

## **SIAPS Quarterly Report**

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Project Year 3, Quarter 3

April 2014–June 2014



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**SIAPS** 

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

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## About SIAPS

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

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## ACRONYMS AND ABBREVIATIONS

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)
FP	family planning
FY	fiscal year
GDF	Global Drug Facility
HCW	health care worker
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)
PPMR <sub>c</sub>	Procurement Planning and Monitoring Report for Contraceptives
PPMR <sub>m</sub>	Procurement Planning and Monitoring Report for Malaria
PSI	Population Services Inc.
PSM	procurement and supply management
PTCs	Pharmaceutical and Therapeutics Committees
PV	pharmacovigilance
RDT	rapid diagnostic test
SCMS	Supply Chain Management System (project)
SIAPS	Systems for Improved Access to Pharmaceutical Services
SOP	standard operating procedure
SPS	Strengthening Pharmaceutical Systems Program
STGs	standard treatment guidelines
SUGEMI	national pharmaceutical management system (Dominican Republic)
TB	tuberculosis
TIPC	Therapeutics Information and Pharmacovigilance Center (Namibia)
TOR	terms of reference
TOT	training of trainers
UCDC	Ukrainian Center for Disease Control
UNAM	University of Namibia
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

The SIAPS approach to improving governance and accountability focuses on establishing policies and legislation supported by rule of law; organizational structures that are able to exercise appropriate decision making, authority, and oversight; transparent, ethical, accountable systems and processes that are grounded in well-formed policies and legislation; and human resource management systems that promote effective performance and ethical practices.

#### *Policy, Legislation, and Contracts*

In **Guinea**, SIAPS has been collaborating with the Ministry of Health (MoH), the national regulatory authority, the World Health Organization, and other partners to revise the National Pharmaceutical Policy and develop a five-year implementation plan. SIAPS provided assistance to MoH to organize and conduct a workshop to engage key stakeholders in validating the policy and its implementation plan (2014–2018), which resulted from two previous SIAPS-supported workshops. During the national health review meeting held in June, MoH used the validated National Pharmaceutical Policy and implementation plan as the primary reference documents for Guinea’s pharmaceutical sector.

Also in **Guinea**, SIAPS supported a workshop chaired by the Minister of Health to review the roles and responsibilities for procurement, storage, and distribution of medicines and other health commodities under the Government of Guinea’s convention with the autonomous central medical store. The attendees, including officials from the Guinea Ministries of Finance and Health, reached agreement on roles and responsibilities, and the convention was revised accordingly to enable the use of public funds for the central medical store to procure essential medicines to help it recover from debt.

#### *Standards, Guidelines, and Procedures*

As part of its ongoing support to strengthen the regulatory system in **Bangladesh** and improve the standards and procedures that govern the regulatory body’s key functions, SIAPS provided technical assistance to the Director General of Drug Administration (DGDA) to revise the Good Manufacturing Practices (GMP) inspection tools and procedures and train division and district staff in the application of these new standards and procedures. As part of the process, SIAPS accompanied the DGDA on two GMP inspection visits to observe current practices. The GMP inspection improvements are directly linked with SIAPS’ work to strengthen the product registration system. The improved standards and procedures in both of these key regulatory areas will eventually be integrated in the automated information system that SIAPS and the DGDA are developing.

## ***Transparency and Accountability***

In a continued effort to promote transparency and accountability throughout the pharmaceutical sector, the Food, Medicines and Health Care Administration and Control Authority (FMHACA) in **Ethiopia** is working toward the automation and integration of their information system for key regulatory functions using Pharmadex. SIAPS is developing and implementing an integrated system beginning with product registration, licensing, and inspection functions. SIAPS convened stakeholders to set up a governance structure for the automation project, which will include a steering committee and four technical working groups to provide stewardship and promote accountability. As part of the initial planning, the SIAPS team conducted a rapid assessment of the product registration system, which identified a number of gaps that need to be addressed to clearly define the system requirements. Based on the meeting and assessment findings, SIAPS worked with FMHACA to draft a project charter and revise the implementation plan.

Since the start of the program, SIAPS has been assisting the MoH's Directorate of Pharmacy and Medicines (DPM) in the **Democratic Republic of Congo (DRC)** to strengthen medicines registration. The country has made remarkable progress since SIAPS trained members of the new national medicines registration committee, helped them develop standard operating procedures (SOPs) for registration processes, and served as a member of the registration committee. DPM took over ownership of the registration process over a year ago and has sustained reductions in the number of days to register a pharmaceutical product, from 72 days in the previous quarter to 68 days this quarter. Also, the percentage of registered medicines on the National Essential Medicines List increased from 60.5% in the previous quarter to 71.5% this quarter. SIAPS technical assistance is now focused on coaching staff to measure performance indicators and helping them identify strategies to further reduce the registration time.

## ***Coordination***

Many SIAPS countries are implementing coordination efforts that promote more informed decision making; foster transparency and accountability; streamline supply chain management and service delivery; and improve the efficiency of planning, allocation, and mobilization of government and donor resources. Examples of SIAPS assistance in coordination this quarter include—

- Working with MoH to agree on the composition and structure of the proposed unit to coordinate all supply chain management activities for health commodities in **Lesotho**, as stipulated in the current supply chain management strategic plan
- Helping to establish and support the national committee for coordination and monitoring of malaria, maternal and child health, HIV, tuberculosis, and family planning health commodities in **Mali** and assisting the committee's technical working groups to conduct quantification exercises
- Coordinating implementing partners for the supply chain technical working group in **Swaziland** to ensure commodity security and advocate for allocation of sufficient resources for HIV, TB, and family planning commodities; also in **Swaziland** this quarter,

SIAPS helped establish the National Essential Medicines Committee, which is intended to improve transparency and accountability in the coordination, supply, and rational use of essential medicines

### **Strategic Planning**

In **Angola**, SIAPS assisted the MoH's National Directorate of Medicines and Equipment (DNME) to conduct a comprehensive review of Angola's national pharmaceutical strategic plan (2010–2015). SIAPS provided technical assistance to map progress made in implementing planned activities and achieving targets for the performance indicators, ascertain constraints to progress, and identify priority activities that can be addressed in the plan's final year. An important component of this activity was realigning the priorities set out in the existing pharmaceutical strategic plan with the long-term national health sector development plan (2012–2025). With assistance from SIAPS, the task force conducted document reviews and key informant and focus group interviews and then synthesized and presented the findings to the DNME. The DNME used the findings to develop its 2014–2015 work plan, which includes the establishment of a national regulatory body for medicines and medical products.

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

Sustainable access to medicines and other health technologies critically relies on the availability of skilled workers to provide and manage pharmaceutical services. SIAPS helps countries engage in comprehensive workforce planning to address challenges such as increasing demands, resource constraints, and health workforce policy reforms. This involves collecting and reporting data to help determine workforce needs, matching workforce and educational outcomes, and building a compelling case for funding posts in the public sector.

To increase pharmaceutical sector efficiency, SIAPS works with stakeholders to strengthen 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.

### **Pre-service Training**

SIAPS **South Africa**, in collaboration with Boston University and the University of the Western Cape School of Public Health, conducted a workshop on rational use of medicines for 22 participants from various countries. SIAPS also finalized the training materials for the pharmacovigilance elective at the Nelson Mandela Metropolitan University in the Eastern Cape in collaboration with the National Pharmacovigilance Centre. In **Namibia**, SIAPS provided technical assistance to the School of Pharmacy at the University of Namibia to develop pre-service training content for rational medicines use for Bachelor of Pharmacy students. SIAPS facilitated a three-day stakeholder workshop to review, validate, and finalize draft materials and to strengthen the capacity of university lecturers to develop and implement pre-service training materials across various topic areas and academic disciplines. In addition, SIAPS **Angola**

supported MoH in developing and delivering an advanced training course in pharmaceutical management to 30 pharmacy students from the Jean Piaget University. The course content included the pharmaceutical management cycle as well as pharmacovigilance, quality assurance, and pharmaceutical policies, laws, and regulations.

### ***In-Service Training and Supervision***

SIAPS **Angola** helped MoH organize a training session for 99 municipality staff on how to manage antimalarials. Each municipal team also developed a post-training implementation plan with interventions, deadlines, and assigned responsibilities with the aim of improving availability and rational use of medicines. SIAPS worked with **Burundi's** national malaria control program to train 164 health center providers on the new malaria standard treatment guidelines (STGs). SIAPS has trained 422 health care providers overall.

This quarter, SIAPS in **Lesotho** designed and delivered the Supply Chain Management Leadership and Development Program training to 81 health workers to improve availability of health commodities. After SIAPS mentored 24 health care workers on managing laboratory commodities, facilities consistently completed and submitted their monthly management information reports—increasing the reporting rate to 95%, which exceeded the 70% target. Through SIAPS efforts to conduct 113 supportive supervision visits in all 104 facilities, Lesotho's availability of tracer medicines increased to 88%; in addition, 97% of facilities supported by SIAPS were stocked with 2 months' minimum and 3 months' maximum stock levels of ARVS and achieved zero stock-outs of ARVs, opportunistic infection medicines, TB medicines, and contraceptives for more than 28 days in the previous 6 months.

To avert delays in medicines registration, SIAPS **Namibia** trained 42 health professionals in the public and private sectors on how to evaluate medicine registration applications. The workshop also included training on GMP, Good Distribution Practices, and quality control. SIAPS also helped the Division of Quality Assurance train 40 nurses and environmental health practitioners from all 14 regions to use infection prevention and control tools in health care facilities. SIAPS also helped train six health care workers on medical waste management, which included field visits to waste disposal sites in Windhoek.

SIAPS TB core staff led sessions on pharmaceutical management for TB and MDR/XDR-TB for 23 participants (16 male, 7 female) from **8 countries**. The course was designed by the WHO Collaborating Centre for Tuberculosis and Lung Diseases to provide state-of-the-art training for country TB managers, international consultants, and donor representatives. The SIAPS staff led sessions in forecasting, supply planning, quantification, and early warning for stock-outs; pharmaceutical management; and early warning indicators.

During this quarter, SIAPS **Ukraine** provided on-the-job trainings to more than 80 staff of oblast/raion facilities on good practices for pharmaceutical transportation, storage, quality control, cold chain, monitoring and evaluation, SOPs, and quantification techniques. SIAPS also facilitated 2 training sessions on procurement, distribution and quality control management for 21 health workers at HIV facilities.

SIAPS **Philippines** collaborated with the Innovations and Multi-sectorial Partnerships to Achieve Control of Tuberculosis and the Department of Health's regional and provincial health offices to train 133 health care workers on the use of the *Practical Guide for the Management of Pharmaceuticals and Health-related Commodities*. Post-training monitoring showed improvements in the use of stock cards in inventory management, tracking of medicine expiration, and storage practices and the trainee's increased knowledge in computing drug requisitions, etc. As a result, this guide is targeted for nationwide scale-up.

SIAPS **Swaziland** trained and mentored 38 health care workers at national, regional, and facility levels on logistics management information systems, and 27 were trained on inventory management using RxSolution. SIAPS also made supportive supervisory follow-up visits at 55 health facilities on laboratory supply chain management, inventory management using RxSolution, stock card updating, Good Dispensing Practices, Good Storage Practices, and pharmaceutical data management.

Under the **West Africa** regional portfolio, SIAPS trained 12 managers from the 6 focus countries (Benin, Burkina, Cameroon, Guinea, Niger, and Togo) on quantification of HIV and AIDS commodities with Quantimed and Pipeline software.

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

SIAPS activities focus on capture, aggregation, analysis, presentation, and dissemination of information to support evidence-based decision making. Through our tools, software solutions, and pharmaceutical management information system (PMIS) activities, SIAPS helps ensure that quality pharmaceutical information is available to formulate pharmaceutical policy and plans and monitor supply chain systems and pharmaceutical services.

To address these areas, SIAPS strategies include assessing and evaluating local information needs; leveraging technologies in designing tools; harmonizing tools to help integrate PMISs; and strengthening local organizations to customize, maintain, and take ownership of the tools and also to analyze, manage, and use the resulting data. As a result, SIAPS country partners use innovative and proven tools to generate accurate and timely information on pharmaceutical systems to improve access to products and services.

#### **Data Utilization**

SIAPS supports the development and implementation of systems for the analysis of data from a variety of information collection and management mechanisms so that health professionals can effectively plan and monitor service delivery. In **Angola**, SIAPS assisted 6 of the 18 provinces to implement new reporting and requisition forms to provide consumption data that will be used to quantify health facility needs and monitor stock status for HIV and AIDS products. **Burundi** has been able to analyze monthly requisitions from all 45 districts and provide feedback. As a result of supervisory and coaching visits by the SIAPS team, reporting timeliness has been maintained at over 90% for the last three quarters. In **Mali**, SIAPS organized quarterly review

meetings to analyze and validate logistic data for family planning and other health commodities to address bottlenecks and other supply chain issues. Similar exercises were carried out in five counties in **South Sudan** and 48 sites in **Namibia**.

In **Bangladesh** QuanTB was used to forecast TB/DR-TB/XDR-TB cases and TB medicines needs and to identify potential stock-outs and overstocks. The government also used QuanTB data to work with the Global Drug Facility (GDF) and manufacturers to adjust upcoming shipments and re-route some products to Nepal and South Korea. GDF identified QuanTB as one of its official tools for data collection and reporting for all supported countries; as a result, SIAPS has been providing ad hoc support to regional and country GDF officers for quantification, forecasting, and establishing early warning indicators. SIAPS tested and finalized the first generic version of e-TB Manager Desktop; pilot testing will take place in Nigeria. Globally, 2,385 e-TB Manager users are managing 223,021 TB, DR-TB, and presumptive TB cases.

SIAPS collaborated with the Regional Health Bureaus in **Ethiopia** to provide support to the sites with Auditable Pharmacy Transactions and Services (APTS) to strengthen their information and reporting system. As a result, in the Tigray region, hospitals can generate monthly sales reports by category (cash, free, credit, etc.) and reports on services (prescribing indicators, affordability, workload). This transaction and service information enables managers to make better decisions. The data provided through APTS also resulted in the government's decision to increase human resource deployment from 12 to 21 and rearrange the dispensary floor planto increase efficiency. Consequently, the rate of wastage has gone down to 2%, which is well below the target in the Ethiopian health strategy development plan; furthermore, facilities are able to supply medicines to customers at more affordable prices (on average, 39.00 birr per patient).

### ***Data Quality and Access***

SIAPS works with countries to improve data quality and ensure that data is being disseminated to the appropriate stakeholders through proper reporting channels. In **Namibia**, SIAPS compared data from the electronic patient management system to the electronic dispensing tool data as part of the ART data quality audit; 83% of the records matched. Reporting by health facilities in four of SIAPS' target countries for this quarter improved compared to the previous quarter: **Cameroon** (Q3 62% vs. Q2 56%), **Lesotho** (Q3 89% vs. Q2 58%), **Namibia** (Q3 98% vs. Q2 92%), and **Ukraine** (Q3 95% vs. Q2 87%).

To address the **South Africa**'s National Department of Health's (NDoH) request for easier access to commodities data from facilities using RxSolution, the SIAPS team developed a dashboard that remotely pulls data from health facilities. SIAPS also developed an advocacy and policy plan to facilitate the transfer of SIAPS tools to the Government of **Bangladesh**. In **Swaziland**, SIAPS collaborated with the Clinton Health Access Initiative to assist the MoH Logistics Data Management Unit conduct data quality audits at 39 ART facilities. During the visits, SIAPS provided mentorship and feedback to the staff on how to use management information tools for reporting effectively.

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

SIAPS helps countries conduct analyses to improve decisions regarding cost containment, greater efficiency, and options for mobilizing financing. SIAPS also helps countries 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 (Global Fund) requests for proposals. During this quarter, SIAPS provided technical assistance with pharmacoeconomic analyses, tracking costs, analyzing data, maximizing resources, and providing support in allocation of resources and mobilizing additional funds.

SIAPS **South Africa** provided support to the NDoH in the analysis of pharmaceutical expenditure during the 2013–14 financial year from five provinces; ABC analyses by generic name and therapeutic class were performed and combined. The expenditures were highest for antiretrovirals (ARVs), followed by vaccines and antimycobacterials. NDoH will share the results with the provinces to take action. Similarly, in Gauteng province, SIAPS helped the Dr. George Mukhari Hospital carry out an ABC analysis in response to the high usage of antibiotics. An analysis of the expenditure on antibiotic per dosage form revealed that more than half of the expenditure was on injectable antibiotics. SIAPS is working with the hospital to design a corrective intervention. Furthermore, SIAPS **South Africa** provided detailed feedback on an invoice tracking tool after recommending that the NDoH investigate variances observed during the mandatory monthly stock inventory at the distribution center. As a result, the private company handling the Global Fund-funded stock acknowledged that any variances would be at its cost. The NDoH is drawing up an invoice for the value of the stock.

In addition, SIAPS helped **South Africa's** Directorate of Affordable Medicine award several pharmaceutical tenders, with a net savings of R8.5 million compared to costs from the previous contract. The directorate's decision to allot 67% of its insulin device requirements to cartridges rather than non-disposable pens resulted in a 25% price decrease. SIAPS also developed the template to standardize price data research and price comparison to inform the bid evaluation committee's decisions for awarding tenders. The matrix was created to produce a price report using local and international price data; SIAPS also helped the committee incorporate monitoring and evaluation and supply chain information and evidence.

In **Ethiopia**, SIAPS conducted a medicines budget utilization study based on the principles of ABC value analysis and ABC/VEN reconciliation at three hospitals in the Tigray region. The medicine expenditure analysis showed that the health facilities procured more than 96.6% of items from their drug list and identified items that accounted for 70–80% of the medicines budget and required stringent control. In addition, medicines that were not needed were identified and transferred to other health facilities with higher demand.

During this quarter, SIAPS **Bangladesh** participated in the Global Fund's TB joint monitoring mission and helped carry out team recommendations on stock, storage, procurement, and forecasting of TB drugs. At SIAPS' recommendation based on its forecasting exercise, the Global Fund deferred shipments worth \$200,000 to avoid the risk of overstocking expensive TB drugs.

## **Intermediate Result 5. Pharmaceutical services improved to achieve desired 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; pharmacovigilance; facility and community-based case management; medicine and therapeutics information; and infection control.

### **Supply Management**

SIAPS staff made progress on activities supporting the United Nations Commission on Life-Saving Commodities. SIAPS finalized the *Quantification of Health Commodities, RMNCH Supplement: Forecasting Consumption of Select Reproductive, Maternal, Newborn and Child Health Commodities*, which is a guidance document for program managers and health professionals to quantify for the 13 target commodities. The document has been disseminated to the Supply Chain and Local Markets Working Group.

In **Angola**, SIAPS worked with the Central Procurement Agency for Medicines and Medical Supplies to finalize and implement 14 SOPs for strengthening warehousing and distribution management systems. SIAPS also provided technical assistance to the agency to implement a product coding system; develop warehouse staff job descriptions and job aids; and create appropriate dashboards, metrics, benchmarks, and other guiding documents to improve key performance indicators. To update the bi-monthly coordinated procurement plan, SIAPS worked with the National HIV/AIDS Control Institute to monitor ARVs and avert stock-outs. The National Malaria Control Program worked closely with SIAPS to monitor stock levels of antimalarials in all 18 provinces and prepare a distribution plan for Global Fund products.

Using the model that SIAPS developed for tender documents, the Directorate General of Health Services (DGHS) in **Bangladesh** was able for the first time to procure cholera medicine under the framework agreement. Furthermore, SIAPS led the development of a table of organization and equipment, a comprehensive list of the core medical equipment procured, used, and maintained by the Ministry of Health and Family Welfare. In addition, SIAPS continued to make procurement processes more efficient for the Directorate General of Family Planning (DGFP), thereby reducing the lead time for ordering from 78 weeks initially to 58 weeks last year to only 44 weeks this year. SIAPS also conducted a stakeholder workshop with DGHS to map and identify reasons for longer lead times and draft recommendations on how to reduce them.

SIAPS worked with the Government of Guinea to revise the convention that outlines roles and responsibilities of the government and the central medical store relating to procurement, storage, and distribution of health commodities. During this quarter, SIAPS also worked with Catholic Relief Services to distribute malaria commodities to the President's Malaria Initiative (PMI)-supported districts; conduct post-distribution supervision visits in Labe/Boke; and carry out a quantification exercise of malaria commodities for Global Fund-supported districts.

SIAPS staff in **South Africa** conducted supportive supervision visits at the Limpopo and Mpumalanga pharmaceutical depots, which led to the revision of stock availability and monitoring tools used at the Mpumalanga Depot. The Limpopo depot stock availability rates increased from 50% in March 2013 to 80% by June 2014 (target of 90%), because of SIAPS's supply chain interventions.

SIAPS finalized two reports on de-junking and optimizing storage space in **South Sudan** to advocate and leverage resources and PMIS tools for county stores. Consequently, SIAPS was able to de-junk 14 of the 16 county stores (87.5%), which exceeded the 60% target. In **Swaziland**, SIAPS and the UN Population Fund launched the five-year family planning commodities quantification report. The results of the quantification exercise projected an increase in the use of female and male condoms as well as implants, resulting in a \$7,387,531 procurement over the five-year period. An estimated 2,654 maternal deaths can be averted, based on the quantification assumptions. In **Lesotho** this quarter, the supplier of pediatric zidovudine/lamivudine 60 mg/30 mg formulation could not manufacture during the quarter's first two months; therefore, SIAPS worked with MoH and district health management teams to redistribute the critical medicine to avoid stock-outs.

### ***Community Case Management***

SIAPS continued working with the **Burundi's** national malaria control program to support community case management (CCM) in the Gashoho and Gahomobo health districts. Supportive supervision and training sessions were carried out by SIAPS during the monthly community health worker (CHW) meetings at 25 health centers. Coaching focused on compliance with malaria case management steps, use of rapid diagnostic tests (RDTs), and use of the CCM algorithm. Following direct observations of CHWs at work, SIAPS noted improvements in malaria prevention counseling, use of RDTs, and dispensing practices. During the April meeting, 375 CHWs in both districts were trained on how to recognize danger signs. In May, 388 CHWs in both districts were trained on how to use the CCM algorithm; they were also resupplied with commodities and reminded how to use them appropriately. During the quarter, 19,371 children under five years with fever accessed CHW services. Of those, 19,218 were tested with RDTs and 14,388 tested positive for malaria; 91% of children who tested positive for malaria received treatment within 24 hours. When compared to reports from the previous quarter, the number of cases attended by CHWs increased by 67% in Gashoho and by 29% in Gahomobo during this quarter. The mortality rate among children under five years who attended CHW services in both districts remained at almost zero.

### ***Pharmacovigilance and Rational Use***

In **Ethiopia**, 261 health providers at 15 health facilities in 4 provinces participated in face-to-face discussions with SIAPS to create awareness on pharmacovigilance; in addition, clinical pharmacy services were initiated at 6 hospitals. In Tigray, clinical pharmacists identified 223 drug therapy problems and proposed interventions for 195 of them. Of the 195 interventions proposed, prescribers accepted 182. SIAPS continued to promote patient education; drug information services in waiting areas of 4 hospitals in Tigray provided education to 3,287

patients during the quarter. In addition, during this quarter, 10 health facilities in the Tigray, Amhara, and Oromia regions received technical assistance from SIAPS to assess medicine use practices, review findings, and organize data. Results from a prescription review study conducted in two hospitals in the Tigray region indicated that nearly all medicines prescribed were from the hospital drug list and over 95% of medicines that were prescribed were dispensed in the hospital.

SIAPS continued to collaborate closely with the **Swaziland** MoH's Pharmacovigilance Unit to support HIV/TB active surveillance in six health facilities. To date, 956 clients have been enrolled in the pilot and 58 adverse events have been recorded, the most common of which are peripheral neuropathy (26%), rash (19%), and dizziness (8%). During this quarter, SIAPS conducted supervisory visits to health facilities to follow up on reporting and address challenges. The reporting tool was modified to reduce incomplete data collection at sites.

In **Ukraine**, SIAPS implemented two phases of the pharmacovigilance automated information system in collaboration with SEC and the developer, RGDData. The system's interface was developed, and database components were approved. SIAPS also provided technical support to SEC trainers for pharmacovigilance pilot training for 20 phthisiatricians from 4 oblasts. In addition, SEC representatives visited TB dispensaries to deliver a presentation on TB Patients' Pharmacovigilance and Physicians' Notification Regarding ADR to 105 physicians. A Skype-based training was also conducted for 15 nurses on diagnosis and treatment of TB cases, including a session on ADRs of first- and second-line TB medicines.

In the **DRC**, SIAPS helped the national TB program launch an active pharmacovigilance program for all patients on second-line TB medicines in 14 health facilities in Kinshasa. In preparation, SIAPS provided technical and financial support to train 26 health workers on pharmacovigilance; the trainees are now actively monitoring two cohorts of patients for ADRs—a treatment group on a nine-month regimen and a control group on a 20-month regimen. Three hundred adverse event notifications have been created thus far. The activity will track the enrolled patients over the next 12 months to monitor the prevalence of adverse events and inform patient management protocols.

SIAPS helped the Pharmaceutical Services Division in **Namibia** finalize an STG post-implementation assessment report of 11 disease conditions in 13 health facilities. The assessment recommended ways to improve compliance to the STGs. As a result, the Ministry of Health and Social Services is planning to develop a revolving fund with the Health Professionals Council of Namibia to increase access to STGs; in addition, they will strengthen therapeutics committees to supervise prescribers and regularly conduct facility-level medicine use evaluations to promote rational medicine use.

### ***Treatment Adherence***

During this quarter, SIAPS collaborated with the **Namibia** MoHSS/Directorate of Special Programs to launch ART treatment literacy materials that had been developed and printed with SIAPS support. The use of audiovisual materials and picture-based desk flip charts will improve treatment literacy and adherence among patients receiving ART. Using Namibian data

from October to December 2013, SIAPS also reported on ART adherence and retention. The report shows a national retention rate of 92.1% among adults and children, which represents a 5% improvement from the previous quarter's report. In **Swaziland**, SIAPS supported TB adherence monitoring as part of the DOTS program. A quarterly report included adherence scores for patients on TB treatment and recommendations on how to increase the scores. Since February 2013, 18 health facilities had submitted adherence data, and 85% of patients had adherence scores of 80% and above.

### **Antimicrobial Resistance**

SIAPS collaborated with FMHACA and other stakeholders in **Ethiopia** to conduct one round of regional training for 34 journalists to build their capacity to educate and empower the public on rational medicines use and AMR through the media. The trainees included representatives from the Amhara region mass media agency and community radio and FM radio stations, as well as zonal media education personnel. At the end of the training, participants developed plans of action. In **Namibia**, SIAPS participated in a three-day workshop facilitated by WHO/Tufts University on how to analyze HIV drug-resistance early warning indicator data and report on active surveillance of HIV-DR. SIAPS also continued to support data abstraction and analysis of five early warning indicators from the national database.

### **Drug and Therapeutics Committees**

In **South Africa**, SIAPS continued to strengthen the governance and functioning of pharmacy and therapeutics committees (PTCs)—

- In Eastern Cape Province, SIAPS helped the provincial PTC finalize the provincial medicine formulary. Academic detailing materials were developed to facilitate the implementation of the recently revised pediatric STGs for hospitals, and SIAPS also finalized the academic detailing and implementation strategy for the pediatric EML for hospitals.
- In KwaZulu-Natal Province, SIAPS provided assistance to the Mkhanyakude district PTC to finalize their terms of reference.
- In Gauteng Province, SIAPS helped the district pharmacist in West Rand review 325 patient files in 42 primary health care facilities to evaluate the use of cefixime. The medicine use evaluation demonstrated 86% compliance with STGs. The results were shared with the district PTC.
- Also in Gauteng Province, SIAPS assisted the provincial PTC to review emergency trolley lists after the committee identified a lack of harmonization in items available for medical emergencies at the primary care level. An emergency trolley list was proposed, drafted, and circulated among Gauteng Province PTC members.
- SIAPS also supported the Gauteng Province PTC's formulary sub-committee to conduct pharmaco-economic studies. A cost analysis, for example, led to the removal of

dexmedetomidine from the formulary because it is expensive and is not on the essential medicines list.

***Infection Prevention and Control***

SIAPS supported the MoHSS Division of Quality Assurance in **Namibia** to finalize four guidelines on infection control and waste management: infection prevention and control, operation theater, central sterilization services department, and phlebotomy. The guideline review workshop was attended by 28 health care workers; 40 nurses and environmental health practitioners from all 14 regions were trained on how to apply the tools to strengthen infection prevention and control in health care facilities.

SIAPS Portfolios and SIAPS IRs in the Year 3 Quarter 3 Report

COUNTRY/PORTFOLIO	IR1	IR2	IR3	IR4	IR5
<b>Africa</b>					
Angola	•	•	•		•
Burundi	•	•	•		•
Cameroon	•	•	•	•	
Democratic Republic of Congo	•	•	•		•
East Central and Southern Africa	•				
Ethiopia	•	•	•	•	•
Guinea	•	•	•		•
Lesotho	•	•	•		
Mali	•	•	•		
Mozambique	•		•	•	•
Namibia	•	•	•	•	•
South Africa	•	•	•	•	•
South Sudan	•	•	•		•
Swaziland	•	•	•	•	•
West Africa Regional	•	•	•		
<b>Asia and Middle East</b>					
Bangladesh	•	•	•		•
Philippines		•	•		•
<b>Europe and Eurasia</b>					
Tajikistan		•	•		
Turkmenistan			•		
Ukraine	•	•	•		•
Uzbekistan	•		•		
<b>Latin America and the Caribbean</b>					
Dominican Republic	•	•	•	•	•
Amazon Malaria Initiative	•		•		•
<b>Core Portfolios</b>					
Cross-Bureau	•	•	•	•	•
Malaria Core		•	•		
MCH Core		•	•		•
NTD Core	•	•			•
TB Core	•	•	•		•
<b>Total Portfolios</b>	<b>23</b>	<b>23</b>	<b>26</b>	<b>8</b>	<b>19</b>

**CROSS BUREAU**  
*(formerly Common Agenda)*

**Objective 1: Pharmaceutical sector governance strengthened**

SIAPS is using Cross Bureau 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 course to address comments from USAID/Washington-Office of Health Systems (OHS) sent in March 2014 following an in-depth technical review of the draft course materials. The course is now ready for uploading. Also in this quarter, SIAPS worked with Knowledge for Health (K4H) project staff and Tech Change (the project that will be developing two animations for the course) to draft the storyboards, select images and narrators, and plan the sequence. In the next quarter, SIAPS will further support the development process as needed and, once the animations are ready (expected by the end of July), the graphics developed, and the course is uploaded, it will be shared with the USAID Bureau of Democracy, Rights, and Governance and WHO staff working on the WHO Good Governance for Medicines (GGM) program for review.

Also in this quarter, SIAPS and the USAID AOR discussed opportunities to support the WHO GGM program. The agreed potential activities include development of indicators and methodologies for M&E and contributing to codes of conduct and conflict of interest policies that will be discussed with WHO staff in a call scheduled for early July.

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

SIAPS continued to work with the Accreditation Council for Pharmacy Education (ACPE) to develop an accreditation framework for pharmaceutical in-service education and training, under the broader context of providing continuing professional development for multiple levels of the pharmacy workforce including pharmacists, technicians, and assistants. Last quarter, ACPE drafted a framework document outlining how an accreditation program for pharmaceutical continuing education and training should be established for resource-constrained countries. This quarter, ACPE incorporated the recommendations from the initial review, and the document has undergone a second round of SIAPS HQ review and was sent back to ACPE for finalizing. The final document is expected by September 30, 2014.

SIAPS also continued to work with its partner, the Ecumenical Pharmaceutical Network (EPN), to further explore the new opportunity to strengthen pooled procurement by EPN members in Cameroon. This quarter, the task order was approved and signed by EPN, and implementation of activities has begun.

In this quarter, SIAPS and the USAID AOR team had a call with the New Partnership for Africa’s Development (NEPAD) Planning and Coordinating Agency to discuss opportunities for collaboration and how SIAPS can partner with NEPAD/African Medicines Regulatory

Harmonization (AMRH) to support the operationalization of the Regional Centers of Regulatory Excellence (RCOREs). A draft that set out potential activities and timelines was submitted for USAID review. In the next quarter, with the agreement of USAID, SIAPS will share the work plan with NEPAD and, based on agreements reached, initiate activities to support the AMRH initiative. Potential identified activities for RCOREs include supporting the development of harmonized and standardized curricula for PV and reviewing standards for accreditation.

This quarter, SIAPS participated in a number of conferences of importance to international pharmaceutical management. In April, SIAPS attended a meeting with the Economic Community of West African States (ECOWAS) to support implementation of the ECOWAS Regional Pharmaceutical Plan (ERPP). At the end of the meeting, a declaration was prepared and signed by all participants to declare their commitment to ERPP.

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

Cross Bureau is funding the development of a framework and metrics for evaluating pharmaceutical systems and systems strengthening interventions. In this quarter, SIAPS focused on synthesizing the findings of the literature search on:

- Definitions, frameworks, and approaches that have been proposed or used to characterize a pharmaceutical system and pharmaceutical systems strengthening
- Tools and metrics and the domains/categories therein that have been used to assess a pharmaceutical system or to track pharmaceutical strengthening initiatives
- Advantages, disadvantages, applications, and conditions for appropriate use of composite indicators to inform potential use for pharmaceutical systems strengthening

SIAPS has been working with USAID to draft the terms of reference for consultations with SIAPS partners, including WHO, Harvard, and selected experts; the consultations, planned for next quarter, will decide on a working definition, framework, and candidate indicators for pharmaceutical systems strengthening. Following the consultation, SIAPS will refine the framework and metrics and field test the tools.

SIAPS worked with VillageReach and finalized the survey for the data burden activity in Swaziland. The concept note was written and submitted to the Swaziland Ministry of Health for approval. After the concept note was approved, the interviewees were chosen and contacted. The request for country clearance was submitted and travel arrangements for July were made. This quarter the target was to arrange the trip to Swaziland and to prepare all the staff necessary to interview while there. Both goals were accomplished.

An internal review of the draft STG how-to manual that was initiated during the previous quarter remained ongoing during this quarter. The next step is to finalize the draft based on reviewer feedback.

SIAPS also continued to work with the Harvard School of Public Health (HSPH) on identifying facility-level practices or practice-related behaviors impacting central supply chain performance and developing related indicators. In the previous quarter, data collection was completed in Cameroon, Swaziland, and Namibia. In this quarter, the draft report was presented to the USAID Office of HIV and AIDS. Feedback from USAID has been received and HSPH is finalizing the activity report, expected at the end of September 2014.

#### *Partner contributions*

For the data burden activity, VillageReach provided training and prepared SIAPS staff for conducting the survey in Swaziland. Additionally, HSPH contributed their expertise in study design, data collection, and analysis.

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

Results for Development (R4D) produced version 2.0 of the draft report titled “An approach for tracking pharmaceutical spending in a health system” and made an in-person presentation to facilitate discussion between SIAPS and R4D.

#### *Constraints to progress*

The lead staff who oversaw the draft production of the report resigned from MSH. Another staff member played the role of coordinator and team reviewer for technical deliberations. In addition, long travel schedules and limited availability of R4D and SIAPS staff delayed the important face-to-face meeting.

Another major challenge was the lack of clarity in the report’s tools and instructions. Whether tracking financial flows exclusively for pharmaceuticals or considering management costs associated with delivering pharmaceuticals was another internal debate that slowed the process of decision making on what is needed for the final version of the report.

#### *Partner contributions*

R4D contributed significantly to SIAPS this quarter through the pharmaceutical spending activity.

### **Objective 5: Improved quality of pharmaceutical products and services**

The draft medication adherence guidance document for the establishment and monitoring of local medication adherence programs in resource-constrained settings underwent further development. A search of external examples of successful medication adherence improvement interventions for various diseases (including HIV and AIDS, TB, and malaria) was conducted. Based on this search, a few boxed stories were developed for inclusion in the document. The next steps are to review the draft internally and finalize it.

The USAID eLearning course on antimicrobial resistance (part 2) underwent further revisions, including the development of a glossary of terms and an additional set of pre- and post-reading knowledge test questions. The next steps are to review and finalize the course.

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

The WHO Essential Medicines and Health Products Information Portal is averaging 380,000 unique page views per month and showing a significant amount of access through Spanish language pages from an analysis of the Google Analytics provided by WHO. Discussions continue on plans to expand the portal; WHO wants to include vaccines and noncommunicable diseases and to improve awareness of the portal in the practitioner and policy maker communities. SIAPS is establishing a consulting mechanism to support surge requests for bulk uploads of materials from within the project and continues to encourage technical staff to contribute. The SIAPS web site now also has a direct link to the portal on our Publications page.

WHO invited SIAPS to present at the French Technical Briefing Seminar on Pharmaceutical Policy held in Geneva, April 7-11, 2014. SIAPS' technical deputy director presented on the experience and lessons learned from implementing the SIAPS Program with emphasis on the health systems strengthening approach. Several case studies were presented during the seminar. The meeting was attended by representatives from the pharmaceutical sector of a large number of African Francophone countries in addition to a number of partners. The meeting was also an opportunity to interact and discuss with representatives of countries where SIAPS is working. It was also an opportunity to discuss and review with WHO staff potential areas of collaboration including portal, governance activities, and feasibility to collaborate on country profiles.

The East African Community Medicines Regulatory Harmonization (EAC-MRH) debrief meeting was held in Arusha, Tanzania, on June 24, 2014. SIAPS was invited as a partner in the Africa Medicines Regulatory Harmonization (AMRH) initiative and as a potential partner for supporting the EAC-MRH agenda through the Pharmacovigilance Technical Working Group (PV-TWG). At the conclusion of the meeting, it was decided that SIAPS would continue to collaborate with EAC-MRH through official engagement with EAC; participation in the EAC-PV-TWG; and participation in the donors' round table meetings proposed for July and September 2014.

The Essential Medicines and Health Products Department of the EU/African, Caribbean, and Pacific Group of States (ACP)/WHO Renewed Partnership (RP) invited SIAPS to attend their second meeting to strengthen pharmaceutical systems and improve access in 15 ACP African countries. The meeting was held in Harare June 24-26, 2014. The objectives of the meeting were to share experiences, best practices, challenges, and opportunities in the implementation of RP activities; provide guidance on increasing visibility of RP activities in countries; further discuss potential for collaboration between countries, regional institutions, and other stakeholders; and discuss new areas of focus, activities, and methodologies to be supported by the RP in line with global priorities for essential medicines and other health technologies. The SIAPS project director presented at the meeting with special focus on collaboration between SIAPS and ACP at

the country level. Other participants at this meeting included MoH representatives from 15 target countries, WHO essential medicines advisers, and representatives from the EU, European Commission, WHO Headquarters, AFRO, and other regional institutions.

*Constraints to progress*

Time and budget constraints continue to affect the pace of growth for the portal on the SIAPS and WHO sides. With additional Cross Bureau funding, SIAPS can more actively market the portal, begin working with local counterparts, and explore approaches to identify knowledge gaps to direct future research.

*Partner contributions*

WHO continues as owner and active participant in managing the WHO portal.

## GLOBAL PROGRAMS

### **Malaria Core**

**Goal: Improve the supply, quality, and use of malaria commodities to reduce malaria burden**

During the quarter, SIAPS continued its effort to improve coverage of malaria interventions. Results for the study to estimate the cost of distribution of malaria commodities in Kenya and Benin were disseminated. In addition, SIAPS facilitated PMI procurement decisions by conducting end use verification (EUV) surveys in two countries, completing the gap analyses templates, and submitting stock status of malaria commodities from Angola, Burundi, DRC, Ethiopia, Guinea, Kenya, Mali, South Sudan, and Uganda. Together these activities work toward improving availability of malaria commodities and thereby contribute to ending of preventable maternal and neonatal deaths due to malaria and its complications

#### ***Objective 1: Improve Coverage of Malaria Interventions***

A two day orientation on quantification and consultative quantification workshop was held in Ethiopia May 6–8. SIAPS used this forum to share experiences of malaria products quantification from other countries and use the Malaria Quantification Manual developed with PMI support so that the Ministry of Health and other key stakeholders/partners will benefit from proven quantification approaches that promote consistency, efficiency, and transparency in the quantification process. The workshop was attended by 23 participants from the Federal Ministry of Health (FMOH) including the Malaria program and Pharmaceuticals Logistics Management Unit (PLMU); Pharmaceutical Fund and Supply Agency (PFSA); Ethiopian Public Health Institute (EPHI); Gambella, Benishangul-Gumuz, SNNPR and Oromia Regional Health Bureaus (RHB); and other partners including UNICEF, USAID, ICAP, USAID/SIAPS, SCMS, and Malaria Consortium. In addition, a five-year quantification of anti-malarial pharmaceuticals for the period 2014-2017 was conducted.

In FY 13, SIAPS, in collaboration with its core partner the William Davidson Institute, conducted a retrospective costing exercise to estimate the cost of distribution of malaria commodities including artemisinin-based combination therapies, rapid diagnostic tests, and long-lasting insecticide-treated nets in Kenya and Benin. During the quarter, the findings of this work were presented to multiple audiences including PMI and a draft report was completed. The study has established a costing methodology that will be replicated elsewhere by host countries and implementing partners

#### ***Objective 2: Improve Metrics and Monitoring and Evaluation of Malaria Commodities***

During this quarter, the EUV survey was conducted in Ethiopia and DRC, while Mali finalized the EUV report and disseminated the results. 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 from Angola, Burundi, DRC, Ethiopia, Guinea, Kenya, Mali, South Sudan, and Uganda. In preparation of the upcoming Malaria Operational Plan visits, gap analysis templates from six countries (Angola, Burundi, DRC, Guinea, Kenya, and Mali) were submitted to PMI.

## **MNCH Core**

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

This quarter, the SIAPS/Maternal, Neonatal, and Child Health (MNCH) portfolio continued to push forward the global agenda for pharmaceutical management to increase access to essential, life-saving MNCH medicines and supplies and thereby contribute to ending preventable maternal and child deaths. The tools for determining the unmet need for maternal health commodities as well as the two country case studies of DRC and Bangladesh were finalized, disseminated, and presented at USAID in April 2014. Validation of the management of child illnesses intervention guide began in this quarter with the guide being introduced to three selected districts in Zambia. Next quarter, these districts will begin validating selected interventions from the guide.

The portfolio staff further remained actively engaged at the global and country levels through its participation in the various United Nations Commission on Life-Saving Commodities for Women and Children (UNCoLSC) working groups and other global taskforces such as the Community Case Management (CCM) Taskforce and the Reproductive Health Supplies Coalition (RHSC). Through participation in CCM Taskforce, SIAPS finalized generic supply chain management tools and job aids that will be posted on the CCM Taskforce website and presented, with JSI, at the CORE group preconference session on “How to Assure Availability of Medicines and Supplies in CCM: Supply Chain Management Considerations.”

SIAPS/MNCH made significant progress in the activities supporting the UNCoLSC. The quantification guide for the 13 RMNCH commodities was finalized and disseminated to the Supply Chain and Local Markets working group and sent to editorial for finalization. SIAPS also developed a case study protocol and questionnaire, and began data collection to look at the integration of oxytocin in the Expanded Program on Immunization (EPI) cold chain in Mali. In support of the IATRT, SIAPS developed a first draft of the protocols for the situation analysis (landscape analysis) of injectable antibiotics for treatment of newborn sepsis to be conducted in the Democratic Republic of the Congo (DRC), which was sent to the group this quarter for review.

### ***Objective 1: Global Awareness of the Importance of Pharmaceutical Management for MCH medicines and Supplies Increased***

SIAPS’s Principal Technical Advisor for MNCH led the quarterly Maternal Health Supplies Caucus conference call. During the meeting, caucus members discussed plans for the annual membership meeting coming up in October. She also attended the biannual meeting of the RHSC Systems Strengthening Working Group. During this meeting, the RHSC asked that SIAPS meet with Partners in Population and Development (PPD) to discuss opportunities for collaboration (both internationally and in Bangladesh). The senior staff then met with Dr. Joe Thomas of PPD and discussed options regarding side-meetings on regulatory systems strengthening for PPD members during their members meeting in November 2014.

SIAPS MNCH staff continued to facilitate the monthly collection of the data for the Jadelle<sup>®</sup> Access Project from Bangladesh, DRC, and Kenya. The data includes a summary on the

availability of Jadelle progesterone implants based on reviews of the orders information received from various data sources and includes data (e.g., stock on hand and average monthly consumption) on the anticipated months of stock on hand.

SIAPS/MNCH also continued to participate in the Supply Chain Management (SCM) subgroup of the CCM Taskforce and directed one of the three meetings. The generic supply chain tools for CCM and their job aids were finalized and will be uploaded onto CCM Central (iCCM Taskforce website). The SCM sub group also presented at the CORE group preconference session on “How to Assure Availability of Medicines and Supplies in CCM: Supply Chain Management Considerations.” SIAPS MNCH staff presented the overview session and colleagues from John Snow Inc. (JSI) presented two country case studies. After the presentations, SIAPS, with JSI, facilitated a discussion on how to implement supply chain interventions as part of an integrated project. On April 23, 2014, SIAPS participated in the quarterly CCM Taskforce meeting and updated the taskforce on the activities of the SCM subgroup. Next quarter, SIAPS will participate in the next SCM sub group meeting on July 11, 2014 and is currently planning to organize a webinar on resupply tools for CCM either in August or September 2014.

SIAPS continued its role in coordination meetings of USAID and implementing partners (SIAPS, TRAction, and MCHIP) on issues of CCM. SIAPS provided updates on the support to countries in the process of developing concept notes for the GF New Funding model. There are no specific requests for SIAPS technical assistance as yet. It was agreed to draft a flyer on CCM as an advocacy piece for the June 2014 Call to Action breakfast with ministers of health. All partners contributed; however, USAID decided the flyer was not necessary for the activity and the flyer was not finalized.

#### *Deliverables*

- Presentation to CORE group preconference session, located at: <http://www.coregroup.org/meeting-reports-n/435-monday-may-5-2014>
- Job aids and generic tools for supply chain management for CCM

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

Significant progress was made this quarter in developing guidance and tools for MNCH pharmaceutical management by finalizing the unmet need methodology for maternal health commodities and the sub-national procurement assessment for maternal health medicines in Bangladesh, as well as initiating validation of the intervention guide for the management of child illness.

The tools for determining the unmet need for maternal health commodities as well as the two country case studies of DRC and Bangladesh were finalized and disseminated this quarter. SIAPS presented the tool at a brown bag organized by USAID in April 1, 2014. The final document was also shared with the Maternal Health Supplies (MHS) Caucus and the Maternal

Health Technical Reference Team (MHTRT). Further dissemination opportunities with the Reproductive Health Supplies Coalition (RHSC) were discussed.

This quarter, the report on the assessment of subnational procurement of maternal health commodities in Bangladesh went through the first review with editorial and comments and questions were addressed. The report is now with editorial to finalize and will be disseminated early next quarter.

Finally, the validation of the intervention guide for the management of child illnesses in Zambia was initiated this quarter. The guide was introduced to teams from three districts in Zambia—Petauke, Kalomo, and Nyimba. The district teams appreciated the guide and its potential usefulness and started to consider which interventions they could target. Next quarter, SIAPS staff will support the district teams in the planning and initiation of interventions and will continue to collect observations regarding the usefulness and appropriateness of the guide.

### *Partner Contributions*

Harvard continued to participate in the validation of the guide by providing materials for the orientation workshops. Harvard staff traveled to Zambia to introduce the guide to Ministry of Health and USAID staff, and began work in the three selected districts.

### ***Objective 3: Evidence Base for Effective Strategies to Increase Access to Pharmaceuticals and Services Increased***

SIAPS/MNCH works to enhance the evidence base for effective strategies that increase access to pharmaceuticals and services by providing technical support at both the global and country levels. This quarter, SIAPS continued to support CCM in Guinea as well as implementation of various work plans of the UNCoLSC, including those at the country level.

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 standalone system as there is no functioning system to integrate it into. During this quarter, the guide for use of the community LMIS was being finalized and the IMCI coordination unit will handle its validation. Although SIAPS continued to monitor the stock levels of CCM commodities at central and regional stores, a tracking mechanism was developed for the IMCI coordination unit to continue monitoring the commodities.

Community health worker (CHW) consumption data was gathered, compiled, and analyzed to prepare for MoH forecasting and supply planning of CCM products in Guinea. Because implementing partners are developing parallel systems, for example, malaria and iCCM, it was proposed that VillageReach conduct a diagnostic assessment of the LMIS. Next quarter SIAPS will conduct a review of the quantification for CCM and validation of the community LMIS; pilot the monitoring systems to track consumption and availability of CCM commodities at CHW and health center levels as well as at the central and regional stores; and conduct a diagnostic assessment of the LMIS to see if it can include community data and if it can be

integrated into the wider system.

In support of the UNCoLSC, SIAPS regularly participated in the meetings of the following working groups: Supply Chain and Local Markets (SCLM) Working Group, Maternal Health technical reference team (MHTRT), and the Chlorhexidine (CHX), Antenatal Corticosteroids, Neonatal Resuscitation, Injectable Antibiotics Technical Reference Team (IATRT), and Diarrhea and Pneumonia commodity working groups, including the Amoxicillin and Zinc subgroups. This quarter, SIAPS continued to provide country support for the UNCoLSC activities in DRC, Mali, and Pakistan.

SIAPS continued to contribute to the MHTRT work plan and developed a case study protocol to look at the integration of oxytocin in the EPI cold chain in Mali. Currently a consultant, hired by SIAPS, is working in Mali to collect data for the case study. Next quarter, data collection, analysis, and the final report will be completed.

Because of its participation in the CWG, SIAPS was requested by the CWG to provide technical assistance to Pakistan for introducing chlorhexidine (CHX) 7.1% for umbilical cord care. Pakistan decreased its neonatal mortality rate from 60 (in 2002-06) to 55 (2007-11) and therefore is on the list of priority countries for the UNCoLSC. The CWG has been working with UNICEF and other implementing partners in Pakistan to assist Pakistan's MoH to introduce CHX for umbilical cord care. With support from UNICEF/Pakistan and UNICEF'S Regional Office for South Asia, a SIAPS staff member visited Pakistan June 9–27, 2014, to support advocacy and planning activities, including developing the draft introduction and scale-up plan (technical guidance and outline). Meetings were held with manufacturers to brief them on the manufacturing selection process for local production and facilitate the application process. SIAPS also met with the CEO and Director for Technical Drug Regulatory Authority of Pakistan to discuss the drug registration process. Three provinces—Punjab, Sind, and KPK and FATA—were visited and meetings were held with the Department of Health, MNCH coordinators, and Lady Health Worker coordinators to introduce CHX 7.1%. Also, since Sind started implementation in January 2014, lessons learned from Sind's pilot were shared with other provinces to generate national consensus.

SIAPS further shared the guidance document developed for national program managers to introduce CHX in DRC to assist in developing a costing guide for national program managers for CHX introduction. SIAPS will attend the next CWG meeting on July 11, 2014.

A senior SIAPS staff member participated in the quarterly teleconference of the Injectable Antibiotics Technical Reference Team this quarter. As the lead partner, Management Sciences for Health is beginning to coordinate the assessment of the current status of availability and use of injectable antibiotics for treatment of newborn sepsis to be conducted in DRC (landscape assessment). SIAPS developed a first draft of the protocols which was sent out to the group this quarter, and helped form a steering committee for the assessment. SIAPS will work jointly with the other MSH projects in DRC to plan for and conduct the assessment. Next quarter SIAPS will participate in the assessment on injectable antibiotics in both DRC and Bangladesh.

SIAPS also participated in a Diarrhea and Pneumonia working group meeting held in

Washington, DC, May 8–9th, 2014, and meetings and plenary sessions of the amoxicillin and zinc/ORS subgroups. After discussions with PATH and UNICEF, it was agreed that SIAPS would contribute to piloting amoxicillin dispensing job aids in both the design of the pilot and the selection of SIAPS countries to test the job aids. Next quarter, SIAPS will continue to coordinate with PATH to participate in the amoxicillin job aids field test and attend the next Pneumonia and Diarrhea working group meeting in September 2014.

Quantification guidance for RMNCH commodities was finalized and sent only to the SCLM working group as it is currently being edited and formatted by editorial. It will be published and disseminated widely next quarter. SIAPS also worked to complete the compendium of promising practices in supply chain management with partner VillageReach. It was edited at the end of this quarter and will be formatted and circulated at the beginning of next quarter. VillageReach circulated the latest drafts of the briefs, with the exception of the brief on warehousing, and received comments. The final set of briefs will be finalized next quarter. Also this quarter, SIAPS contributed to the phase 2 work plan of the SCLM group.

### *Partner Contributions*

SIAPS continued to work with VillageReach on finalizing the compendium of promising practices in supply chain management.

## **Neglected Tropical Diseases Core**

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

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

SIAPS has attended two NTD working group meetings in Geneva, Switzerland, hosted by the World Health Organization Department for Neglected Tropical Diseases. This meeting brought together many experts from the different areas of NTD control and elimination to discuss progress on worldwide programs. SIAPS has completed a first draft of materials for the supply chain management for NTDs workshop.

### ***Objective 1: Strengthen NTD global coordination and oversight mechanisms***

As a participant in the Centers for Disease Control (CDC)-run working group on soil-transmitted helminth control, SIAPS provided input on supply chain management issues related to diagnostics used for surveillance and M&E. These considerations are important to address as NTD control and elimination programs begin to scale down.

The main issue has been coordinating meetings with the Task Force for Global Health. Therefore, SIAPS held an introductory meeting with the Task Force for Global Health on April 17, 2014. Following this meeting, SIAPS coordinated with the Task Force and other stakeholders to hold future meetings this fall around the various working group meetings that are attended by the NTD community.

### ***Objective 2: Support NTD Capacity Building Initiatives***

In preparation for the workshop, “National Health Managers Workshop to Supply Chain Management for National Mass Drug Administration against Neglected Tropical Diseases,” SIAPS drafted presentations, group work assignments, and an accompanying manual. Materials are currently undergoing internal review and will subsequently be sent to the Task Force for Global Health and other stakeholders for review and additional input.

### ***Partner contributions***

Materials for the workshop were discussed with the Task Force for Global Health, the Bill and Melinda Gates Foundation, and USAID. They provided great input and many of the issues that were discussed were incorporated into the workshop materials, including case studies.

### ***Objective 3: Support NTD medicine safety programs***

Activities under this objective were put on hold until USAID and WHO can discuss and review progress. SIAPS will follow up in the next quarter on next steps.

## **TB Core**

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

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

SIAPS took a number of steps to strengthen pharmaceutical governance for TB at the global and country levels. The SIAPS-supported position of Global Drug Facility (GDF) Manager has now been fully seconded to the GDF. Additionally, in meetings with the GDF and Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), SIAPS guided discussions on harmonizing processes, such as quantification and tools, across organizations at the country level.

With regards to capacity building, SIAPS led three sessions on pharmaceutical management for TB and multidrug-resistant (MDR) and extensively drug-resistant (XDR-TB) at the WHO Collaborating Centre for Tuberculosis and Lung Diseases. SIAPS provided training on pharmaceutical management for TB, MDR-TB, TB and HIV; forecasting, supply planning, quantification, and early warning for stock-outs; and pharmaceutical management and early warning indicators for 23 participants from 8 countries.

To promote information for decision making, SIAPS tested and finalized the first generic version of e-TB Manager Desktop, a stand-alone version of e-TB Manager for case management, and continued to make performance improvements to QuanTB, which had more than 500 downloads as of June 30, 2014.

A substantial portion of TB Core's resources this past quarter have been devoted to improving pharmaceutical services and access to TB products. Working with the public sector, SIAPS participated in GDF monitoring missions to three countries, and provided training to staff from the GDF and Global Fund on quantification, forecasting, and early warning systems for TB medicines. To improve access to quality TB medicines in the private sector, SIAPS participated in two national stakeholder's public-private mix (PPM) workshops in Pakistan, completed training of pharmacies as part of an initial pilot activity, and received feedback from the Pakistan NTP and other stakeholders about a proposed scale-up strategy for the pilot activity.

### ***Objective 1: Pharmaceutical Governance for TB Strengthened at Global Level and Country Level***

#### ***Quarterly Progress***

Strengthen pharmaceutical management practices of global TB initiatives (activity 1.1)—SIAPS supported the Global Drug Facility by fully seconding the position of GDF Manager. In April 2014, SIAPS staff traveled to Geneva to provide technical assistance to the Global Drug Facility (GDF). During this time SIAPS met with GDF regional support officers, GDF country support officers, the GDF manager, and two KNCV Tuberculosis Foundation staff members to discuss a collaboration strategy for global and country early warning systems. The GDF had previously

worked with SIAPS to ensure interoperability between the SIAPS QuanTB tool and the GDF electronic Early Warning Stock-out System (EWSS).

At this meeting, participants agreed on data collection, data cleaning/verification, and the data transmission process for QuanTB files from countries. These conversations helped catalyze a discussion between the GDF and the Global Fund on steps for the harmonization of quantification, monitoring, and early warning tools, such as QuanTB and the GDF dashboards, at the country level—the first discussion of its kind in the history of these global initiatives.

The implementation of QuanTB as the GDF-mandated quantification and monitoring tool at country and global levels requires rapid capacity development of GDF consultants, Global Fund local fund agents (LFAs), and national TB programs to properly use QuanTB. To address this need, SIAPS and the GDF designed a preliminary plan for joint capacity-building activities; these include regional trainings, invitation to GDF consultants to participate in SIAPS's country trainings, and a global conference with key partners and countries focused on monitoring the TB supply chain, service performance, and early warning systems.

### ***Objective 2: Capacity for TB Pharmaceutical Supply Management and Services Increased and Enhanced***

#### *Quarterly Progress*

Strengthen the capacity of Stop TB Partners and WHO regional offices and collaborating centers to provide technical assistance in pharmaceutical management for TB (activity 2.1)—From April 30 to May 5, 2014, SIAPS staff traveled to Sondalo, Italy, to conduct sessions on pharmaceutical management for TB and MDR/XDR TB. The course was designed by the WHO Collaborating Centre for Tuberculosis and Lung Diseases to provide state-of-the-art training for country TB managers, international consultants, and donor representatives to further develop the skills to plan, implement, and evaluate a TB control program. The course is based on the WHO-recommended Stop TB Strategy in the era of MDR/XDR-TB and HIV. SIAPS staff led three sessions on pharmaceutical management for TB, MDR-TB, TB/HIV; forecasting, supply planning, quantification, and early warning for stock-outs; and pharmaceutical management and early warning indicators. The course was attended by 23 participants from 8 countries (16 males; 7 females). WHO/Europe asked SIAPS to take part in the WHO's TB program review mission in Uzbekistan in May 2014, with a specific request to review the country's TB drug management situation. This request was coordinated with the GDF, and SIAPS was asked to additionally conduct the GDF country monitoring mission. As a member of the WHO team, SIAPS was responsible for reviewing Uzbekistan's TB pharmaceutical management and conducting site visits to TB facilities in Kashkdaria oblast. SIAPS developed a chapter on TB pharmaceutical management for the draft report of the WHO TB program review and submitted it to the program review group. The GDF country monitoring mission report is under development.

Building capacity in pharmaceutical management for TB (activity 2.2)—This activity is on hold until the QuanTB training materials have been finalized.

### **Objective 3: Improved Use of Information for TB Control Decision Making**

#### *Quarterly Progress*

Continue to improve e-TB Manager updates (activity 3.1)—The generic version of e-TB Manager (e-TBM) is being continuously enhanced including general fixes and additional features for improved and expanded use. A new version was released and e-TB Manager is now operating at a total of 2,411 sites in 10 countries. Globally, 2,385 active users are managing 223,021 TB cases, DR-TB cases, and presumptive TB individuals. The generic version has also been revised based upon the WHO TB guidelines “Definitions and reporting framework for tuberculosis–2013 revision,” and should be finalized by the next quarter. System customization would be required for compliance with guidelines and further adaptations for country specific versions need to be evaluated. Technical documentation of the generic version is scheduled to be finalized next quarter. The e-TBM Data Analysis/Reports Tool has been enhanced with new variables and functionalities to create user defined dashboards. The current version has been tested and is scheduled for release in Q4. The first generic version of the desktop tool (stand-alone version for case management) was tested and finalized. Adaptation to fit specific country needs for pilot testing in Nigeria is planned to start in quarter 4. Support combining SIAPS, TB CARE, and country funding for adapting, monitoring, and implementing e-TBM in Azerbaijan, Brazil, Bangladesh, Cambodia, Indonesia, Namibia, Nigeria, Turkmenistan, Ukraine, and Vietnam is ongoing.

The QuanTB tool was enhanced and important performance improvements and general fixes were released. As of June 30, 2014, the tool had been downloaded more than 500 times. A new version of the tool (v. 2.0) with significant enhancements is under development and is scheduled to be available by Q4. Based on feedback received during the SIAPS QuanTB workshop in Geneva, the training materials were reviewed and are scheduled to be updated during Q4. The GDF has identified QuanTB as one of its official tools for data collection and reporting on supported countries. SIAPS has been providing ad hoc support for GDF regional and country supplier officers for quantification, forecasting, and early warning in GDF-supported countries. The SIAPS-developed forums for QuanTB and e&mHealth, a partnership activity hosted by SIAPS, have been used for exchanging information about quantification, forecasting, electronic system interoperability, and unique identifier; the forums also support users and implementers.

SIAPS provided short-term technical assistance (STTA) to Bangladesh to present the medicines management module of e-TBM, adapted to country procedures and forms (so-called TB-LMIS) and test user acceptance. Further customizing was performed based on feedback, and pilot testing is planned to start next quarter.

While providing STTA, SIAPS Bangladesh also hosted four days of TB quantification and forecasting meetings with the National TB Program, WHO, and partners including the Damien Foundation and BRAC. QuanTB was used to forecast TB/DR-TB cases and TB (first-line drugs [FLD] and second-line drugs [SLD]) medicine needs for one year (April 2014 through March 2015); issues regarding FLDs (potential stock-out) and SDLs (impending overstock) were identified. QuanTB data supported planning for alternate regimens and scenarios for using XDR-TB drugs at risk of expiring to treat MDR-TB patients. QuanTB early warning system also

provided information that allowed the Government of Bangladesh to work with the GDF and manufactures to revise and reschedule planned shipments of close 75 million units of first-line TB medicines, cancel the order of 1.5 million units of second-line medicines, and re-route some medicines to other country where they were needed (to Nepal

Pilot test practical guidelines for data analysis and utilization of information for TB control decision making (activity 3.2)—No substantial progress could be made on this activity due to competing priorities for Bangladesh staff. Sample data forms that are collected and reported were shared by Bangladesh team for our review. In the next quarter, the plan is to review the annual and quarterly reports of the NTP, identify gaps in information, and prepare a list of question seeking clarification.

### *Partner Contributions*

- Continue to improve e-TB Manager
- Local partners have provided important feedback for system enhancement and development of new features and tools. In countries where SIAPS presence is significant, local partners' support for system implementation, monitoring and reporting of key activities has been crucial for gathering successful outputs.

### *Constraints to Progress*

- Continue to improve e-TB Manager (activity 3.1)—Lack of SIAPS country presence or strong partners to implement and monitor e-TBM activities.
- Pilot test practical guidelines for data analysis and utilization of information for TB control decision making (activity 3.2)—While custodians for the NTP reports were identified, the feedback loop is unclear. The decision-making chain needs to be validated.

## ***Objective 5: Improved Pharmaceutical Services and Access to TB Products to Achieve TB goals***

### *Quarterly Progress*

Access to medicines (activity 5.1.1)—Provide technical assistance to improve access to medicines for TB control through SIAPS regional TA mechanisms. During the trip to Geneva in April, SIAPS provided training to staff from the GDF and Global Fund on quantification, forecasting, and early warning systems for TB medicines. Twenty-two staff members from the GDF (9), Global Fund (11), and KNCV (2) participated in the discussions. SIAPS introduced the QuanTB tool and the quantification concepts, data, and assumptions the tool requires

SIAPS then demonstrated how to use the tool and all participants practiced with several exercises for FLD, SLD, and ancillary medicines; and multiyear forecast for budgeting. This session ended with an exercise on how to review and validate QuanTB files sent from the same country but from two different time periods using real country data.

In Q3, SIAPS participated in three GDF monitoring missions. During a TDY to Tanzania in April, SIAPS provided TA in identifying TB medicine supply chain-related challenges and quantification

of FLD and SLD using QuanTB software. Based on reports generated from QuanTB, potential stock-outs were highlighted, leading to discussions on possible measures to prevent stock out-outs or expiries. In May, SIAPS staff visited Uganda and provided TA in identification of TB drug supply chain-related challenges and quantification of FLD and SLD using QuanTB software. As in Tanzania, Uganda's QuanTB generated reports highlighted potential stock-outs were highlighted, leading to discussions on how to prevent stock out-outs or expiries. SIAPS advised the Uganda NTP to use QuanTB reports to inform phase-in and phase-out planning of ethambutol/isoniazid (EH) to rifampicin/isoniazid (RH) regimen switch based on the generated EH months of stock and expected delivery dates for RH. In June, SIAPS staff travelled to Tbilisi, Georgia, to conduct the GDF requested annual monitoring mission. During this monitoring mission, SIAPS reviewed GDF's support with key officials and assessed adherence to GDF terms and conditions of support. SIAPS also provided technical support for program management, case management, and drug management, helping the National TB Control Program to determine the country's TB medicine needs and prepare its medicine request for the coming year. Lastly, SIAPS provided recommendations for addressing observed weaknesses to the National TB Center, the Ministry of Health, WHO, and the Global Fund Prime Recipient.

The Tanzania NTP also received TA from SIAPS to perform a multi-year forecasting of TB medicines. Quantity of TB medicines needed for the years 2015–2017 were determined for inclusion into the NMF application. The process involved providing support in conducting physical stock take at the central medical store, providing TA in making realistic forecasting assumptions and supporting actual multi-year forecasting exercise. SIAPS also participated in the monthly TB stock status analysis meetings organized by NTP where plans to redistribute some first line medicines and pediatric medicines which were out of stock at central level were discussed and agreed. This helped to prevent stock-outs at health facility level. To ensure availability of accurate data for implementing the Global EWS, SIAPS supported Uganda, Kenya, and Tanzania in conducting a comparative analysis of QuanTB data generated during the mission with files generated during previous months to identify discrepancies and data quality issues. The process was able to show when first expiry, first out was not practiced and which stocks were rapidly depleted from central medical store as compared to patients enrollment for further follow-up.

SIAPS continued to work closely with GDF on issues related to TB medicines procurement including advising GDF to expedite deliveries, divert non-urgent country orders, or identify countries with excess stock so it could be lent to other countries to alleviate risk of stock-out. SIAPS used QuanTB outputs to guide GDF in making procurement decisions and planning delivery schedules. Taking advantage of presence of its staff on the ground, SIAPS was able to act as a link between GDF and NTPs and helped clarify issues related to TB medicines orders submitted by NTPs.

In Tanzania, SIAPS participated in the meetings to develop National Tuberculosis Strategic Plans for 2015-2019 and provided TA on pharmaceutical supply management. SIAPS attended a two-day stakeholder's workshop organized by NTP to review the first draft of National Strategic Plan (NSP). Following the stakeholders' workshop, SIAPS participated in a five-day small committee meeting to finalize the draft NSP which involved incorporating input from stakeholders, and finalizing operational, M&E, and technical assistance plans, for TB and

leprosy as recommended by the stakeholders. During this meeting, SIAPS supported development of detailed specific activities, sub-activities and performance monitoring matrix related to procurement and supply management. The activities were based on the gaps identified during the program review and GDF's monitoring mission, and were in line with the draft plan objectives. As a result, after the NSP finalization workshop, NTP started implementation of one of the key activity that SIAPS had proposed which was establishment of TB commodity sub-committee. The committee is expected to improve coordination and ensure inclusive process in making decision related to supply chain management. The potential members have been identified and development of terms of the reference for the committee is underway.

To build model sustainable public-private partnerships to contain the development and spread of MDR-TB, In Pakistan (activity 5.2), SIAPS has completed training of pharmacies from the initial pilot activities, training 429 pharmacy staff. SIAPS participated in the two national stakeholder's PPM workshops where pharmacy PPM was presented and received feedback from the NTP and other stakeholders about the proposed scale-up strategy. The strategy will be finalized before further circulation. SIAPS finalized plans for systematically establishing a referral process, which involved gathering the names and contact information of all trained PPM general practitioners with whom SIAPS trained pharmacists can link. Mercy Corp provided the list of practitioners and SIAPS is developing a referral directory. The NTP approved the referral form and finalizing this work will be the focus for Q4. SIAPS also began discussion with Sindh province TB program, Ziauddin University, and Indus Hospital in Karachi on extending the activity to Karachi city; this extension was a recommendation from the stakeholders.

For pilot active surveillance for monitoring the safety of TB/HIV co-medication in selected sites (activity 5.3.2), SIAPS conducted a supervisory visit to sentinel sites to follow up on reporting and previously noted challenges. After identifying bottlenecks, SIAPS worked with the program developers to address recurring problems observed during data analysis which stemmed from incomplete data collection at sites. Modified versions of the tool were sent to the sites and incorporated several validation fields to reduce the problem of incomplete data capture. SIAPS is in ongoing talks with Ukraine to find out their needs for a web-based system and how to create a generic system that other countries can also benefit from. SIAPS also submitted an abstract on the activity in Swaziland for the 20th International AIDS Conference, which has been accepted.

To develop risk management algorithms for TB/HIV co-medication to strengthen data reporting and decision making for prevention of adverse effects (activity 5.3.1), SIAPS submitted an abstract for this activity to the 45th Union World Conference on Lung Health, scheduled for fall 2014. Notification of acceptance is scheduled to occur later this summer. In addition, SIAPS is in talks with Swaziland to use the risk management manual approach to develop an intervention to reduce adverse events faced by MDR-TB medicines; discussions are ongoing.

Comments from six reviewers were received and incorporated into draft Guidelines for Conducting Drug-Resistant Tuberculosis Drug Use Reviews (DUR), a tool that promotes safety and monitors use of MDR-TB medicines and adoption of this practice by NTPs (activity 5.4). The review team was composed of three internal reviewers from the Center for Pharmaceutical Management and three external TB experts, one from each of the following organizations: International Union Against Tuberculosis and Lung Disease (IUATLD), Interactive Research and Development (IRD),

and Partners in Health. The final draft is currently under review by two additional experts in this field. Once final comments are received the document will be edited, sent for graphic design, and produced for distribution at the IUATLD Lung Conference in November.

In Swaziland, the SIAPS TB team met with the TB Program Manager to discuss different stages of the DUR planning, e.g., policies, adapting the guidelines according to the national treatment guidelines. A draft activity summary with localized data collection forms is currently circulating and awaiting comments. Once finalized, the document will be submitted for ethics review. A stakeholder meeting was held in Bangladesh to introduce the DUR program, and make preliminary decisions on objectives for the program activity. Participants included representatives from the NTP, Directorate General of Drug Administration, Directorate General of Health Services, National Institute of Diseases of the Chest and Hospital, WHO, USAID, URC, and BRAC. A stakeholder meeting was also held in Ukraine to introduce the DUR program, and make preliminary decisions on objectives for the activity in Ukraine. Participants included representatives from the State Expert Center, WHO, and the Foundation for the Development of Ukraine, and Kyiv and Donetsk TB facilities. A draft activity summary with localized data collection sheets is currently circulating and awaiting comments. When the document is finalized, it will be submitted for ethics review.

#### *Constraints to Progress:*

One of the challenges faced this quarter (activity 5.3.2) was that data collected in paper forms were not entered into the electronic tool because facilities lacked sufficient data clerks as their job contracts ended. To address this obstacle, SIAPS hired some consultants to go to these facilities and enter this data into the electronic tool. An additional challenge is that the national TB hospital selected as a sentinel site has not been fully engaged to collect data, despite the fact that health providers from the hospital were trained and sensitized for this activity. SIAPS has been in talks with them and it was decided that data can be collected retrospectively since most data needed are already captured in patient records. The hired consultants also collected this data.

Implementation in Swaziland has been delayed due to the NTP's competing priorities (activity 5.4). The NTP has informed us that they are now in a better position to focus on the DUR program. Implementation in Bangladesh has been delayed because of difficulties recruiting a consultant to lead the activity. We will discuss maximizing recruiting efforts with the Country Director.

#### **TB Core New Activity for Quarter 4**

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

#### ***Overall Quarterly Progress***

Funding for this portfolio of activities was obligated in February 2014, and the work plan was approved in March 2014; this is the first quarterly report for this portfolio. According to the work

plan, SIAPS must select and hire five full-time country-level technical advisors and several regional level consultants, train them as needed, and kick start direct TA to the selected countries. SIAPS developed country-specific terms of references and job descriptions for these positions.

***Objective 5: Improved Pharmaceutical Services and Access to TB Products to Achieve TB goals***

*Quarterly Progress*

In May 2014, a full-time technical advisor, Charles Njuguna, was hired to work in Kenya and provide short-term technical assistance to South Sudan as required. The SIAPS Regional Technical Advisor (based in Tanzania) traveled to Kenya to train Mr. Njuguna and introduce him to the NTP.

This past quarter, SIAPS TB Core headquarters staff travelled to the Democratic Republic of Congo and met with the USAID mission, national TB program, and the SIAPS country program to discuss the terms of reference (TOR) and position description for a technical advisor. A follow-up is required, tentatively planned in July, to finalize the agreements, hire and orient the advisor, and initiate the activity in the DRC.

Country advisor positions have also been posted in Afghanistan and Nigeria, while a regional technical advisor position has been posted to oversee activities in the Philippines, Cambodia, and Burma. It is expected that all of these positions will be filled and fully operational during Quarter 4.

SIAPS has been mapping the TB landscape in Mozambique and maintaining contact with the NTP and partners to start new activities aimed at strengthening procurement and supply planning and minimizing TB medicines stock-outs. SIAPS TB Core HQ staff was invited by the NTP and WHO to travel to Mozambique tentatively in August–September to participate in joint TB program review STTA; this opportunity will be used to discuss with the NTP the needs for technical assistance, finalize TOR and job description for a technical advisor, and hire staff.

As part of support in the implementation of EWS to prevent stock-out of TB medicines, SIAPS supported the Kenya NTP to collect monthly stock status data and generate monthly stock status reports for first-line and second-line anti-TB medicines for the months of May and June, 2014.

SIAPS also participated in the national TB commodity security committee meetings which take place on a monthly basis to discuss TB supply chain related issues, analyze stock status, and recommend corrective actions. Additionally, SIAPS oriented two additional NTP staff—a program pharmacist and TB/HIV focal person—on use of QuanTB in forecasting first and second-line TB medicines including INH for intermittent preventive treatment (IPT) and as EWS, provided support in quantifying TB medicines and supply planning, and took the lead in writing a quantification report. The TB quantification workshop was conducted in May 2014 through leveraging resources from other in-country partners.

SIAPS sponsored a technical advisor from the SCMS/MSH office in Burma to provide technical assistance and leadership to the GDF monitoring mission in May 2014 (due to visa and political issues SIAPS was unable to ensure travel of its regional consultant to Burma as was planned). The SCMS advisor assisted the GDF mission with quantification exercise, and informed the NTP of the availability of ongoing support through SIAPS TB Core.

In Kenya, SIAPS participated in meetings to develop the country's National Tuberculosis Strategic Plans (NSP) for 2015-2019 and provided TA on PSM. During this quarter, SIAPS hired a full-time TB focal person based in Kenya to manage SIAPS activities in the country and provide ongoing hands-on TA to NTP-related TB supply chain management. SIAPS also held meetings in Kenya and Nigeria with NTP managers, NTP pharmacists, and partners working in PSM area to formally inform and discuss SIAPS planned support, identify key challenges, map out NTP partner PSM roles, and agreed on gaps that need to be addressed to strengthen program PSM.

Several key challenges were identified in Kenya, such as insufficient funds for procurement of TB medicines. In 2013, Kenya government funds that contributed 60% of total TB medicines procurement cost were all devolved to the counties' governments with limited guidance on how to use them. Kenya also has a weak logic management information system (LMIS), specifically low-stock status reporting rate (less than 50%) and a non-functional logistic management unit (LMU). LMU unit exists and is currently stationed at KEMSA but has not been operational because of limited funds. This has contributed to lack of data aggregation and analysis, so there have been limited data available for decision making.

Based on the identified gaps in Kenya, SIAPS supported NTP in developing a strengthening plan for improving procurement and supply chain management which will be implemented in partnership with USAID-funded TB Accelerated Response and Care (TB ARCH project) operated by the local organization Centre for Health Solution (CHS). To build skills of the national TB program supply chain managers on commodity management, there is a focus on (1) applying QuanTB for quantification and semi-annual reviews; and in generating monthly stock status; (2) quantification and supply plan reports will be disseminated to partners and donors for resource mobilization; and (3) procurement planning will include Global Fund PSM generation and GDF grants applications.

To support transition of TB medicines LMIS reports to electronic platform, a reporting portal needs to be created through the District Health Information System (DHIS), identification of indicators to be identified and tracked, the health information system unit requires support to create a dashboard so the indicators can be seen, and the capacity of NTP Pharmaceutical managers on use of the dashboard needs to be developed. In addition, the indicators need to be tracked regularly and county pharmacists and health records officers need to be oriented on reporting through DHIS.

SIAPS staff travelled to Nigeria to meet and discuss with USAID, NTP, and TB partners working in PSM about SIAPS planned support, to identify key challenges, map out NTP partner PSM roles and agreed on gap activities to strengthen program PSM activities. Discussions with NTP and partners went well and NTP was enthusiastic about the planned support. However

SIAPS was asked by USAID Mission to put a hold on the activity until some details were clarified with USAID Washington.

*Constraints to Progress*

- A challenge for SIAPS has been communication between USAID/Washington and USAID country missions, specifically in the Philippines (resolved), Burma (resolved), and Nigeria (ongoing discussion); the Missions request to be informed about Core-funded activities in their countries by USAID/Washington prior to SIAPS sending travel notifications. Because of that experience, SIAPS put hiring consultants in Nigeria, Afghanistan, and DRC on hold until official USAID communication has been received.
- Delays in getting data from participating countries are due to the fact that the deadline for reporting from implementing facilities is two weeks after the end of the quarter, so countries share their QuanTB files two weeks after end of the quarter.

## REGIONAL PROGRAMS

### LAC AMI

**Goal: Institutionalize national and regional mechanisms to assure a continuous supply of antimalarials, particularly in low-incidence areas.**

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

AMI countries have continued reporting their stock of antimalarial at central and regional warehouses. Nine countries shared data for the last quarterly bulletin (January–March 2014). SIAPS has finished collecting information in four AMI countries for an in-depth analysis of malaria pharmaceutical management in the Americas. Information will be collected in two additional countries for next quarter. The consolidated regional report will direct SIAPS's future technical assistance.

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

A technical report on the situation of malaria pharmaceutical management and the impact of AMI-supported interventions for Ecuador and Colombia were finalized and distributed. Data collection for a similar study was completed in Loreto, Peru. The results were presented and discussed with malaria program authorities and technicians during a meeting held in Loreto on May 2014. During the Peru visit, SIAPS consultants shared with the Director of the National Pharmaceutical Directorate (DIGEMID) the results and products generated by the decentralized technical assistance to Loreto. The Director will review the information and consider its dissemination to other regions in Peru.

Through its local consultants, SIAPS supported the compilation of information and analysis of the Quarterly Bulletin on Availability and Consumption of Antimalarials.

Nine estates in Brazil are implementing strategies to close the gaps for an adequate implementation of the malaria control strategies. A workshop to assess the progress is scheduled for November 2014. The Colombia National Malaria Program has not confirmed its interest in a baseline assessment of the malaria control strategies. A meeting to agree on the next steps is scheduled for July 2014.

#### ***Constraints to Progress***

A technical assistance visit to Honduras had to be postponed again until next quarter because of competing agendas in the country. During this visit which is tentatively planned for July 2014, SIAPS will present the results of the assessment on medicine storage conditions, and discuss with local counterparts alternatives to integrate the disease control programs (malaria included) into the integrated system that Honduras is trying to implement.

### *Partner Contributions*

PAHO coordinates the data collection, writing, and distribution of the stock monitoring bulletin.

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

PAHO coordinated the elaboration of the January–March AMI quarterly bulletin on the availability and consumption of anti-malarials, which was disseminated in May 2014. SIAPS supported the collection and analysis of information in some AMI countries.

As a key component of a regional study, SIAPS analyzed the availability of medicines in Colombia and Peru. Preliminary reports were presented and discussed with national counterparts in both countries. For the next quarter, the collection and analysis of information will be completed in Brazil, Guyana, and Nicaragua.

### *Constraints to Progress*

Nine countries provided data for the AMI quarterly bulletin on the availability and consumption of anti-malarials; Guatemala, Bolivia, and Guyana did not provided data this quarter.

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

Based on the inputs from the meeting in Paramaribo, Brazil (February 2014), SIAPS prepared a summary of the background information for a plan of action. This document will be shared with national counterparts and partners. Once an agreement on the interventions is reached, in the next quarter SIAPS will technically assist with interventions in the area of pharmaceutical management.

SIAPS hired a short-term consultant in Brazil to systematize the interventions to improve access to malaria diagnosis and treatment in mining camps located in Acre and Roraima.

Six countries have implemented revised criteria for programing and distributing anti-malarials in low incidence areas. The results and impact of this intervention have not been assessed yet. During this quarter, SIAPS completed the collection of information to assess the results of this intervention in Ecuador, Colombia, Guyana, and Peru. For the next quarter, similar information will be collected in Brazil and Nicaragua.

### *Constraints to Progress*

A few AMI countries have not authorized, or postponed, the implementation of the study that will determine the availability of medicines in low incidence areas.

## **West Africa Regional**

**Goal: Ensure the availability of quality pharmaceutical products especially those related to HIV/AIDS to achieve high level desirable health outcomes in targeted West Africa countries.**

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

In close collaboration with USAID West Africa, West African Health Organization (WAHO), Joint United Nations Regional Team on HIV/AIDS (JURTA)-PSM Group, SOLTHIS, and, SIAPS organized a regional workshop for representatives of national AIDS control programs from the six focus countries to officially launch the SIAPS West Africa Regional Project, present and discuss the results of the situation analysis and propose interventions to address identified gaps. During this regional workshop, the HIV and AIDS dashboard was introduced to participants and 12 managers from the six target countries have been trained on quantification of HIV and AIDS commodities using Quantimed<sup>®</sup> and Pipeline software.

The HIV regional dashboard is now up and running Togo after undergoing a successful pretest by the dashboard consultant. Nine members of the NACP have been trained as either data operators or data managers. By the end of the training, January 2014 data have been completely entered into the dashboard and reports have been presented to the National Procurement and Supply Management Technical Committee to show the benefits of using the dashboard to monitor HIV products availability and related information. The next step is to update the system with data collected from February to June 2014.

To prepare implementation of electronic dispensing tool (EDT) in Togo, SIAPS conducted a site readiness assessment at 11 major antiretroviral therapy (ART) sites that provide care and treatment services to at least 700 active ART patients.

SIAPS West Africa provided technical assistance to SIAPS Cameroon country office to train members of the national quantification committee in forecasting and supply planning of lab commodities using ForLab quantification tool. In addition to capacity building, a long-term forecast of lab commodities required for the Cameroon national HIV program has been developed to cover the period from 2014 to 2017.

SIAPS West Africa attended the ARV Procurement Workshop for West and Central African countries June 11–12, 2014, in Senegal. This workshop was held to bring together representatives of the invited countries, major regional players in ARV procurement and supply planning, and representatives of major funding partners to discuss current ARV and diagnostics procurement issues faced by the countries in the region.

### **Objective 1: Improve Coordination and Oversight among Regional and National Stakeholders involved in HIV Commodity Supply**

#### *Quarterly Progress*

SIAPS West Africa attended the ARV Procurement Workshop for West and Central African Countries organized by the Clinton Health Access Initiative (CHAI).

The SIAPS West Africa Project was presented to participants with an emphasis on (1) the situation analysis that proposed recommendations for addressing issues related to quantification, procurement, and supply planning; and (2) the regional dashboard that has been set up to improve HIV and AIDS commodities management information systems and coordination mechanisms at country and regional levels to improve product availability.

SIAPS attended several teleconferences organized by the JURTA-PSM group to talk about the upcoming fifth Economic Community of West African States' (ECOWAS) AIDS commission workshop scheduled for July 14–15 in Abidjan, Cote d'Ivoire; and about the finalization of JURTA PSM work plan. The ECOWAS meeting will provide an opportunity to discuss the HIV and AIDS supply chain issues between donors, implementing partners, and 17 state members that will be represented by their Central Medical Stores (CMS), National AIDS Control Commission or Program (NACC/NACP), and Pharmacy and Medicines Department and Pharmaceutical Regulatory Authority. JURTA-PSM started listing all partners working in West Africa subregion to strengthen supply chain of HIV products and SIAPS provided feedback.

#### *Partner Contributions*

SIAPS has been invited by CHAI to attend this meeting to present an overview of West Africa Project as regional initiatives to strengthen HIV and AIDS commodity management in the region. JURTA-PSM is now considering SIAPS as a key partner to be involved in all discussions related to HIV and AIDS commodities security in the region.

### **Objective 2: Enhance Capacity for Pharmaceutical Supply Management for HIV/AIDS Commodities in Target Countries**

#### *Quarterly Progress*

In close collaboration with USAID West Africa, WAHO, JURTA-PSM Group, SOLTHIS, and ESTHER, SIAPS organized a regional workshop for representatives of national AIDS control programs from the six focus countries to officially launch the SIAPS West Africa Regional Project. This provided the opportunity to explain the purpose, modalities, roles and responsibilities, and the benefits of the program, and also obtain buy-in from the program managers and partners. The workshop also provided a forum to present and discuss the results of the situation analysis and propose interventions to address identified gaps, and obtain agreement on coordination and information-sharing mechanisms. SIAPS staff introduced the regional dashboard and early warning system for tracking HIV and AIDS commodities to attendees and

also conducted training on quantification of HIV and AIDS commodities using Quantimed and Pipeline software.

A regional workshop was held April 7 to 11, 2014, in Accra. All 12 participants coming from National AIDS Control Program of the six focus countries (Benin, Burkina, Cameroon, Guinea, Niger, and Togo) and participants from West Africa Health Organization (WAHO), USAID/WA, SOLTHIS, and ESTHER attended the first two days' workshop (April 7–8, 2014) focused on SIAPS WARP Project launch, discussed the concept note for West Africa HIV and AIDS commodity early warning system (regional dashboard) and regional coordination and information sharing mechanism.

The remaining three days (April 9–11, 2014) were dedicated to the 12 focus countries' participants. They have been trained on quantification of HIV and AIDS commodities allowing SIAPS West Africa Project to reach his target of training 12 program managers on quantification and supply planning of HIV and AIDS commodities.

During the stakeholders' workshop, a separate meeting was held between the SIAPS team and Togo's National AIDS Control Program to discuss about implementation of EDT in Togo. The meeting focused on SIAPS and Togo NACP conducting a joint assessment of sites' readiness in a few sample sites. An assessment questionnaire will be developed by SIAPS based on similar questionnaires used in DRC and Cote d'Ivoire. In addition, the EDT will be pilot tested in few large sites that already have IT materials and adequate staff in place. Later, the EDT will be rolled out nationwide. Based on Namibia's experience, ART sites with low numbers of patients and prevention of mother to child transmission (PMTCT) sites can use handheld devices to collect data, then load the data into computer with EDT at a referral sites. The Togo team agreed to this suggestion.

### *Partner Contributions*

Some members of JURTA-PSM (SOLTHIS, ESTHER) and WAHO attended SIAPS regional stakeholders meeting and provided relevant inputs to strengthen coordination and information sharing among partners. This meeting gave a great opportunity to SIAPS to develop strong relationship with SOLTHIS to avoid duplication of efforts in countries where both projects are active.

WAHO took the opportunity of this meeting to present its ECOWAS Pharmaceutical Plan, the web portal for Essential Medicines and Vaccines Program. Also discussed was ARV stock security. ARV commodities were purchased by WAHO and stored in Cote d'Ivoire's Central Medical Warehouse; meeting participants focused on what mechanisms need to be put in place to allow each country to have access to these commodities in case of emergency.

### **Objective 3: Increase Availability and Use of Pharmaceutical Management information for Decision Making at National and Regional Levels**

#### *Quarterly Progress*

SIAPS developed an HIV and AIDS commodities tracking tool or *Outil de suivi des produits du VIH/SIDA en Afrique de l'Ouest (OSPSIDA)*, a web-based system that set up early warning system dashboard to monitor HIV and AIDS products availability and related information in West and Central African region.

The HIV regional dashboard has been introduced to all participants during the stakeholders meeting and their feedback has been incorporated to produce the final version.

The rollout plan for the HIV regional dashboard has been developed and recently the system has been deployed in Togo. Before its deployment, a user acceptance test has been successfully conducted in Togo by the dashboard consultant. During our presence in Lome, the HIV regional dashboard was introduced to head of Togo National AIDS control Commission (NACC) and head of National AIDS Control Program (NACP). In total, 9 NACP members have been trained as data operators and data managers. At the end of the training, January 2014 data have been completely entered into the dashboard and reports have been presented to the National Procurement and Supply Management Technical Committee to see benefits of use of dashboard to monitor HIV products availability and related information. A next step is to update the system with data collected from February to June 2014.

To prepare implementation of EDT in Togo, SIAPS conducted a sites readiness assessment in 11 major ART sites—providing care and treatment services to at least 700 active ART patients. The assessment team was composed of SIAPS regional project director and 4 members of Togo NACP (Pharmacy and Monitoring & Evaluation Unit) and one senior ARV dispenser from teaching hospital of Tokoin. A questionnaire has been developed to collect data related to infrastructures including IT equipment, data migration, human resources, processes and quality control. At the end of site visits, SIAPS agreed with Togo NACP to test EDT in five selected ART sites that fit minimum criteria.

#### *Constraints to Progress*

The user acceptance test and training of dashboard in Togo again highlighted the issue of limited access to internet connectivity that can delay data entry in OSPSIDA. There is no dedicated staff to specifically enter all monthly paper-based LMIS reports in OSPSIDA. This may delay data entries, especially for RTKs, because of the number of entries. There is a need to support Togo and the rest of country to update OSPSIDA by allocating human resources to data entry.

#### *Partner Contributions*

The success of OSPSIDA deployment in Togo is due to the fact that NACP has well prepared all materials needed for user acceptance test and the training itself.

Members of PSM national technical committee have seen OSPSIDA and gave good feedback on this web-based tool. OSPSIDA reports will be used during their monthly meeting to monitor HIV and AIDS commodities across all levels of the country.

**Objective 4: Increase Financial Resources for Pharmaceutical Sector for HIV and AIDS in Selected Countries**

*Quarterly Progress*

SIAPS West Africa provided technical assistance to the SIAPS country office in Cameroon to train the national quantification committee members in forecasting and supply planning of lab reagents and consumables including rapid test kits (RTKs) needed for ART, PMTCT, voluntary counseling and testing, and lab monitoring programs using ForLab tool. In addition to capacity building, a long-term forecast of lab commodities required for the Cameroon national HIV program has been accomplished to cover the period from 2014 to 2017, and a two-year supply plan as the basis for procurement activities has been developed.

As results of ForLab training, 20 participants from National AIDS Control Program (CNLS), Central Medical Stores (CENAME), Central Hospital of Yaoundé, Chantal Biya Foundation, regional hospitals and blood banks, CDC, CHAI and ESTHER have successfully completed two modular forecasting approaches (theoretical and practices). Each participant produced two sets of multi-method quantification exercises with dummy data.

All participants successfully created a forecast using three methods—morbidity, service statistics, and consumption). They also learned how to select appropriate forecast method for lab commodities (Rank/20: pretest = 13.63/post-test = 17.85). The total amount of lab commodities needed according to morbidity method that has been used to cover the four-year period 2014 to 2017 is about 63,114,948 US dollars, excluding frets and other surcharges.

*Constraints to Progress*

The following challenges were faced during the quantification of lab commodities in Cameroon.

- Inadequate coordination between donor agencies and government on equipment donations
- Lack of service contracts for equipment
- Frequent machine breakdowns, especially CD4 and hematology platforms creating over-stock and expiries
- No communication between procurement entity and testing centers
- A gap between clinicians and Lab personnel regarding testing protocols
- Poor record keeping and no appropriate tools
- Problems with availability and accessibility of quality data
- Reports not regularly sent to the central level and back to the facility levels
- No information sharing among key partners to identify common challenges
- No data analysis and use
- Lack of service statistic and consumption data
- Problems with monitoring and evaluation of lab services

*Partner Contributions*

National AIDS Control Program (CNLS), Central Medical Stores (CENAME), Central Hospital of Yaoundé, Chantal Biya Foundation, regional hospitals and blood banks, CDC, CHAI, and ESTHER have contributed to the success of this lab quantification workshop.

## COUNTRY PROGRAMS

### Angola

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

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

During quarter 3, SIAPS assisted Directorate of Medicines and Equipment (DNME) to organize one Inter-Coordination Committee (ICC) meeting for logistics, administration, and operations. SIAPS collaborated with a WHO consultant to finalize review of the National Essential Medicines List (NEML). SIAPS helped establish an ad hoc task force to review the 2010–2015 national pharmaceutical strategic plan and to further develop the 2015 DNME work plan. SIAPS provided technical assistance to the Central Procurement Agency for Medicines and Medical Supplies (CECOMA) to strengthen its warehousing and distribution management systems. This involved finalizing and implementing 14 identified standard operating procedures (SOPs), code all CECOMA products, develop warehouse staff job descriptions, job aids, appropriate dashboards, benchmarks, and other guiding documents for regular measurement and improvement of appropriate key performance indicators (KPIs).

SIAPS supported DNME in organizing a three-day team building session of facilitators and a five-day training of trainers in pharmaceutical management of antimalarial medicines. Ninety-nine staff members from all 29 municipalities successfully participated and drafted a post-training work plan to implement and monitor selected improvements such as use of pharmaceutical management tools especially stock card, use of consumption data in requisitions, and improved quality and regularity of monthly reports.

An advanced two-week training was organized in one university (University Jean Piaget, Luanda) where 30 final-year students in pharmacy participated and passed the post-test with an encouraging average mark of 16.3 out of 20. The National HIV and AIDS Control Institute (INLS) continued to organize training and supervision visits in select provinces to implement the new revised reporting and requisition forms introduced as part of the national acceleration plans against HIV and AIDS. Stock levels of antiretroviral products at national level were monitored to avoid any stock-outs and to provide data for the bimonthly coordinated procurement plan (CPP) to inform procurement decision making. The quarterly procurement plan and monitoring report for antimalarial medicines was completed, and the semi-annual End Use Verification exercise was conducted in 47 health facilities of 5 provinces (Kwanza Nord Cunene, Luanda, Uige, and Bié).

SIAPS worked with the National Malaria Control Program to monitor monthly stock levels of antimalarial products in all 18 provinces and to prepare the distribution plan of the Global Fund products. A forecasting worksheet tool was designed to assist the national quantification technical working group to estimate the needs of national antimalarial products and to guide the new revised gap analysis for 2015–2019. In support of the government's efforts to end preventable maternal and child deaths, SIAPS provided direct support to the Ministry of Health (MoH)/Reproductive Health

Department to work with other stakeholders in reproductive health (RH)/family planning (FP) to identify bottle necks in past quantification of FP commodities and to discuss barriers and solutions to increase access to FP products and services at health facility level.

A thorough analysis was conducted to understand the current trends for family planning method mix, Couple Year Protection (CYP) contribution by method, and Contraceptive Prevalence Rate (CPR) estimation. Three health facilities were visited in Huambo Province and a monthly coordination meeting was held with all municipal RH supervisors to improve data quality in their reports and to prepare the next distribution plan of family planning health commodities. To enhance the visibility of the program, SIAPS's request to be an observer member of the country coordinating mechanism (CCM) of Global Fund projects was approved and the program has participated in 3 CMM meetings. SIAPS also participated in the of World Malaria Day celebration in the province of Luanda.

### ***Objective 1: Pharmaceutical Supply Chain System Governance Strengthened***

SIAPS's consultant worked with DNME to review the 2010–2015 national pharmaceutical strategic plan. As a first step, a desktop review of the current pharmaceutical sector was conducted and presented to DNME for approval. An ad hoc committee was appointed by DNME to coordinate all of the review activities to promote MoH's ownership of the process. When the review was completed, the findings were presented to DNME. The consultant rendered support for the development of DNME next year's work plan, via the recommendations from the national strategic plan review and identification of current priorities including the establishment of a medicine regulatory institution. SIAPS worked with a WHO consultant on the revision and finalization of the NEML and the National Formulary manual and facilitated the dissemination of the advanced drafts to stakeholders for their final inputs before conducting a high-level validation workshop.

As next steps, SIAPS will continue to assist with organizing bimonthly ICC/sub-commission meetings; submit the final report for review of the national pharmaceutical strategy plan and participate in its dissemination. SIAPS will also support finalizing the next year's DNME work plan; follow up with WHO consultant and DNME on organizing National Essential Medicines List validation workshop and continuing developing the National Formulary manual; and finalizing the national supply chain strategy road map and commencing development of the national supply chain strategy.

To improve CECOMA governance in warehouse management, SIAPS assisted CECOMA by conducting of a series of on-the-job workshops with procurement agency's technical staff. In addition to coordinating and collaborating with the director, SIAPS developed four additional SOPs for warehouse management and distribution and implemented 12 KPIs that CECOMA will use to monitor its performance.

Additionally, SIAPS, along with MoH, implemented activities focused on strengthening the national supply chain of medicine including those essential for improving maternal and child health by improving warehouse practices, logistics management information systems, quantification, and distribution. Implementing these activities will ensure the availability of these medicines to women and children when they need them.

### *Constraints to Progress*

- The ICC/logistics meeting scheduled for June was replaced by another high level workshop on quality assurance which all ICC members were invited to attend. Several key public institutions are still not noticeably represented in these critical forums and there is no clear justification for their lack of presence. SIAPS will support DNME to send out invitations with the agenda early enough to allow time for mobilization and confirmation of attendance. It has been decided that at least one scientific topic such as findings of assessments should be presented in each meeting to make the meeting less instructive and more informative and participatory.
- The limited availability of the WHO consultant and administrative delays adversely impacted the finalization of the NEML and the elaboration of the National Formulary manual. The organization of the high level validation workshop for the NEML will be possible once the list has been finalized and the consultant is available.
- The availability of all key data that are needed to complete the road map that will guide the development of the national supply chain strategy document and the necessity of advocacy at the top level of the ministry are some of the challenges that we much work to overcome to effectively conclude this activity.

### *Partner Contributions*

- DNME in coordinating the ICC/R sub-commission meetings and in coordinating the development of the national road map towards a national supply chain strategy in line with the 2013-2025 national health development plan
- CECOMA in the development and implementation of the suggested processes and procedures to improve its warehouse and distribution management system
- WHO in the finalization of the NEML

### ***Objective 2: Local Capacity for Pharmaceutical Management Enhanced***

The program supported the Ministry of Health/DNME to conduct a number of pharmaceutical management trainings. A national level meeting was organized to prepare the training of trainers in pharmaceutical management of antimalarial products. Six national and experienced facilitators from the Ministry of Health and three SIAPS staff participated in the preparatory meeting. Subsequently, the team conducted a three-day team building session in the three SIAPS focus provinces of Huila, Bie, and Cunene where the training material and methodology were revised together with five facilitators in each province. Supported by the national team, these provincial teams of facilitators conducted a five-day training of trainers for municipal warehouse managers, malaria supervisors, and pharmacy managers of the provincial hospitals. In total, 99 people (26 females and 73 males) received this training support whether as provincial facilitators (18 people) or municipal future facilitators (81 people). Each municipal team developed a post-

training action plan that contains different interventions, people who will be responsible, and deadlines that will improve pharmaceutical management for a continuous availability and rational use of pharmaceutical products including antimalarial products. A supervision tool to monitor the developed post-training action plan was also provided to provincial and municipal teams with clear indicators that will assist in documenting positive changes over time.

An advanced training in pharmaceutical management tailored to final-year students in pharmacy was organized by DNME with full support from SIAPS. The training material that was used for the same audience in other universities by SIAPS was revised and adapted to Angola's setting. Facilitators from DNME, the University Jean Piaget, and SIAPS participated in this review and conducted a training from April 28 to 9 May 9. In total, 30 participants (22 women and 8 men) took the training, which covers all aspects of the pharmaceutical management cycle (medicine selection, quantification, procurement, distribution, storage and inventory management, rational medicines use, and logistics management information systems). Other specific sessions were also provided such as pharmacovigilance/medicine safety, quality assurance, and the Angola national pharmaceutical policies, laws, and regulations. The university provided a conference room for the training. All 30 students actively participated in all the sessions and results of post-tests showed a very positive assimilation of the training, from an average of 13.1 out of 20 points (with a maximum of 17 and a minimum of 8) at pre-test to 16.3 (maximum 20, minimum 11) at the end of the training. The Rector of the Piaget University, his deputy, and the academic vice-rector recognized this great opportunity offered by the MoH to equip their students with more practical skills and knowledge in pharmaceutical management before they are integrated into the pharmaceutical sector. In addition to this collaboration with academic institutions, a SIAPS technical staff is co-supervising a dissertation of one final-year student who is working on the evaluation of warehouse and distribution conditions of essential pharmaceutical products in one province. Findings will be used to inform improvements in medicines quality and management to ensure better health outcomes.

### *Constraints to Progress*

Implementing post-training action plans for municipalities will depend on the support from the municipal administrators, especially for activities that require financial support such as cascade trainings for health facilities and supervisions. Besides, some municipal warehouse managers do not have the needed skills or the authority to transfer the acquired knowledge to the health centers staff. Storage conditions are very bad and pharmaceutical management tools are not commonly used especially the stock cards to record stock movements. The training should be closely followed by supportive supervisions from provincial teams, which suggests additional human and financial resources. The national essential medicines program that is overseeing capacity building in pharmaceutical management is understaffed and doesn't have a sufficient budget.

### *Partner Contributions*

- DNME: Coordination of pharmaceutical management training
- University Jean Piaget: Facilitators and conference room for the training of finalist students
- Provincial health directorates of Huila, Bie, and Cunene: Facilitation of the training at provincial level DNME
- NMCP: Provision of the national facilitators in the provincial training

**Objective 3: Information for Pharmaceutical Management Decision Making Improved**

In quarter 3, INLS approved the revised monthly reporting and quarterly requisition forms developed with SIAPS support and started to implement them at health facility level. Six provinces have so far implemented the new reporting and requisition forms. Once the reports are generated from these new forms, the program will be able to use real consumption data in their quantification in determining health facility needs. The program will continue to assist INLS to compile these reports and follow up the stock status for a continuous availability of HIV and AIDS products. SIAPS also provided support to update the CPP for HIV and AIDS health commodities for Angola; the CPP tool will inform decision making for procurement and supply chain management for HIV/AIDS commodities.

SIAPS worked with NMCP to submit the 2014 Quarter 1 Procurement Plan, update the monitoring report for antimalarial products (PPMRm), and conduct the sixth End User Verification (EUV) exercise in five provinces (Luanda, Bie, Huila, Uige, and Kwanza Nord). Forty-seven health facilities and warehouses were visited June 16 to 27, 2014. The exercise also included other health commodities such as HIV and AIDS and RH/FP. The NEML Program, under the coordination of DNME also participated in the EUV exercise. Findings showed similarities with the past visited provinces such as a generally low use of pharmaceutical management tools especially stock cards, poor storage conditions, poor malaria case diagnosis with a high number of non-confirmed cases of malaria, and some facilities with stock-outs of artemisinin-based combination therapy and rapid diagnostic tests. Continuous supportive supervisions and close monitoring of stock movements of all products are paramount to improve the current situation of managing the available resources including pharmaceutical products.

A SIAPS senior technical advisor traveled to Angola to work with MoH RH program to identify bottle necks in the current and past forecasting and supply planning of RH/FP commodities, to understand access barriers to RH/FP products and services, and to propose recommendations for improvements. Discussions were begun on long-term commodity security for FP commodities with MoH to ensure smooth continuous supply for coming years. Under USAID coordination, a meeting was organized between the MoH RH department coordinator and her team and other implementing partners (SIAPS and Pathfinder) to discuss the current priorities in RH/FP program, the importance of linking the availability of contraceptives through improved supply planning and their accessibility through improved counseling and training of service, understand constraints and challenges and way forward to improve the access to RH commodities and services to end preventable maternal and child deaths. A field visit was organized in Huambo Province to identify issues linked to access of RH/FP products and services, and to participate in monthly coordination meetings with all RH/FP municipal focal points, representatives from other major health facilities that are offering FP services, and the RH/FP provincial warehouse manager. Meeting participants identified some discrepancies in reported data and errors in calculating indicators and difficulties on general RH topics such as the recommended number of antenatal visits, a best method to offer clients in specific cases such as post abortion and postpartum, and the use of Microlut<sup>®</sup> versus Microgynon. Continuous training and some job aids with simple and clear messages were recommended to provide participants with enough

knowledge to be able to advise other colleagues and clients. SIAPS will work with Pathfinder to advise the program to conduct a long-term quantification of FP health commodities that will ensure opportunities of increasing CYPs to bring a significant change in Angola's CPR.

### *Constraints to Progress*

Low use of pharmaceutical management forms at health facility level handicapped EUV data collection. The continuous availability and obligatory use of pharmaceutical management forms should be enforced by the municipal and provincial health supervisors' teams to ensure a better management of these products through proper stock movement recording.

- Incomplete monthly logistics reports from facilities to provinces delay the national compilation of data during the PPMRm and difficulties in data validation.
- Use of distribution data along with other past trends to fill in for missing information do not factor current efforts to increase access to pharmaceutical services and products. A forecasting exercise for longer period is recommended for more strategic vision of scaling up of the programs.
- Parallel paper reporting within INLS (one department receiving patients' information and another one receiving logistics information) makes it difficult to validate both reports. A more inclusive electronic information management system could help validate data at the facility level, especially for those facilities with a significant number of patients.

### *Partner contributions*

- NMCP and DNME in coordination and implementation of EUV and PPMRm
- INLS in providing information of the bi-monthly CPP and in disseminating the new revised monthly reporting and quarterly requisition forms through training and multiplication
- Provincial and municipal teams in data collection of EUV and PPMRm
- MOH/RH in providing information on the current bottlenecks and future plans to improve access to RH/FP services and products
- Provincial health directorate of Huambo to coordinate the field visits and the organization of the monthly meeting with all RH/FP municipal focal points
- USAID implementing partners (Pathfinder and Forca de Saude) in joint activity implementation to improve data quality and report completeness in reproductive health

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

SIAPS continued to support CECOMA to develop additional systems, procedures and tools to address short- and medium-term recommendations targeted to optimize storage, distribution, and to meet requirements of the central warehouse, although challenges to access data continued to impact all planned support. The revised alternative structure for warehouse management based

on functional rather than product lines was accepted and has been implemented by CECOMA, with SIAPS providing additional support in creating job descriptions. A guidance document was provided outlining daily, weekly, and monthly meetings including attendees and agenda suggestions. Other technical guides were provided including warehousing fundamentals, warehousing best practices, transport solutions, graphic job-aids for manual supply handling, fork lift truck operation, and clerical tasks. A generic guidance document was created and a workshop held with key warehouse technical staff to present the principles and reasons behind the rationale for implementation and regular monitoring of the KPIs. Both weekly and monthly data collection and KPI calculation spreadsheets were provided together with a specific guidance document. A workshop was held with key warehouse technical staff to present the rationale for having product codes together with the provision of a number of options for coding. Consensus was reached and all CECOMA products were coded.

The completion of warehouse numbering allowed for the creation of a stock location spreadsheet designed to simplify the locating of specific products within the warehouse and to provide an indication of the number of days remaining before expiry. A guide on how to use spreadsheet and a number of standard operating procedures were provided as drafts for final revisions to be made during a pilot. SIAPS will continue to follow up on the implementation of the new changes in CECOMA that will be replicated in other regional and provincial warehouses in collaboration with CECOMA.

To institutionalize a sustainable quantification process, INLS coordinated the first meeting of the national quantification working group with representatives from INLS, UNDP/Global Fund principal recipient for HIV and AIDS, SIAPS, and representatives from referral hospitals of Luanda. The team finalized the review of the technical working group's (TWG) terms of reference (TOR) and selected the chairman and secretary for the TWG. The finalized TOR have been submitted to INLS for final approval. Contacts with Namibia's National HIV and AIDS Program and SIAPS Namibia started to initiate preparations for the planned study tour of INLS to learn from first-hand experience of Namibia about the development and use of electronic dispensing tool that they are using in managing patients on antiretroviral treatment. Through the technical experience gained from the study tour, INLS will be able to apply the principles for upgrading the current electronic system.

SIAPS assisted the NMCP to coordinate the national technical working group to review the next five-year forecasting and determine the current gap in funding using a quantification worksheet that was developed by SIAPS. Participants for this review were from NMCP, the Coordination Unit for Global Fund, WHO/Global Fund principal recipient for antimalarial products, PMI, SIAPS, and CECOMA. Results from this exercise will be included in the next national malaria strategic plan as a requirement for the new Global Fund financing model. The reviewed technical working groups' terms of reference were approved by the NMCP Coordinator, despite long administrative delays.

### *Constraints to Progress*

For the support to CECOMA, a number of challenges were identified—

- Lack of access to the planning department to review existing data and report availability

- Conducting on-the-job capacity-building activities with key warehouse staff, such as discussions, meetings, and orientations while staff members were busy with competing warehouse operations-related commitments. Staff members were sometimes away at off-site meetings, or often had to leave to attend to urgent warehouse matters (receipts and dispatch).
- The warehouse often has a lot of excess stock for which there is no available pallet space, therefore products end up being stored along the warehouse aisles.
- Long bureaucratic delays in officially confirming the TWGs, along with a more centralized system for decision-making even in determining which quantities to procure continue to be a challenge for more sustainability of this mechanism.
- Early planning is much needed to avoid to conduct forecasting as an urgency, with a lot of assumptions and less time for adjustments.

#### *Partner Contributions*

- CECOMA management and staff throughout the process of developing and implementing guiding documents and tools
- INLS and NMCP in coordinating both national TWGs for quantification
- Other institutions that are linked to the quantification and that participated in the first meeting of the TWG for HIV and AIDS and for the gap analysis for malaria products.

## **Bangladesh**

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

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

To increase access to quality pharmaceutical products, SIAPS assists the Ministry of Health and Family Welfare (MOHFW) to strengthen their procurement and logistics systems, with a focus on family planning; maternal, neonatal, and child health (MNCH); and tuberculosis (TB). SIAPS also assists the Directorate General of Drug Administration (DGDA) to strengthen systems for drug registration and drug safety.

With SIAPS support, the MOHFW's Procurement and Logistics Management Cell (PLMC) actively oversaw and coordinated procurement and supply chain functions, resulting in timely completion of procurement processes of Directorate General of Family Planning (DGFP) and Directorate General of Health Services (DGHS) for 2013–14. SIAPS also facilitated workshops with 32 Line Directors to develop their procurement plans using the Supply Chain Management Portal (SCMP) for 2014–15.

To seamlessly transfer the operation, maintenance, and oversight of SIAPS facilitated-tools, such as the SCM Portal, from SIAPS to the MOHFW, SIAPS worked with the MOHFW to develop a draft of transition milestones, as well as user and technical manuals.

DGFP successfully further reduced the lead time of the recently completed 2013–2014 procurement process. DGHS's Central Medical Store Depot (CMSD), with SIAPS assistance, managed their procurement process more efficiently as evidenced by a reduction in World Bank queries prior to issuing procurement approval. DGHS for the first time procured cholera saline under the Framework Agreement (FWA) using SIAPS-developed model tender document that extends the procurement agreement from one to two years and allows for staggered delivery of products.

As part of capacity building assistance, DGFP master trainers provided regional logistics management training to approximately 955 field staff and assisted upazila inventory management system (UIMS) users to troubleshoot and ensure timely reporting.

SIAPS actively participated in the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) Joint Monitoring Mission (JMM) to review the National TB Control Program (NTP) and contributed to developing recommendations for further improvement. Based on JMM recommendations, NTP suggested that SIAPS coordinate an accelerated countrywide roll-out of e-TB Manager to all 488 public DOTS sites and 288 NGO sites in urban areas.

To address MOHFW demands, SIAPS incorporated a new equipment tracking module into the SCMP to track medical equipment and equipment maintenance.

SIAPS is working with the DGDA to strengthen its drug regulatory functions. An online drug

registration management system (PharmaDex) will allow easy access to information on registered drugs. Additionally, SIAPS is assisting the DGDA to improve and standardize the drug dossiers submitted for approval and the process of evaluating the applications through the adoption of Common Technical Documents (CTD). SIAPS also facilitated the establishment of a Taskforce Team at DGDA to guide these changes. Additionally, a Drug Utilization Review (DUR) program for drug-resistant TB was introduced in Bangladesh.

***Objective 1: MOHFW Supply Chain Management Systems and Component Procuring Entities Strengthened***

In June 2014, all 32 MOHFW line directors developed their draft procurement plans using the SIAPS-facilitated SCMP. SIAPS expedited two workshops with key MOHFW government officials to finalize the list of core medical equipment that should be available in all facilities by developing a table of equipment (TOE). SIAPS is working with National ElectroMechanical Engineering Workshop to develop the specifications for the selected core equipment and is working with the PLMC to develop a pricing list

Following the government order from the MOHFW that allows for a framework agreement to streamline procurement processes through multi-year procurement and multiple deliveries, CMSD has procured the first item using the agreement on behalf of DGHS. SIAPS on-the-job training for CMSD/DGHS desk officers has resulted in the elimination of common mistakes in preparing procurement documents (i.e., bidding documents, bid evaluation reports). The improved quality of the documents is evident in a reduced number of World Bank inquiries about procurement documents that previously slowed the procurement approval process. SIAPS efforts have further reduced the DGFP's procurement lead time from 78 weeks to 58 weeks last year to 44 weeks this year (2013–2014). To also address DGHS procurement lead time, a workshop was conducted in June. A mapping exercise identified the reasons behind longer lead times and the stakeholders who could contribute to reducing lead time.

SIAPS advisors embedded in PLMC/MOHFW provided 20 written opinions on bid evaluation reports for the procurement of goods and services and responses to complaints made by some bidders on issues of procurement of goods, administrative, and financial matters. These opinions expedited the procurement process to be completed on time. To ensure public sector warehousing systems does not compromise the quality of products, a rapid appraisal has been conducted jointly with USAID and DGFP official. A structured data checklist was used to collect the data on warehousing conditions of RH commodities and essential medicines. The appraisal focused on whether or not the products' quality could be compromised due to high temperature and moisture.

SIAPS facilitated a series of regional Logistics Management trainings for DGFP field staff. A total of 955 DGFP logistics personnel (including 20% females) from 488 upazila (sub-district) completed the training successfully. Expected results of this regional logistics training include

- Ensure reporting accuracy and timeliness
- Regularly dispose of unserviceable and obsolete items
- Regularly count and cross-check stock with recorded balance
- Re-organize stores as part of the good warehousing practice

- Enhance monitoring and supervision capacity
- Regular review of logistics reports.

DGFP trainers provided feedback on around 200 troubleshooting requests from UIMS end users of that resulted more than 95% timely reporting from 488 upazilas. Engaging MOHFW in the process, SIAPS facilitated disposal of unusable items of nearly 240 upazila FP stores and the central and regional warehouses that recovered approximately 15,000 square feet of storage space.

SIAPS actively participated in the Global Fund TB Joint Monitoring Mission (JMM) and later on facilitated the implementation of the recommendations made by the team mainly on stock, storage, procurement and forecasting of TB drugs. Considering SIAPS recommendations on forecasting exercise, Global Fund deferred some shipments to avoid the risk of overstocking of expensive TB drugs that amounted 200,000 UD dollars. SIAPS started piloting the TB logistics management information system (LMIS) in 3 sites with 9 trained staff. Moreover, as part of strengthening the governance system in the ministry and its directorates, SIAPS facilitated to conduct regular coordination meetings in PLMC/MOHFW, CMSD/DGHS, DGFP, and NTP.

### *Constraints to Progress*

Unsuccessful bidders sometimes lodge complaints without valid grounds. To address the complaint issues logical arguments have to be established based on the procurement guidelines of the World Bank and Procurement Act & Rules of GOB and bidding documents. SIAPS facilitated workshops for the bidders to better understand the process.

### *Partner contributions*

DGFP Monthly Stock Status report has been prepared and circulated by a designated desk officer for the last four months.

### ***Objective 2: Establish Systems for Evidence-Based Decision Making***

During the quarter SIAPS and GOB officials conducted Routine Data Quality Assessment (RDQA) and number of joint monitoring visits to assess the quality of data that is uploaded from the facility levels. The logistics data uploaded through Upazila Inventory Management System (UIMS) to web-based DGFP/LMIS has been increased significantly to 91% in May 2014; compared to last year (49%). Timely reporting has facilitated prompt decision-making by the DGFP managers at all levels. SIAPS also updated the UIMS based on the user feedback and reinstalled in 20 piloting sites.

SIAPS has recently integrated short message service (SMS) functionality and email alert in Supply Chain Information Portal (SCIP). The SMS notification system has supported the transition for local managers from the role of data producing to data use; thus improving decentralized decision making. Notifications are triggered by action reminders (time to report), tracking (status of order), and alerts (delays or potential stock imbalances) directed to specific people, particularly when their responses can also be tracked.

To facilitate the process of transitioning SIAPS-supported tools to the MOHFW for management and maintenance, SIAPS is engaged in preparing an advocacy and policy plan for the sustainability of the tools (e.g., MOHFW SCMP and DGFP SCIP).

During this quarter, SIAPS presented the demonstration version of an equipment tracking module of SCMP to the donor consortium, including USAID, for their input. The online system will help tracking of medical equipment procured (using online procurement system) by CMSD for use by government health facilities. Equipment tracking will also monitor the status and performance of the equipment by taking into the consideration “value for money” concept. The system will be piloted at CMSD in mid-July.

SIAPS and Save the Children (MaMoni Health Systems Strengthening project) jointly conducted a situational analysis of district level pharmaceutical management of essential RMNCH commodities. This assessment analyzed the availability of key medicines and supplies for RMNCH at all levels within the district, described the pharmaceutical management practices and procedures at the district level and below, and identified possible interventions to improve pharmaceutical management and the availability of key RMNCH medicines and supplies in the district.

The SIAPS advisors made a joint visit to Lakshmipur district to learn about the existing logistics management system and practices for MNCH commodities.

With the concurrence of NTP, SIAPS started rolling out e-TB Manager in 100 new sites in partnership with key TB partners (Damien Foundation, Lepra Bangladesh, and Heed Bangladesh). As part of the rollout, SIAPS facilitated a training of trainers on e-TB Manager in May to develop a pool of 13 master trainers from the various key partners. Subsequently, the trainers of trainers, with assistance from SIAPS, completed basic training for 95 field staff members from 35 upazilas.

### *Constraints to Progress*

Lack of sufficient coordination among vertical programs under DGHS.

### *Partner Contributions*

- Save the Children involved as a partner in MNCH activities
- WHO, NTP, BRAC, DGHS, DGFP, Save the Children, Damien Foundation are working together in the field of TB, FP, and MNCH programs

### ***Objective 3: Pharmaceutical Regulatory Systems Strengthened***

To strengthen its drug regulatory functions by providing the online drug registration management system (PharmaDex), SIAPS helped establish a taskforce team at DGDA in April 2014. The team has had five meetings so far to brainstorm on how PharmaDex will function in Bangladesh. In addition, a hands-on training on PharmaDex was provided to the team to

identify potential areas for improving the system and understanding application process flow.

SIAPS continued to coordinate with Adverse Drug Reaction Monitoring (ADRM) Cell of DGDA to attain full membership of WHO Uppsala International Drug Monitoring Centre through submission of adverse drug reaction (ADR) reports to their international database—VigiBase. As such, SIAPS facilitated orientation on the reporting mechanism for three private/public hospitals in Dhaka. As of June 30, 2014, 46 ADR reports have been collected by the ADRM Cell. To strengthen ADRM cell management of ADR reports received from hospitals and pharmaceutical companies, SIAPS facilitated a training on April 23, 2014, for the ADRM cell members on the use of VigiFlow—WHO’s global individual case safety reports (ICSR) database for ADR reporting—and handling of data received from the pharmacovigilance (PV) reporting centers in Bangladesh. Following the VigiFlow training, a pilot test of entering the data reports has been completed. Since the Bangladesh Regulatory Authority is an emerging agency with respects to PV activities, it is essential for the cell members to receive the appropriate training and to understand the complexities of PV to further their knowledge and skills. Therefore, SIAPS provided support to three cell members to participate in international training program organized by the International Society of PV and the Uppsala Monitoring Centre which took place June 5–7, 2014, in Manila, Philippines.

For SIAPS to support DGDA to develop Good Manufacturing Practice (GMP) inspections and develop GMP guidelines in accordance to WHO standards, two groups (4 inspectors each group) observed a GMP inspection of two pharmaceutical facilities (Eskayef and Renata Pharmaceuticals Ltd.) for May 25 and 26. In addition, a two-day basic GMP training was conducted for 75 DGDA officials on May 28 and 29, 2014. DGDA field inspectors have provided the following statistics—Allopathic Retail Pharmacies–6,391; Issue of New Drug License–34; Renewal of Drug License–174; Drug Sample Collection–15; Ownership change/Address change/Name change/Renewal of Drug License–3. In addition, a content management team has been established at DGDA to ensure effective maintenance of the web portal. A stakeholders’ meeting was held to introduce the Drug Utilization Review program for drug-resistant TB and make preliminary decisions on objectives for the activity in Bangladesh. Participants included representatives from the NTP, Directorate General of Drug Administration, Directorate General of Health Services, National Institute of Diseases of the Chest and Hospital, WHO, USAID, URC, and Brac.

### *Constraints to progress*

- Additional efforts will be needed to improve PV awareness in all the hospitals and pharmaceutical companies in Dhaka and other districts, especially in the areas of autonomous reporting, constant ADR reporting, and submission to DGDA. This can be addressed by communication and creating more awareness.

### *Partner Contributions*

DGDA is more engaged in implementing the new interventions to improve their regulatory functions.

## **Burundi**

**Goal: Strengthen key institutions to help reduce mortality and morbidity due to malaria through strong case management and availability of malaria commodities**

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

During the quarter SIAPS contributed to strengthening the PNILP (Programme National Intégré de Lutte contre le Paludisme [National Malaria Control Program]) and communities in reducing mortality and morbidity due to malaria. SIAPS implemented key activities contributing to the improving good governance, leadership, and accountability: assisting the PNILP to implement its standard operating procedures (SOPs) for recruiting key staff, strengthening capacity to comply with Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) requirements for funding and working to improve the PNILP strategic plan and evaluate the annual action plan. The goal of working with PNILP to strengthen their capacity is to enable PNILP to meet the requirements to become a Global Fund principal recipient and strengthen their capacity to work with stakeholders to update the country strategic plan that will inform the country's concept note application for a Global Fund malaria grant.

SIAPS assisted with improving the national supply chain for malaria commodities by assisting technically the PNILP, CAMEBU (Central d'Achat des Médicaments Essentiels du Burundi [Central Medical Store]), health districts, and health centers in analyzing requisition, monitoring stocks, and developing procurement plans. SIAPS assisted the Directorate of Pharmacies, Medicines, and Laboratories (DPML) in updating its SOPs document for pharmaceutical management.

SIAPS contributed to the improvement of pharmaceutical services through assisting the PNILP to train 164 health providers of health centers on standard treatment guidelines for malaria and to continue supervision and training of community health workers (CHW) who provide malaria community case management (CCM). SIAPS also contributed to the development of the law regulating the use of health commodities free of charge to prevent misuse and commercialization.

As for prevention, SIAPS contributed to the validation of the country's new intermittent prevention treatment in pregnancy (IPTp) guidelines and vector control guidelines.

### ***Objective 1: Improve Leadership and Governance for Key Institutions (PNILP, DPML, CAMEBU, and districts)***

In April 2014, SIAPS helped develop vector control guidelines in a two-day workshop, supported by USAID, the Global Fund, and other donors. These guidelines indicate effective insecticides to be used in Burundi. Availability of these guidelines is one of donors' conditions to finance indoor spraying activities.

In April, SIAPS assisted the PNILP to revise the SOP for appointing staff to new positions. Filling these positions will increase the PNILP's operational capacity and accountability. In May,

PNILP hired a lawyer to prepare a new decree law which will allow PNILP to become an institution with autonomous management. SIAPS contributed to the decree law review before the PNILP submitted it to the Ministry of Health (MoH).

SIAPS also worked with PNILP to recruit a consultant to prepare a law decree allowing MoH and NMPCP to improve control of commodities provided to health facilities or to the community. The decree was finalized by on June 2, 2014, and transmitted to MoH for review and then forwarded to the government for adoption. Once the decree is adopted and implemented, it would lead to increased good governance and accountability in health sector and increase access to malaria commodities for poor and vulnerable people.

In April, in preparation of the next grant submission to Global Fund in 2014, SIAPS assisted the PNILP by sponsoring attendance of three PNILP members in a workshop organized by the Roll Back Malaria (RBM) Initiative Harmonization Working Group. The workshop sought to assess country readiness and outline support needed to apply for the Global Fund New Funding Model (NFM). In May, SIAPS helped with administration and logistics for PNILP key staff members preparing Global Fund/Geneva evaluation of PNILP managerial capacities. Availability of administrative, financial/accounting procedures and training in the TOMPRO accounting software were appreciated by Global Fund evaluators. SIAPS participated in a Country Coordination Mechanism meeting to analyze PNILP's progress towards meeting Global Fund NFM requirements.

SIAPS assisted the PNILP to improve its strategic plan by supporting a trip for two PNILP key staff members and one Country Coordination Mechanism member travel to Kampala, Uganda, for a RBM workshop, in June 16-18, 2014. Twenty-one countries attended the workshop which focused on national strategic plans peer review. The Global Fund provided an evaluation tool to be used by the peer groups. SIAPS will organize, beginning July, a workshop to incorporate comments issued from this review in the PNILP National Strategic Plan 2013–2017.

SIAPS supported PNILP and RBM partners to conduct a quarterly meeting on April 3, 2014. At this meeting, PNILP presented first quarter achievements and planned activities for the second quarter. Meeting participants updated the plan for the long-lasting insecticide net (LLIN) mass campaign scheduled for June 2014. Out of 66 activities in the action plan, 11 activities were completed (16%), 22 are ongoing, 2 rescheduled, 26 not realized, and 1 transferred to DPML. Such meetings contribute to increase of accountability of the PNILP.

### ***Objective 2: National Supply Chain Strengthened***

SIAPS supported PNILP to mobilize funds from USAID/President's Malaria Initiative (PMI) and Global Fund according to the 2014–2016 quantification report to ensure an uninterrupted supply plan of malaria commodities.

SIAPS continued to build the capacity of districts to ensure availability of malaria commodities at health facilities and the community level. SIAPS assisted PNILP in analyzing monthly requisitions from all 45 districts and providing appropriate feedback to health districts. SIAPS also continued to help ensure stock availability of artemisinin-based combination therapies

(ACTs) and rapid diagnostic tests (RDTs) at CAMEBU, district pharmacies, and health facilities. During the reporting period, SIAPS helped organize transportation of malaria commodities in the Gashoho and Gahombo health districts. In May, SIAPS also worked with CAMEBU to follow up on an expected delivery of ACTs, especially those for children 6–13 years of age, which were stocked out at the central level. SIAPS communicated this to the Global Fund and the supplies were received at CAMEBU in time for quick distribution to district pharmacies.

During the reporting period, SIAPS supported PNILP and CAMEBU to finalize quarter 2 procurement planning and monitoring report for malaria commodities, which include monthly stock monitoring. In June, the central level/CAMEBU registered a stock-out of RDTs caused by a delayed delivery. SIAPS had been in communication with the Global Fund since quarter 2 through quarter 3 about the possible stock-out, and as a result, a partial shipment has been received. Also, SIAPS contributed to the validation of SOPs for pharmaceuticals management at all levels in a two-day meeting organized under DPLM leadership. Once approved and implemented, the new SOP will contribute to improving information and intelligence sharing and reporting, allow for timely information-based decision making within the supply chain system, and contribute to prompt delivery of commodities.

### ***Objective 3: Improved Malaria Services***

SIAPS collaborated with PNILP to improve malaria case management. In April, SIAPS assisted PNILP to train the last batch of 164 health center providers on new malaria STGs to ensure diagnosis, prescribing, and dispensing practices are improved and comply with the new STG. SIAPS trained 422 health providers and PNILP/Global Fund trained an additional 232, for a total of 654 providers nationwide.

Gashoho and Gahombo Districts are achieving positive results in improving the early detection and treatment of confirmed cases of malaria in children under 5 years through community-based services. The cases assisted by community health workers (CHWs) rose progressively from quarter 1 to quarter 3 and the system was able to respond to the increased demand for community level malaria services. CHWs and health facilities in the two districts have taken steps to improve the quality of care and have reduced stock-out rates. SIAPS continued to work with the PNILP and district teams to improve the quality of the care offered by CHWs through supportive supervision and training sessions during CHW monthly meetings at the 25 health centers implementing malaria CCM. SIAPS collaborated with PNILP and Gashoho District to observe and coach CHWs practicing malaria CCM, with a focus on compliance with malaria case management steps and the use of RDTs and the CCM algorithm. Based on direct observations of CHW in service, improvements were noted in the malaria prevention counseling, use of RDTs, and dispensing practices.

In the two districts, 375 CHWs were trained to recognize danger signs of malaria during monthly meetings in April and 388 CHWs on the use of the CCM algorithm in May. Health districts and facilities will follow-up with CHWs experiencing challenges to ensure that they are able to translate acquired knowledge and skills into practice.

The health districts worked with SIAPS to evaluate meeting attendance and reporting practices

for CHWs. Gahombo maintained high monthly meeting attendance and timely reporting across the last three quarters (above 90%). Gashoho registered tremendous improvements—increasing meeting attendance from 55% in quarter 1 to 92% in quarter 2, and reaching 100% in quarter 3. Likewise, timely reporting increased from a low of 77% in quarter 2 to 99% in quarter 3. This improvement was a result of meetings to address irregularities in recording information in consultation registers, meeting attendance, use of requisition and stock tools, and timely reporting, followed by targeted PNILP-SIAPS supervision and coaching missions. Gashoho District will be closely monitored to ensure achieved improvements are sustained.

Most requisition and stock information was reported on time. In Gashoho and Gahombo, 388 CHWs were resupplied with needed commodities and refreshed on the use of commodities. With this support, the CHWs' stock-out rate decreased dramatically from 26.3% in February to 6.2% in April in Gahombo district and from 68.2% to 8.2% in Gashoho for the same period.

Reports showed that 19,371 children less than five years with fever accessed CHWs services in April and May. Among those children, 19,218 were tested with RDT; 14,388 were confirmed malaria positive, and 14,082 were treated with ACTs (98%). Among those positive for malaria, 13,048 children (91%) received malaria treatment within 24 hours of the onset of fever.

Based on April and May reports, the number of cases attended by CHWs increased by 67% in Gashoho and 29% in Gahombo (in comparison to records from the first two months of quarter 2). The rate of mortality among children under five years who used CHWs' services in both districts remained almost zero.

Progress was also made in the introduction of prevention of malaria in pregnancy efforts. The IPTp policy was validated and has been submitted for final signature and the procurement of sulfadoxine-pyrimethamine tablets is in process.

## **Cameroon**

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

### ***Quarter Report Progress***

SIAPS focus its current technical assistance (TA) on strengthening monitoring and supervision at the health facility level to ensure that the 100 pharmacy managers trained in 2013 will use their knowledge acquired into practice to improve management of HIV and AIDS commodities.

SIAPS worked closely with National AIDS Control Committee (CNLS) and Direction de la Pharmacie, Médicaments et Laboratoires (DPML) to improve the information system for stock and patient management by supporting the issuance of timely and complete reports on patients and stock data to increase availability of data and maintaining data collection and reporting systems from antiretroviral therapy (ART) sites, regional NACC unit (GTR), and regional medical stores (CAPRs).

SIAPS also supported the CNLS to establish a coordinated mechanism for quantification, procurement, and distribution of HIV and AIDS commodities. By providing continuous technical assistance to the Quantification Committee, this is to ensure an uninterrupted availability of HIV and AIDS commodities supply plan.

During Q3, SIAPS conducted second round of supportive supervision visits to 34 selected ART health facilities located in six USAID target regions (Centre, Littoral, Adamawa, East, Northwest, and Southwest). SIAPS also conducted two training workshops for the HIV and AIDS Commodities National Quantification Sub-committee members. Thirty- people were trained in forecasting and supply plan of antiretrovirals (ARVs), opportunistic infections medicines (OIs), rapid test kits (RTKs), and laboratory commodities as well as in the use of various tools (Quantimed, ForLAB, and PipeLine). Two forecasting exercises were then conducted for ARVs, OIs, and labs commodities and RTKs.

### ***Objective 1: Pharmaceutical Sector Governance Strengthened***

During this reporting period, SIAPS continued to work jointly with the Central Medical Stores (CENAME) and CNLS to track ARVs stock and shipment, to ensure that ARVs were distributed rationally through the country while the country awaited additional shipments.

SIAPS has also continued the process of formalizing the existing HIV and AIDS commodities Quantification Subcommittee by organizing two training workshops for the members of the committee in quantification of ARVs, OIs, RTKs and labs commodities and in using various tools, Quantimed, PipeLine, and ForLAB for forecasting and supply planning. During these 2 workshops, two forecasting exercises on the needs for a period from 2014 to 2017 were completed as well as related supply plans. Thirty-nine (39) participants received training and were able to go through the different steps of quantification for HIV and Aids commodities.

SIAPS used a mix up of training, consultative approach to discuss and agree on data for the country forecasting.

### *Constraints to progress*

The quantification committee lacked accurate data on scale-up plans for patients and sites and the availability of laboratory equipment that is functional in health facilities. In addition, the Government of Cameroon's funding for the procurement of HIV and AIDS commodities has not yet been made available and the future of the funding unclear; this makes it difficult to project stock availability for the next three years.

### **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 central and regional medical stores (CENAME and CAPRs) to make available high-quality commodities at distribution points and improve their coordination. SIAPS is leveraging efforts with the German Agency for International Cooperation (GIZ), UNFPA, and others to strengthen the CAPRs' computerized inventory control system and establish a link between them and CENAME.

During this quarter, SIAPS continued to collaborate with others partners like GIZ, UNFPA, ESTHER, WHO, CHAI, and DPML through the recruitment of international and national consultants to carry out a robust evaluation and analysis of the existing logistics management information system (LMIS) to determine the insufficiencies. Based on the analysis, SIAPS and its partners will propose options to improve the LMIS system for the Cameroon supply chain to strengthen the supply, management, and distribution of pharmaceutical commodities and laboratory supplies at the central and regional levels.

During this quarter, SIAPS provided TA to CENAME to perform warehouses situational analysis to provide recommendation for proper inventory management and storage optimization. SIAPS looked at three areas—(1) the warehouses' infrastructure (design and storage practices including layout, availability, and adequacy of storage accessories, space utilization, storage organization, and storage conditions such as ventilation, product locator/labeling and security systems); (2) operations/inventory management (including requisition, receipt, distribution, transport, expiry management, segregation/disposal of unusable products, transfer/recall practices, and procedures), and (3) HR capacity and adequacy to perform store management and supply chain operations.

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

During Q3, SIAPS and CNLS conducted joint supervision visits with regional CNLS dedicated staff to supervise on pharmaceutical management of HIV and AIDS commodities in 34 ART health facilities within the six USAID regions. This exercise was focused on January to March 2014 data that showed that 35% (12/34) of SIAPS-supported ART health facilities were using country appropriate tools to report logistic and patient data. Sixty-two% (21/34) of ART sites

completed and submitted their LMIS report for the most recent reporting period.

### *Partner Contributions*

The CNLS regional team, GTR, has worked closely with SIAPS during this quarter to complete the supportive supervision visits plan to 34 ART health facilities. The team's involvement in the supervision gave credibility to SIAPS as a partner of the Ministry of Health MOH and CNLS here and will improve the monitoring of patient information, and consumption and distribution data. This will led to ensure an uninterrupted medicines supply chain at regional and peripheral levels.

### ***Objective 4: Financing Strategies and Mechanisms to Improve Access to Medicines Strengthened***

Under this objective, SIAPS provided support to CNLS to meet pharmaceutical-related performance requirements of the Global Fund to Fight AIDS, Tuberculosis and Malaria (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 is supporting CNLS to meet the pharmaceutical-related requirements to access these funds (71 million US dollars). In April and May, SIAPS provided technical and financial resources for the national ART evaluation, "Audit de la File Active," which was a joint partner's effort to support CNLS in counting the number of patients on ARV treatment at the national level. SIAPS conducted the evaluation in two regions: East and Adamawa. This national ART evaluation was requested by the Global Fund and was built on various SIAPS data review exercises.

### *Partner contributions*

SIAPS was member of an established Steering Committee and collaborated with others donors like GF and CDC PEPFAR through CNLS mechanisms and selected consultants from Technical Assistance for Management Agency to perform and complete this evaluation.

## **Democratic Republic of the Congo**

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

### ***Quarterly Progress***

The SIAPS/DRC program continues to make important progress toward improving the governance of pharmaceutical regulatory systems in the Democratic Republic of the Congo (DRC).

The number of days to register a pharmaceutical product in DR Congo decreased from 72 days reported during the previous quarter (quarter 2) to 68 days this quarter. This improvement can be attributed to the increasing ownership of the process of registration by the Drug Regulatory Authority (DRA).

The percentage of items on the National Essential Medicines List that are registered has increased from 60.5% in quarter 2 to 71.5% this quarter.

With regard to capacity building, to date, SIAPS has trained 338 health care workers on pharmaceuticals management to ensure that medicines are managed per national pharmaceutical SOPs. This result has exceeded the target set at 290 workers.

The percentage of stock records that corresponds to the physical counts for a set of tracer medicines for this quarter is 64% (41% is the target).

In line with the MoH strategic plan 2011/15 (PNDS) and the USAID scope of work, SIAPS supported MoH in developing the action plan for the UN Commission to introduce and make available 13 life-saving medicines for women and children. During this quarter, SIAPS supported the Integrated Health Project (IHP), the main USAID-funded project in DRC, to quantify the needs for these 13 medicines and purchase them for distribution to the 80 health zones (HZs) supported by IHP/USAID.

This quarter, SIAPS provided technical and financial support to the Family Health Department of MoH (called Directorate 10 [D10]) to organize a four-day workshop to update the national maternal and child health (MCH) guidelines. During this workshop, SIAPS took the opportunity to introduce the 13 life-saving medicines in the MCH guidelines. In addition, to help health care providers make better use of these 13 medicines, SIAPS, jointly with IHP, developed tools to train them. The training is planned for the fourth quarter of this financial year.

Because of the severe side effects of anti-TB drugs, USAID supported a pilot to use second-line medicines for 9 months instead of the currently used 20-month regimen. With technical and financial support from SIAPS, two cohorts (one on each regimen) are being followed and monitored for possible ADRs and side effects.

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

SIAPS provides support to the Medicine Registration Committee to ensure that the number of days taken to register medicines remains at a minimum. For this quarter, there has been improvement beyond last quarter (72 days) and beyond the target (71 days) to 68 days. This improvement is attributed to MoH's ownership of the process, with financial and technical assistance (to a lesser extent than in the past) from SIAPS. SIAPS' technical assistance consists of coaching and sensitizing the regulatory authority staff on how to measure this indicator and reduce the time taken to process dossiers submitted for registration. For the next quarter, MoH and SIAPS plan to audit and review all the registered medicines data in the country since November 2010 and also review current procedures with regard to WHO standards.

During this quarter, SIAPS supported a two-day workshop for the National Malaria Control Program. The purpose of this quarterly workshop was to share information on the supply of malaria commodities and different mechanisms for monitoring the management of these products at health facilities (HFs). This workshop was an opportunity for SIAPS to share the EUV findings and critical recommendations with all PMI stakeholders for possible improvements.

In this quarter, in line with the work plan FY3 activity 1.4.2 and in collaboration with MoH's partners (such as Global Fund Principal Recipient and WHO), SIAPS provided technical and financial assistance to revise PATIMED, the guidelines for the management of TB medicines. To accomplish this, a four-day workshop was organized where various TB stakeholders, especially doctors, pharmacists, nurses, and community-based organizations (CBOs), were represented. The changes made for updating PATIMED were guided by the current TB management guidelines "PATI IV" (PATI IV was also revised and updated because of the new definition of cases and the new WHO TB treatment recommendations).

The assigned objectives for this activity have been achieved; that is, the management and reporting data tools were amended, taking into consideration the quality assurance and the programmatic information of PATI IV.

#### *Constraints to progress*

The very long lead time that stakeholders (Global Fund) take to disburse funds

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

This quarter, SIAPS worked toward this objective by increasing and enhancing the capacity of health workers in pharmaceutical supply management and services. SIAPS, with the National HIV/AIDS Control Program (PNLS), organized a five-day training on pharmaceutical management for the staff from PEPFAR-supported PMTCT sites and for the inspectors in Kinshasa province; 28 people were trained, including 20 women. As a direct result, 13 post-training action plans were developed and submitted by the trainees to help follow their progress toward the training goal.

From April 28 to May 3, 2014, the DRC quantified the needs for all contraceptive commodities for all methods for 2014-2015 with the assistance of the Implants Access Initiative; JSI was mandated to provide technical support for training on quantification of contraceptives in the DRC. SIAPS contribution was essential to the success of this workshop; due to its support to MoH through the National Family Planning Program, the pharmaceutical management skills of individuals, institutions, and organizations was improved. In addition, SIAPS is verifying the accuracy of consumption data from the PROSANI project that is used to estimate needs.

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

On April 7, 2014, SIAPS prepared and submitted a PPMRm for the January to March 2014 period. This PPMRm was done closely with the Deliver Project. For the next PPMRm, SIAPS will again work closely with the Deliver Project so that they can take over this activity by October 2014.

This malaria commodities data shows a substantial improvement in the number of HZs that are receiving artesunate/amodiaquine (AS/AQ) from the regional warehouses. This number doubled from 59 (43%) to 121 (88%) out of 138 targeted by PMI. This is the result of the implementation of a combination of pull and push systems recommended by SIAPS.

In addition SIAPS submitted the PPMRc report in May 2014 for the January to March 2014 period with data from the PSI, UNFPA, and IHP. SIAPS noted that the beginning balance of Jadelle® in April was overestimated at the global level; actually, it should have been 52,426 doses according to the PPMRc of May 2014. So, the forecasted consumption of Jadelle in DRC became 6,523 doses instead of 12,567 doses per month.

This quarter, SIAPS submitted to PMI Washington the summarized EUV report that was conducted March 17-22, 2014. The findings and critical recommendations for improvement were shared with all PMI stakeholders at the national and provincial levels.

During the EUV survey 147 health facilities (HFs) and 37 warehouses were surveyed and 4,383 patient charts were reviewed. Results of the survey are as follows:

- Although 74% of people are trained in pharmaceutical management, only 60% of facilities (on average) have stock records on AS/AQ and RDTs. One contributing factor is that HFs are not provided with tools on time by implementing partners. Therefore, SIAPS suggested that they (rather than PMI-implementing partners) provide pharmaceutical management tools, especially stock cards, to HFs.
- Only 26% of people managing malaria cases have been trained in the recent malaria case management (MCM) guidelines. As a result, only 58% of malaria cases of those under age 5 are treated with AS/AQ. SIAPS recommends that PMI-implementing partners (IHP, PSI/ASF) and the NMCP intensify training on the recent MCM guidelines.
- AS/AQ is not available on a consistent basis. On the day of the visit, 6% of HFs and 17% of warehouses had no AS/AQ preparations in-stock. This was likely due to

logistical problems, i.e., transport of medicines from regional distribution centers (Centres de Distribution Regionals, CDRs) to HZs. SIAPS suggested that transportation of PMI commodities be done every quarter and independently from the transportation of other essential medicines so as to avoid delays.

- Only 48.3% of HFs have acceptable storage conditions. This confirms the real need to periodically make samples of drugs available for analysis to assure the quality of medicine available in HFs. SIAPS is planning to do that by the next quarter.

### *Constraints to progress*

There are two bottlenecks in the commodity supply chain in DRC. The first one is between CDRs and HZs and the second one between HZs and HF. When the pull system is not used properly by HZs and orders are not placed on time to ensure that commodities are included on the fixed-delivery calendar, commodities do not get delivered to HFs. Combining pull and push systems for PMI commodities is likely to resolve this problem.

To ensure that commodities are delivered on time from HZs to HFs, SIAPS recommended that implementing partners make a USD 15 allocation to cover transport costs for each health center staff who comes to pick up commodities at the HZ. This policy is already in place in HZs supported by the IHP project.

Another major challenge is to include data on stock availability at the facility level in the PPMRm. The current situation is that only data for stock available at warehouses (CDRs) are included in the PPMRm; this means that the PPMRm reports do not provide the real situation for malaria commodities on the ground. One of the factors contributing to that is the lack of a functional LMIS in the country. On the other hand, the PPMRm does not take into consideration data from other PNLP partners such as Global Fund, DFID, WB, etc. As a result, the PPMRm does not reflect the country situation. This unfortunate circumstance is due to the fact that the PMI' stakeholders coordination meeting (to harmonize all data for different stakeholders) took place many days after PMI's request for proposals/quotes due date.

The major challenge in the PPMRc is to get consumption data for contraceptives from UNFPA and PSI. PROSANI had consumption data for which the accuracy was not verified. Now, SIAPS is supporting PROSANI in the verification of the contraceptives data.

### *Partner contributions*

IHP and PMI-Expansion participated in the EUV process

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

In DRC, 649 MDR-TB cases have received treatment since early 2013. Out of the 649 cases, 40 developed severe side effects (irreversible deafness) due to prolonged use of aminoglycoside anti-TB drugs (such as kanamycin). As a result, at the beginning of this

year, USAID supported a pilot project to use second-line TB medicines for 9 months as a replacement for the 20-month treatment currently in use. Because of the WHO recommendations on the imperative need for post-marketing surveillance for all new drugs, USAID recommended that SIAPS support the national TB control program (PNLT) to implement an active PV program for all patients on second-line TB medicines. Two cohorts/groups of patients are being followed—a treatment group (taking the 9-month treatment regimen) and a control group (taking the 20-month treatment regimen). With technical and financial support from SIAPS, these groups are closely followed and monitored for possible ADRs and side effects by a joint PNLT and Clinical Pharmacology Unit of Kinshasa University team.

From early May to date, a cohort of 152 patients (on the 9-month treatment) is now being followed on a monthly basis according to their assigned appointment date. The most affected population consists of the inmates from Makala prison and the military prison at Ndolo.

Considering the escalating number of MDR-TB cases in DRC (around 60%) with the majority in Kinshasa and with the emergence of XDR-TB cases, SIAPS is piloting for the first time in DRC an active PV effort to constitute a database that will track the use of second-line TB medicines. Before launching the PV database, SIAPS provided technical and financial support for to build capacity by organizing trainings on PV for health care workers; 26 health workers from the PNLT were trained (15 women and 11 men). They are actively monitoring MDR patients under the supervision of six specialists (three from the teaching hospital of the University of Kinshasa and three from the Provincial TB Program of Kinshasa).

After the training, the collection of data on ADRs started through regular visits to all the HFs selected using the tools (i.e., notification form) developed by the National Center for Pharmacovigilance for this purpose. This activity was initially planned for six months but has been extended until the end of SIAPS fiscal year 3. Thus far 300 adverse events were noted; 22 new MDR cases were enrolled, of which 21 were allocated to the 9-month cohort and 1 to the 20-month cohort.

## **Dominican Republic**

**Goal: Increase the availability of critical medicines and diagnostic materials including the ones used for HIV and AIDS and tuberculosis by implementing the different elements of the Unified Pharmaceutical System (SUGEMI) system and building the capacity of national counterparts to effectively and efficiently operate the integrated system**

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

Virtually all health facilities are using the SUGEMI pharmaceutical management information system (PMIS) to periodically report on availability and consumption of medicine. Reporting rate by hospitals, which was recently incorporated into SUGEMI, is still low. This information was used for the programming exercise of the 2015 procurement of medicines and supplies. SIAPS supported the elaboration of the technical analysis, and lobbying activities to advocate for an increase in the public budget for the procurement of medicines and supplies.

### ***Objective 1: Pharmaceutical Sector Governance Strengthened***

During this quarter, SIAPS supported training personnel in the implementation of standard operating procedures for the integration of public hospitals to SUGEMI. SIAPS supported the revision of the high cost medicines list to be included in the programming exercise for 2015 procurement. Resulting savings will be approximately 21 million US dollars. SIAPS also supported the elaboration of a national catalog for procurement of laboratory reagents and materials. This input was used for the estimation of needs for the 2015 consolidated procurement (Santo Domingo, June 3-6, 2014). For next quarter, SIAPS will draft a technical report with a complete analysis (including 2014-2015) on the financial gap for the procurement of medicines and supplies in the public sector.

### ***Constraints to Progress***

The essential medicines list was not finalized during this quarter as scheduled. A workshop for the revision of the current medicines list was rescheduled for August 2014.

### ***Partner Contributions***

PAHO has supported international consultancies and workshops for the revision of the national medicines list.

### ***Objective 2: Capacity for Pharmaceutical Supply Management and Services Increased and Enhanced***

During this quarter SIAPS supported the elaboration of a technical report summarizing the findings of the second supervision round of health facilities. The percentage of primary health facilities regularly reporting to the SUGEMI pharmaceutical information system continues to increase. The gap to be bridged is now in third-level facilities (hospitals). The SUGEMI quarterly information bulleting was widely disseminated on May 2014, and it is also available on the

Ministry of Health (MoH) website. For next quarter, SIAPS will support the review of the SUGEMI pharmaceutical management indicators to include specific ones for pharmaceutical management in hospitals (recently incorporated). Based on these indicators, SIAPS will also support the elaboration of a web-based dashboard for the strategic analysis of information.

*Constraints to progress*

MoH hospitals don't have a standardized tool for medicine requisition and to report availability and consumption. The coordination with the MoH information unit to solve this problem continues to be slow and problematic.

**Objective 3: Improved Allocation of Resources for Procurement and Pharmaceutical Management Operations**

The SUGEMI PMIS has documented increasing stock-outs, largely due to insufficient financing to cover the programmed requirements. SIAPS finished collecting information and prepared a draft report analyzing the financial gaps for the procurement of medicines and medical supplies. For the next quarter: The final report will be published and disseminated by the end of next quarter. It will include the estimation for the procurement in 2015.

**Objective 5: Pharmaceutical Services Improved to Achieve Desired Health Outcomes**

No new disease control programs were incorporated into SUGEMI, but additional components of these programs were consolidated. During this quarter the integration of MoH hospitals to SUGEMI was rolled out through a cascade training of all the personnel. A proposal to optimize the laboratory sample transportations was presented and discussed with counterparts. During the next quarter the laboratory network will be reorganized as a result of this proposal. The catalog of laboratory reagents and materials was completed, and was used during this quarter for estimating the needs for the 2015 consolidated procurement.

During this quarter, focused technical assistance was provided to the "0-cero" Regional Health Service. This region concentrates most of the MoH high level hospitals and facilities.

*Constraints to Progress*

Disease control program directors (maternal and child health, malaria) are reluctant to integrate the pharmaceutical supply systems. Because of competing priorities, the full integration of these programs is scheduled for next year.

## Ethiopia

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

### Overall Quarterly Progress

During this quarter, SIAPS/Ethiopia has made satisfactory progress in meeting the objectives of its intermediate results (IRs) with the active participation of government stakeholders including the Federal Ministry of Health (FMoH), Pharmaceutical Fund and Supply Agency (PFSA), Ethiopian Food, Medicines, and Health Care Administration Authority (EFMHACA), regional health bureaus (RHBs), health facilities, and other nongovernment partners.

In Southern Nations, Nationalities and Peoples region (SNNPR), Arba Minch Hospital started APTS implementation; this brings the number of health facilities that started APTS in FY14 to 9 (75% of the annual plan). So far, a total of 23 health facilities started implementation of APTS in 4 regional states and 2 city administrations.

USAID/SIAPS, in collaboration with the RHBs, continued its support to the existing Auditable Pharmaceuticals Transactions and Services (APTS) sites to strengthen their financial and medicines management systems. In Tigray region, for example, the interventions brought about significant changes in the way medicine sales and pharmacy services are managed. APTS implementing health facilities (St. Marry and Mekele Hospitals) are able to generate monthly reports on medicine sales by category (cash, free, credit, etc.) and service (prescribing indicators, affordability, workload, etc.). The information generated on medicine transactions and services enabled managers and experts to make informed decisions. For example, manpower deployment was increased from 12 to 21 and the dispensary layout was re-arranged. Other aspects that improved because of better management include reduced wastage well below the target of the Ethiopian health strategy development plan (2%) and more affordable prices (on average 39.00 birr) for patients. Assessments of hospitals on their performance in implementing Ethiopian hospital reform guideline indicate that most of the hospitals that implemented APTS achieved more than 90% of what is expected from the standards indicated in the pharmacy chapter. This indicates that APTS is an important performance improvement tool, apart from its effectiveness in instituting transparency and accountability in the way medicines and pharmacy services are managed at health facilities.

With technical assistance from SIAPS, two hospitals in East Amhara region (Hidar 11 and Ataye Hospitals) have developed a draft policy document on prevention and containment of AMR. This type of document is the first of its kind at the facility level. Boru Meda Hospital is also finalizing a similar document that was developed on the basis of the findings of a prescription review conducted by the hospital.

Important progress has been made in the promotion of RMU and the prevention and containment of AMR. In this quarter, 10 health facilities were assisted in assessing their medicines use practices in general and identifying prescribing problems in particular. The prescription review study conducted at St. Mary and Wukro Hospitals in Tigray region showed that well over 90%

of the interviewed patients expressed their satisfaction with the pharmacy services. Nearly all of the prescribed medicines were from their drug list, and over 95% of the prescribed medicines were actually dispensed in the hospital. This is a good indicator of excellent progress in improving medicines availability in the hospitals. Patient knowledge on medicines dispensed to them was also reported to be high.

To raise public awareness on medicines use, one round of training for 34 media personnel in Amhara was conducted to help them reach, sensitize, educate, and empower the public on RMU and prevent and contain AMR. This was achieved with the collaborative efforts of USAID/SIAPS and its stakeholders, especially FMHACA. At the end of the training, participants developed plan of actions.

In this quarter, better progress has also been registered in meeting targets set for objective 3, including providing PMIS tools in all target health facilities, collecting quarterly continues results monitoring systems (CRMSs) reports from sentinel antimalarial drug management (AMDM) sites, and supporting real-time dispensing at EDT sites.

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

During this quarter, USAID/SIAPS supported the Government of Ethiopia in institutionalizing APTS at the federal and regional levels by developing and enacting regulations and/or directives. The Addis Ababa draft regulation has been approved by the Justice Bureau and is ready for submission to the Cabinet for final approval. The federal directive was submitted to the Ministry of Finance and Economic Development for approval. In Oromia region, the legal framework drafted during the previous quarter has been reviewed and approved by the Oromia Regional Health Bureau (ORHB) board of management before submission to the Oromia Regional Cabinet for enactment. So, all activities planned during this quarter regarding the APTS in Oromia have been successfully accomplished. The next course of action will be supporting the implementation of APTS at selected hospitals, once enactment of the legal framework is accomplished.

To establish a transparent system for managing antimalarial drugs, support was provided to FMOH and PFSA in developing and implementing a national quantification guideline for antimalarial drugs and related commodities. Accordingly, a national antimalarial drug quantification workshop brought together participants from the RHBs, FMOH, PFSA, USAID/Ethiopia, and other partner organizations. At the end of the workshop, forecasting for antimalarial product requirements was conducted for the 2014 to 2017.

As part of automating the key regulatory functions of EFMHACA, SIAPS/Ethiopia was recently tasked by USAID to develop a database that manages product registration, licensing, and inspection. In this regard, a series of consultative meetings were held with EFMHACA and other stakeholders in the presence of SIAPS headquarters experts to obtain clarity on the scope of work and expectations. A quick assessment of EFMHACA's business flow was conducted, a project charter and implementation plan drafted (which is being reviewed), and recruitment/hiring of a regulatory system adviser is underway. In the meantime, SIAPS/Ethiopia is closely working with the team at EFMHACA to produce tools and documentation to initiate automation.

### *Partner contributions*

Both FMoH and PFSA have shown great interest in the activity and have taken a leading role in coordination as well as organizing the national antimalarial products quantification workshop.

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

In this quarter, SIAPS/Ethiopia planned to conduct activities such as clinical pharmacy in-service training for 20 pharmacists, supportive supervision visits to hospitals starting up clinical pharmacy services, development/revision of clinical pharmacy service documentation and reporting formats, writing a technical report on clinical pharmacy training, development of a pharmacist job description, organizing an advocacy workshop on clinical pharmacy service, and development of a mentoring guide.

In collaboration with the Ethiopian Pharmaceutical Association (EPA), 16 pharmacists from private pharmacies were trained during the quarter; 3 rounds of APTS trainings were effectively conducted in the East Amhara region. In the 3 rounds of trainings, 110 experts participated. The professional mix of the trainees included 8 CEOs, 44 pharmacy professionals, 17 accountants, 31 cashiers, 9 auditors, and 1 data manager. These participants were drawn from eight hospitals and the RHB. In addition, one training session on the SOP for pharmacy ART services was organized in collaboration with the Ethiopian Network for HIV/AIDS Treatment–Care and Support (ENHAT CS) for 27 dispensers.

In this quarter, a plan was devised to provide support to health facilities to conduct medicines use reviews so that they can internally audit their practices, develop appropriate interventions based on the findings, and implement them to improve use of medicines in their facilities. Accordingly, 10 health facilities (2 facilities in Tigray, 7 hospitals in Amhara, and 1 hospital in the Oromia region) were assisted to assess their medicines use practices, review the findings, and organize their data. Results of the review at St. Mary and Wukro Hospitals in the Tigray region, for example, showed that 91% and 94% of the interviewed patients were satisfied by pharmacy services, respectively. More than 98% of the prescribed medicines were from their drug list and 96.1% and 97% prescribed medicines were actually dispensed in the hospitals, respectively. This is a good indicator of the excellent progress in improving medicines availability at the hospitals. Patient knowledge on medicines dispensed to them was also reported to be high. On average, 95% of patients know the doses and frequency of administration of medicines they received from the facility.

Two hospitals in East Amhara region (Hidar 11 and Ataye Hospitals) have developed a draft policy document on prevention and containment of AMR. It is the first of its kind at the facility level. Boru Meda Hospital is also finalizing a similar document as part of implementation of an action plan following a prescription review.

Clinical pharmacy services were initiated at five hospitals in Tigray and one in Oromia (Dembidolo Hospital). The clinical pharmacists from the five hospitals in Tigray were able to

identify 223 drug therapy problems and provided interventions for 195 of them. Out of the 195 interventions proposed, 182 were accepted by prescribers, an acceptance rate of more than 93%.

To create awareness on pharmacovigilance among health providers, face-to-face discussions were carried out at seven health facilities in Addis Ababa, two health facilities in Tigray, one hospital in Amhara, and five hospitals in Oromia; 261 health providers participated in the discussions.

Drug Information Services (DIS) at four hospitals in Tigray region provided patient education in waiting areas where 3,287 patients received medicine use education.

### *Partner contributions*

- Experts at FMoH were fully committed to implementing APTS at federal and university hospitals and providing strong support to facilitate printing vouchers and follow-up activities with hospital CEOs
- PFSA staff collaborated strongly in most of the above clinical pharmacy activities
- EPA covered the costs of trainings to private pharmacies and developed MOU for collaboration between PFSA, EFMHACA, EPA, SIAPS, and private pharmacies to realize the model pharmacy initiative
- Clinton Foundation fully covered the cost of training on DTCs
- PFSA, EFMHACA, and SCMS made contributions toward the successful completion of the integrated joint supportive supervision—PFSA contributed checklists, materials, and technical support; EFMHACA contributed materials and technical support for the face-to-face discussions; SCMS contributed financial and technical support; and zonal health departments contributed technical support

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

In this quarter, patient uptake and cumulative regimen breakdown reports were collected from 658 and 388 ART sites, respectively. The reports were compiled and disseminated to all relevant stakeholders to support decision making related to quantification and program monitoring. SIAPS also provided specific report on regimen breakdown of pediatric ART patients categorized by age to inform decision making on switching of children from D4T-based regimens.

On-the-job training and mentoring on real-time dispensing were provided to 87 dispensers during the quarter. Similarly, 11 health facilities were supported to upgrade ADT to EDT, and external backup drives were distributed to ensure continuous data backup (to protect loss of data) and availability of quality data on patient uptake and regimen breakdown at health facilities; 69 electronic sites were also supported in hardware and software maintenance. The latest Kaspersky Antivirus with its update was installed in 38 ART pharmacies and 6 DIS units. The new regimen combination containing ATV/r was configured and age groups were adjusted in the database.

Under the antimalarial drugs management program, technical assistance and monthly reporting forms have been provided to four health facilities in the Borena Zone during this quarter to

improve decision making at health facilities and RHBs. As a result, monthly pharmacy activity reports on malaria and antimalarial drugs have been collected and aggregated for the CRMS report. In addition, the March 2014 EUV report was prepared and submitted to SIAPS HQ.

### *Constraints to progress*

- High turnover of trained staff at ART pharmacies leading to poor recording, documentation, and updating of patient-medication records including lost to follow-up, transfer outs, and deceased patients
- Frequent power interruption at some health facilities
- Computer failures due to infection by viruses and inappropriate handling of computers

To address these challenges, on-the-job trainings were provided to dispensers and the importance of recording and updating patient information and patient medication history was discussed and agreed by dispensers and hospital CEOs.

### *Partner contributions*

- The health facilities kept registration of malaria patients and antimalarial medicines dispensed and produced their monthly malaria related reports which were used in the preparation of the CRMS.
- ART pharmacies at health facilities providing ART services continually maintained manual and electronic records of ART clients and were able to generate reports and provide information upon request.

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

As part of implementing APTS, a baseline assessment was carried out at Arba Minch Hospital in SNNPR and revealed numerous problems in managing pharmacy services and medicine transactions. Some of these challenges include poor revenue collection from medicines sales; a very high rate of medicines expiry; disorganized workflow of pharmacy operations; dissatisfaction of patients with pharmacy services; poor availability of essential medicines; difficulty in auditing medicine-related transactions; and lack of adequate data on use of donated medicines. As a result, the RHBs prioritized this hospital to immediately implement APTS and requested that SIAPS/Ethiopia support this effort. As a result, APTS implementation began in the hospital during the last month of this quarter. This brings the total number of health facilities that implemented APTS in FY14 to 9 (75% of the annual plan). So far, a total 23 health facilities started implementation of APTS in 4 regional states and 2 city administrations.

In this quarter, a medicines budget utilization study (expenditure analysis on medicines) was conducted at three health facilities in the Tigray region, based on the principles of ABC value analysis and ABC/VEN reconciliation. The findings showed that the health facilities (St. Mary, Wukro, and Maereg Hospitals) procured more than 96% of items from their drug list; those items taking 70-80% of the medicines budget, which require stringent control, were identified. In addition, medicines in stock that are not appropriate for the health facility were identified and transferred to other health facilities where these medicines were demanded.

As part of our support on AMDM to ORHB, a stock transfer guideline for antimalarial drugs was drafted for implementation in the region. The draft guideline was reviewed in collaboration with ORHB for further enrichment. The next step will be to print copies of the guideline and share it with the health facilities and zonal and woreda/district health offices for implementation.

*Constraints to progress*

- Lack of pharmacy accountants at some hospitals makes recording and reporting financial transactions almost impossible.
- Shortage of manpower due to the pharmacy unit restructuring of the southern nations regional state.
- Difficulty in implementing APTS activities as a result of frequent staff turnover, lack of commitment, and need for training.

*Partner contributions*

- Head of the zonal health bureau, zonal finance office, the hospital CEO, chief clinical officers and finance departments actively participated during initiation of APTS at Arba Minch hospital and contributed significantly its successful implementation.
- Arba Minch hospital paid per diem for staffs of the hospital since many of them were working out of working hours in preparation for initiation of APTS.
- Oromia RHB actively led and participated in the review of the stock transfer guideline for antimalarial drugs

## Guinea

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

### Overall Quarterly Progress

During this quarter, as part of the strengthening of the pharmaceutical sector governance, SIAPS worked with the Direction Nationale de la Pharmacie et Laboratoires (DNPL) to effectively increase its capacity to regulate and manage pharmaceutical systems. Major achievements are the following:

- Validation of the National Pharmaceutical Policy (Politique Pharmaceutique Nationale)
- Validation of Plan Directeur Pharmaceutique Quinquennal, a five-year plan to implement the National Pharmaceutical Policy for 2014 to 2018

These two validated documents were used by MoH as regulatory references on the pharmaceutical sector in Guinea during the Etats Généraux de Santé, a national health review meeting that took place in Conakry, June 23-25, 2014.

SIAPS contributed to the acceleration of the revision of the convention between the Government of Guinea and the PCG (Central Medical Store) and provided financial support to organize a workshop chaired by the Minister of Health Counselor to review roles and responsibilities of the Government and PCG. Representatives from the Guinea Ministry of Finance and other key actors from MoH attended this workshop where it was agreed that the Government should provide public funds to PCG to procure medicines and other health commodities.

To build capacity of individuals and organizations on medicines supply chain, 114 health workers in charge of dispensing medicines were trained on best practices of pharmaceutical management as part of the medicines for all (médicaments pour tous) project.

Per PMI/Washington recommendation, SIAPS worked with PNLP and Catholic Relief Service (CRS), a Global Fund Principal Recipient, to expand technical assistance to Global Fund-funded districts to strengthen pharmaceutical management nationwide. SIAPS and CRS collaborated to conduct the following activities:

- Monthly reporting to PNLP using the same standardized LMIS tools
- EUVS nationwide in both USAID and Global Fund-supported health districts
- Quarterly review meetings on pharmaceutical management of malaria commodities under PNLP leadership,
- Integrated inventory management of malaria commodities
- Joint assessment of essential medicines supply chain in the country

In addition, SIAPS, (MSH's) LMG Project, CRS, and the Stop Palu Project collectively worked to provide PNLP with an integrated action plan to implement different activities including malaria commodities management.

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

Progress toward strengthening pharmaceutical sector governance was made through following achievements:

- Validation of the National Pharmaceutical Policy document and its Plan Directeur Pharmaceutique Quinquennal that highlights activities to be implemented from 2014 to 2018
- Revision of the convention that states the roles and responsibilities of the Government and the PCG (Central Medical Store) in medicines and health commodities procurement, storage, and distribution
- Training of PCG staff and production of the prequalification questionnaire on product/manufacturing sites

#### *Partner contributions*

WHO actively worked with SIAPS during the validation process of the National Pharmaceutical Policy document and its Plan Directeur Pharmaceutique Quinquennal. Workshops were attended by representatives from Guinea Government (MoH, Ministry of Professional Education, Ministry of Social Action), WHO, USAID and its Implementing partners (DELIVER, PSI, STOP PALU), SOLTHIS, National Customs Directorate, School of Pharmacy, National Center of Blood Transfusion (CNTS), Guinea Army Health Department, National Board of Pharmacists, National Physicians Board, National Medicines Quality Control Lab (LNCQM) and Private Pharmaceutical Sector.

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

As part of SIAPS/Guinea's efforts to enhance capacity of individuals and organizations in pharmaceutical management, the following activities were conducted:

- Training 114 health workers on pharmaceutical management
- Development of drafts of LMIS tools for integrated management of childhood illness (IMCI) in collaboration with MoH's IMCI Coordination Unit (drafts to be validated during next quarter)
- Gap analysis for malaria commodities in collaboration with PNLP

#### *Partner contributions*

Only MoH representatives from PNLP and the IMCI Coordination Unit collaborated to conduct these activities.

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

During this quarter, SIAPS provided support to MoH and partners to improve the availability of pharmaceutical management information needed for evidence-based decisions. The following activities were conducted:

- Quarterly review meetings on pharmaceutical management of malaria commodities in Conakry, Boke, and Labe
- Preparation of EUVS to be conducted nationwide during next quarter
- Development of PNLPS semester supervision plan

Additionally, SIAPS participated in a feedback workshop on the assessment of Guinea Health Management Information System (HMIS) that was conducted with USAID financial support.

*Partner contributions*

CRS actively participated in review meetings on pharmaceutical management of malaria commodities that were conducted nationwide for the first time, thus providing data on stock status and treated patients in both Global Fund and PMI-supported health districts.

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

During this quarter, SIAPS worked with CRS for an integrated effort to improve availability of health commodities through joint activities below:

- Distribution of malaria commodities to PMI-supported health districts
- Post-distribution supervision visits to Labe and Boke
- Quantification of malaria commodities for Global Fund-supported health districts
- Assessment of national medicines supply chain

*Partner contributions*

CRS actively participated in distribution of malaria commodities and subsequent supervision visits on pharmaceutical management that were conducted nationwide for the first time. This provided both Global Fund and PMI-supported health districts with an uninterrupted supply of malaria commodities from an integrated inventory management of the entire stock available within the country.

## Lesotho

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

In this quarter, SIAPS continued to engage the Ministry of Health (MoH) to establish the supply chain coordinating unit as stipulated in the 2013/14–2016/17 Supply Chain Management Strategic Plan. SIAPS provided support to the MoH and Jhpiego to ensure availability of lignocaine for the Voluntary Medical Male Circumcision winter campaign.

SIAPS has continued to work with the MoH to finalize the standard treatment guidelines/essential medicines list and a stakeholder validation meeting is planned for the next quarter.

SIAPS worked with the MoH and the Global Fund to fight AIDS, Tuberculosis and Malaria (Global Fund) Coordinating Unit to begin recruiting five MoH district logistics officers for the five districts that are not supported by SIAPS. SIAPS supports the districts of Berea, Botha-Bothe, Mafeteng, Maseru, and Mohale's Hoek.

SIAPS designed a Supply Chain Management Leadership Development Program for improving the availability of all health commodities in the health facilities in Lesotho and provided extensive training to health care workers and final year medical students.

SIAPS conducted supportive supervision visits for implementing RxSolution to 12 hospitals out of the 16 government and Christian Health Association of Lesotho hospitals where RxSolution is installed. The dispensing module was installed at two more hospitals bringing the number of hospitals that have both the inventory and the dispensing modules of RxSolution to 11.

SIAPS worked with the MoH laboratory directorate to develop job aids for the hospital level laboratory commodity manual. SIAPS mentored 24 health care workers in the management of laboratory commodities. This led to facilities consistently completing and submitting the monthly logistics management information systems (LMIS) reports, the reporting rate for this quarter is 95%, which exceeded the expected 70% target. However, 14% of the districts experienced a stock-out of HIV rapid testing kits. This occurred because monthly reports making requisitions for the commodities were not submitted despite the commodity being available at the National Drug Supply Organization (NDSO) as well as failure to adhere to recommended stock levels of three months. SIAPS worked with the MoH and the affected facilities to resolve underlying challenges. Further, SIAPS continued to provide support to compile monthly stock status reports for ARVs and HIV Rapid Test Kits and having monthly supply planning meetings with the MoH and the NDSO.

SIAPS conducted 113 supportive supervision and mentoring visits to all the 104 facilities in the SIAPS supported districts. Additionally, SIAPS mentored 119 health care workers (113 females and 6 males) in inventory management. As a result of SIAPS support, there was 88% availability of tracer medicines (target is 90%), 92% of health facilities that keep complete

patient information as per national standards (target is 90%); and 97% of SIAPS-supported sites where ARVs are stocked according to plan, that is, within the two months minimum and three months maximum stock levels. All 104 facilities in the SIAPS-supported districts have not experienced any stock-outs of antiretrovirals (ARVs), opportunistic infections (OIs) medicines, tuberculosis (TB) medicines, and contraceptives of more than 28 days in the past 6 months. The supplier could not manufacture the pediatric zidovudine/lamivudine 60 mg/30 mg formulation during the first two months of this quarter. Therefore, SIAPS worked with the MoH and the District health management teams (DHMT) to redistribute the product to avert a stock-out of the facility level.

There are currently 50,219 adults and 2,885 children receiving ARVs at the 104 SIAPS-supported sites.

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

SIAPS designed Supply Chain Management Leadership Development Program for improving the availability of all health commodities in the health facilities in Lesotho. SIAPS subsequently delivered one national training and two district-based trainings to pharmacy and nursing personnel in the country, making a total of 81 health care workers trained during this quarter. The participants included 3 MoH Pharmaceutical Directorate staff members, 8 district pharmaceutical officers, and 12 hospital pharmacy managers at the national level; 42 nurses and pharmacy personnel based at the health centers and the District Health Management Team office in the Maseru district; and 16 nurses and pharmacy personnel at based the health centers and the DHMT office in the Mafeteng district.

The training will enable the health care workers to better manage their supply chain challenges by working effectively in teams at the health facilities. The health facilities will work in clusters to promote decentralizing information for pharmaceutical management decision making. The clusters developed action plans to improve the availability of all health commodities at the health facilities. SIAPS will further work with the MoH and the DHMTs to coach and supervise the clusters and health centers.

SIAPS delivered a pre-service medicine supply management training to 28 (16 pharmacy students and 6 nurse clinicians) National Health Training College final-year students.

Additionally, 77 final year pharmacy students (54 National University of Lesotho students and 23 National Health Training College students) sat for exams in May 2014 and are expected to graduate in September 2014.

***Constraints to Progress***

The formation of the supply chain coordinating unit is delayed as it is dependent on the MoH's three directorates agreeing on the composition and structure of the unit. SIAPS is working the MoH to resolve the issue so the coordinating unit can be set up, which will meet the Global Fund's condition.

Finalizing the standard treatment guidelines/essential medicines list is delayed because a group of senior consultants requested that MoH revisit and revise some chapters since some protocols changed as a result of the prolonged development of the document, which began in 2012.

Six trainings were initially planned for each of the SIAPS supported districts (Maseru, Mafeteng, Botha-Bothe, Mohale's Hoek, and Berea) and one for the national level. Only three were delivered in this quarter as the other three were cancelled by the DHMTs as they are implementing the newly introduced health systems reforms in their districts.

### *Partner Contributions*

SIAPS collaborated with the MoH and the Global Fund Coordinating Unit on recruiting district logistics officers.

### **Objective 2: Utilization of Information for Decision Making Increased across all Levels of the Lesotho Health System**

During this quarter, SIAPS provided supportive supervision for implementing RxSolution in 12 hospitals. RxSolution has been installed at 16 out of the 17 government and Christian Health Association of Lesotho hospitals. The dispensing module was installed at two hospitals (Quthing and Scott), bringing the number of hospitals that have both the inventory and the dispensing modules of RxSolution to 11 out of 16 hospitals countrywide.

Currently, RxSolution is still not used at four hospitals. The MoH is piloting an electronic medical records system at Motebang and St. Joseph's hospitals. Mafeteng still experiences power outages while Berea staff shortage has not yet been resolved. SIAPS is advocating to the MoH to have these issues resolved.

SIAPS delivered a training workshop to 15 health care workers on RxSolution and mHealth. These health care workers from the 10 DHMTs will pioneer the implementation of mhealth in their various districts during the next quarter.

In this quarter, SIAPS worked with the MoH laboratory directorate to develop job aids for the hospital level laboratory commodity manual. SIAPS is working with the MoH to pilot the health center level laboratory commodity management procedure manual in the next quarter.

SIAPS mentored 24 health care workers in the management of laboratory commodities (8 from the laboratory and 15 from the health centers). This included proper storage of lab commodities, maximum/minimum stock level, compiling laboratory LMIS reports, and monthly requisitions. The Laboratory Logistics Coordinator who is located at the MoH was also mentored on compiling monthly national stock status report. This led to a 95% reporting rate this quarter for facilities consistently completing and submitting the monthly LMIS reports.

Fourteen percent of the districts experienced a stock-out of HIV rapid testing kits. This was because monthly reports were not submitted and requisitions were not made for the commodities

despite the commodity being available at the NDSO. Moreover, the facilities were not keeping the recommended three months' stock levels. SIAPS worked with the MoH and the affected facilities to resolve this issue and all the facilities are now submitting monthly reports, making requisitions, and keeping three months maximum stock levels of the HIV rapid testing kits.

### *Constraints to Progress*

The hospital level laboratory commodity manual job aids are still pending approval by the MoH Laboratory Services Quality Assurance Unit. SIAPS is working with the MoH laboratory directorate to facilitate this process.

### **Objective 3: Pharmaceutical Services Improved to Achieve Desired Health outcomes**

In this quarter, SIAPS continued to provide support to improve the availability of ARVs and HIV rapid test kits by having monthly supply planning meetings with the MoH and NDSO. Stock status reports are compiled on a monthly basis and they include ARVs, OIs medicines, TB medicines, family planning commodities, isoniazid preventive treatment, HIV rapid test kits, and other laboratories commodities.

SIAPS conducted 113 supportive supervision and mentoring visits to all the 104 facilities in the SIAPS supported districts. Additionally, SIAPS mentored 119 health care workers (113 females and 6 males) in inventory management. The overall SIAPS support to these districts led to an 88% availability of tracer medicines (target is 90%); 92% of health facilities that keep complete patient information as per national standards (target is 90%); and a 97% of SIAPS-supported sites where ARVs are stocked according to plan, that is, within the 2 months minimum and 3 months maximum stock levels.

Also, in the last six months, there were no stock-outs of more than 28 days of ARVs, OIs medicines, TB medicines, and contraceptives experienced in the 104 facilities in the SIAPS-supported districts. The supplier could not manufacture the pediatric zidovudine/lamivudine 60 mg/30 mg formulation during the first two months of this quarter. Therefore, SIAPS worked with the MoH and the District health management teams to redistribute the product to avert a stock-out of the facility level. As a result, there were no patients that were turned away without ARVs at the facility level

Currently, 53,104 individuals (50,219 adults and 2,885 children) are receiving ARVs at the 104 SIAPS supported sites; all of which also have the capacity to perform HIV tests using HIV rapid test kits.

### *Constraints to Progress*

There is still a stock-out of Plumpy'Nut™ because of a procurement logistical challenge that the MoH is facing. SIAPS is working with the MoH and other implementing partners to have this resolved.

*Partner Contributions*

SIAPS collaborated with the Elizabeth Glazier Pediatric Foundation to redistribute the pediatric zidovudine/lamivudine 60 mg/30 mg formulation.

## **Mali**

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

### ***Overall Quarterly Progress***

During this quarter, SIAPS/Mali continued to support MoH and its stakeholders to strengthen pharmaceutical governance, build the capacity of individuals and institutions in pharmaceutical management, and make logistics data available for decision making.

To improve pharmaceutical governance, SIAPS supported the national malaria control program (NMCP), the central medical store (called the Pharmacie populaire du Mali [PPM]), and the national drug regulatory authority (called the Direction de la Pharmacie et du Medicament [DPM]) to produce and disseminate SOPs and LMIS tools to be used at the health facility level; to elaborate the distribution plan for malaria commodities; and to develop the PPM strategic plan. Two additional quarterly meetings of the National Technical Committee (NTC) that coordinates and monitors issues related to health commodities were organized. To date, four meetings were organized out of four planned.

Medicines quantification results were validated for malaria and FP commodities during these meetings. In addition to MoH representatives, USAID implementing partners, and UN agencies, six civil society organizations actively participated in these meetings.

To increase the capacity of individuals and organizations in pharmaceutical management, five training workshops were held; 109 people (including 22 women) were trained, increasing the total number of those trained from 185 to 294 (annual target is 446). As a result, the percentage of trainees who successfully completed the post-training action plan to improve pharmaceutical management in their respective health facilities increased from 14% (18/125) to 25% (74/294).

Data on malaria medicines stock status and patients were made available for decision making through PPMRm, EUVS, and regional quarterly review meetings. The PPMRm was completed and submitted on time to USAID/Washington along with useful recommendations; the EUV report was disseminated nationwide through a one-day workshop attended by regional representatives on May 15, 2014.

To accelerate LMIS roll-out in USAID-supported regions, SIAPS/Mali provided technical assistance to five Direction Regionale de la Santé (DRS) staff to analyze and validate medicines logistics data.

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

During this quarter, SIAPS/Mali provided assistance to the DPM to organize two meetings of the NTC to coordinate and monitor health commodities (malaria, MCH, HIV, TB, and FP), to conduct the quantification of malaria commodities, and to disseminate LMIS SOPs and tools (Compte-rendu de Gestion de Stock [CRGS], stocks cards) for the management of key

commodities (malaria, MCH, FP). Specific technical assistance was provided to the PPM to develop their five-year strategic plan. These activities are intended to improve supply chain coordination and transparency and to keep key pharmaceutical system actors more accountable.

In April 2014, during an NTC meeting chaired by the MoH technical advisor in charge of medicines, a quantification process for malaria commodities and results of FP quantification exercise were presented and discussed. In June 2014, the committee validated the medicines forecasting (based on the morbidity method) and the supply plans for FP and malaria commodities.

SIAPS technically supported the NMCP and PSI (Global Fund Principal Recipient for malaria) to develop distribution plans for malaria commodities for the regional and district levels to ensure that the quantities allocated are adequate and that they follow transparent assumptions (logistic data and forecasted consumption). Distribution plans were developed for RDTs available at the PPM and for ACTs to be delivered early in July by the Global Fund/PSI and USAID/PMI.

With the aim of improving medicines policies, legislation, regulations, norms, and standards, SIAPS supported production and dissemination of 850 LMIS SOPs, 1756 stock cards, and 872 copies of CRGS. These documents were disseminated during LMIS training at the health-facility level in Bamako and four regions (Segou, Kayes, Mopti, and Sikasso). Production and provision of pharmaceutical management tools to health facilities will enable managers to better manage and report on commodities stock status and other logistics data for evidence-based decision making.

SIAPS contributed to transparent and accountable pharmaceutical management systems by reviewing the PPM business process, especially the following activities:

- PPM situational analysis (diagnosis) of the current situation – operating procedures, practices, business/financial situation, and the overall supply chain environment (suppliers, clients, and governance)
- Development of a strategic plan on the basis of the situational analysis findings and analysis of available options to improve PPM and on priorities regarding health commodities availability and accessibility

#### *Constraints to progress*

- Collaboration between partners is a major challenge
- Some partners, such as UNICEF and World Vision, were unable to provide information relating to their orders to be included in the malaria commodities supply plan

#### *Partner contributions*

- Many partners participated to the NTC meeting for supply chain coordination that took place in April and June 2014; the meeting was chaired by the MoH technical advisor and conducted by the DPM; attendees included, among others, PPM, DNS/PNLT, NMCP, CSLS/MSHP,

PSI, DNS/DSR, LNS, USAID, UNDP, and HCNLS

- Participants from DPM, LNS, ANEH, CRS, PSI, DNS, UNDP, and USAID contributed to the malaria commodities quantification
- Participants from DRS/Koulikoro, DFM, CPS/santé, DNS PSI, UG-FM/PNUD, ESTER AID, FENASCOM, Gao, Mopti, PPM, DPM, PNLP, CNOP, and PPM contributed to the elaboration of PPM strategic plan

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

To build the capacity of warehouse and health information managers in pharmaceutical supply management, SIAPS/Mali supported the DRS in conducting five training sessions and one coaching visit on the new LMIS adopted in the country. Support was also given to train 10 members of the Malaria TWG in Quantimed (for forecasting) and Pipeline software (for supply planning). Demographic and consumption methods were used for the forecasting and supply plan developed for 2014-2018. The training and coaching were held in the following districts:

- Koro, May 26-30 (Mopti region)
- Selingue, May 26-30 (Sikasso region)
- Nioro, May 16-June 6 (Kayes region)
- Bamako district, June 2014

These trainings focused on warehouse management, storage, stocks cards, and logistic reporting tools, requisition forms, and how to calculate commodities needed per new LMIS SOPs.

As of June 1, 2014, 238 users (including pharmacists, district warehouse managers, and health information managers) were trained in six regions (Kayes, Koulikoro, Sikasso, Segou, Mopti, and Bamako district).

The PPM is in the process of developing and implementing a quality process (ISO standards). As stated in Objective 1, SIAPS assisted PPM to revise their strategic plan including the business development process. SIAPS strengthened the technical capacity of the PPM quality assurance manager to facilitate understanding and implementation of the quality process. With SIAPS financial support, the PPM quality assurance officer attended a three-week training workshop organized by the Centrale Humanitaire Medico-Pharmaceutique (CHMP) in France in May-June 2014. An action plan was developed and should be implemented to improve PPM operations.

**Constraints to progress**

- Availability of trainers at the regional level
- Implementation of individual post-training action plans
- Turnover of trained warehouse managers

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

SIAPS worked closely with the DPM, PPM, and NMCP to produce the quarterly PPMRm with recommendations for the supply and distribution of malaria and FP commodities . SIAPS subsequently assisted these organizations with implementation.

On May 15th, 2014, SIAPS assisted the NMCP to disseminate EUV results on malaria supply chain and case management (conducted in February 2014) and recommendations at the central level through a one-day workshop. This workshop was chaired by a MoH representative and attended by representatives of the DRS, malaria focal persons, and partners involved in malaria supply chain and case management. The findings of the EUV surveys were presented, discussed, and corrective actions proposed. One of the key decisions taken during this meeting was to provide RDTs free of charge to everyone. In the past, RDTs were free only for pregnant women and children under 5. Other patients with fever had to pay for RDTs. The collected consumption data for RDTs did not reflect actual needs because of the financial accessibility issue. If RDTs are free for all patients, it is expected that RDT use will align with malaria standard treatment guidelines and their consumption will increase.

SIAPS assisted the DRS to organize quarterly review meetings to analyze and validate logistic data on medicines and other health commodities management in four regions (Mopti, Sikasso, Segou, and Bamako). These meetings allowed stakeholders to discuss data reports from the district level to the regions, in terms of quality and reporting rate, key findings, and other issues identified during coaching visits. Major supply chain bottlenecks and problems were presented and discussed with all stakeholders, and recommendations and corrective actions were proposed.

*Constraints to progress*

- Poor capacity of actors at the regional level to aggregate and analyze logistic data
- Unable to submit the draft PPMRc report because the DPM did not validate it

## **Mozambique**

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

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

This quarter, with SIAPS support, the National Essential medicines List (NEML) committee continues to make progress in reviewing and updating the NEML. The technical subcommittees were nominated and reviewing the list started. The committee secretariat arranged and held more than seven meetings with the technical committees. Additional meetings are being planned.

However, SIAPS was not able to make much progress toward meeting the target of reviewing and improving medicine pricing. This was in part due to no approval or official acceptance of the activity concept notes and lack of a focal person in charge of the pricing system.

During the past quarter, SIAPS continued working with the Pharmacy Department (PD) focal person for registration of essential medical devices to finalize the registration guidelines and related standard operating procedures. These documents were not finalized as the PD registration team is overwhelmed with the number of applications for registration, which delays the process of systems improvements.

### ***Objective 1. Governance in the Pharmaceutical Sector Strengthened***

#### ***Quarterly Progress***

During the ending quarter, SIAPS finalized all needed references for the revision of the NEML) and carried out the first general meeting with all the members of the NEML Committee and the key Ministry of Health (MoH) staff members to formally present the approved Terms of Reference for the Committee and to discuss and define the work methodology for this activity. WHO marked its participation by presenting the standard procedures for the development of this list and the Committee secretariat presented the proposed work plan and the chronology of the activities for the development of the NEML. Working directly with the NEML committee president, Dr. Otilia Neves, SIAPS assisted with and participated in eight meetings held with the departments of Cardiology, Hematology, Internal Medicine, Pneumology, Oncology, Endocrinology, Ophthalmology, Neurology, and Clinical Nutrition. During these meetings the material for the selection of the medicines was distributed as well as a declaration of exemption of interest form for committee members to sign. The next step will be to continue the meetings with other groups, collect the selection lists from the previous groups, and compile for analysis.

A newly appointed and trained pharmaceutical department PD staff member who was appointed and trained in the last two quarters was transferred outside the department. The appointment of a replacement person has been pending since January 2014, and therefore the work is on hold until a new focal person is appointed.

### *Constraints to Progress*

The main constraint to the process of development of the NEML is the coordination of the meetings with the availability of the doctors.

### **Objective 2. Use of Strategic Information for Decision Making Increased**

#### *Quarterly Progress*

SIAPS Mozambique technical assistance program seeks to increase using strategic information for decision making by installing a computerized system for the registration of pharmaceuticals.

During this reporting period, SIAPS began customizing PharmaDex for Mozambique beginning in April 2014. In the next period, a pilot version will be made available and the PD staff will be trained in utilizing this program.

### **Objective 3: Financing Strategies and Mechanisms Strengthened to Improve Access to Medicines**

#### *Quarterly Progress*

SIAPS Mozambique seeks to strengthen pharmaceutical financing strategies and mechanisms in Mozambique by enforcing the pharmaceutical price control system and to build staff capacity to properly control and enforce the system within the current pricing laws. This was proposed to the Ministry of Health by SIAPS in July 2013, when an assessment was conducted and a roadmap was translated and presented to the head of PD and the management team.

During this quarter, no progress was made towards adoption of the proposed new pricing systems and no decision was made by the PD to initiate this activity.

### *Constraints to Progress*

Despite continued discussions with the PD and several attempts by the CPD to elaborate upon the details of the proposed medicine pricing system and the recommended action plan, no progress was made this quarter. This activity delay was raised with USAID Mozambique and the PD director.

### **Objective 4: Pharmaceutical Services to Achieve Desired Health Outcomes Improved**

#### *Quarterly Progress*

During the reporting period, SIAPS Mozambique continued to assist the Department of Hospital Pharmacy on improving the functions of the established Drug and Therapeutic Committee (DTC) pilots at the central level and for their replication to the provincial level. In addition, SIAPS continued supporting the dissemination of the pharmacovigilance (PV)

training at the provinces as well as beginning the review and further development of standard treatment protocols.

SIAPS continued supporting the pilot DTCs in two hospitals in Maputo City, as well as establishing these committees at the province level. Five meetings were held by the pilot committees to review the Monthly Medicines Requests to assure the availability of medicines and the approval of DTC work plans.

To accelerate communications with the pilot DTCs, SIAPS supplied each of them with a desktop computer and a printer. This also helped speed up the dissemination of information between the members of the committees. SIAPS also supplied the pilot hospitals with copies of nine of the existing standard treatment guidelines (STGs) for each service of the hospital to assist prescribers with rational prescribing and use of medicines.

At the provincial level, three more committees were established in the provinces of Manica, Zambézia, and Tete—and all of the committee members were trained in PV reporting.

Additionally, SIAPS Mozambique identified an opportunity to enrich the DTC work that SIAPS is doing with the pilot hospitals by updating the DTCs pharmacists on pharmaceutical care. This was accomplished by collaborating with the Association of Pharmacists of Mozambique at the First Pharmaceutical Care Seminar in Maputo. Two Portuguese consultants also participated in the seminar, which took place June 3–4.

SIAPS also continued expanding the PV training to the province level, with three more provinces receiving training. They were—

- Manica Province
  - Chimoio Provincial Hospital—39 health professionals trained
  - Eduardo Mondlane Health Center—1 health professional trained
- Zambézia Province
  - Quelimane Provincial Hospital—28 health professionals trained
  - 24 de Julho Health Center—13 health professionals trained
  - Cualana Health Center—17 health professionals trained
  - Nicuadala Health Center—9 health professionals trained
- Tete Province
  - Tete Provincial Hospital—13 health professionals trained
  - Songo Rural Hospital—1 health professional trained

Although reporting and collecting of ADR reports between the district and provincial level have not proceeded efficiently, as of quarter 3, 256 reports were received and 127 were answered.

Likewise, SIAPS Mozambique continued collaborating with MoH National Directorate of Medical Care (DNAM) and working closely with the Department of Hospital Pharmacy to identify the priority standard treatment guidelines to be developed or reviewed. The

appointed Committee has identified that priority to be internal medicine protocols. This decision allowed the SIAPS team to acknowledge the existence of additional STGs specific for internal medicine. An internal medicine subcommittee was appointed to review the mentioned STGs, but has not yet been officially approved.

On June 24, 2014, the first Internal Medicine Treatment Protocol meeting was held at DNAM. The draft of the STGs was distributed and the methodology explained to the team. Each member of the team is going to work with their team of specialists to review the selected protocols and send the comments to the secretariat team of SIAPS and DFH's Department of Clinical Programs) in August 2014. A compilation of the comments will be done and discussed at the next meeting.

### *Constraints to Progress*

During this quarter, progress was made with some previous constraints, but others have appeared.

- Lack of staff and heavy workloads have hindered efforts by the MoH Section PV to accomplish their activities
- Despite the availability of the ADRs Notification Form (Yellow Form), health professionals at all levels are quite resistant to giving more attention to this subject and prepare and submit reports. An additional session to explain the importance of reporting the ADRs and the consequences of non-reporting was carried out and all the health professionals trained.

### *Partner Contributions*

- The DFH have lost one pharmacist but hired two additional pharmacists. At the moment, there are four pharmacy professionals.
- The Secretariat of the Department of Clinical Programs has given some support to the STG review process.

## **Namibia**

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

### ***Overall Quarterly Progress***

SIAPS supported the Namibia Medicines Regulatory Council (NMRC) to train 42 healthcare personnel from public and private institutions to increase the pool of experts for evaluating dossiers, improve registration of medicines including ARVs and monitor medicine quality. The newly trained experts will help NMRC clear the backlog of over 700 unevaluated medicines dossiers.

SIAPS supported two local institutions, the National Health Training Centre [NHTC] that trains pharmacy assistants (PAs) and the University of Namibia (UNAM) School of Pharmacy (SoP) that trains pharmacists. In June 2014, NHTC graduated 21 PAs, bringing the cumulative number of PAs graduated with SIAPS support to 74 against a target of 75. Graduating PAs contribute to increasing the number of skilled personnel needed to provide HIV treatment services in Namibia. As of March 2014, 91% of PA posts in Namibia's public hospitals were filled, compared to 86% in 2013. SIAPS supported UNAM/SoP to develop pre-service pharmaceutical supplies management, RMU, and pharmacoconomics and PV modules, bringing the cumulative number of modules developed to five against the FY14 quarter 3 target of three.

SIAPS supported MoHSS to finalize and disseminate the annual pharmaceutical support supervision visits (SSVs) report for 2014. According to the SSV report, 52% of 29 therapeutic committees held at least two of three recommended meetings; 80% of public health hospitals had certified pharmacy personnel (quarter 3 target is 61%); 59% of 34 hospitals had a copy of the MoHSS Pharmaceutical Management Information System (PMIS) feedback report (quarter 3 target is 100% of 35 hospitals); and 62% of stock records corresponded with physical counts for a set of indicator drugs in the MoHSS hospitals. SIAPS supported the National Medicines Policy Coordination (NMPC) sub-division to compile summaries for discussion with MoHSS senior management to support implementation of the SSV recommendations and improve pharmaceutical service delivery for HIV and other conditions.

With SIAPS technical assistance, MoHSS Division Pharmaceutical Services (Div:PhSs) rolled out reporting of PMIS indicators to PHC facilities; 8 of Namibia's 34 districts' PMIS reports for January to March 2014 included data from PHC facilities. SIAPS provided technical assistance to Div:PhSs to compile two PMIS quarterly feedback reports. The PMIS report provides feedback on a set of 21 indicators for stock management, RMU, human resources, and medicine financing indicators for measuring the delivery of pharmaceutical services in Namibian public health facilities. The technical assistance enabled continued use of Namibia-appropriate tools for reporting on pharmaceutical services.

SIAPS, in liaison with HIV Case Management, Directorate of Special Programs (DSP), disseminated results of an ART baseline survey that was conducted in 2011. Fifty senior officials of MoHSS from the national, regional, and district levels attended the dissemination. SIAPS also

disseminated the results in 2 of Namibia's 14 regions in which 18 healthcare workers participated. The same meetings were used to launch audio visual materials (DVDs) and pictorial desk flip charts, which are among the specific interventions outlined in the report, aimed at enhancing treatment literacy and adherence among patients receiving ART. Namibia's ART adherence levels stood at *92.1% for October-December 2013 data and were higher than the 87% for July-September 2013.*

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

SIAPS supported the Namibian Medicines Regulatory Council (NMRC) of the MoHSS by training 42 in-country pharmaceutical personnel on how to evaluate applications for registration of generic medicines and understanding Good Manufacturing Practices (GMP), Good Distribution Practices (GDP), and quality control of medicines. Participants included pharmacists from government health institutions, the University of Namibia /School of Pharmacy (UNAM/SoP), and the private sector. The training followed a recent review of NMRC operations that highlighted the shortage of skilled human resources (HR) as a major the challenge to timely evaluation and registration of medicines, resulting in the increasing backlog of unevaluated medicines applications. The workshop increased the pool of experts locally available to evaluate applications to register safe and efficacious ARVs, anti-tuberculosis, and other essential medicines. NMRC will leverage the available pool of skilled personnel to effectively execute its mandates, including dossier evaluation and pre- and post-marketing surveillance activities.

Of the 286 medicines registration dossiers received in 2013, 126 (44%) were evaluated; the remaining unevaluated 56% contributed to a backlog of 746 dossiers (as of December 2013), which has been increasing at a rate of over 150 dossiers per year. It is expected that the newly trained personnel will reduce this backlog and make dossier review sessions more productive.

SIAPS facilitated testing of the web-based Pharmadex system; four NMRC staffs were trained on the tool. The training was part of implementing Pharmadex for expediting the registration of medicines including generic ARVs. Pharmadex will transfer some of the data entry workload to the clients/medicines registration applicants and free up the NMRC technical staff to conduct medicines evaluations. The tool improves transparency of the registration process and provides an up-to-date medicine register to the public.

SIAPS provided technical assistance to NMRC to develop a medicines quality monitoring guide for post-market surveillance of medicines in Namibia. A budget and an implementation plan were developed. SIAPS facilitated discussions between the NMRC and the Global Fund on the support for these activities; the Global Fund will provide resources for testing the samples of anti-TB and HIV and AIDS medicine samples. SIAPS provided technical assistance on sourcing for WHO/ISO 17425 certified laboratory for quality control testing services for the samples to be collected during post-marketing surveillance.

SIAPS provided technical assistance to MoHSS' Division of Clinical Support Services in sourcing a consultant to update the medical equipment policy and also develop lists of essential medical equipment for each level of health care delivery in the country. This was in response to a

request by MoHSS to have the policy updated, following SIAPS technical assistance to help MoHSS plan, manage, and regulate medical devices and equipment.

SIAPS provided technical assistance to MoHSS' Essential Medicines List Committee (EMLC) to finalize changes to Namibia's essential medicines list (Nemlist). Relatedly, SIAPS supported the Therapeutics and Pharmacovigilance Center (TIPC) to conduct an analysis of sensitivity patterns of medicines in the Nemlist used for the empirical treatment of urinary tract infections (UTIs), based on national antimicrobial sensitivity data. The analysis provided evidence to the EMLC for motivating changes to the Nemlist for UTI medicines.

### *Partner contributions*

- Global Fund and MoHSS provided technical assistance and funding for post-market surveillance activities.
- NMRC provided the medicines dossiers for hands-on training in May 2014 and assistance in rolling out Pharmadex.

### *Constraints to progress*

Resource constraints (HR and financial) hinder implementation of post-marketing surveillance activities by NMRC. In quarter 3, SIAPS provided technical assistance to the NMRC in sourcing financial support from the Global Fund to support post-marketing surveillance. SIAPS will continue providing assistance to NMRC, including review of strategies for cost-effective implementation of post-marketing surveillance activities.

### ***Objective 2: Capacity of pharmaceutical HR and local institutions to manage the pharmaceutical system and supply chain in delivery of sustainable ART and other pharmaceutical services strengthened***

SIAPS provided technical assistance to MoHSS (Subdivision National Medicines Policy Coordination [NMPC]) to compile the aggregated technical feedback report of the 2014 annual pharmaceutical SSVs that were conducted in quarter 2. The annual SSVs are used to monitor and provide on-the-job support to staff. NMPC will find opportunities to present key recommendations of the SSVs to policy makers at MoHSS for action.

SIAPS, in collaboration with Global Fund, provided technical assistance for selecting a consultant to lead MoHSS' activity to improve pharmaceutical management practices for the management of ARVs, TB, malaria, and other medicines and supplies in the public sector health system. The consultant will finalize the revision of the pharmaceutical SOP manuals for hospitals, clinics, and health centers and will facilitate training of trainers.

SIAPS supported UNAM/SoP to develop pre-service pharmaceuticals supplies management, RMU, pharmacoeconomics, and PV modules for pre-service teaching of B.Pharm. students. SIAPS also worked with UNAM and the University of Washington to develop topics for the pharmacoeconomics and PV modules. The RMU module will be finalized in FY14 Q4.

The completed pharmaceutical supplies management and PV modules bring the number of pharmaceutical management modules to five against the quarter 3 target of three; and contributes to the number of in-service health professional training curricula developed or reformed to address pharmaceutical management topics.

SIAPS provided technical assistance for planning and development of a concept, guideline, and data collection tool and oriented 34 second-year UNAM/SoP B.Pharm. students on medicines use indicator data collection and management. Started in 2013, the indicator data collection enhances research and data management knowledge and the skills of pharmacy students during their rural health facility attachments. The data will be used by Div:PhSs, SIAPS, and UNAM/SoP to inform management decisions on pharmaceutical service delivery and pharmacy education.

SIAPS held three meetings with the National Health Training Center (NHTC) to review supported activities and provided technical assistance to the NHTC for the re-accreditation of the PA training program by the Namibia Qualifications Authority (NQA). SIAPS facilitated joint stakeholder consultations in preparation for a workshop to establish a quality management system (QMS) based on the NQA quality assurance criteria as part of meeting requirements for re-accreditation. The QMS workshop is slated for July 2014. SIAPS provided technical assistance to the NHTC for development of a concept and three data collection tools for monitoring workplace performance of their PA graduates. Data collection is scheduled for FY14 quarter 4. With SIAPS support, the NHTC increased its training capacity for PAs from an average of 7 per year in 2007 to 32 enrolled in 2014.

The March 2014 SSV report shows that 80% of 35 public hospitals assessed had certified pharmacy personnel; 67% of pharmacists' and 93% of PAs' posts were filled, compared to 86% of PAs' posts filled in 2013.

SIAPS supported MoHSS' National Tuberculosis and Leprosy Control Program (NTLP) to train 20 regional TB program managers and 35 district TB program coordinators on the e-TB manager as part of the roll-out plan. e-TB Manager is a web-based application used by nurses and medical doctors to efficiently manage patients with and medicines for drug-resistant (DR) TB. The e-TB Manager training was part of a larger training organized by NTLP to equip regional and district TB program staff to use the tool.

#### *Partner contributions*

- Div:PhSs in compiling and disseminating the 2014 annual SSVs feedback report
- UNAM/SoP on development and incorporation of supply chain, PV, and RMU modules into the B.Pharm. curriculum; capacity building of B.Pharm. students for medicine use indicator-based assessment
- Global Fund on pharmaceutical inventory management aspects during SSV implementation and report compilation
- I-TECH on preparations for QMS workshop for NHTC
- NHTC on training PAs
- NQA on accreditation of the NHTC PA training program

### *Constraints to progress*

The 2014 annual pharmaceutical SSV report showed low performance in the pharmaceutical service indicators and 4 of the 14 health regions had not yet addressed at least 50% of the issues raised by the 2013 SSVs. SIAPS supported NMPC to summarize the findings for discussion with MoHSS' senior management and policy decision makers to address the issues found in the SSVs.

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

SIAPS provided technical assistance to NMPC to finalize the data collection tools, analyze the data, and compile the quarterly PMIS feedback reports for the MoHSS' third and fourth quarters (October to December 2013 and January to March 2014). NMPC disseminated the third quarter feedback report to all 14 regions in Namibia, MoHSS management, and other stakeholders. The data is collected at regional medical stores, referral hospitals, district hospitals, and PHC facilities.

SIAPS provided technical assistance to Div:PhSs to aggregate ART pediatric regimen data for the compilation of the ART PMIS feedback report. This report gives feedback on data submitted by ART facilities on ARV stock and patient information. The report was disseminated to all stakeholders for evidence-based decision making at all levels. In addition, SIAPS supported the NMPC to develop ART data summary sheets for 2014. The summary sheets are used to aggregate data from ART monthly reports and analyze them for reporting in the quarterly ART PMIS reports.

SIAPS provided technical input at two meetings to prepare for the roll-out of MoHSS' Nurse Initiated Management of Antiretroviral Therapy (NIMART) & PMTCT Option B+. This initiative has ART patients started on therapy and managed at PHC facilities by nurses trained in NIMART. All pregnant mothers will be prepared and initiated on ART. SIAPS supported MoHSS to design a NIMART dispensing register to assist nurses to manage, dispense, and order ARV medicines for their facilities.

SIAPS, in collaboration with MoHSS, conducted comparison of ART data from the electronic patient management system (ePMS) and the EDT for patients at Onandjokwe Hospital as part of the ART data quality audit (DQA). Taking into account duplicates in the EDT file, the linkage to the ePMS file was 83%, which is the same as the proportion of EDT/ePMS records. The analysis provided SIAPS with insights on data quality through identification of errors such as wrong entry of dates into the system. SIAPS is working on integrating the two systems and addressing identified issues to improve the quality of data captured.

SIAPS supported MoHSS to resolve errors in the EDT systems for Outapi and Oshakati Hospital ART pharmacies to ensure that the facilities are able to report on ART in a timely manner. The technical support involved servicing the EDT computer equipment and updating the software, including setup of the EDT mobile for dispensing purposes. SIAPS also provided technical support for RxSolution at Oshakati Hospital for improved functioning and ensured connectivity to e-TB Manager at the TB units of the four hospitals visited.

The support enabled the four hospitals to continue using country-appropriate tools (EDT, e-TB Manager, RxSolution) to document and report logistic and patient data. In quarter 3, 48 of the targeted 50 SIAPS-supported health facilities reported using country-appropriate tools to report logistic and patient data.

SIAPS continued supporting the NTLP to operationalize e-TB Manager in Namibia. In quarter 3, SIAPS supported NTLP to train 20 regional TB program managers and 35 district TB program coordinators on e-TB manager to equip them to use the tool, especially for reporting. TB is one of the leading opportunistic infections affecting people living with HIV and AIDS. In 2012, HIV prevalence among TB patients in Namibia was reported at 47%.

#### *Partner contributions*

- NTLP in the roll out and implementation of e-TB Manager
- Div:PhSs on PMIS reporting

#### *Constraints to progress*

Timely PMIS reporting by health regions still needs improvement as only two of Namibia's regions met the reporting deadline for the January to March 2014 reporting period. Delayed report submission by regions consequently delays aggregation at the national level and feedback to the regions. SIAPS is providing technical assistance to NMPC for follow-up with regions on timely PMIS reporting. In addition, the MoHSS permanent secretary encouraged regional managers to include PHC facilities in the PMIS reports for the next quarter.

SIAPS is working closely with MoHSS Directorate of Special Programs (DSP) Research Monitoring and Evaluation Unit (RM&E) to conduct data quality assessment that involves comparison of EDT and ePMS patient data as one of the measures to ensure high-quality data for ART program decision making. DQA was conducted in quarter 3, but its completion was challenged by delayed availability of complete datasets in the national database. MoHSS leads this activity through the Treatment Technical Working Group (TWG).

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

In the area of health care financing, SIAPS participated in a joint Namibian Association of Medical Aid Funds (NAMAF) and Pharmaceutical Society of Namibia (PSN) meeting to discuss medicine pricing options. SIAPS provided technical assistance to the PSN Pricing Committee on evaluating various medicine pricing and reimbursement models so that PSN members could review them at the PSN Annual General Meeting June 21-22, 2014 in Windhoek.

SIAPS/Namibia is a member of the Universal Health Coverage Advisory Committee of Namibia (UHCAN). SIAPS participated in a joint multi-stakeholder meeting on June 12, 2014, for affordability and management committees. The meeting reviewed Namibia's health financing situation and discussed broad strategies for achieving universal health coverage. Namibia has a

dual burden of HIV and AIDS and TB, with over 110,000 active patients on ART, which is about 5% of Namibia's population.

#### *Partner contributions*

- The African Development Bank is funding the Namibian Government with the initial activities of the Universal Health Coverage Committee.
- NAMAf and PSN on medicines financing options

#### *Constraints to progress*

Delays in obtaining medicine claim data from NAMAf; the SIAPS acting country director is still in discussions with NAMAf to get the data by August 2014.

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

In the area of early warning indicators (EWIs) of HIV drug resistance (HIVDR), SIAPS participated in a three-day workshop on data analysis and compilation of a report from active surveillance of HIVDR, facilitated by experts from WHO/Tufts University. The experts are compiling the report with recommendations that will guide ART program implementation and technical assistance. The same experts supported MoHSS DSP to conduct a survey in 2012/13 that determined the prevalence of HIVDR in Namibia and generated estimates of HIVDR among all ART initiators.

SIAPS supported the data abstraction and analysis of five HIV EWIs for the 2014 annual EWI study. The five indicators were on patients' ART adherence, retention to care, ARV stock outs, on-time pill pick-up, and on-time patient visits to facilities.

SIAPS compiled a report on ART adherence and retention to care for October–December 2013. National retention rates of both adults and pediatrics were 92.1% which improved from 87% in July–September 2013; 36 of the 45 ART facilities that reported for October–December 2013 did pill counts for 50% or more of the patients that had a routine refill, as one way of monitoring adherence to ART.

In regard to the Namibia Adherence Improvement Initiative, SIAPS, in liaison with HIV Case Management, DSP, disseminated results of the 2011 ART baseline survey to 50 senior officials of MoHSS and 18 healthcare workers in 2 of Namibia's 14 regions. In the same fora, SIAPS supported DSP to launch ART treatment literacy materials that had been developed and printed in quarter 2 with SIAPS support. The use of audio visual materials (DVDs) and pictorial desk flip charts will enhance treatment literacy and adherence among patients receiving ART.

SIAPS developed a concept paper detailing areas for technical assistance to the national TB program on supporting the 2014 National TB Drug Resistance Survey and implementing activities aimed at improving rational use of TB medicines to prevent drug resistance.

SIAPS discussed the results and recommendations from the STG post-implementation assessment with the management of MoHSS. This led to actions that include increasing access to and availability of the STGs through a revolving fund with the Health Professions Council of Namibia (HPCNa), strengthening therapeutics committees to supervise prescribers, and regularly conduct facility-level medicine use evaluations to promote RMU.

SIAPS, in collaboration with Project Hope, supported the TIPC to train 105 TB field promoters on PV or TB medicine safety monitoring. Prior to the training, TIPC in collaboration with SIAPS, revised the side effects monitoring form to include additional fields to ensure quality of the adverse drug reactions reports submitted to TIPC.

SIAPS supported MoHSS Division of Quality Assurance to finalize four infection control and waste management guidelines: infection prevention and control (IPC), operation theater, central sterilization services department (CSSD), and phlebotomy; 28 healthcare workers attended the guidelines' review workshop.

SIAPS supported the Division of Quality Assurance to train 40 nurses and environmental health practitioners from all 14 regions of Namibia on how to use the IPC tools. SIAPS in collaboration with MoHSS also trained six healthcare workers on medical waste management. The training included field visits to waste disposal sites in Windhoek.

### *Constraints to progress*

Spontaneous ADR reporting remained below target in quarters 2 and 3 (25 ADRs received in January–March 2014 against a target of 75) as health facilities are not actively sending reports to TIPC. SIAPS supported TIPC to train 105 TB field promoters for increased monitoring and reporting on TB ADRs from the community. SIAPS will continue supporting TIPC to create awareness on PV among healthcare workers and encourage reporting for monitoring patient safety.

### *Partner contributions*

- MoHSS DSP and tufts University on active surveillance of HIVDR
- Project Hope on community PV
- University of Washington on PV activities
- TIPC on active surveillance and community PV
- UNAM/SoP on finalizing PV module, validating draft RMU module and incorporating them into the B.Pharm. pre-service teaching curriculum
- MOHSS/Division of Quality Assurance on infection control and medical waste management activities
- MoHSS shared with SIAPS the cost of IPC training; 60 copies of IPC draft guidelines for the training were printed at a cost of N\$ 10,000 (about USD 952); also covered was the cost of accommodations for 40 trainees for 12 days at N\$ 160,000 (about USD 15,238). The training was conducted in Ongwendiva, Namibia.

## Philippines

**Goal: Improved systems for increased access to quality health technologies and effective services to reduce the burden of TB in the Philippines**

### Overall Quarter Progress

In this quarter, SIAPS continued its work on organizational strengthening of the National TB Reference Laboratory (NTRL); improving the National TB Control Program's (NTP) pharmaceutical supply management and TB information management systems; and PV.

With the technical support of SIAPS, a draft document on technical units' (TUs) functions was finalized and adopted by NTRL management. SIAPS assisted NTRL in enhancing its work plans including the plan for the expansion and quality improvement of TB diagnostics and laboratory services. SIAPS helped NTRL develop its SOPs for information management and draft the M&E procedures and plan including an initial list of laboratory indicators.

In region IV A, SIAPS trained 133 health staff on the use of the *Practical Guide for the Management of Pharmaceuticals and Health-Related Commodities* (PGMP). The training was conducted in collaboration with the Innovations and Multi-sectoral Partnerships to Achieve Control of Tuberculosis (IMPACT), DOH's regional offices (ROs), and provincial health offices (PHOs). Post-training monitoring of health facilities showed marked improvements in supply chain management such as use of stock cards in inventory management and increased knowledge of health staff in computing drug requisitions. Subsequently, the PGMP and job aids will be rolled-out nationwide by NTP with support of SIAPS and IMPACT.

At the central level, increased coordination is noted between agencies responsible for the management of TB supplies and commodities through regular meetings facilitated by SIAPS. Since the formation of the Drug Supply Management (DSM) Sub-Technical Working Group on laboratory supplies management, information on selection, procurement, and inventory control has been more available and accountability is shared between NTP, NTRL, WHO, Philippine Business for Social Progress (PBSP), Technical Assistance Support to Countries (TASC), and other partners.

SIAPS is also working with the Quezon City Health Department (QCHD) in the expansion of the Barangay Health Management Council (BHMC), a grassroots health program leadership and management model. SIAPS conducted a planning workshop wherein BHMC community action plans were drafted and refined in follow-up meetings. As part of the BHMC initiative, the staff of health facilities in Quezon City's district 3 was trained on the use of the PGMP including the use of a tracking tool developed by SIAPS for managing anti-TB supplies.

SIAPS is actively supporting the NTP in planning the implementation for two PV studies: bedaquiline use and a nine-month MDR-TB treatment regimen. SIAPS also assists in the strengthening of the PV surveillance system at the Lung Center of the Philippines–Programmatic Management of Drug-Resistant TB (LCP PMDT) treatment center.

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

To strengthen NTRL's capacity to lead and manage the NTP laboratory network, SIAPS helped NTRL review and revise the organizational structure and functions of the NTRL TUs. The revised document was finalized and adopted by NTRL in April. SIAPS also continued work to strengthen M&E capacity by drafting the NTRL M&E process and plan, including a list of indicators. SIAPS is working on the revision of the phase 2 human resources assessment report.

SIAPS helped to review and enhance four NTRL-TU work plans by facilitating workshops and meetings where innovative approaches to the planning process were introduced. SIAPS helped NTRL strengthen situational analysis; focus on priority problems, actions, and achieving results; improve M&E; and use information for decision making. The revised NTRL work plan for the expansion and quality improvement of TB microscopy, GeneXpert, and culture/drug susceptibility testing services is almost complete. Revision of other TU work plans is ongoing.

Since the inception of the BHMC in Payatas with the technical support of SIAPS, interest in the initiative has increased, coming from Quezon City government officials, NGOs, and technical partners. Quezon City health and political officials consulted SIAPS regarding the scale-up approaches for BHMCs in the city. Upon request of the QCHD, SIAPS is providing assistance to strengthen existing (Payatas) and newly established BHMCs in two barangays (Pansol and Old Balara). SIAPS facilitated meetings to develop and refine BHMC community action plans using the methods employed for the NTRL planning; 18 participants including barangay government officials, health staff, and civil society representatives attended the workshop. The new barangay action plans now focus on three health programs—TB control, maternal health, and nutrition. This demonstrates the potential usefulness of BHMCs for programs other than TB.

With SIAPS support, the DSM met regularly to discuss procurement and requisition plans. The monthly meeting has strengthened coordination between NTP, NTRL, PBSP, and other partners that manage laboratory supplies. The DSM developed assumptions for GeneXpert cartridge procurement for NTP approval and has planned a more coordinated approach to monitor the consumption of cartridges.

SIAPS supported the quantification of medicine requirements and the quantification was validated by the DSM.

SIAPS and NTP developed the PGMP, an action-oriented reference on standards in supply chain management of TB medicines and other commodities. This quarter, the PGMP was rolled-out to 133 provincial and local health staff in region IVA in collaboration with IMPACT, ROs, and PHOs. The output of the training includes improvement in knowledge of drug supply management, an action plan for each facility to improve current practices, and a validated TB drug requisition for the quarter based on current stock levels.

Post-training monitoring noted that the six rural health units (RHUs) and one provincial warehouse had improved inventory management: an enhanced system for tracking medicines expiration and better practices for storage, stock management, and drug requisition. All visited

facilities now use stock cards for inventory management and expiration tracking, use pallets for storage, and properly check stocks upon receipt and before use. In addition, health staff has increased their knowledge in the computation of drug requisitions.

The PGMP was introduced by SIAPS to nine health facilities of QCHD district 3. The PGMP will be scaled-up nationwide by NTP with support from SIAPS and IMPACT.

### *Constraints to progress*

NTRL staff has multiple priorities, making it difficult to schedule workshops and meetings. NTRL staff currently requires extensive support and mentoring from SIAPS.

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

In this quarter, SIAPS worked with NTRL to draft SOPs for information management which includes data recording, collection, analysis, reporting, dissemination of reports, and archiving, as part of strengthening NTRL's and NTP's capacity for information management. After several meetings with NTRL technical staff and management to discuss, clarify issues, and make minor changes in the draft document, NTRL adopted the SOPs; NTRL will field-test the SOPs in the upcoming quarter.

SIAPS participated in the first NTP thematic meeting on the TB information system where SIAPS' technical approaches and activities in using information to support the strengthening of laboratory and pharmaceutical management systems were presented. SIAPS also described the challenges confronting the NTP information system. In addition, SIAPS is continuing the development of the NTP information system assessment report.

Part of SIAPS' BHMC initiative in Quezon City is to improve supply chain management, particularly in monitoring stocks of key TB medicines and supplies. Guided by a prior needs assessment, health staff was trained on basic supply management using the PGMP. SIAPS also introduced a tracking tool for inventory management to improve recording of stocks and monitoring of stock utilization to Quezon City's district 3 health staff.

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

SIAPS significantly contributed to NTP's PV strategies. SIAPS assisted in strengthening the surveillance system of the LCP PMDT center where ADR reports were generated for May 2014.

SIAPS supports NTP on PV in the concept writing and planning of implementation of two studies: bedaquiline use and a nine-month MDR-TB treatment regimen. SIAPS is collaborating with WHO on PV activities for these studies.

In May 2014, SIAPS launched a national TB supply chain assessment requested by USAID and NTP that includes an options analysis for improving the TB supply system performance. The

study assesses practices in storage and inventory management, medicines availability, and supply management. To date, 70–80% of data collection is completed. Findings will be presented to stakeholders in August 2014.

SIAPS participated in the development of an NTP action plan submitted to WHO-Western Pacific Regional Office following a regional meeting to improve drug supply including registration, quality assurance, and PV. This plan is a roadmap for stakeholders in the Philippines with agreed timelines and responsible institutions. SIAPS leads in setting up the PV system and will support NTP and the Food and Drug Administration of the Philippines in the registration and quality assurance of TB drugs.

SIAPS participated in a joint monitoring visit at the National Children’s Hospital with NTP, UNITAID, WHO, and NTRL to assess the GeneXpert implementation. SIAPS contributed its findings to the joint monitoring report as well as recommendations to address challenges in policy, training of clinicians, case finding, and supply management including quality assurance.

SIAPS has met with NTP, TASC, and IMPACT to develop and finalize the policy and field manual for TB management during disasters.

SIAPS was invited by the Philippine Country Coordinating Mechanism to participate in an advocacy workshop for TB key affected populations; SIAPS contributed action plans for TB prevention, treatment, and support.

### *Constraints to progress*

Some sites in the supply chain assessment of options require ethics review approval to participate in the assessment despite NTP’s endorsement.

## South Africa

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

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

With support from SIAPS, the Directorate for Access to Affordable Medicine of the National Department of Health (NDoH) awarded several pharmaceutical tenders including a tender for injectables, with a net savings of R8.5 million compared to prices paid during the previous contract. This savings was achieved in part by awarding 67% of the insulin device requirements to cartridges and non-disposable pens, where the prices offered were 11% and 25%, respectively, lower than prices paid on the previous contract for disposable pens. SIAPS support included developing a template for standardizing price data research and price comparison for the Bid Evaluation Committee (BEC) which is responsible for awarding tenders.

SIAPS support to the NDoH in implementation of the Centralized Chronic Medicine Dispensing and Distribution Program continued. The program aims to increase access to medicine by offering patients an option to collect repeat prescriptions at alternate sites, including private pharmacies. In this quarter, SIAPS developed two service-level agreements (SLAs) between the private service providers and provinces.

In the Western Cape (WC), SIAPS is working with the Northern Tygerberg Sub-Structure to sustain achievements from the Leadership Development Program (LDP) conducted in 2013. Four projects from the LDP have been selected for scaled implementation in all facilities in the sub-structure. The measurable results have been included in the performance agreements of facility and pharmacy managers for the 2014/2015 cycle.

SIAPS worked in collaboration with the University of the Western Cape: School of Public Health and Boston University and, in the presentation of a rational medicine use (RMU) Winter School course for 22 participants from various countries.

Because of the planned expansion of RxSolution beyond the 313 existing sites, a biometric module was incorporated in the latest version. The module, which enables sites to identify patient identification using fingerprints and photographs, is currently being piloted in four clinics within Tshwane Metro in Gauteng Province (GP).

Preliminary results from the completed assessment of pharmaceutical management of TB medicines for the Department of Correctional Services (DCS) highlighted gaps that require intervention. Key areas identified for improvement include compliance with Good Pharmacy Practices (GPP) rules relating to supply management (77% compliance) with particular emphasis on those related to the cold chain (62% compliance). Availability of policies for managing TB was also an area of concern with only 52.1% of facilities complying with the DCS policy on management of HIV and TB.

A follow-up National Core Standards assessment carried out by the NDoH highlighted improvements in the domain relating to pharmaceutical services in sites being supported by SIAPS in Mangaung District. Interventions included capacity building for pharmacist's assistants and nurses responsible for handling medicines, as well as enabling more facilities to order supplies directly from the pharmaceutical depot.

SIAPS continued to support the scale-up of the patient-centered decentralized pharmacovigilance program in the North West (NW) where 12 clusters have started reporting. The intervention was piloted in 290 health facilities in Mpumalanga.

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

During this period support has been provided to the NDoH in strengthening governance in a number of areas. In February 2014, a new set of criteria (drafted with SIAPS support) for granting licenses to prospective pharmacies were published in the *Government Gazette* for public comment. The comment period ended on May 31, 2014. SIAPS will provide further support to NDoH in reviewing the comments and preparing the final version of the criteria.

SIAPS is providing technical assistance to NDoH in the implementation of the Centralized Chronic Medicine Distribution and Dispensing Program in eight districts. Although SLAs had been signed between the NDoH and the private sector service providers, contractual arrangements were lacking between the provinces and the service providers. SIAPS drafted a model SLA between the service providers responsible for preparing the prescriptions and the provinces, together with an annex detailing the services to be provided and key responsibilities of role players. A second SLA between the NDoH and the service provider contracted to provide pick-up sites for prescriptions was also drafted. During the quarter, SIAPS provided technical support in the development, review, and revision of indicators for monitoring service delivery by the CCMDD service providers, designated medicine collection points, the centralized procurement unit, and the districts involved in the project. Comment on the latest versions of the indicators is awaited from NDoH.

Technical assistance was provided to NDoH in providing input on proposals to address legislative challenges relating to prescribing by nurses and dispensing of nurses' prescriptions by pharmacy personnel. Technical assistance was also provided in addressing a similar challenge experienced by the DCS.

During the quarter, SIAPS submitted the draft of the National Policy for the Establishment and Functioning of Pharmaceutical and Therapeutics Committees in South Africa to senior management at NDoH for comment. The policy is applicable to the public and private sectors in preparation for the implementation of national health insurance. Once approved, the policy will be circulated to the provinces for comment before it is finalized for presentation to the National Health Council for final approval and implementation. SIAPS continued to support the WC Department of Health in developing a policy manual for pharmaceutical services.

During the quarter, three pharmaceutical tenders for injectables (HP06), drops and inhalers (HP07), and ointments (HP08) were awarded by the NDoH. The time taken to award these

tenders was 18 weeks for HP06 and 20 weeks for HP07 and 08. HP06 was published two days after its starting date, and HP07 and HP08 four days before their effective dates. Delays in awarding tenders were largely attributed to competing priorities within the NDoH at the time of award. SIAPS also provided assistance in reviewing data from the Medicines Control Council (MCC) to report on registered products per item, risk, and opportunities. A template for standardizing price data research and price comparison to inform decisions of the BEC was developed. The matrix used by BEC was analyzed to create a price report using local and international data. SIAPS also assisted with development of measures to incorporate M&E and supply chain into BEC evidence.

For the injectables tender, a shift from the use of insulin vials to injectable pen devices was investigated and implemented, resulting in significant unit price decreases in insulin. The bid prices offered did not warrant a complete shift away from multi-dose vials, as the vial price reduced by 15% compared to that of the previous contract. The Directorate was, however, able to award 67% of its insulin device requirements to cartridges and non-disposable pens, where the prices offered were 11% and 25%, respectively, lower than those of the previous contract for disposable pens, the price of which had risen by 31%. The net savings over the 33-month contract period is R8.5 million compared to prices paid during the previous contract. During the quarter, the Directorate advertised three more pharmaceutical tenders for delivery of biological preparations (HP10), large volume parenterals (HP11), and pharmaceutical liquids (HP12), which are expected to be awarded in the upcoming quarter.

SIAPS continued to support the NDoH with implementation of the dashboard which presents a set of norms and standards for pharmaceutical service delivery. Some amendments were made to the norms and standards following input received from the provinces. This was the third consecutive quarter that the provinces have submitted the reports since the development of the dashboard. Technical assistance was provided in the analysis of the reports submitted by provinces and the dashboard was presented at the meeting of the National Health Council Sub-Committee on Pharmaceutical Services held in May. A poster on this work will be presented at the Third Global Symposium on Health System Research to be held in Cape Town in October 2014.

The Directorate for Access to Affordable Medicine of NDoH requested SIAPS to facilitate a series of workshops aimed at developing work plans in the NDoH units to monitor progress in addressing priority outcomes. One-day sessions covering basic M&E principles were conducted and participants were requested to complete the work-plan template provided. In the WC, SIAPS facilitated a session during a meeting of the Pharmaceutical Management Forum (PMF) to develop implementation plans for the priority areas for pharmacy services identified in the workshop held in March. This workshop also identified the need for broader stakeholder engagement.

### *Partner contributions*

SIAPS worked with consultant contracted by Health Systems Trust (HST) and seconded to NDoH on the CCMDD work

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

SIAPS is increasing the capacity of pharmacy personnel through both pre-service and in-service training. During the quarter, SIAPS continued to build leadership and management knowledge and skills through the PLDP. Since the inception of SIAPS, a total of 177 health facilities applying an approach for participatory and continuous performance improvement have been reached through the PLDP. SIAPS also made progress toward the PY14 target of development or reform of three health professional training curricula for students studying pharmacy at the Nelson Mandela Metropolitan University (NMMU) in the Eastern Cape (EC).

During the quarter, training materials for the pharmacovigilance elective at NMMU were finalized with the assistance of the National Pharmacovigilance Centre. Two sessions were held where different tools and methods were discussed, as well as the current NDoH decentralized pharmacovigilance approach. SIAPS is currently finalizing the proposal titled decentralized patient-focused pharmacovigilance in sites around the Nelson Mandela Bay Municipality (NMBM) for students to do mini research projects. Contact sessions with the eight fourth-year students who enrolled for the medicine supply management (MSM) elective also took place during this quarter. Topics covered include an overview of MSM, GPP standards, and inventory management using a stock card. A draft problem-statement prepared by the students was reviewed and returned for further input. It is envisaged that their research topic will look into the availability and management of vaccines in primary health care facilities in the NMBM. SIAPS was invited to present at the inaugural graduate seminar and career day at the same institution. A SIAPS staff member also served on an interview panel for selection of South African candidates for the Fulbright Scholarship Program in the United States.

The University of Western Cape, School of Public Health, hosted a Winter School on Rational Medicine Use in collaboration with SIAPS and Professor Richard Laing from Boston University. The 22 participants, international and South African, were pharmacists, physicians, and academics. The course covered RMU principles, evidence-based medicine, antibiotic stewardship, and PTCs and included a session on quality improvement where participants learned to use the challenge model as a quality improvement tool. A second winter school session on MSM will be presented early in the following quarter. Modules prepared include laws, policies, and regulations; product selection; forecasting and quantification; procurement; distribution; storage and inventory management; management information systems; M&E; financial management, supportive supervisory visits; and quality assurance.

In the Northern Tygerberg Sub-Structure, the scale-up of four key projects developed during the LDP in 2013 commenced. Measurable results have been included in the key performance areas for the facility managers and the pharmacy managers at 12 facilities in the sub-structure for the 2014/2015 cycle. Each facility team will sustain their original project and work on improving compliance with the National Core Standards, reducing patient waiting time for medicine and increasing the number of patients who collect medicine for chronic diseases at alternate sites in the community. During the alignment meeting teams were introduced to the concept and at the first workshop, the teams used LDP tools such as the challenge model to define their measurable results and get a better understanding of their challenges.

Nine teams from the Klipfontein Mitchells Plain Sub-Structure and one team from the Northern Tygerberg Sub-Structure started the LDP during this quarter. Workshops 1 and 2 as well as a coaching visit were held for these teams, comprised of the facility manager, pharmacy manager, and clinical manager of each facility. Ten measurable results have been identified. Teams used the challenge model and the LDP tools to analyze their challenges and set out priority actions to address the challenge and move toward the measurable result.

The first workshop for the PLDP was held in Limpopo (LP); 25 participants were in attendance from across all five districts in the province and two from the provincial medicine depot. Coaching visits are scheduled for the following quarter.

### *Partner contributions*

University of the Western Cape: hosting the Winter School and Boston University, co-facilitator

### *Constraints to progress*

NMMU has no course work component attached to graduate-level pharmacy practice research. A seminar was held to promote learning among the graduate students and students were encouraged to use the seminar platform to study material, create PowerPoint slides, and share with their peers.

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

In addition to the continued support in the implementation of Infomaker<sup>®</sup>, an off-the shelf commercial report-building software, SIAPS is expanding the implementation of RxSolution. This expansion is largely due to increased demand from NDoH, for which USAID has pledged \$1.4 million.

Technical assistance was provided to Mpumalanga Depot where reports were created and reviewed using Infomaker. In-service training was conducted and the system is now used by all sections in the depot for decision making and reporting to relevant authorities. Depot Manager Babalwa Ngxowa expressed her appreciation, saying that “Infomaker has made our lives much better. We no longer have to wait for hours before one can generate reports. It has helped in confidently submitting reports and the turnaround time is tremendously short. I can never thank you enough for making our lives so easy. We now have much time to focus on quality issues.”

Infomaker report libraries were revised and adjusted according to reporting requirements at the GP and Port Elizabeth Pharmaceutical Depots with emphasis on the weekly and quarterly reports required by NDoH. SIAPS is developing a comprehensive set of reports for these provinces by consolidating some existing ones. The libraries currently consist of 25-30 individual reports. In the Northern Cape, further contacts were made with Pharmaceutical Services to facilitate the addition of extra database fields necessary for completion of the reports.

SIAPS continued to support NMMU in the implementation of a final-year B.Pharm. student's research in which data from two RxSolution sites will be analyzed. The project is directed at identifying patterns in chronic disease and medication prescribed. The research proposal has been approved by the NMMU Pharmacy Department and University Ethics Board as well as the EC DOH. SIAPS is now working with the student in the selection of a study site, from which the data will be extracted for review.

SIAPS completed the development and testing of the biometric module for patient identification using fingerprints and photographs. The system is currently being piloted in four clinics within Tshwane Metro in partnership with Innovation Hub and Green Box, two local organizations. Once the pilot is complete, the system is expected to be implemented in the remaining 24 clinics currently using RxSolution in the Metro. The bar coding element of the system was also completed and forms part of the latest version of RxSolution. This will enable users to capture select sets of information with bar code scanners.

Upon request from NDoH, SIAPS is working with Vodacom to develop plans for interfacing RxSolution and RxLite with Mezzanine-Vodacom. The latter is a smart-phone-based application currently being piloted for monitoring and reporting medicine availability in remote clinics that do not have the requisite infrastructure to use RxSolution. RxLite is an interface that enables data being submitted with Mezzanine to be uploaded onto RxSolution at a central location, e.g., regional hospital or district office. The integration process is expected to be completed by October 2014.

The initial focus for the Rxsolution expansion will be on installing the software in 64 hospitals in LP (39) and GP (25). Installation of the system is conducted in three key stages:

- Stage 1: Installation and training of end users
- Stage 2: Updating the database to ensure that a product list exists in the system and is aligned with the master file. This process includes setting up bin locations, national stock numbers, internal code numbers, suppliers, demander, users, assignment of user roles and stock taking
- Stage 3: Use to order, receive, and issue

Stage 2 can take a few weeks to complete, hence facilities do not start ordering and issuing (stage 3) immediately after training.

The first stage of implementation of RxSolution in 25 hospitals in GP is in progress and expected to be completed in the following quarter. RxSolution has been installed and training has been conducted for 21 hospitals that were initially identified for the roll-out. Preparations are underway to complete the first stage in the remaining four hospitals. A schedule has been developed for support visits to assist all 21 hospitals and ideal clinics with stages 2 and 3 of implementation during the next quarter. In LP, the provincial Department of Health is currently procuring the necessary equipment in preparation for installation of RxSolution. The roll-out to these facilities will initially be done in 10 hospitals. SIAPS is working in collaboration with local partner HST to prepare for pre-installation site assessments which are expected to be completed in the following quarter.

SIAPS continues to support the NDoH-identified ideal clinics. During the quarter, additional training sessions on RxSolution were held for the clinic in the Free State (FS) province. This brings the total number of ideal clinics that have completed the first stage of implementation to six. Further support will be provided to three remaining ideal clinics in other provinces in the following quarter.

Responding to the NDoH need for oversight on inventory management for facilities using RxSolution, SIAPS completed the development of an RxSolution dashboard that remotely pools data from health facilities with Internet connectivity. The dashboard is expected to be implemented once a reasonable number of RxSolution sites have connectivity.

SIAPS, NDoH, and USAID met on June 17 and agreed on the approach for the roll-out of RxSolution in KwaZulu-Natal (KZN), NW, EC, FS, Mpumalanga, and Northern Cape. Discussions are still underway with USAID on further plans to train PEPFAR partners to support implementation of the system. During the quarter, a total of 122 people received formal training.

#### *Partner contributions*

HST: Hired 12 staff to support implementation of RxSolution in their designated districts

#### *Constraints to progress*

IT infrastructure and support for network and connectivity hinder the optimal implementation of both RxSolution and Infomaker.

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

The NDoH is one of the five principal recipients of HIV and TB Global Fund grants. Under objective 4, SIAPS focuses on improving reporting by the Global Fund cluster within the NDoH, which is responsible for implementing the Global Fund projects in South Africa.

In April 2014, SIAPS, acting on a request from the Global Fund cluster, provided technical assistance in assessing the Central Procurement Unit's (CPU) compliance with the Global Fund product quality reporting tool. SIAPS reviewed the SLA between the NDoH and the three service providers who form part of the CCMDD to ensure good governance for procurement of ARVs through the Global Fund. SIAPS also provided comment on the CPU's quarterly report to the Global Fund. Several comments from SIAPS as well as the Building Local Capacity for Delivery of HIV Services in Southern Africa (BLC) project were consolidated and provided to the Global Fund. Furthermore, SIAPS provided detailed comment on the invoice tracking tool used by the CPU.

In the previous quarter, SIAPS had recommended that variances observed during the mandatory monthly stock take at the Domestic Distribution Centre be investigated further. A draft plan was drawn up for the Global Fund to follow up on how the stock variances would be handled. The

private company handling the Global Fund-funded stock in South Africa acknowledged that any variances would be at the private company's cost, and requested that NDoH draw up an invoice for the value of the stock.

SIAPS also assisted the Global Fund and CPU in developing a forecasting summary outlining projected ARV needs. Support was also provided with the submission of the product update reimbursement request (PUDR), specifically the summary of a narrative from the CPU to the local funding agent. SIAPS also reviewed the draft financial report submitted with the PUDR.

SIAPS was part of the Global Fund team implementing a dashboard piloted by Grant Management Solutions (GMS), an MSH initiative in five pilot countries. SIAPS assisted CPU in populating the dashboard with the key CPU indicator data to create the first Global Fund management dashboard for South Africa. The dashboard will help the principal and sub-recipients understand their performance on key indicators in the grant, including ARV coverage and counting pregnant woman on treatment. SIAPS is in the process of reviewing the CPU's SOPs for placing orders with suppliers and payment of suppliers.

SIAPS provided support to NDoH to analyze the 2013-14 financial year pharmaceutical expenditure from five provinces, namely FS, GP, KZN, NW, and WC. ABC analyses per generic name and therapeutic class were performed for each of the provinces and also consolidated for a combined analysis. The expenditure on the top 10 ATC classes for the financial year 2013-14 were compared with the top 10 for the previous financial year. For each of the top 10 ATC class, the expenditure per province was analyzed. As expected in a country with 2 million HIV patients on ART, ARVs came at the top of the list. Vaccines came second, highlighting the good uptake of the extended program for immunization aimed at reducing child mortality. Antimycobacterials, mostly anti-TB medicines, came in fifth. These results will be shared with provinces by NDoH.

In GP, SIAPS assisted the Dr. George Mukhari Hospital to perform an ABC analysis at the end of the financial year. The high usage of antibiotics in the hospital was a concern and triggered further analyses within that particular therapeutic class. An analysis of the expenditure on antibiotic per dosage form revealed that more than half of the expenditure was on injectable antibiotics. These findings were shared with the hospital and SIAPS will work with the PTC to design a corrective intervention.

### *Partner contributions*

GMS and BLC are also providing technical assistance for the implementation of the Global Fund dashboard.

### *Constraints to progress*

Several MSH teams (SIAPS, BLC, GMS) had been providing support to the Global Fund principal recipient in isolation. SIAPS, BLC, and GMS met to discuss individual technical support provided to the principal recipient and adopt a collaborative approach.

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

Work under objective 5 focused on quantification, interventions to improve medicine availability, and supporting new models of service delivery.

During the quarter, SIAPS focused its efforts on working with NDoH and provincial departments of health (PDoH) to quantify upcoming tenders (HP09 to HP12) as reported in objective 1. In the EC, SIAPS worked with the DoH to quantify fixed-dose combination ARV requirements as well as a model to allocate stock per facility based on patient numbers. SIAPS is also working with the EC to compare morbidity versus consumption quantification models for ARV RTKs.

SIAPS provided support to the NW Pharmaceutical Depot in preparation for the Medicines Control Council (MCC) inspection prior to licensing. Support provided included revising the SOPs and drafting the depot validation master plan. The depot inspection was conducted in June 2014. SIAPS worked with the Pharmaceutical Services Directorate to prepare and finalize the remaining supporting documents to be submitted to MCC by the end of June. The outcome of the inspection is expected in the next quarter.

Supportive visits were conducted at the LP and Mpumalanga Pharmaceutical Depots. The stock availability monitoring tool was revised for the Mpumalanga Depot. Medicine availability at LP Depot was 80% as of June 2014, which is 10% shy of the provincial target of 90%. Medicine availability at the LP Depot has steadily increased from 50% in March 2013. This has partly been attributed to several SIAPS supported interventions for supply chain management in the province.

In the FS, SIAPS continued providing technical assistance at the 10 lowest performing clinics and two community health centers that form part of the health facility improvement project in Mangaung district. Training on MSM was conducted in collaboration with the HST project, South Africa Sustainable Response to HIV/AIDS (SA SURE). Pharmacist's assistants and nurses responsible for handling medicines were trained. Because of financial constraints in the province, SIAPS provided the district with stationery in the form of files to ensure that all the SOPs, supervisory visit registers, and guidelines and policies were filed properly. A progress report meeting took place where the achievements and challenges were presented to the district management team. Several key factors were discussed:

- 8 of the 10 clinics are currently ordering supplies from the provincial pharmaceutical depot
- A roving pharmacist was appointed and is being coached and mentored by SIAPS to carry on supporting the facilities once the SIAPS intervention comes to an end
- A national core standards assessment conducted in May by the NDoH showed an improvement in the sub-domain relating to pharmaceutical services

This improvement was observed mostly in the clinics supported by SIAPS when compared to the initial assessment in 2012. The findings of the post-intervention assessment are currently being collated and will be finalized in the following quarter. In LP, SIAPS continued to provide technical assistance to community service pharmacists involved in the Adopt-a-Clinic project. Coaching and mentorship visits were carried out with a focus on MSM quality improvement

projects. A session on the Adopt-a-Clinic Project was facilitated by SIAPS for post-graduate diploma students at the School of Pharmacy at the University of Limpopo, Medical University of South Africa (Medunsa campus). The purpose of this presentation was to share experiences on implementation of this model which helps improve MSM practices at the primary health care level. Further support was provided to Vhembe and Sekhukhune District Hospitals in developing stock levels in support of direct delivery rollout in LP.

Work commenced on updating training materials and tools for supporting MSM activities at the facility level for all medicine including those for treating TB. Training materials include presentations and pre- and post-training assessment tools. The training materials for MSM for TB are based on the latest treatment guidelines (2013).

A workshop on pharmaceutical waste management was facilitated for fourth-year pharmacy students at the School of Pharmacy, Medunsa campus, University of Limpopo. SIAPS contributed financially to the NDoH interactive pharmaceutical workshop at the same university. Several topics on pharmaceutical management were presented by NDoH representatives including procurement, distribution, central procurement unit, legislation and licensing, and medicine legislation in the private sector. This was part of pre-service training organized by the university.

A training of trainers (ToT) workshop on MSM was conducted in the City of Johannesburg in collaboration with ANOVA Health Institute. The aim of the training was to capacitate DoH officials and partners to be able to facilitate similar training and mentorship at district and facility levels with a view to improve MSM practices, increase medicines availability, and reduce medicine expiry. Another formal training conducted in collaboration with HST SA SURE (local partner) took place in the Lejweleputswa district, FS Province.

In May 2014, SIAPS participated in a national workshop to promote integration of planning, implementation, and monitoring of the TB and HIV and AIDS programs; review the performance of the TB, HIV and AIDS, and PMTCT programs; review TB recording and reporting by NGOs; develop the data recording and reporting tools; establish the data flow process; and share the data received for the community contribution for the global TB report. SIAPS will be providing support on supply chain management and decentralization of the MDR-TB treatment program.

Data collection for the assessment of pharmaceutical management for TB for DCS was completed at the 98 selected sites in 6 regions (EC, GP, KZN, LP/Mpumalanga/NW, Northern Cape/FS, and WC) and 14 management areas. The preliminary results highlight the following:

- Eight pharmacies assessed were, on average, 77.2% compliant with relevant aspects of GPP rules. Compliance with cold chain requirements scored lowest at 62.5%.
- Only 52.1% of facilities comply with the DCS policy on HIV and TB; 31% of the correctional centers don't use the NDoH TB guidelines or have an outdated version.
- Only 20% of the correctional centers have an infection control plan for TB.
- Assessment of patient knowledge showed that in the majority of centers (40) a score above 81% was achieved. Preliminary results highlighted gaps in stock management and compliance with GPP at the pharmacy level. At correctional centers, issues regarding

treatment compliance and health record management were also observed. The final assessment report is expected in the next quarter.

Some of the findings from the assessment of pharmaceutical management of TB medicines within DoH facilities conducted in 2013 were presented at the 4th South Africa TB conference held in Durban in June. Findings related to compliance with the STGs for TB were shared during an oral presentation, and findings on patients' knowledge were presented in a poster. SIAPS is engaging with provincial and district TB coordinators to prepare a work plan to address the gaps identified during the assessment.

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

SIAPS committed to building capacity in the governance and functioning of PTCs as a vehicle for improving RMU. To date, SIAPS has supported 3 of the targeted 16 PTCs to show evidence of interventions aimed at improving RMU. The EC provincial medicine formulary was finalized this quarter.

SIAPS completed and presented the academic detailing and implementation strategy for the pediatric EML to the Essential Drugs Program (EDP) for comment. In development of the strategy, SIAPS considered current methods of disseminating information from national to provincial levels, and the key stakeholders in the process. The EDP informed the heads of pharmaceutical services that books are available for order through the provincial depots. SIAPS designed a flyer for distribution to stakeholders, advertising the revised pediatric STGs and EML for hospitals. The EDP will facilitate the distribution of material to provinces and districts.

In May, SIAPS delivered a two-day pharmaco-economics course to the public health and medicines management graduate students at the University of Limpopo Medunsa campus. A session was dedicated to a discussion of the South African pharmaco-economic guidelines. SIAPS developed a full class module for the course and also developed an in-class quiz that will be administered to students at the next contact session. SIAPS was also requested to set a take-home assignment and an in-class examination for the students for later in the year.

Following an ABC analysis, the district pharmacist for West Rand District had embarked, with SIAPS assistance, on an evaluation of the use of cefixime at the primary health care level. Cefixime is an antibiotic indicated in the management of sexually transmitted infections; 42 facilities were selected and 325 patient files reviewed. The findings from the medicine use evaluation show 86% compliance with the STGs. These results were shared with the district PTC. The West Rand district pharmacist identified a potential inappropriate use of abacavir 300 mg tablet, an ARV primarily used for children and adolescents. SIAPS assisted with the development of the tool as well as the electronic database for data capturing and analysis.

The Gauteng Provincial PTC (GPPTC) identified the lack of harmonization in the items used in medical emergencies at the primary care level across the five districts. SIAPS assisted with the review of the emergency trolley lists from each district. The medicines listed were consolidated and compared with the ones listed in the emergency chapters of the National Standard Treatment

Guidelines for PHC and district hospitals. A proposed emergency trolley list was drafted and circulated to GPPTC members for comment.

Because of the difficulty in obtaining information on the number of terminated pregnancies, live births, and still births from the Mother and Child Health Program, the GPPTC requested misoprostol pharmacy and ward registers from 12 facilities on the basis of the high quantities of misoprostol ordered over the past 6 months. The data will be analyzed and compared with procurement data to identify potential misuse of misoprostol.

SIAPS supported the Formulary Sub-Committee of the GPPTC in the use of evidence-based medicine and pharmacoeconomics. Dexemedetomidine was identified as one of the items on the non-EML list that could be removed because of its high cost. Comparators are midazolam and propofol. A brief review of literature indicated that there was no difference in sedation outcomes between treatments and therefore a simple cost-minimization analysis could be done. The results of the analysis support the removal of dexemedetomidine from the formulary. Biologics use in rheumatoid arthritis has been identified as another high-cost non-EML item. Currently an alternative to disease modifying antirheumatic drug therapy is leflunomide, but this item is also non-EML. A cost analysis was done to determine whether a more comprehensive pharmacoeconomic analysis should be pursued. In addition, rituximab (also used in treatment of refractory rheumatoid arthritis) is available as an oncology product on the EML but not for rheumatoid arthritis. Leflunomide and rituximab were identified as lower-cost items compared to the biologics, but they will require pharmacoeconomic analysis to support their motivation to the EML.

SIAPS assisted the GPPTC in writing the 2012/14 biennial report, which presents information related to the structure and functioning of the PTC, their activities, and the achievements and challenges encountered. The report is intended to build trust with relevant stakeholders in the province through communication and transparency. The report is currently being edited by CPM Editorial. The final report will be shared with local PTCs in the province as well as with health care professionals at the hospital and district levels.

In the EC, SIAPS provided assistance to the provincial PTC in the finalization of the provincial formulary. The final draft was circulated for comments among members prior to wider dissemination.

SIAPS provide technical assistance to the UMkhanyakude District PTC in KZN and supported the PTC to finalize their terms of reference, which were approved by the PTC for signature by the district clinical manager.

SIAPS provided support to the WC Department of Health at the Rational Medicine Use Stakeholders Forum. This provided SIAPS with the opportunity to partner with WC to strengthen skills and expertise to implement interventions to promote RMU.

A presentation was made at a two-day decentralization of MDR-TB care strategic workshop in East London in the EC. SIAPS assisted the national tuberculosis program (NTP) in their support visit to the Amathole district in the EC. A facility supervisory support tool designed by the NTP was used to assess facilities in terms of their infrastructure, care of patients, recording and

reporting, laboratory, and pharmacy issues. SIAPS was also part of the team that assessed Fort Grey TB Hospital. Reporting and recording were identified as sub-optimal in most facilities, particularly those designated for managing drug-susceptible TB. The EC Province has therefore implemented a “rapid response” system to address these shortcomings. Rapid response implies that the provincial TB program members leave their offices in Bisho and physically go to sites to provide on-site support at facilities. Further support is being provided to the OR Tambo district to implement decentralized management of drug-resistant TB patients, which may help decrease the number of lost-to-follow up patients because patients had to travel up to 500 km for treatment of their MDR-TB at the Centralized Units.

SIAPS continued to provide support to the NDoH Pharmacovigilance Centre (NPC) in implementing the decentralized pharmacovigilance system in Mpumalanga and supported the roll out to NW Province. The efforts by the NPC in Mpumalanga have resulted in a significant improvement in ADR reporting patterns, thus more effectively supporting HIV and AIDS clinical care and medicine safety activities. The results from Mpumalanga are currently being used as the springboard for national roll-out which will take place over the next few years. There are 24 clusters (total of 290 facilities) that were formed in Mpumalanga and are fully functional.

SIAPS worked with the pharmacovigilance provincial coordinator to develop an SOP on recognition of adverse events and ARV toxicity. The purpose of the SOP is to assist health care professionals in early recognition and management of side effects, adverse events, and ART toxicity in adults with HIV. This was particularly useful for the Delmas clusters that had new doctors who needed training. SIAPS will continue to work with these clusters to improve reporting performance.

In NW, SIAPS provided support on the second phase of implementation training to stimulate reporting and improve the quality of reports received; 12 clusters are actively reporting and 4 had their first cluster meeting. SIAPS and the NPC are supporting the clusters on management of ADRs.

SIAPS worked with NDoH, South African Pharmacy Council, and South African Pharmacy Society to identify the theme for the 2014 Pharmacy Week and develop a preliminary concept. The theme for this year will be antimicrobial resistance. The campaign will aim to raise awareness of the danger of inappropriate and excessive use of antibiotics. The team agreed with the proposed content of the flyer and poster, and each partner was tasked to review them within their respective organizations. SIAPS conducted an informal survey among its non-technical staff to assess understanding of the poster. It appeared that the poster didn't convey the message as expected, raising concerns of sending the wrong message to communities about antibiotics. The team will reconvene to discuss the most appropriate message.

### *Partner contributions*

- South African Pharmacy Council and the Pharmaceutical Society of South Africa formed part of the Pharmacy Week Committee
- I-Tech: Maintenance of Train-Smart database for healthcare workers trained for the pharmacovigilance program in Mpumalanga

- BroadReach Healthcare: Assisted with printing in small quantities for the pharmacovigilance program
- Right to Care: Funded provincial pharmacovigilance coordinator position

## **South Sudan**

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

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

During the quarter, SIAPS/South Sudan continued in the health systems support mode and provided emergency relief, critical functions, and support services to the Ministry of Health (MoH) focused on improving availability and accessibility of much needed essential medicines to various states including the Central Equatorial State (CES) and Western Equatorial State (WES). SIAPS delivered essential medicines fund (EMF) medications required to support MOHSW's efforts to reduce preventable maternal and child deaths. These included oral rehydration salts for diarrhea; antibiotics for pneumonia in children; antimalarials, such as ACTs; sulphadoxine-pyremethamine used for intermittent prevention treatment of malaria in pregnancy; and oxytocin and misoprostol for post-partum hemorrhage. SIAPS also worked with the USAID PEPFAR team and the national AIDS control program to take stock and assess the commodity needs of the HIV and AIDS program.

During this period, the modified SIAPS work plan (April-September 2014) was approved by USAID. The updated work plan included a number of new activities: printing PMIS tools, providing pallets to the CES warehouse, and providing solar panels. Activities such as updating the STGs and support on Kaya mini-lab quality assurance work were dropped in favor of focused supply chain support to the states. Another critical milestone was the signing of a memorandum of understanding between SIAPS and the DELIVER project, following two separate meetings called by USAID. This enabled SIAPS to take over the lead from DELIVER in the provision of EMF supply status updates to all partners including MOHSW. It was agreed that, between the two projects, SIAPS was better positioned to undertake this task and to address the increasing complaints from partners and MOHSW on the gaps in communication about EMF supplies.

SIAPS supported MoH in updating the distribution plans and inventory-issues vouchers for all counties and facilities. So far, the first quarter of EMF lots 1, 2, 3, 4, 5, 6, 9, and 15 have been distributed to seven states. All counties in WES and CES have received their essential medicines and supplies. Representing country coordinating mechanisms (CCMs) of the Global Fund, SIAPS participated in a malaria control strategy review meeting organized by Roll Back Malaria. A follow-up meeting resulted in the development of a draft malaria strategic plan (MSP) for South Sudan that outlines strategic objectives and priority interventions. A two-week stakeholder workshop worked out detailed components of the new MSP, identifying priorities for inclusion in the Global Fund new funding model concept note.

During this quarter, the M&E indicators for SIAPS/South Sudan were reviewed resulting in realignment of some of the indicators to reflect the realities and ensure that it fits into the SIAPS global indicators.

The indicators being reported this quarter include:

- Number of county stores that have been de-junked and stock cards updated (target 16): SIAPS de-junked 14 out of 16 county stores (87.5%), which exceeds the targeted 60% for the quarter
- Malaria strategic plan developed, printed, and disseminated (target 1): draft national strategic plan developed, but not finalized (finalization process is on-going and when completed, the document will be printed and disseminated)
- Central-level Pharmaceutical Technical Working Group (PTWG ) meetings with MoH and partners to discuss central-level pharmaceutical-related matters (target of 2 per quarter): SIAPS organized and facilitated five PTWG meetings during the quarter, exceeding the number by 150%

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

SIAPS participated in a South Sudan health cluster meeting, where stakeholders and partners discussed current issues in emergency health services including stock-outs of essential commodities. SIAPS delivered a presentation on de-junking activities carried out in WES and CES, and advocated for other partners to conduct similar campaigns with other states' community health depots (CHDs) and health facilities to avail space for EMF medicines and improve storage management. During this quarter, the first consignments of EMF supplies reached counties and facilities with minimal storage challenges following the de-junking exercises.

Upon request by USAID-PEPFAR, SIAPS conducted an assessment of PEPFAR commodity sites in CES to determine the quantity of expired HIV commodities. During this assessment, commodities such as nevirapine suspension, lancets, Determine and Unigold RTKs, and co-trimoxazole tablets were found to have expired. SIAPS finalized two gap analysis and de-junking reports, which are to be used in continual advocacy to leverage resources from other partners to improve the CHDs store management and provide required materials and PMIS tools. The reports identified 6 out of 16 counties in WES and CES that do not have county stores and 2 out of 10 stores that did not have personnel to manage stocks. It also identified that shelving and pallets were still a challenge and several stores still kept essential commodities on the bare floor, thus affecting quality and integrity of the medicines.

Presently, World Vision has agreed to provide support in addressing gaps in Mundri East health facilities.

SIAPS de-junked Olo PHCC (PEPFAR site) in Maridi County and met CHD and Malteser International (integrated service delivery partners [ISDP] and county implementing partner [CIP] in Maridi County) staff to discuss the distribution of EMF. At the end of the discussions, Malteser agreed to support the county to carry out the distribution to facilities. SIAPS will address some of the transportation needs/gaps where necessary.

SIAPS delivered 580 misoprostol tablets to each of three counties in WES: Mundri East (resupply), Mundri West, and Tambura (first supply).

Six health workers from CHD and ISDP partners in the two counties were trained in repackaging, labeling, and issuing of misoprostol. Together, the group prepared 50 doses of misoprostol for each county. This is to strengthen pharmaceutical management and adherence to inventory management and the rational use of misoprostol in the management of post-partum hemorrhage.

To support the MoH's HIV and AIDS prevention program, SIAPS facilitated release of tax exemption documents for the shipment of PEPFAR-supported ARV commodities including reagents. SIAPS obtained the exemption within two weeks of the request and have submitted it to the clearing agent for action. This will ensure availability of life-saving commodities and test reagents to help treat HIV patients.

### *Constraints to progress*

- The current insecurity in some parts of the country, especially in the Unity, Upper Nile, and Jonglei areas, has impeded the supply of very essential medical supplies to these states. This has been a big challenge to the EMF working group. We have, however, developed several options and proposals to be presented to MoH for approval.
- The rains and bad roads have also made transport and distribution of medical supplies very difficult in some parts of the states. In WES and CES, the roads are relatively better, but still a challenge in some parts of the counties.
- Storage capacity at the county and health facility levels remains a big challenge as these facilities receive tons of medical supplies quarterly. The de-junking activity has relieved most counties but doesn't solve the long-term problem of storage; improved storage capacity is needed in most counties with proper storage handling equipment and human resources.

### *Partner contributions*

- SIAPS worked with its ISDP partners in WES and CES to ensure that distribution of the EMF is monitored and that further distribution to the facilities is carried out.
- ISDP also provides information to SIAPS on functional facilities during updating of the distribution plan and alerts SIAPS on any challenges during the distribution of EMF.
- Other partners such as the Health Partners Fund (HPF) also engage SIAPS for technical assistance in pharmaceutical management trainings and de-junking activities.

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

SIAPS developed an action plan with a training of trainers (TOT) program on pharmaceutical management intended for ISDP and its implementing partners; state MOHs and CHDs in CES and WES; and program managers and pharmacy focal personnel to ensure proper drug management and RMU with focus on EMF commodities. This has been initiated based on lessons learned through the previous Multi-Donor Trust Fund (MDTF) supplies, which resulted in expiries and stock out of some medicines. Most of these issues were due to lack of capacity in inventory management systems, irrational medicines use, and poor supervision. The training will cover all these critical areas and it is intended that ISDP and CHDs will roll out the trainings in

their various facilities through regular supportive supervision and training. Ultimately, this will ensure continuous availability of essential medicines.

To obtain data on malaria diagnosis and treatment, availability of tracer medicines and medical supplies, handling of expired drugs, dispensing environment, storage conditions, dispensing practices, availability and application of MoH-approved LMIS tools, and appropriateness of record keeping of supplies documents, SIAPS carried out supportive supervision activities in Lainya, Yei, and Morobo counties.

### *Constraints to progress*

The availability and capacity of human resources throughout the supply chain and at the facilities are low. This results in delays in rolling out interventions. Most of the county and health facilities do not have pharmacists and trained store managers. Continuous supportive supervision at the county and health facility levels is lacking, causing delays in inaugurating interventions to resolve challenges that arise.

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

SIAPS had a review meeting with representatives of the State MoH (SMoH), state malaria control coordinator, state malaria M&E officer, and storekeepers to explain the concept of the Continuous Results Monitoring System (CRMS) as a tool for supervision and data collection. The meeting was very successful as the members expressed readiness to participate in the CRMS exercise facilitated by SIAPS.

Following the review and sensitization meeting, SIAPS conducted joint SIAPS/MoH supervision at facilities in Mvolo County (Mvolo and Yeri PHCCs), Mundri West County (Mundri and Kotobi PHCCs) and Mundri East (Lui County Hospital and Lanyi PHCC). During the visits, CRMS data was collected, stock cards and dispensing registers assessed, stocks of misoprostol checked at antenatal care clinics. SIAPS met with the staff at the Catholic Medical Mission Board (the ISDP implementing partner in Mvolo) to discuss pharmaceutical management (mainly distribution of EMF and implementation of a pull system) and use of a MoH-approved LMIS/PMIS tool. The team also used the opportunity to train the new dispensers at Lui Hospital to use the dispensing tray.

Similar activities were carried out in Juba, Morobo, Yei, Lainya, and Kajo Keji counties in CES. Data on malaria diagnosis and treatment, availability of tracer medicines and medical supplies, handling of expired drugs, dispensing environment, storage conditions, dispensing practices, availability and application of MoH-approved LMIS tools, and appropriateness of record keeping of supplies documents were assessed, and the information is being analyzed.

SIAPS, as part of its support to other partners in strengthening information management, had a meeting with HPF on implementation of Logistics Management Unit (LMU) data collection and analysis in the other states beyond CES and WES. This would help get other partners in other

states to implement similar activities and consolidate our efforts at improving information management of commodities in- country, especially EMF commodities.

SIAPS provided on-the-job training for the facilities at Lasu, Kaya, Logo, Angebi, Pisak, Jamara, Limuro, Kogulu, and Bori during the de-junking of expired commodities, including stock card updating and store management.

*Constraints to progress*

- Human resources challenges exist at all facilities. The capacity to undertake inventory management task is minimal, which leads to delays in receiving prompt and accurate inventory reports for analysis.
- Most of facilities did not have tools, which makes recording keeping impossible.

***Objective 4: Pharmaceutical sector governance strengthened***

Procurement of reagents and reference drugs was initiated to ensure that the operations of the mini labs in Juba and Kaya are not interrupted and, more importantly, to make sure that safe and quality medicines enter the country through the borders, especially from the private sector.

*Constraints to progress*

As part of USAID's request to revise the SIAPS/South Sudan work plan, we have removed all activities under this objective until further notice and suspended all procurements and technical assistance work in this area, despite MoH's request for support in that area.

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

In the area of malaria case management, SIAPS reviewed and updated the national guidelines based on WHO recommendations, adapted them to the country context, and submitted them for adoption. Reflecting best practices, the guidelines will be used for TOT, health worker trainings, and at facilities.

SIAPS developed a malaria case management TOT training plan for 16 trainers and 200 health workers in WES and CES. This involved review of previous training plans (e.g., Global Fund Costed Extension Plan and partners-funded trainings). SIAPS participated in a harmonization exercise organized by MoH's M&E department for review of indicators for routine reporting. SIAPS reviewed routine malaria indicators in HMIS, Infectious Disease Reporting Systems (IDRSs), and Sentinel Sites reporting tools, identifying indicators for inclusion in DHIS. In another meeting, indicators were presented, discussed, and 15 were agreed upon for routine reporting (60% increase). This will ultimately minimize the cost of parallel reporting.

SIAPS participated in review and update of the malaria roadmap for Global Fund concept note development. SIAPS presented the updated roadmap in a CCM meeting and incorporated

comments. The roadmap ensures that all activities are completed and that the concept note is submitted by August 15, 2014, which is critical for obtaining malaria funding by January 2015.

In the area of concept note development, SIAPS participated in meetings to develop country dialogue plans, stakeholder and partner preparatory meetings, and the first malaria country dialogue where SIAPS presented the new MSP. Country dialogues inclusive of all stakeholders, partners, and key affected populations are a key requirement by the Global Fund for concept note development.

SIAPS participated in a capacity development workshop for disease programs organized by CCM and funded by DFID to help program staff better understand the Global fund's new funding model and develop a successful concept note.

For World Malaria Day, SIAPS chaired meetings, took minutes, added technical input, designed banners and posters, reviewed key messages (jingles, drama song), arranged and decorated the venue, and drafted and printed the day's program.

In the area of MIS, SIAPS participated in data cleaning and report writing. SIAPS drafted contracts and TORs for national and international consultants, including contract extensions, and helped with cleaning and merging of slide results with individual household data by identifying coding linkages. Except for one state, the process is complete for nine states.

To track progress, achievements, and challenges in MSP implementation, SIAPS met with malaria M&E focal persons to discuss a plan for NMCP M&E activities that includes supervisions, studies (TET/MIS), reports (HMIS, IDSR, partners), meetings (IDRS), HMIS), and Sentinel Sites.

### *Constraints to progress*

The past political crisis has stalled major activities to be implemented, and the realignment of the work plan saw some activities removed.

### *Partner contributions*

The Global Fund through PSI, WHO, and USAID, has been supporting malaria activities through the engagement of technical assistance/consultants and advisors. USAID has also contributed in the procurement of anti-malarials for the case management of malaria.

## Swaziland

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

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

The SIAPS program continues to play a vital role in ensuring the achievement of Swaziland's health outcomes for HIV, TB, and FP. According to the recent report from MoH's M&E department, 103,865 patients are on ART (March 2014), which is over 80% of those eligible for this life-saving treatment. A majority of these patients are women and less than 10% are children.

The accelerated scale-up of treatment and combination-prevention interventions continues to put pressure on the supply chain management of health products, both medicines and laboratory commodities.

SIAPS has worked with local stakeholders to ensure that interventions such as increasing access to treatment take into consideration the commodity needs in the country. The Supply Chain Technical Working Group (SCTWG) continues to advocate for sufficient resources for health commodities, but also for effective planning of scale-up activities to ensure commodity security. During this quarter, the SCTWG worked with the various departments in MoH, in collaboration with local partners to ensure adequate funding for HIV, TB, and FP commodities.

SIAPS supports the pharmaceutical sector toward ensuring that the personnel responsible for HIV pharmaceutical services are adequately skilled to provide quality care. The focus in this quarter was on training and skill development in inventory management because of the many staff changes that occurred at facilities at the end of December 2013. New staff members were hired by MoH for inventory management and dispensing activities, and it was necessary to provide them with the skills to carry out their functions effectively. All the participants were assisted to develop post-training action plans and implement them over the four weeks after the training. The pharmacy certificate students at the Southern Africa Nazarene University (SANU) completed their two-year academic program and are due to graduate in the next quarter.

Good quality data and information is critical in ensuring that services and products are made available to the people that need them. SIAPS worked with the Clinton Health Access Initiative to support the MoH (Logistics) Data Management Unit (DMU) in conducting data quality audits and feedback for 39 ART treatment facilities. During these visits, the facilities were given feedback on their reports for the previous quarter and mentored on correct use of the logistics information management tools. The reporting rate has declined to 87.2% in this quarter, from 92% in quarter 2.

During this quarter, SIAPS worked with UNFPA to launch the five-year FP commodities quantification report. This report is the output of the previously reported quantification for FP commodities including condoms. The results of the activity showed a projected increase in the use of male condoms, female condoms, and implants, leading to a total commodity procurement

of USD 7,387,531 over the five-year period. Male and female condoms account for 49% of the procurement requirement. An estimated 2,654 maternal deaths can be averted during the five years, based on this quantification's assumptions.

SIAPS supports active surveillance for HIV and TB medicines. This activity began in quarter 3 of 2013 and to date 956 clients have been enrolled in the project from six health facilities. The most common adverse event recorded has been peripheral neuropathy. The activity will track the enrolled patients over the next 12 months to monitor the prevalence of adverse events and inform patient management protocols.

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

The HIV burden and increased cases of non-communicable diseases (NCDs) highlights the importance of having a well-regulated pharmaceutical sector to support the country in delivering quality programs for its citizens. This is especially important now because more clients have access to private pharmacy outlets and can purchase their choice of over-the-counter medicines, which, if not regulated, may have a negative impact on the fight against TB, HIV, and NCDs.

SIAPS continued advocating for the enactment of the Pharmacy Bill and the Medicines-Related Substances Control Bill. The bills have been approved by the Cabinet and have been published in the *Swaziland Government Gazette*, no. 56 (May 2014). SIAPS also provided input in the drafting of the Patents Bill to ensure that flexibility in regards to Trade-Related Aspects of Intellectual Property Rights (TRIPS) is adequately incorporated.

Positioning Swaziland to respond to the global epidemiological shift toward controlling the spread of NCDs, SIAPS facilitated establishment of the National Essential Medicines Committee (NEMC) to improve transparency and accountability in coordination, supply, and rational use of essential medicines. The NEMC had its first meeting this quarter after members were appointed by the principal secretary for health. The meeting was attended by various stakeholders from hospitals, health centers, and academic institutions.

SIAPS also facilitated the 9th Supply Chain Technical Working Group (SCTWG) meeting. This meeting discussed challenges with continuous availability of commodities for HIV, TB, the laboratory, FP including condoms, and essential medicines, particularly for NCDs.

SIAPS continues to support the MRA interim desk in its duties to improve regulation of medicines in Swaziland. SIAPS has established a Microsoft Excel-based medicine database which lists 6,782 products imported into the country.

SIAPS participated in the tender adjudication process to procure equipment for the Quality Control Laboratory to make its operations more efficient. This procurement is funded by the Global Fund, under a Health Systems Strengthening grant.

SIAPS, in collaboration with the European Union/World Bank project, assisted the procurement unit in establishing an effective contract management system by drafting a supplier's performance management plan.

SIAPS offered technical assistance at three forums for public sector pharmacists and pharmacy technicians. The forums were supported to improve pharmaceutical care as stipulated in the Swaziland Pharmacy Strategic Plan (SPSP) for all patients, including HIV and TB patients. These meetings were important as SIAPS is working with local institutions to introduce a mid-level pharmacy cadre that MoH does not have in its current organizational structure.

SIAPS continued to support the implementation of strategic and evidence-based pharmaceutical sector development plans. During this quarter, SIAPS facilitated printing of 600 copies of the SPSP in readiness for dissemination. SIAPS has continued to work with MoH in finalizing the M&E framework for the SPSP. Currently, this document is pending stakeholder review and approval. Furthermore, the baseline survey report was finalized.

### *Constraints to progress*

- Delays in finalizing the procurement procedure manual and SOPs
- Delays in the parliamentary process for the enactment of the pharmacy legislation

### *Objective 2: Increase capacity for pharmaceutical supply management and services*

SIAPS targets for the quarter are centered on providing training and mentorships to health care workers (HCWs) at national, regional, and facility levels to ensure the delivery of quality pharmaceutical services.

SIAPS, in collaboration with MoH, facilitated two trainings, reaching 65 HCWs; 38 HCWs were trained on logistics management information systems (LMISs) and 27 were trained on inventory management using RxSolution. The primary target for these trainings was pharmacy personnel working at ART treatment facilities and CMS and DMU staff. The objective of the trainings was to equip the HCWs with the necessary skills on inventory management. At the end of these trainings, all 65 participants developed and completed post-training action plans.

Mentorships and supportive supervisory visits were also provided at 55 health facilities on topics such as laboratory supply chain management, inventory management using RxSolution, stock card updating, Good Dispensing Practices and Good Storage Practices, and pharmaceutical data management. These visits also served as follow-ups to determine the level of implementation of the post-training action plans.

An on-site training was conducted at Phocweni USDF (Umbutfo Swaziland Defense Force) Clinic focusing on inventory management, use of SOPs, and ADR monitoring and reporting with special focus on HIV/TB medicines. Four military health workers were trained. This training was jointly facilitated by MoH pharmacists and SIAPS technical advisors.

SIAPS efforts to strengthen service delivery continue through strategic partnerships. During the quarter, SIAPS worked with the International Centre for AIDS Care and Treatment Programs (ICAP) in supporting MoH in decentralizing HIV and TB services in the Manzini region. This

support was provided at Luyengo and Bethany Clinics to improve their storage of products in preparation for a planned accreditation as HIV/TB initiation sites.

SIAPS also continues to strengthen local institutions and organizations that provide pharmaceutical services. SIAPS therefore continues to provide direct support at SANU where 44 students are enrolled for a certificate in pharmacy program. Following the approval of the diploma in Pharmacy program last quarter, the current 22 first-year students (August 2013 intake) have been transferred to the diploma in pharmacy program. SIAPS is also working to build the research capacity at the SANU Department of Pharmacy.

### *Constraints to progress*

- Staff attrition at health facilities; departing staff did not transfer their skills to remaining staff
- Lack of adequate storage space at facilities and Swaziland Health Laboratory Services Warehouse
- No clear lead for supportive supervision in the pharmacy department

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

SIAPS continues to address information for decision making challenges through the use of innovative tools to ensure improved facility and central-level capacity to manage stock levels (at min-max levels) based on the observed demands/consumption rate of commodities. Information is important in the provision of pharmaceutical care, especially in monitoring patient outcomes for HIV and TB. Through support from SIAPS, MoH has established and implemented RxSolution, a web-based commodity tracking system (CTS), and an LMIS to improve access to and use of information for decision making.

SIAPS, in collaboration with CHAI, supported the CMS–DMU to conduct a logistics data quality assessment aimed at validating data, providing feedback, and providing mentorship on the appropriate use of LMIS forms to 39 (100%) ART facilities. A total of 80 HCWs from 46 facilities (39 ART facilities and 7 FP sites) were visited and mentored on pharmaceutical data management. Preliminary results showed that facilities reported data that had a wide margin of error (51% confidence level) in the areas of patient and stock information.

During this quarter, 87.2% of the targeted 39 reporting facilities/sites submitted their reports for the most recent reporting period ending May 2014; 85% of the reports were submitted within the stipulated period (before the 15th of each month). Only 15% managed to submit reports by the 7th working day of each month in the last quarter.

SIAPS also conducted a baseline assessment at facilities using RxSolution for both stock management and ARV dispensing to ascertain common problems and also troubleshoot system errors that have been identified or reported.

SIAPS continues to work toward establishing and operationalizing RxPMIS for HIV patient information management. SIAPS continued to guide and support the development of RxPMIS

through the local contracted vendor, IHM. This quarter, RxPMIS deliverables were received and the process toward testing and piloting the application was initiated in consultation with MoH counterparts.

SIAPS/Swaziland also continues to support implementation of the CTS which has been installed at the National Clinical Laboratory. For the months April-May, the average reporting rate was 100%, an improvement from 79% in the previous quarter. SIAPS held meetings on the CTS with technical leads from the MoH Strategic Information Department. In these meetings, personnel were updated on the current status of the CTS redesign and also their roles within the whole project. The system was also presented to the MoH regional IT officers, who were trained on the operational features of the system.

SIAPS also facilitated a meeting with the National TB Control Program (NTCP) pharmacist and eight MDR-TB facilities representatives to discuss ways to align the ordering and reporting of MDR-TB medicines. Participants identified relevant data elements that need to be reported to the CMS and NTCP for program-specific and supply chain decision making. It was also agreed that the system of ordering and reporting second-line TB medicines should be aligned with the order and reporting system of first-line TB medicines at MDR facilities.

#### *Constraints to progress*

- Shortage of IT support staff at MoH
- Delays in getting approval/confirmation on the no-cost extension of RxPMIS redesign contract

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

Strengthening financing strategies and mechanisms to improve access to medicines is one of SIAPS intermediate result areas in Swaziland. Adequate, efficient funding ensures availability of priority commodities at the right time and right quantities. This is critical in Swaziland since the country currently has 103,865 people on ARVs as reported in the quarter ending March 2014. The country has embarked on implementing PMTCT option B+ which will see more women enrolled on lifelong ARV treatment for their own health and that of the infant. Therefore, strengthened financing mechanisms become imperative. The extended National Strategic Framework (2014–2018) for HIV and TB has set ambitious targets for scaling up HIV and TB treatment. This is in line with the new strategy on combination prevention which will also see clients with CD4 less than 500 also initiated on ARVs early.

SIAPS has been supporting MoH in facilitating the quantification and demand planning for HIV, TB, laboratory reagents, and FP commodities including condoms. SIAPS facilitated four supply plan meetings for HIV, TB, FP (including condoms) and Laboratory commodities. The supply plan report produced was used to generate purchase orders to be submitted to the procurement unit for action. The supply planning is an important exercise in ensuring that the correct quantity of products is procured at the right time, and avoiding wastage. Over the past cycles of supply

planning, the MOH has made significant savings in commodity procurement buy ordering correct quantities.

Moreover, SIAPS has been supporting MoH in facilitating annual forecasting and demand planning exercise for priority health program commodities. This quarter, SIAPS, in collaboration with United National Population Fund (UNFPA), produced a five-year quantification report for FP commodities, including female and male condoms. The report was launched at a meeting attended by MoH and local stakeholders in FP commodity security.

### *Constraints to progress*

- Inadequate funding for health commodities
- Delays in tender approval and extension, which affected the procurement of laboratory commodities for HIV
- Suppliers not able to meet their contracted commitments to supply commodities on time

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

SIAPS continues to monitor the stock levels of priority products at facility and national levels. The central warehouse reported stock outs of certain tracer medicines (first-line TB drugs), namely:

- RHZE RH 150:75 mg
- ABC/3TC 60/30 mg (pediatric)
- TDF/3TC 300/300 mg

The stock levels of the following items were below the minimum of two months of stock:

- ABC 300 mg
- DDI 400 mg
- EFV 600 mg
- TDF/3TC/EFV 300/300/600 mg
- AZT/3TC 300/150 mg

The stock levels of male condoms were sufficient for five months at the central warehouse, with no facilities reporting a stock-out.

SIAPS is also supporting MoH in implementing the roll-out of Option B+ for the PMTCT program by providing technical assistance in supply chain and pharmaceutical care activities. Availability of ARVs for starting the program remains a major limiting factor.

SIAPS conducted monitoring and supportive supervision for TB/HIV active surveillance at six sites. SIAPS and the MOH Pharmacovigilance Unit participated in active surveillance system training conducted by the contractor, Virtual Purple. SIAPS then developed a work plan to strengthen this activity which also led to the intensive retrospective capturing of missing patient information from June 1, 2013, to May 31, 2014. Since the beginning of the activity, 956 patients

have been enrolled, and 58 adverse events recorded. The common ADR thus far in this activity has been peripheral neuropathy (26%), with rash and dizziness at 19% and 8%, respectively.

SIAPS collaborated with ICAP, UNICEF, Elizabeth Glaser Pediatric Foundation, and the Baylor College of Excellence in supporting MoH in reviewing and developing pediatric TB/HIV pocket guidelines. This activity is intended to strengthen the safe prescribing and treatment of HIV and TB, and further reduce drug-resistant cases among children.

SIAPS supported TB adherence monitoring as part of the TB DOTS program. A quarterly report was compiled with the adherence scores for patients currently on TB medicines. The report includes recommendations on improvement of TB treatment and adherence to subsequently reduce the incidence of DR-TB and achieve better outcomes for HIV-TB co-infection. According to the report, 18 health facilities have submitted their reports since February 2013, and 85% (n = 226) of the patients have adherence level scores of 80% and above. This is below the target score of 95%.

SIAPS continued to support facility Pharmaceutical Therapeutic Committees (PTCs) at five health facilities. The PTCs conducted meetings to deliberate on issues affecting pharmaceutical management, i.e., antimicrobial resistance, drug availability, and RMU.

SIAPS successfully facilitated the warehousing quality-improvement project at the National Laboratory Warehouse to address challenges relating to the proper storage of commodities. Solutions for space challenges were identified and recommendations made accordingly.

### *Constraints to progress*

The data analysis for the active surveillance activity and supportive visits highlighted a number of shortcomings, including the stalled recruitment of patients into this activity, staff shortages, and high turn-over, leaving behind members who are not trained on the activity.

## Tajikistan

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

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

In quarter 3, SIAPS continued support to Tajikistan's National Tuberculosis Program (NTP) to strengthen its capacity in pharmaceutical management. In particular, SIAPS assisted in setting up an early warning system of problems in supply of anti-TB medicines and quantification of needs. SIAPS conducted a workshop in Tajikistan with the national and regional pharmaceutical management coordinators. The coordinators were trained on use of QuanTB and an Excel<sup>®</sup> tool for collecting data for QuanTB. The coordinators have already started collecting data in this quarter, which will be analyzed in Quarter 4. This activity will help to develop early warning system and also local capacity in quantification and data analysis for anticipating problems in supply chain and decision making.

SIAPS is on track for Objective 2 developing strategy for TB pharmaceutical management information system (PMIS) as a draft assessment report of an electronic PMIS has been completed. Now options for strategies for improving the existing TB PMIS are being considered.

### ***Objective 1: Capacity for Pharmaceutical Management and Services Increased and Enhanced***

#### ***Quarterly Progress***

During SIAPS's visit to Tajikistan in May, the NTP agreed that a system for use of QuanTB as an early warning and quantification tool needs to be set up as early as possible because country may face stock-outs of anti-TB medicines at all levels. At the initial stage, the system will be piloted for second-line anti-TB medicines and pediatric first-line anti-TB medicines, because monitoring of pediatric medicine consumption remains a challenge for the central level. During the visit, SIAPS helped organize a workshop with the National and Oblast Pharmaceutical Management (PM) coordinators, during which the coordinators were trained on use of QuanTB and the tool for collecting data for QuanTB. Also, terms of references of the coordinators were developed and agreed upon during the workshop. The PM coordinators started collecting the information for QuanTB in quarter 3, and the data will be analyzed in quarter 4. This activity will help to develop system for early warning and will also increase local capacity in quantification and data analysis for anticipating problems in supply chain and decision making. This is important to NTP, as NTP may become the principle recipient of the Global Fund's Transitional Funding Mechanism grant and they will be fully responsible for supply of anti-TB medicines in Tajikistan. By that time, NTP should have the system and capacity for supply planning and anticipating problems in the supply of TB medicines.

SIAPS also supported NTP and United Nations Development Programme (the current principle recipient of the Global Fund project) in costing of the treatment course for extensively drug-

resistant TB according to the regimens with new anti-TB medicines recommended by Green Light Committee consultant.

### *Partner Contributions*

The data collection form for the Excel® based user-friendly macro tool developed by SIAPS for QuanTB was approved by the NTP together with all partners in country who are member of the PM working group. It was included in the recently revised manual of TB recording and reporting forms developed by KNCV implementing USAID-funded TB CARE I project in Tajikistan.

### **Objective 2: Information for Decision-Making Challenges in the Pharmaceutical Sector Addressed**

#### *Quarterly Progress*

In quarter 3, based on the findings of the SIAPS mission to Tajikistan, a draft TB PMIS assessment report was developed. The report includes mapping of current TB related information flows (both electronic and paper based), describes the existing tools and data captured, defines the existing gaps for data capture, identifies high level requirements for the TB PMIS.

#### *Partner Contributions*

SIAPS continues to work closely with USAID TB CARE I implemented by KNCV on gathering the information needed for the assessment and development of PMIS strategy

#### *Constraints to Progress*

The Information and Telecommunication (IT) infrastructure is weak: electricity is unstable, qualified IT personnel aren't available and Internet connection is expensive and generally not available in TB sites. The current electronic TB information system is poorly utilized. All of these factors limit possibilities for developing electronic TB PMIS. A few options of the potential PMIS has being discussed among consultants and SIAPS portfolio. Strategy is expected to be developed in quarter 4.

## **Turkmenistan**

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

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

Although there is some progress in developing IT infrastructure for eTB Manager with support from WHO, data entry of TB cases in pilot regions has not started yet, but it is expected to start in quarter 4. SIAPS continues to provide remote support and guidance.

### ***Objective 1: Strengthen the National Tuberculosis Program through improving the TB Management Information System***

#### ***Quarterly Progress***

During Q3, SIAPS team monitored User Session History of e-TB Manger Turkmenistan workspace and the activity log demonstrated that the NTP users were indeed using the system.

WHO country office provided financial support for procurement of the IT equipment that is necessary for piloting e-TB Manager: Fourteen desktop computers were purchased.

In April 2014, a WHO IT consultant visited all TB facilities in Mary Region and necessary installed the equipment and software for e-TB manager use, including software update and check, security seals check for identity policies, and the GSM/GPRS. The consultant also provided on-the- job training TB facility staff in basic IT skills. A server is installed at the National TB Center. However, due to remote areas in Mary Velaiat, 3 out of 14 etrap (regions) TB facilities still remain unvisited (Sakarching, Serkhetabad, and Terrabasar).

#### ***Partner Contributions***

WHO CO Turkmenistan provided funding and an IT specialist to organize cascade trainings in the Mary region.

#### ***Constraints to Progress***

There are bureaucratic challenges related to the implementation of any information system.

## Ukraine

**Goal: Improve access to, use, and accountability of life-saving medicines and health commodities of assured quality to support priority health services in Ukraine to achieve desired health outcomes**

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

The political, economic, and military situation in Ukraine during the reporting period remained tenuous and unpredictable and presented significant challenges to the implementation of SIAPS activities. However, SIAPS was still able to make substantial progress this quarter toward overall annual targets.

Under Objective 1, 6 out of 12 regional visits were carried out and more than 80 staff at oblast or rayon facilities received on trainings on e-TB Manager (eTBM). Twenty-one out of 25 oblasts entered at least 90% of new cases into eTBM, which is five more than in the previous quarter. SIAPS continues to see increases in the percentage of TB units regularly entering data into eTBM. This quarter, 88% of units reported, compared to 80% during the first quarter of the year. Also, the number of oblasts generating a set of standardized reports using eTBM has doubled, with 12 oblasts out of 15 planned now generating reports. Lastly, 99% of new TB cases were reported in eTBM in conjunction with the official paper forms, compared to 85% in the first quarter.

Under Objective 2, SIAPS delivered two trainings on procurement, distribution, and quality control management for 21 health workers at HIV facilities and conducted two site visits for monitoring supply chain management in TB and HIV facilities.

Although progress under Objective 3 was limited this quarter, the Drug Utilization (DUR) pilot project was started and the Pharmacovigilance Automated Information System (PAIS) continues to be developed.

Activities under Objective 4 are on track to meet annual targets. The Action Plan on Pharmacovigilance for the National TB Program was submitted to WHO in May 2014 and the draft Monitoring and Evaluation Plan for the National TB Program was submitted to the State Service (SS) in June 2014 with sections on rational medicines use and pharmacovigilance. Also this quarter, three new modules of the national pharmacovigilance guidelines have been finalized.

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

Over the reporting period, the focus has been on continuing to pilot the eTBM medicines management module in 14 oblasts using the TB medicines supplied under the Global Fund round 9 program. One formal video conference was conducted with participants from all 14 regions, using MoH videoconferencing equipment.

Despite ongoing political instability which limited the amount of regional travel, technical support was provided to eTBM regional users via telephone and Skype through the help desk staffed by the Ukrainian Center for Disease Control (UCDC) and SIAPS.

Two trainings for eTBM regional users were conducted in Cherkasska (April 23-24) and Vinnytska oblasts (June 10-13). An eTBM training of trainers (ToT) was also conducted between March 31 and April 4 in Kyiv with participants from several different oblasts. Ongoing monitoring and support was provided by SIAPS and UCDC staff through six visits to regional users in Volynska, Rivnenska, Zhytomirska, Ivano-Frankivska and Lvivska oblasts.

This quarter, SIAPS also worked to involve the State Penitentiary Service and National TB Institute of Yanovsky in entering new TB cases into eTBM. Between 10 and 15 percent of TB patients are found within the penitentiary system, which also has higher rates of MDR-TB and TB/HIV co-infection. Transfer of patients in and out of the penitentiary system while they are still on treatment has made tracking these patients particularly difficult. Statistical data from the penitentiary system has previously had low validity and/or quality and was provided in an unsystematic and inconsistent manner, which made following up this group of patients extremely difficult. To help address this issue, an eTBM training was conducted for staff from the penitentiary system and SIAPS discussed further eTBM implementation with UCDC and National TB Institute staff.

Important steps were made this quarter in using eTBM data to support reporting and effective decision-making processes. For the first time, UCDC used eTBM data and reports to prepare Ukraine's annual TB report to WHO. Also, eTBM data was used to prepare TB medicines consumption forecasts (under the Global Fund R9 Program).

*Partner contributions:*

UCDC staff participated in the regional visits to support and supervise eTBM implementation at the regional TB facilities. UCDC staff also led eTBM trainings, including the training for the state penitentiary service.

*Constraints to progress:*

UCDC has lost one staff member from the TB unit which has reduced its capacity to effectively support planned interventions.

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

In a continued effort to support UCDC in strengthening pharmaceutical management monitoring and supervision, SIAPS and UCDC conducted a joint monitoring visit to Kirovogradska oblast in May to support both TB and HIV facilities in assessing how medicines are being stored, potential stock-out risks, and other pharmaceutical management issues. The results of these visits are shared with UCDC.

Following UCDC's request to help conduct procurement and supply chain management (PSCM) training for GF R10 budgeting activities, SIAPS developed an agenda and training materials on "Procurement, distribution and quality control management". Two separate two-day training sessions were held by SIAPS in May and June with active participation and contributions from UCDC. These trainings were attended by a total of 21 healthcare workers from 11 oblasts whose main responsibilities include ensuring quality control for the quantification activities in their respective regions. The primary focus of the training sessions was on current requirements and best practices in the transportation, storage, quality control, cold chain, monitoring and evaluation, SOPs, and quantification techniques for pharmaceuticals. Tools designed to facilitate supervision and self-auditing were also discussed during the training. Upon request from UCDC, an external expert from the State Administration of Ukraine on Medicinal Products (SAUMP) covered quality control activities mandated by the Ukrainian legislation.

In close cooperation with SIAPS, International HIV/AIDS Alliance in Ukraine, and Ukrainian Network of PLWH, the National Ukrainian Training Center "Time Life Plus" continued focusing its efforts to develop a PSCM training module for managers from HIV health facilities. Specifically, SIAPS is working to develop the quality assurance and supply management components of the training module.

*Partner contributions:*

UCDC is taking an active role in conducting monitoring and supervision visits to the TB and HIV and AIDS facilities using a team of key specialists. Medicines management supportive supervision to Kirovogradska oblast was also provided as part of these visits in close cooperation with both the TB and HIV and AIDS departments of UCDC. UCDC and SAUMP collaborated with SIAPS to develop the "Procurement, distribution and quality control management" training.

*Constraints to progress:*

SIAPS support to UCDC in planning for the Global Fund quarterly distribution of second-line TB medicines using eTBM will need to be delivered in the next reporting period, as the eTBM forecasting tool is undergoing additional testing.

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

To help ensure and promote rational use of medicines, the TB dispensary administration in Kyiv requested the State Expert Center (SEC) to provide support in building the capacity of Pharmatherapeutic Commissions at health facilities.

The first phase of the drug use review (DUR) pilot project was officially started. SIAPS introduced the project at the stakeholders meeting on June 19, 2014, which included members from the SEC, SS, Kyivska oblast, Foundation Development of Ukraine (FDU), and Donetsk National Medical University. The DUR pilot was approved by the SEC along with the project objectives, patient selection criteria, terms of reference, and assigned roles and responsibilities.

The development of the Pharmacovigilance Automated Information System (PAIS) continued in cooperation with SEC and the developer, RGData. SIAPS Ukraine, along with technical support from SIAPS headquarters, provided supervision to RGData and provided technical assistance to SEC. SIAPS also worked on legal issues associated with the interface and exchange of data between PAIS and e-TB Manager. Development is progressing according to the approved schedule.

So far, two phases of the PAIS development have been implemented, resulting in approved project specifications and the development of the interface and key database components.

On March 31-April 4, 2014, a pharmacovigilance pilot training for 20 TB physicians from Zaporizhyya, Mykolayiv, Lugansk and Donetsk oblasts was held in Donetsk. The training was held by SEC trainers at Donetsk National Training Center with the financial support of FDU and methodological technical support of SIAPS. On April 24-25, 2014, 15 nurses were trained via Skype on diagnosis and treatment of TB cases with a focus on common adverse reactions to first- and second-line TB drugs. This training was also provided as a follow up to the course on “Pharmacovigilance and cohort event monitoring for patients on treatment for drug-resistant TB” organized by the WHO for the countries of the region in Copenhagen, Denmark on March 3-7, 2014.

To raise awareness among TB physicians on pharmacovigilance and adverse drug reporting for patients with TB, SIAPS in cooperation with SEC initiated a series of lectures between April and June on. The lectures were attended by 105 physicians from Vinnitsa (46), Kharkivska (25), Kherson (24), and Chernihiv (10).

In cooperation with staff from SIAPS headquarters, the terms of reference for the Active PV Information System have started to be developed. SIAPS cooperated with University of Washington on the development of the active PV protocol and the development of training materials for the pharmacovigilance TOT.

SIAPS also support building capacity for pharmacovigilance activities by supporting the inclusion of pharmacovigilance activities in the National Plan for TB. After receiving recommendations back from WHO, the TB and HIV State Service is in the process of approving the plan. This initiative received official support from the Head of State Service, Mr. Volodymyr Kurpita, during a meeting with SIAPS on June 27, 2014.

*Partner contributions:*

The rational medicines use pilot project is being implemented in collaboration with the Kyiv oblast TB dispensary, SEC, WHO, FDU, UCDC, TB/HIV SS, and Donetsk National Medical University.

During the development of the PAIS, SIAPS collaborated closely with pharmaceutical manufacturers (Sanofi, Darnitsa, Kyiv Vitamin Plant, Abbott, and Pfizer), the SEC, and RGData.

SIAPS takes part in the working group on national pharmacovigilance guidelines alongside other partners including SEC specialists, state administrators, manufacturers, and physicians.

The WHO, SEC, FDU, and Donesk Training Center worked in collaboration with SIAPS to develop the TB pharmacovigilance workshops, while the SEC and the Gromashevskiy National Institute of Infectious Diseases National Medical Academy, and University of Washington made significant contribution to the implementation of active pharmacovigilance activities.

*Constraints to progress:*

Engagement with international experts to provide feedback on the development of the pharmacovigilance TOT materials required more time than expected and will take place only next quarter.

SEC plans to incorporate pharmacovigilance in the National TB Program in GF R10 R9 Phase II application were not supported by stakeholders, which could influence the timeline of the PAIS pilot as it might require additional resources for data collection of adverse reaction by clinical pharmacists. As of now, only a few TB facilities have clinical pharmacists in their staff, although according to the national legislation, such position should exist in each TB facility.

**Objective 4: Improve pharmaceutical management governance**

Following recommendations of the “gap analysis” exercise which aimed to review and analyze different supply chain assessment reports, the MOH approved the creation of the PSCM working group for TB and ARV medicines and other commodities to ensure regular access to quality assured medicines. SIAPS was invited to this working group. In this quarter, the gap analysis was also refreshed together with the UCDC and was submitted to the MOH.

Also preparatory meetings with the UCDC representatives and SIAPS team took place on the development of the Memorandum of Understanding. Its signature is planned for the next quarter.

To support the adoption of the new European Union (EU) Guidelines for Pharmacovigilance and harmonization of Ukraine’s approach to medicines safety with approaches recommended by the EU, SIAPS continued to help develop the national pharmacovigilance guidelines by drafting three new modules and finalizing modules 5, 6, and 7.

During this reporting period, SIAPS also assisted the SEC developing a pharmacovigilance section for the concept note for Global Fund Round 9 Phase 2 funding.

*Partner contributions:*

The SEC collaborated closely with SIAPS on the development of recommendations to the draft Monitoring and Evaluation Plan for the National TB Program 2013-2016.

*Constraints to progress:*

The memorandum of understanding and cooperation which frames SIAPS' work with UCDC has been drafted and is under consideration by UCDC. SIAPS is awaiting final approval and signature by UCDC.

Due to the political changes in the MOH, the first working group meeting on supply chain management was postponed to next quarter.

## **Uzbekistan**

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

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

SIAPS made very good progress for Objective 1 in preparation of the comprehensive indicator-based assessment of TB pharmaceutical system in Uzbekistan. A productive meeting of the TB Pharmaceutical Management working group was held in Tashkent, Uzbekistan, with support of SIAPS. The working group finalized a protocol of the assessment of TB pharmaceutical management system. The indicators were developed and finalized, and data collection forms were customized and adjusted as well. Sites for data collection were selected and detailed plan of actions for conducting the assessment was developed. A complete packet of documents was submitted for approval to the Uzbekistan Ministry of Health. The assessment will take place in quarter 4.

### ***Objective 1: Pharmaceutical Sector Governance Strengthened***

#### ***Quarterly Progress***

In May 2014 SIAPS staff visited Uzbekistan and organized a meeting with the Tuberculosis Pharmaceutical Management Working Group. SIAPS presented a draft protocol of the comprehensive indicator-based assessment of TB pharmaceutical management system. The working group defined the research questions of the assessment, discussed and finalized the protocol, and developed a plan with next steps for conducting the assessment. Also, the group agreed on the assessment's core and additional indicators and finalized the data collection forms. Five geographically different regions were selected for data collection, with 150 cases from each region to provide a representative sample; in addition, team leaders were nominated. It was agreed that the meeting for further preparatory work will be held on July 7-11, 2014. Training for data collectors will be conducted on July 14-18, 2014, data collection will take place July 21-26, and the date will be entered on July 28-August 1, 2014.

After the visit to Uzbekistan, based on the discussions on the working group meeting, SIAPS developed the final version of the protocol and it was submitted for approval to Ministry of Health of Uzbekistan.

#### ***Partner Contributions***

WHO supports SIAPS in all activities in Uzbekistan. WHO participated and provided technical input to the meeting of the WG. Also, WHO's support is very important in organizing SIAPS visits to the country in accordance with the current strict regulations and reaching out to officials.

#### ***Constraints to Progress***

Main constraint in Uzbekistan is that country enforces very strict bureaucratic procedures which requires excessive amount of time for preparation of the travel to and within the country and holding meetings with the counterparts.

***Objective 2: Utilization of Strategic Information for Decision Making Increased***

***Quarterly Progress***

As the Ministry of Health decided not to implement eTB Manager in quarter 1, SIAPS did not work on this activity in quarter 3.

***Constraints to Progress***

After long consideration, Ministry of Health of Uzbekistan decided not to implement eTB Manager and develop its own TB information system. The Uzbekistan Minister of Health communicated this message to the USAID CAR H&E Regional Director Ms. Khadijat Mojidi and other USAID and WHO officials at the meeting in January 7, 2014.

## FINANCIAL INFORMATION

### **Systems for Improved Access to Pharmaceutical Services**

**Fiscal Data: April 1 – June 30, 2014**

**AID-OOA-A-11-00021**

On September 23, 2011, Management Sciences for Health was awarded the Systems for Improved Access to Pharmaceutical Services (SIAPS) agreement. The cumulative obligation for SIAPS currently stands at US \$121,834,250

MSH tracks and reports program expenditures by source of funding (Global or Core and Field Support, by Bureau, Region, and Country). MSH further subdivides Global or Core expenditures based on the various Program Elements designated by USAID when funding is received (e.g., Maternal Child Health (MCH) [and sub-elements Antimicrobial Resistance (AMR), Child Survival and Reproductive Health], HIV/AIDS, Tuberculosis (TB), Malaria and Other Public Health Threats (OPHT)).

The Fiscal Data chart shows the Year 3 obligations, cumulative funds obligated, quarter three (April to June 2014) expenditures, in addition to the cumulative to-date (September 23, 2011 to June 30, 2014) expenditures of US \$94,454,496 by funding source.

The SIAPS cooperative agreement stipulates that MSH should cost-share an amount not less than US\$14,844,484 over the life of the program (7.5% of actual total activity costs). As of June 30, 2014, SIAPS has generated US \$7,998,833.97 in non-Federal funding, within the technical scope of work for SIAPS.

**Systems for Improved Access to Pharmaceuticals and Services Program**  
**AID-OAA-A-11-00021**  
**Fiscal Data: April-June 2014**

Funding Source	Funding Type	Funding Amount	Q3 Expenditures (Provisional)	Spent To-Date (Provisional)	Remaining Funds (Provisional)
<b>Core Funding:</b>					
Directed	Malaria	800,000	147,608	634,730	165,270
	Malaria - HIV/AIDS	750,000	-		750,000
	MCH	3,935,272	432,055	2,955,823	979,449
	TB	8,900,000	1,109,701	7,717,658	1,182,342
	NTD	350,000	60,284	107,076	242,924
Common Agenda	MCH,NUT,TB	2,574,694	339,702	1,696,732	877,962
OHA Core Funding Directed	HIV/AIDS	300,000	5,776	28,780	271,220
	HIV/AIDS-TB	1,700,000	90,766	95,000	1,605,000
USFDA	USFDA	800,000	(0)	800,000	0
<b>Core Total</b>		<b>20,109,966</b>	<b>2,184,891</b>	<b>14,035,799</b>	<b>6,074,167</b>
Angola	FPRH	900,000	83,575	897,252	2,748
	PEPFAR	1,540,000	370,009	1,525,125	14,875
	PMI	1,800,000	567,675	1,867,796	(67,796)**
<b>Angola Total</b>		<b>4,240,000</b>	<b>1,021,258</b>	<b>4,290,172</b>	<b>(50,172)</b>
Bangladesh	FPRH	5,100,000	540,153	4,015,044	1,084,956
	MCH/CSMH	2,400,000	244,742	2,066,182	333,818
	TB	3,000,000	342,614	1,682,686	1,317,314
<b>Bangladesh Total</b>		<b>10,500,000</b>	<b>1,127,509</b>	<b>7,763,912</b>	<b>2,736,088</b>
Brazil	TB	2,100,000	6,393	2,089,668	10,332
<b>Brazil Total</b>		<b>2,100,000</b>	<b>6,393</b>	<b>2,089,668</b>	<b>10,332</b>
Burundi	Malaria	3,505,000	378,073	2,824,282	680,718
<b>Burundi Total</b>		<b>3,505,000</b>	<b>378,073</b>	<b>2,824,282</b>	<b>680,718</b>
Cambodia	PMI	25,000	18,928	25,000	0
<b>Cambodia Total</b>		<b>25,000</b>	<b>18,928</b>	<b>25,000</b>	<b>0</b>
Cameroon	PEPFAR	2,299,999	548,467	3,096,294	(796,295)**
<b>Cameroon Total</b>		<b>2,299,999</b>	<b>548,467</b>	<b>3,096,294</b>	<b>(796,295)**</b>
Dominican Republic	TB	197,000	(47,668)	197,000	0
	PEPFAR	1,703,000	366,393	1,405,612	297,388
<b>Dominican Republic Total</b>		<b>1,900,000</b>	<b>318,725</b>	<b>1,602,612</b>	<b>297,388</b>
DRC (Dem Rep of Congo)	FPRH	750,000	137,141	613,838	136,162
	MCH/CSMH	1,350,000	126,295	857,156	492,844
	PEPFAR	1,043,398	75,394	1,168,133	(124,735)
	PMI	2,700,000	271,877	1,941,949	758,051
	TB	1,600,000	133,512	1,635,815	(35,815)
<b>DRC (Dem Rep of Congo) Total</b>		<b>7,443,398</b>	<b>744,218</b>	<b>6,216,891</b>	<b>1,226,507</b>
Ethiopia	PEPFAR	6,500,000	633,701	6,678,902	(178,902)
	PMI	2,450,000	293,000	1,719,271	730,729
<b>Ethiopia Total</b>		<b>8,950,000</b>	<b>926,701</b>	<b>8,398,173</b>	<b>551,827</b>
East Africa	TB	100,000	11,009	11,137	88,863
<b>East Africa Total</b>		<b>100,000</b>	<b>11,009</b>	<b>11,137</b>	<b>88,863</b>
Guinea	FPRH	212,800	-		212,800
	MNCH	100,000	-		100,000
	PMI	2,280,000	340,526	2,215,256	64,744
<b>Guinea Total</b>		<b>2,592,800</b>	<b>340,526</b>	<b>2,215,256</b>	<b>377,544</b>
Haiti	PEPFAR	154,178	(85,610)	154,178	0
	MNCH	500,000	118,432	118,432	381,568
<b>Haiti Total</b>		<b>654,178</b>	<b>32,822</b>	<b>272,610</b>	<b>381,568</b>
Jordan	MCH/CSMH	200,000	0	200,000	(0)
<b>Jordan Total</b>		<b>200,000</b>	<b>0</b>	<b>200,000</b>	<b>(0)</b>
LAC RSD	TB	90,000	-	86,701	3,299
	Malaria	2,069,835	129,627	1,850,173	219,662
<b>LAC RSD Total</b>		<b>2,159,835</b>	<b>129,627</b>	<b>1,936,874</b>	<b>222,961</b>
Lesotho	PEPFAR	3,090,000	372,954	2,591,518	498,482
<b>Lesotho Total</b>		<b>3,090,000</b>	<b>372,954</b>	<b>2,591,518</b>	<b>498,482</b>

*Financial Information*

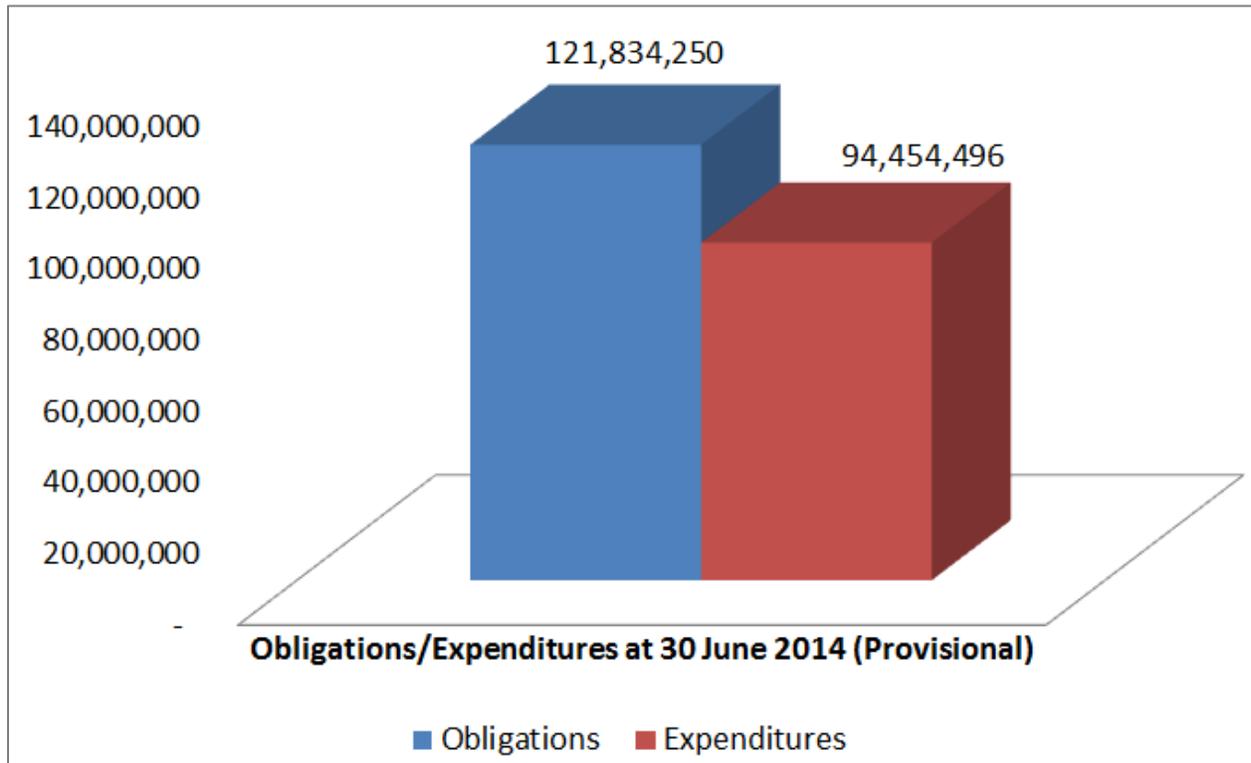
Liberia	PMI		1,028,000	23,699	1,017,045	10,955
<b>Liberia Total</b>			<b>1,028,000</b>	<b>23,699</b>	<b>1,017,045</b>	<b>10,955</b>
Mali	FPRH		1,498,940	198,557	881,174	617,766
	MCH/CSMH		3,529,458	338,052	1,492,546	2,036,912
	PMI		1,499,999	224,571	1,299,184	200,815
	WASH		-	-	-	-
<b>Mali Total</b>			<b>6,528,397</b>	<b>759,180</b>	<b>3,672,904</b>	<b>2,855,493</b>
Mozambique	PEPFAR		2,483,132	202,203	1,958,784	524,348
<b>Mozambique Total</b>			<b>2,483,132</b>	<b>202,203</b>	<b>1,958,784</b>	<b>524,348</b>
Burma	PMI		25,000	23,046	23,046	1,954
<b>Burma Total</b>			<b>25,000</b>	<b>23,046</b>	<b>23,046</b>	<b>1,954</b>
Namibia	PEPFAR		6,877,188	714,752	5,933,767	943,421
<b>Namibia Total</b>			<b>6,877,188</b>	<b>714,752</b>	<b>5,933,767</b>	<b>943,421</b>
Philippines	TB		3,350,000	411,635	1,727,318	1,622,682
<b>Philippines Total</b>			<b>3,350,000</b>	<b>411,635</b>	<b>1,727,318</b>	<b>1,622,682</b>
RDMA	PMI		65,000	18,432	44,428	20,574
<b>RDMA Total</b>			<b>65,000</b>	<b>18,432</b>	<b>44,428</b>	<b>20,574</b>
Rwanda	FPRH		150,000	-	150,000	(0)
	MCH/CSMH		150,000	-	98,197	51,803
	PEPFAR		544,405	2,401	540,176	4,229
	PMI		220,000	-	220,000	0
<b>Rwanda Total</b>			<b>1,064,405</b>	<b>2,401</b>	<b>1,008,373</b>	<b>56,032</b>
South Africa, Republic Of	PEPFAR		10,923,988	1,020,834	9,925,372	998,596
	TB		2,085,504	303,072	901,316	1,184,188
<b>South Africa, Republic Of Total</b>			<b>13,009,472</b>	<b>1,323,906</b>	<b>10,826,688</b>	<b>2,182,784</b>
Southern Sudan	FPRH		400,000	(148,441)	400,000	0
	Malaria		2,300,000	232,698	2,075,937	224,063
	MCH/CSMH		3,483,730	395,704	2,013,691	1,470,039
	PEPFAR		350,000	45,329	45,329	304,671
<b>Sudan Total</b>			<b>6,533,730</b>	<b>525,288</b>	<b>4,534,957</b>	<b>1,998,773</b>
Swaziland	PEPFAR		4,318,100	309,790	3,396,403	921,697
<b>Swaziland Total</b>			<b>4,318,100</b>	<b>309,790</b>	<b>3,396,403</b>	<b>921,697</b>
Tajikistan	TB		428,918	42,229	169,698	259,220
<b>Tajikistan Total</b>			<b>428,918</b>	<b>42,229</b>	<b>169,698</b>	<b>259,220</b>
Turkmenistan	TB		89,900	15,542	68,112	21,788
<b>Turkmenistan Total</b>			<b>89,900</b>	<b>15,542</b>	<b>68,112</b>	<b>21,788</b>
Ukraine	HIV		4,350,330	620,173	2,598,501	1,751,829
<b>Ukraine Total</b>			<b>4,350,330</b>	<b>620,173</b>	<b>2,598,501</b>	<b>1,751,829</b>
Uzbekistan	TB		819,600	81,914	181,140	638,460
<b>Uzbekistan Total</b>			<b>819,600</b>	<b>81,914</b>	<b>181,140</b>	<b>638,460</b>
Vietnam	PEPFAR		192,903	-	192,041	862
<b>Vietnam Total</b>			<b>192,903</b>	<b>-</b>	<b>192,041</b>	<b>862</b>
West Africa Regional	PEPFAR		799,999	273,610	445,096	354,903
<b>West Africa Regional Total</b>			<b>799,999</b>	<b>273,610</b>	<b>445,096</b>	<b>354,903</b>
<b>Subtotal</b>			<b>101,724,284</b>	<b>11,325,011</b>	<b>81,332,696</b>	<b>20,391,588</b>
ACF Surplus/Deficit				469,782	914,000	914,000
<b>Grand Total</b>			<b>121,834,250</b>	<b>13,040,120</b>	<b>94,454,496</b>	<b>27,379,754</b>

\*\*FY14 obligations for Angola PMI and Cameroon have not yet been received and forward funding approvals were therefore obtained.

**Systems for Improved Access to Pharmaceuticals and Services  
Financial Status Overview  
Cumulative Expenditure Activity through June 30, 2014**

Total Funding Received to Date:	\$ 121,834,250
Total Amount Spent to Date:	\$ 94,454,496
Pipeline	\$ 27,379,754
Percent of Funds Spent	77.53%

**SIAPS Obligations and Expenditures for Quarter 3 FY2014 (US \$)**



SIAPS Program Expenditures by Quarter through March 2014 (in US \$1,000s)

