

SIAPS Quarterly Report

Project Year 2, Quarter 4

July 2013–September 2013



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The SIAPS logo consists of the word "SIAPS" in a bold, green, sans-serif font, followed by a stylized blue graphic of a person with arms raised in a 'V' shape.

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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
EUV	end-user verification (survey)
FDA	US Food and Drug Administration
FMHACA	Food, Medicines and Health Care Administration and Control Authority (Ethiopia)
FY	fiscal year
GDF	Global Drug Facility
HIV	human immunodeficiency virus
IMCI	Integrated Management of Childhood Illness
JSI	John Snow, Inc.
LMIS	logistics management information system
M&E	monitoring and evaluation
MDG	Millennium Development Goal
MDR	multidrug resistant
MoH	Ministry of Health
MoHFW	Ministry of Health and Family Welfare
MoHSS	Ministry of Health and Social Services
MSH	Management Sciences for Health
NDoH	National Department of Health
NHTC	National Health Training Centre (Namibia)
NMCP	national malaria control program
NMRC	Namibia Medicines Regulatory Council
NTP	national TB program
PAHO	Pan American Health Organization

PEPFAR	US President's Emergency Plan for AIDS Relief
PFSA	Pharmaceutical Fund and Supply Agency (Ethiopia)
PMI	President's Malaria Initiative
PMIS	pharmaceutical management information system
PMTCT	prevention of mother-to-child transmission
PNILP	national malaria control program (Burundi)
PNLP	national malaria control program (Guinea)
PNLS	national AIDS control program (DRC)
PNME	Program for Essential Medicines (Angola)
PPMRc	Procurement Planning and Monitoring Report for Contraceptives
PPMRm	Procurement Planning and Monitoring Report for Malaria
PTCs	Pharmaceutical and Therapeutics Committees
RDT	rapid diagnostic test
SCMS	Supply Chain Management System (project)
SIAPS	Systems for Improved Access to Pharmaceutical Services
SOP	standard operating procedure
SPS	Strengthening Pharmaceutical Systems Program
STGs	standard treatment guidelines
SUGEMI	national pharmaceutical management system (Dominican Republic)
TB	tuberculosis
TIPC	Therapeutics Information and Pharmacovigilance Center (Namibia)
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 last decade's global health initiatives have helped reduce the prices of pharmaceutical while increasing their supply to countries in need, but this does not automatically lead to *access* to medicines. To ensure good health worldwide, governments must create sound, efficient health systems that can provide effective disease prevention and treatment to all. SIAPS takes a holistic approach that looks beyond product availability and price to include other essential access components such as the availability of quality pharmaceutical services and the ability of the patient to access both products and services.

Providing effective technical assistance requires addressing a country's critical short-term access needs while building on existing systems and local capacity to increase country ownership, and therefore sustainability of USAID efforts in the long term. SIAPS deploys strategies that incorporate both: while understanding and responding quickly to emergency situations, our focus is on local capacity building, which helps to create country-led, sustainable solutions.

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

To achieve these results, SIAPS uses a flexible approach to designing a tailored intervention, implementing and managing that intervention, monitoring performance, and measuring outcomes. We engage local partners to ensure that they are contributing to, and building skills at, each stage of the intervention and that solutions are locally relevant. The key to many of our project achievements has been the broad-based support from all stakeholders built through a participatory approach to project design and implementation.

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 July through September 2013 period.

SELECT PROGRESS TOWARD RESULT AREAS

Intermediate Result 1. Pharmaceutical sector governance strengthened

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

National medicine regulatory authorities in developing countries are often confronted with systematic challenges; for example, backlogs of drug registration applications wait for review, and regulatory activities are not conducted transparently or with accountability. SIAPS provides support to national medicine regulatory authorities to improve pharmaceutical sector governance and strengthen regulatory systems to ensure timely access to medicines and other health supplies.

Determining the appropriate technical assistance involves a review of the existing regulatory system, legislation, and policies, and an assessment of a country's regulatory capacity and operations. Those results then form the basis of a strategic framework and plan to strengthen the regulatory system. To bolster the policy and regulatory environment, SIAPS helps countries apply appropriate technological and capacity-building initiatives to create efficient and sustainable drug registration systems, monitor medicine quality, and fulfill other regulatory mandates. The result is better access to quality, safe, and effective health products.

Pharmaceutical registration and licensing

In South Africa, SIAPS continued to support the National Department of Health (NDoH) to strengthen governance in the issuing of—

- Licenses to pharmacies
- Dispensing licenses to doctors and nurses
- Permits to enable nurses to prescribe
- Permits to certain entities to supply medicine

For example, with SIAPS assistance, the Licensing Committee developed a revised set of criteria for awarding pharmacy licenses based on population per sub-district. The new criteria have been designed to support the National Drug Policy's intent to improve access of communities to pharmaceutical services.

Medicine quality

SIAPS organized a quality assurance/control meeting with the South Sudan's MoH and Drugs and Food Control Authority (DFCA) officials, including the Secretary General, Director General of Registration and Licensing and Director Generals of various directorates under DFCA. The meeting participants discussed how to improve the functionality of the minilabs at Kaya and Central Medical Store. The meeting confirmed critical areas of support the DFCA needs from SIAPS for which priority attention will be given in the coming months. These include providing tools, standard operating procedures, and technical assistance for medicines registration.

Strategic planning

To help Burundi's national malaria control program (PNILP) improve its organizational and managerial structure, SIAPS worked closely with PNILP and the World Health Organization (WHO) to organize and participate in two retreats for the technical committee members to develop the PNILP's strategic plan for 2013–2017. The plan is based on preliminary results of the malaria indicator survey published in March 2013. Additional documents consulted include the malaria program review held in November 2011 and findings from formative supervision visits conducted in 2012. In a quarterly meeting with all Roll Back Malaria partners, participants tracked progress against the PNILP 2013 work plan objectives after the first nine months and adapted the plan activities for the remaining quarter. In addition, SIAPS continued to take steps toward developing comprehensive capacity building plan for PNILP.

In the previous quarter, the Global Fund requested that the Ukrainian Center for Disease Control (UCDC) perform a comparative analysis of the existing country situation against procurement and supply management recommendations that had been provided by global experts. During this quarter, SIAPS supported the analysis by collecting information and recommendations from procurement and supply management evaluations since 2006 and determining their status as completed, no longer relevant, or requiring further action. SIAPS completed the review in Ukrainian and English, and submitted to the UCDC. This information will be used to develop a strategy for improving the procurement and supply management system for tuberculosis (TB) and HIV.

Transparency and accountability

Responding to feedback (especially from Peace Corps volunteers) received during a prior emergency medicine distribution in Guinea, where malaria commodities meant to be distributed at no cost were being sold, SIAPS developed a low-literacy flyer outlining which products should be free. The flyer was developed with the national malaria control program, United Nations Children's Fund (UNICEF), Stop Palu, USAID's Maternal and Child Health Integrated Program (MCHIP), and others and distributed to each health facility to be posted at the pharmacy for all patients to see. The flyer includes photos and phone numbers for patients to report if the products are being sold to them. Products include artemisinin-based combination therapies (ACTs), rapid diagnostic tests (RDTs), sulfadoxine-pyrimethamine, and bed nets.

Additional activities under Intermediate Result 1 include the following—

- In **Ethiopia**, SIAPS helped draft a concept note on the institutionalization of appropriate pharmacy administration and a regulation for implementing the Auditable Pharmacy Transactions and Services (APTS) initiative for Addis Ababa Health Bureau. We also coordinated a stakeholder workshop to build consensus on the draft APTS regulation.
- In an effort to optimize patient care, streamline procurement activities and minimize institutional costs in **Mozambique** by updating the national essential medicines list, SIAPS submitted a concept note and terms of reference for the review committee, as well as procedures and guidelines for updating and reviewing the national essential medicines list. These materials were approved by the Pharmacy Department and the MoH.

- In **South Africa**, SIAPS helped draft a set of standards aimed at benchmarking pharmaceutical service delivery in four domains: pharmaceutical and therapeutics committees, financial management, medicine supply management and human resources. Data elements for tracking progress towards achieving the standards at provincial level were also developed. This was the initial phase in the development of a system that will allow NDoH to assess and oversee provincial-level pharmaceutical services delivery.

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 assess a country's or program's capacity to manage pharmaceuticals—from facility to national level. Then, using a stakeholder consensus approach, we identify areas for improvement and develop long term interventions to strengthen the system, such as building individual and organizational capacities to track medicine consumption. Meanwhile, SIAPS provides short-term assistance when countries have immediate problems that threaten commodity security.

Leadership and management

In **Burundi**, SIAPS is working with the Department of Pharmacy, Medicines, and Laboratory (DPML) to strengthen its organizational structure with the goal of being a more effective pharmaceutical sector leader. SIAPS helped DPML organize a two-day staff retreat in September, where staff conducted a SWOT analysis using the MSH Management and Organizational Sustainability Tool (MOST). This exercise was allowed staff to develop a short-term action plan to address identified weaknesses. An immediate activity will be to review the organizational chart and identify Department of Pharmacy, Medicines, and Laboratory staffing needs as it moves towards becoming an autonomous national medicines regulatory authority.

SIAPS' Pharmaceutical Leadership Development Program (PLDP) in **South Africa** has proven to be a viable option for enhancing the capacity of personnel for the provision of pharmaceutical services. Since its inception, a total of 122 health facilities are using the approach for continuous performance improvement and the challenge model has been used to develop and implement 32 quality improvement initiatives with 67% of these attaining the desired measurable result. During this quarter, for example, in KwaZulu Natal, eight PLDP teams are addressing challenges including compliance with standard treatment guidelines (STGs) and provincial depot order processing time.

SIAPS works with the clinical mentoring teams and the MoH regional health administration teams in Swaziland to provide supervisory support and mentorship to health workers in supply management and pharmaceutical services. Mentorship is provided to staff on site in supply chain management, good dispensing practices, and ordering medicines. The mentoring activity has received great feedback from regional management teams that have received this support. SIAPS also worked with the National Health Laboratory to conduct support visits focusing on supply management to 16 laboratories, resulting in improvements in stock management and storage condition at laboratories, despite the fact that most laboratories do not have dedicated personnel to manage stock and or adequate storage space.

SIAPS worked with the Pharmacy Department in **Guinea** to review its proposed monitoring and evaluation (M&E) framework and the indicators that were developed to measure progress across all Pharmacy Department Units nationwide. The Pharmacy Department appointed a staff member as focal person for the M&E system, and a senior technical advisor from SIAPS headquarters trained her in data collection and reporting. SIAPS will continue to build the capacity of designated staff to generate data and report on these indicators and to disseminate and use the information effectively.

SIAPS supported the **Democratic Republic of Congo (DRC)** MoH to conduct a stakeholders' meeting on the introduction chlorhexidine digluconate 7.1% and to raise awareness of the UN Commission on Life-saving Commodities (UNCoLSC) and the scientific basis for the use of 7.1% chlorhexidine digluconate for umbilical care. The participants included policymakers, implementing partners, and health care providers at the national level. Participants reviewed the current WHO and national guidelines and reached consensus to introduce chlorhexidine 7.1% on a national scale. A national technical committee was formed to finalize the introduction strategy.

Pre-service training

SIAPS provided technical assistance to develop a competence-based training curriculum for the National Health Training College in **Lesotho**. This activity was carried out using a multi-faceted and systematic process in a series of workshops: 1) developing a curriculum workshop, 2) formulation of task clusters, 3) modules development, 4) job profile verification, and 5) curriculum validation. In Swaziland, SIAPS continues to support the Pharmacy Department at the Southern Africa Nazarene University to strengthen the curricula for pharmacy education, thereby contributing to increased capacity for pharmaceutical services delivery in the country. This quarter, a new group of students was registered for the first year of the pharmacy certificate program; 21 students have been registered of the 30 promised places for 2013. The 2012 cohort of students has 20 students in second year who will graduate in 2014. These students will play an important role in providing pharmaceutical services at clinics and health centers. SIAPS is continuing to work with the university to finalize the diploma in pharmacy curriculum with a planned first class in 2014.

In-service training and supervision

SIAPS worked with Angola's national program of essential medicines, the national malaria control program, the national reproductive health program and the provincial directorate of

health of the province of Huambo to organize a training of trainers for all municipal warehouse managers and malaria and reproductive health municipal supervisors from the 11 municipalities of Huambo province. Other trainees came from USAID-SASH and Mentor Initiative. Trainees developed post-training plans that included conducting the same training in their respective municipalities, implementing stock cards and product delivery forms in all health facilities, using consumption data to order products, and respecting deadlines in monthly reporting for malaria and reproductive health.

SIAPS Guinea and Mali staff teamed up to organize a training workshop for the quantification of malaria commodities in Guinea. The training included participants from national government agencies, USAID and Global Fund implementing partners, regional pharmacist inspectors and district-level pharmacists. As a result, the national malaria control program in Guinea designated a committee to draft the terms of reference for a new quantification task force for malaria commodities; the committee met once at the SIAPS office and is in the process of drafting a scope of work.

In South Sudan, SIAPS trained 118 people from Tamboura, Keji, Juba, and Kajo counties in its effort to strengthen the pharmaceutical system and introduce a pull (order-based) supply system. Participants were trained on how to place orders from their counties, how to document the consumption of the medicines, and filling out stock cards and dispensing registers.

Selected additional activities include the following—

- The SIAPS **Philippines** team helped the Department of Health conduct the 2013 Philippines national TB program joint program review by providing technical leadership in the areas of laboratory network operations and drugs and supplies management.
- SIAPS continued to build the capacity of district teams in **Burundi** to conduct formative supervision visits and monitor distribution and consumption of malaria commodities. All the 45 districts and 288 selected public and faith-based health centers (30% of total number of health centers) had supervision visits. All district pharmacies and 90% of the health centers visited had no stock-outs of ACTs or RDTs during the quarter. Also SIAPS helped the national malaria control program disseminate 1,229 copies of the new malaria STGs and orient 226 staff members on how to use them. To support the community case management of malaria strategy being piloted in two districts, SIAPS put together the initial package of minimum equipment and tools for 403 community health workers, organized refresher trainings to reinforce their capacity to diagnose malaria with a RDT and correctly treat children under five years. None of the 403 workers encountered a stock-out.
- SIAPS facilitated a national pharmaceutical technical working group meeting in **South Sudan** to discuss and create action plans for addressing issues in the pharmaceutical sector, such as the operations of the Drug and Food Control Authority, updates on the roll out of the National Logistics Management Unit; strategies for the revision of the essential medicines list and STGs, and medicine and supply stock status.
- SIAPS/**Ethiopia** collaborated with the Addis Ababa Health Bureau to carry out the semiannual integrated supportive supervision to evaluate health facilities' performance. Using a standard checklist, supervisors provided support at 6 public hospitals, 38 health centers, and more than 20 private hospitals and clinics. Based on the results, the health

bureau awarded recognition certificates to best-performing health facilities. Similarly, supportive supervision visits were conducted with zonal health department malaria experts and supply officers in East Shewa, Bale, and South West Shewa zones of Oromia region.

- By leveraging funding from USAID’s Health Commodities and Services Management (HCSM) program, the University of Nairobi, HCSM, SIAPS, and the University of Washington conducted a four-day training of trainers’ workshop on Pharmacoeconomics and Health Technology Assessment (PE/HTA) generic training curriculum as they relate to essential medicines selection in **Kenya**. Participants plan to form a joint learning network that will include the trainees, and SIAPS, HCSM, and University of Washington representatives to track and document the impact of the training and how they apply the skills in their work places.

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

SIAPS activities focus on capture, aggregation, analysis, presentation, and dissemination of the 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 mobile phone and other technologies in designing tools; harmonizing tools to help integrate pharmaceutical management information systems; 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 quality and reporting

A major achievement in Guinea has been SIAPS’ lead role in developing and launching an improved malaria monthly reporting template, which now includes more detailed information on patients, cases tested/confirmed/treated/referred, and a new section on drug management, including stock status and monthly consumption at the facility level. Additionally, after two workshops on how to improve reporting, some simple yet concrete strategies that SIAPS had proposed were validated, and have led to a more efficient e-mail reporting system using a standardized Excel form. The new system was launched through trainings led by the national malaria control program and the national health information system with technical and financial support from SIAPS; the trainings took place in all 19 PMI districts for 230 health agents and district statisticians/pharmacists. The Global Fund partner will repeat the trainings in the Global Fund-supported areas. To facilitate the reporting, SIAPS provided Internet keys to all 19 districts. As a result, reporting rates have been increasing, especially since the first winners of the quarterly reporting competition instituted by SIAPS were announced. The winners received

prizes related to reporting, including a laptop (1st prize), a printer (2nd prize), and additional Internet credit (3rd prize).

Information system design and collaboration

Over the last quarter, the SIAPS team in Bangladesh helped the Directorate General Family Planning (DGFP) and the National TB Program develop a plan to manage the collection and dissemination of stock status reports from more than 423 sites. This is a key step in fostering Ministry of Health and Family Welfare stewardship and promoting program sustainability. The organization of the working groups that review monthly site information through SIAPS-supported Internet portals will now also be transferred to the Ministry. SIAPS will continue to respond to requests related to accessing and interpreting the data. In addition, SIAPS has helped DGFP master trainers provide assistance to their peers to keep the Upazila Inventory Management System current. The tool is currently functional in all 488 sites and approximately 85% of the sites directly upload logistics data via the central DGFP portal into the logistics management information system.

The key findings of the Malian logistics management information system (LMIS) assessment conducted during the first year of SIAPS, were the lack of strategic information for decision-making and poor capacity in pharmaceutical management. To address these obstacles, SIAPS assisted the MoH's pharmacy directorate to redesign the LMIS and develop new standard operating procedures that focus on the flow of information, the tools to be used at each level of the health system, and the role and responsibilities of actors in the supply chain. During this quarter, SIAPS helped develop the material for the training of trainers and users of these new LMIS procedures through a stakeholder workshop. A SIAPS consultant reviewed the training materials and developed the participant's manual, the facilitator's manual, the general sessions plan, and the training-of-trainer's guide. The training of trainers started on September 30th, 2013 and involved regional pharmacists who will train users at the regional and the peripheral levels.

Other SIAPS information-related activities this quarter follow—

- SIAPS released the final version of QuanTB in two languages, English and Russian. It is a user-friendly tool that can rapidly improve TB quantification and supply planning, and serve as an early warning system to prevent stock-outs by making it easier to track the actual consumption. We are making continuous improvements to e-TB Manager, the core information systems tool for TB control; for example, we released e-TB Manager's synchronizable desktop version for reporting cases.
- To ensure that information is available to be used for pharmaceutical and laboratory decision-making in the **Lesotho** health system, SIAPS expanded the roll-out of RxSolution. Installation of dispensing and inventory modules were implemented at three hospitals and five users from three hospitals received classroom-based user training. Furthermore, during this quarter, SIAPS conducted RxSolution supportive supervision and mentoring at eight hospitals.
- In **Namibia**, SIAPS conducted two training sessions on the updated PMIS for 66 public sector staff including: 14 pharmacists, 4 chief and senior health program administrators, 17 primary health care supervisors, and 14 pharmacy assistants. The participants will then train the regional teams to roll out PMIS from hospital to the primary health care level.

Twelve of the 13 regions participated in the training and developed post-training implementation plans.

- SIAPS assisted the National Program for Reproductive Health in **Angola** to conduct a workshop of all provincial supervisors to discuss the importance of patient and logistics information systems to improve availability of reproductive health products. For example, SIAPS is helping to revise the antenatal care reporting form to address confusions emanating from the current form.
- In the **Dominican Republic**, SIAPS supported a baseline study on the pharmaceutical management situation at MoH hospitals. The results led to a new strategy to integrate the hospitals' pharmaceutical management system at the national pharmaceutical management system (SUGEMI).
- In August, SIAPS supported a workshop in **DRC** to strengthen the coordination of the malaria commodity supply chain. At the workshop, the national malaria control program and its partners agreed to share data on malaria commodities every quarter by adopting one standard tool.

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

Traditionally, pharmaceutical system financing has been perceived as relating to funding pharmaceutical purchasing, and initiatives such as the Global Fund to Fight AIDS, Tuberculosis and Malaria and PEPFAR focus heavily on such funding. However, even countries that have adequate funds to procure medicines cannot always manage the flow of funds and assure availability of health supplies. Financing, therefore, broadly covers resource mobilization and maximizing efficiencies, resource pooling, purchasing and payment.

SIAPS helps countries conduct analyses to improve decisions regarding cost containment, greater efficiency, and options for mobilizing financing. Examples of this work may include evaluation of alternate supply chain systems; analysis of financial flow and sustainability; identification of options to remove roadblocks; development and implementation of systems for tracking, monitoring, and controlling pharmaceutical spending; and analysis and evaluation of pricing policy options. Our health management expertise combined with SIAPS partners' knowledge and experience in innovative financing strategies allows countries to maximize their pharmaceutical resources.

Maximizing resources

In Lesotho, SIAPS focuses on cost-savings and efficiency activities such as calculating the value of expired and wasted stock during the quarter and increasing the percentage of items received from medical stores as per facility order. We are conducting two studies of supply chain system performance: the National Drug Service Organization costing study and the supply chain options analysis. The costing study was conducted and the report is being finalized. The options analysis protocol was developed during the quarter and data collection has begun.

SIAPS/Ethiopia is scaling up its Auditable Pharmacy Transactions and Services system which promotes a continuous supply of essential medicines, optimizes resources, and improves pharmacy services. SIAPS implemented APTS in 12 health facilities in the quarter—four more than planned. Implementation of APTS in two health centers (previously implemented in hospitals only) shows that the system is applicable for any facility type. As a result of APTS intervention at Debreworkos Hospital, for instance, 73.4% of the hospital budget was spent on Vital or Essential medicines after conducting a VEN analysis; the percentage of medicines procured from the hospital's medicines list increased from 35.4% to 97.5%. As a result of more efficient spending, 28.4% more funds became available for the medicines budget of the hospital.

SIAPS continued its efforts to support good governance in medicine procurement by supporting South Africa's Directorate: Affordable Medicine to manage pharmaceutical and supply tenders using international benchmarking. A SIAPS consultant prepared the reference prices for this tender, did a comprehensive market analysis, and provided technical support to the Department in awarding the tender. As a result, tender prices decreased by 8% compared to previous awards, showing that benchmarking lowers costs. In addition, in Limpopo, SIAPS helped analyze the medicine expiry report. The analysis highlighted stock worth R10 million that was at risk of expiring if not used within the upcoming 12 months. SIAPS recommended transferring stock to high-consumption facilities within the province and to other provinces. SIAPS is working with depot staff to update the inventory management system to ensure an early alert to expiring stock.

In Swaziland, SIAPS helped revise forecasts for HIV commodities, considering the existing situation and using available data. As a result, the cost of HIV commodities has been decreased by SZL 4,192,778 (USD 399,312.) or 4.2%. For reproductive health commodities, the cost decreased by SZL 6,962,173—a 85.2% decrease. Contributing to the better forecasting is the marked improvement in LMIS reporting rates that include consumption data from facilities.

Analyzing and tracking costs

SIAPS also helped the Gauteng Province Pharmacy and Therapeutics Committee in South Africa perform a cost analysis comparing lamotrigine and sodium valproate at provincial, district, and facility levels. As an intervention to promote cost-effective use of the two anti-epileptic agents, a letter was sent to each facility with their current usage and expenditure on both items as well as the potential savings if the use of lamotrigine increased. If half of adult epileptic patients are switched to lamotrigine, the savings are projected to be R5.2 million per 100,000 patients per year. The committee approved interventions to promote the switch.

As part of a literature review to identify and adapt financial mapping tools, SIAPS discovered a WHO-developed tool that maps financial flows for procurement and distribution of medicines and supply management systems, but does not identify the financial inputs and outputs in their entirety and does not allow for the identification of financial gaps. SIAPS partner, Results for Development, will review and revise any existing financial mapping and planning tools as appropriate.

Intermediate Result 5. Pharmaceutical services improved to achieve desired health outcomes

Pharmaceutical services comprise the activities that pharmaceutical staff carry out to support patient care and treatment. Beyond the supply of pharmaceutical products, pharmaceutical services include educating and training staff, providing medicine information and counseling, monitoring medicine use to assure patient safety and achieve desired health outcomes, formulating policies and regulations to improve pharmaceutical care, and disseminating information and educational materials to promote public health.

SIAPS improves pharmaceutical services by using strategies, approaches, tools, and activities to support rational medicine use and antimicrobial resistance (AMR) advocacy and containment. Our technical focus areas include medication adherence; STGs, essential medicines lists, formularies, and clinical algorithms; facility and community-based case management; medicine and therapeutics information; and infection control.

Pharmacovigilance and rational use

In Bangladesh, a major landmark was reached when the national pharmacovigilance program was launched in September 2013. SIAPS helped with the steps leading to the launch including contributing to the development of terms of reference for the Adverse Drug Reaction Monitoring Cell (the national drug monitoring center), national pharmacovigilance guidelines, adverse events reporting form, and related procedures. SIAPS also provided training on pharmacovigilance and regulatory systems with participants from 20 public and private hospitals and Directorate General Drug Administration officials. Bangladesh manufactures more than 96% of its essential medicines and exports to 86 countries in the world. With SIAPS support and the trainings provided, the country will be able to revise the current quality management systems guidelines.

SIAPS organized face-to-face discussions on how to identify, prevent and report adverse drug reactions with 245 health providers at nine Ethiopian health facilities. During the quarter, fifteen adverse drug reaction reports were entered into the national pharmacovigilance database. Based on the information generated from the pharmacovigilance database, drug-related problems were identified and regulatory measures were taken on two drugs (tinidazole 500mg tab and dextromethorphan syrup). Investigations were also made on antiretrovirals (ARVs) (tenofovir disoproxil fumarate and lamivudine combination) and an endocrine drug, propylthiouracil.

As part of our drug utilization activity in Kenya, we focused on collecting, entering, and analyzing data on appropriate use of the drug resistant (DR)-TB medicines, kanamycin, capreomycin, levofloxacin, prothionamide, and cycloserine. We piloted data collection forms, revised them, and distributed them to the data collectors at 24 sites countrywide. The data collectors exceeded their target of reviewing 100 DR-TB patient records for a total of 103. During September, SIAPS provided technical assistance to the Kenya Division of Leprosy, TB, and Lung Disease with data analysis and interpretation of results, which will be presented at the Third Kenya International Scientific Lung Health Conference in October.

Supply management

During this quarter, DRC, Ethiopia, Guinea, Kenya, and Liberia conducted end-user verification (EUV) surveys. SIAPS helped review the findings and provided feedback on viable follow-up activities and interventions based on EUV 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. Also we estimated and reported ACT needs for Burundi and South Sudan.

SIAPS assisted the Ministry of Health and Family Welfare to hold a workshop on condemning unserviceable and obsolete items for 120 participants, such as hospital directors, civil surgeons, directors of medical colleges and specialist hospitals, and other high-level ministry officials. Participants discussed barriers and solutions for disposing of unusable items. Following the workshop, SIAPS helped eliminate unserviceable items at DGFP's central warehouse, making approximately 3,000 square feet available for critically needed storage space; 42 upazilas and two warehouses also completed the waste disposal process.

To support community case management of malaria in Burundi, SIAPS conducted an inventory of stock with community health workers. Because the malaria control program had a stock-out of RDTs, SIAPS borrowed RDTs from the central medical stores to avoid service interruption at the community level. As a result, 3,478 children under five years with fever received services during July and August. Among them, 3,433 were tested with a RDT and 2,103 diagnosed positive. In addition, to avoid RDTs stock-out in Sud Kivu Province, SIAPS coordinated the transfer of 78,750 RDTs from Katanga Province and 56,250 RDTs from Kasai Oriental. Following a delay in the delivery of the President's Malaria Initiative (PMI) order of 4.4 million doses of ACTs, SIAPS recommended that ACTs destined for PMI-Expansion health zones in Kasai Occidental be distributed in health zones with an impending ACT stock-out. SIAPS also collaborated with the malaria control program and the Global Fund principal recipient for malaria to do a pipeline analysis of ACTs and RDTs and submit a revised quantification to cover the remaining period of 2013 through December 2014. To assure availability of malaria commodities, SIAPS helped the malaria control program and principal recipient submit a proposal to the Global Fund to cover the gap between the current funding and the new funds expected in 2016. As a result of SIAPS' technical assistance, the appropriate quantities needed through December 2015 were calculated and submitted in the final proposal.

In DRC, we facilitated a workshop to validate the SIAPS approach on estimating unmet need of maternal health medicines. The workshop was conducted in collaboration with DRC's Ministry of Public Health. Forty-one participants from the public sector, implementing partners, and donor agencies, and service providers attended the two-day workshop. SIAPS presented the methodology and the global level activities taken to facilitate the UNCoLSC work. The Acting Director for the Direction de la Pharmacie et Médicaments facilitated the exercise for the country, which initiated a lot of debate to evaluate reasons behind a huge gap in procurement. Specific recommendations were made for policy makers, Direction de la Pharmacie et Médicaments, and the MoH's maternal, newborn, and child health (MNCH) division to facilitate the availability of these medicines to all pregnant women despite where they give birth.

To build capacity in supply chain management in the Philippines, SIAPS completed the Practical Guide for the Management of Pharmaceuticals, as well as three job aids on dispensing, receipt and inspection, and proper disposal of expired and damaged medicines. In collaboration with the IMPACT Project, SIAPS designed a roll-out of the new guide that includes a training of trainers to be conducted by SIAPS and cascade training and mentoring in conjunction with partners.

In South Africa the number of sites using one or more of the RxSolution modules increased from 224 to 280. The expansion was driven largely by the National Department of Health's plans to increase RxSolution coverage in sites earmarked for piloting national health insurance, as well as sites implementing a direct delivery model. Use of RxSolution continues to contribute to significant improvements in medicines availability, improved inventory management, and better patient care. For example, ARV availability for 23 line items was maintained at an average of 91% at primary health care facilities using the system in the Eastern Cape. The interface between RxSolution and Delta 9, a patient administration system, was completed and is being piloted at Livingstone Hospital in the Eastern Cape.

Antimicrobial resistance

SIAPS/Ethiopia coordinated with experts at the Food, Medicines and Health Care Administration and Control Authority to revise and finalize the second edition of the Ethiopian Medicines Formulary (2013 edition). SIAPS supported the editing, printing and distribution: 20,000 copies were printed and are being distributed to end users throughout the country. The formulary will help improve medicines prescribing and dispensing practices and the containment of AMR.

In Namibia, SIAPS supported activities at the national Pharmacy Week in September with the theme, "Pharmacy against Antimicrobial Resistance." Pharmacy Week is an annual collaborative event between the public and private sectors, organized by Ministry of Health and Social Services (MoHSS) and the Pharmacy Society of Namibia. SIAPS support included developing and customizing AMR materials for use in an accredited continuing professional development event for 35 people. SIAPS also compiled and supported the publication of an AMR/rational use article in two local newspapers to increase awareness and shared articles on AMR that the Pharmacy Society of Namibia used to develop a questionnaire to engage pharmacists countrywide. In addition, SIAPS collaborated with the University of Namibia School of Pharmacy and MoHSS to conduct a two-day workshop and a one-day stakeholders' forum on AMR and promoting rational use of ARVs and anti-TB medicines. SIAPS developed the training materials and co-facilitated the workshop and forum for 66 participants. The workshop's aim was to raise awareness of the problem of AMR and engage stakeholders in promoting the rational use of antimicrobial medicines as a strategy for containing AMR. The participants formulated a consensus "call-to-action" statement for mobilizing stakeholders around the AMR challenge as well as an activity plan to carry out the agreed-upon interventions.

Also in Namibia SIAPS helped validate the early warning indicator data, compile the report, and disseminate the results from the 2012 Early Warning Indicator Survey. The preliminary results were presented to the HIV Drug Resistance Technical Working Group in July 2013.

Interventions arising from the early warning indicator data include the following—strengthening the Electronic Dispensing Tool and electronic patient management systems at facility level by

populating all the dispensing tool records with the unique patient number and enforcing the correct use of the ART Data Quality Assessment forms developed with SIAPS support.

Drug and therapeutics committees

SIAPS collaborated with the Pharmaceutical Fund and Supply Agency and WHO in Ethiopia to conduct a rapid assessment of operational status and perceived effectiveness of drug and therapeutics committees (DTCs) in hospitals. We collected data on composition, committee structure, processes, deliverables, impacts, and challenges from 111 hospital DTCs through a structured questionnaire and focus groups. The preliminary results of the DTC performance assessment were produced last quarter.

Mozambique has declared the establishment of DTCs at hospitals as a priority intervention to assure patient safety, therapeutic effectiveness, and to improve the appropriate use of medicines. SIAPS consultants developed and presented a two-day DTC orientation program that provides an overview of the DTC role, main functions, and responsibilities. This activity helped motivate hospitals without DTCs to nominate members and motivate the other hospitals to move further following the guidance. The orientation was attended by physicians, pharmacists, and other professionals from hospitals in all provinces, MoH, and nongovernmental organizations. Standardized DTC training materials were adapted to the Mozambique context, and a workshop took place in August. Two hospitals have been identified to serve as pilots for implementing DTC activities—their lessons learned will be shared with other DTCs.

Additional activities this quarter include the following—

- SIAPS supported **Swaziland's** Pharmacovigilance Unit to conduct visits to six pilot sites of the active surveillance program. By the end of September, the six facilities had recruited over 750 patients for the study.
- SIAPS worked with **DRC's** national pharmacovigilance center to finalize STGs for a general referral hospital with a functional medicines and therapeutics committee. This guide to correct patient management at secondary level will be edited and distributed in all hospitals with committees.
- SIAPS completed the technical report on access and use of antimalarials in Brazilian gold mining areas in **Brazil**. SIAPS participated in the presentation and discussion of results in August, 2013.
- SIAPS supported **Mali's** national malaria control program to draft a procurement planning and management report for malaria that resulted in recommendations to expedite shipments of five antimalarial products to avoid stock-outs. In addition, SIAPS helped develop distribution plans for three antimalarials and RDTs.
- SIAPS worked with the **Tajikistan's** national TB program to assess current stock of anti-TB drugs and quantify ethambutol for an expedited order because of low stock; the Global Fund principal recipient was able to order ethambutol from GDF based on the quantification provided by SIAPS and a stock-out was averted. SIAPS also provided on-the-job training to the TB program's drug manager on the assessment and quantification issues.
- SIAPS contributed to a set of eight papers for a special edition of *Journal of AIDS* to present state-of-the-art knowledge on follow-up and treatment of HIV-exposed infant

and HIV-positive children. SIAPS worked with other Child Survival Working Group (CSWG) members to finalize the Treatment 2.0 paper for publication.

COMMON AGENDA

Objective 1: Strengthen pharmaceutical sector governance

SIAPS continued work on developing an eLearning module on good governance in pharmaceutical systems for USAID staff and other users with Internet access. The content is based on the 2011 SPS white paper *Pharmaceuticals and the Public Interest: the Importance of Good Governance* that outlined a systems-oriented approach to implementing good governance principles in pharmaceutical systems. In this quarter, SIAPS developed a course proposal, and detailed outline that were reviewed by stakeholders including USAID staff. SIAPS used the feedback to develop the first draft of the course materials and submitted it to USAID/Washington, Knowledge for Health, and SIAPS technical reviewers for feedback.

Also in this quarter, we used Common Agenda funding to attend the second Governance for Health in Low- and Middle-Income Countries Roundtable at Georgetown University. SIAPS facilitated a case study session on “Strengthening Governance in Pharmaceutical Systems in Low- and Middle-Income Countries.”

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

SIAPS partner, Accreditation Council for Pharmacy Education, finalized its concept paper on pharmacy education accreditation credentials and developed an outline for a related framework that SIAPS reviewed. The Council revised the outline based on this feedback and is drafting the full guidance document.

SIAPS continued to collaborate with Ecumenical Pharmaceutical Network (EPN) to develop a concept note on initiating pooled procurement among faith-based organizations in Cameroon. The objective is to establish this as a learning experience that EPN can use to draft pooled procurement guidance to benefit its entire network. The concept note went through several revisions and was finalized during the quarter. SIAPS discussed the scope of work and budget with EPN in preparation for conducting the work in Cameroon.

To further the global dialogue on supply chain, SIAPS submitted two abstracts to the 6th Global Health Supply Chain Summit. Both abstracts, one for Bangladesh and one for Swaziland, were accepted. Bangladesh will be presenting on its supply chain portal in a plenary session, while the Swaziland work will be presented as a poster during the World Café session.

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

Based on discussions between SIAPS technical staff and VillageReach during the SIAPS

global meeting in June, VillageReach and SIAPS developed a scope of work for VillageReach to identify data being collected at the facility and community levels and how it is being used for decision-making and to identify the tools and approaches health workers are currently using to manage pharmaceutical data. To conduct this activity, VillageReach developed data collection tools that are being tested in Malawi. Based on the findings, the tools will be revised to be tested in one or two additional countries.

In this reporting period, SIAPS worked with USAID to map out an approach for developing a framework and metrics for measuring pharmaceutical systems and evaluating systems strengthening interventions, including establishing a technical advisory group. The technical team continued to search the literature to identify approaches that have been proposed or used to characterize a pharmaceutical system and also metrics that have been used to assess a pharmaceutical system or to track pharmaceutical strengthening initiatives. SIAPS will synthesize the findings of the literature search and draft a framework and initial set of metrics for internal review.

SIAPS updated its compilation of evidence and recommendations relating to standard treatment guideline development, implementation, and monitoring to include additional international publications. The next step is to create a detailed outline and then draft the STG how-to manual based on that outline.

Objective 4: Strengthened financing strategies and approaches

Leveraging MSH funding from UNITAID, SIAPS is supporting the development of a framework to highlight adequate procurement practice requirements. UNITAID will use the framework to develop guidance for its grantees and their implementing partners to conduct pharmaceutical procurements. The first draft of the framework is under review.

As part of a literature review to identify and adapt financial mapping tools, SIAPS discovered a World Health Organization (WHO)-developed tool that maps financial flows for procurement and distribution of medicines and supply management systems, but does not identify the financial inputs and outputs in their entirety and does not allow for the identification of financial gaps. SIAPS has contracted with Results for Development to review and revise any existing financial mapping and planning tools as appropriate. An outline is expected by the end of October 2013 with a draft tool to follow in December 2013.

By leveraging funding from USAID's Health Commodities and Services Management (HCSM) program, the University of Nairobi, HCSM, SIAPS, and the University of Washington conducted a four-day training of trainers' workshop on pharmacoeconomics and health technology assessment as they relate to essential medicines selection in Kenya. The training used the continuous quality improvement Monitoring-Training-Planning approach to empower academics, regulators, and health care professionals to become facilitators for further training programs in their own settings. Participants were enthusiastic about the potential for putting the skills to work; for example, to support the Pharmacy and Poison Board in economic evaluation as the fourth hurdle before market entry, to support the

Medicines and Therapeutics Committee in selecting essential medicines, and to support the University of Nairobi to develop a short course on pharmacoconomics and health technology assessment. Participants plan to form a joint learning network that will include the trainees, and SIAPS, HCSM, and University of Washington representatives to track and document the impact of the training and how they apply the skills in their work places. The course's generic training curriculum and the complete curriculum package will be compiled on flash drives and shared with USAID/Washington and SIAPS countries in the next quarter.

Objective 5: Quality of pharmaceutical products and services improved

We compiled the results of the literature search on adherence support, approaches, methods, lessons learned, and recommendations as part of an effort to develop guidance to establish and monitor local treatment adherence programs. This collection of peer-reviewed studies, systematic reviews, and presentations primarily address medication adherence as it relates to HIV/AIDS, TB, and chronic diseases in resource-constrained countries.

During this quarter, SIAPS conducted a literature search and review on antimicrobial stewardship followed by the development of a matrix that includes key references, summaries, and links. SIAPS also started drafting an advocacy brief on antimicrobial stewardship. SIAPS continued its collaboration with the Global Antibiotic Resistance Partnership Project in South Africa to help the National Department of Health and other stakeholders to strengthen antimicrobial stewardship and infection control activities. Additionally, SIAPS headquarters staff provided technical support to SIAPS/Namibia and the Pharmaceutical Society of Namibia to publish two newspaper articles on AMR and organize a continuing medical education seminar on rational medicine use and AMR during Pharmacy Week in September 2013.

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

SIAPS collaborated with WHO on the SIAPS knowledge management portal by funding an information technology contractor to revise the public web site and administrative features of the knowledge portal and providing follow-on funding for minor systems updates and maintenance. SIAPS has contributed approximately 60 documents using the updated content management system. The portal has been demonstrated at regional WHO meetings in Senegal and publicized on the e-Drug listserv. Planning is underway to further publicize the portal and conduct gap analysis to target additional research in pharmaceutical systems.

In this quarter, as members of the Child Survival Working Group of the Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children, SIAPS continued to work with the Clinton Health Access Initiative, the Supply Chain Management System project and other CSWG members to work with countries to optimize their pediatric ARV formularies. In September, SIAPS participated in discussions to align the list with treatment recommendations in WHO's

2013 WHO's *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection: Recommendations for a Public Health Approach*.

Also in this quarter, SIAPS used common agenda funding to contribute to a set of eight papers for a special edition of *Journal of AIDS* to present state-of-the-art knowledge on follow-up and treatment of HIV-exposed infant and HIV-positive children. SIAPS worked with other CSWG members to finalize the Treatment 2.0 paper for publication.

The SIAPS Project Director attended the WHO Essential Medicines and Health Products global meeting for WHO Country and Regional Advisors held in Geneva during September. He presented on the role of the SIAPS Program and ongoing and potential collaborations with WHO at the country level. The Project Director also discussed opportunities for collaboration on leadership activities. While in Geneva, he also presented at the Global Fund to the technical team and discussed potential areas of collaboration.

Partner contributions

- ACPE finalized a concept paper on pharmacy education accreditation
- EPN finalized a concept paper on developing a pooled procurement program in Cameroon
- SIAPS has contracted with Results for Development to review and revise existing pharmaceutical system financial mapping and planning tools as appropriate.
- University of Nairobi, HCSM, SIAPS, and the University of Washington collaborated on the development and testing of Pharmacoeconomics and Health Technology Assessment curriculum.
- SIAPS worked with the Global Antibiotic Resistance Partnership Project in South Africa to advance antimicrobial stewardship.
- WHO Essential Medicines and Health Products program is helping develop SIAPS' knowledge management portal.

GLOBAL PROGRAMS

Malaria Core

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

Overall Progress

SIAPS continued to disseminate the malaria quantification manual and held quantification workshops in Guinea and South Sudan. We also helped PMI make procurement decisions by reporting on ACT needs in two countries, conducting EUV surveys in five countries and reporting on stock status of malaria commodities from nine countries through procurement planning and monitoring reports for malaria. In addition, SIAPS and the William Davidson Institute collected data to assess the cost of distributing malaria commodities.

Objective 1: Improve coverage of malaria interventions

To improve coverage of malaria interventions, we held monthly coordination meetings with PMI/Washington to discuss activities in PMI countries and helped counties plan their malaria interventions. Dissemination of the malaria quantification manual to countries continued during the quarter. SIAPS held two quantification training workshops using the new manual: Guinea with 29 participants from the MoH and other malaria partners and donors participated and South Sudan with 10 participants. Neither country has a functional committee to oversee quantification of malaria commodities.

Objective 2: Improve metrics and monitoring and evaluation of malaria interventions

During this quarter, DRC, Ethiopia, Guinea, Kenya, and Liberia conducted EUV surveys. SIAPS helped review the findings and provided feedback on viable follow-up activities and interventions based on EUV 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. Also ACT needs for Burundi and South Sudan were estimated and reported.

Objective 3: Strengthen financing strategies and mechanisms to improve access to medicines

SIAPS and William Davidson Institute travelled to Kenya to collect data for a study to estimate the costs of distributing ACTs, rapid diagnostic tests, and long-lasting insecticide nets from the central to the peripheral levels, so that countries may adequately budget for this in their country roadmaps and requests to donors to ensure availability at the end user level. The outcome of this exercise will be a costing model and methodology to estimate the cost in the public sector in other countries.

Partner contributions

The William Davidson Institute collected data in Kenya that they will use to develop a costing model for disseminating malaria commodities.

Maternal, Newborn, and Child Health Core

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

Overall progress

This quarter, the SIAPS MNCH portfolio continued to contribute to global initiatives, such as the United Nations Commission on Life-Saving Commodities for Women and Children (UNCoLSC) to raise awareness of the importance of pharmaceutical management for MNCH commodities. SIAPS participated in the Commission's regularly scheduled technical reference team and working group meetings in person or via teleconference. SIAPS also continued to work on the specific UNCoLSC issues such as the review of best practices in supply chain management, development of quantification guidance, compilation of tools related to maternal health supplies, and data collection on public sector procurement of MNCH commodities. Besides Commission work, SIAPS also participated in expert consultations, technical presentations, and meetings of other technical working groups over the course of the quarter. Finally, SIAPS continued to advance the development of tools and guidance, such as the approach to assessing unmet need for maternal health medicines.

Objective 1: Global awareness of the importance of pharmaceutical management for MCH medicines and supplies increased.

This quarter, SIAPS continued to support various technical working groups related to maternal health—

- In August, participated in a conference call convened by the Reproductive Health Supplies Coalition's Maternal Health Caucus; in September, attended the quarterly meeting of the Maternal Health Supplies Working Group. In both meetings, SIAPS shared progress on its work under the UNCoLSC for maternal health supplies.
- In July, participated in an expert consultative panel convened by USAID's MCHIP to discuss the methodology they developed for "Estimating National Coverage of Uterotonic Use in the Third Stage of Labor."
- Attended the Postpartum Hemorrhage Program Implementation Workshop organized by MCHIP and held in September. The workshop focused on implementation approaches for postpartum hemorrhage prevention using misoprostol, primarily for home births.
- Participated in the expert review meetings convened by the Accelovate program in Baltimore on September 9th and 10th. The first day of the meeting focused on market-shaping tools and regulatory incentives for the production of high-quality misoprostol for low-resource settings. Day two was dedicated to a discussion of technical and innovation specifications for a point-of-care uterotonic quality assurance solution.
- Attended the Reproductive Health Supplies Coalitions' strategic refresh planning meeting held in September. This was a two-day workshop with subject-matter experts to review the strategic direction the Coalitions' plans over the next five years.
- Continued to facilitate the monthly collection of data from SIAPS countries for the Jadelle Access Project. The data includes a summary of Jadelle availability in the

countries based on review of the orders received from various data sources, including stock on hand and average monthly consumption.

- Participated in three meetings of the supply chain management subgroup of the Community Case Management Task Force, chairing one of them. In August, the subgroup held its second webinar on mHealth. SIAPS helped prepare the webinar, including reviewing the presentations. We also participated in one meeting of the Task Force.
- Followed up on the progress of the WHO/UNICEF handbook for countries to introduce and scale-up *Caring for Newborns and Children in the Community* and was asked to review the chapter again. SIAPS was interviewed by the consultant preparing for the supply chain session of the integrated community case management symposium which will be held in Ethiopia in December.
- Submitted a revised proposal to the Health Systems and Policies Working Group of the Countdown to 2015 Initiative to draft a paper, “Access to essential RMCNH medicines and supplies in select Countdown countries: a review of relevant policies and systems factors.” The Scientific Review Group of the initiative approved the proposal with suggestions on other groups to consult as work progresses.

Next steps are to continue to work with the supply chain management sub-group to review and adapt generic tools for the community case management central website; coordinate the review of the supply chain management chapter of the WHO handbook with the other members of the subgroup; review the Countdown paper proposal with WHO and the other co-authors to finalize and plan for data collection; and attend the community case management symposium in December 2013.

Objective 2: Guidance and tools for improving pharmaceutical management for maternal and child health developed and disseminated

We facilitated a workshop to validate the SIAPS approach on estimating unmet need of maternal health medicines in DRC. The workshop was conducted in collaboration with DRC’s MoH. Forty-one participants from the public sector, implementing partners, and donor agencies, and service providers attended the two-day workshop. SIAPS presented the methodology and the global level activities taken to facilitate the UN Commission work. The Acting Director for the Direction de la Pharmacie et Médicaments facilitated the calculation exercise for the country, which initiated a lot of debate to evaluate reasons behind a huge gap in procurement, with emphasis to review—

- Current practices for quantification and procurement of oxytocin, misoprostol, and magnesium sulfate
- STGs and norms for managing postpartum hemorrhage prevention and treatment and pre-eclampsia and eclampsia treatment
- Essential medicine list for DRC
- Introduction of misoprostol for postpartum hemorrhage prevention at home births

Specific recommendations were made for policy makers, Direction de la Pharmacie et Médicaments, and the MoH’s MNCH division to facilitate the availability of these medicines to all pregnant women despite where they give birth.

In addition, SIAPS worked to develop guidance to countries to introduce new MNCH technologies. With internal feedback, the MNCH team developed an outline that it will share with a wider group of technical experts and USAID.

We traveled to Bangladesh to discuss a sub national procurement assessment with government counterparts and select data collection sites: Dhaka, Sylhet, and Khulna. By the end of September two data collection tools were finalized, one for procurement and the other for stock status. Next quarter, we will collect and analyze the data and produce a final report.

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

SIAPS continued to be actively involved in the Recommendation 6 working group, specifically the subgroups related to Outcomes 1, 2, and 3. For Outcome 1 related to supply chain, our partner, VillageReach conducted a systematic review of literature on best supply chain practices in MEDLINE and SocINDEX, produced a summary table of promising practices identified from grey literature, evaluation reports, interviews with experts in the field, and drafted briefs describing the best and promising practices organized by supply chain function. For Outcome 2, related to quantification, SIAPS and John Snow Inc. (JSI) reviewed the proposed scope of work and agreed on next steps and a revised timeline. JSI proposed an outline for guidance on forecasting and supply planning that the team finalized; SIAPS worked on the forecasting algorithms for chlorhexidine, antenatal corticosteroids, and injectable antibiotics; PATH worked on quantification of neonatal resuscitation equipment, and JSI developed algorithms for child and reproductive health. Also during this quarter, SIAPS started incorporating the 13 priority commodities into Quantimed. With respect to Outcome 3 (private sector engagement), SIAPS participated in the in-person workshop.

SIAPS also continued to participate in the Maternal Health Technical Reference Team meetings. We finalized the inventory of maternal health supplies tools and created fact sheets for each; the inventory is contained in an Excel file that contains descriptors for each tool. The tools were coded according to the search criteria for the supplies information database of the Reproductive Health Supplies Coalition.

Related to the UNCoLSC, SIAPS continued to collect data on public sector procurement of reproductive and MNCH commodities for a USAID–led market analysis of the supply and demand for focus commodities in the 24 MNCH priority countries. We collected and reviewed data from all but three countries this quarter, then submitted it to USAID/Washington. Next quarter, SIAPS will finalize the documentation of supply chain best practices, quantification guidance, tools inventory, and procurement data collection activities. Also under UNCoLSC, SIAPS participated in an M&E subgroup meeting of the Pneumonia and Diarrhea working group to finalize the standard indicators for countries to measure performance.

SIAPS started a system to track consumption and availability of medicines at the community level in Guinea. This will be piloted as a separate system because Guinea has no functional logistics management information system into which community level information can be

integrated. We are also monitoring levels of community case management commodities at the central and regional medical stores with the aim of setting up a system that the MoH's integrated management of childhood illness coordination unit can continue.

In Burundi, we collected data for the evaluation of PECADOM and will continue with the analysis and report writing next quarter. SIAPS headquarters carefully reviewed the cost data and discussed the assumptions for the costing study with field staff.

SIAPS finalized the technical content for the amoxicillin dispersible tablets dispensing tools for community health workers, health facility staff, and counter assistants. SIAPS will help review the related job aid. Additionally, on behalf of the amoxicillin subgroup, SIAPS drafted a brief advocating for the use of amoxicillin dispersible tablets, which was distributed to the country participants at the UNCoLSC meeting in July. The paper was revised with input from WHO and translated into French. Both versions will be disseminated widely after the pneumonia and diarrhea working group meeting scheduled for the beginning of next quarter.

We were invited to join the Injectable Antibiotics Technical Reference Team and participated in three meetings this quarter. SIAPS will contribute to developing a landscape analysis tool and conducting the analysis in some countries—initially Bangladesh.

SIAPS continues to participate in the chlorhexidine working group under the UNCoLSC, and this quarter, we supported the DRC MoH to conduct a stakeholders' meeting to raise awareness of the UNCoLSC and the scientific basis for the use of 7.1% chlorhexidine digluconate for umbilical care. The participants included policymakers, implementing partners, and health care providers at the national level. Participants reviewed the current WHO and national guidelines and reached consensus to introduce chlorhexidine 7.1% on a national scale. A national technical committee was formed that will finalize the introduction strategy by the end of October.

Partner contributions

Village Reach is leading the best practices review under Outcome 1 with SIAPS funding.

Constraints to progress

Because USAID/Uganda did not approve the validation of the intervention guide for the management of childhood illnesses in Uganda, discussions were underway this quarter with USAID/Washington on other possible country choices. Next quarter, a country will be selected and the validation conducted.

TB Core

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

Overall progress

While the Global Fund Board has not made a decision on a new procurement mechanism, the Global Drug Facility (GDF) is successfully positioning itself as the most rational and effective model for procuring TB medicines and diagnostic supplies; in addition, GDF donors such as USAID, Canadian International Development Agency, and UNITAID have confirmed their commitment to the GDF whose funding for 2014 has been set. SIAPS funds a full-time consultant to oversee the GDF's procurement and supply operations for its 70 client countries.

SIAPS released the final version of QuanTB in two languages, English and Russian. It is a user-friendly tool that can rapidly improve TB quantification and supply planning, and serve as an early warning to prevent stock-outs by making it easier to track the actual consumption of medicines. We are making continuous improvements to e-TB Manager, the core information systems tool for TB control; for example, we released e-TB Manager's synchronizable desktop version for reporting cases.

During the quarter, SIAPS rolled out a regional technical assistance and capacity-building mechanism in response to requests from national TB programs and donors. We also successfully engaged private pharmacies in a dialogue with Pakistan's national TB program to improve their knowledge of TB. In Kenya and Swaziland, SIAPS conducted drug utilization reviews and implemented active surveillance programs.

Objective 1: Pharmaceutical governance for TB strengthened at global level and country level

The SIAPS consultant to the GDF carried out the following activities over the last quarter—

- Developed and issued a request for proposals to cost out the Global Strategic Stock Pile and Flexible Procurement Fund
- Finalized a concept note for Global Strategic Stock Pile and Flexible Procurement Fund and presented it to the Global Fund Strategy, Investment and Impact Committee for approval
- Started recruiting for two regional supply officers and one technical officer
- Developed an update on the GDF reform process for UNITAID
- Collaborated with WHO Stop TB and Medicines Sans Frontiere to develop a letter of intent for UNITAID to address global shortage of clofazimine
- Developed a concept paper positioning the GDF as a global supplier of bedaquiline

SIAPS gave a presentation and contributed to a technical discussion on improved forecasts and quantification at the UNITAID and USAID TB Market Forum in July. The objectives of the TB Market Forum are to establish consensus on challenges and barriers in TB commodities markets and identify priority areas interventions.

SIAPS finalized the agenda for its Regional Conference on Novel Approaches to Pharmaceutical Management for TB (Europe-Eurasia region) and identified facilitators, speakers, and discussion group leaders. We sent out invitations and contracted the venue.

Constraints to progress

Revision of the SIAPS *Guidelines for Pharmaceutical Management for TB* was delayed due to the loss of the consultant slated for this job. SIAPS has identified a new technical leader for this activity.

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

SIAPS' targets for this quarter were to increase the pool of consultants and country technical specialists who are capable of strengthening countries' capacity to better quantify and plan the supply of TB medicines and to establish effective early warning systems to avoid TB medicines stock-outs and waste.

In September, in Kazakhstan, SIAPS worked with WHO/EURO and the GDF to conduct the second Regional Training on Forecasting, Quantification, Supply Planning, and Early Warning. The training was built around QuanTB, which is the newly developed SIAPS tool that allows users to quantify, plan, and monitor the availability of medicines based on actual cases on treatment and TB program trends. The training was attended by 22 participants (male—14; female—8) from Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Russia, Moldova, and Azerbaijan.

We also drafted an interactive eLearning module based on expert content, such as *MSH's MDS-3: Managing Access to Medicines and Health Technologies*.

Constraints to progress

The activity to develop an operational pharmaceutical research strategy in high-burden countries was delayed due to the competing priorities of the SIAPS TB team.

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

The main activities for this quarter focused on increasing the use of quantification and planning tools among national TB programs and StopTB partners.

We have been continuously testing the generic version of e-TB Manager for bugs, developing new features, and increasing the tool's alignment with international standards for TB management based on feedback from country teams and from monitoring of country implementation activities. For example, the first iteration of "Desktop Version" of e-TB Manager (a stand-alone application for case management) was released and testing will continue next quarter; "Data Analysis Tool" (e-TB Manager web reports module) was enhanced based on

testing and feedback and the generic technical information technology documentation was updated. In addition, QuanTB, which is a downloadable, desktop forecasting and quantification tool was enhanced and version 1.0 was released. Next quarter, we will launch the tool at the Union Conference and made it available for download from the SIAPS website along with a comprehensive users' guide.

Funds from SIAPS, TBCARE and local entities continued to support the adaptation and implementation of e-TB Manager in Armenia, Azerbaijan, Brazil, Cambodia, Indonesia, Nigeria, Ukraine, Uzbekistan, and Vietnam.

SIAPS developed a generic, semi-structured questionnaire to collect information that national TB programs and supporting partners need for decision making. The Bangladesh SIAPS team is adapting the questionnaire for use in their setting; feedback is expected by the next quarter.

Specific country updates follow—

Namibia: Customizations to e-TB manager were made and the final version of the tool was released. The system was transferred to a local server that is jointly administered by SIAPS/Namibia and the national TB program. SIAPS is arranging training to support the countrywide roll-out of the tool and will develop the handover strategy.

Bangladesh: SIAPS worked with the TB procurement and supply management unit to define an action plan for using QuanTB to monitor TB medicines stocks and consumption and serve as early warning system for stock-outs and expiring medicines. We received approval from the national TB program for the new TB management information system, which was adapted from the e-TB Manager drug management module. We also outlined the system's phased countrywide implementation plan and defined reports and additional needs for customization. In addition, SIAPS drafted an action plan to improve performance in case management at existing e-TB Manager sites.

Ukraine: SIAPS worked with the MoH to review the e-TB Manager data quality assurance indicators and started collecting data at selected sites. We also started adapting the medicines management module to fit Ukraine's needs.

Constraints to progress

Constraints included a lack of SIAPS country presence and strong champions to conduct and monitor implementation activities (e.g., high turnover or deficiency of local information system and TB specialists).

Objective 4: Improved financing strategies for expedited access to new TB tools and pharmaceutical services

This entire objective and corresponding activities were removed from the SIAPS TB Core work plan at the direction of the USAID TB team. Funds were re-allocated to strengthen Objectives 1 and 5.

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

In Pakistan, SIAPS completed training materials, including a video and PowerPoint presentation, with significant input from the national TB program and trained trainers for the private sector initiative with chemists. SIAPS conducted a stakeholder meeting involving representatives from the MoH, national TB program, donors, and academia to launch the public-private mix for chemist project, disseminate results from the baseline, and share the training materials.

SIAPS staff participated in the WHO review of Tajikistan's national TB program and also conducted a GDF country monitoring mission there. We presented the draft findings of the WHO review missions to the MoH, national TB program, and international organizations; SIAPS is responsible for developing the pharmaceutical management chapter of the final report. In addition, SIAPS participated as the lead procurement and supply management expert in the national TB program review in Uganda in September. We also provided technical support to the national TB programs in Tanzania and Kenya to coordinate procurement through GDF.

As part of our drug utilization activity in Kenya, we focused on collecting, entering, and analyzing data on appropriate use of the DR-TB medicines, kanamycin, capreomycin, levofloxacin, prothionamide, and cycloserine. We piloted data collection forms, revised them, and distributed them to the data collectors at 24 sites countrywide. The data collectors exceeded their target of reviewing 100 DR-TB patient records for a total of 103. During September, SIAPS provided technical assistance to the Kenya Division of Leprosy, TB, and Lung Disease with data analysis and interpretation of results, which will be presented at the Third Kenya International Scientific Lung Health Conference in October. Next steps include planning and implementing interventions, then conducting a targeted follow-up drug utilization review to assess the impact of the interventions. SIAPS will help transition responsibility for ongoing drug utilization review activities in Kenya to a government agency.

In Quarter 4, SIAPS and the South African National TB Control Program oriented a team of clinicians, nurses, and pharmacists from three DR-TB facilities on procedures for conducting DR-TB drug utilization reviews in a three-day workshop. During the workshop, the group decided to conduct a review targeting a standard DR-TB treatment regimen that is prescribed for approximately 80% of patients starting treatment. The group selected criteria for review and developed a draft implementation plan. The next steps are to finalize the data collection forms and obtain ethics review board approval.

Also in South Africa, SIAPS visited sentinel sites for the active surveillance pilot program to train new staff and to troubleshoot data collection tool irregularities with the tool developer.

Constraints to progress

In South Africa, misinterpretation of information regarding resources available to conduct the drug utilization review resulted in the DR-TB Program Director putting the activity on hold pending clarification. To address this matter, the SIAPS South Africa Country Director will meet with the DR-TB Program Director to move this activity forward.

For the pilot of active surveillance, some staff who were trained in data collection have been moved to other facilities, and new staff have to be trained. In one facility, no new staff has been recruited making it difficult for the limited staff available to fulfill all data collection requirements.

US FDA Core

Goal: Strengthen regulatory systems to ensure the quality and safety of products in the supply chain

Overall progress

The pharmacovigilance report was completed this quarter and is being published.

Objective 1: Assess and disseminate findings on the pharmacovigilance and post-market surveillance systems performance in the Asia/Pacific region

During the quarter, SIAPS revised and finalized the Asia study report. The final report is will be indexed and printed. It is expected to be available and presented to FDA and USAID in November together with the close-out report for the interagency contract.

REGIONAL PROGRAMS

LAC AMI

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

Objective 1: Pharmaceutical sector governance strengthened

Operational procedures and electronic tools for requisition and dispatch of malaria medicines were finalized in Honduras and Colombia. The NMPs, however, have postponed national meetings for the presentation, validation, and scale-up of these procedures and tools.

Malaria pharmaceutical management guidelines for primary health facilities were distributed in Choco, Colombia. An evaluation to assess the impact of this intervention is scheduled before the end of 2013.

Constraints to progress

NMPs have postponed meetings for the presentation, validation, and scale-up of SOPs and tools developed with SIAPS support.

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

SIAPS elaborated (in EpiInfo) an electronic application to consolidate the information generated by the malaria supervision system in Guyana. The Guyana NMP has not, however, incorporated this tool their regular operational routines.

The bulletin corresponding to the second quarter of 2013 was distributed by the PAHO/SF the third week of July 2013. Eleven countries (including some in Central America) provided data.

During this quarter, SIAPS finalized reports on the performance of malaria control strategies using an “adequacy approach” for Belize, Honduras, and Brazil.

Partner contributions

The coordination for the elaboration of the quarterly monitoring bulletin of antimalarial stocks in AMI countries is coordinated by PAHO. SIAPS provides technical assistance for the collection and analysis of information in the countries.

Objective 3: Pharmaceutical services improved to achieve desired health outcomes

The USAID/AMI diagnosis of the structural conditions of the department medical stores in Honduras could not be completed. The pharmaceutical directorate and the central warehouse went through a profound reorganization, delaying the implementation of technical assistance plans.

SIAPS consultants completed the technical report on access and use of antimalarials in Brazilian gold mining areas (garimpos). SIAPS participated in the presentation and discussion of results (Brasilia, August 2013).

In Suriname, SIAPS finalized the collection of information for a knowledge, attitude, and practice (KAP) study in gold mining areas.

Partner contributions

The Pan American Health Organization and Global Fund are providing financial and technical support to the KAP study in Suriname.

COUNTRY PROGRAMS

Angola

Goal: Improved availability of Quality Products and Effective Pharmaceutical Service Delivery for Better Health Outcomes

Objective 1: Pharmaceutical sector governance strengthened

A meeting of the ICC/R Sub-Commission for Logistics was held on August 29, 2013, in the Department of Public Health. This is one of the three meetings planned for the quarter. About 70% of the Commission members participated. During the meeting, all the programs provided updates on the availability status of their products as well as planned versus implemented activities. They also exchanged other information pertinent to the rest of the members. SIAPS used the occasion to disseminate the Medicine Regulatory System Assessment that it conducted last year.

Constraints to progress

The absence of the director and other senior officials of DNME (prior commitments) often caused meetings to be postponed. SIAPS is working with DNME to develop strategies to improve attendance and ensure that the meeting is held in October to avoid putting off the meeting for too long and letting too many agenda items accumulate.

Partner contributions

DNME: coordination of the meeting preparations and proceedings

Objective 2: Local capacity for pharmaceutical supply management enhanced

SIAPS assisted the National Program of Essential Medicines (PNME), in collaboration with the National Malaria Control Program (PNCM), the National Reproductive Health Program (PNSR) and the Provincial Directorate of Health of the Province of Huambo (DPS Huambo) to organize a training of trainers that targeted all municipal warehouse managers and malaria and reproductive supervisors from the 11 municipalities of Huambo; 8 municipalities sent 3 representatives each and the remaining 3 municipalities were represented by 2 participants each. Additional participants were from the provincial warehouse (3 participants), USAID-SASH (2 representatives), and the Mentor Initiative (1 representative). Facilitators were from PNME (1), PNSR (1), DPS Huambo (4), and SIAPS (1). The training was highly supported by the provincial director who officiated at the opening and closing ceremonies. Participants developed post-training action plans, including conducting the same training in their respective municipalities, implementing stock control cards and consignment forms in all health facilities, recording consumption data on requisitions, and adhering to monthly report deadlines for malaria and reproductive health.

Constraints to progress

Delay in meeting the Luanda Provincial Health Directorate team to plan SIAPS interventions in Luanda Province, including pharmaceutical management capacity building activities. SIAPS has submitted an official request to meet the Provincial Director to discuss and get his buy-in for proposed SIAPS support.

Partner contributions

PNME, PNCM, PNSR, and DPS Huambo: coordination and facilitation of the training

DPS Huambo: coordination of the implementation of the post-training action plans

Municipalities of Huambo: organization of the cascade training at municipal levels

Implementing partners:

- Pathfinder: revision of the training material for reproductive health
- SASH and Mentor initiative: support to Huambo municipal teams in the implementation of the post-training action plans.

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

SIAPS assisted the national institute against HIV/AIDS to review the current logistics reporting and patient information forms to address issues of incomplete data that the team experienced during the data collection exercise for quantification. SIAPS staff reviewed the current forms and suggested new changes to be validated in a workshop with other stakeholders, pre-tested, and the final version approved before being implemented countrywide. It was also an opportunity to explore the current electronic data management system that is being piloted in the INLS referral HIV center (Esperanca Hospital) and provide input on its upgrading to also capture logistics information and use the collected information in programmatic decision-making of the INLS. The software has the essential information on patients' visits and clinical actions, but more information is needed on products delivered to patients and stock movements monitoring. SIAPS also assisted PNSR in preparing a national workshop of all provincial supervisors to discuss the importance of solid patients and logistics management information systems to improve availability of RH/FP health products. SIAPS discussed revisions on the antenatal care reporting form as a package of PNSR reporting tools with the program. These revisions will aim to eliminate the confusion created by the current design of the form.

SIAPS also supported the PNCM to follow up stock status and completeness of the logistics reports from national and provincial levels. In this regard, the Procurement Planning and Monitoring report for malaria (PPMRm) for quarter 3 was completed and submitted. Following recommendations of the last PPMRm and end-user verification, SIAPS assisted the program to review distributions of ACTs and RDTs procured by PMI to reflect the current needs in each province according to its morbidity and consumption data. The implementation of the new distribution plan in November will minimize stock out and/or overstock of RDTs in provinces.

Constraints to progress

Incompleteness of reports at the national level and long delays from the time forms are revised until they are available for use at the facility level. SIAPS will continue to support the respective programs to follow up with all their provincial supervisors to provide reports on time, to organize review meetings of all municipalities in the provinces, and to collaborate with other internal and external key stakeholders at the INLS level so that the form revision process is smooth and quick.

Partner contributions

PNCM: coordination and providing data for PPMRm

Provincial malaria control program supervisors and provincial warehouse managers: providing data for PPMRm

National Institute against HIV/AIDS: coordination and facilitation of the revision of the reporting forms and organization of visits to selected facilities

Esperança Hospital: facilitate the possibility of upgrading the current electronic patient management information system to incorporate logistics information

Objective 4: Pharmaceutical services improved to achieve desired health outcomes

The contract to engage SIAPS logistics partner Imperial Services for Health (IHS) was finalized and sent to USAID Washington for final approval. Although the contracting process has taken longer than expected, it is expected that once the contract is approved, identified consultants will work with the SIAPS team to provide direct support to CECOMA to review, develop, and implement an improvement plan, processes, and procedures and to establish performance indicators that will be monitored to transform CECOMA into a fully functioning Central Medical Stores. The SIAPS team provided direct support to Luanda Provincial Medical Warehouse to reorganize its stocks.

During the same period, SIAPS assisted the NMCP to organize a one-day meeting to disseminate the report of quantification of malaria products that was conducted in March with SIAPS technical assistance. Participants unanimously supported the establishment of a national technical working group which could meet regularly to review forecasts and to monitor and review supply plans and stock levels. They also recommended aligning the current quantification report to the 2011-2016 gap analysis to reflect the current trends of malaria and changes in assumptions, so that one reference document is available for all stakeholders. Challenges include lack of reliable consumption data at the national level, which could provide better information to conduct consumption-based forecasting and supply planning (rather than using the morbidity-based method). SIAPS is providing technical support to the NMCP to improve logistics management information systems and to promote the availability and use of the necessary

pharmaceutical management tools to capture and report reliable and complete stock and consumption data.

Constraints to progress

Finalizing the contract procedures with IHS has been delayed to provide direct support to CECOMA in improving warehouse management and distribution processes. SIAPS has updated the calendar in their scope of work to speed up the implementation of this technical assistance once the contract is approved. Warehouses at the provincial level have very basic infrastructure and not enough storage space to ensure a continuous supply of health products and sufficient space for stock movements.

Partner contributions

DPS (Provincial Health Directorate) Luanda: met high-level officials to discuss and plan SIAPS interventions at Luanda provincial level.

Provincial warehouse teams: clean out warehouses to obtain needed space for storage and easy stock movement

NMCP: organization of the one day workshop to disseminate quantification report for malaria products.

Bangladesh

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

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

SIAPS is working with the Ministry of Health and Family Welfare (MOHFW) to increase the efficiency and quality of procurement processes. In the last quarter, SIAPS facilitated the development of online procurement plans with the Procurement and Logistics Management Cell (PLMC), line directors, and desk officers. The line directors started developing procurement plans successfully in the Supply Chain Management Portal (SCMP).

SIAPS facilitated a two-day workshop to finalize the MOHFW *Procurement Procedures Manual*, attended by the Additional Secretary and other high officials from MOHFW, the Ministry of Finance, Central Medical Store Depot (CMSD), and the Public Works Department. In addition, upcoming use of a framework agreement is expected to improve efficiency by pre-authorizing vendors and enabling multi-year agreements that allow for staggered and more flexible delivery schedules. Thirty desk officers from various line directorates participated in two workshops in August to draft the standard tendered document for the framework agreement.

SIAPS facilitated a monthly procurement meeting in August with the Logistics & Supply Unit, the sole procuring unit for DGFP. Participants decided on the procurement status of all DGFP packages and resolved obstacles. In addition, participants planned to begin with the FY 2013-2014 procurement as soon as clearance is granted from the World Bank and MOHFW. Monthly CMSD/DGHS procurement meetings were held in July and September. In August, the first quarterly Supply Chain Coordination Forum meeting under leadership of the director of CMSD was organized for 17 line directors and donors (DFID, World Bank, USAID, and JICA).

SIAPS continued to assist MOHFW to update their table of equipment which outlines the equipment requirements for each level of health facility. An updated table is necessary to inform equipment procurement processes. SIAPS visited health facilities to understand the current situation and prepare an inventory report.

SIAPS sponsored the last three batches of procurement and supply chain management training sessions for a total of 75 participants at the Engineering Staff College in collaboration with the Central Procurement Technical Unit of the Ministry of Planning, meeting the annual project target of training 250 participants.

An updated trainers' manual and curricula for the TOT in logistics management was drafted based on the updated supply manual. The first TOT batch will be organized in the next quarter. Additionally, SIAPS supported a logistics management orientation for DGFP warehouse officials to provide a forum for additional decisions to strengthen logistics management functions.

SIAPS assisted MOHFW to hold a workshop on condemning unserviceable and obsolete items at

MOHFW facilities for 120 participants, such as hospital directors, civil surgeons from all 64 districts, directors of medical college and specialist hospitals, and other high ministry officials. At the workshop, barriers for disposal of unusable items were discussed and solutions proposed, such as seeking amendments of disposal rules from different levels of hospitals. Participants from hospitals nationwide expressed commitments to dispose of unusable items. Following the workshop, SIAPS facilitated de-junking of the DGFP central warehouse, making available approximately 3,000 square feet of critically needed storage space. Forty-two upazilas and two warehouses completed the waste disposal process for unserviceable and obsolete items.

The director general of the DGFP chaired the second DGFP Forecasting Working Group meeting in July. The working group discussed the national stock status of contraceptives and DDS kits, expiry dates, as well as validated and reached consensus on forecast values for procurement in FY 2013-14.

SIAPS worked with partners to develop standard operating procedures (SOPs) for managing TB drugs and supplies in the last quarter. This quarter, the PSM Unit Technical Working Group fine-tuned the SOP and the Global Fund and the Director of Microbacterial Disease Control approved the SOPs.

SIAPS began an assessment of three of five MDR-TB treatment facility drug stores. The remaining facilities and the assessment report will be completed in the upcoming quarter.

To ensure commodity security, SIAPS is working with partners to develop medium term (5-year) forecasts and two-year supply plans that will guide future DGHS and DGFP procurement actions for 13 UN life-saving commodities. The goal is to optimize a data-driven procurement system and minimize losses due to expiry. This extrapolation exercise will provide Government of Bangladesh (GOB) policy makers and donors with a framework for computing the requirements for MNCH products during the plan period.

Next steps

- Finalize 32 procurement plans, MOHFW *Procurement Procedures Manual*, and framework agreement and orientation workshop
- Conduct TOTs for the first batch of logistics training and basic e-TB Manager
- Accelerate the condemnation process in remaining upazilas
- Develop MDR-TB treatment facility drug stores assessment report
- In conjunction with the NTP, regularly update required data on QuanTB
- Supply planning exercise for DGFP

Partner contributions

In comparison to previous years, GOB officials are now more engaged and involved in completing online procurement planning. DGFP decided to accomplish procurement by the end of the GOB fiscal year, which has successfully been done. Six line directors were present full time in the logistics management workshop and provided necessary directives for improvement of the logistics management system.

SIAPS is working with partners, such as the Saving Newborn Lives Project, NGO Health Service Delivery Program, and Mayer Hashi on forecasting and supply planning for 13 of the UN life-saving commodities.

Constraints to progress

- Unstable and unpredictable political unrest in the country
- Lack of interest among desk officers in entering procurement package data in the online SCMP
- Under DGHS, the submission of a procurement plan for hospital service management is difficult as there are hundreds of items listed in their plan and new items are continuously added to the list
- Global Fund feedback on SOP is delayed
- Allocation of time for NTP personnel delayed monthly PSM Unit meeting
- Defining and designing the algorithm for newborn commodities was a great challenge in the quantification exercise process

Objective 2: Transparent and evidence-based decision making increased

Over the last quarter, the SIAPS team enabled the DGFP and NTP to develop a plan to manage the collection and dissemination of stock status reports from more than 423 sites. This is a key step in fostering MOHFW stewardship and promoting sustainability. Organization of the working groups that review monthly site information through the SIAPS supported Internet portals (SCMP and SCIP) will now also be transferred to MOHFW. SIAPS will continue to respond to requests from the key stakeholders of information portals to facilitate an increased interest in accessing and interpreting information.

SIAPS facilitated training in quantification using two tools, GDF and QuanTB (a new SIAPS forecasting tool that also can serve as an early warning system). To better track stock and distribution of TB medicines and avert potential stock outs of MDR-TB medicines, SIAPS introduced a one-page “stock status report” that features a colored bar chart to illustrate months of available stock and the pipeline status of all TB medicines. SIAPS worked with the NTP and partners to develop an Excel-based monthly reporting form. The form was approved by the NTP and the Director of Microbacterial Disease Control. The monthly information will be essential to ensure adequate stock at the peripheral level.

To promote transparency and increase access to information, SIAPS is working with the NTP to design and develop an LMIS module to better manage TB medicines. The system will enable users to monitor the monthly TB medicine stock status at the Central TB Warehouse in a more timely fashion. The activity began with standardizing reporting templates, and then identified areas to strengthen data reporting and decision-making processes. The team is currently working with the NTP to fine-tune report formats and system performance indicators. SIAPS is collaborating with NTP and stakeholders to develop a detailed roll-out plan for the LMIS module.

As data quality is critical to effective decision making, SIAPS has begun implementing the recommendations of the routine data quality assessment conducted in the previous quarter. A routine data quality assessment (DQA) tool was developed for implementation at the upazila (sub-district) level. This tool will provide specific guidance on developing data quality action plans to address challenges. In this quarter, the tools for DQA were finalized.

With support from SIAPS, DGFP master trainers continued to successfully provide assistance to their peers to keep the Upazila Inventory Management System current. The tool is currently functional in all 488 sites and approximately 85% of the sites directly upload logistics data via the central DGFP portal into the LMIS.

The *SIAPS Bangladesh Newsletter* was published and disseminated to all stakeholders this quarter. The team also prepared and disseminated program news, success stories, and brown bag flyers.

Next steps

- Implement routine data quality assessment tools
- Pilot TB LMIS in three sites
- Roll out e-TBM in three new MDR sites
- Pilot updated Upazila Inventory Management System in 15 selected sites
- Train government staff and implementing NGO partners from pilot districts in TB LMIS

Partner contributions

BRAC, Damien Foundation, Global Fund, WHO, EngenderHealth, Pathfinder, Save the Children, etc. were engaged in collaborative tasks. A special thank you goes to the Damien Foundation for loaning second-line TB drugs to the NTP during the last quarter.

Constraints to progress

- Lack of supervision and monitoring from NTP to improve the performance of e-TBM
- Because of the workload of the TB staff at the Central TB Warehouse, it was not always possible to maintain the collection of TB medicine data
- TB stock data are not available from the peripheral level; the upcoming training will resolve this issue

Objective 3: Pharmaceutical regulatory capacity and medicine safety strengthened

With the support of SIAPS, the Directorate General of Drug Administration (DGDA) took effective steps in strengthening their capacity in drug regulation and medicine safety during this quarter. SIAPS provided support for the development of terms of reference for the Adverse Drug Reaction Monitoring (ADRM) Cell. A major landmark was reached when the honorable secretary, MOHFW, launched the national pharmacovigilance program on September 2, 2013. Key steps were taken with the development and adoption of national pharmacovigilance

guidelines, an adverse event reporting form, and procedures. The ADRM Cell was declared the National Drug Monitoring Centre by MOHFW on September 5, 2013, leading to progress in the coordination of safety surveillance activities and future Bangladesh admission to the WHO International Drug Monitoring Program.

SIAPS also provided training on pharmacovigilance and regulatory systems for participants from pharmacovigilance focal points from 20 public and private hospitals and DGDA. The training on regulatory systems covered topics in good regulatory practice, quality management systems, common technical documents, quality assurance, and Good Manufacturing Practice. Bangladesh manufactures more than 96% of its essential medicines and exports to 86 countries. With SIAPS support and the trainings provided, DGDA will be able to develop guidelines in these areas and revise the current quality management systems guidelines.

Next steps

- Printing and distribution of the updated adverse drug reaction form
- Obtain the membership WHO-UMC (Uppsala Monitoring Center) International Drug Monitoring Program
- Develop good regulatory practice, common technical documents, and Good Manufacturing Practice guidelines and revise the current quality management systems guidelines
- Further training (ToT) of the pharmacovigilance focal points
- Finalize PharmaDex, the automated drug registration tool
- Launch the upgraded DGDA website which will also support post-marketing surveillance

Partner contributions

University of Washington contributes to the pharmacovigilance activities.

Constraints to progress

Delays in the implementation of the web-based regulatory tool Pharmadex due to ongoing efforts to first streamline and standardize regulatory processes.

Burundi

Goal: Strengthen key institutions (PNILP, DPML, CAMEBU, and districts) in reducing mortality and morbidity due to malaria through strong case management and availability of malaria commodities.

To improve PNILO's organizational and managerial structure, SIAPS worked closely with the National Malaria Control Program (PNILP) and WHO to organize two retreats with appointed technical committee members to develop the strategic plan for 2013 to 2017. The strategic plan is based on preliminary results of the malaria indicator survey published in March 2013 as well as previous documents like the malaria program review held in November 2011 and findings from formative supervision conducted from July to December 2012. SIAPS continued to take steps toward developing a comprehensive capacity building plan for PNILP and provided necessary equipment.

SIAPS started preliminary contacts in key departments within the Ministry of Health to develop policies related to community case management (CCM) to support scale-up and Intermittent Prevention Treatment during Pregnancy (IPTp) and other relevant policies as needed.

To improve the governance of the DPML, SIAPS collaborated with WHO to organize monthly meetings with the Medicines Thematic Group." During the quarter, discussions centered around strengthening the LMIS, establishment of a strong pharmacovigilance (PV) system, improving access to ACTs in the private sector, and harmonization of procurement and distribution channels for essential medicines. Immediate steps were to establish formal committees on LMIS and PV, initiate contacts to avail an individual package of ACTs for the private sector, and create a logistic management office within CAMEBU.

During this quarter, SIAPS, together with PNILP, DPML, CAMEBU, and SEP/CNLS- Malaria, performed a pipeline analysis on malaria commodities to ensure that available stock at the CAMEBU will allow consistent distributions to all 45 districts. The pipeline analysis showed that RDTs and all formulations of ACTs are available in sufficient quantities to cover needs for 2013 at the national level. A quantification exercise for ACTs and RDTs needed in 2014 was conducted and shared with USAID/PMI and the Global Fund for resources mobilization.

SIAPS continued to build the capacity of district teams to conduct formative supervision visits and monitor distribution and consumption of commodities (ACTs, quinine, RDTs, and LLINs). In total, all 45 districts and 288 selected public and FBO health centers (30% of the total number of health centers) were supervised; 100% of district pharmacies and 90% of the health centers visited did not have a stock out of ACTs and RDTs during the quarter.

To improve the case management of malaria, SIAPS supported the PNILP to disseminate 1,229 copies and orient 226 staff on the new STG for malaria at the district level. In support to the CCM for malaria strategy being piloted in two districts, SIAPS completed the initial package of minimum equipment and tools for all 403 CHWs and organized refresher trainings to reinforce their capacity to diagnose malaria with RDTs and correctly treat children under 5 years. None of the 403 CHWs encountered a stock out.

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

SIAPS works with two key MoH institutions, PNILP and the Directorate of Pharmacies, Medicines and Laboratories (DPML), to improve PNILP's leadership and governance, as well as to support the DPML to develop efficient and transparent pharmaceutical management systems.

To improve the collaboration and coordination of all in-country Roll Back Malaria (RBM) partners, SIAPS continued to assist PNILP and its partners to develop the five-year strategic plan for 2013-2017. SIAPS also assisted PNILP to adapt the 2013 annual work plan to the strategic plan targets. The exercise to develop the M&E plan in alignment with the draft strategic plan started. Validation of the draft plan is scheduled for October.

During the reporting period, RBM partners participated in a quarterly meeting to track progress toward achievement of the PNILP 2013 work plan objectives. Achievements were highlighted for the first nine months of 2013 and the plan adapted for the remaining quarter.

In line with strengthening the organizational structure of PNILP and the managerial skills of its staff, SIAPS provided an opportunity for a PNILP staff member to attend the PMI Behavior Change Communication workshop held in Ethiopia, September 16-20, 2013. Also, all PNILP staff completed a local English language course to improve their written and verbal communications. Knowledge of the English language is important to participate more fully as a member of the East African Community (EAC) and avail of regional resources and lessons learned.

To strengthen the organizational structure of the DPML as a pharmaceutical sector leader, SIAPS assisted the DPML to organize a two-day retreat with all staff in September 2013. During this retreat, the staff conducted a SWOT analysis by using the MSH Management and Organizational Sustainability Tool, called MOST. This exercise was conducted for the first time and allowed staff to develop a short-term action plan to address identified weaknesses. An urgent and immediate activity will be the review of the organizational chart with identification of staffing needs as DPML is moving toward becoming an autonomous National Medicines Regulatory Authority.

During this reporting period, SIAPS in collaboration with the DPML and key stakeholders, organized a working session in preparation for the development of a strategic plan for the pharmaceutical sector in alignment with the second National Health Development Plan (NHDPII). To this end, a desktop review of all existing documentation related to the management of the pharmaceutical sector started. To complement this desktop review, an assessment of the pharmaceutical sector is necessary to collect evidence-based information that will support the literature review. This activity will be conducted in collaboration with the EAC project funded by World Bank to strengthen the policy harmonization within the EAC country members and the WHO Burundi office.

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

SIAPS collaborated with SCMS and key stakeholders to support the DPML to organize the thematic group on medicine (MTG) meetings to improve coordination of all stakeholders involved in the pharmaceutical sector. Two meetings were held and focused on review of the system design of the health commodities supply chain and a mapping exercise of pharmacies in the private sector. For the supply chain of health commodities, SIAPS, in collaboration with the DPML and SCMS, shared the new LMIS designed through a partner's consultative workshop held in July 2013. The next steps will be to present the new LMIS design to CPSD (Coordination des Partenaires en Santé et Développement) for approval and update the SOPs accordingly. This activity is jointly developed with SCMS.

During this quarter, SIAPS, in collaboration with PNILP and the Global Fund principal recipient for malaria (SEP/CNLS), completed the pipeline analysis of ACTs and RDTs based on data from January through July 2013 and submitted a revised quantification of estimated needs of ACTs and RDTs to cover the remaining period of 2013 through December 2014. Further gap analysis in quantification was completed for 2015, as the current Burundi Global Fund funding through the "rolling continuation channel" will end in April 2014. To secure availability of malaria commodities, SIAPS assisted PNILP and SEP/CNLS to develop a consolidated proposal for submission to the Global Fund to cover the interim period between the current funding and the new Global Fund funds expected in 2016. For this, SIAPS brought along its expertise in quantification of malaria commodities. As a result, necessary quantities per commodity to procure through December 2015 were calculated and submitted in the final proposal.

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

SIAPS organized working sessions with PNILP, SEP/CNLS, Global Fund recipients, and the Department of National Health Information System (DSNIS) to revise malaria case definitions, a list of core indicators to be routinely monitored at the health facility and community levels, as well as the best approach for their integration into the current health information system. The meeting analyzed root causes of inconsistency of the data reported, such as (1) staff workload at the facility level and lack of time to report in a timely manner, (2) multiple management tools used at the health-facility level that can result in confusion, and (3) errors in transcription of data on the reporting tools due to lack of compilation forms. At the end of the meeting, a list of stakeholders to invite to the review meeting was identified and a review plan developed. This activity started in July with dissemination of the new STG at the facility level; the new STG will clearly provide the definition of a malaria case. The following step will be to update management and reporting tools to the new STG and train all data managers.

Next quarter plan

- Develop a list of core indicators for malaria routine data collection and integrate the list into the existing HMIS and adapt reporting tools accordingly
- Advocate to the PFC management cell and the DODS to review criteria to evaluate

performance of facilities toward case management of malaria; existing criteria are based on quantity and not quality

- Organize a meeting with stakeholders to analyze root causes of malaria resurgence in Burundi and adopt appropriate strategies to face the increase of malaria cases for the next peak epidemiological season in October

Constraints to progress

Stock out of RDTs at the national level reduced the number of children received by CHWs

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

To improve the case management of malaria, SIAPS assisted PNILP to disseminate the new malaria STGs. A four-day training was organized for 263 health care workers from 18 districts (7 provinces out of 17). The remaining 27 districts will be trained with Global Fund money later in October. The 263 participants included 258 health center nurses, 2 medical doctors, and 3 district- and provincial-level supervisors who were not trained during the previous TOT. Learning objectives focused on malaria epidemiology, the reason for changing the treatment protocol, clinical signs of uncomplicated malaria, recognition of severe malaria and its specific signs, diagnosis of malaria, appropriate treatment of uncomplicated and severe malaria, communication and counseling about malaria, and data recording and reporting. At the end of the training, copies of the STGs and algorithms were distributed to each health center.

To support CCM of malaria, SIAPS Burundi conducted an inventory of CHWs who were currently active and tracked the availability of commodities for each CHW. As there was a stock out of RDTs with PNILP, SIAPS borrowed RDTs from CAMEBU to avoid interruption of service at the community level. A total of 3,478 children under five years with fever received services during July and August. Among them, 2,364 were received within 24 hours, 3,433 were tested for malaria with RDTs, and 2,103 were diagnosed positive with RDTs. In addition, 1,989 malaria cases were treated with ACTs, with 1,797 treated within 24 hours.

In collaboration with Concern Worldwide (an NGO that is also implementing CCM of malaria), SIAPS supported the PNILP to conduct the final evaluation of the pilot phase of this strategy which started in 2011. A memorandum of understanding was signed with Concern Worldwide Burundi to outline the cost sharing arrangements for the end-evaluation. SIAPS hired three consultants for the evaluation—one for quantitative and qualitative aspects, another for the costing evaluation, and a data manager. The protocol and tools for the evaluation were developed and approved by the technical committee appointed by MOH. A total of 40 data collectors and 8 data entry clerks were hired and trained for 5 days on the methodology and questionnaires. The team collected data in the three pilot districts being supported by SIAPS and Concern. Preliminary results will be presented to the technical committee by October 2013. A workshop for dissemination of results of the evaluation is planned for early November 2013.

Cameroon

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

During this quarter period, SIAPS mainly addressed training in HIV and AIDS commodities management and reporting tools for pharmacy attendants and storekeepers, as well as supporting NACC and CENAME to rationally distribute and monitor quantities of ARVs to the Regional Medical Stores (CAPR) and to ART health facilities.

Objective 1: Pharmaceutical sector governance strengthened

Governance structures promote stakeholder involvement, coordination, and oversight to also ensure availability and accessibility of medicines at all levels of the health system. This includes implementing systems for overseeing the procurement process in particular activities linked to supply planning and forecasting and for auditing warehouse operations to identify theft or mismanagement.

Under this objective, SIAPS will support the finalization of standards operating procedures for HIV and AIDS commodities management at health facilities. SIAPS will also continue to provide technical assistance to National Aids Control Committee, CNLS and CENAME to conduct HIV and AIDS commodities quantification and to establish a coordinated mechanism for quantification, procurement, and distribution.

During this reporting period, SIAPS worked conjointly with CENAME and CNLS to ensure that ARVs were distributed rationally through the country while the country awaited other shipments. SIAPS has supported CNLS to regularly monitor ARV stock and pipeline, and liaise with the ECF mechanism to speed up the process to avoid imminent stock out. During this quarter, SIAPS had closely worked with CNLS to develop effective ARV distribution plans by monitoring and reconciling stock levels at central and peripheral levels with the number of patients on treatment and targets. SIAPS has worked with CENAME and CNLS to monitor the effective implementation of the distribution plan down to the health facilities to reduce stock out while the country waits for next shipments from the PEPFAR Emergency Commodity Fund (ECF).

Partner contributions

WHO has provided support to the Directorate of Pharmacy and Medicines (DPML) to review the NEML and finalize the STGs. WHO has committed to continue to support DPML with NEML and STGs and to collaborate with SIAPS on this.

Constraints to progress

Discussions were ongoing with WHO regarding the finalization of the STGs and NEML initiated under their leadership, however, no progress was made this quarter.

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

Under this objective, SIAPS will work to improve storage practices and conditions of the national warehouses in Cameroon, namely, CENAME and 6 CAPRs. SIAPS will also improve inventory management of HIV and AIDS commodities through the implementation of training of trainers (TOT) for regional Ministry of Health staff and training for drug management for ART health facilities.

During this reporting period, SIAPS handed over equipment officially to the Regional Medical Stores CAPRs in the Center, East, Littoral, North West, and South West regions. Official hand over was organized with local government and regional health units through the Minister of Public Health's leadership.

SIAPS also supported CNLS to finalize the HIV and AIDS commodities pharmaceutical management training materials and training guides.

In early August 2013, a TOT in inventory management and reporting tools for HIV Aids program was organized in Kribi (West Region) for CNLS regional coordinator (GTR) and regional M&E staff and for CENAME and CAPR warehouse staff; 20 participants were trained.

In September 2013, trainings in inventory management and reporting tools for HIV Aids program were rolled out for pharmacy attendants and storekeepers targeting three participants per ART health facility in the Center, East, and Littoral regions. In total, 84 participants were trained.

Partner contributions

Training materials have been harmonized with the participation of DPML, CNLS, CENAME, and CAPR. Trainings have been implemented under the leadership of CNLS with the support of these institutions.

Objective 3: Utilization of information for decision making

The quality of patient, consumption, and stock-level data for the HIV and AIDS programs is important to ensure their availability.

Under this objective, SIAPS will work closely with the provincial and health office management teams to harmonize and enhance pharmaceuticals management information, reporting, and monitoring mechanisms for ARV distribution and consumption. SIAPS will put in place the systems for data collection, submission, collation, and analysis (at all levels).

During this quarter, SIAPS closely worked with CNLS and DPML to implement existing patient and data reporting tools using the training approach under objective 2.

Constraints to progress

Through the training implementation under objective 2, it was found that most of the ART health facilities do use not standardized program management and reporting tools. Very few are using the CNLS program tools because sometimes there is a lack of information and other times the printed version is not available. These constraints should be addressed to maintain and improve the availability of patient and stock data at regional and central levels.

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

During FY12, SIAPS assistance to the CNLS had facilitated fulfillment of the procurement and supply management-related conditions precedent to the Round 10 and disbursement of the Global Fund Phase 1 money for the procurement of HIV and AIDS commodities.

During FY13, SIAPS will assist CNLS in monitoring performance through the implementation of the grant of the Global Fund Round 10 HIV/AIDS.

During this quarter, SIAPS continued to support the CNLS to monitor other existing funding mechanisms for the procurement of ARVs and alerted CNLS to any future stock out period.

Democratic Republic of the Congo

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

Objective 1: Pharmaceutical sector governance strengthened

For quarter 4, MOH prioritized two other major activities (training of pharmacist inspectors and NEML review). The quorum for the registration meeting could not therefore be reached as most of the members were participants in those activities, and the meeting could only start on September 30. The outcome will be reported in Y3, Q1. The cumulative number of registered products is 1,479 medicines as of the end of June 2013. The list of new dossiers submitted to the DRA for the current session has been published.

For the NEML, a fifth additional province (Bas Congo) provided its provincial list of essential medicines. National public health programs have also provided their specific lists. MOH has planned the plenary session for October 8-10, 2013, for the final draft to be edited by SIAPS during Y3, Q1.

To avoid RDT stock out in PMI-supported health zones in Sud Kivu Province, SIAPS coordinated the redeployment to Bukavu (Sud Kivu Province) of 78,750 RDTs from Lubumbashi (Katanga Province) and 56,250 RDTs from Lodja (Kasai Oriental). Additionally, following a delay in the delivery of the PMI DRC order of 4.4 million doses of ACTs, SIAPS recommended ACTs destined for PMI-Expansion supported health zones in Kasai Occidental be distributed in IHP-supported health zones where there was an impending stock out.

On August 23-24, 2013, SIAPS supported a workshop for strengthening the coordination of the malaria commodities supply chain. This workshop allowed the NMCP and its partners IHP, PMI-Expansion (ASF/PSI and CARITAS), and SANRU to agree to a quarterly sharing of malaria commodities data on one adopted standard tool.

Constraints to progress

- The coordination of schedules between MOH, WHO, and SIAPS for the joint training of 30 inspectors has been challenging. This training is now planned for September 2013.
- For the essential medicines list, all needed resources to support the non USAID-supported provinces were not available.
- MOH counterparts could not be available for the dissemination of the maternal and child health guidelines produced under SIAPS leadership and financial support.
- The limited number of SIAPS staff in the provinces has been a concern as SIAPS now has to follow pharmaceuticals down to the health-facilities level in partnership with the IHP Project. Hiring more staff is under discussion with the Mission.

Objective 2: Capacity for pharmaceutical supply management increased and enhanced

SIAPS trained 16 staff in the use of QuanTB and e-TB Manager. The trainees were from the National TB Control Program, WHO, USAID, and all partners in TB.

On September 3 and 4, 2013, SIAPS provided financial and technical assistance to train 14 MOH staff (directors of the relevant MOH departments and key implementing partners) in unmet needs estimation exercises. From September 9 to 14, 57 staff was trained in pharmacovigilance and rational use of TB medicines. Partners agreed to share the cost of the same training in provinces under SIAPS coordination. From September 16-20, 28 pharmacists were trained in Good Manufacturing Practices.

SIAPS ordered items needed to improve the storage conditions of the CDR CADIMEK. SIAPS also assisted the CDR staff to update the SOPs to meet the requirements of Good Distribution Practices. In addition, SIAPS has started equipping the Kisangani CDR with needed items (fridges, shelves, air conditioners, solar panels, and hygrometers) to improve storage conditions prior to using it for storing PMTCT commodities.

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

Following the PPMRc recommendations, SIAPS assisted the National Reproductive Health program (PNSR) to coordinate all partners in family planning. A two-day workshop on August 3-4, 2013, financed by SIAPS gathered UNFPA, PSI, IHP, IPPF/ABF, and USAID under the leadership of the PNSR. The PPMRc was validated by the PNSR and these partners before it was sent to Washington on August 15, 2013.

The second end user verification (EUV) survey for the fiscal year was conducted August 6-10, 2013, with the NMCP, PNAM, and four provincial health authorities in four USAID/PMI-supported provinces. The EUV survey covered 153 structures (119 health facilities and 34 others facilities including CDR/depots). The main findings of the EUV shows improvement in the availability of AS/AQ. The percentage of facilities stocked out for 3 days or more in the last 3 months has decreased from 43% to 41% for AS/AQ 3 tab infant; from 67% to 26% for AS/AQ 3 tab toddler; from 75% to 24% for AS/AQ 3 child; 68% to 25% for AS/AQ 6 adult. Storage conditions for pharmaceuticals still need improvement as only 62% of surveyed facilities met acceptable standards. The malaria standard treatment guidelines are available in 75.6% of the surveyed facilities. Quinine is still used to treat uncomplicated malaria in 76% of surveyed health facilities despite the recommendations of the malaria STG. This survey shows also that 65% of malaria cases in under age five children were treated with an ACT, but in the previous survey, this was only 3%.

Objective 5: Pharmaceutical services improved to achieve desired health outcomes

For adequate storage condition of TB medicines, during Q4, SIAPS assessed the CDR

“CADIMEK” (Kasai Occidental provincial warehouse) and conducted an inventory of the TB medicines stock available at the Provincial Tuberculosis Coordination Centre (CPLT) in Kananga. SIAPS contracted with the CDR and transferred all TB medicines from the CPLT to the CDR. In full agreement with the PNLT management during Y3, SIAPS will continue this exercise in other USAID-supported provinces.

During Q4, SIAPS jointly with the CNPV finalized the standard treatment guidelines for a health zone general referral hospital with a functional MTC. This precious tool for correct patient management at the secondary level includes MOH protocols on major conditions, complete with WHO protocols on other conditions not yet included in MOH protocols. These STGs will be edited and distributed in all hospitals with MTCs.

Dominican Republic

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

All activities were implemented according to the work plan. SIAPS supported a baseline assessment of the pharmaceutical management situation in public hospitals. The results, which will be used for the full integration of national hospitals to SUGEMI, were presented to national authorities and hospitals directors.

Objective 1: Pharmaceutical sector governance strengthened

SIAPS continued providing technical assistance to the National Pharmaceutical Unit (UNGM) in the elaboration of technical documents. SIAPS is still supporting the operations of the UNGM through two short-term consultants. MoH has two positions open for the UNGM, but personnel were not hired during this quarter.

SIAPS supported a baseline study on the pharmaceutical management situation of MoH hospitals. The results led to the elaboration of strategies for the integration of the hospitals' pharmaceutical management system to SUGEMI. SIAPS also supported an assessment of the availability and consumption of laboratory reagents for clinical tests. The information was collected during this quarter. The technical report will be finalized and distributed by the end of next quarter.

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

The training modules for the second certified course on pharmaceutical management were reviewed and validated by university professors and experts. The certified course (diploma) will be conducted by the Universidad Central del Este and will start in November 2013.

Partner contributions

The certified course will be conducted by the Universidad Central del Este. The on-site sessions will be held at the university campus. A total of 30 students will attend; 20 tuition fees will be sponsored by USAID/SIAPS and private or public institutions will cover another 10 students.

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

The SUGEMI pharmaceutical management electronic tool was reviewed and validated. Monitoring indicators were added that will be available to all decision makers.

Partner contributions

National Pharmaceutical Unit technicians are working with the MoH Information Unit for the upload of this information to their institutional website.

Objective 4: Pharmaceutical services improved to achieve desired health outcomes

SIAPS consultants visited DR in October 2013 to plan for the incorporation of two disease control programs to SUGEMI (Maternal and Child Health and Protected Disease Programs). No agreement or a concrete timeline could be reached with national counterparts because of conflicting agendas and interests. Likewise, no agreement could be reached with the central warehouse managers to set a plan for improving storage practices.

Constraints to progress

Even though the implementation of SUGEMI is now a Ministerial and Presidential mandate, disease control program coordinators seem to be reluctant to hand out the supply management of medicines and commodities.

Ethiopia

Goal: Build the capacity of Ethiopian health institutions to assure the availability of efficient and effective pharmacy services that will lead to improved health outcomes.

Auditable Pharmaceutical Transactions and Services (APTS) introduced transparent and accountable pharmaceutical transactions that result in a continuous supply of essential medicines, optimal budget utilization, and improved pharmacy services.

In the reporting quarter, onsite training and mentoring on APTS was given to hospital chief executive officers (CEOs), pharmacists, cashiers, accountants, and auditors from 11 health facilities (7 hospitals, 4 health centers) and 2 regional health bureaus (Addis Ababa and Harari). In total, 108 professionals were trained. Of the 11 health facilities that received APTS training, 5 have already started implementation of APTS (4 from Addis Ababa and 1 from Harari regions). USAID/SIAPS/E set a target for FY13 to start implementation of APTS at 8 hospitals; to date; the work has been done at 12 health facilities (150%), of which 2 are health centers in Addis Ababa.

The third round of training on clinical pharmacy for the plan year was successfully carried out at Gondar University; 25 pharmacists (23 males and 2 females) from 16 hospitals in Tigray, Amhara, Addis Ababa, and SNNP regions were trained. The achievement accounts for 76% of the target set for the plan year, after a cumulative of 51 pharmacists were trained in the second and third quarters. Joint supportive supervision was conducted by clinical pharmacy trainers at seven hospitals in Addis Ababa, SNNP and Oromia Regions. ALERT Specialized Hospital in Addis Ababa, Butajira Hospital, Nigist Elleni Mohammed Memorial Hospital (Hosanna Hospital), Tercha Hospital, Hawassa University Referral Hospital, and Dilla Referral Hospital from SNNP Region, and Shashemene Referral Hospital from Oromia Regions were included in this round. The general objective of the supportive supervision was to assess the implementation status of clinical pharmacy service and provide technical support to the hospitals. Clinical pharmacy service was initiated in all of the hospitals sometime in the past and 28 (95.6%) of the trained pharmacists are available. Of the trained pharmacists available, only 15 (53.6%) are involved in the provision of clinical pharmacy service, including DIS and Chronic Care Pharmacy services, where 4 (14.3%) are fully assigned for clinical pharmacy service and 11 (39.3%) provide the service along with other pharmacy activities; 4 (57%) of the visited hospitals (ALERT, Butajira, Hosanna, and Tercha) provided ward-based clinical pharmacy services.

Objective 1: Pharmaceutical sector governance strengthened

USAID/SIAPS drafted the concept note on institutionalizing pharmacy administration at both federal and regional levels to improve access to medicines and quality pharmacy services. However, stakeholders couldn't agree and it was decided to pause this activity at this stage until consensus is established amongst relevant stakeholders.

In the reporting quarter, the Addis Ababa City Administration Health Bureau was supported in developing draft regulation for the implementation of APTS. A workshop was held to arrive at

consensus among stakeholders on the draft APTS regulation. The draft is ready and waiting for additional feedback from the City's Justice Bureau.

It was planned to provide training for regional inspectors on the new health facility standards; however, the activity was not performed due to delay in developing the training materials. Dissemination of pharmacy service standards and regulations: No dissemination/ popularization workshop was organized since the stakeholder is busy with other activities.

Establishment of Health Regulatory Information Center (HRIC) at FMHACA has yet to materialize due to limited information provided by bidders (for equipment purchase); further clarification is needed.

STG (follow on activity): Bethel Teaching Hospital, the consulting firm that was hired to revise the STG, has submitted the first draft, and a national workshop was organized to get feedbacks from participants. Following the workshop, the consulting firm has submitted the final draft, incorporating the feedbacks of participants. The final draft is under review by the responsible team at FMHACA.

Constraints to progress

The establishment of HRIC was technically beyond the scope of SIAPS technical team expertise, and we had to involve the IT department and visit similar call centers. After issuing the request for tenders, SIAPS received few tenders from suppliers, and their bidding documents lacked critical information. Requests for clarification contributed to the delay.

Partner contributions

- FMHACA actively followed the HRIC establishment activity.
- Addis Ababa City Health Bureau actively facilitated the APTS regulation development process.

Objective 2: Capacity for pharmaceutical supply management and services increased

As part of HSS, USAID/SIAPS provided essential trainings for appropriate public and private sector healthcare workers on SOP, EHRIG/APTS, clinical pharmacy, and RMU with USG partners (UCSD, JHU-TSEHAI) and in collaboration with the School of Pharmacy Gondar University, FMHACA, PFSA, and RHBs. In the reporting quarter, 267 professionals attended in-service training events; close to 34% were females and the majority were drawn from Amhara (43%) and Addis Ababa (34%).

An on-site supportive supervisory visit on clinical pharmacy was made to one hospital in Oromia, five hospitals in SNNPR, and one hospital in Addis Ababa. The main objectives of the visit were to assess the utilization of trained pharmacists by hospitals; examine the types of clinical pharmacy services provided; observe documentation and reporting; identify challenges in implementing clinical pharmacy services; provide technical support to trained pharmacists to

strengthen the services; discuss with hospital management on future actions that should be taken to strengthen the services; and provide guidance on clinical pharmacy activities that trained pharmacists are expected to deliver.

In collaboration with the Addis Ababa health bureau, semiannual integrated supportive supervision has been organized to assess the implementation status of EHRIG-pharmacy chapter and evaluate health facilities performance. By using a standard checklist, 6 public hospitals, 38 health centers, and more than 20 private hospitals, clinics, and NGO health centers have been supported. Based on the results of the supportive supervision, the health bureau has awarded recognition certificates for the best performing health facilities. Similarly, supportive supervisions were conducted with zone health department malaria experts and supply officers in East Shewa, Bale, and South West Shewa zones of the Oromia region.

USAID/SIAPS-E supported and capacitated experts at FMHACA in the revision, formatting, editing, and printing of the second edition of the Ethiopian Medicines Formulary (2013 edition; EMF); 20,000 copies of EMF 2013 were printed and distributed to end users throughout the country. So far, 6,008 copies of the EMF have been distributed to 273 health facilities (hospitals, health centers, and regional and zone health bureaus). The formulary is expected to contribute towards improving medicines prescribing and dispensing practices, clients' use of medicines, promote RMU, and contain AMR.

USAID/SIAPS collaborated with PFSA and WHO to conduct a rapid assessment of operational status and perceived effectiveness of drug and therapeutics committees (DTCs) in Ethiopian hospitals. Data on composition, committee structure, processes, deliverables, impacts, and challenges of DTCs was collected from 111 hospitals through a structured questionnaire; a guided focus group explored the opinions of health care professionals and administrators on successes, challenges, and strategies to enhance the activities of DTCs. The preliminary results of the DTC performance assessment were produced.

USAID/SIAPS provided technical support to Oromia RHB during the malaria commodities quantification workshops that were conducted on four different occasions during the quarter. The workshops were conducted to improve the availability of antimalarial drugs at health facilities in Oromia region through proper quantification and forecasting of malaria commodities.

USAID/SIAPS-E PMI/AMDM program has drafted a handbook for management of drugs at health posts. As part of the development and finalization of the HEWs handbook, a two-day review workshop was conducted with pertinent professionals and health managers from ORHB, selected zone health departments, SIAPS-E, and other stakeholders. The workshop was an important opportunity to get vital comments and other recommendations to include in the handbook.

Constraints to progress

The inadequate level of the pharmacy workforce continues to hamper implementation of services, such as clinical pharmacy services, at selected health facilities in the Oromia region. The turnover of trained pharmacists has also adversely affected service.

The number of health facilities in Addis Ababa is ever increasing and it is becoming difficult and time and resource consuming to address all health facilities during supportive supervision. The unavailability of key personnel during supportive supervision visits is also a challenge.

Partner contributions

- PFSA: centrally coordinating the planning, organization, invitation of trainees, and supportive supervision of clinical pharmacy service and training
- Gondar University: involved in the planning, training manual revision, and facilitation of the training by providing venues, trainers, and making available its clinical wards
- Jimma University: provided trainers and training manuals for the training at Gondar and also involved in supportive supervision

Objective 3: Utilization of information for decision-making increased

Activities that were performed during the quarter include conducting supportive supervision visits to health facilities; transferring the database from ADT to EDT; onsite training on real-time dispensing, collection, and dissemination of patient uptake and cumulative regimen breakdown reports; PMIS format distribution; computer and external backup device distribution; hardware and software maintenance; supporting the health facilities to follow proper backup procedures of the database (EDT) and data quality validity checking..

As one of its continued activities, USAID/SIAPS produced two bimonthly reports on the national patient uptake and regimen breakdown during the quarter and shared it with the USAID Mission and all relevant stakeholders. The information provided trends and progress in patient uptake and ARV medicines use all over the country. Supportive supervision and mentoring were conducted in 44 health facilities. Onsite training on real-time dispensing was provided to 51 dispensers and 8 data clerks and other health facilities staff, showing them how to manage patient and pharmaceutical information by using the EDT and the outputs of the tool. For this purpose, one computer and seven external backup drives were distributed. Likewise, the PMIS format was distributed to health facilities (per their request) to strengthen pharmaceutical information recording and reporting activities at ART sites using the manual system.

To develop a comprehensive dispensing tool to manage health facility pharmaceutical information in collaboration with PFSA and a local IT firm, a working group was formed to draft an RFP document. This working group consisted of the PMIS team, regional technical advisors (RTAs), PFSA staff, and the IT unit of MSH. The RFP documents are being finalized with the help of the senior PMIS advisor of the USAID/SIAPS Arlington office.

Hardware and software maintenance support was provided to 12 health facilities and Kaspersky antivirus and its update were installed at 24 electronic sites. One computer and 10 external backup devices have been provided to health facilities.

ADT was converted to EDT at 10 sites, and on-the-job training was provided to 51 dispensers and 8 data clerks and other staff on real-time dispensing, showing them how to manage patient

and pharmaceutical information by using EDT.

Mentoring and on-the-job training was provided to Borena Zone PMI/AMDM implementing health facilities (Bule Hora and Yabello Hospitals and Mega and Moyale Health Centers) in the collection and compilation of quarterly continuous results monitoring system (CRMS)-related data on AMDM to meet PMI information requirements. The quarterly CRMS data was collected from the sentinel sites of PMI, and the report is being compiled. In addition, the June 2013 health facilities monthly stock status report has been prepared and shared with Oromia RHB and other stakeholders to support evidence-based decisions on moving stocks between health facilities to reduce expiry and stock outs at the same time. The July 2013 end user verification (EUV) report has been prepared and shared with the SIAPS home office.

Three trainings on ART SOPs were given to 78 pharmacy personnel. The trainings were conducted in collaboration with USAID and CDC implementing partners.

Constraints to progress

Frequent computer failure and delays and inconsistency in monthly reports at some health facilities. Frequent power interruptions, making it difficult to implement real-time dispensing at some health facilities.

Partner contributions

Health facilities regularly produce bimonthly patient uptake report and monthly AMDM reports

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

USAID/SIAPS is scaling up the use of a leading-edge systems tool that introduces transparent and accountable pharmaceutical transactions. APTS introduces transparent and accountable pharmaceutical transactions that result in a continuous supply of essential medicines, optimal budget utilization, and improved pharmacy services.

In collaboration with the RHBs, USAID/SAIPS-Ethiopia planned to implement APTS in eight hospitals. By the end of this reporting quarter, a total of 12 health facilities started APTS implementation (150%)—2 facilities in Tigray (Axum and Mekelle Hospitals), 5 in Amhara region (Dessie, Debre-Berhan, Woldia, Felegehiwot, and Debretabor Hospitals), 1 in Harari (Jugel Hospital), and 4 facilities in Addis Ababa (Tirunesh Beijing and Ghandi Hospitals and Kolfe and Woreda 3 Health Centers). Implementation of APTS in the two health centers shows applicability of the system for proper functioning of pharmaceutical services regardless of facility type. As a result of APTS intervention, for instance, at Debremarkos Hospital, 73.4% of the hospital budget was spent on V or E medicines (VEN-ABC); the percentage of medicines procured from the hospital's medicines list increased from 35.4% to 97.5%. As a result of more efficient spending, 28.4% more funds became available for the medicines budget of the hospital.

The APTS stakeholders meeting was conducted at Butajira Hospital, (the model site in Southern

Nations, Nationalities, and People (SNNP) region), where 20 people drawn from 3 hospitals and the RHB participated. The objective of the meeting was to create awareness on the relevance and urgency of APTS implementation start-up.

Popularization of regulation on APTS at Dire Dawa RHB has been successfully completed. The consultative workshop on the draft APTS regulation for Addis Ababa region was conducted and the draft document was forwarded to legal experts for further review. In addition, drafting of the national APTS regulation has been started.

Four APTS trainings were organized for 142 participants. The trainings were convened at APTS implementing facilities to make participants well acquainted with the practical aspect of APTS; 1300 APTS guides were printed and 500 were submitted for the Amhara RHB for further distribution to health facilities.

Onsite training and mentoring on APTS was given in seven hospitals and four health centers. Three hospitals in Amhara (Boru-Meda, Enat, and Mehal-Meda), one hospital and two health centers in the Harari region (Jugel Hospital and Jinella and Aboker Health Centers), three hospitals and two health centers in the Addis Ababa region (Zewditu, Tirunesh Beijing, and Ghandi Hospitals and the Kolfe and Woreda 3 Health Centers). Five of these health facilities have already started APTS implementation, four of which are in Addis Ababa and one in Harari region.

Constraints to progress

- Limited number of pharmacy accountants at the health facilities
- The existing infrastructure is not conducive to the proper implementation of APTS

Partner contributions

- APTS implementing hospitals supported practicum sessions by their facilities and allowed their staff to assist with the training
- Some of the health facilities willingly invested on improving pharmacy infrastructure as part of facilitating the proper implementation of APTS

Objective 5: Pharmaceutical services improved to achieve desired health outcomes

SIAPS/E supported health facilities to contain AMR through interventions that discourage the liberal use of antibiotics, promote adherence to prescribed antibiotics, and ensure medicines safety and pharmacovigilance. Central to improvement of pharmaceutical services is the institutionalization of DTCs that will be responsible for implementing all aspects of RMU and initiate clinical pharmacy/pharmaceutical care to improve treatment outcomes.

To implement EHRIG pharmacy standards at target facilities, supportive supervision visits were made to 21 hospitals in Addis Ababa, Oromia, SNNP, and Amhara regions. The status of implementation of EHRIG pharmacy standards and functionality of DTCs and the Drug

Information Service (DIS) were reviewed and discussed. Activities related to ADR monitoring and reporting and APTS implementation were examined.

ABC analysis was started at Shashemene Referral Hospital with USAID/SIAPS-E support. Data collection of four years of purchases was completed and reconciliation with the VEN category is in progress. Drug use evaluation (prescription review), ABC analysis, and ABC/VEN reconciliation were completed at Mizan Aman Hospital. Similarly, onsite support was provided to pharmacy professionals at Felegehiwot, Gondar University, Debretabor, Hossana, Tirunesh Beijing, and Zewditu Hospitals on ABC value analysis and ABC/VEN reconciliation. Three non-EHRIG implementing facilities (Enat, Mehal Meda, and Boru Meda Hospitals) are also in the process of ABC/VEN analysis, and some indicator studies to help the facilities establish benchmarks for the initiation of APTS.

USAID/SIAPS facilitated the establishment of the DIS at Zewditu Memorial Hospital. SOPs/guidelines and referral materials were provided to scale up operation of DIS activities at Gondar University Hospital.

Face-to-face discussions on identifying, preventing, and reporting adverse drug reactions (ADRs) were organized at nine health facilities, with 245 health providers participating. During the quarter, 15 ADR reports were entered into the national pharmacovigilance database. Based on the information generated from the pharmacovigilance database, medication errors, poor product quality, lack of efficacy, and ADRs were identified and regulatory measures were taken on tinidazole 500 mg tab and dextromethorphan syrup. The information was communicated to stakeholders to take action accordingly. Investigations were also made on ART drugs (tenofovir disoproxil fumarate and lamivudine combination) and an endocrine drug (propylthiouracil) at ALERT and Zewditu Memorial Hospitals.

USAID/SIAPS-E presented various topics at the RMU training to pharmacy heads and directors of teaching hospitals. This was organized by PFSA and FMHACA with a financial contribution from the WHO Ethiopia country office and technical assistance from USAID/SIAPS-E. Technical and material assistance for the prevention and containment of AMR was provided and the 19th AMR Advisory Committee meeting was facilitated in collaboration with FMHACA.

The media and journalists have broadcasted more than 100 articles on RMU and AMR topics in their respective media outlets to inform, educate, and empower the general public.

Constraints to progress

Staff turnover is a problem faced by facilities in making drug safety monitoring sustainable. As a solution, two focal persons were identified per health facility to be responsible and to support one another to carry out activities.

Partner contributions

FMHACA is greatly contributing toward face-to-face discussions. Facilities provided their valuable time and provided rooms for these discussions.

Guinea

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

During the last quarter of the fiscal year, the SIAPS Guinea team and its Ministry of Health partners (PNLP, PCG, DNPL, BSD/SNIS, regional/district health authorities, and health facility agents) accelerated activities related to all four objectives outlined in the work plan. For the most part, SIAPS has succeeded in completing its key activities for the year, with specific progress being noted especially for Objective 3, that of improving the availability of information (reporting) for decision making and Objective 4, that of improving the availability of antimalarial products at the health-facility level and correcting stock outs.

Objective 1: Pharmaceutical sector governance strengthened

During this quarter, a key activity, that of revising the National Pharmaceutical Policy (NPP), got underway after being delayed several times because of the unavailability of the partner DNPL (the Medicines Regulatory Authority). In advance of a workshop organized by DNPL and financed by SIAPS, copies of the old NPP (dated December 2007) were distributed to 25 experts who reviewed it and proposed updates. The experts reunited in Kindia on August 23-25 to discuss the NPP revisions in depth, where they agreed on strategic changes. Two consultants designated by DNPL are preparing the final report which will be shared with a variety of in-country partners. The next steps would be a second workshop funded by WHO, which will draft an implementation plan for the NPP, and a final (validation) workshop supported by SIAPS. These follow-up workshops were initially scheduled for September 2013, but were delayed because of the legislative elections in Guinea.

Drug registration activities have been on hold because of budgetary constraints and, in the past quarter, due to the unavailability of DNPL. A regional consultant has been identified for the work and his presence in country is now expected early in the new fiscal year.

Reforms at the Central Pharmacy of Guinea (PCG) will also be postponed to next year and will be coordinated with the PCG Board and the international consultant who has been identified. During the preparation of the work plan for year 3, the SIAPS country project director (CPD) met with the PCG director and agreed to delay this activity until the next fiscal year, with slight revisions and additions to the scope of work. The PCG director requested support from SIAPS in reviewing their technical procedures manual. The director also expressed interest in assessing options for a new legal framework that would meet the requirements noted by the PMI US team during their visit to Guinea in late June 2013. The European Union also shared a confidential draft of the PCG audit report, which the SIAPS CPD will forward to PMI.

Constraints to progress

Of all the SIAPS objectives for the year, attaining the governance objective has proved to be the most challenging, due to a variety of factors, including lack of capacity and focus at the DNPL, and reforms lagging at the PCG which have led PMI to question the initial strategy of using PCG

as the main distributor of PMI malaria commodities to Guinea's provinces. However, improving governance is a long-term goal, and the fact that both the DNPL and the PCG have re-engaged in activities with SIAPS over the past quarter gives us reason to believe that progress could be made in the year to come.

Partner contributions

The NPP workshop was led by DNPL who invited many in-country partners to participate. They represented the Health Inspection Agency (IGS), the National Laboratory for Medicines Control (LNCM), the National Center for Blood Transfusion (CNTS), the Medical and Pharmacy School at University of Conakry (PMPOS/UGANC), the Health Human Resources Agency (DRHS), the National Treatment and Prevention Program for STIs/AIDS (PNPCSP), the National Association of Guinean Pharmacists (ONPG), the National Hospital Ignace Deen, DELIVER, and SIAPS. Additional partners will have the chance to participate during the next two workshops which will be supported by WHO and SIAPS, respectively.

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

A critical objective of SIAPS in Guinea is to strengthen the pharmaceutical management capacity of individuals and institutions. Towards this goal, SIAPS Guinea and SIAPS Mali teamed up to organize a training workshop for the quantification of malaria commodities in Guinea. The SIAPS Mali team had previously conducted this training which is based on SPS's *Quantification Manual*. Dr. Safoura Berthe, Senior Technical Advisor in Mali and Serigne Diagne, Guinea CPD acted as co-facilitators. The training took place August 27-29 at Mariador Hotel in Conakry under the auspices of PNLP, PCG, and the USAID Mission, and included participants from national government agencies, USAID, and Global Fund implementing partners, regional pharmacist inspectors, and some district-level pharmacists.

The various presentations and hands-on exercises acquainted participants with the quantification process (especially for ACTs and RDTs), the main quantification methods, and the necessary information/data to be gathered. The importance of reliable data and good assumptions was highlighted for the estimation of needs, the calculation of quantities to order, and the planning of product deliveries. Discussions also touched on the absence of a malaria quantification sub-committee at the ministerial level and in general the non-operationalization of the national quantification committee on essential medicines; the influence of preventive interventions (such LLINs and community education) on reducing morbidity related to malaria; regressive treatment practices at the country level, including prescription of ACTs with a negative RDT; lack of knowledge regarding consumption data and minimum/maximum stock levels.

In terms of next steps, a small committee was designated by PNLP to draft the terms of reference of the new quantification task force for malaria commodities; the committee met once at the SIAPS office and is in the process of drafting the scope of work. This activity will be followed-up by SIAPS early in the fiscal year with a proposal to meet at least quarterly and include all key stakeholders involved in malaria procurement and supply chain management in Guinea, including technical partners such as SIAPS, CRS, DELIVER, etc.

Constraints to progress

The lack of coordination of actors involved in the pharmaceutical sector has been a challenge, and to date, the only collective source of information about what happens in the malaria supply chain is the PNLP pharmacist. PCG, for example, is involved in product distribution at the country level, but does not produce regular reports for PNLP regarding antimalarial products that enter and that are issued during a given time period, so information is often incomplete. Given that the malaria product distribution system is heavily supported by donors and it follows a different process from other essential medicines in Guinea, an important focus of SIAPS's work over the next year is to create an operational forum that brings together the malaria partners. These are the various government entities (PNLP, PCG, DNPL, etc.) and the technical partners representing the donors who would exchange information about product orders and deliveries, drug consumption, and stock level data and would hold joint annual quantification exercises.

Partner contributions

The quantification workshop involved approximately 30 participants from PNLP, PCG (both represented at the highest level and also at the operational level), the IGS, the national hospitals, the Military Health Services, and 12 regional and district pharmacist inspectors. PMI Guinea and other partners also attended, including Stop Palu, DELIVER, Peace Corps, CRS, and UNICEF.

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

A major achievement toward this objective over the past year has been SIAPS's lead role in developing and launching an improved monthly malaria reporting template which now includes more detailed information on patients, cases tested/confirmed/treated/referred, and a brand new section on drug management, including stock status and monthly consumption at the health-facility level. Additionally, after two workshops on how to improve reporting, some simple yet concrete strategies proposed by SIAPS were validated and are leading to a more efficient system of email reporting using a standardized Excel form. The new system was launched through trainings led by PNLP and the National Health Information System (BSD/SNIS) with technical and financial support from SIAPS; these trainings took place in all 19 districts of the PMI zone in late June/early July, with 230 health agents and district statisticians/ pharmacists being trained. The GF partner (CRS) is planning to do the same trainings in the GF supported areas.

Facilities still submit hard copies of the reports to the districts, but districts email them to PNLP, BSD/SNIS, and the region; for this purpose, SIAPS provided Internet keys (with an ongoing monthly credit) to all 19 districts. Although the e-reporting system had a slow start in August, reporting rates improved in September, especially following the second malaria review meetings with regional and district health directors held by SIAPS and PNLP, and the customized feedback provided by PNLP/SIAPS to each district on their reports. Additionally, the first winners of the quarterly reporting "competition" instituted by SIAPS were announced at the regional review meetings, providing an incentive to improve reporting practices. The top performing districts for the reporting period March-June 2013 (DPS Mali, Koubia, and Lelouma) received prizes related

to reporting, including a laptop (first prize), a printer (second prize) and additional Internet credit (third prize).

The first malaria review meetings organized by SIAPS and PNLP took place in March in Conakry with all 5 regional and 19 district health directors from the PMI zone in attendance. The second reviews took place in September at the regional level (in Boke, Conakry and Labe, for one day each). Regional pharmacists and regional and district statisticians in charge of reporting were also invited. The meetings were an opportunity for PNLP and SIAPS to present activities implemented since the March meeting, the findings of the second EUV survey and to reiterate the new reporting system and the new product order and delivery system that were launched specifically to avoid frequent stock outs. Discussions also touched on the confirmation of malaria cases with RDTs which are now available in country; the possibility of involving the chiefs of small health posts in trainings; and the key quarterly indicators that each district will present at the next regional review meetings. These meetings will follow a quarterly schedule, starting in November 2013, with continued support from SIAPS under the leadership of PNLP and potentially higher-level Ministry of Health officials.

A third EUV survey was conducted in PMI zones in September 2013 at 15 health centers, 6 hospitals, and 4 drug warehouses, following a refresher training for data collectors provided by SIAPS at its offices. This represents the first EUV conducted during the rainy season. The local SIAPS team was joined by a SIAPS M&E colleague from Arlington for the field work. SIAPS and PNLP are in the process of entering and analyzing the data and the results will become available by the end of October. The next EUVs are proposed for February and August 2014, with an expanded geographical scope (country-wide).

Constraints to progress

Despite the improved transmission process for malaria reports (e-reporting was preferred by the districts in March because of the difficulties experienced with sending hard-copy reports to Conakry on time), the districts have identified some remaining challenges to justify reporting delays or inaccuracies that still occur. One challenge is that many district statisticians are not properly trained in the use of computers, or that the district may lack computers, or that the Internet connection is not always reliable. However, the new e-reporting system is favored over the old hard-copy system, and the prize competition, along with the recent trainings and Internet keys provided by SIAPS, have led to renewed commitment from the regions/districts.

Partner contributions

The development of the new reporting tools and product delivery/order forms involved many partners, including PNLP, PCG, BSD/SNIS, CRS, MCHIP, and Stop Palu. These partners also attended the trainings held in late June/early July with the districts and health facilities.

A wide range of partners were also invited to the second regional review meeting in Conakry which took place at the PCG and included Stop Palu, MCHIP, DELIVER, and WHO, among others.

The EUV survey continued to involve data collectors from PNLN, PCG, SNIS, the National Health Inspection, along with regional and district level supervisors (pharmacists or physicians). Stop Palu, MCHIP, and DNPL were invited, as in the past, but could not attend.

Objective 4: Pharmaceutical services improved to achieve desired health outcomes

Following discussions between PMI/USAID, PCG, PNLN, and SIAPS in late June, PMI put the funding of the PNLN-PCG convention for in-country distribution of PMI products on hold until a decision is made about whether PMI will continue to use PCG as a mechanism for product storage and delivery. In the meantime, SIAPS was asked by the Mission to proceed with the distribution of the malaria commodities remaining at the PCG, particularly as a large quantity of RDTs (supplied by both PMI and the Global Fund) had recently been made available. SIAPS advanced funding for this activity which was conducted with PNLN and PCG in August 2013. The distribution was direct (supervised by PNLN) in PMI zones outside of Conakry, meaning that PNLN was present when health facilities received their products at the district level (PNLN supervisors attended an orientation at SIAPS). In Conakry, because of the accessibility of the PCG main warehouse, districts organized the pick-ups and the distribution of products to facilities. In non-PMI zones, because of funding constraints, PCG trucks deposited the products either at the district or regional warehouse (indirect distribution) depending on the route.

Per request from SIAPS, the majority of PMI products have been distributed (to facilities in PMI zones) with only a small quantity remaining in stock at the regional warehouses for the quarterly health facilities order scheduled for October. Where quantities of PMI products were not sufficient, PNLN assigned Global Fund products to the PMI zones to fulfill their distribution plan. Global Fund products were sent to Global Fund zones. Overall, the following quantities were distributed at the country level: over 1 million RDTs, 4750 doses AS-AQ infant (stock exhausted), 900,000 doses AS-AQ small child, 70,000 AS-AQ adolescent, 100,000 AS-AQ adult, 35,600 injectable quinine, and 784,000 SP. The vast majority of the remaining stock has been moved out of the national depot in Conakry and placed at the regional warehouses for October.

Per feedback received during the prior emergency distribution, especially from Peace Corps volunteers, SIAPS developed a low-literacy flyer that outlines the gratuity of the main products supplied by donors; the flyers were developed jointly with PNLN, UNICEF, Stop Palu, MCHIP and others and were distributed to each health facility in PMI zones to be posted visibly at the pharmacy for all patients to see. The flyer includes photos and PNLN phone numbers that patients can call to report if products are being sold to them, instead of being issued for free. These products include ACTs, RDTs, SP, and bed nets (when available).

Constraints to progress

While PNLN and SIAPS worked jointly in the past to develop distribution plans based on (partial) consumption data, for the August distribution PNLN, drafted a distribution plan based on population which reached PNLN without SIAPS's knowledge. This was deemed by PNLN to be a faster way to get the products out to the regions. Despite this setback, SIAPS and PNLN

made the districts aware that distributions by allocation will be a thing of the past starting in October 2013, when each health facility must submit product orders based on consumption and stock levels; these orders will be approved by the district and regional pharmacist inspectors and honored by the regional supplier (warehouse).

The convention/MOU detailing the terms and costs of the regular distribution of PMI antimalarial products has been drafted by PNL and PCG, but it requires governance reforms at the PCG before it can be funded by PMI. This risks delays in the implementation of a routine quarterly product order and delivery system, which was recently introduced to all districts and health facilities. SIAPS urges PMI to consult the EU audit report and provide recommendations to PCG (and SIAPS) about the preferred distribution mechanism and partner over the coming year. Facilities will begin submitting orders on a quarterly basis and, while products are pre-placed at regional warehouses for October 2013, it is uncertain how the distribution will be achieved in January 2014. SIAPS is ready to support whatever mechanism is agreed upon for in-country distribution.

Partner contributions

SIAPS worked closely with PNL and PCG as well as the district health directors and heads of health facilities to ensure the product delivery and receipt of products in August.

Lesotho

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

Objective 1: To ensure that pharmaceutical sector governance is strengthened. SIAPS mandate is to provide technical support for development and the implementation of STGs and EML.

The STGs and EML have not been completed. SIAPS has, however, continued to work closely with the Pharmaceutical Directorate to ensure that this activity is prioritized.

SIAPS predecessor program SPS had procured a Minilab[®] for National Drug Services Organization (NDSO) as support for implementation of quality assurance mechanisms for ARVs and other HIV-related commodities. SIAPS had purchased testing standards for NDSO, but the standards expired before quality checks could be conducted. SIAPS has continued to provide support to NDSO in planning for the procurement of the standards in its next financial year.

Constraints to progress

The Pharmaceutical Directorate does not see the STGs and EML as priority tasks and its slow response towards acceptance of SIAPS's support for implementing STGs and EML has hindered the activity. SIAPS and the Pharmaceutical Directorate planned to conduct a review of the STGs before the stakeholder validation meeting was held. However, this meeting did not take place. SIAPS will work with the directorate to conduct the meeting in the next quarter.

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

SIAPS supported public sector personnel working in the pharmacy to conduct routine ordering of medicines used for management of opportunistic infections. A Supply Chain Management Technical Working Group (SCM TWG) meeting was held during the quarter to discuss increased SCM human resource capacity at national level and present a national procurement strategic plan to the MOH. The plan proposed setting up a supply chain management unit within the MOH, with the unit reporting to the Director General of Health Services (DGHS).

During the quarter, SIAPS delivered pre-service and in-service training of health care workers. Forty-five fifth year pharmacy students from the National University of Lesotho (NUL) were trained in SCM. In addition, on-site training was delivered to 14 health care workers. SIAPS implemented supportive supervision and mentoring (SSM) program and a total of 125 facility visits were conducted during the quarter.

SIAPS also provided technical assistance to the National Health Training College (NHTC) to review and develop a competence-based training curriculum for pharmacy technicians from a content-based curriculum. This activity was carried out by delivering a series of workshops. These included (1) developing a curriculum (DACUM) workshop, (2) formulation of task clusters workshop, (3) modules development workshop, (4) job profile verification workshop, and (5) curriculum validation workshop. The draft modules are currently under review and will be finalized in the next quarter.

Constraints to progress

Some SSM visits were not conducted on scheduled dates because of the lengthy processes that are in place used to acquire transport services from vendors. The planned procurement of the three motor vehicles to support the SSM program has been delayed. There is continuing communication between SIAPS and the mission regarding the approval of the procurement and it is envisaged that these vehicles will be procured in the next quarter.

Objective 3: Use of information for pharmaceutical and laboratory decision making increased across all levels of the Lesotho health system

Objective three ensures that information for pharmaceutical and laboratory decision making is increasingly used across all levels of the Lesotho health system. In this quarter, SIAPS continued to strengthen the ART pharmaceutical management information system (PMIS) through implementation of RxSolution. During the quarter, both dispensing and inventory modules of RxSolution were installed at three hospitals (St. Joseph's, Quthing and Mamohau). Additionally, five RxSolution users from Quthing, Scott, and Paray hospitals were trained on system through a class-room-based approach to manage patients and inventory information. Also during this quarter, SIAPS conducted RxSolution supportive supervision and mentoring at eight hospitals (Seboche, Maluti Adventist, Berea, St. Joseph's, Paray, St. James, Ntšekhe, and Mokhotlong).

The development of the electronic PMIS (ePMIS) was completed during the quarter. ePMIS is web enabled and it will be operated via the internet through the link www.eartpmis.co.ls. The system is currently undergoing user acceptance testing.

The district hospital laboratories were out of stock of HIV testing kits during the quarter for more than three days because of a shortage of HIV testing kits at NDSO. The stock at NDSO was rationed and it was less than what the laboratories had ordered to maintain an even distribution of the test kits. The health centers, however, still had their monthly supplies of test kits because they request the kits from the DHMTs, unlike the laboratories that request from NDSO. SIAPS participated in the quantification and overall supply chain of HIV test kits to avoid further shortages in the country.

Constraints to progress

There is a shortage of computers to support RxSolution at the hospitals. As a rule, at least four computers are needed for each hospital to successfully implement RxSolution. They would be

used as follows—two computers for dispensing, one for patients' registration, and the other in the store. But at St. Joseph's, there are only two computers available which hinders successful implementation of RxSolution.

SIAPS supports both ART PMIS and laboratory LMIS to ensure that there are no stock-outs. However, the laboratories have been experiencing stock-outs of HIV test kits that are attributed to low reporting rates, incomplete reports, and late submission of reports. These factors mean that information is not available for making decisions. SIAPS planned to conduct a joint Routine Data Quality Assessment (RDQA) exercise with the Laboratory Directorate to address these data quality issues. However, this activity was not successfully implemented in this quarter, but will be implemented in the next quarter

Another reported reason of stock-outs of laboratory commodities at the facilities was because NDSO did not supply the quantities requested due to low stock levels at their NDSO stores.

Partner contributions

Médecins Sans Frontières, an implementing partner supporting St. Joseph's hospital, has pledged to procure a computer for the hospital for implementation of RxSolution.

Objective 4: Financing and procurement mechanisms strengthened to improved access to health commodities

This objective focuses on calculating the value of expired and wasted stock during the quarter, ensures that activities to reduce out of pocket expenses are implemented, and the USD value of less than \$10,600 of cost deficiencies is achieved through targeted SIAPS activities and percentage of items are received from medical stores as per facility order. Two studies were planned to guarantee that supply chain system performance and efficiency are improved—the NDSO costing study and Supply Chain Options Analysis (SCOA) study. The NDSO costing study was conducted and the report is being edited. The SCOA study draft protocol was also developed during the quarter. In this reporting period, the supportive supervision and mentoring team has been able to collect indicator data for the percentage items received from medical stores as per facility order. The value of wasted and expired stock during the quarter could be determined from NDSO. However, the baseline information for objective 4 performance indicators has not been determined because the two studies have not been finalized.

Constraints to progress

The SCOA draft protocol and data collection tools were developed; however, the study was not performed as planned during the quarter. The current CPD will pursue the matter and establish the bottleneck for the commencement of the study. The NDSO costing study draft report is currently undergoing editing.

Liberia

Goal: Improve the supply, quality of pharmaceutical services, and use of malaria commodities and other key pharmaceuticals to achieve desired health outcomes.

Objective 2: Pharmaceutical Information available and used for decision making

To provide pharmaceutical information for decision making, SIAPS in collaboration with the National Malaria Control Program (NMCP) of the Ministry of Health and Social Welfare, conducted two rounds of End Use Verification survey according to work plan. Two dissemination meetings were held where the reports of the exercises were shared with key stakeholders.

Based on the priority need of information on the antimalarial stock status and the level of malaria case management at the facility level, two counties (Nimba and Lofa) were sampled for the EUV survey. A total of 40 facilities were selected for data collection which included 2 county drug depots, 6 hospitals, 3 health centers, and 29 clinics.

The report of the feasibility study conducted by SIAPS on the introduction of ACTs and RDTs in the private sector of Liberia was finalized, printed and shared with the NMCP in preparation of a national launch. SIAPS Liberia key technical activity coordination included the finalization of SIAPS Liberia close out matrix with support from HQ team which provided the technical details guiding the final close out of the Liberia office

Consistent with the close out matrix and SIAPS work plan, the portfolio manager for SIAPS Liberia Project, made a field trip to Liberia to provide technical support to the Liberia team for the close out activities. During his visit series of close out meetings with key partners including USAID Liberia Mission, the Chief Medical Officer and Deputy Minister of Health, the Chief Pharmacist of the Liberia, Executive staff of the National Malaria Control Program, -the Managing Director of Liberia Medical and Health products Regulatory Authority (LMHRA), among others were held. SIAPS Liberia conducted a one day close out meeting with all partners and stakeholders including USAID Liberia Mission, WHO, NMCP, Pharmacy Division, LMHRA, Supply Chain Management Unit (SCMU), USAID DELIVER, Rebuilding Basic Health Services (RBHS), Pharmacy Division, County, and health teams among others to share SIAPS achievements and challenges and recommendations for continued support to the pharmaceutical system, and to acknowledge partners collaboration.

Based on preliminary agreements with the USAID Liberia Mission on the inventory disposition plan, all items identified for the disposition have been delivered to all beneficiaries and institutions according to plan.

In order to successfully complete all activities planned in the close out matrix, in line with the SIAPS global cooperative agreement the Senior Technical Advisor was requested to extend his technical activity up to October 31, 2013 to work on the final close out report.

Mali

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

Objective 1: Pharmaceutical sector governance strengthened

SIAPS supported the finalization and the dissemination of SDAME at the regional levels, consolidated the national mechanisms for forecasting, quantification, and supply planning of key pharmaceuticals, and subsequently improved capacity of the Direction de la Pharmacie et Medicament (DPM) and NMCP to promote and instill good governance in the pharmaceutical sector. In addition, SIAPS supported the Technical Committee's second meeting for the coordination and the monitoring of drug management for more efficiency and transparency.

The SDAME is a procedural document that allows the implementation of the national drug policy. During this quarter, SIAPS provided support to the DPM to complete dissemination of the SDADME in five southern regions of Mali: Kayes, Segou, Sikasso, Koulikoro, and Mopti—238 people from 39 health districts and 36 others local organizations participated in these workshops. The DPM also disseminated the Ministry of Health's decision mandating the application of the SDADME, the circular setting out the price of contraceptives, and the new tracer medicines list.

The terms of reference of the Technical Committee for the Coordination and the Monitoring of Drug Management was validated in June 2013. The technical committee's aim is to improve the coordination among stakeholders involved in the pharmaceutical sector of Mali. During this quarter, SIAPS continued providing technical support to the DPM in the organization of the second meeting of the Technical Committee on August 27th. A total of 10 organizations took part in the meeting: two civil society participants, 5 national structures (PPM, DPM, NMCP, PNLT, and National Inspection), a representative of the private sector and two international organizations (UNFPA and USAID).

The most important points discussed during this meeting were:

- Validation of the list of tracer drugs per health programs
- Adoption of a presentation outline for future meetings;
- Validation of the Ministry decision for creating a technical committee for the coordination and the monitoring of drug management.

SIAPS supported the NMCP in developing distribution plan for the following commodities delivered by JSI/PMI or donated to the MOH:

- Artemether ampoule injection 80 mg for severe malaria;
- ACT 20/120 mg PI/12
- ACT 20/120 mg PI/24
- Rapid Diagnostic Test (RDT)

Partner contributions

DPM, PPM, Regional Directions of Health, five districts (Kayes, Koulikoro, Sikasso, Ségou, and Mopti), Regional hospitals, FERASCOM, and the local institutions participated to the regional workshop for the dissemination of the SDADME.

DPM, PNLT, NMCP, Inspection de la santé, PPM, LABOREX, UNFPA, USAID, SIAPS and PSI/Mali participated in the technical Committee for the Coordination and the Monitoring of Drug Management meeting.

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

Progress was made during this quarter to build capacity of actors and services for pharmaceutical supply management. At the request of the USAID Mission, SIAPS conducted needs assessment for the contraceptive “Jadelle.” These needs were forecasted using only distribution data available at the central level (PPM). The plan was proposed to the mission. It was agreed with the Mission that, with the lifting of the suspension on family planning activities, a quantification of the contraceptive needs will be conducted with the DPM and other partners involved in the procurement of contraceptives, including UNFPA. This activity will need active data collection at the peripheral level.

SIAPS continued its support to the implementation of the redesigned LMIS to be used by staff to improve the availability of logistic data for making decisions. This required training at all levels, for which training modules were developed. SIAPS provided technical and financial assistance to the DPM for the organization of a 5-day workshop to develop training modules on the new LMIS SOPs. This workshop was held at the Hotel Timbuctu from September 2 to 6 and involved actors from the national level. The draft of modules developed by the national level was reviewed by a SIAPS consultant. The consultant also developed several tools such as the participant's manual, the facilitator's manual, the general sessions plan and the TOT guide. These documents were validated by the DPM during the preparatory phase of the training of trainers (TOT). The next step of this activity is the training of trainers, which started on September 30, 2013.

Partner contributions

DPM, National Direction of Health, NMCP, PPM, hôpital du point G, hôpital Gabriel Touré, Regional Direction of Health (Kayes, Koulikoro, Sikasso, Ségou, Mopti, Gao) and the District of Bamako, participated in the development of the training modules for the redesigned LMIS.

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

SIAPS Mali provided technical and financial support to the NMCP to develop and submit a PPMRm report and also to share the findings of the last EUVs with the key actors for decision

making. The PPMRm is a mechanism established by the PMI/Washington that aims to provide information regarding the availability of therapeutic-based combination therapies (ACTs), sulfadoxine-pyrimethamine (SP) and the rapid diagnostic test (RDT) for malaria on a quarterly basis. During this quarter, SIAPS prepared with the NMCP and submitted the PPMRm report using Q3 data.

The report showed that products delivered at the central level were—

- 1,000,000 RDTs on May 2013
- 118,560 ACT 20/120 mg PI/24 tablets on June 2013
- 1,000,000 RDTs on June 2013
- 1,470 ACT 20/120 mg PI/12 tablets on July 2013
- 990 ACT 20/120 mg PI/24 tablets on July 2013

The stock available at the central level on July 1, 2013—

- 113,254 doses ACT 20/120 mg, P/6 dispersible tablets, Children under five (1-2 years):
- 80,718 doses ACT 20/120 mg, P/12 tablets, Children under five (3-4 years): (including 1,470 delivered on July 2013)
- 0 doses ACT 20/120 mg, P/18 tabs, Teenagers:
- 3,120 doses ACT 20/120 mg, P/24 tablets, Adults: (including 990 delivered on July 2013)
- -25,000 SP: tablets (delivered by UNICEF).
- 2,061,200 RDT test kits

Given to the stock available at the central level and the average monthly distribution at the central level, the following recommendations were made—

- ACT 20/120 mg, P/6 tabs: JSI should urgently expedite the 100,000 doses planned for delivery by July 2013 and also anticipated in the deliveries planned for November 2013. The NMCP should develop a distribution plan for the quantities available.
- ACT 20/120 mg, P/12 tabs: JSI should urgently expedite the doses planned for delivery by July 2013 and also anticipated in the deliveries planned for November 2013. The NMCP should develop a distribution plan for the quantities available at the central store
- ACT 20/120 mg, P/18 tabs: JSI should urgently expedite the doses planned for delivery by July 2013 and also anticipated on the deliveries planned for November 2013.
- ACT 20/120 mg, P/24 tabs: JSI should urgently expedite the 100,000 doses planned for delivery by July 2013 and also anticipated on the deliveries planned for November 2013. The NMCP should develop a distribution plan for the quantities available at the central store
- SP: JSI should urgently expedite the 900,000 tablets planned for delivery by November 2013. –
- RDT: The NMCP should develop a distribution plan for the quantities received.

According to these recommendations, discussions were held with the Mission on making the products available. SIAPS also assisted the NMCP to develop distribution plans so that malaria commodities available at the central level could be sent to the peripheral level to be distributed to the patients.

During this quarter, SIAPS also provided support to the NMCP to organize a workshop to disseminate the results of the EUV survey. Representatives from all levels of the health system participated to this workshop which was chaired by the office of Ministry of Health. The results and findings of the EUV survey were presented by the NMCP and the following recommendations were formulated to improve the management of malaria commodities:

- Strengthen the supervision of activities against malaria including drug management
- Continue the implementation of a functional LMIS system to render available data from the community level to the central level
- Continue the distribution of reference guidelines for malaria at all levels.
- monitor the supply and distribution of donated products particularly between the district and the community levels;

Partner contributions

The NMCP, MoH, USAID/PMI, National Federation of Community Health Associations, Mali National Hospitals, Regional direction of Health (DRS), Reference Health Center (CsRef), Community health center (CsCoM), health services of the Army, College of Physicians and Pharmacists all participated in restitution of the EUV survey. They contributed to the formulation of recommendations and committed to implement the recommendations to improve malaria case management.

Objective 4: Strengthening financing strategies and mechanisms to improve access to medicines

SIAPS proposed to assist the DPM in its role of monitoring the policy on drug pricing by supporting a survey to verify compliance with the drug pricing policy at the peripheral level of the health system. This quarter, the DPM informed SIAPS Mali that they finally conducted the survey with WHO support. When the findings of this exercise are disseminated, SIAPS will propose options to the DPM for improving compliance with drug pricing policy as a strategy for improving financial access to medicines at the community level.

Constraints to progress

The activities planned under this objective were implemented by the DPM with WHO support. The findings of the survey relating to the compliance with the national drug pricing policy are yet to be shared.

Mozambique

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

Objective 1: Governance in the pharmaceutical sector strengthened

The expected outputs for this quarter included continuing the process of supporting the Pharmacy Department (PD) to revise and update the NEML, and revise and institutionalize a monitoring and evaluation plan with agreed upon indicators linked to a results framework.

In an effort to streamline procurement activities, minimize institutional costs, and optimize patient care, and building on work begun last quarter, SIAPS submitted a concept note, terms of reference (TOR) for the NEML committee, as well as procedures and guidelines for updating and reviewing the NEML. These have now been approved by the PD and the Ministry of Health (MISAU). Selection of committee members is underway. During FY14, in accordance with the recently approved work plan, the committee will begin the review process. The results of the committee meetings and review of the EML will be a list of all medicines approved for procurement and use in Mozambique's public health sector, providing the basis for the development of regional, hospital, and clinic formularies lists.

During this reporting period, the SIAPS Senior Technical Advisor worked alongside Dr. Orlas from the PD to review the department's proposed M&E framework and the indicators that were developed in June 2013. The effort introduced indicators which can be aggregated to measure progress across all PD sectors. These indicators and the framework will continue to be updated in collaboration with the PD. A new PD staff member was appointed as the focal person for the M&E system; she was trained in data collection and the reporting of indicators by a senior technical advisor from SIAPS HQ. SIAPS will continue to build the capacity of designated staff to generate and report on these indicators, and to use and disseminate the information appropriately.

Constraints to progress

- The nomination of the NEML members was not finalized in this quarter.
- The absence of an approved strategic plan for the PD limits the creation of a strong link from the plan to the M&E framework and indicators. The PD team has little capacity for and understanding of M&E which is going to require substantial training and continued reinforcement of concepts and practical applications.

Objective 2: Capacity in pharmaceutical management increased

No activities were planned for this quarter. Discussions were held, however, with the PD, Hospital Pharmacy Department (HPD), and USAID about activities for the next work plan year.

Constraints to progress

Two provincial-level pharmacovigilance centers have been established. However, the actual status of these units and their activities are not clear and there is no documentation.

Objective 3: Utilization of strategic information for decision making increased

To improve use of strategic information for decision making, SIAPS continued to provide technical assistance to support the implementation of PharmaDex, an electronic system to automate the registration process. To continue to build the capacity of the medicines registration team, this quarter SIAPS focused upon defining the standard operating procedures (SOP) for using the various reporting forms needed to enter data into PharmaDex. These forms were already approved to be used in Mozambique.

Constraints to progress

- There is no IT support in the PD, which is essential for the successful automation of the registration process. SIAPS is working closely with the PD administration to identify solutions to overcome these limitations to a successfully automated registration system.
- The process of defining and approval of the PharmaDex system is slower than anticipated.

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

This objective is aimed at assisting the PD with the development of a price control system for medicines in the current and subsequent quarters. SIAPS is working with the PD to propose a new roadmap for enforcing the price control system and to build staff capacity to properly control and enforce the system within the current pricing laws. The draft assessment/roadmap report was developed this quarter and is currently being translated. A stakeholder meeting will then be held following discussion and review with the PD Head and Sector Leads.

Continued technical assistance will allow for a more effective system to update and control prices at regular intervals and according to specific criteria.

Constraints to progress

- The medicine pricing system proposed in the previous quarter has not yet been approved, despite continued discussions.
- There is only one newly appointed pharmacist in charge of the pricing system, whereas at a minimum, there is need for two staff members to handle pricing regulations and two more staff members for price-related inspection.
- There are no laws in Mozambique to empower the price control system and support its enforcement.

Objective 5: Pharmaceutical services to achieve desired health outcomes improved

As identified by the Department of Hospital Pharmacy (HPD) at MISAU, there is a need to establish DTCs at hospitals as a priority intervention to assure patient safety and therapeutic effectiveness and to improve the appropriate use of medicines at this level. SIAPS is collaborating with DFH to review and redefine the terms of reference and membership profile for the committees, and identify which hospitals already have established DTCs.

As a first step to achieve the desired impact of this activity, a two-day Drug and Therapeutic Committee Orientation program was developed and presented by one international and one local consultant, providing an overview of the DTC role, main functions, and responsibilities. As the membership profiles for the DTCs were created and published in April 2013, this activity helped to motivate the hospitals that had not yet created a DTC to nominate their members and the others to act on the guidance given. The orientation program covered the following:

- How a DTC functions efficiently to improve the use of medicines in Mozambique hospitals.
- Hospital monitoring and evaluation systems and how they can identify and resolve medicine use problems.
- Review of interventions used by a DTC to address medicine use problems in hospitals and medical clinics.
- National Drug and Therapeutics Committee terms of reference and the international perspective
- The role of the DTC in the health system and how to effectively work with Ministry of Health, hospital administration, and all stakeholders within and outside of the hospital.

The orientation was attended by physicians, pharmacists, and other professionals from the hospitals DTC from all provinces, MISAU, and NGOs. Standardized DTC training materials were adapted to the Mozambique context, and the workshop took place on August 15 and 16, 2013.

Two hospitals, Mavalane General Hospital and José Macamo General Hospital, have been identified to serve as pilots for implementing activities of the DTC. These two hospitals reflect the country reality and are close to the HPD, allowing a close follow-up of activities

Constraints to progress

- The MSH office is not officially registered yet, which hindered the financial arrangements for this meeting.
- It was challenging to arrange for the meetings with the two pilot hospitals as most of the DTC members were attending a workshop outside Maputo.
- The hospital team is still very busy. Many training courses funded by other development partners competes for the attention of senior hospital management and their commitments to work with SIAPS staff.

Namibia

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

Objective 1: Pharmaceutical system governance strengthened

Activities planned for July—September 2013 include—

- Implementation of the improved Pharmadex
- Continue providing TA for passive reporting and data collection from post marketing surveillance (PMS) of quality of ARVs and other essential medicines
- Follow up with Quality Surveillance Laboratory (QSL) for results and final report on the three samples that were tested and failed
- Complete and disseminate the 2013 annual SSV report
- Provide TA to the Pharmacy Council of Namibia to develop a framework for regulating pharmacy education providers and practitioners in Namibia

Progress towards targets

The office held a demonstration for five NMRC staff on the improved medicines registration tool Pharmadex, with particular focus on the registration module. The NMRC were given a live demonstration of the integrated web-based system followed by discussions of an implementation plan, including customization requirements and proposed schedule. NMRC appreciated the improved Pharmadex. Plans are underway to install the system and train users in quarter 1 of FY14. The improved Pharmadex will help to strengthen the regulation of antiretroviral (ARV) and other essential medicines in Namibia.

Support to the Health Professions Council of Namibia (HPCNa): Through a consultative process, SIAPS identified and began engaging a consultant to develop a framework for regulating pharmacy education providers and practitioners in Namibia, and subsequently training council members on the framework. The consultant will start work in Q1 of FY14.

Pharmacy week: SIAPS supported activities of the national Pharmacy week, September 16–20, 2013, on the theme “Pharmacists Against Antimicrobial Resistance” with focus on rational medicines use (RMU). Pharmacy week is an annual collaborative event between the public and private sectors; organized by MoHSS and Pharmaceutical Society of Namibia (PSN). SIAPS support included developing and customizing AMR material for use in a Pharmacy Council-accredited Continuing Professional Development (CPD) event that was facilitated by the University of Namibia (UNAM) School of Pharmacy (SoP) as a follow-on to the AMR workshop. Thirty five people attended the CPD event. SIAPS also compiled and supported publication of an AMR/RMU article in two Namibian newspapers to increase awareness on the issue; shared articles on AMR in Namibia with PSN secretariat which used the articles to develop a questionnaire to engage pharmacists countrywide. Pharmacists Forum: SIAPS (and SCMS) Namibia staff participated in the 2013 national annual pharmacists’ forum held in Windhoek and gave two presentations, (1) update on Namibia HIV DR early warning indicator (EWI) strategy and the pharmacist’s role in EWI monitoring and (2) STG post-implementation

assessment. The forum was attended by 20 pharmacists from the 14 regions of Namibia and 3 MSH staff (2 SIAPS, 1 SCMS).

National Pharmaceutical Support Supervision Visits (SSVs): SIAPS supported MoHSS to analyze data and compile a report for the 2013 SSVs. The report will be disseminated in Q1 of FY14. Staffing challenges at SIAPS and MoHSS, and the ensuing high workload delayed activity completion.

Constraints to progress

Progress with some planned activities was slow because of staffing shortages at SIAPS and MoHSS. Activities affected include completion of the 2013 annual SSV report, and technical assistance coupled with follow up on post marketing surveillance (PMS) activities.

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

Planned activities (July-September 2013)

- Support UNAM School of Pharmacy in developing a five-year strategic plan
- Provide TA to build capacity of UNAM and NHTC to conduct pharmaceutical-related operational research
- Provide TA for adapting SIAPS in-service course materials for pre-service training in pharmaceutical management in local training institutions (UNAM School of Pharmacy and NHTC)

Progress towards targets

A consultant was identified to support UNAM School of Pharmacy to develop a five-year strategic plan. The first draft of the plan will be available in Q1 of FY14.

Development of course modules for B. Pharm and Pharmacy Assistant (PA) courses: A SIAPS team of technical resource people is helping UNAM to develop a module for supply chain management to be used for pre-service teaching of the B. Pharm students at UNAM. The module is being developed in close consultation with the School of Pharmacy to ensure that it suits the needs of the intended users and to fit in the existing B. Pharm curriculum.

Constraints to progress

- SIAPS support to NHTC was hampered by staff challenges at NHTC. SIAPS continued to work with USAID and MoHSS to find a solution.
- Development of the course modules for B. Pharm and PA courses was delayed by human resource constraints at SIAPS.

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

- Facilitate two PMIS trainings for regional pharmacists, facility pharmacy staff, and nurse managers in all regions in the country
- EDT training for ART providers in the Ministry of Safety and Security
- Compare EWI data between EDT and EPMS for April–June 2013
- Support ePMS design and development
- Disseminate adherence survey findings and development of manuscripts for publication

Progress towards targets

Two PMIS training sessions were conducted on the updated PMIS for 66 staff members: 14 pharmacists (regional pharmacists and hospital pharmacists), 4 Chief and Senior Health Program Administrators, 17 PHC supervisors, and 14 pharmacy assistants. The meeting also served as a ToT to prepare the regional teams to roll out PMIS, already implemented at hospitals, to the PHC level. Twelve of the 13 regions participated in the training and developed post-training implementation plans.

SIAPS supported MoHSS to update the health facility PMIS reporting templates to reflect new definitions/calculations for the following indicators—HF1: percentage availability of key items in the pharmacy; HF15: percentage of patients who continue ART; and HF10: percentage of key reference materials available in the pharmacy. A PHC PMIS reporting template was also developed. The new templates will be distributed to all regional pharmacists to be used for reporting from the period July–September 2013 onward.

At the request of NMPC, two SIAPS technical staff members co-facilitated the training on EDT for three pharmacy assistants and six nursing staff from MoD in July 2013. Participants had hands-on practice on entering ART patients' data into the EDT system including data on dispensing, monitoring adherence, and changing patient status in the system and compiling accurate summary ART monthly reports. The training gave the participants the necessary skills to utilize the EDT for appropriate ART patient and stock management with a goal of strengthening ART patient and medicines management at the Grootfontein Military Hospital in Namibia.

Data validation of EWI data abstracted in September/October 2012 was finalized. The preliminary results were presented to the HIV DR TWG at the Directorate of Special Programs (DSP) on July 30, 2013. The EWI report for 2012 was compiled and forwarded to the MoHSS counterparts. PowerPoint presentations for each of the country's 13 regions were prepared for use by the Regional Management Teams (RMTs) during the DSP technical supervisory support visits that are scheduled for September–November 2013.

SIAPS staff members participated in a workshop on Antimicrobial Resistance and Promoting the Rational Use of ARVs, anti-TBs, and Other Medicines in Namibia that was held at the UNAM School of Pharmacy July 22–24. SIAPS staff presented on the HIV DR EWI Namibia strategy data and the results of the 2010 EWI data abstraction and analysis.

SIAPS staff attended and contributed to the finalization of the Namibia HIV DR Strategy meetings held at MoHSS in July 2013. These meetings followed a series of meetings held in June 2013.

Pharmaceutical Services, with support from SIAPS, continued coordinating implementation of some of the interventions in the EWI report including (1) strengthening the EDT and EPMS record systems at facility level by populating all EDT records with the EPMS unique number, and (2) enforcing use of facility level ART data quality assessment forms developed with SIAPS support.

Partner contributions

I-TECH trained MOD staff on the EDT.

Constraints to progress

Slow progress with some planned activities due to staffing shortages in SIAPS and at MoHSS. Activities affected include PMIS implementation at PHC level and national level units (CMS, PC&I), and quarterly ART data comparisons between EDT and EPMS. Follow up with MoHSS counterparts on-going.

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

To further its collaboration with NTLTP to roll out eTB Manager to the rest of the nine DR-TB treatment sites, SIAPS is in the process of procuring 4G wireless routers and 4G dongles for the eTB manager roll out to all 14 regions. Training of National TB and Leprosy Program (NTLP) staff, regional TB coordinators, and other nursing/clinical staff in the use of the e-TB Manager is scheduled for October 2013.

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

SIAPS provided adherence and retention-related data from the national database and participated in on-going discussions with USAID and the new USAID-funded Adherence and Retention Project being implemented by Project Hope on how to strengthen links between health facilities and the community to improve adherence and retention on ART.

SIAPS coordinated with TIPC on follow-up and analysis of data collected from a cohort of 453 patients currently enrolled in active surveillance at Windhoek Central and Katutura Intermediate (KIH) hospitals. SIAPS partner, University of Washington, is supporting the activity and the report will be made available in October 2013.

SIAPS supported the technical advisor from TIPC/MoHSS to participate in the third annual

Medical Doctors and Dentists forum held in Namibia in August 2013. The forum was used to create awareness on pharmacovigilance activities and promote the detection and reporting of adverse medicine reactions (ADRs). Seventy-five doctors and dentists in attendance made resolutions to report on adverse medicines reactions on HIV and TB. SIAPS support for TIPC presentation at the forum was aimed at recommitting doctors and dentists in ensuring patient safety through improved pharmacovigilance.

Copies of ADR reporting forms and the Medicine Watch, a SIAPS-supported TIPC publication, were distributed. TIPC received 36 reports on ADRs in Q4. The October 2012–March 2013 issue of the Namibia Medicine Watch was completed and disseminated in various fora including the AMR/RMU workshop in July, doctors and dentists’ forum in August, and the Pharmacy week launch event in September.

SIAPS, in collaboration with the UNAM School of Pharmacy and MoHSS, conducted a two-day workshop and a one-day stakeholders' forum on antimicrobial resistance (AMR) and promoting rational use of ARVs, anti-TB, and other medicines in Namibia. SIAPS developed and customized the training materials and co-facilitated the training workshop and forum. Overall, 66 participants attended, including academics and students from UNAM and a wide spectrum of health care professionals from public and private hospitals; the Pharmaceutical Society; and the Health Professions Council of Namibia (HPCNa). The workshop, which was hosted by UNAM SoP in Windhoek in July 2013, aimed at raising awareness on the problem of AMR and engaging stakeholders in promoting the rational use of antimicrobial medicines as a strategy for containing the emergence of AMR. SIAPS involvement and support to UNAM SoP is part of the interventions targeted at building capacity of UNAM to conduct pharmaceutical-related operational research. The participants formulated a consensus “call-to-action” statement for mobilizing stakeholders around the AMR challenge, as well as an activity plan for implementation of agreed upon interventions.

Subsequently, SIAPS supported UNAM SoP with customized materials for facilitating an accredited CPD event on AMR/RMU during the pharmacy week, which was attended by 35 people from both private and public practice. The continued support to SoP is an ongoing effort to strengthen the institution to ensure institutionalization of interventions for sustainability. SIAPS technical staff and a consultant engaged by SIAPS supported MoHSS to conduct an STG post-implementation assessment in six regions in Namibia. To build the capacity of MoHSS staff to conduct future assessments, SIAPS facilitated one-day meeting of 6 regional pharmacists and 5 hospital pharmacy staff to review the assessment protocol and data collection tools. The team started collecting data in September. SIAPS staff and the consultant have provided technical oversight and guidance throughout the exercise for capacity building and quality assurance.

Partner contributions

Tufts University, Boston, MA, US, on EWI data validation

Collaboration with Project Hope for the Adherence and retention project; presentation on the EDT, facilitate linkage between Project Hope officials with the hospital pharmacist at Rehoboth St Mary’s Hospital.

Constraints to progress

- Delays in the reproduction of the treatment literacy DVDs and flipcharts were caused by supplier's misquotation of the amounts of money required for the production of the flipcharts. SIAPS cancelled the purchase order due to the firm's inability to deliver services as specified. The program is in the process of re-awarding the tender.
- A decline in commitment of Namibians against Antimicrobial Resistance (NAAR) seen through failure to actively participate in stakeholder AMR related events such as workshops and CPDs.
- Draft protocol for baseline assessment of cell phone ownership and SMS reminder preferences that is being developed by colleagues in the MoHSS's adherence TWG is lagging behind schedule. This has delayed the actual incorporation of the SMS reminders into the EDT.
- Number of adverse medicine event reports received by TIPC is below the expected number based on WHO guidelines of 200 adverse event reports per 1 million people annually. Further advocacy is needed to increase the level of reporting on adverse events.

Philippines

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

Objective 1: Capacity for pharmaceutical and laboratory supply management improved

SIAPS is focusing on improving human resources systems for PMDT laboratory and pharmaceutical services. SIAPS Consultants completed the collection of human resource data from sample PMDT clinic and laboratory sites. The assessment report and model HR development plans are expected to be completed in the next quarter and presented to the NTP and National TB Reference Laboratory (NTRL).

An initial briefing on preliminary results was held in September 2013 for stakeholders including NTP managers, USAID/PH, PMDT, NTRL, WHO, PBSP/Global Fund, and other USAID-funded health projects. Stakeholders' response to the discussion was positive. Stakeholders see the value of the assessment in informing expansion plans for the NTP laboratory network and PMDT services. SIAPS is the only USAID program in the Philippines that is currently implementing an initiative on TB HR system strengthening. Next steps to improve the capacity of the human resource system for laboratories and pharmaceutical services in PMDT include preparing a draft updated national training policy and plans for PMDT and the pharmacy network.

SIAPS also seeks to improve the management and leadership capacity of laboratory and health workers. To this end, SIAPS assisted the Quezon City Health Department's (QCHD) to develop an abstract describing experiences in improving TB program grassroots leadership and management in Payatas (an urban poor community). The abstract was accepted as a poster presentation at the IUATLD for the 44th World Lung Health Conference in Paris. The Quezon City mayor will provide financial support for the travel and participation of selected QCHD staff. The support of the mayor is an indication of the LGU's appreciation of the value of the initiative in strengthening grassroots level governance of health programs.

Next steps include assisting the NTP and NTRL to prepare an updated national training policy and plans for PMDT and laboratory network, and documenting, packaging, and disseminating the QCHD Payatas experience for replication initiatives.

To build capacity in supply chain management, SIAPS completed the *Practical Guide for the Management of Pharmaceuticals*, as well as three job aid posters on dispensing, receipt, and inspection, and proper disposal of expired and damaged medicines—all for final DOH review. In collaboration with the IMPACT Project, SIAPS designed a roll-out of the Practical Guide that includes a training of trainers (TOTs) to be conducted by SIAPS, and cascade training and mentoring in conjunction with partners. In the next quarter, SIAPS will adapt the assessment tools to gather baseline data to measure the impact of the practical guide, and begin the training and mentoring.

In consultation with the PMDT M&E team, SIAPS revised two monitoring tools and developed a self-monitoring tool to track and report stock outs and expirations. User guides were developed for supervisors, and SIAPS trained a pool of trainers from the PMDT training team in forecasting and quantification of second-line drugs.

As part of on-going operational assistance to PMDT Drugs and Supplies Management, SIAPS provided information and data for the change in formulation from PASER to PAS sodium and coordinated with FDA and NTP for registration of second-line drugs. SIAPS also mentored NTRL staff in the quantification and management of laboratory supplies. The team assisted in analyzing procurement data and distribution patterns for Mtb/Rif Xpert cartridges. In the upcoming quarter SIAPS will collaborate with NTRL to develop an inventory, requisition, and distribution system of Mtb/Rif Xpert cartridges.

Constraints to progress

DOH NTP staff had an extremely busy schedule, making it difficult to schedule ToTs for training teams.

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

SIAPS works with the NTP and the DOH's Information Management Services unit to enhance the information management system that supports TB commodities and clients. In 2012, the DOH designated the Integrated TB Information System (ITIS) as the new NTP information system.

During this quarter, SIAPS completed collection of field data for a situational analysis of ITIS and prepared the draft preliminary report. The draft report will be presented to major stakeholders in November 2013.

- In August 2013, the NTP manager decided to defer the roll-out of ITIS based on anecdotes received at central level that ITIS is experiencing technical problems, particularly the inability to generate reports, as well as various implementation problems. The NTP manager has expressed interest in assessing ITIS to gather additional information to provide further guidance to the NTP and IMS on the scale-up of ITIS.
- Assist NTP in preparation of an information system strengthening plan and help implement selected items.

Migration of information and patient records from e-TB Manager to ITIS was executed in phases to ensure quality of data and allow ITIS programmers to integrate the information—this phased approach was requested by NTP program. In this quarter, testing of phase II migration was completed and all migrated data are validated and verified. IMS has requested additional assistance with another migration TB patient record updates. Next steps include finalizing data migration II reports and distributing to stakeholders, completing next data migration III plan, and consulting with consult NTP on the IMS TA request to migrate TB patient records.

Constraints to progress

- Difficulty scheduling DOH national level staff for key informant interviews for the ITIS situational analysis.
- Deteriorating security conditions (bombings in major cities, large scale fighting in one major city) in Mindanao led to cancellation of field activities in the region.

Objective 3: Pharmaceutical services strengthened for improved outcomes in TB Case Management

SIAPS, the Philippine Food and Drug Administration (FDA), and Philippine Pharmacists Association discussed strengthening the country's pharmacovigilance system, particularly for the National TB Program. SIAPS and the FDA identified the steps in strengthening causality analysis capacity of FDA.

SIAPS continued support to the DOH for several critical TB-related plans, policies, and procedures documents. This quarter, SIAPS continued support to the NTP and NTRL for the development of the NTP laboratory network strategic plan. The document has been completed and is now in the pre-printing stage. The team also supported the DOH in revising the NTP Manual of Procedures; the draft document was completed and presented to stakeholders for their comments. SIAPS supported NTP in the preparation of the concept note for the new Global Fund funding model; the document has been submitted to Global Fund for technical review.

The team also assisted the DOH in the conduct of the 2013 Philippines NTP Joint Program Review with SIAPS technical staff providing local leadership in the areas of laboratory network operations and medicines and supplies management. The SIAPS team provided support in the revision of the Philippine Plan of Action to Control TB (PhilPACT); the revision process will resume in October 2013 and is expected to conclude in December 2013. SIAPS will continue to support the process.

SIAPS assisted NTRL in reconstituting the Laboratory Working Group to work on the guidelines for the adoption of new diagnostic technologies, and for the operationalization of the NTP laboratory strategic plan.

As several previously planned activities were delayed because of important ad hoc requests, SIAPS will integrate previously planned activities into the FY14 planned activities.

Constraints to progress

- Ad hoc requests for TA from NTP caused realignment of planned activities. These requests include the revision of PhilPACT, revision of the NTP Manual of Procedures, and preparation of the country's Concept Note for the Global Fund's new funding model.
- At NTP's request, USAID agreed that USAID-funded cooperating agencies should support DOH in the GFATM joint program reviews. During the months of August and September SIAPS technical staff took the lead in supporting medicines and laboratory teams.

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

SIAPS continued to support good governance in medicine procurement by building capacity in the Directorate: Affordable Medicine in management of tenders for pharmaceuticals and medical consumables. Contracts were awarded for tuberculosis medicines, antibiotics, and family planning agents. The family planning contract was awarded four weeks prior to the starting date, with contraceptive implants included for the first time. SIAPS assisted in the development of reference prices after international benchmarking. Prices on this contract decreased by 8 percent compared to previous awards, showing that international benchmarking can lead to lower cost procurement. A system to monitor medicine stock-outs across provinces including follow up with defaulting suppliers was introduced. In the Free State (FS), the service level agreement between the provincial depot & its clients was signed by the newly appointed Head of Health.

SIAPS collaborated with the University of Limpopo (Medunsa) to facilitate a session on financial management for pharmacists registered for a Master's program. SIAPS continued to work with Nelson Mandela Metropolitan University, where support towards increasing the number of new entrants into pharmaceutical services was provided. The curriculum for the pharmacy technical assistant certificate includes a module on medicine supply management which is being conducted in conjunction with the course coordinator.

122 health facilities have successfully applied an approach for participatory & continuous performance improvement through the Pharmaceutical Leadership Development Program, with 32 quality improvement initiatives. 2 posters highlighting results were presented at the Public Health Association of SA conference. In KZN, 8 PLDP teams are addressing challenges including compliance with STGs & time taken to process an order at the provincial depot. Infomaker® software which facilitates extraction of information from inventory management systems was installed at the Northern Cape depot.

Sites currently using one or more of the modules of RxSolution increased from 224 to 280. The expansion was driven largely by NDoH plans to increase RxSolution coverage focusing on sites earmarked for piloting NHI, as well as sites implementing a direct delivery model. Use of RxSolution continues to contribute to significant improvements in medicines availability, improved inventory management, and better patient care. For example, ARV availability for 23 line items was maintained at an average of 91% at PHC facilities using the system in the EC. The interface between RxSolution & Delta9, a patient administration system was completed & is being piloted at Livingstone Hospital in the EC.

In Limpopo Province (LP), over 2 300 orders for 42 hospitals have been processed by the Provincial Procurement Unit (PMPU) established by NDoH with support from SIAPS & SCMS. 84 line items, mainly ARVs, are procured through a direct delivery voucher (DDV) model managed by the PMPU. A customized version of RxSolution is used to support inventory

management & monitor supplier performance. The NDoH has identified the DDV model as a way of ensuring uninterrupted supply of medicine & SIAPS will provide technical assistance in implementation of DDVs in GP. In LP, medicine availability at hospitals and clinics was 70% as of September 2013 showing an improvement from the 55% reported in May 2013.

Concerted efforts are being made to build capacity to strengthen governance & functionality of PTCs by providing TA in the institutionalization of good governance, facilitating access to information & providing assistance in conducting targeted interventions. Guidelines for implementation of PTCs in Gauteng Province which contain generic PTC governance tools were launched. SIAPS continued to provide support to the NDoH in implementing the decentralized pharmacovigilance system. There are now 28 pharmacovigilance clusters in Mpumalanga.

Objective 1: Pharmaceutical sector governance strengthened

In FY13, work commenced in collaboration with the South African Pharmacy Council (SAPC) on the review of the Pharmacy Act 53 of 1974 and corresponding regulations. Amendments to the Act had become necessary for reasons such as accommodating developments in pharmaceutical service delivery, introducing new categories of pharmacy support personnel, addressing shortcomings identified during administration of the Act, and aligning all legislation dealing with the control of the practice of health care professions. During this quarter, amendments to the regulations relating to ownership and licensing of pharmacies, registration and maintenance of registers and the holding of inquiries were submitted. Further work is required on the submitted drafts as they do not address all the issues identified in the briefing document. A further five sets of regulations still need to be completed.

During this quarter, SIAPS continued to support the NDoH to strengthen governance in the issuing of licenses for pharmacies and dispensing licenses to doctors and nurses, as well as the issuing of permits to enable nurses to prescribe, and certain organizations, such as travel clinics, to supply medicine. During the last quarter, the approach used currently by the Licensing Committee to award pharmacy licenses was drafted into a set of criteria and provided to Senior Management for input. The document was accepted and published on the NDoH website. The next step was the development of a new set of criteria for awarding pharmacy licenses. Following consultation with members of the Licensing Committee of the NDoH, SIAPS supported the finalization of a revised set of criteria. It is anticipated that the new criteria which are based on population per subdistrict will support the intention of the National Drug Policy to improve access of communities to pharmaceutical services. This second document was submitted to NDoH Senior Management for consideration by the NDoH's Legal Unit.

One of the activities included in the FY13 work plan is providing support to the Directorate: Affordable Medicine of the NDoH with the Infrastructure Unit Support Systems project. The aim of this joint project of the NDoH, Council for Scientific and Industrial Research (CSIR), and the Development Bank of South Africa is to develop norms and standards for the infrastructure of all sections of health care establishments. During this quarter, a meeting attended by representatives of SIAPS, the SAPC, stakeholders from the profession, and the architect assigned to pharmaceutical services by the CSIR took place. The architect is preparing a first draft of the concept document.

SIAPS is supporting the second cycle of pharmaceutical tenders being managed by the Directorate: Affordable Medicine. The contract awards for HP01 (tuberculosis medicines) and HP02 (antibiotics) were finalized one week after the expected start date of August 1, 2013. The team took six months to award the tenders. As a significant proportion of the components are imported, it was anticipated that price increases would occur as the base rand-dollar exchange rate changed by 25 percent compared to the previous award. Prices were, however, only increased by 18.4 percent in rand value on the TB contract and by 15.8 percent on the antibiotics contract. The contract conditions were amended to decrease the impact of rate of exchange variations in the future. The family planning contract was awarded four weeks prior to the start date of October 1, 2013. It is anticipated that the early awarding of this contract will prevent stock outs of these agents. Long-term contraceptive implants were included in the contract for the first time. SIAPS provided technical support in the development of reference prices after international benchmarking, and assisted with tightening contract conditions. Prices on this contract decreased by 8 percent compared to previous awards, showing that international benchmarking can lead to lower cost procurement. An officer currently contracted by SIAPS prepared the reference prices for this tender, did a comprehensive market analysis and provided further technical support to the department in awarding the tender.

Progress on the award of medical consumables tenders is behind schedule. Four of the eight tenders—HM02 (Bandages), HM03 (Crutches), HM04 (Sundries) and HM06 (Sterilization materials) are at bid evaluation stage. SIAPS is providing additional support to expedite this process by providing two short-term consultants to the NDoH.

A system to monitor medicine stock-outs across the provinces was introduced during this quarter. This includes following up with defaulting suppliers and the application of allowable punitive measures on relevant contracts.

It was planned that by FY13, two service-level agreements (SLA) between provincial depots and their clients would be accepted. In the Free State (FS), the SLA was signed by the newly appointed provincial Head of Health and will be effective from July 1, 2013 to July 1, 2016. In the Eastern Cape (EC), the draft SLA was finalized during this quarter. Delays in the signing of the EC SLA have occurred as a result of a change in leadership in the province. Work continued on similar documents in Northern Cape (NC) and North West (NW).

The Office of Health Standards Compliance (OHSC) is in the initial phases of identifying some standards from the National Core Standards (NCS) which would be regulated under the National Health Act. Amendments to this Act were signed by the SA President on July 24, 2013. SIAPS is one of the partners that has been requested to provide input on which standards are appropriate for regulation. During the quarter, SIAPS helped review the Infection Prevention Standards as part of the Global Antimicrobial Resistance Stewardship Program (GARP) Task Team. SIAPS will also be working with the Directorate: Affordable Medicine in the review of the standards relating to pharmaceutical services.

At a partners' meeting convened by the OHSC in August, SIAPS made a presentation on the project's leadership development approach as a means of improving compliance with the NCS.

The presentation highlighted the successes documented in improving compliance with NCS through the Leadership Development Program (LDP) in KwaZulu-Natal (KZN), EC, and Western Cape (WC) provinces.

The effective monitoring and evaluation (M&E) of service provision is critical to the success of pharmaceutical service delivery at national and provincial levels. SIAPS is committed to supporting the development and implementation of M&E systems at both levels. Acting on a request from the NDoH, SIAPS assisted by drafting a set of standards aimed at benchmarking pharmaceutical service delivery in four key domains (pharmaceutical and therapeutics committees, financial management, medicine supply management, and human resources). Data elements for tracking progress towards achieving the standards at provincial level were also developed. This activity was the initial phase in what is envisaged to be the development of a system which will provide NDoH with oversight on the provision of pharmaceutical services at provincial level.

SIAPS continued working with three provinces to develop results frameworks and related sets of indicators for routine monitoring of the performance of pharmaceutical services in EC, Limpopo (LP), and NW. All three provinces have developed the first drafts of these documents. The first workshop was held in NW during this quarter. Follow-up workshops have been conducted for EC and LP provinces to review available data sources and data collection tools for the indicators. A similar follow up workshop is expected to be held for the NW team in the upcoming quarter.

Constraints to progress

- Some concerns have been expressed by the SAPC at the quality of the work submitted by the consultant working on the amendments to the Pharmacy Act and Regulations. This is being followed up with the SAPC and the consultant.
- Changes in provincial leadership in the FS and EC resulted in delays in the signing of the depot/demander SLAs.

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

In previous quarters it was reported that SIAPS had built capacity working with the SAPC in the development and implementation of criteria for the review of curricula for BPharm programs as a new qualification has been introduced. The next step is the onsite inspections of the schools to verify aspects of the curriculum offered. During this quarter, SIAPS facilitated a workshop for the team that conducted the first of these inspections at the Pharmacy School at the Tshwane University of Technology. This intervention resulted in improving the process for the inspection with the team preparing the required report before the conclusion of the inspection.

SIAPS is supporting the SAPC in developing qualifications and curricula for five categories of specialist pharmacists. During this reporting period, the draft qualifications for three pharmacy specialists (clinical pharmacist, radio-pharmacist, and pharmaceutical public health specialist) were reviewed by the Education Committee of the Council. The documents were referred back to the consultant to address the input received, including the allocation of credits. The qualifications

will be discussed at the next meeting of the Education Committee of the SAPC.

At the National Pharmacy Conference organized by the SAPC at the end of June, SIAPS facilitated a session on developing a shared vision, “Quality pharmacy services for improved health outcomes – always, everywhere for all,” for the pharmacy profession. During this quarter, a small group of stakeholders held a meeting where a draft mission and core values for the profession were developed. A larger stakeholder consultative workshop attended by representatives of the provinces, pharmacy schools, pharmaceutical industry, professional organizations, and community pharmacy groups was subsequently held in Centurion. A session on the vision, mission, and core values was facilitated by SIAPS. Presentations were also made on phasing in new mid-level workers (pharmacy technicians, pharmacy technical assistants and pharmacy general assistants), and the design model for community and institutional pharmacies. SIAPS subsequently supported a series of similar consultative Pharmacy Human Resources workshops held in all nine provinces. Attended by pharmacy managers and pharmacist’s assistants, these workshops focused on informing the profession about these developments, supporting advocacy and lobbying for change. Pharmacy Week material was also distributed during the workshops.

SIAPS collaborated with the University of Limpopo, School of Pharmacy (Medunsa Campus), to facilitate a session on financial management for pharmacists registered for the Master in Public Health and Pharmacy Management. The training material addressed pharmaceutical management topics related to budget planning, and analyzing and controlling expenditure. The tools and methods highlighted the need for control measures at each level of the pharmaceutical management cycle. SIAPS provided further assistance to the Pharmacy School with the development of practical examples of cost analyses for fourth year pharmacy students. These will be used as learning tools.

SIAPS continued to work with the Nelson Mandela Metropolitan University (NMMU) in the EC to support efforts aimed at increasing the number of new entrants into pharmaceutical services. The curriculum for the pharmacy technical assistant certificate includes a module on medicine supply management (MSM). This module which consists of at least 10 lectures and practicals will be conducted by the SIAPS Senior Technical Advisor in conjunction with the university course coordinator. Lectures in MSM for second year pharmacy students and pharmacy law and ethics for final year pharmacy students are also being facilitated.

A total of 122 health facilities have successfully applied an approach for participatory and continuous performance improvement through the Pharmaceutical Leadership Development Program (PLDP). The challenge model has been used to develop and implement 32 quality improvement initiatives with 67 percent of these attaining the desired measurable result. The PLDP has proven to be a viable option for enhancing the capacity of personnel for the provision of pharmaceutical services.

During this quarter, the PLDP for the second group of pharmacists from KZN continued. The second and third workshops of a series of five were held during the reporting period. By the end of the second workshop, the eight teams had identified one challenge within their work environment, and developed a measurable result to address the challenge. The third workshop

focused on guiding the teams through a process of understanding financial legislation which underpins their functioning as pharmacists and pharmacy managers within the public sector. Various exercises on budgeting, inventory management, quantification, and analyzing and controlling pharmaceutical expenditure were done. This PLDP workshop was conducted in partnership with the National Treasury. At the end of the workshop, teams had a better understanding of the Public Finance Management Act (PFMA) and Treasury regulations as it applies to their work.

Two coaching visits were also conducted to support the teams as they prepared to conduct baseline assessments and later review progress made towards addressing challenges. The teams will present their results in February 2014.

In the Western Cape, meetings were held to plan further support to the Northern Tygerberg Sub-structure where support has been requested in succession planning using the LDP. Plans are underway to conduct an LDP in the neighboring Klipfontein/Mitchell's Plain Sub-structure for teams consisting of the Facility Manager, Pharmacy Manager, and the Clinical Head of the eight primary health care facilities and one district hospital. Opportunities for research on the impact of the LDP are being explored with the Leadership, Management and Governance Project. Discussions are also underway with National Treasury regarding collaboration in the development of training for pharmacy personnel on financial management.

Two posters arising from LDP activities were presented at the PHASA conference. The posters were entitled "Reducing waiting times for patients collecting pre-packed medication packs at Kraaifontein Community Health Centre" and "Building sustainable capacity and improving the quality of pharmaceutical services through leadership development in South Africa."

Constraints to progress

The member of Faculty responsible for pharmacoeconomics at the University of KZN is currently out of the office, so SIAPS was not able to pursue the opportunity to offer a pharmacoeconomics course with the University.

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

Infomaker,[®] an off the shelf commercial report-building software, which helps extract information from inventory management systems, was installed at the pharmaceutical depot in the Northern Cape (NC) during this quarter. Remote access will be used to develop reports for depot management. This was a culmination of considerable stakeholder engagement with a particular emphasis on formalizing authority to access data to facilitate the reporting process. SIAPS continued to support the use of Infomaker at all the provincial depots that use the MEDSAS inventory management system as a means of improving NDoH oversight.

SIAPS submitted four abstracts for the 2013 ICT4 Health conference—all were accepted for podium presentations. The presentations focused on how RxSolution, an inventory management software developed by MSH, has contributed to improving health systems in line with the

conference theme: “Using Technology to Improve Health Outcomes.” These posters showcased how—

- RxSolution was used to help improve medicines availability at Frontier Hospital, the collection of chronic medicines in the NW was managed and monitored, and compliance with legislative requirements was strengthened at Du Preez Street Clinic
- ARV availability for 23 line items was maintained at an average of 91 percent at primary health care facilities in the EC during January 1 to June 20, 2013
- The system was used to identify medicines to the value of R52,597 which were at risk of expiring in a facility
- By implementing RxSolution, Du Preez Street Clinic gained more control over their budget; better managed stock holdings, and reduced wastage of medicines to below 1 percent of expenditure

The number of sites currently using one or more of the stock management, batch management, and dispensing modules of RxSolution increased from 224 to 280 during this quarter. The expansion was driven largely by the NDoH’s plans to increase RxSolution coverage with a particular focus on sites earmarked for piloting National Health Insurance, as well as all sites implementing a direct delivery procurement model. In KZN, RxSolution was implemented in six clinics in the eThekweni Metro. A total of 103 healthcare professionals were trained on the use of RxSolution.

The electronic tools team is currently customizing RxSolution to support inventory management for the Gauteng province (GP). This version will be used to monitor and approve facility level orders from a remote location at the NDoH and is aimed at supporting plans to implement a direct delivery procurement model for 20 hospitals in GP. The stock management module of RxSolution has been installed at four hospitals to facilitate the ordering process, which can now be done at the click of a button. A similar version of RxSolution is being used to support the direct delivery mechanism in LP (More details reported under Objective 5).

The interfacing with Delta9, a patient administration system, was completed during this quarter. This interface is expected to facilitate links between existing patient information and RxSolution at facilities using Delta9. The interface is currently being piloted at Livingstone Hospital in the EC.

Partner contributions

SCMS is providing TA in implementing the direct delivery procurement model in Limpopo and Gauteng provinces.

Constraints to progress

The rapid scale-up of RxSolution has put considerable pressure on the team.

Objective 4: Access to medicine improved by implementing new strategies

In LP, over 2,300 orders for 42 hospitals have been processed by the Provincial Procurement

Unit (PMPU) established by the NDoH with support from SIAPS and SCMS. A total of 84 line items, the majority of which are ARVs, are being procured through a direct delivery voucher (DDV) model managed by the PMPU. A customized version of RxSolution is used to support inventory management and monitor supplier performance. During the quarter, SIAPS helped conduct an analysis to determine the estimated time it will take to deplete stock on hand of ARVs at the LP pharmaceutical depot which are now supplied through the PMPU.

The NDoH has identified the direct delivery model as one of the models for ensuring uninterrupted supply of medicine within public health facilities. During this quarter, SIAPS was requested to provide technical assistance in implementation of DDVs in GP. This will entail switching 70 percent of items procured from the Gauteng Medical Supply Depot by 20 hospitals to a DDV approach. One of the biggest academic hospitals in the province was selected as the pilot site, with 260 line items identified for procurement through DDVs. Process flows and SOPs are currently being developed.

SIAPS is part of the Goods Procurement Subcommittee of the National Health Insurance Ministerial Task Team which aims to develop a suitable procurement model for pharmaceutical services to support universal health coverage. Owing to delays in the provision of letters of approval from senior management to the provinces, interviews with district pharmacists, Heads of Pharmaceutical Services, and other key respondents will commence in the next quarter.

At the end of July, a Procurement Reform Task Group Workshop was organized under the auspices of the Pharmaceutical Services NHC Technical Subcommittee. This activity was driven by NDoH with financial and technical support provided by SIAPS. Participants included NDoH officials, heads of pharmaceutical services at provincial and local authority levels, pharmaceutical depot managers, and USAID-funded partners (SCMS and SIAPS). The workshop was held to update officials on new models of procurement, quantification, the establishment of NHI prototype clinics funded by Global Fund, and the review and regulation of the NCS.

A workshop for the implementation of the SADC Strategy for pooled procurement of essential medicines and health commodities was attended in September 2013 by four persons per member state including Heads of Pharmaceutical Services, Heads of Medical Stores, Heads of Medicines Regulatory Affairs and legal advisors, SADC Secretariat and several partners including UNDP, CHAI (1 day), SARPAM consultants, and SIAPS. SIAPS was made a member of the TWG.

Objective 5: Improved medical products availability

The NDoH quantification task team continued to implement a phased approach toward replacing the current single agent antiretrovirals (ARVs) with fixed-dose combinations (FDCs). Orders placed to suppliers for FDCs comprised 60 percent of the estimates for the existing contracts. The deviation from the original estimates is expected to narrow as the Department prepares to switch existing patients from single agents to FDCs at the beginning of the next quarter. SIAPS will provide technical assistance in revising estimates on an on-going basis with a particular emphasis on the EC province. During the quarter, three SIAPS staff members were trained on the use of Quantimed and PipeLine tools. In the following quarters, SIAPS will build capacity on quantification for ARVs, TB as well as chronic medicines at provincial level using these tools.

In LP, SIAPS provided TA in conducting an analysis of the medicine expiry report. The analysis highlighted R10 million worth of stock which was at risk of expiring if not distributed and used within the upcoming 12 months. Recommendations were made to prioritize distribution of the identified batches to facilities within the province with high consumption levels as well as to other provinces. SIAPS is currently working with depot staff to update security features and stock management parameters on the inventory management system to ensure early identification of batches of stock nearing expiry.

During the quarter, SIAPS worked in collaboration with the North West pharmaceutical depot to conduct a self-assessment in preparation for licensing by the Medicines Control Council (MCC). The self-assessment enabled the depot to identify and address any key gaps that could negatively affect the issuing of the license. Consequently, only a limited number of shortcomings were identified during the official MCC inspection which occurred during the quarter. SIAPS will continue to support the depot in addressing these shortcomings in the upcoming quarters. The depot reported 70 percent medicine availability as at September 2013 which is a 20 percent improvement from the previous quarter.

In Limpopo, availability of tracer medicines at hospitals and clinics was 70 percent as of September 2013. Although this is below the provincial target (95 percent), it is an improvement from the 55 percent availability reported in May 2013. SIAPS contributed to this improvement by training and mentoring pharmacists on medicine supply management as well as providing TA at facility level by implementing stock cards and establishing and revising stock levels and quantities to order. SIAPS continued to support the provincial Pharmaceutical Service Directorate to review and/or develop standard operating procedures for medicine supply management for the depot, hospitals and primary health care (PHC) clinics.

In 2012, the SPS project conducted an assessment of the availability of pharmaceuticals in Bojanala district in NW. The assessment aimed at identifying factors affecting the effective management of supplies of medicine in the district. The report on the assessment was finalized during this reporting period.

A total of 88 health care professionals received formal training in MSM in LP (65), and FS (23). The training in EC was conducted in partnership with the Institute for Youth Development in South Africa.

Prison inmates are one of SA's most at risk populations for contracting TB. A scope of work for the assessment of the pharmaceutical management of TB and HIV in the Department of Correctional Services (DCS) was finalized. This assessment will review the management of the TB and HIV medicine supply chain within the DCS to understand gaps in supply chain and in the delivery of quality care for TB and HIV patients. The goal is to ensure availability of first- and second-line TB medicines in the Department of Correctional Services (DCS). SIAPS is awaiting final approval of the consultant's contract.

Partner contributions

- SCMS—Responsible for logistics on ordering and delivery of stock to Limpopo hospitals through PMPU (ARVs and oncology products). Establishment of Gauteng centralized provincial procurement and direct delivery model.
- Foundation for Professional Development (FPD)—Provided supportive role in identifying slow-moving ARVs at the Limpopo depot which were at risk of expiry if no intervention was taken.

Objective 6: Improved rational use of medicine and patient safety

SIAPS continued to work on developing an electronic version of the Adult Hospital Essential Medicine List (EML) 2012 to support prescribing in compliance with Standard Treatment Guidelines (STGs). The mobile phone application of the Adult Hospital EML was presented to the EML App task team at NDoH at the end of July. The application was updated as requested by the task team. The updated version will be presented to the EML App task team as well as a broader team at NDoH in the next quarter. The development of the user manual has started. The web-based EML has been designed and is being tested online (<http://bwintec.com/appfront/#/ch/1>).

SIAPS provided TA to create a database of items added or removed from the Hospital Pediatrics EML 2013 since the 2006 edition in preparation for academic detailing. The publication of the Hospital Pediatrics EML 2013 is scheduled for October 2013.

With support from the MIS cluster team, the Formulary tool developed during the Equity Project has been updated to suit the needs of the National Essential Drugs Program (NEDP). SIAPS is now in the phase of populating the tool with regimen information from the latest EML as well as contract information. Only EML medicines are captured in the tool which promotes compliance of formularies with EMLs and contracts awarded. The provinces and districts will be able to use this Access-based tool for the development of their formularies. The provinces and districts will select a list of medicines based on their own needs; the formularies can then be extracted as a report from the Formulary tool.

The provincial formularies for EC and GP are almost complete. In the EC, comments on the updated formulary were requested by the EC Provincial Pharmacy and Therapeutics Committee. SIAPS helped review the comments received. The formulary will undergo a second round of reviews in the next quarter. In GP, as the PHC and Hospital Adult level task teams sent back the draft formulary with prescriber levels, SIAPS provided technical support to consolidate the documents received. The Secretariat of the GP PTC received the final draft of the GP formulary which will be sent to committee members for comment. SIAPS made a presentation during the GPPTC meeting on the rationale for developing a new formulary, the process followed, and the way forward.

The Limpopo Provincial PTC has started a process of updating its formulary. SIAPS recommended a similar approach to that used in EC and GP. Technical assistance was provided in classification of the items listed in the depot code list as EML or non-EML and contract

information included.

During this quarter, SIAPS worked with the NEDP to study the provincial ABC analyses for EC, GP, KZN, LP, NC, NW, and WC provinces. Recommendations were made on the points of concern that should be investigated by the relevant provincial PTCs.

Support was also provided to the Rational Medicine Utilization (RMU) subcommittee of the GP Provincial Pharmaceutical and Therapeutics Committee (PPTC) in performing an ABC analysis per Anatomical Therapeutic Chemical class. Further analyses were performed to assess the usage of antibiotics in general and co-trimoxazole in particular. The RMU subcommittee designed an intervention to promote safe and cost-effective use of antibiotics in the provincial facilities.

The RMU subcommittee further identified a high usage of parenteral iron in some facilities and developed an intervention to promote rational and safe use of this medicine. A cost analysis on the use of lamotrigine versus sodium valproate was also conducted at provincial, district, and facility levels. As an intervention to promote cost-effective use of the two anti-epileptic agents, a letter was sent to each facility outlining their current usage and expenditure on both items as well as the potential savings if the use of lamotrigine was to increase.

If 50 percent of adult epileptic patients are switched to lamotrigine, it is projected that R5.2 million rand per 100,000 patients per year will be saved. The GP PTC approved all three proposed interventions. Also in GP, SIAPS provided TA to the PTC at Dr George Mukhari Hospital to conduct an analysis of the medicines used in the hospital and make recommendations for further investigations and interventions.

In KZN, SIAPS helped conduct a provincial ABC analysis per ATC class and identified the highest cost drivers for each one of the class “A” items. This was done to encourage discussion on rational medicine use in the first meeting of the recently revitalized PPTC which will be convened in the next quarter. SIAPS also assisted the KZN PPTC secretariat with reviewing nominations for the KZN PPTC and the process for the selection of members

The “Guidelines for changing adult patients from perindopril to enalapril tablets” in the EC were reviewed during the quarter with assistance from SIAPS. The guidelines were developed following a cost analysis which resulted in the EC PPTC adopting a resolution to use enalapril as the angiotensin-converting enzyme inhibitor of choice in the province. The projected savings are R6.9 million per 100,000 patients per year. Similar decisions have been made in Limpopo and Gauteng.

The guidelines for implementation of PTCs in Gauteng Province were launched by the chairperson of the GP PTC during the 2013 Gauteng Department of Health Pharmaceutical Services conference held in September. The guidelines contain generic PTC governance tools developed by SIAPS. SIAPS conducted a workshop for members of the Helen Joseph Hospital PTC to reinforce the role of the committee in RMU, and to present the provincial process established by the GP PTC for requesting the addition of non-EML medicine to the formulary. The secretariat of the Helen Joseph Hospital PTC made a presentation on the revitalization of the hospital PTC during the Pharmaceutical Services conference. During the presentation, the

support received from SIAPS in providing generic tools of governance was acknowledged. SIAPS also presented on “Strengthening the role of PTCs in ensuring quality of therapeutic care” at the same conference.

Upon request, SIAPS presented key findings of the study entitled “What are the reasons for switching adult patients to second-line ART regimen in public healthcare facilities in Gauteng province” to the quarterly review meeting of Ekurhuleni district’s HIV/AIDS, STIs, and TB (HAST) unit. A similar presentation was made to the Tshwane district PTC meeting. The recommendations to strengthen adherence assessment practices, among others, were discussed during both meetings.

SIAPS continued to provide support to the NDoH Pharmacovigilance Centre (NPC) in implementing the decentralized pharmacovigilance system. There are now a total of 28 clusters in Mpumalanga Province (MP) after two new clusters were formed in Nkangala District during the quarter. Three workshops were conducted in Mpumalanga. SIAPS will continue to support the NDoH as preparations are made to scale up the decentralized pharmacovigilance approach to NW and LP. In NW, the establishment of clusters was also discussed. Training workshops are expected to be conducted in these provinces in the following quarters as an initiation phase to implementing the system.

Constraints to progress

After some difficulty in finding suitable candidates, the Senior Technical Advisors for Pharmacovigilance and TB under SIAPS were recruited during the quarter. The appointed candidates are expected to commence work during the upcoming quarter.

South Sudan

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

Objective 1: Pharmaceutical services improved to achieve desired health outcomes

SIAPS had series of meetings and in September 2013 had discussions with MoH and DELIVER regarding the Emergency Medicines Procurement (EMF) in preparation for the delivery of planned shipments to county warehouses. The SIAPS work plan approved de-junking of county stores with implementing partners in addition to providing DELIVER with a mapping and profiling the status of the various stores. The mapping and profiling indicated the level of inventory management systems and tools available at the stores and what their human resource capacity was. This information will help identify alternate storage facilities and ultimately help to ensure that every county in WES and CES has adequate supply of primary health care commodities being brought in country under the EMF.

At the request of the NTP Manager, SIAPS supported the National TB program in the quantification of annual TB commodity requirements. The quantification exercise would lead to the procurement of TB commodities through the Global Health Facility (GDF). These procurements would be made through United Nations Development Program UNDP as the Global Fund principal recipients. Procurements resulting from the quantification exercise will resolve the eminent stock-out of TB commodities as a result of delayed procurements and shipment of TB commodities and the influx of returnees from the North.

SIAPS has finally received approval from the SIAPS USAID AO for the renovation of the Central Equatorial State (CES) MOH medical store. Funding will be through the USAID and UNICEF in a 3:1 ratio. A ground breaking ceremony was held with the State Minister of Health, members of the state MOH, USAID, and UNICEF representatives in attendance. It is expected that the renovated warehouse will provide expanded storage capacity of medicines to serve CES needs. The warehouse will also hold supplies for USAID donated items like antimalarial and contraceptives for the state, and will ensure commodity security for essential medicines.

Constraints to progress

The absence of the M&E Advisor has delayed some M&E project activities; however SIAPS has begun the process of re-engaging the Advisor who has returned from on study leave.

The review of the pharmaceutical training manual has stalled because of the MOH delay in providing feedback.

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

SIAPS has trained 26 persons from various disciplines in Western Equatoria State WES in its effort to strengthen pharmaceutical systems and to establish a model county PMIS program in Tamboura County. Tamboura County has initiated a pull procurement system with SIAPS support. SIAPS conducted three-day pharmaceutical management training for health workers at health facilities in Tamboura County to refresh their knowledge on pharmaceutical management information systems and storage management.

In Maridi County, the project staff visited three health facilities—Langbua PHCU, Olo PHCC, and Maridi Hospital. During the visits, the stores at the Olo PHCC and Maridi Hospital were re-arranged and expired medicines were documented, costed, and removed. SIAPS also worked closely with the integrated services delivery partner subcontractor Malteser International in Maridi County to discuss matters on pharmaceutical management. This has led to improved storage space and conditions in the facilities. Malteser is an implementing partner for the USAID ISDP project in Maridi County.

In Mundri West County, the project provided on-the-job-training on inventory tools management and stores re-arrangement and improvement at Gulu, Mbara, Karika, and Mandi PHCUs and Kotobi PHCC. During the visit, ISDP sub-contractors AAH-1 and the County Health Department CHD were notified of the supportive supervision.

In Mundri East County, SIAPS staff visited four health facilities—Mariba, Dosho PHCUs, and Mideh and Kediba PHCCs. and on the job training on inventory management and pharmaceutical management support similar to what was done in Mundri West County was provided. At the end of the visit, the ISDP agent Mundri Relief and development association was briefed on the outcome of the supervision.

SIAPS has trained 30 persons from various disciplines in Kajokeji County in CES as parts of efforts to strengthen pharmaceutical management and to introduce the implementation of the pull systems. Some of the training carried out included inventory management using the PMIS tools such as stock cards and registers and requisition vouchers. Participants were also trained on how to place orders from their respective counties and how to document the consumption of the medicines.

SIAPS facilitated pharmaceutical management training in CES for facility managers in various sub counties or payams in Juba County. The implementation of the pull system through using the PMIS tools was the focus of the training; 62 participants were trained, out of which 20 were females and the remaining 42 were males. Participants were taken through how to properly fill-out stock cards and dispensing registers including hands-on practice.

Constraints to progress

The review of the Pharmaceutical Training Manual has stalled because of the delay in MOH providing inputs.

Availability of PMIS tools in some facilities has affected the capacity building efforts by the project as personnel are not able to practice what they learn after training due to unavailability of the PMIS tools and other basic pharmaceutical management equipment like shelves, pallets, etc.

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

SIAPS provided the antimalarials stock status through the PPMRm data request by USAID by consolidating all procurements from partners and the MOH including pipeline data. The PPMRm helps partners to provide timely response to avoid stocks-out of antimalarials and generally helps to ensure that there is uninterrupted supply of antimalarials in the country. SIAPS collaborated with PSI and DELIVER to provide stock status reports at the central level which was fed into the report. Generally, antimalarials are available at the central level and new shipments under the EMF supplies are expected in the month of October 2013

SIAPS facilitated the National Pharmaceutical Technical Working Group Meeting—the meeting’s agenda was to discuss the operations of the Drug and Food Control Authority (DFCA); to provide updates on the roll-out of the National Logistics Management Unit (LMU); to devise strategies for revising the Essential Medicines List and Standard Treatment Guides for the MOH and Medicine Stock and supplies status. The meeting partners made inputs into the approaches and action plans. The MOH provided feedback on what the government was doing to avoid the imminent stock-outs of critical tracer and lifesaving products. The Director General also mentioned the need to update the list of tracer medicines to be captured in the LMU list of medicines to be reported.

SIAPS has recruited a data officer as part of implementing the LMU. County-level reporting data for selected counties have been analyzed and the tools for the analysis pretested to review data and reports from the counties.

SIAPS provided a mapping-out document to DELIVER on the state of all the 16 county stores. Supportive supervision reports indicating gaps and challenges in the pharmaceutical management systems at the counties and facilities were shared with the state MOH for actions to be taken. Lanyia and Tereka had stockpiles of infusions and the MOH is taking steps to return them to CMS for redistribution. In Lanyia, stock-outs of ACT were identified and steps have been taken to provide stock.

SIAPS facilitated the request for Mundri East for misoprostol resupply by providing information to UNFPA and Jhpiego to ensure that misoprostol is not out of stock in the facility. SIAPS reviewed the request information with the facility to ensure that the proper actual amount was requested and also obtained information on possible expiry of current stocks in October, 2013. SIAPS is presently working with Jhpiego to retrieve expired misoprostol and dispose of it according to guidelines.

Objective 4: Pharmaceutical sector governance strengthened

In collaboration with the MOH, SIAPS finalized the terms of reference for the prospective disease area specialists and generalist to be tasked with the development of STG. An action plan and review process was finalized. The program collected the various MOH disease specific guidelines and well as other reference materials for partners like WHO, MSF, and other country resources, to help in the review process. At the end of the coming quarter, a first draft of the top 10 disease treatment guides will be ready

SIAPS organized quality assurance/control meeting with the MOH and DFCA officials. The meeting was attended by top level MOH staff including the Secretary General of DFCA, Director General of Registration and Licensing at DFCA, and Director Generals of various directorates under DFCA. The agenda was to follow up on current situation of quality assurance work in the country. The need to improve the functionality of the Minilabs[®] at Kaya and CMS was discussed and corrective steps agreed on. SIAPS received draft inputs on potential areas support to the DFCA; in the coming year a critical area will be the need to support the provision of tools, SOPS, and TA for medicines registration and the procurement of a prefabricated office structure prefab for the Kaya minilab to ensure the uninterrupted work operations.

SIAPS has also allocated some furniture to the DFCA to start up a quality assurance office at the Juba airport as part of its plan to monitor medicines arriving through the airport. This will help to dramatically reduce medicines coming in without authorization and will facilitate quality control at the country's borders. SIAPS reviewed the existing check list for inspection of private pharmacy facilities and facilitated a meeting organized by the Department of Pharmaceutical Services at the State Ministry of Health SMoH in WES to discuss the inspection of private pharmaceutical and medical premises. This was as a result of the rapid expansion of private drug stores and influx of substandard medicines in the state.

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

SIAPS supported and participated in the National Malaria Indicator Survey Technical Committee meeting. Attendees included representatives from the Malaria Consortium, Population Services International, MoH departments, National Bureau of Statistics, WHO, and UNICEF. The meeting was held to review the final budget and explore options for covering the funding gap of about USD 200,000, discuss mechanisms for channeling of funds to ensure smooth and efficient implementation of the Management Information System (MIS), and identify urgent tasks in the MIS roadmap. Meeting members agreed to task the select committee on the budget to make yet another effort to review the detailed budget to further reduce the gap by considering using existing and available vehicles from government and partners where possible instead of vehicle hire, and reducing on rates and durations for allowances.

SIAPS reviewed the near final draft report of the 2012 South Sudan Malaria Program Review MPR and submitted the reviewed version together with recommendations for further action to the Consultant for the MPR with copies to the Program Manager NMCP.

SIAPS malaria technical advisor attended the East African Roll Back Malaria Network (EARN) Meeting in Khartoum, September 18–22, 2013; the Roll Back Malaria (RBM) initiative has several regional networks and South Sudan falls under the EARN region. The 2013 annual meeting was convened in Khartoum. SIAPS Malaria Advisor attended the meeting together with the Programme Manager and the M&E Officer from NMCP. WHO and Global Fund made presentations on recent achievements and strategies for the coming years. The meeting called on endemic countries to address weaknesses in performance, provide updated status reports of their RBM roadmaps, prepare for the new funding model of the Global Fund, and to develop Integrated Vector Management (IVM) strategies. The RBM/WHO pledged to provide full support for all technical assistance needs of countries as presented in the roadmaps. SIAPS and the NCMP Program Manager had satellite meeting with Global Fund Portfolio Manager (FPM) for South Sudan on bottlenecks to accessing in-country funds. The meeting members agreed that the programs had made significant progress on addressing recommendations for unblocking funding bottlenecks. The FPM promised to follow up with the Principal Recipient (PR) during the coming Global Fund mission to South Sudan to ensure better flow of funds. She also informed the meeting that the performance rating for the malaria grant in South Sudan has been upgraded in response to the performance improvements and actions taken to address bottlenecks.

SIAPS participated in a malaria quantification training organized by the SIAPS team from HQ to capacitate the South Sudan country office and major partners involved in malaria activities such as the NMCP and PSI. Participants were taken through the various methodologies of forecasting and some advantages and disadvantages with using the different methods. It was evident during the training that, lack of data has negative impact on producing accurate results and the need for tools such as stock cards and dispensing registers need to be available to capture logistics information. It is expected that building local capacity will be translated into further trainings at the state levels of WES and CES and to invite other partners in the other states to participate.

Constraints to progress

The M&E advisor position for SIAPS and the malaria program is yet to be finalized and this has created a gap in the program M&E function.

Swaziland

Goal: The goal of the SIAPS program in Swaziland is to assure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes.

Overall Quarter Progress

Significant progress has been made in strengthening the pharmaceutical systems in Swaziland during this reporting period. The challenges that remain relate to the inefficient organization of the different supply chain management functions. The supply chain technical working group which was established in the past year has proven to be a successful mechanism in bringing all stakeholders together in supporting the supply chain management system.

Further progress was made in moving the Pharmacy Bill & the Medicines and Related Substances Control Bill in parliament. The house of assembly has passed both bills with a majority of votes. This can be attributed in part to the active lobbying by the MOH to get these Bills passed. Due to the parliament being dissolved in preparation for the 2013 elections, the bills couldn't be passed by Senate house on time. The lobbying and advocacy continues so that when the new parliament is in session, they can consider these bills to be accelerated through the process towards enactment. SIAPS will use various platforms and opportunities to advocate for these Bills to be passed once the parliament is in session.

Capacity building is a key approach used in the implementation of the SIAPS project in Swaziland. In all interventions, SIAPS considers opportunities for capacity building or building skills of MOH counterparts in pharmaceutical systems strengthening. The old approach to capacity building which involves in-service training has proven to be a challenge to implement especially due to staff shortages at facilities providing HIV and TB services. In addition, pharmaceutical supply chain in most health facilities are the responsibility of clinic nurses whose primary responsibility is providing patient care. SIAPS works with the Clinical Mentoring and the Regional Health Administration Teams to provide mentorship of health workers on supply management and pharmaceutical services. This has been a successful intervention and the activity has received positive feedback from all stakeholders.

Logistics Management Information System (LMIS) has been another key area of focus in SIAPS work over this quarter. A lot of work has been done to ensure that the LMIS tools introduced in the past quarter are used effectively to gather the data required for decision making in supply chain. Technical assistance continues to be provided to the MOH unit responsible for logistics data management. The work seeks to ensure that quality data is collected from facilities to inform supply chain related decision. This data has been used to inform supply planning and forecasting of ARVs, TB and reproductive health commodities. The forecasted quantities for ARVs and reproductive health commodities have reduced significantly due to the use of quality logistics data. Also, the stock holding for condoms and the distribution to facilities has improved as a result of the active forecasting process.

Objective 1: Strengthen Governance in the Pharmaceutical Sector

Following workshops held to educate legislators on the contents, importance, and implications of the Pharmacy Bill and the Medicines and Related Substances Control Bill, lobbying activities were intensified. Both bills were discussed and passed by the House of Assembly in July 2013.

At the joint Interpol-MOH operation on combating pharmaceutical crimes training workshop, participants were introduced to the two bills and how they would impact the legislative environment in Swaziland. There were 60 participants comprised of representatives from the Swaziland Revenue Authority, Royal Swaziland Police, Anti-Corruption Commission, Interpol-Swaziland and the Ministry of Commerce, Industry and Trade.

The Medicine Regulatory Authority (MRA) implementation plan was finalized after consultations with WHO Country Office and the Ministry of Health Senior Management. This included approval of an interim MRA organizational structure composed of focal persons for licensing, registration, pharmacovigilance and legal affairs by the MOH senior management. A scope of work (SOW) was finalized for technical assistance (TA) provider/consultant to align the Pharmacy Bill and Medicines and Related Substances Control Bill Regulations with the provisions in the bills. The next step is to identify the possible TA provider or consultant.

The dissemination meeting for the Swaziland Pharmaceutical Strategic Plan 2012 – 2016 (SPSP) was postponed by the MOH and is currently awaiting further direction from the MOH or the new Cabinet that will be appointed.

The Pharmaceutical Services Baseline Survey report was presented to the MOH senior management and relevant stakeholders for approval. The baseline survey report was endorsed for use in the monitoring and evaluation of the SPSP implementation.

SIAPS/Namibia contributed in the development of an implementation plan for the Pharmadex. The plan includes the engagement of a consultant to setup Pharmadex and design an excel register of all medicines marketed in Swaziland. A data entry officer was been engaged to support the compilation of the list of medicines.

The SPSP implementation monitoring matrix was developed to track the progress of the implementation of the SPSP activities. The SPSP activities relating to the Supply Chain TWG were extracted and presented to the group to guide interventions.

Constraints to progress

The parliament was dissolved in preparation for elections. This led to the Pharmacy Bill and the Medicines and Related Substances Control bill not passed through to the Senate. The enactment of the bills will be further delayed until the new parliament and cabinet are appointed and the country's legislative organs are fully operational.

Also because of upcoming elections of new parliamentarians, the Minister for Health delayed the launch of the SPSP.

Objective 2: Strengthen pharmaceutical supply management and services

SIAPS continues to support the pharmacy department at the Southern Africa Nazarene University (SANU). Since this quarter coincided with the beginning of the university's academic calendar, a new group of students was registered into the first year of the pharmacy certificate program. There are currently 21 students who have been enrolled of the 30 who were offered places in 2013. The 2012 cohort of students has 20 students in second year who will graduate in 2014 with a certificate in pharmacy. These students are going to play an important role in the pharmaceutical services and supply management at clinics and health centers in the country. SIAPS is continuing to work with the university to finalize the diploma in pharmacy curriculum with a planned first intake in 2014.

SIAPS conducted supportive supervisory visits to 29 facilities in the Hhohho region. The visits were done jointly with the Ministry of Health's Central Medical Stores (CMS), Strategic Information Department (SID), and the clinic supervisors from the Hhohho RHMT and Nazarene clinics. One hospital, 2 public health units, 2 health centers, and 24 clinics were visited during the exercise. On-site mentorship was provided to staff on medicine supply chain management, good dispensing practices, and reporting and ordering of medicines. SIAPS also worked with the National Health Laboratory to conduct supportive visits to 16 laboratories focusing on supply management; these visits were part of the scheduled annual laboratory visits. There was noticeable improvement in stock management and storage condition at laboratories. This is exciting considering that most laboratories do not have dedicated personnel for supply chain and storage spaces are inadequate for the required laboratory stock.

Support was provided in supply planning for HIV, laboratory and Sexual and Reproductive Health (SRH) commodities. For HIV commodities, using the available current data, the total cost of three quarters (April–June, July–September, and October–December 2013) has been decreased by SZL 4,192,778.08 (\$ 399,312.19) or 4.22 percent. For SRH commodities, the total cost has been reduced by SZL 6,962,172.92 or 85.2 percent. This reduction is mainly because of the shipment of 10 million condoms coming through Global Fund and no requirement of buying more male condoms considering the current consumption rate.

SIAPS continues to provide technical assistance to the MOH Procurement Unit on improving the commodity procurement systems in the Ministry of Health. During this reporting period, SIAPS has supported the procurement unit in finalizing the laboratory supplies tender which was not awarded in the previous reporting period. The delay in finalizing this tender has further affected availability of certain laboratory commodities in the country. SIAPS has also assisted in the recruitment process of two additional senior procurement officers, funded by Global Fund. Additionally, SIAPS worked with the National Clinical Laboratory Service (NCLS) to standardize laboratory equipment and supplies. In this reporting period, activities were focusing on getting the NCLS to finalize the draft guidelines developed in Q3. Support was provided in planning for the replacement of chemistry diagnostic equipment that has been deemed obsolete.

Constraints to progress

The shortage of personnel at facilities and also the regular staff movement/rotation tends to weaken the impact of the capacity building interventions. SIAPS is working closely with the MOH/PEPFAR partner-led Clinical Mentoring Team at regional level but because of the shortage of internal staff, it is difficult to reach as many facilities as would be required for maximum impact.

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

Using data for decision making has been improving in the country's supply chain management system. Over this quarter, reporting rates on logistics management information systems (LMIS) that concern consumption data from facilities have increased greatly. The LMIS is used in the following programs: National AIDS Program (SNAP), Sexual Reproductive Health Unit (SRHU), and National Tuberculosis Control Program (NTP). There has been an interest from other programs such as the National Malaria Program to have technical assistance in implementing the LMIS for their commodities. The information collected in the LMIS is used mainly to determine resupply quantities to the facilities and at national level, the same information is used for forecasting and supply planning. The Data Management Unit in the Central Medical Store is tasked with collecting all LMIS reports and analyzing them to inform supply management decisions.

Use of bin cards for stock management has improved, especially at facilities that are using manual inventory management system. The facilities that SIAPS visited during the quarter have improved stock recording on the bin cards which improves stock availability, with only a few facilities having excess stock or less than one month stock of key items. Of the 29 facilities visited in Hhohho region, 86 percent had updated stock cards for the essential products.

In this quarter, SIAPS conducted one-day training for data entry clerks from the ART treatment sites in the country. This training was mainly a refresher for all users of the RxSolution/ART Patient Management Record (APMR) software. The participants were from health facilities including the team from the Strategic Information Department (SID). It was important for the SID team to participate as they are responsible for providing troubleshooting support to all facilities using the electronic tools. Ongoing support is provided to the central warehouses such as the Central Medical Store and the National Laboratory Warehouse. These warehouses use RxSolution for stock management.

The project to upgrade the APMR software is underway under a sub-contract with IHM and has a revised end date of March 2014. SIAPS is working closely with the SID management to provide oversight and guidance to this project. The project has also been included in the country's Health Management Information Systems (HMIS) Review operational plan. This is a strategic activity for the MOH and PEPFAR as part of improving health information systems in the country.

SIAPS is continuing to advocate for the implementation of the commodity tracking system, a web-based portal to be used as a platform to record and share logistics information. A workshop

was conducted with the SID and MOH team to jointly review the progress made and develop an action plan for the implementation. The system has received positive review from all stakeholders with a few adjustments required to enable it to function optimally in the country logistics information management platform.

Constraints to progress

Delay in obtaining the extension of the IHM sub-contract after it expired in June. MOH has a range of HMIS activities and the staff is spread too thin between the different functions —this means some activities tend to be left without a lead in the MOH. This has been a challenge with the commodity tracking system. Over the past months, SIAPS has been struggling to move because the MOH was not available to address some implementation concerns that have emerged over the course of developing the tool.

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

SIAPS supports the MOH in improving the warehouse management system for medicines and medical supplies including laboratory commodities. This activity is a priority area of interest for the Global Fund and a condition to various disbursements of grant monies over the past year. SIAPS has actively played a key role in advising the MOH on options to better manage the supply chain system to improve efficiencies and effectiveness. An organizational structure was proposed for the national supply management system, which was later approved by the Ministry of Public Services. The MOH has been assisted in the recruitment of an Assistant Director to who will be responsible for all the supply chain components in the MOH.

MOH has also expressed interest in exploring alternative management structures of the CMS. SIAPS is working with its partner, Imperial Health Sciences (IHS), to inform the process and advice on an appropriate mechanism to conduct an options analysis.

Technical assistance has been provided in the relocation of the ARV and medical supplies leased warehouses to a single space. The assistance included re-organizing the space allocation for the different products and also an efficient flow through the warehouse. RxSolution was re-installed in the new warehouse and is now used for all commodities in this warehouse. Discussions are underway with IHS to also advise on the implementation of good warehouse management practices at the new warehouse.

Constraints to progress

Recruitment processes between the MOH and the Ministry of Public Service's Corporate Services Commission have led to delays in the appointment of the Assistant Director.

Objective 5: Improve pharmaceutical services to achieve desired health outcomes

To ensure the appropriate and rational medicines use, SIAPS continues to disseminate and orient health care workers on the Standard Treatment Guidelines and Essential Medicines List

(STG/EML). Use of these documents will ultimately standardize care, improve selection, and use of selected medicines. At the invitation of the Chief Nursing Officer, SIAPS participated in the monthly National Nurse Managers' meeting and shared a presentation on the use of the STG/EML. The meeting was attended by Matrons and clinic supervisors from government and mission health facilities, a Faculty of Nursing Sciences lecturer; the Chief and Deputy Chief Nursing Officers, Regional and Hospital Matrons, clinic supervisors, and the Essential Health Care package (EHCP) national coordinator. The STG/EML is one of the key documents in for implementing the EHCP.

In Q4, SIAPS developed draft terms of references for the National Essential Medicines List Committee. This committee is intended to play a leadership role in the management and monitoring of the implementation of the Standard Treatment Guidelines and Essential Medicines List in the Kingdom of Swaziland. SIAPS is also engaging with local partners such as ICAP in activities aimed at improving the management of non-communicable diseases (NCD).

Development of a sustainable active surveillance system for HIV/TB program will go a long way in complementing the spontaneous reporting of adverse drug reactions. This system will provide local data on medicine safety and generate safety signals for medicines used by HIV and TB patients. In this reporting period, SIAPS supported the pharmacovigilance unit to conduct site supportive visits to the 6 pilot sites of the active surveillance project. At the time of the visits, Good Shepherd Hospital (GSH) had 90 patients, MSF had 20 patients, and Hlathikulu had 12 patients. Follow-up on trainings and meetings were held with Raleigh Fitkin Memorial (RFM) Hospital, Mbabane Government Hospital, and National TB Hospital. Recruitment of patients began in the three facilities in July and by the end of September, the facilities had recruited the following total number of patients; GSH—210, Hlathikulu—66, Mbabane —165, MSF Matsapha—156, and Raleigh Fitkin Memorial—160.

TB Hospital has not started recruiting patients into the project. Analysis of the data is underway with a preliminary report scheduled to be released in November 2013.

Adherence monitoring for TB patients is done on a monthly basis and will always be reported every quarter. Scores on adherence are calculated and shared with the National TB Program DOTS coordinator. In addition to this, reasons for non-adherence are recorded and patients can be traced and followed up to ensure they are retained on TB treatment. In this quarter, reports for the months of July and August were received and analyzed and the average adherence rates for the two months were 92 percent and 93 percent respectively.

SIAPS continues to work with MOH and other partners in reviewing the national HIV treatment guidelines to allow updating the guidelines with the latest evidence and recommendations from the WHO released in June. SIAPS contributes on issues of supply management, adherence monitoring, and medicines safety.

Constraints to progress

Tools for the active pharmacovigilance activities still needed fixing. Sentinel Site Based Active Surveillance for ART and Anti-TB medicines (SSASSA) tool from some sites could not generate XML report files. This delayed generation of a newsletter and a medicine safety report.

Turkmenistan/Uzbekistan

Goal: The primary goal of the project is to strengthen the Tuberculosis control system of Uzbekistan and Turkmenistan by improving information systems to address the threat of MDR-TB.

Overall Quarter Progress

The Year 3 work plan for the Central Asia (Uzbekistan, Turkmenistan, and Tajikistan) was developed and submitted to USAID mission in Central Asia. Technical assistance mission by SIAPS staff on strengthening capacity of the Central Unit of the NTP was conducted and resulted in assessment of the current stocks of anti-TB drugs, quantification of ethambutol for accelerated order from GDF, and response to the GDF's conditions for Term 2 Year 2 pediatric grant.

SIAPS is working jointly with WHO and the Ministry of Health/NTP in Uzbekistan and Turkmenistan on resuming the e-TB Manager implementation activities in Uzbekistan and starting piloting of the system in two provinces of Turkmenistan.

Objective 1: Strengthen the National TB Program of Uzbekistan through improving the TB management information system countrywide

SIAPS continues to coordinate with WHO/Europe and the Ministry of Health (MOH) in Uzbekistan to move forward with e-TB Manager implementation. SIAPS staff traveled to Uzbekistan to follow up on e-TB Manager as there was no feedback from the MOH since WHO and SIAPS submitted the required documentation on e-TB Manager in May 2013 and implementation is still suspended. There were several meetings conducted with WHO country office including: National Tuberculosis Program (NTP), MOH, and the DOTS center - PR of the Global Fund. There were two meetings with the officials from the MOH that included Alisher Ishanov, Health Project Management Specialist at the USAID country office in Uzbekistan and Ogtay Gozalov and Jamshid Gadoev, WHO country office staff members. USAID, SIAPS, and WHO expressed concerns to the MOH regarding the low level of collaboration from MOH side to solve the problem and allow the implementation of e-TB Manager as it is written in several governmental documents, including National TB Program and countries proposal to the Global Fund. The outcome was the following—to solve the problem, MOH suggested submitting the documents again officially through the Ministry of Foreign Affairs and Ministry of Health, and they will do their best to facilitate approval of the system according to the legislation of Uzbekistan at the earliest opportunity.

Partner contributions

WHO is the major partner in the country that works directly with the NTP and MOH. WHO country office is very collaborative and all activities related to attempting resolving issues with implementation of e-TB Manager are conducted in coordination between SIAPS and WHO.

Constraints to Progress

The main challenge for objective 1 remains the same as in previous quarter because: implementation of e-TB Manager in Uzbekistan is still suspended. SIAPS will continue working with USAID and WHO country offices to adapt the technical documentation and submit them to MoFA and MoH.

Objective 2: Strengthen the National TB Program of Turkmenistan through provision of technical assistance for improving the TB management information system

In Turkmenistan, the SIAPS Team has been working with WHO and MOH TB counterparts to move forward the e-TB Manager pilot in the Ashgabat and Mary Regions, which was agreed upon by all parties. During this quarter, WHO increased its negotiations with the NTP and MOH on the timing for the initiation of the pilot. MOH identified a working group for implementing e-TB Manager. NTP also identified two persons who should be trained and they will be main counterparts to work on e-TB Manager in Ashgabat and Mary oblast. WHO is in the process of procuring of IT equipment, including a server, for e-TB Manager. The major constraint is the technical difficulty of implementing the online e-TBM version taking into consideration the internet connection problems in the country and possible barriers that the MOH (or other governmental entities) could create because of local regulations, which could lead to the situation similar to Uzbekistan. The team is discussing whether it is feasible to implement a local offline version of eTB Manager (the newest MSH tool that is being developed), which would be more suitable for the country and will eliminate risks related to regulation of web-based information systems. The next steps are to decide which version of e-TBM is more feasible to implement in the country and conduct a training of trainers for people who will be responsible for data entry.

Partner contributions

WHO Turkmenistan continues to push for the e-TBM pilot implementation in Ashgabat and Mary. They are in the process of procuring of IT equipment for e-TB Manager in Turkmenistan.

Constraints to progress

The main challenge for objective 2 encountered this quarter was the inability to go and conduct an e-TBM training for the data entry specialists. The visit had to be cancelled because WHO was unable to get an MOH approval of the mission three weeks in advance. The typical time for approval should be no less than two months.

Objective 3: Capacity for PM Increased and Enhanced

SIAPS staff traveled to Tajikistan in July 2013. One of the purposes of the trip was providing technical assistance to Tajikistan's NTP. Technical assistance included—

- To develop response to conditions set by GDF for approval of Term 2 Year 2 pediatric grant
- To assess the current stock of anti-TB drugs and quantify ethambutol for accelerated order as its stock was low. Project Hope, the principle recipient of the Global Fund RCC,

has ordered ethambutol from GDF based on the quantification provided by SIAPS, so there will not be a stock-out.

SIAPS staff worked together with Gulnora Jalilova, drug manager of Tajikistan NTP, and provided on job training on above issues. Also, SIAPS staff took part in the meeting of drug management working group hosted by NTP, where these issues and others were presented and discussed.

The team continues to be in touch with the NTP of Tajikistan, particularly with the NTP manager and drug manager to respond to their different questions and queries.

Partner contributions

NTP of Tajikistan collaborated in providing technical assistance. No major problems were detected.

Ukraine

Goal: Through a health systems strengthening approach, build local capacity and develop strategic partnerships to achieve the program goal of improving access to, use of and accountability for life-saving medicines and health commodities of assured quality to support priority health services in Ukraine to achieve desired health outcomes.

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

During this reporting period, SIAPS, working together with counterparts from the Ukrainian Center for Disease Control (UCDC), made progress in scaling up e-TB Manager to support clinical, logistical, and other program decision making for the National TB Program. As of September 2013, the total number of TB cases entered into the e-TB Manager reached 81,000 cases. Additionally, SIAPS started working intensively with three oblasts to enhance data quality and fine-tune guidance for countrywide scale up.

UCDC and SIAPS clarified the ToT approach that will be used to enhance oblast level capacity to implement and support the e-TB Manager. SIAPS conducted two ToT trainings in August and September, as agreed with the UCDC and USAID. SIAPS trained 31 participants representing national- and regional-level TB facilities and ToT participants trained an additional 93 persons in five oblasts.

In collaboration with partners, SIAPS refined the e-TB Manager medicine management module to allow national-level data entry and the UCDC formally approved enhanced instructions for data entry. The module is being used at the national level and UCDC staff started entering data from the TB National Warehouse with SIAPS support.

Work with counterparts at national and oblast levels indicated that there was not a common understanding of how to enter MDR-TB case management data into e-TB Manager. Through the e-TB Manager working group, partners developed instructions in accordance with the requirements of the new Unified National TB Guidelines. UCDC approved the document, enabling a standardized approach for using the MDR-TB case management functions.

UCDC, with SIAPS support, focused on improving the quality of data entered to the e-TB Manager. Three oblasts were selected to pilot automatic report generation and cross-check of the manual and e-TB Manager entered data. SIAPS worked intensively with three oblasts to identify and resolve data quality issues to obtain concurrence between manual and automatically generated reports. Comparison of the data and exception reports indicate that the most frequent cause of inconsistency is incomplete or inaccurate data entered into e-TB Manager by users. When the SIAPS team worked with Odessa oblast on further data quality analysis and data cleaning for selected rayons, the manually and automatically calculated reports were in sync. SIAPS will continue to work with Odessa, Kyivska, and Khersonska oblasts to further cross-check data and summarize the experiences to scale-up data quality improvement in other regions.

SIAPS contributed to the working group on developing an HIV patient electronic registry under

the CDC-funded ACCESS project. During this period, two working group meetings were focused on developing a document for an HIV patient electronic MIS/registry. SIAPS shared some of the lessons learned with the working group, based on experience with the e-TB Manager.

In coordination with the State Expert Center of the MoH of Ukraine, SIAPS is supporting automation of TB adverse drug reaction (ADR) and lack of efficacy reporting and analysis. Initially, the intention was to gather information through e-TB Manager on ADRs and lack of efficacy. However, the concept was expanded to allow data collection via the State Expert Center's website and analysis of the data within a new computer program. This approach will result in a more sustainable system, and has the potential for allowing data collection for additional categories of medicines. SIAPS and the State Expert Center clarified the technical details and SIAPS announced a tender in September for developing the information system.

Partner contributions

- UCDC TB staff provided instructions or other documents that are required to support oblasts and to ensure their implementation and use of the e-TB Manager. UCDC staff are engaged in initiating data entry for TB medicines at the national level.
- UCDC facilitated participation of oblast staff in the e-TB Manager Training of Trainers in August and September 2013. In addition, UCDC staff also participated in the first training.
- The State Expert Center worked closely with SIAPS to develop and approve the terms of reference for the automated system for ADR and lack of efficacy reporting. The State Expert Center is enthusiastically pushing the activity forward in accordance with an accelerated timeline.

Constraints to progress

SIAPS continued to work with the UCDC e-TB Manager working group. However, UCDC staff time was limited due to the anticipated transfer of the Global Fund Round 9 grant for TB to the UCDC, and the number of meetings was reduced. Since the signing of the grant, it was agreed that the meetings would resume on the agreed upon schedule.

There is a substantial difference in the level and completeness of data entered into the e-TB Manager. An analysis of the data in one oblast, as of the end of this quarter, showed that approximately 20 percent of the data in one oblast are sufficiently complete and accurate to produce accurate reports; another 60 percent are about 90 percent complete, and the balance require additional attention. SIAPS is actively working with UCDC and representatives of regional TB facilities to target and address this issue.

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

SIAPS provided support to the UCDC to strengthen monitoring and supervision activities. The UCDC recruited additional staff, and appointed staff persons responsible for managing four

regions of Ukraine. These staff planned and conducted monitoring visits in September to five oblasts (Kyivs'ka, Chernihivs'ka, Ivano-Frankivs'ka, Rivnens'ka, and Zakarpats'ka). SIAPS also assisted in completing the analysis of supply chain management data provided by oblast TB and HIV facilities. The primary focus was on selection of key indicators and a monitoring checklist, which will be used by oblast and national personnel for monitoring performance improvement in pharmaceutical management.

Monitoring and supervision teams were organized to include specialists for monitoring program management, TB patient detection and outpatient treatment, diagnostic and inpatient treatment (various levels of TB health and laboratory facilities), case registration and accounting, the e-TB Manager national TB register, infection control, and medicines management. SIAPS participated in visits to Kyivska and Rivnenska oblasts to provide supportive supervision in medicines management and storage and dispensing in inpatient and outpatient settings. Storage facilities and stock management were reviewed by SIAPS specialists who provided recommendations to improve storage conditions, accounting and reporting of TB medicines, and the stock management system. SIAPS specialists along with personnel who took part in the SIAPS ToT trainings provided support on medicines management in a one-day e-TB Manager training for local rayon-level staff.

The medicines storage conditions were identified as a key problem by the UCDC/SIAPS team during several monitoring visits. SIAPS met with representatives from the State Administration of Ukraine for Medicinal Products (SAUMP), as the state agency responsible for the quality of medicines, to discuss the current state of storage conditions of TB and HIV medicines at the oblast level and equipment needed to maintain proper conditions during storage and transportation. SAUMP expressed its view that investing in equipment for existing oblast facilities is not the most effective way to solve storage issues. Instead, SAUMP proposed that SIAPS to evaluate the effectiveness of existing supply chain model and compare with alternative models. The next step for SIAPS would be to define the approach to address storage concern issue with relevant stakeholders and agree on next steps.

Prior to developing SOPs for supply chain management, SIAPS began mapping the existing supply chain of TB and HIV medicines in Ukraine. Some of this data was captured as part of monitoring visits arranged with UCDC, and will be filled in during discussions with counterparts and/or additional visits. The mapping will help identify processes that need to be addressed with SOPs in the near future, as well as existing supply chain gaps, which need to be addressed with relevant stakeholders.

Partner contributions

UCDC is taking an active role in conducting monitoring and supervision visits to TB facilities, using a team of key specialists. Medicines management supportive supervision was also provided as part of these visits in close cooperation with UCDC.

Constraints to progress

SAUMP currently conducts regular inspections of facilities, although it is not clear that written

reports capture information of interest. SIAPS will seek to determine if this information can be captured effectively and shared in summary form with sites and other key stakeholders.

Objective 3: Enhance organizational and human resource capacity for pharmaceutical management

According to its plan of activities, UCDC will conduct monitoring and supportive supervision visits to each oblast at least once a year. The UCDC currently has only one specialist with a pharmaceutical management background who likely will not be able to participate in all monitoring and supervision visits. To better support UCDC's monitoring and supervision function, SIAPS proposed providing medicines management training for all members of the UCDC monitoring and evaluation team in the next quarter. This activity also supports Objective 2, enhancing organizational and human resource capacity.

SIAPS received a request from the UCDC to assist in developing UCDC's pharmaceutical management capacity. Although the UCDC was approved as Principal Recipient for the Global Fund Round 9 grant, the UCDC will not undertake procurement independently. Therefore, SIAPS staff provided assistance to the UCDC and MOH to identify best practices in pharmaceutical management for TB and HIV/AIDS programs. UCDC also solicited inputs from other government agencies and partners to include descriptions of TB and HIV and AIDS supply chain management current practices, key problems, and potential means of addressing them.

The second national HIV and AIDS conference, entitled "For Every Life-Together", is planned for October 24–26, 2013, in Kyiv. SIAPS joined the organizing committee and is developing a session of pharmaceutical management in collaboration with the State Expert Center. SIAPS's abstract "Modern approaches to ARVs quantification" was approved and SIAPS will also facilitate the pharmaceutical management session, together with a State Expert Center counterpart.

In addition, SIAPS participated in preparations for the third scientific-practical conference, entitled, "Medicines safety and their regulatory support: from development to health care use." SIAPS personnel prepared pharmacovigilance abstracts and presentations for the conference, which will take place October 23–24, 2013.

Partner contributions

The draft concept for pharmaceutical management of TB and HIV and AIDS programs was developed in close cooperation with the SEC and the UCDC. The UCDC PSM Manager took the lead in coordinating contributions from SIAPS and other partners.

The State Expert Center took the lead, with support from SIAPS, in developing the format and content of the session on pharmaceutical management for the Second National HIV and AIDS Conference.

Objective 4: Improve pharmaceutical services for the TB and HIV and AIDS Programs

At the beginning of the quarter, SIAPS conducted a series of meetings with our principal counterpart on pharmacovigilance, the State Expert Center, to work on finalizing of the active pharmacovigilance protocol. At the first constituent meeting of SIAPS and SEC pharmacovigilance specialists, the steering committee was established as well as the project group, which will deal with adapting the DCAT and SASSA information system to the health care system of Ukraine.

SIAPS also developed a short concept paper on how pharmacovigilance audits might be conducted in health care and manufacturing facilities. The paper identifies potential approaches and tools that could be used for this purpose, and will be the basis for discussion with the State Expert Center to select the relevant approach.

Partner contributions

The SEC took an active role in all aspects of the development of the terms of reference for the automated system, approved the final version and enthusiastically pushed activities forward.

Constraints to progress

The primary focus of pharmacovigilance activities with the State Expert Center was on clarifying the scope of the automated system for collection and analysis of ADR data. The plan for adapting the DCAT and SASSA information system will be the focus of next steps.

Following the December 2012 stakeholder meeting, and as agreed with the SEC, the initial plan was to support the development and implementation of an information system for gathering pharmacovigilance information collection via e-TB Manager. However, in the course of clarifying needs and expectations, the project team came to the conclusion that what was actually needed was expanded functionalities that would allow for not only ADR data collection, but also provide the basis for data collection and analysis for other medicines categories. To ensure that the outcome of this activity was clearly defined and understood by all parties, the discussion of the terms of reference took longer than anticipated, but resulted in a clear articulation of the work to be bid out in an RFP and a plan that will better serve future State Expert Center pharmacovigilance efforts.

Objective 5: Improve pharmaceutical management governance

SIAPS continued to provide technical assistance to the MOH and the State Expert Center as a member of the MOH working group on national pharmacovigilance guidelines adaptation for Ukraine. The guidelines are applicable to national health care system at large, so the technical support for their adaptation strengthens not only medicines safety for TB and HIV medicines, but the health care system as a whole. Three modules have already been adapted, and the first has been submitted for public review, as the first step in the approval process. The working group is continuing the adaptation of the remaining modules.

In the previous quarter, the Global Fund requested that the UCDC perform a comparative analysis of the existing country situation against Procurement and Supply Management (PSM) recommendations provided by global experts. During this quarter, SIAPS supported the UCDC by collecting and reviewing information and recommendations from PSM evaluations since 2006, and reviewing them for their status, as “completed”, “no longer relevant”, or “requiring further action”. This review was completed in Ukrainian and English, and submitted to the UCDC for their further review. It is anticipated that this information will be used to develop a strategy for improve the PSM system in Ukraine for TB and HIV.

As Principal Recipient for the Global Fund Round 9 grant, the UCDC must meet the requirement of developing or refining standardized procedures for managing second-line TB medicines. SIAPS found a gap between the use of SOPs and MOH orders at regional level, and will provide technical assistance in the development of SOPs. Before commencing, however, it was agreed that SIAPS will develop a detailed mapping of the processes in PSM so that gaps or inconsistencies can be identified.

Partner contributions

The State Expert Center is leading the adaptation of the pharmacovigilance guidelines, providing a venue and its support for development of a transparent process that is consistent with European guidelines. It also sponsored the working group on pharmacovigilance, a step which provides official recognition of the importance of the work.

Constraints to progress

MOH expected that the working group draft pharmacovigilance guidelines by November 2013. However, since the national guidelines are based on the guidelines from the EU (including 16 modules) their development will not be a speedy process. The working group will need to work with the MOH to revise the timeline.

Global Fund negotiations with the UCDC were longer than anticipated, but SIAPS is coordinating its activities with the UCDC and Global Fund to provide the technical assistance needed for capacity development in supply chain management at national level, and for addressing the needs at national and local levels.

FINANCIAL INFORMATION

Systems for Improved Access to Pharmaceutical Services Fiscal Data: September 23, 2011–September 30, 2012 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 at the end of the reporting period was US\$64,410,049.

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, Child Survival, and Reproductive Health], HIV/AIDS, Tuberculosis (TB), and Malaria.

The Fiscal Data chart shows the Year 2 obligations, cumulative funds obligated, quarter four (July to September 2013) expenditures, in addition to the cumulative to-date (September 23, 2011 to September 3, 2013) expenditures of US \$60,809,674 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 September 20, 2013, SIAPS had generated US \$5,428,932.07 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: July–September 2013**

Funding Source	Funding Type	Grand Total Funded	Q4 Expenditures Jul - Sep 2013	Grand Total Spent	Grand Total Remaining
Core Funding:					
Directed	Malaria	500,000	19,885	423,655	76,345
	MCH	2,400,000	315,953	1,923,850	476,150
	TB	5,700,000	704,796	4,769,535	930,465
Common Agenda	MCH,NUT,TB	1,744,609	185,984	802,108	942,501
OHA Core Funding Directed	HIV/AIDS	300,000	3,402	4,212	295,788
USFDA	USFDA	800,000	25,052	773,383	26,617
Core Total		11,444,609	1,255,071	8,696,743	2,747,866
Angola	FPRH	600,000	128,129	564,579	35,421
	PEPFAR	1,020,000	137,489	449,722	570,278
	PMI	1,200,000	77,496	816,108	383,892
Angola Total		2,820,000	343,115	1,830,409	989,591
Bangladesh	FPRH	3,400,000	446,180	2,434,271	965,729
	MCH/CSMH	1,700,000	240,350	1,386,798	313,202
	TB	2,300,000	203,655	1,026,277	1,273,723
Bangladesh Total		7,400,000	890,185	4,847,347	2,552,653
Brazil	TB	2,100,000	(1,164)	2,078,488	21,512
Brazil Total		2,100,000	(1,164)	2,078,488	21,512
Burundi	Malaria	2,280,000	236,318	1,730,344	549,656
Burundi Total		2,280,000	236,318	1,730,344	549,656
Cameroon	PEPFAR	2,299,999	475,227	1,813,838	486,161
Cameroon Total		2,299,999	475,227	1,813,838	486,161
Dominican Republic	TB	197,000	(482)	244,668	(47,668)
	PEPFAR	753,000	139,213	622,330	130,670
Dominican Republic Total		950,000	138,731	866,998	83,003
DRC (Dem Rep of Congo)	FPRH	400,000	58,773	443,971	(43,971)
	MCH/CSMH	600,000	53,496	358,982	241,018
	PEPFAR	1,043,398	(53,485)	1,051,620	(8,222)
	PMI	1,450,000	304,312	1,367,010	82,990
	TB	950,000	347,890	848,942	101,058
DRC (Dem Rep of Congo) Total		4,443,398	710,985	4,070,525	372,873
Ethiopia	PEPFAR	5,500,000	584,265	5,029,613	470,387
	PMI	1,700,000	170,732	1,244,507	455,493
Ethiopia Total		7,200,000	754,997	6,274,119	925,881
Guinea	PMI	1,380,000	219,868	1,489,189	(109,189)
Guinea Total		1,380,000	219,868	1,489,189	(109,189)
Haiti	PEPFAR	154,178	2,848	159,910	(5,732)
Haiti Total		154,178	2,848	159,910	(5,732)
Jordan	MCH/CSMH	200,000	-	217,712	(17,712)
Jordan Total		200,000	-	217,712	(17,712)
LAC RSD	TB	90,000	-	86,701	3,299
	Malaria	1,550,000	165,852	1,377,771	172,229
LAC RSD Total		1,640,000	165,852	1,464,472	175,528
Lesotho	PEPFAR	1,980,000	332,293	1,647,342	332,658
Lesotho Total		1,980,000	332,293	1,647,342	332,658
Liberia	PMI	1,028,000	131,470	946,388	81,612
Liberia Total		1,028,000	131,470	946,388	81,612

* Forward funding authorization received January 12, 2012.

** Forward funding authorization received October 25, 2012.

*** Forward funding authorization received January 13, 2012.

SIAPS Quarterly Report: Year 2 Quarter 4

Mali	FPRH	998,940	53,523	298,637	700,303
	MCH/CSMH	2,029,458	173,220	552,267	1,477,191
	PMI	999,999	64,703	950,784	49,215
Mali Total		4,028,397	291,446	1,801,688	2,226,709
Mozambique	PEPFAR	1,700,000	194,763	1,417,679	282,321
Mozambique Total		1,700,000	194,763	1,417,679	282,321
Namibia	PEPFAR	5,892,519	464,543	4,075,324	1,817,195
Namibia Total		5,892,519	464,543	4,075,324	1,817,195
Philippines	TB	1,500,000	265,367	875,401	624,599
Philippines Total		1,500,000	265,367	875,401	624,599
Rwanda	FPRH	150,000	(702)	183,461	(33,461)
	MCH/CSMH	150,000	(1,448)	98,197	51,803
	PEPFAR	544,405	(2,218)	474,546	69,859
	PMI	220,000	(1,536)	249,700	(29,700)
Rwanda Total		1,064,405	(5,905)	1,005,904	58,501
South Africa, Republic Of	PEPFAR	8,078,848	1,268,705	6,338,444	1,740,404
	TB	1,085,504	33,447	476,195	609,309
South Africa, Republic Of Total		9,164,352	1,302,153	6,814,640	2,349,712
Southern Sudan	FPRH	400,000	12,014	80,321	319,679
	Malaria	1,350,000	185,543	1,035,789	314,211
	MCH/CSMH	2,483,730	113,495	1,582,654	901,076
Sudan Total		4,233,730	311,053	2,698,763	1,534,967
Swaziland	PEPFAR	2,818,100	302,601	2,311,790	506,310
Swaziland Total		2,818,100	302,601	2,311,790	506,310
Tajikistan	TB	428,918	15,082	51,868	377,050
Tajikistan Total		428,918	15,082	51,868	377,050
Turkmenistan	TB	89,900	3,324	15,000	74,900
Turkmenistan Total		89,900	3,324	15,000	74,900
Ukraine	HIV	2,850,330	224,903	1,225,616	1,624,714
Ukraine Total		2,850,330	224,903	1,225,616	1,624,714
Uzbekistan	TB	819,600	10,851	56,304	763,296
Uzbekistan Total		819,600	10,851	56,304	763,296
Vietnam	PEPFAR	192,903	-	191,681	1,222
Vietnam Total		192,903	-	191,681	1,222
West Africa Regional	HIV/AIDS	599,999	85	85	599,914
West Africa Regional Total		599,999	85	85	599,914
Subtotal		71,258,728	7,780,990	51,978,824	19,279,904
ACF Surplus/Deficit			212,862	(134,107)	(134,107)
Grand Total		82,703,337	8,823,199	60,809,674	21,893,663

* Forward funding authorization received January 12, 2012.

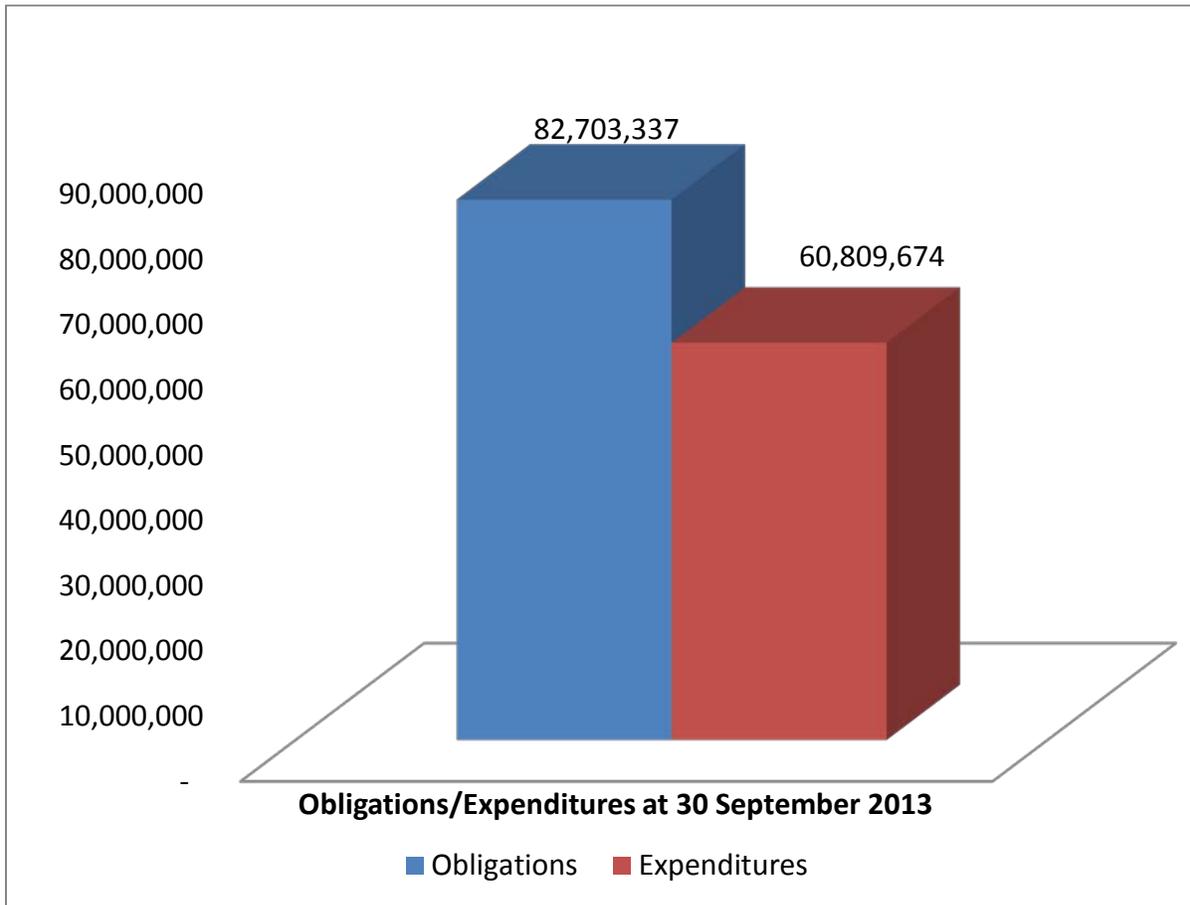
** Forward funding authorization received October 25, 2012.

*** Forward funding authorization received January 13, 2012.

**Systems for Improved Access to Pharmaceuticals and Services
Financial Status Overview
Cumulative Expenditure Activity through September 30, 2013**

Total Funding Received to Date:	\$82,703,337
Total Amount Spent to Date:	\$60,809,674
Pipeline	\$21,893,663
Percent of Funds Spent	73.53%

SIAPS Obligations and Expenditures for Quarter 4 FY2013 (US\$)



SIAPS Program Expenditures by Quarter through September 2013 (in US\$ 1,000s)

