scientific and Practical Conference “Safe and Legal Support for Medical Products from Development to Medical Use” (PV conference) held on October 22-24, 2013. The conference included international experts and was attended by nearly 500 participants. SIAPS presented information on international experience in PV and active surveillance.

#### *Partner contributions*

- The SEC collaborated closely with SIAPS in evaluation of technical proposals for the PAIS.
- The SEC led development, with SIAPS support, of the PV documents portfolio needed for official approval of the active PV working group.
- At the TB conference in Turkey, the SEC not only demonstrated the achievements of the PV system in Ukraine, but also highlighted measures currently taken in the PV area with SIAPS’ technical assistance. Ukraine’s experience in the PV area was recognized as the leading one by conference participants.

#### *Constraints to progress*

- There are additional political considerations that are affecting the establishment of a working group on active surveillance. It will be necessary to rethink next steps on how to address identified barriers and initiate those activities.
- The process for issuing the PAIS RFP took longer than anticipated; however, the extra time resulted in an approach that will be more sustainable and applicable to other medicines categories. It also made it possible to more thoroughly evaluate the proposals, so that they will better support medicines safety in Ukraine.
- The level of cooperation between SAUMP and UCDC is still in its nascent stages and will need further support to address drug quality issues effectively.

#### **Objective 4: Improve pharmaceutical management governance**

The SEC of MoH committed to adopting the new European Union (EU) Guidelines for Pharmacovigilance and harmonizing their approach to medicines safety with those in the EU. SIAPS continued to support the development of national PV guidelines through adaptation of the first 4 (PV system, PV and its quality system, PV audits, and risk management) of 15 modules contained in EU's PV guidelines. Three modules were submitted for public discussion, the first step to their adoption.

In September 2013, the agreement for phase two of the Global Fund Round 9 (TB) Grant was signed, with the UCDC as co-Principal Recipient. As part of the negotiations, the UCDC will not procure second-line TB medicines; however, they will be responsible for other aspects of TB medicines supply management. UCDC requested SIAPS assistance in this effort to develop a concept paper on pharmaceutical management for TB and HIV and AIDS programs. As a first step, SIAPS, in collaboration with the UCDC and SEC, analyzed recommendations to strengthen PSM on the basis of assessments conducted since 2008, and submitted the findings to MoH. Analysis showed that there has been limited action on most of the recommendations and that, in addition to the need for political will for reforms, there is a need for a broader multi-sectorial discussion to pursue real changes. The collaboration of the UCDC with the SEC on the PV and rational medicines use sections drew attention to the need for increased adverse events reporting in public health programs. It also brings hope for meaningful dialogue among SIAPS, SEC, and UCDC in these areas.

Following the National HIV/AIDS Conference, SIAPS continued to provide technical assistance to the UCDC as a member of the UCDC working group on the preparation of the National HIV Strategy for 2014-2018. SIAPS worked with UNDP, the Alliance, the Network, and other stakeholders to further refine the strategy, including improving procurement systems and ensuring availability of HIV and AIDS medicines and other commodities. The final version of the strategy was submitted to MoH for approval.

To further improve supply chain management and monitor medicines availability, SIAPS participates in a working group with the Round 10 Global Fund grant recipients (the Alliance, the Network, and UCDC) and the Global Fund on the development of PSM indicators. The working group aims to set up and pilot an effective M&E mechanism for assessing the quality and effectiveness of the PSM cycle under the Global Fund project. The set of SMART PSM indicators and appropriate data collection mechanisms will be developed by the end of January 2014.

In December 2013, the First Conference on Pharmaceutical Management for TB and M/XDR-TB for WHO European Region "New Approaches to Improving Access to Anti-TB Medicines and Pharmaceutical Services" was co-organized by WHO/EURO and SIAPS in Antalya, Turkey. Three SIAPS Ukraine staff and three counterparts from UCDC, State Service on HIV and Other Socially Dangerous Diseases, and SEC participated. The conference gave an opportunity for sharing best practices across the region. Ukrainian experts presented information and achievements in PV and implementation of e-TBM. Each country, including Ukraine, created its own actions plan to improve pharmaceutical management.

*Partner contributions*

- The SEC leads the working group on PV guidelines development, whose draft guidelines need to be approved by MOH. SIAPS takes part in the working group, alongside SEC and SAUMP specialists, manufacturers, physicians responsible for PV activities in their health facilities, and other stakeholders.
- The Principal Recipients of Global Fund Round 10 phase 2 are working collaboratively with partners, including SIAPS and the Global Fund, to develop PSM indicators for the Global Fund project.

*Constraints to progress*

A first draft of the national M&E plan was developed in the frame of Global Fund Round 9 phase 1 by the Principal Recipient Foundation for Development of Ukraine and received WHO approval early in 2013. There has been no further activity on the overall M&E plan because of political factors.

## **Uzbekistan**

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

### ***Objective 1: Pharmaceutical sector governance strengthened***

SIAPS senior TB staff travelled to Uzbekistan to assist with identifying national counterparts for conducting the indicator-based assessment of TB pharmaceutical system and to develop an action plan. However, this proved to be difficult as local organizations do not have the authority to make decisions on their own and all the steps during the activity require formal agreements with the different structural units of MOH and sometimes the Ministry of Foreign Affairs. This process is heavily bureaucratic and lengthy and may jeopardize implementation of the activity. For example, during the visit it was difficult even to meet certain counterparts despite a previously agreed upon agenda for the visit; the counterparts still had to get MOH permission to meet with SIAPS. This situation was discussed with WHO country office and they agreed to support SIAPS in conducting the activity, which includes communicating with MOH for formal approval of the workshops, SIAPS staff and consultants' visits, and field work. The next step for the assessment would be organizing the workshop that will include all national stakeholders, i.e., Center of National Drug Policy and Medical Equipment, Directorate of Medicines and Medical Equipment Quality Control, Republican Specialized Scientific Medical Center of Phthisiology and Pulmonology, DOTS Center—principle recipient of the Global Fund project. The workshop will focus on the methodology of the assessment, its tools, e.g., data collection questionnaires, and indicators; this will be followed by a plan for data collection in the field.

#### *Constraints to progress*

The bureaucratic process is becoming stricter and increasingly less transparent in Uzbekistan, which may jeopardize implementation of SIAPS activities in the country.

#### *Partner contributions*

The WHO CO will provide support to SIAPS through communication with MOH for formal approval of the workshops, visits of the SIAPS staff and consultants; in addition, field work will be done through WHO CO.

#### *Deliverables*

- Trip report

### ***Objective 2: Utilization of Strategic Information for Decision Making Increased***

During a SIAPS senior TB staff TDY to Uzbekistan, the MOH and other government agencies were approached about obtaining permission to use eTB Manager in Uzbekistan. Several

meetings were conducted with the counterparts including two meetings with the officials of the MOH of Uzbekistan. The meetings showed low commitment from the MOH to solve the bureaucratic obstacles for implementation of eTB Manager in Uzbekistan.

After the visit some changes were made to the technical documentation of eTB Manager in collaboration with WHO CO and it was submitted again to the MOH and Ministry of Foreign Affairs for further consideration and approval.

### *Constraints to progress*

The main challenge for Objective 2 remains the same: implementation of e-TB Manager in Uzbekistan is still suspended. MOH is reluctant to solve the bureaucratic obstacles for implementing eTB Manager.

### *Partner contributions*

WHO is a main collaborator for SIAPS on this objective. They have funding to support training of users of eTB Manager. Also, the Global Fund project procured 200 computers for Uzbekistan staff to use for eTB Manager.

### *Deliverables*

- Trip report