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USAID/NAMIBIA: STRENGTHENING PHARMACEUTICAL SYSTEMS (SPS) AND SUPPLY CHAIN MANAGEMENT SYSTEMS (SCMS) EVALUATION

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This publication was produced for review by the United States Agency for International Development. It was prepared by Ellen Lynch, Kaleb Brownlow, and Ifeanyichukwu Ibe through the Global Health Technical Assistance Project.

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The Global Health Technical Assistance Project
1250 Eye St., NW, Suite 1100
Washington, DC 20005
Tel: (202) 521-1900
Fax: (202) 521-1901
info@ghtechproject.com

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ACRONYMS

ADR	Adverse drug reaction
ADT	ART dispensing tool
AMR	Antimicrobial resistance
APCA	Africa Palliative Care Association
APHA	American Public Health Association
ART	Antiretroviral therapy
ARV	Antiretroviral
CAA	Catholic AIDS Action
CA-USA	Crown Agents-USA
CBHC	Community-based health care
CDC	Communicable Disease Clinic
CHS	Catholic Health Services
CMS	Central Medical Store
COI	Conflict of interest
COP	Country Operational Plan
CPD	Continuing professional development
CTX	Co-trimoxozole
DOD	Department of Defense
DSP	Directorate of Special Programs
EDT	Electronic dispensing tool
EIA	Environmental impact assessment
EMLC	Essential Medicines List Committee
EPI	Expanded Programme on Immunization
ePMS	Electronic Patient Management System
EWI	Early warning indicator
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GH Tech	Global Health Technical Assistance Project
GRN	Government of the Republic of Namibia
HBC	Home-based care
HCD	Human capacity development
HIVDR	HIV drug resistance
HPLC	High-performance Liquid Chromatography
HR	Human resources
HRD	Human resource development
HRH	Human resources for health
HRIMS	Human Resource Information Management System
ICAT	Infection control assessment tool
INRUD	International Network for Improving Rational Use of Drugs
I-TECH	International Training and Education Center on Health

JSI	John Snow International
MDR	Multi-drug resistant
M&E	Monitoring and evaluation
MIS	Management information system
MoHSS	Ministry of Health and Social Services
MOU	Memorandum of understanding
MoW	Ministry of Works
MSH	Management Sciences for Health
NAMAF	Namibian Association of Medical Aid Funds
NABCOA	Namibian Business Coalition on AIDS
NBTS	Namibia Blood Transfusion Service
NDB	National Database
NEMLIST	Namibia Essential Medicines List
NHP	Namibia Health Program
NHTC	National Health Training Center
NGO	Non-governmental organization
NIP	Namibia Institute of Pathology
NMC	Namibia Medical Care
NMP	National Medicines Policy
NMPC	National Medicines Policy Coordination
NMRC	Namibia Medicines Regulatory Council
NPMP	National Pharmaceutical Master Plan
NRL	National Reference Laboratory
NQA	National Qualifications Authority
NTLP	National TB and Leprosy Program
OIH	Oshakati Intermediate Hospital
PA	Pharmacist assistant
PEPFAR	President's Emergency Plan for AIDS Relief
PC	Palliative care
PCN	Pharmacy Council of Namibia
PHC	Primary health care
PSM	Procurement and supply chain management
PSN	Pharmaceutical Society of Namibia
PfSCM	Partnership for Supply Chain Management
PhS	Pharmaceutical Services
PhSs	Division of Pharmaceutical Services
PLWHA	People living with HIV/AIDS
PMIS	Pharmaceutical Management Information System
PPP	Public-private partnership
QA	Quality assurance
QSL	Quality Surveillance Laboratory
RPM Plus	Rational Pharmaceutical Management Plus

RMS	Regional medical store
RTK	Rapid testing kit
RUTF	Ready-to-use therapeutic food
SCMS	Supply Chain Management Systems
SCS	Supply chain system
SOP	Standard operating procedures
SPMT	Supply Performance Management Tool
SPS	Strengthening Pharmaceutical Systems
STG	Standard treatment guideline
STI	Sexually transmitted infection
TA	Technical assistance
TC	Therapeutic committee
TIPC	Therapeutics Information and Pharmacovigilance Centre
TDM	Two-day planning meeting
TOT	Training of trainers
U.S. CDC	Centers for Disease Control and Prevention
UNAM	University of Namibia
URC	University Research Company
USG	U.S. Government
USAID	United States Agency for International Development
VCT	Voluntary counseling and testing
WCF	Working Capital Fund
WCH	Windhoek Central Hospital
WHO	World Health Organization
WOM	Warehouse Operations Management

EXECUTIVE SUMMARY

United States Agency for International Development (USAID)/Namibia's overall aim in implementing the Supply Chain Management Systems (SCMS) and Strengthening Pharmaceutical Systems (SPS) projects in Namibia is to support the Ministry of Health and Social Services (MoHSS) with strengthening the supply chain for essential medicines and other health commodities in the public-health sector at the central and regional levels and to build key in-country capacity to effectively manage pharmaceutical systems, successfully implement USAID's priority services, and ultimately save lives and protect the public's health by improving access to and use of quality-assured medicines. SCMS has a national-level scope and is restricted to the central level with limited involvement with the two regional medical stores. SPS has a national-level scope and works at all levels from the facilities to the central ministry.

USAID/Namibia called for an evaluation to assess the two different projects with their respective objectives with the aim of finding efficiency gains and improved coordination through their merging under Management Sciences for Health (MSH). The evaluation strived to assist USAID/Namibia to determine SPS and SCMS program performance to date and to inform USAID future programming. The period under review for SPS is 2007 through 2010, and for SCMS from 2005 to 2010.

The evaluation's key objectives were to perform a mid-term evaluation of the two projects examining the extent to which they met their stated objectives, outlining accomplishments and challenges, and indicating links between private and public pharmaceutical services. Most important was to draw conclusions and make recommendations that could inform future USAID support to the host government. Additionally, the evaluation team was requested to indicate how the two projects contributed to health-system strengthening through investments in human resources for health (HRH) and through strengthening the organizational capacity of key partners.

The evaluation team found that the SPS project is well on its way to meeting its four objectives by the end of the project in two years. The SCMS project has struggled with meeting all three objectives, specifically in its ability to improve procurement management and inventory control systems. In part this was due to prior a requirement to not work at the district or facility- level. The SCMS project has three more years remaining. Under a streamlined merged project with MSH as the prime agency, SCMS may be able to provide a more systems-like and strategic approach to the assistance offered to the Government of the Republic of Namibia (GRN). This finding supports the first recommendation, which is to streamline the MSH project's technical assistance offered to stakeholders.

One of the most challenging aspects for both projects is the unavailability of sufficient, adequately trained, and skilled manpower to provide quality pharmaceutical care services required to support the expansion and scale-up of antiretroviral therapy (ART) services in Namibia. This manifests in almost infinite requests for training and retraining at all levels being directed at the two projects. To address the challenge of developing human resources in a strategic and sustainable approach that most effectively and efficiently applies the limited available resource, the evaluation team recommends that USAID take the lead, in collaboration with the MoHSS, to develop a comprehensive human-capacity development strategy and implementation plan.

Another challenge is the fractious relationships evident between the Central Medical Store (CMS) and the two Regional Medical Stores (RMSs). The CMS has no formal authority and oversight of the two RMSs. The two RMSs report to their respective Regional Directors who

have priorities that may not be in line with those of CMS. The CMS does not share stock levels and other information with the RMSs. There needs to be a strengthened communication system and agreement on priorities between the three medical stores. Assisting the MoHSS to develop an effective feedback mechanism between CMS and the two RMSs would be a good first step in improving relations and supply system functionality. There are a number of partners supporting human resources in pharmaceutical services and also involved in procurement and supply. It is recommended that USAID lead engagement with the Division of Pharmaceutical Services (PhSs) to coordinate with the MSH Project and other stakeholders involved in pharmaceutical activities at the national, regional and site levels to improve efficient use of limited and dwindling resources.

It is clear that the PhSs will be the lead in all aspects of quantification and procurement activities and equally clear that it looks toward USAID to provide expert technical assistance (TA) to strengthen forecasting and quantification of antiretrovirals (ARVs) and essential medication system to improve the availability of medications at all levels. The TA provided to date is showing impact in that the PhSs announced it would begin to hold quarterly meetings with all stakeholders on quantification and forecasting. The support to PhSs should continue and include assistance with market intelligence and possibly access procurement services by the Partnership for Supply Chain Management (PfSCM) through USAID Working Capital Fund (WCF) to ensure Namibia can access the best-priced quality medicines, which will further strengthen the linkages between pharmaceuticals services delivery and the national drug supply.

Finally, the evaluation team also found potential opportunities to engage the private sector to increase sustainability of HIV/AIDS activities. The SPS project has engaged the private sector to improve access to ART and other essential medicines and this should be strengthened and continued. USAID should consider stronger engagement with GRN to put in place appropriate legislation that will ensure the working poor are provided with affordable medical aid coverage and improve the control of existing medical aid schemes to improve access to quality HIV services.

The full report provides further details of the findings and recommendations, which are made with the intention that they will enable MSH to implement a high-quality, effective, and efficient project that addresses Namibia's supply chain and pharmaceutical management systems and needs related to HIV/AIDS.

I. INTRODUCTION

SUPPLY CHAIN MANAGEMENT SYSTEMS (SCMS)/STRENGTHEN PHARMACEUTICAL SYSTEMS (SPS) NAMIBIA BACKGROUND

Supply Chain Management Systems (SCMS)

USAID awarded Partnership for Supply Chain Management (PfSCM) contract number GPO-1-01-05-00032 for Supply Chain Management System (SCMS) project in October 2005. This is a centrally-funded project, implemented in Namibia by Crown Agents since 2005. It was also made available to other President's Emergency Plan for AIDS Relief (PEPFAR) agencies, notably the U.S. Centers for Disease Control and Prevention (U.S. CDC), the Department of Defense (DOD), and the Peace Corps. PfSCM is a partnership of John Snow, Inc. (JSI) and Management Sciences for Health (MSH) with country offices managed by JSI, MSH, and Crown Agents-USA (CA-USA). The contract's current task order ends in September 2013.

SCMS's mandate in Namibia is to support the Ministry of Health and Social Services (MoHSS) with strengthening the supply chain for essential medicines and other health commodities in the public health sector at the central and regional levels.

The SCMS project objectives in Namibia are:

- To strengthen supply chain systems for HIV/AIDS program-related commodities,
- To enhance existing systems to promote information sharing,
- To improve procurement management and inventory control systems

SCMS's main partner is the Central Medical Stores (CMS). CMS is a sub-division of the PhSs of the MoHSS tasked with the central procurement, storage, and distribution of all health commodities in the public sector. The project is also charged with supporting the two Regional Medical Stores (RMSs) (Rundu and Oshakati), which are under the control of the respective regions.

Strengthening Pharmaceutical Systems

USAID awarded MSH a five-year, Leader with Associates Cooperative Agreement No.: GHN-A-07-00-07-00002-00, Strengthening Pharmaceutical Systems (SPS) Program in July 2007. This is a follow-on to Rational Pharmaceutical Management Plus (RPM Plus) Program and will end June 28, 2012.

The mandate of SPS is to build the capacity within resource-limited countries to effectively manage pharmaceutical systems, successfully implement USAID's priority services, and ultimately save lives and protect the public's health by improving access to and the use of quality-assured medicines.

The SPS program in Namibia has the following objectives:

- To improve access to ART treatment and other essential medicines (medical products, vaccines and technologies, and financing);
- To improve rational use of medicines and strengthen interventions to contain antimicrobial resistance (service delivery);
- To strengthen management systems and human capacity development (HCD) for pharmaceutical services (information, health work force);

- To strengthen medicine regulation and improve governance in the pharmaceutical sector: (leadership and governance).

SPS has partnered with MoHSS directorates and divisions and U.S. Government (USG) agencies to maximize efficiency and leverage efforts in strengthening pharmaceutical management systems for delivery of ART programs. The main partners are MoHSS pharmaceutical division (PhSs), the MoHSS Directorate of Special Programs (DSP), the MoHSS National Health Training Center (NHTC), the University of Namibia, CDC/Namibia, SCMS, University Research Company (URC), International Training and Education Center on Health (I-TECH), IntraHealth International, Catholic Health Services (CHS), and Catholic AIDS Action (CAA) to strengthen pharmaceutical management and improve rational use of medicines at treatment sites.

Current Status of SCMS/SPS Namibia

USAID/Namibia called for an evaluation to assess the two different projects with their respective objectives as outlined above with the aim of finding efficiency gains and improved coordination through the merging of the two projects under MSH. The evaluation strived to assist USAID/Namibia to determine SPS and SCMS program performance to date and to inform USAID future programming.

USAID/Namibia planned to have a four-phase transition from two projects to one comprehensive pharmaceutical and supply chain management system project under one single-implementing partner. The following were the planned phases: the assessment of both projects in June/July 2010; the co-location and new management structure no later than September 30, 2010; the joint COP11 narratives and workplans; and ultimately the full transition with quarterly retreats completed by September 30, 2011. Although the evaluation started later than expected, the transition seems to be on track for completion within the planned timeframe with co-location and initiation of the new management structure under MSH.

The USAID/Namibia mission has moved forward with the merger of SCMS and SPS under MSH and has recommended a structure that places an MSH Country Director over two Associate Directors of SCMS and SPS respectively. All employees will be under MSH conditions of employment.

OVERARCHING OBJECTIVES OF THE EVALUATION AS STATED IN SCOPE OF WORK

1. To assess the extent to which USAID support for the pharmaceutical services for HIV/AIDS treatment and system strengthening met program objectives, and to determine outcomes of the support;
2. To assess the extent to which USAID support for the supply chain systems for HIV/AIDS commodities met program objectives;
3. To identify ways to better link private and public pharmaceutical services; and
4. To identify accomplishments to date and challenges during the implementation of this activity, and to draw conclusions and make recommendations that could inform future USAID support to the host government including:
    a) Streamlining SPS and SCMS technical assistance offered to the host government;
    b) Coordinating activities at the national, regional, and site levels; and
    c) Addressing areas to further strengthen the linkages between pharmaceutical service delivery and the national drug supply.

Two additional questions were added to the scope of work during the initial in-brief with USAID:

5. SPS-SCMS's contribution to health systems strengthening through investments in HRH, and
6. SPS-SCMS's contribution to sub-partners and/or to the Government of Namibia in the area of organizational capacity.

II. METHODOLOGY

The USAID/Namibia: Strengthening Pharmaceuticals Systems (SPS) and Supply Chain Management Systems (SCMS) Evaluation took place from August 30 to September 16, 2010. The evaluation team consisted of two external Global Health Technical Assistance Project (GH Tech) consultants, Ms. Ellen Lynch, as the Team Leader, and Dr. Ifeanyichukwu Ibe; USAID/Washington Technical Advisor, Mr. Kaleb Brownlow; and two mission staff who accompanied the team on site visits, Dr. Didier Mbayi Kangudie and Mr. Robert Festus. Background information was provided to the consultants through extensive project documents. On the first day the team received an in-brief from the USAID/Namibia Health Officer and established the scope of work. A meeting with both SPS and SCMS staff followed, in which an overview of their respective activities to date in Namibia was provided.

The USAID/Namibia Mission, in coordination with SPS and SCMS project staff, developed a schedule of interviews and site visits (Appendix D) for the evaluation team. Thirty-seven interviews using a guide (Appendix H) were conducted with key informants from the MoHSS, USG agencies, and partners. The write-up of all interviews is in Appendix J and was used extensively in the analysis and findings. A large number of project documents were provided to the evaluation team for review. Key documents are listed in Appendix C. A self-assessment questionnaire (Appendix E) was submitted to SCMS and SPS staff by the evaluation team. The responses (Appendices F, G) were incorporated in the analysis and helped to ensure a more complete review of activities conducted over the period under review for each of the projects.

Derived from the key findings are five areas of recommendations that focused on the addressing the 12 questions that were posed in the scope of work:

1. Are SPS and SCMS achieving their stated objectives? (If not, what remedies are recommended?)
2. Is the technical assistance provided by the projects appropriate to the context of Namibia and has this technical assistance maximized the use of Namibian expertise?
3. Is capacity being built within the host government? What human capacity needs remain? Is there a transition plan to host country ownership?
4. What is the synergy between the Global Fund and USG/Namibia?
5. What are the immediate deliverables that SPS and SCMS have achieved to date? Are there documented best practices, innovation in the MSH, and SPS work to date?
6. What recommendations can be made to further integrate the SPS and SCMS projects?
7. What is the coverage, the reach, and the quality of the SPS and SCMS programs?
8. Do data reported by SPS and SCMS meet the data quality standards?
9. Is there any duplication of activities with other USAID/USG funded partners?
10. Are there any exit strategies with regards to all supported activities?
11. Any comment on the sustainability of both projects supported activities.
12. Provide recommendations to support the technical and administrative integration of the two projects under MSH.

III. FINDINGS

THE EXTENT TO WHICH USAID SUPPORT FOR THE PHARMACEUTICAL SERVICES FOR HIV/AIDS TREATMENT AND SYSTEM STRENGTHENING MET PROGRAM OBJECTIVES, AND OUTCOMES OF THE SUPPORT

The SPS project implemented by MSH has four project objectives. The project has made significant progress to achieving the four objectives as described below.

Objective 1: To Improve Access to Antiretroviral Treatment (ART) Treatment and Other Essential Medicines

- SPS developed the electronic dispensing tool (EDT) to improve ART commodity tracking and patient management in the pharmacy with a goal of installing it in all facilities providing full ART services and ART outreach services. The EDT is now installed in 49 of the 66 facilities currently providing ART across Namibia. Mobile devices were introduced to allow for use in outreach and extended coverage. The SPS FY 2010 workplan includes rollout to 15 additional sites. EDT is a real-time tool used to help pharmacy staff track their stock of ARVs and other medicines and monitor patient adherence through recording individual patient activity and the dispensing of medicines. Data generated by the tool is used in management decisions related to forecasting ARV requirements and funding allocations for the ART program. Ensuring a continual supply of medicines and monitoring patients' adherence to drug regimens is essential to maintaining the quality of ART and improving HIV outcomes. The ART dispensing tool (ADT) was the predecessor of the EDT and was introduced in six facilities in 2007 under the RPM Plus project.[1] The EDT was officially handed over to the GRN in May 2010.[2]
- SPS designed and implemented a pilot of integrated pharmaceutical management system beginning in 2008 at Oshakati Intermediate Hospital (OIH) using "RxSolutions." "RxSolutions" has a broader application and includes prescribing, dispensing, inventory, financial data, and patient information modules. An SPS report provided an update on the implementation of the package and demonstrated a significant improvement in-patient waiting time to register at reception from 41 minutes to 7 minutes. Additionally, the process for ordering medicines from CMS has been decreased from two weeks to two days. [3] Not all modules are currently functioning, as the dispensing module was the priority. Prescribing and financial data modules will be added this coming year. Once all modules are functioning and patient flow issues have been addressed, there will be further system improvements. The scale-up of RxSolutions beyond OIH will also require extensive investment in computer hardware and training. The "RxSolutions" has the option to include the Pharmaceutical Management Information System (PMIS) for easy reporting.
- SPS activities with the private sector are aimed at improving access to ART and essential medicines. They have engaged with the private sector to explore and implement strategies that reduce the cost of ART provision, ensure quality of ART services in the private sector, and contribute to improved access to ART treatment. They have also supported efforts to improve access to essential medicines through the development of sustainable systems for

[1] MSH SPS COP07, Page 8.
[2] SPS Enhancing ART Commodity Tracking and Improving Patient Management System.
[3] Ntege, C. *The RxSolution Pharmacy Management Electronic Tool—Intermediate Hospital Oshakati Experience.* August 2010.

managing pharmaceuticals in the public sector and reducing the cost of essential medicines in the private sector.

Objective 2: To Improve Rational Use of Medicines and Strengthen Interventions to Contain Antimicrobial Resistance

- Therapeutic committees (TCs) have been reinvigorated by trainings provided by SPS. The TCs have used the PMIS and ABC analysis. ABC analysis is a mechanism for identifying the products that have high influence on the overall costs of inventory and identifying the category of inventory that requires different management and control, to identify issues that require adjustments. Specifically, the TCs have been able to identify and at times take remedial action with prescribers practicing poly-pharmacy. They have also been able to identify variances in the use of pharmaceutical supplies and make adjustments to increase efficiencies. One example provided during key informant interviews was that the TC identified an abnormally high use of sterile gloves. Upon investigation, the TC discovered the cleaning staff were using sterile gloves. Appropriate heavy-duty gloves were purchased for the cleaning staff and the misuse of the sterile gloves was resolved. In another example, with support from the SPS program, the Erongo region's TC conducted an ABC analysis and identified rabies vaccine as a key item contributing to huge expenses in pharmaceuticals. The overuse of the rabies vaccine is related to stray dogs. After the region worked with the local authorities to reduce the stray dogs on the streets, there was an immediate reduction in pharmaceutical expenditure.
- The memorandum of understanding (MOU) between MSH and the University of Namibia (UNAM) includes establishing a local chapter of the International Network for Improving Rational Use of Drugs (INRUD). The INRUD was established in 1989 to design, test, and disseminate effective strategies to improve the way drugs are prescribed, dispensed, and used, with particular emphasis on resource-poor countries. Namibia's membership in the network will augment the capacity of faculty, present and future pharmacists, and policy makers to ensure that high-quality essential drugs are available, affordable, and used rationally. Access to resources, information, and tools on drug use will be increased.
- SPS assisted the MoHSS to reform the country's essential medicines selection process and bring it in line with World Health Organization (WHO) and international standards. The Namibia Essential Medicines List (NEMLIST) was last reviewed in 2003. The review, which began in 2008, has been highly inclusive and resulted in the inclusion of ARV medicines and rescheduling to improve access to palliative care medicines. SPS has also worked with the MoHSS to develop standard treatment guidelines (STGs) for ART and opportunistic infections, which is in the final stages of approval.

Objective 3: To Strengthen Management Systems and HCD for Pharmaceutical Services

- The PMIS provides timely information for effective management of all essential medicines and has been used by TCs and district and regional managers to identify variances in practice and to improve clinical performance and pharmaceutical reporting. All 13 Regional Health Directorates use PMIS to monitor stock management and item availability, rational use of medicines and quality of care, availability of human resources, and medicine financing in 35 hospitals.[4] An email communication, shared with the evaluators by SPS, from Karas Regional Director demonstrated the adoption of PMIS by the MoHSS and its usefulness as a management tool.

[4] SPS Enhancing the Pharmacy Management Information System.

- There continues to be a severe shortage of sufficient, adequately trained and skilled manpower to provide quality pharmaceutical care services in Namibia. This negatively affects the ability of Namibia to achieve its goal of providing universal ART coverage. In a speech by Namibia's Minister of Health, during "Pharmacy week" on September 6–10, 2010, he indicated that out of the 56 public sector pharmacy positions, only 26 are filled, of which, only four posts are held by Namibians and the remainder are held by foreign contract workers (communication with Jennie Lates on September 13, 2010). This shows little positive change since 2005 when 31 of the 48 public sector posts were filled, of which five were Namibians.[5] SPS continued initiatives started under the preceding project, Rational Pharmacy Management Plus, to address both the lack of trained pharmacy personnel and the high turnover of personnel that necessitate continuous in-service training.[6] Implementing activities developed with MoHSS and RPM Plus, SPS has assisted the National Health Training Center (NHTC) to increase student enrollment and assisted the University of Namibia (UNAM) to accelerate the initiation of a Bachelors of Pharmacy degree to begin February 2011. SPS has also provided seconded personnel in key positions under a partnership between MoHSS, Potentia (a commercial firm contracted to hire staff on same terms as MoHSS) and RPM Plus that includes a plan for absorption of the positions into the staffing of MoHSS; and, assisted the MoHSS with supportive supervision. Initial results of these activities include critical central posts being filled, vacancy rates reduced by 50%, four regional posts filled, and 11 treatment facilities received Pharmacists and Pharmacist Assistants (PA). As degreed pharmacists graduate from the four-year program and the availability of PAs increases with each graduating class, it will take time to see the impact of the activities in the absolute numbers of positions filled and staff retained. The following points provide further detail.
  - SPS assisted the NHTC to revise the pharmacist assistant (PA)training course and incorporated a practicum at sites throughout the country resulting in graduate PAs who are better prepared to take on the challenges of a heavily burdened system. Additionally, the project conducted infrastructure renovation and provided equipment and tutors of the PA course. The impact of these efforts has resulted in an increase from eight PAs graduating in 2008 to 25 PAs graduating from the NHTC per year.[7] The PAs are posted country wide to address the severe shortage of pharmacy personnel.
  - SPS worked with UNAM to develop the curriculum for a Bachelors of Pharmacy course. The UNAM Senate approved the curriculum during National Pharmacy Week (September 5–11, 2010) and the first 25 students will begin in February 2011. The new curriculum includes topics in pharmaceutical management, rational use of medicines, pharmaceutical information systems, inventory management, the concept of essential medicines, pharmacovigilance, and pharmacoeconomics. The introduction of these topics will ensure that future Namibia Pharmacy graduates will form the bulk of a more sustainable local resource of pharmaceutical management experts. The inclusive approach to curriculum development was highly appreciated by the University faculty and key informants stated that they would adopt the process in future curriculum development.

[5] Nwokike, J., D. Mabrizi, and S. Saleeb *Building Pharmaceutical Sector Capacity in Namibia: An Innovative Initiative to Recruit and Retain Pharmacy Staff for Public Service*. Management Sciences for Health, 2007.
[6] Ibid.
[7] SPS Self Assessment, Page 7.

Objective 4: To Strengthen Medicine Regulation and Improve Governance in the Pharmaceutical Sector

- Significant assistance was provided to the National Medicines Policy Coordination (NMPC) and the Namibia Medicines Regulatory Council (NMRC). This has resulted in a streamlined registration process for essential medicines, including ARVs, and in improved availability of multi-source generic ARV medicines and pediatric formulations. MSH is involved in all aspects of the division's activities and has built the capacity within the division by supporting staff and trainings.
- Establishment of the Therapeutics Information and Pharmacovigilance Centre (TIPC) creates a monitoring system for adverse drug reactions and provides access to drug information.[8]
- Engagement of the private sector has been achieved through both the NMRC and with a third part aid administrator, Medscheme, for Namibia Health Plan, an open medical aid fund. Open-managed health care programs are available to all subscribers, regardless of where they are employed. Other schemes are available only to employees in a specific industry and can be referred to as closed systems. An example is the Public Service Employees Medical Aid Scheme that provides health coverage for government employees. Medscheme and NMRC work with private practitioners to improve their capacity by offering training in HIV treatment guidelines and awarding continuing professional development units. Medscheme also requires that their providers be trained in HIV treatment guidelines to be eligible for reimbursement.
- SPS completed a survey on factors affecting access in the private sector in 2009, which was shared at a stakeholder meeting in early 2010. The MoHSS representative recommended that a comparative cost analysis of medicines between public and private sectors be conducted with a focus on ART treatment patterns in the two sectors. This activity has been delayed because there is no MoHSS unit with clear liaison responsibility with the private sector.[9]
- SPS has continued working with the MoHSS on the review of the National Medicine Policy and National Pharmaceutical Master Plan (NPMP) started under the preceding Rational Pharmacy Management Plus Project. These documents take into account challenges such as inequalities in health status, accessibility to public and private health services, prevailing poverty, and the shortage of human resource. They provide a road map for priority activities during the period 2010–2014. The revision of the policy was accomplished and the NPMP should be released simultaneously in late 2010.

THE EXTENT TO WHICH USAID SUPPORT FOR THE SUPPLY CHAIN SYSTEMS FOR HIV/AIDS COMMODITIES MET PROGRAM OBJECTIVES

Objective 1: To Strengthen Supply Chain Systems for HIV/AIDS Program Related Commodities

Due to concerns of duplication with SPS and/or restrictions by MoHSS and CMS, SCMS operates primarily at the central level and, primarily, provides technical assistance focused on strengthening the Namibian supply chain system for key partners (i.e. CMS and National Reference Laboratory (NRL) at the central level. Visibility of how SCMS technical assistance at the central level interventions affected supply chain management functions at the regional, district, and facility levels remain a challenge. Despite these challenges, SCMS has made

[8] SPS. *The Therapeutics Information & Pharmacovigilance Centre: Namibia's Approach to Monitoring Medicine Safety*.
[9] FY 2010 Annual Progress Report MSH/SPS.

significant improvements at the central level and limited improvements at the regional level (i.e., Regional Medical Stores).

- *Improved warehouse infrastructure, operations, and storage capacity*: SCMS has supported significant infrastructure improvements at both CMS and Namibia Institute of Pathology (NIP). At CMS, SCMS supported the introduction of pallet racking and space optimization in the warehouses, resulting in an increased storage capacity from 664m^3 to 1416m^3. Consequently, ARV storage capacity has increased by six-fold and will enable at least nine months of storage at current consumption levels. SCMS supported a pre-feasibility and feasibility study for building a new state-of-the-art CMS that would replace its current multiple warehouses in Windhoek. At NIP, SCMS supported warehouse renovation of one of its two warehouses. In addition, SCMS has supported provision of security systems (e.g., turnstiles), materials handling equipment (e.g., forklifts, pallet stackers), and racking. RMSss (Rundu and Oshakati) have also received some materials handling equipment and trolleys to improve warehouse operations. Select recommendations have been implemented, but there are outstanding recommendations.
- *Quantification and forecasting* at the central level have been supported by SCMS through trainings, technical support, and guidance on the benefits of improved quantification and forecasting and the importance of national quantifications. In collaboration with the Directorate of Pharmaceutical Services, CMS, and NIP, SCMS has held quantification workshops, supported seconded staff focused on logistics, and built capacity to quantify and forecast for the ART program. Multiple interviews acknowledged that the ARV supply chain system is functioning well and there are few to no stock-outs. However, the essential-medicines supply chain system is challenged and experiences order fill rate issues and stock-outs (e.g. 1st line antibiotics, syringes, and sexually transmitted infection (STI) treatment regiments).
- *Laboratory system strengthening* through NIP supports not only HIV services but also is a platform for strengthening the overall laboratory system for infectious and chronic disease management.

Objective 2: To Enhance Existing Systems to Promote Information Sharing

- SCMS encouraged the integration of the Home-based Care Kits (HBC Kits) into CMS and encouraged the Food and Nutrition Unit to work with CMS for therapeutic food ready-to-eat.[10]
- Provided technical support and assistance to CMS and RMSs through Syspro, and enterprise resource planning systems, used to manage inventory as well as operations. A seconded staff at CMS serves as a systems administrator to maintain Syspro and is supporting efforts to share real-time data on inventory between CMS and RMSs. In addition, SCMS is supporting construction of a CMS website that would serve as a platform for clients to access information on inventory levels and any other commodity-related issues.

Objective 3: To Improve Procurement Management and Inventory Control Systems

- SCMS does not own or operate elements of any supply chain in Namibia but have focused on providing technical assistance designed to build or improve capacity in host-country organizations.

[10] SPS Self Assessment.

- SCMS lacks a systems approach in meeting this objective but there are some accomplishments by client available from the portfolio review and reiterated in the self-assessment response.
- At CMS's request, and USAID concurrence, SCMS has conducted a number of assessments to identify priority areas to improve procurement management and inventory control these include: *National Institute of Pathology Laboratory Logistic Assessment*, (September 2008); *Assessment of the Namibian Regional Medical Stores for Physical Enhancements*, (September 2009; Laboratory *Logistics System Review and Redesign Recommendations for the Namibia Institute of Pathology*, (April 2009); *Process Mapping for Improving Supply Management Activities in Rundu-Multi Regional Medical Stores*, (April 2009); *Central Medical Stores—Namibia Transport and Fleet Management Study*, (November 2008).

LINKS TO PRIVATE AND PUBLIC PHARMACEUTICAL SERVICES

Work in the private sector has not been a major focus of the two projects. Meaningful engagement of the private sector would advance all SPS project objectives but there are barriers to achieving this.

Barriers

- Key informants indicated that the private sector practitioners lag behind the public sector in terms of their knowledge of ART treatment guidelines and standards of practice in HIV/AIDS management. Reportedly, most HIV drug resistance cases have entered the public sector after being treated in the private sector.
- The National Strategic Framework for HIV/AIDS 2010/2011–2015/2016 mentions the private sector introduction of new health insurance options, but there is little government support for it or planned action. There seems to be barriers to change in pharmaceutical systems that would allow for improved access to affordable medicines and less expensive healthcare access for people working in lower-income industries that do not have employment-based medical aid (health insurance) available to them. With a pool of low-income workers who cannot afford subscription premiums to health insurance estimated at 300,000, there is a need for further investigation.
- The current HIV program is heavily reliant on donor funding to pay for MoHSS staff, ARVs, and to finance the FBOs and NGOs. This makes the current level of financing the national HIV response unsustainable.

Current Engagement and Potential Opportunities

- SPS collaborated with Mobile Telecommunications Company (MTC) to improve timely transmission and availability of data on ARV medicines utilization. This innovative partnership with the private sector has leveraged resources and synergies.[11] It strengthens the management system and advances both the SPS and SCMS projects' objectives by improving access to ART treatment and other essential medicines and by strengthening the supply chain. SPS should encourage CMS to pursue the partnership with MTC directly to increase country ownership.
- SPS works with medical aid administrator, Medscheme; has had discussions with PharmAccess, a Dutch NGO; and works closely with the National Medical Regulations Council. Effective engagement of the private sector will improve access to quality ART treatment and improve the sustainability of the ART program as well as expand its coverage. The private sector has a considerable role in the provision of health care in Namibia. The

[11] SPS Enhancing ART Commodity Tracking and Improving Patient Management System.

National Health Accounts indicate that the out-of-pocket expenditures in Namibia are mainly to cover insurance premiums. The value of the private sector in the health market is estimated to be around US$144 million, representing 26% of the total health expenditure.[12] By engaging the private sector and medical aid funds, SPS can assist the GRN to more effectively meet its goal to provide universal ART coverage.

- In order to strengthen public-private partnership and leverage Global Fund contribution, SCMS provided rapid-testing kits (RTKs) and consumables to a PHARMACCESS workplace mobile counseling and testing and wellness program. This mobile service provides not only HIV testing but also STI, hepatitis, and cholesterol screening.
- The Medscheme key informant discussed the need to increase controls under the Public Service Employees Medical Aid Scheme. The GRN is the largest employer in Namibia and there are no controls or limits imposed on the scheme. Health providers are not required to follow recommended HIV treatment guidelines. It was reported by more than one key informant that the lack of controls has resulted in formerly private patients entering the public system after being on inappropriate treatments. Some of these patients have acquired resistance to first-line treatment and now require second-line treatments, which are substantially more expensive and limit treatment options for the patient. There has been some effort by the government, specifically the Sub Division of the National Medical Regulations Council (NMRC), to include private pharmacists and physicians in trainings, but there are challenges due both to the vastness of the country and to the availability of private practitioners to participate. This is because the time spent in training reduces the time they can run their business. However, as of July 2010, CPD units are required to continue practicing for all health professionals. The SPS project provides extensive support to the NMRC and should continue to assist it in engaging both private pharmacists and health providers with the aim of improving access to quality ART treatment and improving the rational use of medicine. These efforts will also strengthen HCD for pharmaceutical services.
- Management of pharmaceutical waste in the private sector may be an area of need that has not yet been fully addressed. According to the Pharmacy +Society of Namibia, the private sector returns expired/damaged medications to the wholesalers. It is unclear how the wholesalers are disposing of these products. SPS includes waste management in it FY 2010 workplan.
- A mechanism for Ready-to-Use Therapeutic Food (RUTF) to be dispensed by private pharmacies should be considered and could strengthen linkages with the public sector.
- Contracting private pharmacist to work in the public sector was an idea suggested to the team during a key informant interview.
- The Global Fund Round 10 HIV proposal focuses on private-sector partnerships to include a variety of private partnerships: public-private partnerships (PPPs), non-governmental organization (NGO)-private, and private-private. The proposal offers the opportunity to strengthen a critical component of the health care system, the private sector, at various levels in the health-care system: as financiers, risk-pool agents (insurers), and as providers.[13] USAID should engage with the Global Fund to determine how the SPS and SCMS merged project might leverage this initiative.

[12] GRN—Global Fund Round 10 HIV/AIDS Proposal.
[13] Ibid.

ACCOMPLISHMENTS TO DATE AND CHALLENGES DURING THE IMPLEMENTATION OF THIS ACTIVITY

Accomplishments

Supply Chain Management Systems

- Supported physical enhancements and renovations at CMS and NIP to improve storage conditions and optimize space; materials handling equipment provided to CMS and the two RMSs have resulted in improvements in operations.
- Supported pre-service and in-service trainings of health professionals from CMS, RMSs, and NIP staff in critical supply chain and warehouse management areas, such as quantification and forecasting, procurement, inventory control, Meditech® (SCMS' primary electronic tool in the module for materials management), and good practices in procurement and warehousing.
- Identified need for refresher and additional trainings in supply chain management, inventory control, and good practices in warehousing as well as a need to develop cascading training from central to facility levels.
- Conducted a quantification workshop in 2008 that brought together NIP staff to gather data to analyze and make initial projects. Developed a national quantification, total number of commodities and costs for all HIV-related tests using data, key assumptions, and included costs.
- Technical support and procurement of new equipment (high-performance liquid chromatography (HPLC) analyzer) for Quality Surveillance Laboratory (QSL) as well as development of standard operational procedures that resulted in the reduction of the backlog of testing samples at QSL.
- Over the past three years, no stock-outs have occurred for RTKs and related commodities in the voluntary counseling and testing (VCT) supply chain for IntraHealth, but this has operated outside of CMS as a separate and redundant supply chain.
- SCMS has supported the integration of food by prescription and home based care kits into CMS supply system in order to reduce and/or eliminate parallel supply chains.

Strengthening Pharmaceutical Systems

- The process developed to meet the severe personnel shortage in the pharmaceutical sector has been successful in meeting emergent needs and also in addressing long term needs in a sustainable approach. The process, described in Building Pharmaceutical Sector Capacity in Namibia,[14] involves recruiting staff using MoHSS position descriptions, hiring with MoHSS's full involvement, providing bridge funding, and migrating the position to fall under the MoHSS staff plan.
- The PhSs has received training to establish standards in registering medications to include trainings in Republic of South Africa and salary support to priority staff positions. Over time, 67% of these positions have been absorbed. These positions are being proposed in the MoHSS restructuring exercise and are expected to be fully absorbed.
- The PMIS, launched in July 2007, is now widely used in all 13 regions and supports the effective and efficient management at all levels of the health system. The PMIS includes indicators for stock management and item availability, rational use of medicines and quality of care, human resources development and workload, and medicine financing

[14] Nwokike, J., D. Mabrizi, and S. Saleeb. *Building Pharmaceutical Sector Capacity in Namibia: An Innovative Initiative to Recruit and Retain Pharmacy Staff for Public Service*. Management. Sciences for Health, 2007.

- EDT has been rolled out to all 34 district hospitals and currently captures data for all patients on ART seen in public facilities in Namibia. It has the capacity to capture a broad range of ARV dispensing data. It also includes WHO early-warning indicators that contribute to HIV drug-resistance monitoring and has been officially adopted by the MoHSS.
- The piloting of "RxSolutions" in Oshakati has been very successful.
- Support is provided to Regional Pharmacists to conduct supportive supervision in all their districts.[15] SPS also provides support for biannual inter-regional exchange between regional pharmacists to share best practices.
- The revision of the National Health Training Center's PA course and associated support to include infrastructure improvements, lecture revision, and equipment provision has resulted in an increased number of annual graduates.
- The development and approval of a Bachelor of Pharmacy degree at UNAM will help to address the severe shortage of pharmacists.
- SPS began work in safe disposal of pharmaceutical waste in collaboration with MoHSS and the URC, which implements infection control activities for USAID. Also working with the private sector to promote appropriate disposal of pharmaceutical waste. [16]

Challenges

Supply Chain Management Systems

- The MoHSS wanted to ensure that SCMS did not create a parallel procurement system. A cost comparison analysis of ARVs was conducted and revealed potential savings from $1,051,000 to $1,803,214 if SCMS procurement and distribution processes were used in place of CMS's system.
- Expectations need to be managed among GRN partners regarding the scope of work and areas of expertise of SCMS. Without a MOU or letter of agreement between SCMS and MoHSS, there are uncertainties about areas of support.
- The restrictions placed on SCMS to provide technical support only focused at the central level and minimally at the regional level. This affected its ability to establish an integrated supply chain from the central to the facility level.
- SCMS has had limited ability to follow up on activities and recommendations of assessments done, such as physical enhancements to warehouses and transportation and fleet management. There are many pending or outstanding recommendations related to transportation and fleet management, and to warehouse workflow processes.
- One challenge to achieving its objective to strengthen the supply chain system has been governmental jurisdiction of the RMS. MoHSS oversees the two RMS and their operations. The Ministry of Works (MoW) owns the building and site. It is unclear whether MoW has been involved in assessments of physical enhancements to warehouses at all levels. MoW's overall level of engagement with MoHSS is also unclear.
- The National Strategic Framework for HIV/AIDS 2010/2011–2015/2016 clearly recognizes the challenges faced by the CMS in terms of procurement, storage and distribution of essential medicines and commodities that are necessary for the ART program. This document should be used as a reference when engaging the PhSs in workplan discussions.

[15] SPS Self Assessment response.
[16] MSH SPS FY 2010 Workplan.

Strengthening Pharmaceutical Systems

- Validation of electronic patient management systems (PMSs) and EDT is slowly beginning to take hold and a better understanding of the usefulness of the two systems, which have different entry points in the health system, is being demonstrated at a pilot site in Rehoboth.
- The amount of EDT hardware provided is insufficient for the level of dispensing being done in many sites. Dispensers are forced to share terminals and enter data too long after dispensing, negating the real-time aspect of the system.
- SPS's attempts to engage the private sector are challenged in that the GRN employees' medical aid system has no limits and controls. The private sector remains largely unregulated.
- Further computerization of the pharmaceutical system should be explored. The level of dispensing activities at many sites visited is not sustainable with a manual system.
- Basic equipment— such as pill-counting trays, medicine cabinets, and lab coats—are not available in some locations.
- There continues to be crippling shortage of pharmacists, with many of the public sector positions being filled by foreigners. It will be at least four years before UNAM graduates its first class of pharmacists. Pharmacists continually leave for the private sector due to better working conditions and benefit packages.
- The change in CD4 threshold for treatment initiation (from a level of 200 to 350) will increase the pressure on this fragile system.

SPS-SCMS'S CONTRIBUTION TO HEALTH SYSTEMS STRENGTHENING THROUGH INVESTMENTS IN HUMAN RESOURCES FOR HEALTH

The unavailability of sufficient and adequately trained human resources, especially pharmaceutical personnel, continues to be a challenge to the expansion and scale-up of ART services in Namibia. SPS's capacity-building interventions have included all levels with the aim of creating sufficient and sustainable pharmaceutical management expertise in Namibia. This approach used both short-term and stopgap activities that focused on institutional development interventions to ensure production of pharmaceutical personnel to meet Namibia's human resources for health (HRH) needs in the long term. All HRH investments contributions in the health systems strengthening interventions embarked upon by SPS and SCMS are implemented jointly in partnership with the MoHSS. This is done with a view to enabling MoHSS and the GRN to have a sense of ownership, while establishing the building blocks of sustainability. The capacity of the Division of Human Resource Development and Management and the Public Service Commission to track the status of vacancies in positions for pharmacists and pharmacists' assistants has been reinforced by the roll-out of the Human Resource Information Management System (HRIMS). The SPS supported a study on HCD assessment for public sector pharmaceutical services. This study recommended the use of a Human Resource Task Force to focus on these critical cadres and to alert the established hiring authorities when critical action must be taken to ensure that ART clinic services do not suffer a setback.[17] Some of the strategic activities supported by SPS to achieve this goal include:

Pre-service Training of Pharmacy Assistants

- SPS supported the National Health Training Center (NHTC) to strengthen the institution's pharmacists assistants (PAs) training program. This support improved the capacity of the

[17] Management Sciences for Health *Human Capacity Development Assessment for Public Sector Pharmaceutical Services in Namibia: Strategies to Scale Up HIV/AIDS Programs and ART Therapy*, 2006.

institution through curricular review, equipment provision, and infrastructure improvements to train more middle-level pharmacy staffs. The number of Pharmacist Assistants has doubled from an average of seven that were graduating from Center between 2005and 2009. This year 18 PAs graduated on March 25 after undergoing a two-year course.[18] Support included provision of equipment, placement of three qualified PA Tutors, and review and revision of the curriculum to enable the long-term production of more mid-level pharmacy staff. All the graduated PAs have been recruited by the MoHSS.[19] SPS support included renovation of a building to serve as a pharmaceutical laboratory and procurement of equipment, pharmaceutical chemicals and reagents to enable pharmaceutical compounding procedures and processes for student's practical lectures. SPS supports lecturers to carry out follow-up supervisory visits to selected sites where the students are acquiring practical experience during their clerkship/practical attachment training sessions.

National Qualifications Authority (NQA) Approval of the Pharmacist Assistants Course

- The National Qualifications Authority approved the PA course curriculum. In addition to the accreditation of the PA courses, which was the basis of the technical support provided by the SPS program, NHTC was able to work on accrediting three other courses. The development of the curriculum was supported by SPS as part of its efforts in improving the quality of the PA training course. The approval contributed to other SPS efforts aimed at developing a career path for PAs and further contributes to their retention in the public sector.

Provision of Organizational and Institutional Development Support to the University of Namibia (UNAM) [20]

- SPS provided technical assistance to develop the UNAM's institutional capacity to develop curriculum through the establishment of a Bachelors of Pharmacy degree. This will ensure long-term availability of qualified pharmacist in the country. In line with the situational and capacity assessment exercise that was conducted, SPS facilitated three curriculum development workshops that realized the following four key results toward the development of the pharmacy degree curriculum for UNAM:
  - Mapping the current and future roles of pharmacists in Namibia's health-care system to ensure that the degree curriculum is relevant to the needs of the Namibia health care system.
  - Developing the broad outcomes of competency framework in line with the Namibia Qualifications Authority.
  - Refining broad and further details of learning outcomes of competency framework in line with the Namibia Qualifications Authority.
  - Key stakeholders' consensus-building and development of the second competency framework.
- SPS signed an MOU with the UNAM to support the pharmacotherapy program, to establish a local chapter of the International Network for Improving Rational Use of Drugs (INRUD), and to establish a pharmacy degree program. SPS is also working with other partners like the Interim Health Professions Council and the Pharmaceutical Society of Namibia to implement continuing professional development programs. This will increase the capacity of

[18] FY 2010 Annual Performance Report MSH/SPS.
[19] MSH SPS Namibia FY 2010 SAPR (October 2009–March 2010), page 14.
[20] Ibid.

existing pharmaceutical professional and ultimately increase the access and quality of HIV services.

Placement of Qualified Staff to Support Critical Pharmaceutical Care-related Functions in the Ministry and Other Pharmaceutical Care related Institutions

- As previously described, SPS developed a process to meet the severe personnel shortage in the pharmaceutical sector, which has been successful in meeting emergent needs and also addressing long-term needs in a sustainable approach. The process, described in Building Pharmaceutical Sector Capacity in Namibia,[21] involves recruiting staff using MoHSS position descriptions, hiring with MoHSS's full involvement, providing bridge funding, and migrating the position to fall under MoHSS staff plan. SPS supported the seconding of 14 pharmacist personnel to the MoHSS, Regional Health Directorate, NMPC, Namibia Medicines Registration Council (NMRC), and the TIPC to assist in the provision of support pharmaceutical services.[22] The placement of these qualified staff enabled the delivery of critical technical support in the areas of essential medicines selection and policy coordination, medicines regulation, and medicines information and safety monitoring. The SPS Building Pharmaceutical Sector Capacity in Namibia report reveals that of the 193 pharmacists registered in Namibia, 89.7% are working in the private sector, leaving the public sector serious handicapped. Further, of the 48 established posts for pharmacists in the MoHSS, only 31 were filled.[23] The MoHSS continues to face serious challenges in implementing new ART-related services provision plans because of pharmacy staffing shortages. This demands attention because the role of pharmacy staff is essential to the success of the ART program management therapy, which is a lifelong treatment.

Provision of In-service Training for Health Workers

- These in-service trainings are designed to provide new knowledge and skills to health workers in pharmaceutical care and management relating to HIV/AIDS, specifically in ART dispensing using the enhanced EDT, infection control, governance in medicine regulation, pharmacovigilance, TCs' functionalities and management, pharmaceutical management, and adherence to ART. The training program modules are developed with input from trained and practicing personnel and SPS project staff. In FY 2009, a total of 114 health workers were trained in various aspects of HIV/AIDS related pharmaceutical management. In FY 2010, 127 health workers were equipped with skills in ART-dispensing using the enhanced EDT, infection control, and governance in medicine regulation. This was accomplished through training workshops that were conducted in Rundu and Windhoek. The aim is to improve local capacity at all levels for sustainable pharmaceutical management expertise.
- SPS also supported additional activities with the goal of building human resource capacity through interventions implemented in partnership with MoHSS directorates, and at the regional and district levels—namely, National Medicines Policy Coordination, Subdivision National Medical Regulatory Council, Directorate of Special Programs, National Institute of Pathology, and Directorate of Policy and Planning. SPS is supporting the MoHSS, UNAM,

[21] Nwokike, J., D. Mabrizi, and S Saleeb. *Building Pharmaceutical Sector Capacity in Namibia: An Innovative Initiative to Recruit and Retain Pharmacy Staff for Public Service*. Management Sciences for Health, 2007.
[22] MSH SPS FY 2010 WorkPlan, Page 19.
[23] Management Sciences for Health. *Human Capacity Development Assessment for Public Sector Pharmaceutical Services in Namibia: Strategies to Scale Up HIV/AIDS Programs and ART Therapy*,. 2006.

NHTC, and other stakeholders to have these in-service training modules integrated into the relevant curriculums to ensure sustainability of this and pre-service training intervention.[24]

National Medicines Policy Coordination

- An ART logistics pharmacist in NMRC is supported by SPS, and a senior logistics pharmacist is supported by SCMS. Both positions will be incorporated into MoHSS staffing in January 2011 and will no longer be supported by donors.
- SPS-supported TC trainings at all tiers of the MoHSS to empower health professionals with skills in TC functionalities and management. These TC trainings are aimed at empowering the MoHSS staff with skills with which to closely monitor TC activities at all levels, and to reactivate those TCs that have ceased to convene meetings as well as to support those that have been functioning sub-optimally. SPS provided support for the national TC training held in August 2008, to enable participants to implement workplans developed during the training session which included on-sight supervision and provided support in the areas of monitoring rational use of medicine, inventory management, and utilization costs in five regions (Khomas, Kavango, Oshikoto, Ohangwena, and Kunene). [25]
- In the 4th quarter of FY 2009 (July–September 2009), SPS provided support to seven regional TCs in Kunene, Erongo, Khomas, Otjozondupa, Ohangwena, Oshikoto and Omusati by equipping them with skills to manage activities aimed at improving rational use of medicines in their health facilities. To ensure the sustainability of this intervention, SPS supported two MoHSS staff to attend the Rational Use of Medicine course at the University of Western Cape in South Africa. The staff used their training to support the TC meetings activities sustenance intervention.[26]
- As a follow-on from the national level support for TC activities at all levels, 18 district-level TCs were monitored through national level supportive supervision visits during the first quarter of FY 2010 (October–Dec 2009).[27]
- EDT software packages have been installed in all district hospitals and at the regional level, and training sessions have been conducted to provide users with the skills to operate and use the software packages to provide needed pharmaceutical services. During the period from July to September 2009, 67 health workers were trained in the use of the EDT for 22 health facilities.[28] Also during the period from October 2009 to March 2010, SPS supported the training of 42 EDT users in the use of enhanced EDT and the EDT mobile to enable them to use the added adherence-monitoring features, as well as to capture data on monitoring of the early-warning indicator of drug resistance. This was after finalizing the installation of upgraded version of the EDT in all district hospitals in the country.[29] An interactive EDT training video and an EDT incorporated help system have been developed with SPS support to more efficiently address the need for training and retraining.
- SPS supported several trainings for pharmacy staff after the installation of the EDT in every ART facility to enable them to use and operate the system for dispensing and inventory control. The initial rollout of the EDT was to 49 of the 66 ART facilities across Namibia and mobile devices were introduced much later to allow for use in outreach and extended

[24] Brock, T, T. Wuliji, F. Sagwa, and D. Mabirizi. 2009 Technical Report: Exploring the Establishment of a Pharmacy Course at the University of Namibia. March 12–27, 2009.
[25] MSH SPS FY 2009 APR (October 2008–September 2009),Page 6.
[26] MSH SPS FY 2009 APR (October 2008–September 2009), Page 6.
[27] MSH SPS FY 2010 SAPR (October 2009–March 2010), Page 7.
[28] MSH SPS FY 2009 APR (October 2008–September 2009), Page 11.
[29] MSH SPS FY 2010 SAPR (October 2009–March 2010), Pages 7, 11.

coverage.[30] The EDT mobile scanners enhanced the capture of real-time data at outreach sites. During the period from July to September 2009, the upgraded version was installed in 22 health facilities and 67 health workers were trained on the use of the upgraded version. The need for ongoing training on EDT has been growing. To ensure sustainability of the user support and training activities an interactive EDT training video and an EDT-incorporated help system was developed with SPS support.

- During the period from October 2009 to March 2010, SPS finalized the installation of upgraded version of the EDT in all district hospitals, and supported the training of 42 EDT users in the use of enhanced EDT and the EDT mobile. This enabled SPS to use the added adherence monitoring features, as well as capture data on monitoring of the early warning indicator of drug resistance. Twenty-three EDT scanners were provided to 23 facilities for use as EDT mobile to electronically dispense ART medicines in outreach clinics without having the main EDT computer on site, which enhanced the decentralization of pharmaceutical services. On-site training and user support was also provided to seven district hospitals: Otjiwarongo, Khorixas, Outjo, Omaruru, Usakos, Swakopmund, and Walvis Bay.
- SPS piloted "RxSolutions" software package in Oshakati Intermediate Hospital and conducted several training sessions to enable the OIH "RxSolution" dedicated staff to operate the system.
- SPS conducted a HCD assessment for public sector pharmaceutical services in Namibia in 2006 to help develop strategies to support the scale-up HIV/AIDS programs and ART therapy. This first comprehensive and logical step was necessary to assess and identify both short and long-term solutions for addressing the country's shortage of pharmacists and pharmacy assistants (PAs). It examined primarily the level of need for practicing pharmacists and PAs within Namibia to achieve the goals set out in the National Strategic Plan on HIV/AIDS. The assessment recommendations included filling staffing gaps, increasing staff retention, enhancing staff performance, providing in-service training, and strengthening medical stores.
- SCMS provided trainings on quantification with people in NMPC and the Directorate of Special Programs (DSP).
- SCMS provided trainings in inventory control and stock management, rational use of medicines, quantification and forecasting, good warehousing and procurement practices. SCMS supported pre-service and in-service trainings as a skills development approach for health professionals, CMS/RMS staff, and NIP staff in critical supply chain management areas of laboratory commodities logistics.

Subdivision National Medicines Regulatory Council (NMRC)

- SPS supported trainings of the NMRC staff to build its capacity to manage pharmaceutical control and inspection, perform quality testing, and support the TIPC. Human Resource support for medicine registration, inspection and licensing has also been provided.[31] SPS facilitated review of the QSL in an effort to improve medicines inspection and quality assurance activities. The review identified some constraints in the QSL such as inadequate and outdated equipment, inadequate human resource (merely two laboratory analysts), and limited workspace for storage and retention of samples. These constraints resulted in a backlog of tests; with only 166 (41.3%) samples tested by the QSL out of a total of 401

[30] SPS Enhancing ART Commodity Tracking and Improving Patient Management System.
[31] The Therapeutic Information and Pharmacovigilance Center: Namibia's Approach to Monitoring Medicine Safety.

samples received in 2008. [32] The registration unit needs more personnel, as only one pharmacist is currently-supported through SPS.[33] This contrasts with the unit in South Africa, which performs a similar role, but has approximately 106 positions.

- SPS helped to establish the medication register by supporting one pharmacist position that is not currently in the MoHSS staff plan and by establishing a medicines database for most medicines used in the sub-region. SPS supports the use and enhancement of the electronic medicines regulation tool, PharmaDex, developed under RPM Plus and currently being enhanced into a web-based tool. The NMRC is now able to generate timely reports, including the national medicines register. To date, 5000 dossiers have been entered into the database through SPS-supported retreats. SPS support enables the NMRC to achieve and sustain a medicine regulatory system that assures the safety, quality, and effectiveness of medicines used in Namibia. This system is enhanced by having a dossier of medicines, which include medicines that are also used in the Southern African Development Community (SADC) sub-region.[34] SPS support will help achieve this by applying an integrated approach to medicines regulation through supporting and facilitating NMRC's registration, inspection and quality surveillance, and TIPC activities. The integrated approach to strengthening medicines regulation with a focus on ARVs is meant to improve the local capacity and lead to sustained awareness, improved stewardship in safeguarding the public's health, containment of safety scares, and guaranteed public trust in the safety of program medicines.[35]
- SPS helped to establish the TICP. Prior to the establishment of this center, a survey supported by SPS found that there was no national adverse drug reaction monitoring system in place and that no drug information center existed to monitor medicine safety and disseminate information on the effective use of medicines.[36] There are four project-supported staff (two pharmacists, one medical doctor and one librarian). SPS is also providing books, a database on medication interactions and side effects, subscriptions to journals. SPS further supported the training activities of the TICP staff on awareness activities and the implementation of the ART literacy package in order to promote medicine safety activities by TIPC staff. A total of 154 participants, comprised of health workers (124) and community health workers (30), were also provided with skills in monitoring of medicine safety. The TICP has continued to collect and analyze information on adverse drug events through these routine adverse drug events reports and therapeutic queries.[37] During the period covering October to November 2009, a total of 258 adverse drug reaction (ADR) reports were received from different regions, and acknowledged by the TIPC. During the same period, 62 therapeutic related queries were received. A total of 126 therapeutic-related queries have been received by TIPC by March 2010. It is envisaged that the increased reporting on ADR, as well as therapeutic queries, will lead to better treatment out comes nationally.[38]

Directorate of Special Programs (DSP)

[32] MSH SPS FY 2009 APR (October 2008–September 2009), Page 16.
[33] *MSH/SPS Strengthening Medicines Regulations and Enhancing Governance in the Pharmaceutical Sector*. The Namibia Medicine Regulatory Council (NMRC), Page 1.
[34] *MSH/SPS Strengthening Medicines Regulations and Enhancing Governance in the Pharmaceutical Sector*. The Namibia Medicine Regulatory Council (NMRC), Pages 1–3.
[35] MSH SPS FY 2010 Workplan November 2009, Page 7.
[36] SPS The Therapeutics Information & Pharmacovigilance Centre: *Namibia's Approach to Monitoring :Medicine Safety.*
[37] MSH SPS FY 2009 APR (October 2008–September 2009), Pages 14–15.
[38] MSH SPS FY 2010 SAPR (October 2009–March 2010), Page 13.

- SPS participated in HIV Drug Resistance and Monitoring and Evaluation Committee. SPS provided support to the DSP with transportation and skilled personnel for monitoring and supervisory visits to regional and district health facilities, and to outreach service points providing ART services. This support is aimed at enhancing the organizational capacity of the DSP staff through direct observation of program-implementation activities.[39] SPS and DSP believe that these visits are imperative for the delivery of quality pharmaceutical care services. DSP staff, who have benefited from SPS-supported field visits, say there is a need to develop reliable monitoring and tracking systems for ART patients management and to track people lost to follow-up. Other feedback stressed that dispensing medicine at the facility level needs to be strengthened by employing appropriate personnel. This is because the lack of pharmacists and PAs leave the nurses to prescribe, dispense, and manage the pharmaceuticals. DSP staff also emphasized the need to increase patient counseling and to encourage adherence to treatment in order to minimize defaulters and development of drug resistance.

Namibia Institute of Pathology (NIP)

- SCMS supported NIP staff to attend quantification and Meditech electronic system training for materials management in South Africa. The Meditech software package that had been installed has been put into use and associated training is now completed, with the package now being used for materials management in NIP facilities. To enable maximal use of the Meditech software for materials management, SCMS provided an additional training in inventory/stock control and warehousing management for one month in South Africa for two NIP staff.
- SCMS sponsored a training workshop for quantification of medicines and laboratory commodities. This workshop, held in Windhoek in 2008, was intended to build the capacity of NIP staff in data-gathering, analyzes, and development of initial projections. It developed a national quantification for all HIV-related tests using data and key assumptions, and included costs for a total number of commodities.

SPS-SCMS'S CONTRIBUTION TO SUB-PARTNERS AND/OR TO THE GOVERNMENT OF NAMIBIA IN THE AREA OF ORGANIZATIONAL CAPACITY

- SPS has supported activities of Therapeutics Committees (TC) at regional and district health facilities to improve rational use of medicines and to mitigate antimicrobial resistance (AMR). This has been accomplished by providing the TCs with training as well as logistics support to enable them to review, analyze, and develop evidence-based interventions that enhance rational and efficient utilization of essential medicines, including ARVs in health facilities. Along this line, SPS further consolidated and institutionalized the role of TCs by developing TC Terms of Reference and performance indicators, to help in assessing performance of the TCs and in developing strategic interventions that could further build their (TCs) capacity.[40,41,42]
- SPS supported TC trainings at all tiers of MoHSS to empower health professionals with skills in TC functionalities and management. These TC trainings were aimed at empowering the MoHSS staff with skills with which to closely monitor TC activities at all

[39] Sumbi, V.,D. Pereko,N. Nashilongo, and Q. Niaz. (2010).Assessment of Pharmacy ART Outreach Services in Namibia. December 2009.
[40] MSH SPS COP09 Workplan November 2009, Page 5.
[41] MSH SPS FY 2009 APR (Oct.2008-Sept.2009) ,Pages 6, 22.
[42] MSH SPS FY 2010 APR (Oct.2009-Mar.2010), Page 7.

levels, and to reactivate those TCs that have ceased to convene meetings, and to support those that have been functioning sub-optimally. SPS provided support for the national TC training held in August 2008. This training enabled participants to develop workplans that would be implemented at their job sites. Participants also participated in on-site supervision and provided support in the areas of monitoring rational use of medicine, inventory management, and utilization costs in Khomas, Kavango, Oshikoto, Ohangwena, and Kunene regions. [43]

- In the FY 2009 4th quarter, SPS provided support to seven regional TCs; namely, Kunene, Erongo, Khomas, Otjozondupa, Ohangwena, Oshikoto and Omusati The support consisted of equipping them with skills to manage activities aimed at improving rational use of medicines in their health facilities. To ensure the sustainability of this intervention, SPS supported two MoHSS staff through a Rational Use of Medicine course at the University of Western Cape in South Africa. These staff have been instrumental in supporting TC meetings to identify substantive interventions. As a follow-on from the national-level support for TC activities at all levels, 18 district level TCs were monitored through national level supportive supervision visits during the first quarter of FY 2010 (October–December 2009).[44]
- SPS provided technical assistance and support to the MoHSS for the strengthening of the essential medicines management system. The purpose of this support is to ensure that a sustainable, efficient, rigorous, and transparent essential medicines selection system is established in the country. SPS assisted the NMPC in medicine selection and the revision of the Namibia Essential Medicines List (NEMLIST). The NEMLIST was launched in 2008. Two thousand copies of the document were printed and disseminated to all health facilities, with aim of ensuing that the essential medicines are always available in the health facilities.[45] Further support was provided to the MoHSS in revising and developing an integrated, comprehensive Namibia Standard Treatment Guideline (STG).[46] The draft STG has been compiled but is yet to be published and disseminated. For medicine selection, SPS provided capacity building for the development of a formulary tool by sponsoring NMPC staff on training to South Africa to assist in the functions of the NEMLIST and to ensure adaptation to the Namibian situation. SPS support to the country's essential medicines selection process will promote cost-effectiveness in the rational use of medicines for the treatment of common diseases and opportunistic infections, will enhance comparison between prescribing practices in health facilities, and will enhance treatment standards across the country.
- SPS continued to support and strengthen the MoHSS's organizational capacity by enhancing the skills of the central and regional-level pharmacists to conduct routine monitoring and supportive supervisory visits to lower levels. This included district hospitals, health centers, and clinics to enhance delivery of pharmaceutical services by providing on-the-spot technical assistance and support. The focal areas of TA during these visits has been pharmaceutical management information systems (PMISs), therapeutics committees (TC), ART dispensing standard operating procedures (SOP), electronic dispensing tool (EDT) user support, EDT adherence monitoring, and medicines stock management. SPS collaborated with MoHSS in FY 2009 to develop a tool for supportive supervision, a checklist that is currently used for this activity. Since the inception of SPS support for this activity, there has been an increase in regions conducting visits, from one in 2007 to an average of eight per quarter in 2008/2009. During the half-year period from October 2008 to March 2009, a total of 10 regions were

[43] MSH SPS FY 2009 APR (Oct.2008-Sept.2009) Page 6.
[44] Ibid.
[45] MSH SPS FY 2009 APR (October 2008–September 2009), Page 9.
[46] MSH SPS FY 2010 SAPR (October 2009–March 2010), Page 6.

visited, resulting in a total of 155 facilities (115 clinics, 18 hospitals, and 22 health centers) receiving supportive supervision. Similarly, during the half-year period from October 2009 to March 2010, technical support visits were provided to 11 regions with a total of 32 hospitals and 66 clinics visits. Five regional pharmacists with SPS logistical and technical support carried out the visits.

- SPS supported enhancement of the MoHSS organizational capacity by carrying out a national collaborative joint supervisory and TA visits involving central and regional pharmacists covering 11 regions. Pre-supervisory visit briefing sessions, involving SPS and SCMS staff, served as a mode of training and skills development and transfer. This approach empowers the MoHSS and makes for organizational capacity building. The supportive supervisory visits were logistically and technically supported by SPS and coordinated by MoHSS. They are designed to provide technical support to ensure quality delivery of effective pharmaceutical services at the facility level, with a view to strengthening pharmaceutical systems capacity in the facilities. SPS and MoHSS believe that these visits are imperative for the delivery of quality pharmaceutical services at these levels, because of the level of staff deployed in most clinics.
- SPS-SCMS supported government facilities at all levels with infrastructure and equipment. These include computers and their accessories, medicine cabinets, pill count machines, tablet counting trays, EDT handheld scanning devices, and relevant SCM and pharmaceutical management services operational software. Both SPS and SCMS have also extensively supported the MoHSS facilities with computer software programs for various pharmaceutical management and supply chain activities implementation. These include, but are not limited to, the EDT software package, the PMIS software package, the Syspro software package, and the Rx Solution software package.
- SCMS supported NIP with warehousing structural renovations. NIP has 37 laboratories, which have varying storage space. SCMS donated cold-chain storage cabinets to all the 37 laboratories countrywide, while also providing cold room facilities and equipment to enable them to maintain ideal temperatures, and standard operational conditions.

IV. CONCLUSION

Though there were few surprises, findings from the evaluation provided a basis for the recommendations outlined in this report. Key among the findings were that the SPS project has substantially strengthened the pharmaceutical patient data management, which is key to ensuring a continual supply of medicines and monitoring patients' adherence to drug regimens and essential to maintaining the quality of ARV treatment and improving HIV outcomes. Additionally, the approach SPS has employed in defining its technical assistance and support to stakeholders in the pharmaceutical sector, by collaboratively developing MOUs, has been very effective in achieving the project's four objectives. This approach should be continued in order to streamline the merged project's TA and should be a priority during the first six months.

The findings clearly indicated the large need for training and technical support for HCD development and the multiple partners involved. In line with the recently signed HIV/AIDS Partnership Framework[47] between PEPFAR and GRN, the GRN intends to assume greater responsibility for the management and financing of activities currently funded by PEPFAR. To strengthen the sustainability of pharmaceutical services for HIV/AIDS in Namibia, the private sector needs to be more heavily included in providing HIV/AIDS services. This should include improving the quality of pharmaceutical services in the private sector and improving access to managed health care maintenance programs that offer unlimited coverage for HIV to the working poor.

USAID/Namibia's support for the pharmaceutical services, as well as supply chain management for HIV/AIDS treatment and system strengthening, continues to remain relevant to the success of the national HIV/AIDS response. The process of merging the SCMS and SPS projects into one project under MSH has commenced. It has the potential to provide high-quality, effective, and efficient assistance to Namibia's pharmaceutical and supply chain management systems.

[47] GRN—USG HIV and AIDS Partnership Framework 2010/11–2015/16.

V. RECOMMENDATIONS

The evaluation of the two projects provided the impetus to develop recommendations to be considered during the next phase of the consolidated project, and to provide guidance for future directions that will ensure sustainability and country ownership of the pharmaceutical system related to HIV/AIDS and other commodities. Additionally, the recommendations outlined in this report will facilitate USAID efforts to advocate with the GRN, specifically with the Division of Pharmaceutical Services, for their usual goodwill and support for the project's implementation. The following recommendations are intended to enable USAID's continued support to the pharmaceutical and supply chain systems in Namibia to be streamlined and implemented with high quality and efficiency.

STREAMLINE THE MSH PROJECT'S TECHNICAL ASSISTANCE OFFERED TO THE STAKEHOLDERS

- Continue joint work planning with respective partners to ensure stakeholder input. The USAID Mission must take the leadership role in involving all USG agencies in the work-planning process to ensure no duplication of effort and to limit any perception that there may be duplication when there are two implementing partners with different areas of expertise working together. This will increase efficiencies in achieving the overall PEPFAR Namibia's goals.
- Develop a memorandum of understanding/letter of support with key partners to ensure clear comprehension of roles and technical capabilities offered and how to access the technical support. This will assist in managing expectations and clarifying the MSH Project's scope of work. USAID should be involved in this process to ensure the MSH Project's subcomponents (SPS and SCMS) are working effectively and efficiently.
- SCMS should provide PhSs with information relevant to the pharmaceutical market. The capacity of PhSs to gather and analyze information specifically for the purpose of accurate and confident decision-making in determining market opportunity, market penetration strategy, and market development metrics should be developed as much as possible. In addition, SCMS should continue to support the vendor management tool to support CMS' efforts to improve supplier performance. The project could assist the CMS in utilizing the USAID WCF to access procurement services through PfSCM.
- The synergy of the two subcomponents of the merged MSH Project could be realized if SCMS assisted the private sector with pooled procurement and relaxation of tax levies on ARVs. SPS could assist with improving knowledge of treatment guidelines with the private practitioners involved in the pooled procurement.

DEVELOP A COMPREHENSIVE HUMAN CAPACITY DEVELOPMENT (HCD) STRATEGY AND IMPLEMENTATION PLAN

- In the findings section it is clear that there are substantial continuous pharmaceutical and supply chain training needs at all levels of the public and private health-care system due to high staff turnover. The SPS/Namibia program has an HCD approach developed after the 2006 assessment that includes pre-service and in-service training, supportive supervision, development of career paths, building the capacity of training institutions, etc. It may be good to use this approach to inform the recommendation under this section.

- SCMS also provides direct training, support for training, seconded experts in priority positions, and technical support to build training capacity and develop short, medium, and long-term training programs.
- It is unreasonable to expect that training alone will build the HCDs to a level that will address the national needs and gaps. Additional interventions that will further improve capacity-building include routine and periodic on-site monitoring and supervision technical assistance. This will enhance and improve the skills of beneficiaries of training of trainers trainings and build their capacity to provide coaching, mentoring, on-the-job training, and task-shifting techniques to lower-level personnel and to internship/clerkship trainees. It will go a long way toward enhancing their capacity to impact knowledge while building capacity in cascaded efforts at lower levels. This concerted effort will build capacity for HRH and HCD and provide pharmaceutical-related services as well as coordinate activities and manage the pharmaceutical system, especially at the health clinics and outreach sites at the lower level.

  It is likely that the training needs could be more effectively and efficiently addressed. To ensure more efficient use of constrained and shrinking resources, USAID should encourage the MoHSS to convene all stakeholders and then ask them to participate in a HCD workshop with the aim of developing a comprehensive five-year training strategy and implementation plan. This initiative could build upon the initial work on HCD described in the Pharmaceutical Master Plan.

  Some suggested steps are as follows:

  - Conduct a comprehensive inventory of current and planned trainings at all levels;
  - Support the MoHSS to work with stakeholders to develop a prioritization scheme for all needed trainings over the next five years;
  - Cost the prioritize scheme of trainings;
  - Identify how the trainings will be resourced; and
  - Support MoHSS to convene all stakeholders to obtain buy-in to a comprehensive resourced training strategy.

COORDINATE PHARMACEUTICAL ACTIVITIES AT THE NATIONAL, REGIONAL AND SITE LEVELS

- Continue and intensify support to the PhSs and Regional Pharmacist to conduct supervisory visits and TA provision.
- Currently the communication between CMS and the two RMSs is constrained by the lack of authority and oversight CMS has over them. The two RMSs report to their respective Regional Directors, who have priorities that may not be in line with those of CMS. The CMS does not share stock levels and other information with the RMSs. There needs to be a strengthened communication system and agreement on priorities between the three medical stores. A feedback mechanism between CMS and the two RMS would be a good first step in improving relations and supply-system functionality.
- USAID needs to lead engagement with the MSH Project and other stakeholders such as URC (infection control), Global Fund, and U.S. CDC, which are supporting human resources in pharmaceutical services and involved in procurement and supply chain management (PSM) issues.
- The new management structure of MSH Project is welcomed by the PhSs but concerns were expressed that the ability to use SCMS as "part of their staff" will be lessened and that SCMS will begin working at the facility level. USAID will need to support the MSH Project's

management structure in developing clear lines of communication and how project support is accessed by PhSs.

- Support implementation of performance measurements/indicators to monitor supply chain management and operations and inform decision-making at the central, regional, and district levels.

FURTHER STRENGTHEN THE LINKAGES BETWEEN PHARMACEUTICALS SERVICES DELIVERY AND THE NATIONAL DRUG SUPPLY

- Strengthen forecasting and quantification of ARVs and essential medication systems to improve the availability of medications at all levels. The PhSs was clear about its strong preference for government leadership in quantification and procurement activities, but that the SCMS project has played a role in providing expert technical assistance (TA). This TA is showing impact in that the PhSs announced it would hold quarterly meetings on quantification and forecasting. This support should continue and include assistance with market intelligence to ensure Namibia can access the best-priced quality medicines.
- Investigate any opportunity of CMS to access the USAID Working Capital Fund directly to avail them of the best market price available through PfSCM. The synergy of the merged project should make this effort more efficient.
- Continue to provide technical support to GRN partners in the tendering and procurement processes to strengthen and integrate ARVs, essential medicines, commodities, laboratory reagents, and consumables. This TA is currently provided through seconded staff and will need to transition to permanent GRN positions.
- Assess pharmaceutical and supply chain MISs (management information systems) (e.g. Syspro, EDT, Meditech, RxSolution, PMIS, and ePMS) functions, capabilities, and data exchange.
- Provide technical support on medium and long-term IT systems within the pharmaceutical and supply chain management system.

STRENGTHEN THE PRIVATE SECTOR IN NAMIBIA

- In meeting the objective to improve access to ART and other essential medicines, the SPS workplans (FY 2008, FY 2009, FY 2010) indicate activities with the private sector in human capacity development, reducing the cost of essential medicines and improving pharmaceutical waste disposal in the private sector. This activity should be continued and strengthened.
- Continue and intensify work to better control the risk of providing unmanaged health care without limits or controls and change from a cost center to a model that regulates and controls the quality of health care delivered. Ensuring there is quality care in both the private and public sector will assist in strengthening the private sector and in enhancing the sustainability of the system. USAID should facilitate this, especially where there are bottlenecks between public and private sector in reference to SPS support, approvals, and required advocacy to bring the private sector on board.
- Assist the working poor in accessing affordable health insurance. USAID should investigate various options to achieve this. Some ideas that were discussed by key stakeholders that may be considered are:
    1. Assisting managed healthcare organizations with pooled procurement of ARVs at the lowest possible costs; and

2. Providing a time-limited subsidy to managed healthcare organizations to allow access by the working poor to affordable health insurance that provides unlimited access to HIV care and treatment to its subscribers.

- USAID should investigate possible partnerships with the Namibian Business Coalition on AIDS (NABCOA) if they are not already engaged. SCMS partnering with NABCOA on pharmaceuticals market intelligence activities with NABCOA could be a sustainable approach. If the Global Fund Round 10 proposal is approved then this could be a highly synergistic activity.
- Investigate using online workshops to update and accredit private practitioners.
- Determine the need for waste management in the private sector.

APPENDIX A. SCOPE OF WORK

GLOBAL HEALTH TECHNICAL ASSISTANCE PROJECT
GH TECH

Contract No. GHS-I-00-05-00005-00
SCOPE OF WORK

(Revised: 09-July-10)

I. TITLE

Activity: **USAID/Namibia: Strengthening Pharmaceuticals Systems (SPS) Mid-term Evaluation**

Contract: Global Health Technical Assistance Project (GH Tech), **GHS-I-00-05-00005-00**

II. PERFORMANCE PERIOD

This Statement of Work proposed is a comprehensive assessment of USAID's pharmaceutical and supply chain management programs in Namibia. The findings from this assessment will serve as the basis from which USG/Namibia will build upon lessons learned as it further aligns its activities with the Government of Namibia under the Partnership Framework. It is anticipated that the entire assessment will require 29 days for the Team Leader and 27 days for one team member. This would include preparation, field work in Windhoek and the regions, and report writing and finalization. Depending on consultant availability, it is proposed that the assessment take place in Namibia from on/or about August 30–September 16, 2010, with three days for desk review prior to arrival. The final report is due on/about October 1, 2010, five days after USAID Namibia provides comments on the draft report (on/about September 23). To achieve this aim, USAID seeks two consultants through GH Tech to support the evaluation.

III. FUNDING SOURCE

This assignment will be funded by USAID/Namibia.

IV. PURPOSE AND OBJECTIVES

The United States Agency for International Development (USAID) awarded Management Sciences for Health a five-year, Leader with Associates Cooperative Agreement No.: GHN-A-00-07-00002-00, Strengthening Pharmaceutical Systems (SPS) Program in July 2007. This was a follow-on to its Rational Pharmaceutical Management Plus Program with an end date of June 28, 2012. The mandate of the SPS Program is to build capacity within resource-limited countries to effectively manage pharmaceutical systems, successfully implement USAID's priority services, and ultimately save lives and protect the public's health by improving access to and use of quality-assured medicines.

The MSH/SPS program in Namibia consists of the following objectives:

1. To improve access to ART treatment and other essential medicines;
2. To improve rational use of medicines and strengthen interventions to contain antimicrobial resistance;
3. To strengthen management systems and human capacity development for pharmaceutical services; and

4. To strengthen medicine regulation and improve governance in the pharmaceutical sector.

To achieve these objectives, the SPS is working in collaboration with the MoHSS directorates/divisions and USG agencies to maximize efficiency and leverage efforts in strengthening pharmaceutical management systems for the delivery of ART programs. In particular, MSH/SPS has partnered with the MoHSS Pharmaceutical Services division (PhSs), the MoHSS Directorate of Special Programs (DSP), the MoHSS National Health Training Centre (NHTC), CDC/Namibia, Supply Chain Management Systems (SCMS), University Research Company (URC), International Training and Education Centre on Health (ITECH), IntraHealth International, Catholic Health Services (CHS) and Catholic AIDS Action (CAA) to strengthen pharmaceutical systems, improve pharmaceutical management and improve rational use of medicines at treatment sites.

The USAID-awarded Partnership for Supply Chain Management (PSCM) contract no GPO-1-01-05-00032 for the Supply Chain Management System (SCMS) project in October 2005. This is a centrally-funded project implemented in Namibia by Crown Agents and also serves other PEPFAR agencies, notably the Centers for Disease Control and Prevention (CDC), the US Department of Defense, and Peace Corps. PSCM is a partnership of John Snow, Inc. (JSI), and Management Sciences for Health (MSH) with country offices managed by JSI, MSH, and Crown Agents-USA (CA-USA). The contract's current task order ends in September 2013.

Until October 2006, MSH's Rational Pharmaceutical Management Plus project (RPM Plus) in Namibia undertook supply chain activities for PEPFAR programming in addition to its routine portfolio in rational drug use and other activities in the pharmaceutical sector. At that time, SCMS was invited by USAID/Namibia to establish a field office with an aim to strengthen supply systems for HIV and AIDS program-related commodities with PEPFAR funding and to provide technical assistance in procurement management systems.

This evaluation assesses two different projects with different objectives as outlined above. The current USAID/Namibia vision is geared toward finding efficiency gains and better coordination through merging of the two projects.

This evaluation seeks to assist USAID to determine SPS and SCMS program performance and effectiveness to date, as well as inform USAID's future programming.

The following are the overarching objectives:

- To assess the extent to which USAID support for the pharmaceutical services for HIV/AIDS treatment and system strengthening met program objectives, and to determine outcomes of the support;
- To assess the extent to which USAID support for the supply chain systems for HIV/AIDS commodities met program objectives;
- To identify ways to better link private and public pharmaceutical services; and
- To identify accomplishments to date and challenges during the implementation of this activity, and to draw conclusions and make recommendations that could inform future USAID support to the host government including:
  - Streamlining SPS and SCMS technical assistance offered to the host government;
  - Coordinating activities at the national, regional and site levels; and
  - Addressing areas to further strengthen the linkages between pharmaceuticals services delivery and the national drug supply.

V. SCOPE OF WORK

Illustrative Key Questions to be addressed by the team:

Guiding Evaluation Questions

1. Are SPS and SCMS achieving their stated objectives? (If not, what remedies are recommended?)
2. Is the technical assistance provided by the projects appropriate to the context of Namibia and has this technical assistance maximized the use of Namibian expertise?
3. Is capacity being built within the host government? What human capacity needs remain? Is there a transition plan to host country ownership?
4. What is the synergy between the Global Fund and USG/Namibia?
5. What are the immediate deliverables that SPS and SCMS have achieved to date? Are there documented best practices, innovation in the MSH and SPS work to date?
6. What recommendations can be made to further integrate the SPS and SCMS projects?
7. What is the coverage, the reach, and the quality of the SPS and SCMS programs?
8. Do data reported by SPS and SCMS meet the data-quality standards?
9. Is there any duplication of activities with other USAID/USG funded partners?
10. Are there any exit strategies with regards to all supported activities?
11. Any comment on the sustainability of both projects supported activities?
12. Provide recommendations to support the technical and administrative integration of the two projects under MSH.

Performance Information Sources

1. Baseline assessments for program implementation (SPS and SCMS);
2. Country Operational Plan FY 2007, FY 2008 and FY 2009 narratives (SPS and SCMS);
3. Workplans and PMP;
4. Quarterly, semi-annual, and annual progress reports;
5. Financial report and pipelines;
6. MoHSS reports on MSH/SPS and SCMS activities;
7. Any signed agreement with local partners;
8. Key informants interviews; and
9. Field visits and direct observations.

VI. METHODOLOGY

The evaluation team will use a variety of methods for collecting and analyzing qualitative and quantitative information and data. The methods to be used in completing this evaluation will include, but not be limited to: reviewing documentation, interviews, site visits, stakeholder meetings, etc. Drawing on experiences in other PEPFAR countries, USG Namibia will seek the assistance of external consultants, headquarters, the host country, and local USG counterparts to conduct the assessment. The following essential elements should be included in the methodology, as well as any additional methods proposed by the team:

Document Review

Prior to arriving in-country and conducting field work, the team will review various project documents and reports. A list of key documents is included in Section XIII. The USAID/Namibia team will provide the relevant documents for review as soon as possible.

Team Planning Meeting

A two-day planning meeting (TPM) will be held during the evaluation team's first two days in-country with USAID staff. This time will be used to clarify team roles and responsibilities, deliverables, development of tools and approach to the evaluation, and refinement of agenda. In the TPM the team will:

- Share background, experience, and expectations for the assignment;
- Formulate a common understanding of the assignment, clarifying team members' roles and responsibilities;
- Agree on the objectives and desired outcomes of the assignment;
- Establish a team atmosphere, share individual working styles, and agree on procedures for resolving differences of opinion;
- Develop data collection methods, instruments, tools and guidelines, and methodology, and develop an assessment time line and strategy for achieving deliverables; and
- Develop a draft report outline for Mission review and approval.

In-depth Discussions with USAID/Namibia and Project Staff

Key Informant Interviews

The team will conduct structured interviews with the project staff, and key partners including the MOH and NGOs, other donors, implementing partners, and other stakeholders. To ensure that comparable information is collected during interviews, the team will develop standard guides reflecting the questions posed by the evaluation scope of work.

Field Site Visits

The team will coordinate with USAID/Namibia to prepare for and conduct site visits while in-country, and to interview key informants at these sites. Over a period of nine days, the team will conduct site-visits in two northern regions (two days in Oshana and two days in Kavango, two days travel) as well as two days of site-visits in the Windhoek area. USAID/Namibia will arrange for in-country air travel from Windhoek to Oshakati, ground transport from Oshakati to Rundu (approx five hours) and from Rundu back to Windhoek (approx eight hours). USAID/Namibia will make arrangements for accommodations as needed.

VII. TEAM COMPOSITION, SKILLS AND LEVEL OF EFFORT

USAID anticipates that the evaluation team will consist of the following individuals and groups (TBD):

- Most likely two external evaluators, based on availability. Expertise in systematic evaluation of HIV/AIDS and pharmaceuticals services required.
- USAID headquarters (TBC based on USAID/W staff schedules)
- Local team: Host country representative (DD, NIP), USAID Namibia (Dr. Kangudie,), USG counterparts in Namibia (i.e., CDC). The local and USAID headquarters team members will participate with the two external evaluators as needed to accompany them on site visits, introduce them to national and local informants and collect data, but they will not be responsible for the drafting of the evaluation report. The roles of the local team will be determined in collaboration with the Team Leader during the TPM.

Key contacts include: MoHSS and Regional/Facility level Health staff, David Mabirizi (SPS), Barry Chovitz (SCMS), Mbayi Kangudie (USAID),

ESTIMATED LEVEL OF EFFORT (LOE): A six-day work week will be approved when the consultants are working in-country.

Task/Deliverable	Team Leader LOE	Second Team Member LOE
Read Background Documents	3 days	3 days
Travel to Namibia	2 days	2 days
Team Planning Meeting	2 days	2 days
Assessment Work	15 days	15 days
In-briefing with USAID HIV/AIDS team (and partner(s) as needed)	(1 day)	(1 day)
Conduct site visits and key informant interviews (includes in-country travel days)	(9 days)	(9 days)
Discussion, analysis and draft report preparation	(3 days)	(3 days)
Mission (and partner debriefing)	(1 day)	(1 day)
Complete report draft – revise report and incorporate debriefing comments into draft report	(1 day)	(1 day)
Return travel	2 days	2 days
Mission sends technical feedback/comments on draft report to GH Tech (within 10 days of submission)	0	0
Consultants revise/finalize report	5 days	3 days
Mission reviews/signs off on final report (within 5 days of receipt)	0	0
GH Tech edits and finalizes report—approximately 30 days after mission approval	0	0
Total LOE	29 Days	27 Days

VIII. LOGISTICS

GH Tech will provide:

- International travel to and from the consultant's point of origin and Namibia; GH Tech will provide full-fare economy;
- Guest house accommodations in-country;
- Local costs and travel expenses; and
- Country cable clearance.

USAID/Namibia will provide:

- Visitors will not have an EA and therefore will need to work out of their hotel/lodging or a designated work space (TBD). They will need prior approval to bring any laptop into the USAID office for any meetings or briefings.
- Cell phone, but consultant(s) will purchase air time.
- SPS and SCMS will submit a list of all stakeholders and beneficiaries for field visits and USAID will provide logistical support for the team in country assessment.
- Arrangements/logistics for in-country site visits.
- USAID/Namibia will provide a USAID/Namibia car and driver for use by GH Tech consultants only when other USG staff members accompany them. When no USG staff members accompany consultants, they will use taxis.

IX. RELATIONSHIPS AND RESPONSIBILITIES

Prior to In-country Work

- Consultant Conflict of Interest. To avoid conflicts of interest (COI) or the appearance of a COI, review previous employers listed on the CV's for proposed consultants and provide additional information regarding any potential COI.
- Background Documents: Identify and prioritize background materials for consultants and provide them to GH Tech as early as possible prior to team work.
- Key Informant and Site Visit Preparations: Provide a list of key informants, site visit locations, and suggested length of field visits for use in planning for in-country travel and accurate estimation of country travel line items costs (i.e., number of in-country travel days required to reach each destination, and number of days allocated for interviews at each site).
- Lodging and Travel: Provide information as early as possible on allowable lodging and per diem rates for stakeholders that will travel/participate in activities with the evaluation team. Also, provide guidance on recommended secure hotels and methods of in-country travel (i.e., car rental companies and other means of transportation) and identify a person to assist with logistics.

During In-country Work

USAID/Namibia will undertake the following while the team is in-country:

- Mission Point of Contact: Ensure constant availability of the Mission Point of Contact person(s) to provide technical leadership and direction for the consultant team's work.
- Meeting Space. Provide guidance on the team's selection of a meeting space for interviews and/or focus group discussions (i.e., USAID space if available, or other known office/hotel meeting space).
- Meeting Arrangements. While consultants typically will arrange meetings for contacts outside the Mission, USAID/Namibia will support the consultants in coordinating meetings with stakeholders,
- Formal and Official Meetings. Arrange key appointments with national and local government officials and accompany the team on these introductory interviews (especially important in high-level meetings).
- Other Meetings. If appropriate, assist in identifying and helping to set up meetings with local professionals relevant to the assignment.

- Facilitate Contacts with Partners. Introduce the team to project partners, local government officials, and other stakeholders, and where applicable and appropriate, prepare and send out an introduction letter for team's arrival and/or anticipated meetings.

Following In-country Work

USAID/Namibia will undertake the following once the in-country work is completed:

- Timely reviews: Provide timely review of draft/final draft reports and approval of the deliverables.

X. DELIVERABLES AND PRODUCTS

1. A written methodology/workplan (Evaluation design/operational workplan) prepared during the TPM and submitted to the Mission for review and approval before field work and key informant interviews begin.
2. A draft report outline prepared during the TPM.
3. A Mission and partner debrief meeting that will be held before the team's departure and prior to the submission of the draft report. The team will prepare a PowerPoint presentation for this event.
4. Prior to departing Namibia, a draft report addressing key performance findings, conclusions, recommendations and lessons learned will be submitted. The mission will have 10 days following the submission of the draft report to respond and provide written comments and feedback to GH Tech.
5. Conditional on receipt of comments from USAID/Namibia five days beforehand, the final report will be due on October 1, 2010. It will be the property of USAID. Dissemination of relevant findings will occur through official channels at the local (Mission, USG, and stakeholders) as well as Washington level. Some of the findings may be used for country operational planning. The report shall not exceed 30 pages, excluding the annexes
   - The revised final unedited report will be provided to the mission five days after the comments are received.
   - Once the mission signs off on the final unedited report, GH Tech will have the documents edited and formatted and will provide the final report to USAID/Namibia for distribution (five hard copies and CD ROM). It will take approximately 30 days for GH Tech to edit/format and print the final document. This will be a public document and will be posted on the USAID/DEC and the GH Tech websites.

XI. MISSION CONTACT PEOPLE/PERSONS

Dr. Didier Mbayi Kangudie MD, MPH

HIV/AIDS Treatment Technical Adviser

USAID/Namibia

Tel.: +264 61 273747

Fax: +264 61 273756

Cell: +264 811401184

email: mkangudie@usaid.gov

Melissa Jones
Director, HIV/AIDS and Health Office
USAID/Namibia
Private Bag 12028, Ausspannplatz, Windhoek, Namibia
Tel.: + 264 61 273715
Fax: + 264 61 227006
Cell: + 264 81 127 8428
email: mejones@usaid.gov

Cost Estimate—TBD

The estimated budget for this evaluation includes, but is not limited to:

1. Minimum Level of effort: (29 days Team Leader, 27 days Team Member);
2. Two return full-fare economy flight tickets Washington-Windhoek;
3. Lodging for two evaluators (up to 17 days);
4. Meals, incidental expenses;
5. Per diem costs;
6. In-country travelling for sites visits (transportation will be provided by USAID);
7. GH Tech Washington-based technical assistance;
8. GH Tech edit and finalize Report; and
9. GH Tech overhead costs.

XII. REFERENCES (PROJECT DOCUMENTS)

- Original RFP/RFA,
- Original contract/agreement,
- Workplans,
- SAPR and APR,
- Draft PFA,
- Draft Namibia NSF 2010–2016,
- Draft National Pharmaceutical Master Plan,
- National Medicines Policies,
- MoHSS Strategic Plan 2009–2013,
- CMS reports, and
- SPS/SCMS HRH documents.

APPENDIX B. LIST OF KEY INFORMANTS INTERVIEWED

Number	Organization	Informants	Write-Up
1	CDC & I-TECH	Zabaldine Paraka-Kandjou Julie Gerber Carol Dawson Rose	EL
2	National Medicines Policy Coordination	Mr Kennedy Kambyambya Bayobuya Phulu	EL/II
3	Sub Division National Medicines Regulatory Council	Mr. P.W. Rite., Registration Pharmacist Ms. Elena Moreno, TIPC Mr. Howard Masiyachengo, Manager Mr. Ruigu Njiriri, Pharmacist Inspection and Licensing Mr. M. Indongo Lazarus., Pharmacist Registration Mr. Johannes Gaeseb, Registrar of Medicines	EL
4	Central Medical Stores	Mr. Habimana B. Kirwisi	II
5	Directorate of Special Programs	Ms. Ana Louise Jonas, CHP M&E Subdivision Mr. Michael Deklerk, Data Manager, Mr. Sylvester D'Almeida, System Analyst Ms.Dalleen Wibboon Mr. E. Dumeni	EL
6	Policy and Planning and Human Resource Division And National Health Training Center	Ms. Celine Usiku, Director Policy & Planning and Human Resource Division Ms. Elizabeth Sam, National Health Training Center (NHTC), Pharmacy Department Head Coordinator Ms. Elize Bampton, National Health Training Center (NHTC)	II
7	Finance & Logistics Division, MOHSS	Mr. H.C.R. Beukes, Director Finance & Logistics Mr. R.C.M. Platt, Deputy Director, Logistics	EL
8	National Institute of Pathology	Douglas Sr. Manager of Quality Assurance Chief of Medical Technologies Benson Makchi, Procurement Officer, Store Control	II
9	Oshana Region MOHSS	Dr. Jessica Angustinus, Acting Regional Director	II

Number	Organization	Informants	Write-Up
10	Oshakati Intermediate Hospital	Dr. Shannon Kajungulu, Senior Medical Superintendent Mrs. Kabushi, Matron	II
11	Oshakati Intermediate Hospital Pharmacy	Mr. Robert , Acting Hospital Pharmacist in charge	II
12	Regional Medical Store, Oshana Region	Mr. Msafiri Kweba, Oshana Regional Pharmacist	II
13	Omusati Region MOHSS	Ms. H.N.T. Haipinge, Omusati Regional Director	II
14	Outapi District Hospital Pharmacy	Mr. Kaurirai Davie, Hospital Pharmacist/ARV	II
15	Tsandi Hospital	Mr. Tinotaramunashe H. Shava, Pharmacis Ms. Selma Bandi, Pharmacist Assistant	II
16	Okahao Hospital	Dr. Namundjebo, Chief Medical Officer Mr. Samson Saruchera, Pharmacist Mr. Constantine Marowe, Pharmacist Assistant	II
17	Kavango Region	Ms. E.K. Muremi, Kavango Regional Director Dr. Wambugu Maina, Chief Medical Officer	KB
18	Kavango Region Medical Stores	Ms. Mary Katongo, Regional Pharamcist	KB
19	Rundu Intermediate Hospital, Kavango Region	Dr. Yuri, Senior Medical Superintendent Ms. T. Ngwira, Chief Control Nurse	KB
20	Rundu Intermediate Hospital Pharmacy, Kavango Region	Mr. Mate Vincent, Hosital Pharmacist	KB
21	Nankundu Hospital, Kavango Region	Dr. Christ Okebie, Acting PMO Mr. Fusire Terrance, Pharmacist Ms Hiata Peter, Acting PHC Supervisor Mr. Tembo Munyamani, RN Infection Control Ms. Grace Osumo, Acting Matron (Maternal Mortality Survey) Margareth Kangowa, Transport/Admin	KB
22	Nyangana Hospital, Kavango Region	Mr. Rightwell Zulu, New Start Site Manager Dr. Sylvester Nzenza, Principal Medical Officer Mr. Kativa Joseph Shitunda, Pharmacist Assistant	KB

Number	Organization	Informants	Write-Up
23	Windhoek Central Hospital	Dr. Sarah Chanango (sp?), PMO Mr. Joseph Rushubiza, Hospital Pharmacist	II
24	Katutura Hospital	Dr. Gariseb, Sr. Chief Medical Superintendent Mr Aristris Ndungu, Acting Chief Hospital Pharmacist	II
25	Khomas Regional Pharmacy	Mr. Fabrice Mbikaye, Khomas Regional Pharmacist Mr. Taapopi, Khomas Regional Director Dr. Zam, Chief Medical Officer	KB
26	Central Medical Stores–IT	Mr. Girma Tadesse, IT Advisor	KB
27	University of Namibia	Prof. Lazarus Hangula, Vice Chancellor Prof. Osmund D. Mwandemele, Pr.-Vice Chancellor	EL
28	University of Namibia	Dr. L. Haoses-Gorases, Dean School of Nursing and Public Health	EL
29	Medscheme	Mr. Tiaan Serfontein, Managing Director	EL
30	National Community Home Based Care Programme	Mr. A.N. Shapumba, National Programme Coordinator	EL
31	National Institute of Pathology	Mrs. Tangeni Angula, CEO Mr. Harold Kaura, General Manager, Technical Operations Mr. Boniface Makumbi, Manager, Specialised Services	KB
32	Pharmaceutical Society of Namibia	Ms. Karen Brockman	II
33	Division of Pharmaceutical Services	Ms. Jennie Lates, DD	EL
34	Catholic Health Services	Ms. Emmy Hango, M&E Officer	II
35	PharmAccess	Ms. Ingrid DeBeers	EL
36	PACT	Ms. Molisa Manyandu, HBC Advisor	II
37	IntraHealth	Ms. Agatha Kutedre, VCT Advisor; Dr. Chani, Technical Advisor	EL

APPENDIX C. LIST OF DOCUMENTS REVIEWED

1. *National Institute of Pathology Laboratory Logistic Assessment.* September 2008.
2. Correspondence from Boniface Makumbi (NIP) to Ian Matondo (SCMS) on 2009–2010 Activity Plan for SCMS. April 27, 2009.
3. Government of the Republic of Namibia, National Pharmaceutical Master Plan 2010–2014, Draft 3. May 2010.
4. Rabiner, Chana. USAID OHA/SCMS Division COTR Management Visit Trip Report. August 18–28, 2008.
5. Aboagye-Nyame, Kofi, Chana Rabiner, and Eugene Coetzee. PfSCM Management Visit Trip Report. April 2007. (Visit was actually in January/February 2007.)
6. Management Sciences for Health. Human Capacity Development Assessment for Public Sector Pharmaceutical Services in Namibia: Strategies to Scale Up HIV/AIDS Programs and ART Therapy. 2006.
7. Ouma, C.L., V. Sumbi, J. Lates, D. Mabirizi, and J. Nwokike. *Strengthening the National Essential Medicine Selection Process: The Namibia Experience. 2009.*
8. Ntege, C. Year. *Intermediate Hospital Oshakati RxSolution Baseline Assessment.* August 2009.
9. Coetzee, Eugene. *Assessment of the Namibian Regional Medical Stores for Physical Enhancements.* September 2009.
10. Mpfizi, Barnabe et al. *Quantification of Laboratory Commodities in Namibia for the Period September 2008–August 2009.* August 2008.
11. Mwencha, Marasi et al. *Laboratory Logistics System Review and Redesign Recommendations for the Namibia Institute of Pathology.* April 2009.
12. Healy, Michael and J. C. Nel. *Central Medical Stores—Namibia Transport and Fleet Management Study.* November 2008.
13. Wolde, Alemayehu. *Rundu and Oshakati Regional Medical Stores: Report of Technical Support Visit March 9 to 14, 2008.* May 2008.
14. Katungire, Tsitsi and Alemayehu Wolde. *Process Mapping for Improving Supply Management Activities in Rundu-Multi Regional Medical Stores.* April 2009.
15. Idris, Rafiu and Barry Chovitz. *The Cost of ARVs Procured by SCMS.* October 2009.
16. Coetzee, Eugene. Assessment of the Namibian Regional Medical Stores for Physical Enhancements. SCMS Namibia, September 2009.
17. Mpfizi, Barnabe et al. Quantification of Laboratory Commodities in Namibia for the Period September 2008–August 2009. SCMS Namibia, August 2008.
18. Mwencha, Marasi et al. Laboratory Logistics System Review and Redesign Recommendations for the Namibia Institute of Pathology. SCMS Namibia, April 2009.
19. Healy, Michael and J.C. Nel. Central Medical Stores—Namibia Transport and Fleet Management Study. SCMS Namibia, November 2008.

20. Wolde, Alemayehu. Rundu and Oshakati Regional Medical Stores: Report of Technical Support Visit March 9–14, 2008. SCMS Namibia May 2008.

21. Katungire, Tsitsi and Alemayehu Wolde. Process Mapping for Improving Supply Management Activities in Rundu–Multi Regional Medical Stores. SCMS Namibia, April 2009.

22. Strengthening Pharmaceutical Systems (SPS). Pharmaceutical Management Interventions that Improve Country Health Systems: The Strengthening Pharmaceutical Systems Program. Arlington. VA: Management Sciences for Health, 2009.

23. Management Sciences for Health. Human Capacity Development Assessment for Public Sector Pharmaceutical Services in Namibia: Strategies to Scale up HIV/AIDS Programs and ART Therapy. Submitted to the U.S Agency for International Development by the Rational Pharmaceutical Management Plus Program and the Management and Leadership Program. Arlington, VA: Management Sciences for Health, 2006.

24. Brock, T, T.Wuliji, E. Sagwa, and D. Mabirizi., D. Technical Report: Exploring the Establishment of a Pharmacy Course at the University of Namibia, March 12–27, 2009.Submitted to the U.S. Agency for International Development by the Strengthening Pharmaceutical Systems (SPS) Program. Arlington, VA: Management Sciences for Health, 2009.

25. Lates, J., C. Ouma, V. Muthiani, D. Mabirizi, D. Tjipura, and J Nwokike. *Implementation of a National Pharmacy Management Information System in Namibia*. Submitted to the U.S. Agency for International Development by the Strengthening Pharmaceutical Systems (SPS) Program. Arlington, VA: Management Sciences for Health, 2009.

26. Ntege, C. *The RxSolution Pharmacy Management Electronic Tool—Intermediate Hospital Oshakati Experience*. August 2010.

27. Namibia's Global Fund Round 10 proposal. Focus on the cultivating private sector partnerships.

28. Communication from Karas Regional Director to Obey discussing the use of PMIS in analyzing delays in reporting, stock management, and support for regular therapeutic committee meetings. September 6, 2010.

29. *National Strategic Framework for HIV/AIDS 2010/2011–2015/2016, Version 9.* June 7, 2010.

30. Ministry of Health and Social Services, Directorate of Special Programmes. National Coordination Framework for the Multi-sectoral HIV and AIDS Response in Namibia, Version 7. June 7, 2010.

APPENDIX D. SITE VISIT AND INTERVIEW SCHEDULE

Week 1 TBC = To Be Confirmed MC = Meeting Confirmed Updated Sept 3, 2010 at 1:54 pm						
Monday am	**Tuesday am**	**Wednesday am**	**Thursday am**	**Friday am**	**Saturday**	**Sunday**
Aug. 30 8:30–9:30 In-Brief with Office of HIV/AIDS and Health at USAID/Namibia MC 9:30–12:00 Team Planning meetings at URC offices, same building as USAID/Namibia TBC 12:00–13:00: SPS and SCMS MC	Aug. 31 8:30–9:30: Zebaldine Parakae-Kandjou, CDC MC 10:00 Mr. Kennedy Kambyambya and/or Bayobuya Phulu Chief Pharmacist, National Medicines Policy Coordination MC 11:00 Mr. Johannes Gaeseb, Chief Pharmacist, Sub Division National Medicines Regulatory Council (Also Paul Tanui, Pascal Rite, Dr. Assegid Mengistu) MC 12:00 Mr. Habimana and/or B. Kirwisi. Chief Pharmacist Central Medical Stores TBC	Sept. 1 Team Planning Meeting	Sept. 2 6:30 One-way Flight Windhoek to Ondangwa; Driver will take team to Oshakati 9:00 Dr. N.T. Hamata Regional Director, Oshana Region, Oshakati MC 10:00–13:00 Site visit Dr. Shanon Kajungulu Senior Medical Superintendent Oshakati Intermediate Hospital MC 12:00 Mr. Msafiri Kweba, Oshana Regional Pharmacist TBC	Sept. 3 8:30 Ms. N. Haipinge, Regional Director, Omusati Region NB: Offices in Outapi. 11:00 Site visit Tsandi Hospital, Omusati Region (90 km from Oshakati) TBC NB: for Facility level Therapeutic Committee, contact the Hospital Pharmacist and the Principal Medical Officer.	Sept. 4 Team Synthesis of notes	Sept. 5 Team Synthesis of notes Team Drive to Rundu
Lunch 1–2 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch	Lunch
Monday pm	**Tuesday pm**	**Wednesday pm**	**Thursday pm**	**Friday pm**	**Saturday**	**Sunday**
Aug. 30 16:00–18:00 Team Planning Meetings at URC Offices, same building as USAID/Namibia TBC	Aug. 31 14:30 Dr. Ndapewa Hamunime, Case Management, Directorate of Special Programs (DSP)/MOHSS	Sept. 1 14:30 Mr. R.C.M. Platt, DD Logistics, Logistics Division MOHSS. TBC	Sept. 2 14:00 Site Visit Oshana Regional Stores TBC	Sept. 3 14:00 Site Visit Okahao Hosp., Omusati Region (72 km from Oshakati,	Sept. 4 Team Synthesis of notes	Sept. 5 Team Drive to Rundu

Week 1 TBC = To Be Confirmed MC = Meeting Confirmed Updated Sept 3, 2010 at 1:54 pm						
	16:00 Ms. Celine Usiku, Director, Policy and Planning, MOHSS AND Ms. Elizabeth Sam and/or Ms. Elize Bampton, National Health Training Center TBC			but is en route back from Tsandi) TBC NB: for Facility level Therapeutic Committee, contact the Hospital Pharmacist and the Principal Medical Officer.		

Week 2 TBC = To Be Confirmed MC = Meeting Confirmed						
Monday am	**Tuesday am**	**Wednesday am**	**Thursday am**	**Friday am**	**Saturday**	**Sunday**
Sept. 6 8:00 Ms. E.K. Muremi, Regional Dir, Kavango Region, Rundu TBC 9:00 Mary Katongo, Regional Pharmacist, Kavango Region TBC 10:00 Dr. Yuri, Senior Medical Superintendent Rundu Intermediate Hospital, Rundu TBC 11:00–13:00 Site Visit Rundu Intermediate Hospital, Kavango Region TBC NB: for Facility TC, contact Hosp. Pharmacist and the Principal MO.	Sept. 7 8:00 Site Visit Nankudu Hospital, Kavango Region TBC NB: for Facility level Therapeutic Committee, contact the Hospital Pharmacist and the Principal Medical Officer.	Sept. 8 Team drives back to Windhoek	Sept. 9 09:00 Site Visit Windhoek Central Hosp TBC NB: for Facility TC, contact the Hospital Pharmacist and the Principal Medical Officer. MC 10:30 Site Visit Katutura Hospital MC 1st Floor–Room 1 Dr. Gariseb Admin: LOLA	Sept. 10 10:00 Dr. Lischen Hoases-Gorases, Dean of Nursing and Public Health, UNAM MC but need to re-confirm 9:00 Prof. Lazarus Hangula, Pro-Vice Chancellor, UNAM MC 10:30 Mr. Tiaan Serfontein, Managing Director, Medscheme/NHP MC but need to re-confirm 11:00: Out-Briefing Kaleb Brownlow at USAID/Nambia MC 11:30 Anthony Shapumba, Community Home Based Care Coordinator MC	Sept. 11 Team Report write	Sept. 12 R&R

Week 2	**TBC = To Be Confirmed**	**MC = Meeting Confirmed**				
Lunch 1–2 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch	Lunch
Monday pm	**Tuesday pm**	**Wednesday pm**	**Thursday pm**	**Friday pm**	**Saturday**	**Sunday**
Sept 6. 14:00 Site Visit Kavango Regional Stores TBC Team Synthesis of notes.	Sept. 7 14:00 Site Visit Nyangana Hospital, Kavango Region TBC (100km from Rundu) TBC NB: For Facility TC, contact the Hospital Pharmacist and the Principal Medical Officer.	Sept. 8 Team drives back to Windhoek.	Sept. 9 14:00 Mr. Fabrice Mbikaye, Khomas Regional Pharmacist MC 15:00 Dr. Taapopi, Regional Director, Khomas Region, Windhoek TBC 16:00 Mr. Girma Tadesse Central Medical Stores - IT MC	Sept. 10 15:00–16:00 Mrs. Angula & Mr. Makumbi, Manager, National Institute of Pathology MC	Sept. 11 Team Report write	Sept. 12 R&R

Week 3 TBC = To Be Confirmed MC = Meeting Confirmed						
Monday am	**Tuesday am**	**Wednesday am**	**Thursday am**	**Friday am**	**Saturday**	**Sunday**
Sept. 13 7:30 Karin Brockmann, Secretary, Pharmaceutical Society of Namibia 9:00 Ms. Jennie Lates, DD, Division Pharmaceutical Services MC 10:30: Emmy Hango, M&E Officer, Catholic Health Services MC	Sept. 14 9:00–10:00: SPS and SCMS MC 10:30: Ingrid DeBeer, PharmAccess MC Report Writing and Follow-up Interviews as needed	Sept. 15 Report Writing and Follow-up Interviews as needed 12:00–13:00: Out-brief with Office of HIV/AIDS and Health at USAID/Namibia MC	Sept. 16 Report Writing and Follow-up Interviews as needed	Sept. 17	Sept. 18	Sept. 19
Lunch 12:00–13:00 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch 1–2 pm	Lunch	Lunch
Monday pm	**Tuesday pm**	**Wednesday pm**	**Thursday pm**	**Friday pm**	**Saturday**	**Sunday**
Sept. 13 13:00: PACT, HBC Advisor, Molisa Manyandu (at APCA Offices, # 17 Adler Street) MC 14:00–14:45 Dr. Chani, Technical Advisor, IntraHealth MC 14:45–15:30: Agatha Kutedre, VCT Advisor, IntraHealth TBC 15:30–16:15 Dr. Aziz IntraHealth MC	Sept. 14 Report Writing and Follow-up Interviews as needed	Sept. 15 Report Writing and Follow-up Interviews as needed	Sept. 16 Draft Report delivered to USAID/Namibia 4:15: Lynch departure flight	Sept. 17	Sept. 18	Sept. 19

APPENDIX E. SELF-ASSESSMENT TOOL

PROGRESS TOWARD PROJECT RESULTS

1. Please describe briefly progress toward achieving your project results based on the following project objectives:

SPS objectives (FY 2010 Work plan March 15):

- To improve access to ART treatment and other essential medicines: (Medical products, vaccines and technologies, Financing);
- To improve rational use of medicines and strengthen interventions to contain antimicrobial resistance: (Service delivery);
- To strengthen management systems and human capacity development for pharmaceutical services: (Information, Health work force):
- To strengthen medicine regulation and improve governance in the pharmaceutical sector: (Leadership and Governance).

2. Please describe SPS progress toward achieving the above stated objectives here:

SCMS objectives (Portfolio Review 7/1/09–9/30/10):

- To strengthen supply chain systems for HIV/AIDS program-related commodities
- To enhance existing systems to promote information sharing
- To improve procurement management and inventory control systems

3. Please describe SCMS progress toward achieving the above stated objectives here:

4. How might progress toward the above objectives be improved?

5. Please list some key immediate deliverables that SPS and SCMS have achieved to date.

6. Describe briefly some best practices and innovation in the SCMS and SPS projects that have been documented to date.

7. Describe the coverage and reach of the SPS and SCMS project.

8. Is there any duplication of activities, perceived or actual, with other USG funded partners or Agencies?

QUALITY ASSURANCE

1. Describe some of the quality assurance/improvement activities in place in the two projects.

2. How do data reported by SPS and SCMS meet data quality standards?

3. Describe findings of any Data Quality Assessments conducted.

CAPACITY BUILDING

1. Is capacity being built within the host government?

2. What are the priority human capacity needs that remain to be addressed?

3. What is the transition plan for host country ownership?

4. Is the technical assistance provided by the projects appropriate to the context of Namibia and has this technical assistance maximized the use of Namibian expertise?

SYNERGISTIC OPPORTUNITIES

1. Please describe any synergies that exist between the Global Fund and USG/Namibia.

2. Please recommend any opportunities for synergies between USG and Global Fund.

3. What would you recommend that USAID do to facilitate better linkages between public and private pharmaceutical services?

MERGING THE TWO PROJECTS UNDER MSH

1. What are your recommendations for a successful integration of SPS and SCMS projects?

Thank you

APPENDIX F. SELF-ASSESSMENT RESPONSE SPS

SPS NAMIBIA SELF-ASSESSMENT TOOL FOR THE MID-TERM EVALUATION SEPT 2010

Progress toward Project Results

Please describe briefly progress toward achieving your project results based on the following project objectives: SPS objectives (FY 2010 Work plan March 15):

Please describe SPS progress toward achieving the above stated objectives here:

1. To improve access to ART treatment and other essential medicines.

Factors limiting sustainable access to ART and other essential medicines in Namibia included the uncoordinated essential medicine selection process; inadequate inventory management capacity at the facility level; long distance to ART sites, which was also compounded by human resource challenges; and the high cost of ART in the private sector.

To improve and ensure a sustainable access to ART and essential medicines, SPS programme has used a multi pronged systems approach which has:

a. Strengthened the medicine selection process through reactivation and equipping the selection committees with skills, tools, and human resources to ensure that an efficient and evidence-based medicine selection process is in place to guide the procurement and supply of medicines in the country. Key outputs of this process are the updated NEMLIST, a functional essential medicine selection committee which is chaired by the Deputy Permanent Secretary and has clear procedures (Standard Operating Procedures) for reviewing additions and deletions from the NEMLIST to ensure continuity of the process.
b. Enhanced the inventory management capacity at the facility level through the provision of tools to track pharmaceutical utilization— for instance the EDT and the Rx Solution—and the provision of quantification skills. This has brought about efficient tracking of essential medicine utilization, minimization of expiry and therefore wastage, enhanced coordination through availability of information, as all the 35 facilities regularly compile reports on their utilization and therefore accurate quantification of their needs.
c. Strengthened the ART decentralization process through the provision of strategic planning skills at the regional and district level to enable effective management of the ART decentralization process, generation and dissemination of information on the distribution of patient population and the status of the facilities, provision of equipment to the decentralized units, advocating for more staff based on PMIS patient load indicators, and the provision of technical support to the decentralized facilities in the short term, while building the capacity of Regional Pharmacists in the MTP approach to continue providing the required support in the long term.

The outcomes of these interventions have been reflected in the sustained improvements in PMIS indicators on overall availability of medicines in facilities across the country, which has been maintained at 97–100% from 95% during baseline. (PMIS national feedback report, March 2010)

Supporting cost-effective delivery of ART in the private sector through facilitation of private and public collaboration, enhancing awareness of the importance of the private sector in sustaining access to ART and the role of the government in effective delivery of ART by the private sector. Two studies have been carried out to identify the dynamics of private sector involvement in ART delivery and identify cost drivers of ART delivery in the private sector, and therefore determine potential strategies for reducing the cost.

2. To improve rational use of medicines and strengthen interventions to contain antimicrobial resistance

Therapeutic committees provide a forum for bringing together the relevant people at the health facility to work jointly to improve the use of medicines and any other health products—as such they are an important tool in promoting efficient and rational use of essential medicines. MSH/SPS Namibia has been working with MoHSS to establish TCs in all health facilities, following an assessment which found that TCs were inexistent or not functional in most health facilities. To date 35 Facility and 13 regional TCs have been established in a bid to provide structures for promoting rational use of medicines among health workers focusing on rational prescribing and dispensing. In addition, six sites are piloting ART adherence promotion literacy materials, which are in the process of being scaled up to enhance patient treatment literacy throughout the country. Further, a comprehensive initiative on treatment adherence focusing on identifying and scaling up of potential adherence improvement initiatives will be implemented first in 20 Health Facilities and then eventually expanded to all the facilities in the country.

3. To strengthen management systems and human capacity development for pharmaceutical services

Management systems strengthening focused on the development and installation of information systems which include the pharmacy information management system, a health information sub-system focusing on overall pharmaceutical services management at the national and regional levels; and the Rx and EDT systems focusing on facility-level pharmaceutical services management. These information systems have enhanced management of pharmaceutical services at all the levels of service delivery as reflected in the PMIS indicators (see the March 2010 PMIS feedback report).

The human resources support has involved both short-term and long-term interventions. Short term has involved deployment of technical staff to support critical positions to enable delivery of services in the short term while the long-term interventions have focused on expanding human resources training capacity of institutions to increase the supply of human resources for health.

Both interventions have registered success. Interventions on supporting critical positions have resulted in over 60% of seconded staff being absorbed, hence expanding the staff establishment, leading to successful scale-up of ART services to cover all the eligible population.

Long-term measures have led to increase of new trained middle-level staff from to 18, with prospects of continued increase to 35 staff graduating per year. Further investments have led to the establishment of a new degree staff to ensure availability of high-level staff.

4. To strengthen medicine regulation and improve governance in the pharmaceutical sector

National medicines policy guides action and contains the goals of government in ensuring access of essential medicines. However, the country has had no comprehensive policy. SPS provided support to MoHSS toward finalization of the National Medicines Policy (NMP) and the development of an implementation master plan. These key documents were finalized and await the final approval of the Ministry of Health and Social Services.

Effective laws and regulations are important in ensuring that safe and high-quality medicines are available to the population. SPS has supported an integrated approach to medicines regulation through supporting the Namibia Medicines Regulatory Council (NMRC) secretariat's registration, inspection and quality surveillance, and therapeutics information and TIPC activities. The interventions have improved the efficiency of medicine registration in the country, a development which will eventually contribute to increased access of medicines on the market.

(See more details on SPS Progress in the table below.)

To improve rational use of medicines and strengthen interventions to contain antimicrobial resistance (Service delivery):

Problem identified	SPS Strategy	Interventions and tools used	Progress toward results
1. As of January 2008, the Namibia essential medicines list (NEMLIST[48]) had not been updated since 2002 and no written procedures to guide the Essential Medicines List Committee (EMLC) in its work.	SPS provides technical assistance and support for the sustainability of an efficient, rigorous, and transparent system for updating the NEMLIST, improvement in rational use of medicine. SPS provides support to ensure evidence-based approaches for medicines selection.	• SPS supported the MoHSS to recruit two pharmacists at national level; one of them was assigned to work on the NEMLIST review process. • SPS provided reference materials (Micromedex and Cochrane Library) to support technical reviews conducted by the EMLC secretariat. • SPS provided technical assistance in review of a backlog of pending applications for changes to the NEMLIST.	• The EMLC has met twice since 2008 and an updated version of the NEMLIST was produced and disseminated countrywide in December 2008 and is the main tool guiding procurement of medicines in Namibia. • Standard operating procedures (SOPs) to guide activities of the EMLC were developed and adopted by the MoHSS. • SPS is supporting the MoHSS to develop a Formulary Tool that will greatly facilitate the EMLC secretariat's work.
2. Therapeutic Committees (TCs) at district and regional levels in Namibia were non-functional. Mitigation of AMR and nosocomial infections	SPS/Namibia collaborates with therapeutics committees to develop and implement effective strategies for ensuring effective use of medicines in Namibia. Introduce infection control quality improvement strategies.	• SPS supported MoHSS to conduct a national TC training in Namibia in Aug 2008. • SPS provided support to regional TCs to hold their meetings and to implement specific interventions.	• Percentage of scheduled meetings held by TCs has increased from 40% in March 2008 to 66% in March 2010. • TCs have acted as a forum to tackle specific medicine use-related problems; e.g., in Kavango the regional TC implemented a project to address high expenditure on anti-rabies vaccine by engaging the municipal authorities to come up with strategies to reduce the number of stray dogs.

[48]The NEMLIST guides procurement of medicines by the Central Medical Stores (CMS), which is the agency that procures medicines for the entire public sector in Namibia. CMS does not routinely procure medicines not on the NEMLIST. The NEMLIST also specifies at what level of care each medicine is available in Namibia. Medicines are made available at different levels of care based on the level of expertise required to prescribe and monitor their use.

Problem identified	SPS Strategy	Interventions and tools used	Progress toward results
inadequately addressed and posed a risk to long term sustainability and cost-efficiency of the ART program.		• Several TCs are conducting medicine use reviews in their districts (e.g., Windhoek hospital TC and Eenhana hospital TC); SPS is providing ongoing technical support. • SPS has supported introduction of the infection control assessment tool (ICAT) to minimize antimicrobial resistance and spread of nosocomial infections.	• TCs are currently managed by MoHSS and full transition of interventions planned for COP10. • ICAT was successfully implemented in eight pilot facilities; ICAT tool was reviewed to make it suitable for Namibia and submitted for approval. • Training of trainers is expected in November 2010 before rollout to the rest of the 34 district hospitals starting in November 2010 and continuing through 2011. • The ICAT tool has been reviewed by MoHSS and under consideration for adoption as the MoHSS tool guiding infection control activities in Namibia.
3. Inadequate monitoring of the risk of HIV drug resistance in Namibia.	Scale-up of ART necessitated that systems be set up to monitor ART programs and facilitate early detection of HIV drug resistance (HIV DR).	SPS has provided support to the MoHSS and worked in collaboration with the World Health Organisation (WHO) office in Namibia to strengthen systems and data analysis of Early Warning Indicator (EWIs) against HIV Drug Resistance and ensure interventions that minimize this risk.	• SPS supported inclusion of tailored queries in the EDT that provide data required for computation of six of the eight HIV drug resistance (HIV)DR Early Warning Indicators (EWIs) and participated in two regional trainings on HIVDR—one where the EDT was presented as a tool for EWI collection. • Health facilities and national level are able to quickly and reliably extract results of HIVDR EWIs from the EDT and National Database [NDB] and take appropriate action based on the results obtained. • Long-term: EWIs will be included in the routine PMIS reporting and included in the quarterly PMIS reporting systems of the MoHSS (expected by December 2010).
4. Poor access of palliative care medicines to PLWHA in HBC	• Improve access to palliative care (PC) medicines to patients in HBC • Enhance detection of ADRs	• Revision of the NEMLIST to include all PC medicines and reclassification for them	• With support from SPS, the NEMLIST was revised to include al PC medicines. Therefore, PC medicines can be procured and availed by government systems. • PC was included in the STG which is expected to be

Problem identified	SPS Strategy	Interventions and tools used	Progress toward results
and inadequate reporting of Adverse Drug Reactions by volunteers who are supporting more than 10,000 PLWHA in Namibia.	to ARVs and PC medicines by community volunteers managing most at risk persons for ADRs.	to be accessed at lower levels closer to homes. • Inclusion of PC in the STGs to improve rational use • Training of community based volunteers in rational use of medicines and reporting of ADR.	printed by the end of October 2010. • CAA nurses have been trained in reporting of PC medicines ADRs training is expected to extend to volunteers.

To strengthen management systems and human capacity development for pharmaceutical services (Information, Health workforce):

Problem identified	SPS Strategy	Interventions and tools used	Progress toward results
1. Lack of data to inform decision-making and formulation of interventions to improve provision of pharmaceutical services.	Support implementation of the Pharmacy Management Information System (PMIS) and the generation of quality data to inform management decisions.	SPS supported MoHSS to: • Develop data collection tools; • Develop PMIS manual; • Conduct training for pharmacy staff. SPS is currently supporting MoHSS to expand the PMIS, which is currently implemented at facilities only, to include indicators for measuring performance at national level.[49]	• Health facility PMIS implemented in all district and referral hospitals. • Feedback system from national level downwards fully operational. • PMIS data being used to guide decision-making: e.g., Hardap and Kavango regions used PMIS workload data to successfully motivate for additional pharmacy staff in their staff establishment in 2009. • Sustainability: PMIS has been fully incorporated in the MoHSS system and will in future require minimal or no support from partners.

[49]National level: Central Medical Stores (CMS), Pharmaceutical Control and Inspection (PC&I), and National Medicine Policy Coordination (NMPC).

Problem identified	SPS Strategy	Interventions and tools used	Progress toward results
2. Scale-up of ART services required computerized point-of-use systems to facilitate capturing and reporting of patient statistics as well as medicine inventory data.	Support implementation of the ART commodity Tracking System at treatment facilities and continued roll-out of the Electronic Dispensing Tool (EDT).	SPS has supported MoHSS to: • Adapt and customize MSH's Electronic Dispensing Tool (EDT) to capture critical data in the Namibia context. • Provide facilities with computers for running the EDT. • Conducting training for health workers on EDT use. • Develop the National Database (NDB) that holds data aggregated from all EDTs in the country. • Develop hand-held scanners (Mobile EDT) that can be used to capture patient and stock data for patients served at outreach sites.	• EDT is a national tool and captures data for all patients on ART seen in public health facilities in Namibia. • The NDB has been used by the Technical Advisory Committee of the MoHSS to investigate critical areas of ART; e.g., patient mobility within the Namibia health system. • The NDB continues to act as a source of important data to monitor implementation of MoHSS policies; e.g., there is currently an assessment underway to investigate compliance with a MoHSS directive issued in 2008 that all patients on stavudine-based regimens must be switched to zidovudine-based regimens after two years. • In March 2010 the EDT and NDB were officially handed over to the Ministry of Health as a bold step in ensuring the self-sustainment of the tools within the Ministry. Currently the EDT is being updated to contain an electronic manual and training video that should help in the training of new users at the sites.
3. Acute and crippling shortage of pharmacy staff in Namibia.	SPS works with the National Health Training Centre (NHTC) to strengthen the pharmacists assistants (PA) training program that will improve the capacity of the institution to improve output of middle-level pharmacy staffs.	• Supported the PA curricular review; • Provided equipment and other infrastructure; • Supported hiring of pharmacy tutors for the PA course.	NHTC has produced on average eight PAs since 2008 and is now producing 35 PAs annually. PAs from NHTC have been posted to provide services in health facilities countrywide.

Problem identified	SPS Strategy	Interventions and tools used	Progress toward results
	SPS has a memorandum of understanding with the University of Namibia (UNAM) to support the Pharmacotherapy program, establish a local chapter of the International Network for Improving Rational Use of Drugs (INRUD), and establish a pharmacy degree program.	• SPS support has resulted in: – Establishment of the first Bachelors of Pharmacy Course at the University of Namibia.	• Curriculum for UNAM pharmacy degree program completed with SPS support. • Two lecturers recruited with SPS support. • Long-term, SPS support will result in sustained training of human resources required for the delivery of pharmaceutical services in Namibia.

To strengthen medicine regulation and improve governance in the pharmaceutical sector (Leadership and Governance):

Problem identified	SPS Strategy	Interventions and tools used	Progress toward results
4. Need for the strengthening and capacitating of medicines regulation in Namibia for sustainable delivery of safe and efficacious medicines and sustainable public health programs, including the ART program.	SPS has supported an integrated approach to medicines regulation through supporting the Namibia Medicines Regulatory Council (NMRC) secretariats, registration, inspection and quality surveillance, and therapeutics information and TIPC activities.	• Development and finalization of the NMRC SOPs. • Support to the QSL. surveillance lab. • Training of NMRC inspectors and regional pharmacists to strengthen post marketing surveillance.	• SOPs awaiting approval and printing expected by the end of September 2010. • SPS is going to strengthen the laboratory through providing support in acquiring ISO 17025 accreditation starting in COP10. • Training planned for November 2010. • In comparison to 2006, with SPS support, the NMRC has significantly improved processes for registration of medicines, and improved staffing which has contributed to increased revenue by NMRC, integrated approaches in the regulation of medicines, and improved service delivery (timely registration, reporting and transparency).
	SPS has also provided support to MoHSS toward efforts to finalize the National Medicines Policy (NMP) and the development of an implementation master plan.	• Review of the NMP and NPMP.	• NMP review was completed, NPMP review awaiting last review before finalization and printing of both documents. Launching of policy and master plan expected by March 2011.

5. Please list some key immediate deliverables that SPS have achieved to date.

Please refer to the table above

6. Describe briefly some best practices and innovation in the SCMS and SPS projects that have been documented to date.

SPS program in Namibia has introduced several innovative health system strengthening interventions, examples:

Building on the human capacity development assessment[50] and interventions initiated under the predecessor RPM Plus program, the SPS program in Namibia continued with the design and implementation of innovative human resource development (HRD) activities to address immediate and long term pharmaceutical human resource needs of Namibia. As an example, in an effort to address the acute HR needs in Namibia, the unique system for seconding pharmaceutical staffs into MoHSS establishment positions and providing salary support for those positions, developed under the RPM Plus program has been sustained by the SPS program. This support has enabled the MoHSS to immediately fill out more than 80% of establishment positions and about 60% of these positions have been absorbed by the MoHSS. Also vacancy rates have been reduced by more than 50%. This approach of addressing immediate HR needs in a sustainable and replicable manner has been severally acknowledged as a best practice and presented at several regional and international conferences.[51]

Also the SPS program developed a strategy for curriculum development and review to expand the capacity of the local health training institution (NHTC) for the production of increased number of middle-level pharmaceutical personnel. This support enabled NHTC to secure the National Qualifications Authority (NQA) accreditation of the Pharmacist Assistants' Training Course and has registered the qualification on the National Qualifications Framework, the first program from the institution to secure such accreditation. Also with SPS support, the NHTC has doubled its yearly output of Pharmacist Assistants' graduates from nine in 2007 to 25 in 2009.

To address long-term needs for pharmacists, the SPS program developed the first needs- and competency-based pharmacy degree program[52] leading efforts for a sustainable approach to addressing the lack of pharmaceutical personnel in Namibia. The degree program has just been approved by the Senate of UNAM and will soon commence with enrollment of students. The development of the new curriculum and Pharmacy degree program, and also the novel needs- and competency-based approach, was recently highlighted by senior government officials including the Hon. Ministry for Health and Social Services in several public forums.[53]

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[50] Management Sciences for Health. *Human Capacity Development Assessment for Public Sector Pharmaceutical Services in Namibia: Strategies to Scale Up HIV/AIDS Programs and ART Therapy*. Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program and the Management and Leadership Program. Web document found at http://pdf.usaid.gov/pdf_docs/PNADG530.pdf. Arlington, VA: Management Sciences for Health, 2006.

[51] Jude Nwokike. *Building Pharmaceutical Sector Capacity in Namibia: An Innovative Initiative to Recruit and Retain Pharmacy Staff for Public Service*. The 135th APHA Annual Meeting & Exposition, November 3–7, 2007. Web documents found at http://apha.confex.com/apha/135am/techprogram/paper_162391.htm http://apha.confex.com/recording/apha/135am/pdf/free/4db77adf5df9fff0d3caf5cafe28f496/paper162391_0.pdf. Washington DC: American Public Health Association, 2007.

[52] Haoses-Gorases, L., et al. *Development of a Needs and Competency--Based Pharmacy Degree for Namibia.* Web documents found at: http://www.msh.org/projects/sps/Resources/Conferences/FIP-World-Congress.cfm

[53] Web documents found at: http://allafrica.com/stories/201009090063.html http://www.unam.na/news/Online%20News-

- Development of innovative therapeutics information and a pharmacovigilance center that combines the two activities into one unit, therefore leveraging resources
- Development of the EDT mobile to support the decentralization of dispensing to remote health facilities allowing for taking care closer to the patients.

Results achieved through the SPS support to MoHSS have been disseminated through:

- Conferences:
  - HIV Implementers meetings in Rwanda, Namibia
  - FIP Congress
  - International Conference for AIDS and Sexually Transmitted diseases in Africa
  - American Public Health Association conference (APHA)
  - Technical briefs
  - Local media
- Technical Reports

7. Describe the coverage and reach of the SPS project.

SPS Namibia has nationwide coverage

8. Is there any duplication of activities, perceived or actual, with other USG funded partners or Agencies?

Possible duplication is with activities implemented with other USAID Implementing partners in Namibia including URC (University Research Company), Africa Palliative Care Association (APCA), TBCAP (TB Capacity Building project). SPS Namibia has established agreements in terms of Letters of Support with these partners clearly delineating the roles of either party. This has limited the risk of duplication of activities funded by USAID.

QUALITY ASSURANCE

1. Describe some of the quality assurance/improvement activities in place in the two projects.

To support quality assurance SPS has conducted national support supervisory visits and supported regional pharmacists to routinely visit their districts. During the visits a comparison of what was reported through PMIS and ART Monthly Reports and what is at the facility is done. SPS has supported data validation visits to facilities and has scheduled for semi-annual DQAs.

2. How do data reported by SPS and SCMS meet data quality standards?

Both EDT and PMIS data have documented protocols and procedures on recording, aggregating, analysis and reporting. In addition, the staff responsible for collection are regularly trained in data collection. This ensures that data collected through these systems is valid, accurate, and reliable all the time.

3. Describe findings of any Data Quality Assessments conducted

The key validation activities have found that the EDT (which has been supported by SPS), as one of the main tools for collecting information necessary for the ART program in Namibia, has shown that data collected and reported from the EDT is more than 95% accurate compared to the patient's medical records at facilities. It is therefore worth reporting that

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PDFs/Edition%2046.pdf
http://www.nbc.com.na/article.php?title=UNAM_to_introduce_Bachelor_of_Pharmacy_Degree_programme_&id=3168

EDT data is more than 95% accurate and only varied on patients date of birth (mainly month and day) and not on crucial aspects of date of start ART, ART regimen, accuracy of monthly ART access data, and gender.

CAPACITY BUILDING

1. Is capacity being built within the host government?

Yes. All activities that are supported by SPS are done with a MoHSS counterpart to ensure that capacity-building and skills transfer. Additionally, trainings to improve pharmaceutical management have been conducted throughout all levels of care for pharmaceutical personnel. This is in addition to activities undertaken by SPS to improve human resources—NHTC and UNAM

2. What are the priority human capacity needs that remain to be addressed?

Continued trainings on various aspects of pharmaceutical management

3. What is the transition plan for host country ownership?

All SPS activities are discussed and agreed upon with the MoHSS with a clear exit strategy. For example in 2010, SPS formally handed over the EDT system to the MoHSS. SPS also supported PhSs to identify additional staffing needs (and provided the needed HR) and these positions were subsequently proposed to be added to the staff structure for PhSs.

4. Is the technical assistance provided by the projects appropriate to the context of Namibia, and has this technical assistance maximized the use of Namibian expertise?

Yes, for SPS. The SPS approach is to work within the existing structures (such as TCs, PMIS, EMLC, etc.) to strengthen these so that they can be sustainable. This means that SPS provides its support through the staff on the ground already and thus builds expertise for Namibia.

SYNERGISTIC OPPORTUNITIES

1. Please describe any synergies that exist between the Global Fund and USG/Namibia.

Very good synergies have been established between the SPS program and the GFATM. The most recent achievement was the technical support that SPS provided to the MoHSS technical staff to develop and pre-requisite pharmacovigilance plan for the TB program funded by GFATM and GFATM has committed up to US$2million to support this activity with TA from SPS.

2. Please recommend any opportunities for synergies between USG and Global Fund.

Increased collaboration.

3. What would you recommend that USAID do to facilitate better linkages between public and private pharmaceutical services?

Especially where there a bottlenecks between public and private sector in reference to SPS support, USAID will be very helpful in facilitating approvals and required advocacy to bring the private sector on board.

MERGING THE TWO PROJECTS UNDER MSH

1. What are your recommendations for a successful integration of SPS and SCMS projects?

Thank you

APPENDIX G. SELF-ASSESSMENT RESPONSE SCMS

SCMS Self Assessment Tool for Mid-Term Evaluation September 2010

PROGRESS TOWARD PROJECT RESULTS

1. Please describe briefly progress toward achieving your project results based on the following project objectives:

SCMS objectives (Portfolio Review 7/1/09–9/30/10):

- To strengthen supply chain systems for HIV/AIDS program-related commodities;
- To enhance existing systems to promote information sharing; and
- To improve procurement management and inventory control systems.

Please describe SCMS progress toward achieving the above stated objectives here:

As noted during our initial meeting, SCMS' mission is "to strengthen or establish secure, reliable, cost-effective and sustainable supply chains to meet the care and treatment needs of people living with or affected by HIV and AIDS."

In Namibia, SCMS does not own or operate elements of any supply chain. SCMS/Namibia does not sub-contract, rent, or operate any warehouses, distribution systems (e.g., trucks), or information systems. (By contrast, in Vietnam SCMS contracts for significant warehousing and storage resources at CPC#1, which distributes at SCMS direction and where SCMS directly collect data for USAID-supported ART sites.)

Other than limited procurement of rapid HIV test kits (RTKs), SCMS/Namibia is not a major supplier of commodities for any Namibian entity. Consequently, all SCMS activities are technical assistance designed to build or improve capacity in host-country organizations. No systems are dependent on SCMS assistance to function. (IntraHealth's ordering system is an exception, as described below.) (By contrast, in Vietnam SCMS procures a significant portion of ARVs for USAID-supported sites and CD-4 reagents for testing.)

SCMS's accomplishments in our objectives from the portfolio review, by client, are as follows:

PhSs

- SCMS supports the secondment of the ART Logistics Pharmacist (ALP) (the position is currently vacant). The ALP receives all site-level data on ARV dispensing and stock levels through the EDT and prepares a quarterly report summarizing the data.
- Monitoring the ARV pipeline in-country and advising MoHSS and treatment sites on ways to reduce overstocking as well as alternatives to current ARVs and RTKs based on supply chain considerations
- Building the capacity of Division: Pharmaceutical Services to forecast ARVs for the national ART program

CMS

- SCMS supports the secondment of the Network Administrator who keeps CMS's management information system, Syspro® running. SCMS previously supported a Procurement Pharmacist who resigns effective August 31, 2010.
- SCMS has built significant infrastructure capacity in CMS, supporting the refurbishment of the ARV stores, including security systems and racking, additional security in the building,

refurbishment of outlying stores, provision of materials handling equipment, a pallet-wrapping machine, truck tracking equipment, and truck tail lifts.

- SCMS has provided technical assistance in studies of procurement, transportation, and security processes and infrastructure.
- The project has supported training in warehouse management for six staff members.
- Established a data-link between CMSs and the RMSs for the purpose of monitoring the RMSs computer servers but which could be used to view data to improve stock management.
- Supported a pre-feasibility study to determine the requirements for a new CMS and are working to implement the feasibility study for construction by the MOHSS.

Directorate of Special Programs

- SCMS works with DSP and PhSs to quantify annual ARV needs and the GFATM procurement and supply management plan (PSM) for GFATM proposal and reports back to GFATM on the same.
- SCMS works with the VCT program on writing the guidelines for the supply chain of counseling and testing program and quantifying and providing a distribution plan for National HIV Testing Days or Week.
- SCMS was initially invited to work with the National TB and Leprosy Program (NTLP) on quantification of multi-drug resistant (MDR) TB and this role is expanding to all supply chain issues for the TB program. (Medicines for TB are integrated in routine ordering and are not part of a parallel system.)
- SCMS was asked to work on quantification for male circumcision kits, although this program has not yet been launched.

Primary Health Care Directorate/Community-based Health Care

- SCMS supports quantification of home-based care kits and previously funded distribution of kits procured under GFATM funding.
- SCMS participates in and supports twice-annual supportive supervision visits to all regions in Namibia.
- SCMS worked with community-based health care [CBHC] to integrate distribution of kit items into the single CMS system, eliminating the need for a parallel system. SCMS will assist in revising the standard operating procedures and working with key stakeholders to ensure that HBC kit items are in continuous supply.

Regional Medical Stores

- SCMS supports the implementation of the Syspro® MIS at both RMSs with the CMS Network Administrator's support (which is considered by CMS in addition to his routine work).
- SCMS has provided an assessment of the RMSs in COP08 and concluded that the principle problem in both structures is the flooring, which puts both commodities and staff at risk. No solution has yet been implemented for this concern.
- SCMS has provided materials-handling equipment to both RMSs.
- SCMS has reviewed current product flows and is developing improved SOPs for both RMSs.

Primary Health Care Directorate/Food and Nutrition Unit

- SCMS assisted in an assessment of the proposed sites that demonstrated the challenges of program implementation and is working to find ways to overcome them.
- SCMS assisted in finding warehouse space for the storage of PlumpyNut that was procured in advance of the program being ready to distribute food.
- SCMS's primary accomplishment has been to demonstrate to the program manager that distribution of food is a significant challenge given the weight and volume of food and the requirement for increased security and warehouse space. Although this has potentially slowed down the program's implementation, it has likely prevented product expiration and challenges in storing and managing the commodities.

Quality Surveillance Laboratory (QSL)

- SCMS supports the secondment of the Lab Manager and one of the two lab analysts.
- SCMS' assistance was initiated when SCMS was asked to procure equipment for quality assurance testing (a high-pressure laser chromatograph or HPLC machine). SCMS has since procured the HPLC and additional equipment.
- SCMS worked with the lab manager to develop standard operating procedures and procured reference material and provides ad hoc advice on testing procedures.

Namibia Institute of Pathology (NIP)

- SCMS has worked extensively to improve the management of the supply chain by assisting organization of the central stores for NIP and assisting in moving and organizing the new warehouse facility.
- SCMS has provided assistance in use of their primary electronic tool, Meditech®, in the module for materials management.
- SCMS has provided assistance in quantification in lab supplies.
- SCMS has procured lab-quality refrigerators and cool boxes for storage and transportation of blood samples.
- SCMS recently completed an assessment of NIP's procurement system and has recommended improvement strategies.

IntraHealth

- SCMS procures all VCT medical supplies under PEPFAR support and the program has reported no stock-outs of key items in more than three years.
- SCMS quantifies for Intrah's needs and updates the supply plan quarterly.
- SCMS developed the information system for VCT resupply and receives and compiles the data and determines quantities to be sent to Intrahealth sites. (This is the only portion of the supply chain that SCMS manages directly.)
- SCMS trained site-level staff and the warehouse manager for Intrahealth's central store.
- SCMS is training Intrah's own staff to take over all of these functions.
- (IntraHealth is closing many VCT sites on October 1, 2010, reducing their needs by 40%. IntraHealth is re-structuring its services in this area, impacting SCMS' technical assistance and capacity building.)

PharmAccess/Namibia Business Coalition on AIDS (NABCOA)-Bophelo Project

- Quantified needs for HIV testing for 8,000 clients.
- Procuring RTKs and related supplies for testing and facilitated the use of IntraHealth's supply chain to minimize need for creation of a separate supply chain.

Namibia Blood Transfusion Service (NBTS)

- SCMS did a once-off procurement of blood bags using COP08 CDC funding.
- SCMS also provided NBTS with several blood storage refrigerators which had been over-ordered for Kenya under SCMS and which NBTS was in need.
- SCMS' primary assistance has been to procure a medical-grade incinerator that will serve the entire MOHSS and local sources of medical waste in Windhoek (local police, CMS, NIP, private practices, and others). The incinerator project is at the stage of an environmental impact assessment (EIA).

ITECH

- SCMS-procured RTKs and related supplies and some additional equipment.

PACT

- SCMS received USAID funding to procure HBC kits to support several PACT-supported NGOs. Due to USG regulations and Namibian regulations, it was difficult to source from suppliers to provide small quantities of medicines and supplies in kit form that would also be cost-effective and would be registered in Namibia. However, SCMS was able to determine that sufficient kits would be available through the public sector (CBHC) system for all PACT recipients. SCMS has since procured pill boxes for ensuring patient adherence for ARVs.

HOW MIGHT PROGRESS TOWARD THE ABOVE OBJECTIVES BE IMPROVED?

SCMS's introduction into Namibia, in addition to the SPS (then RPM Plus) project, created confusion as to the differences between the two projects. As a consequence, SCMS work was limited to the central level and, to the extent approved by the central level, to the two regional stores. The lack of "visibility" beyond this level has resulted in SCMS being unable to provide TA to lower levels or to determine the impact of central-level interventions on sites. With the integration of SCMS with SPS, this major obstacle will be removed and the cumulative effect of proper inventory management and ordering from the lower level will exert a positive influence in central-level activities such as quantification and procurement.

As with many country programs, SCMS is hampered by the lack of counterparts with whom to build capacity. SCMS proposed the creation of a logistics management unit within PhSs to handle issues across all supply chains, but there are simply insufficient resources to create such a unit. The lack of HR likewise hampers CMS operations and the project's ability to provide additional TA and the implementation of the HBC kit and therapeutic food programs. The lack of HR also hampers implementation of recommendations from SCMS-supported assessments in procurement, security, and transportation which were well-received but which are becoming dated.

In SCMS' early days, the project has been perceived as a project from which "stuff," essentially infrastructure improvements like procurement of racking and materials handling equipment, could be obtained. The project was not as well perceived as a TA program and changing this perception is a concern.

Although funding from USG is ramping down overall, SCMS believes that it can be a good source for commodities procured in bulk (and provided MOHSS with data to suggest that at least $1 million and as much as $2 million in ARVs might have been saved by leveraging SCMS' pricing, especially for ARVs and RTKs). CDC significant procurement funding has not been channeled to SCMS. MOHSS has preferred to support its internal procurement through CMS, in the belief that preserving local capacity is important to future success.

1. Please list some key immediate deliverables that SPS and SCMS have achieved to date.

Some key immediate SCMS deliverables to date are as follows:

- Zero reported stock-outs of RTKs and related commodities in the three years of managing the VCT supply chain for IntraHealth
- Drastic reduction in the number of backlogs encountered by the QSL
- Installation of pallet racking in CMS warehouses more than doubled general storage capacity from 664m³ to 1416m³ and increased floor area dedicated to ARVs six-fold to 827m², enough to store nine months of stock at current consumption levels in addition to other space optimization interventions.

2. Describe briefly some best practices and innovation in the SCMS and SPS projects that have been documented to date.
   - Reduction or elimination of parallel supply chains by encouraging use of CMS:
     - Integration of HBC kit system in existing MoHSS pharmaceutical supply chain, thus ensuring the effective use of available resources;
     - Preventing creation of a separate supply chain for HBC kits by PACT by integrating into HBC kit system;
     - Preventing creation of a separate supply chain for RTKs by PharmAccess by integrating into IntraHealth's system; and
     - Encouraging the Food and Nutrition Unit to work with CMS rather than create a parallel system (although a parallel system is likely to be necessary at least in the short term).
   - Logistics system design and management of IntraHealth's RTKs and related supplies, guaranteeing a continuous supply of these commodities at end user level.
   - Providing assistance and materials to improve warehousing while minimizing costs and taking advantage of existing space:
     - For CMS as noted above, and by refurbishing additional, outlying warehousing; and
     - For NIP, by using un-used shelving from CMS and finding and refurbishing a larger store than was already available.

3. Describe the coverage and reach of the SPS and SCMS project.

SCMS coverage is national in scope—all systems designed by SCMS are intended to be used at the national level and without support to specific regions or districts. The reach of the project has been limited, as noted above, to the central level for most products and to the regional level for HBC kits.

4. Is there any duplication of activities, perceived or actual, with other USG funded partners or Agencies?

There is a perceived overlap in the work that SCMS does vs. that of SPS. With guidance to limit SCMS to the central level and regional stores, there should not have been an overlap. Specifically, there is a perceived overlap in scope vis a vis QSL. As noted above, SCMS initially worked with QSL on procurement of an HPLC and expanded to support for quality assurance

[QA] testing for imported commodities. SPS would like to introduce post-market surveillance testing which would likely fall to QSL; although QSL is not, at present, large enough (either in staff or lab size) to expand from its current mandate.

There is a perceived overlap in the work SCMS does with NIP, since CDC provides the majority of support to the lab functions. SCMS work is limited to the warehouse and to forecasting for procurement.

QUALITY ASSURANCE

1. Describe some of the quality assurance/improvement activities in place in the two projects

SCMS does not conduct QA activities in the sense of medicine or commodity quality.

2. How do data reported by SPS and SCMS meet data quality standards?

Can you provide more information about what data quality standards are intended to be measured against? SCMS collects data only from CMS and is unable to verify that data given limited access to Syspro and the warehouse to conduct physical inventories. SCMS has likewise had limited access to NIP's Meditech system or to conduct physical inventories.

3. Describe findings of any Data Quality Assessments conducted

None under SCMS.

CAPACITY BUILDING

1. Is capacity being built within the host government?

SCMS has been supporting the development of sustainable capacity-building mechanisms as follows:

- Developed supply chain management curriculum for pre-service training for NIP lab technologists;
- Contribution to SPS work in curriculum for pre-service training for pharmacists in the new school of pharmacy;
- Numerous in-service training on supply chain management for health workers managing lab commodities, pharmaceuticals, and related commodities;
- Supporting international training of MoHSS staff in procurement and warehouse management; and
- Development of supply chain systems that are well-documented and can exist beyond the life of the SCMS project.

2. What are the priority human capacity needs that remain to be addressed?

There is a critical shortage of local public health workers. As is most places where USAID works, the supply chain is known to be a critical function, but one for which there is no cadre of personnel with professional accreditation. Staffing at CMS and within PhSs remains a priority (e.g., SCMS has hired an ART Logistics Pharmacist for PhSs, but he cannot take up this post until his hospital-based assignment can be filled. Although MOHSS has identified someone for that position, the then-created vacancy needs to be filled.)

3. What is the transition plan for host country ownership?

The current transition plan is geared toward integration of health supply chains within the existing MOHSS pharmaceutical supply chain, thus improving system efficiency and cost-effectiveness.

There are no systems that depend on continued assistance from SCMS, although the project continues to provide TA to improve supply chains. Where SCMS adds value is in improving systems with specific interventions.

4. Is the technical assistance provided by the projects appropriate to the context of Namibia and has this technical assistance maximized the use of Namibian expertise?

All TA provided to Namibia is on the basis of working with USAID clients to determine their needs and absorptive capacity. Although Namibia is economically a middle-income country, many of the challenges in Namibia are similar to those in other developing countries. That said, SCMS does not apply boiler-plate solutions in its work.

Public-sector supply-chain expertise is limited worldwide. No Namibian expertise has been identified to provide consulting to MOHSS. SCMS's technical staff is entirely expatriate due to the lack of qualified Namibian candidates interested in this work.

SYNERGISTIC OPPORTUNITIES

1. Please describe any synergies that exist between the Global Fund and USG/Namibia.

At present, synergies that are being undertaken are the use of GFATM funds to procure home based care kits and USG/Namibia previously funded distribution. Additionally, USG/Namibia supports quantification of ARVs for GFATM applications.

2. Please recommend any opportunities for synergies between USG and Global Fund.

USG and GFATM might achieve more synergy by reviewing pricing for bulk-procured items and utilize either SCMS or the GFATM's voluntary pooled procurement mechanism to undertake procurement to achieve significant savings. (Since the Partnership for Supply Chain Management procures for USG as SCMS and for GFATM under the voluntary pooled procurement [VPP], the choice of the best-value mechanism is the key synergy based on commodity cost, rather than the best-value procurement agent.)

3. What would you recommend that USAID do to facilitate better linkages between public and private pharmaceutical services?

SCMS's involvement in the private sector in Namibia is limited to use of the MOHSS-supported incinerator for medical waste. Support for a pricing survey (both landed procurement costs and selling costs) that is not identifiable to a specific provider might help in moderating costs in the private sector. Supply chains in the private sector are, by design, not linked to the public sector, although pooled procurement lowers the cost of medicines for all who participate in the pool.

MERGING THE TWO PROJECTS UNDER MSH

1. What are your recommendations for a successful integration of SPS and SCMS projects?

The two projects have their own cultures. The projects should be given time to integrate, starting with, as requested, co-location.

Thank you

APPENDIX H. KEY INFORMANT INTERVIEW GUIDE

1. Introduction of evaluation team and evaluation key objectives.
2. Request Key Informants to provide information on their experience with both SPS and SCMS to include the technical assistance, resources (financial, human, equipment), and other support that they have received and its appropriateness to the Namibian context.
3. How have the SPS/SCMS projects built capacity in the key informants' area? (Please note any organizational development strengthening and HRH)
4. How well have SPS/SCMS implemented their projects in alignment with Namibia's pharmaceutical master plan?
5. Please comment on the sustainability of the projects activities.
6. What recommendations can be made to further integrate the SPS and SCMS projects?

APPENDIX I. KEY INFORMANT NOTES

ORGANIZATION: CDC AND ITECH

Key Informants:	Sue Gerber, CDC Deputy Director Zeb Kandjou-Pakarae, CDC Program Officer Carol Dawson Rose, Principal Investigator/I-TECH Country Director
Relevant Program Areas:	Training
Date:	August 31, 2010

Support Received

- U.S. Department of Defense put funding into SCMS for assistance to I-TECH, which required I-TECH to use SCMS. Apart from this one instance, I-TECH would normally go through the GRN system with Central Management Stores (CMS).
- I-TECH works collaboratively with SPS in the development of the pharmacist diploma course at UNAM.

Capacity Building

- Not relevant as both CDC and I-Tech do not receive support from SPS/SCMS.

Duplicities

- SCMS attempts to create a parallel system, which is not needed in this context. Both CDC and I-TECH indicated that they found the government system to be reliable and organized. The CMS is competitive with private sector and can offer similar prices. The apparent level of corruption in the government system is low compared to other African countries and the personnel are committed. The main weakness is in human resources, as there is a lack of qualified pharmacists and logisticians.
- CDC funds National Institute of Pathology (NIP) through a five-year cooperative agreement for lab renovations. It believes there is redundancy with SCMS support to NIP warehouse that includes renovation of the warehouse and equipment purchases.

Synergies

- SCMS involvement with development of Global Fund proposals in quantification and forecasting has been beneficial. SCMS works with CDC, the Global Fund, and GRN technical personnel.

Quality of Implementation

- The work done in blood services was a very good achievement and resulted in the GRN taking over from the project.

Sustainability

- I-TECH indicated that SPS is building capacity within the government and that their approach is sustainable.
- I-TECH and CDC both thought SCMS's traditional role as a procurement agent was not needed in Namibia and was counterproductive.

Recommendations

- CDC suggested that SCMS should have more discussion up-front with the GRN and identify how best they can assist in strengthening the existing government supply chain system.

Impressions

- The CDC was clear in their displeasure with SCMS work at the NIP, stating that the cooperative agreement between NIP and CDC is broad enough to address all the needs at NIP to include storage management and warehousing. The duplicity of efforts resulted in under-spending by NIP of the CDC agreement. These funds are needed in other program areas and should not be tied up with one partner.
- The consultants are aware that USAID and CDC have had budget discussions concerning this SOW. To the consultant's knowledge, CDC does not possess strong technical capacity in storage management or warehousing and should consider the technical expertise SCMS can offer the partner.

ORGANIZATION: CENTRAL MEDICAL STORES

Key Informant(s): Mr. G. Habimana and Mr. B. Kirwisi
Relevant Program Area(s): Supply chain management
Date: August 31, 2010

CMS is the exclusive government agency to buy medicines through a tender system.

CMS stores and distributes medicines to government health facilities countrywide. The facilities do not come to collect their consignments from CMS stores; rather CMS have them delivered to the facilities on scheduled dates and time. Emergency orders are sent to the facilities through courier companies. CMS contracts private companies to deliver to medical hospitals when their fleets are down. Medicines are delivered to hospitals every Monday of the week. No hospital has the right to go outside of this system to buy medicines, without an approved request. The key informant indicated that approval of request to buy outside this system is almost impossible. The premise of the supply chain is to supply medicines and substances to customers according to demand. This is a best practice operation to other government / countries decision makers.

Support Received

Assessments

SCMS carried out four assessments, one of which was on fleet management for the transportation of medicines. The assessment provided four options of which the cheapest option was CMS continuing to manage the fleet, but there author suggested looking at other parameters than cost. CMS indicated the MoHSS is investigating the other options and contracting out the service.

Another study conducted was on warehouse security to address the problem of pilferages within the stores. The report recommended that 10 more cameras costing about N$50,000 should be procured and installed. CMS expressed dissatisfaction with the assessment in that the recommendations will likely not address the issues.

The other two assessments were not discussed.

Technical Assistance

- Mr. Habimana indicated that SCMS is specifically expected to support the CMS and the two Regional Medical Stores are not included. The areas of support include tender, storage, and distribution systems practices. SCMS was also supposed to have appropriate and adequate skills and expertise in a bid to raise government's expectation. CMS questions the human expertise brought in by SCMS to work in the project alongside its staff, as they were perceived not to be more skilled than the government's staff in the areas of procurement, distribution, etc..
- CMS expected SCMS to advocate for USAID to support increase in storage space at its warehouse. SCMS has since embarked on a pre-feasibility study to build a new CMS. USAID is believed will be supporting the feasibility study when it takes place; but there is concern that the merger of SPS and SCMS will dilute this priority of SCMS.
- Provided assistance with optimal use of storage space and installation of shelving.

Capacity Building

SCMS has supported an expert in information technology to run the Syspro system from 2006 to the present. They also have supported a pharmacist for procurement but the position is now vacant and CMS expressed frustration that SCMS was not moving forward with recruitment.

Duplicities

None noted.

Synergies

None noted.

Quality of Implementation

- CMS has requested SCMS support in providing it with a Supply Performance Management Tool (SPMT) since 2006, but to date this has not occurred. This tool could enable government to avert the potential risks of court cases, if unethical practices and guidelines other than the SPMT are used to judge suppliers.
- Procurements made for MOHSS by SCMS were not satisfactory; thus MOHSS requested not to use SCMS any longer for such purpose. MOHSS thus reverted to using its own system for procurements. Further to this, the SCMS delivery program was also judged unsatisfactory, as there were quality defects of the goods, ARVs, and pharmaceuticals requiring SCMS to replace these items. This prompted the government to use its own system for this purpose.

Sustainability

MOHSS/CMS system is 80% automated in tendering, bids, procurement, etc.; and its system does ranking. MOHSS has minimized the human dependence in the operations of its system; and has created parameters that make its system more transparent and fair.

The MOHSS tender management module is developed by Syspro, and MOHSS is in partnership Syspro. The MOHSS computerized system can carry out forecasting, quantification, and procurement processing functions. MOHSS is satisfied with its system, even though there is room for improvement.

Recommendation

MOHSS/CMS is of the view that SCMS has to provide better expertise than is available within its (MOHSS/CMS) system to be relevant in the scheme of things. MSH should ensure that the merged outfit creates a better skill base for recruited/transferred staff to ensure appropriate support for CMS activities; e.g., MSH should ensure that only persons with new and better ideas in terms of improving procurement systems are considered. People with high-quality skills in logistics management should be recruited in logistics positions, and should be better than those in these present outfits; i.e., SPS and SCMS.

MSH should endeavor to have an outfit and system that will be more transparent.

It is a good idea for SCMS to recruit logisticians from the Africa region or even Namibia. But they do not have the required skills in the sense that they should have better skills than the CMS staff. USAID should ensure that the staff of itsr implementing partner working in the new merged outfit have the appropriate skills that meet the expectations of CMS. USAID should encourage its implementing partners to change their policy of recruiting locally from the Africa region, to looking outside or overseas for those who have better skills.

CMS need achievers who appreciate joint accomplishments.

CMS wants to be involved with recruiting experts to provide TA to its staff.

Impressions

MOHSS has stock holding of about USD26 million (i.e. N$980 million), and there is a high risk of expiration of medicines, and stock shortages. There is need to improve stock management at the CMS as there is space constraint to carry and manage the large stock in CMS's custody. To store this large stock in good condition, there is need to increase storage space.

For a smooth relationship between the MOHSS/CMS and MSH there is a need to try and address the above expressed concerns of the CMS.

The policy on guidelines for commencing ART therapy has been changed from a CD+4 count of 200 to 350. The consequence of this new policy is expected to increase the number of patients to commence ART therapy by approximately 30 %; and this will put further pressure on the CMS operations, as well as cause storage space constraint issues, etc., throughout the warehousing/storage and distribution systems.

ORGANIZATION: **DIRECTORATE OF SPECIAL PROGRAMS**

Key Informant(s): Ms. Ana Louise Jonas, CHP M&E Subdivision
Mr. Michael Deklerk, Data Manager
Mr. Sylvester D'Almeida, System Analyst
Ms.Dalleen Wibboon
Mr. E. Dumeni

Relevant Program Area(s): Policy

Date: August 31, 2010

Support Received

- Mainly receive support from SPS.
- SPS has participated on the technical working groups, HIV Drug Resistance and Monitoring and Evaluation (M&E) Committee.
- Provide support (transport and HR) for field/site visits.
- Development of EDT and EPMIS indicators and the integration of both systems and validating the data from both.
- HIV drug adherence protocol development and approval.
- TA from SPS to present ETB manager.
- Hospital management system, RxSolutions, and pilot implementation in Oshakati.

Capacity Building

- They have transferred some knowledge but have not specifically built capacity.

Duplicities

- None noted.

Synergies

- None noted.

Quality of Implementation

- Appreciate the assistance provided by MSH but also indicated a need to expand assistance to other directorates rather than only in pharmacy.

Sustainability

- There is the capacity to continue activities without MSH support.

Recommendations

- They would like to have capacity built in developing systems to track people lost to follow-up. Need to have personnel, telephones.
- Smartcard to work with EDT/EPMIS that could develop a network infrastructure.
- Dispensing meds at the facility level needs strengthening, as there is a lack of pharmacists leaving the nurse to prescribe, dispense, and manage the pharmaceuticals. Need to work on getting Pharmacist Assistants in place.
- Stock Handling: Expired meds are an issue and there is a need to better redistribute medicines.

- List of needs that was shared with MSH was also provided:
  - Scale-up PMTCT with a comprehensive package;
  - Ensure that PEP services are available;
  - Improve ART coverage to include human resources and infrastructure;
  - Encourage adherence to treatment to minimize defaulters and development of drug resistance;
  - Develop more reliable monitoring and tracking systems for ART patient management;
  - Strengthen pharmaceutical supply system throughout all levels; and
  - Operational research on cohort analysis of ART patients.

Impressions

- The team expressed that it is overwhelmed by the challenges that are facing the system as they adopt the new CD4 level for treatment.
- Organized and well aware of their needs.

ORGANIZATION: NATIONAL MEDICINES POLICY COORDINATION

Key Informants: Mr. Kennedy Kambyambya , Bayobuya Phulu.
Relevant Program Area(s): Essential medicines, medicines policy
Date: August 31, 2010

Support Provided

- MSH/SPS have provided TA to this division to strengthen management systems, human resources and institutional capacities for the improved delivery of pharmaceutical services; especially in the area for pharmacy training and capacity development.
- MSH/SPS supported the National Health Training Centre NHTC to strengthen the institutions Pharmacists Assistants (PhAss) training program, supports the Pharmacy Assistants (PhAss) curricular review; as well as, provided equipment and other infrastructure that will improve the capacity of the institution to improve the performance and quality of middle-level pharmacy staffs, i.e, the non-professional pharmacy officers, to manage ART.
- MSH/SPS has a memorandum of understanding with the University of Namibia (UNAM) to support the pharmacotherapy program, and the establishment of a pharmacy degree program.
- MSH/SPS supported the development of the electronic dispensing tool (EDT) / ART dispensing tool (ADT), and this has been in use in every ART services providing facility, and it has continued its roll-out to all new ART facilities. The EDT is also an inventory management tool.
- MSH/SPS supported the development of the mobile scanner, which allows pharmacists at the district hospitals to go out and collect data at the outreach facilities.
- MSH/SPS has assisted the NMPC in Medicine selection; and the Essential Medicine List (EML) has been another major project activity that SPS has assisted the NMPC since 2004. The EML was launched in 2008.

Capacity Building

SPS Support

- MSH/SPS supported an evidence-based approach for medicines selection as well as the implementation of proven strategies for the improvement of rationale use of medicines.
- MSH/SPS supported and strengthened the therapeutics committees (TCs) throughout the regions and has continued in efforts to revitalize and strengthen TCs to develop and implement proven strategies for the improvement of rationale use of medicines at treatment levels.
- The SPS program continues to support the implementation of the Pharmaceutical Management Information System (PMIS) and the generation of quality data to inform management decisions on the use of pharmaceuticals. The PMIS enables the measuring of pharmaceutical services, and indicators have been developed for the Namibian situation. SPS is providing TA support to extend the PMIS to measure performance of sub-divisions of NMPC, CMS, etc.
- SPS supports the implementation of the ART commodity tracking system at treatment facilities.

- MSH/SPS has assisted the NMPC in medicine selection; and the Essential Medicine List (EML) has been another major project activity that SPS has assisted the NMPC since 2004. The EML was launched in 2008. For the medicine selection, SPS provided capacity-building for the development of a formulary tool, by sponsoring NMPC staff on training to South Africa to assist in the functions of the EML and to ensure the adaptation to the Namibian situation.
- MSH/SPS was involved in the development of the Standard Treatment Guideline (STG), and is in the final stage of its production.

SCMS Support

- SCMS has supported ART logistics pharmacists and have trained them in quantification.
- SCMS has provided support and have been involved in conducting training for inventory control/management.
- Storage capacity has been inadequate and NMPC is planning to carry out an assessment at facility-level and above. This situation is believed to have arisen as a result of the scale-up of ART activities.

Duplicities

None noted.

Synergies

Not noted.

Quality of Implementation

The informants feel the quality of project implementation has had marked improvement since the commencement of the SPS project and the continued support and trainings which the project has provided. They are optimistic that the continued implementation of the project activities, and especially with added trainings and capacity-development activities addressing the identified needs of the Namibia context, better skilled hands will be available in due course to sustain ably and carry on.

Sustainability

The support and assistance provided by the project— especially in the areas of building human capacity for training at the NHTC for pharmaceutical services personnel, and the skills development activities for other health-care personnel—will augur well for program implementation sustenance in the long run. The pharmacy training programs and capacity-development structures will definitely reduce the stress of human capacity deficiency in Namibia's health system.

Recommendations

(Recommendations to further ensure the seamless integration of SPS and SCMS activities):

- Merger of SPS and SCMS would result in money in one basket and activities could be developed, streamlined, and purposefully implemented and accomplished.
- Request for support will now need to be sent to only one organization instead of two, as the new outfit expertise will be covering both pharmaceutical services and supply-chain issues.
- The merger will enable SCMS, which has been supporting services at the central level, to now support for inventory control and management at lower levels—especially in facilities

where there have been reports of huge expiries, poor inventory control, over-stocking , under-stocking, and medicines requisitioning challenges, etc.

- Stock-outs are rarely reported, especially for ARVs; but for other drugs there were high rates of stock-outs reported as there was not much control for these.

Policy gaps in pharmaceutical sectors:

- No policy gaps have been observed so far, as reviews of existing policies are frequently carried out.
- SPS and SCMS implementation of policies have been very good. MOUs have been developed with each of these organizations separately, and they have been consistent in their compliance.

Impressions

The NMPC has performed its tasks very well, ensuring continuous review of existing policies; thus leaving no gaps, especially as it affects the pharmaceutical area.

ORGANIZATION: **POLICY AND PLANNING DIRECTORATE, MOHSS**

Key Informant(s): Ms. Celine Usiku, Director Policy & Planning and Human Resource Division; Ms. Elizabeth Sam, National Health Training Center (NHTC), Pharmacy Department Head Coordinator; Ms. Elize Bampton, National Health Training Center (NHTC)

Relevant Program Area(s): Support to NHTC for training of pharmacy assistants, and support to UNAM for development of BSc degree programs.

Date: August 31, 2010.

Support Provided

MSH is supporting the provision of professionals and lecturers assisting NHTC to train pharmacy assistants as well as build capacity at the NHTC to produce quality pharmacy officers.

- MSH/SPS is supporting the NHTC in upgrading the curriculum and training program of the pharmacy assistant course. SPS provided support to the NHTC in the renovation of a building to serve as a pharmaceutical laboratory as well as established the laboratory by procuring equipments, pharmaceutical chemicals, and reagents to enable pharmaceutical compounding procedures and processes for students' practical lectures.
- MSH/SPS supported the seconding of 14 pharmacist personnel to the MOHSS, to assist in the provision of pharmaceutical services.

Capacity Building

- The PhAss training program at inception always had 6 students; currently there are at least 25 students enrolled in the 2-year training program, which has been referred to as the bridging cadre.
- MSH/SPS supports the lecturers to carry out follow-up supervisory visits to selected sites where the students are acquiring practical experience during their practical attachment training sessions. The Pharmaceutical MIS (PMIS) was introduced by MSH, and students were privileged to practice the use of this package, and were thus familiar with it during the practical attachment sessions.
- MSH/SPS supported the National Health Training Centre (NHTC) to strengthen the institution's Pharmacists Assistants (PhAss) training program, supported the Pharmacy Assistants (PhAss) curricular review, supported updating of the training materials as well as provided equipment and other infrastructure that will improve the capacity of the institution to improve the performance and quality of middle-level pharmacy staffs—i.e., the non-professional pharmacy officers, to manage ART.

Duplicities

None noted.

Synergies

MSH/SPS supports the seconding of three pharmacists to NHTC; out of the four pharmacists lecturing in the Pharmacy Assistant (PhAsst) training program. The fourth pharmacist is supported by the Global Fund. For synergy, SPS and Global Fund are both supporting lecturers in the pharmacy assistant training program at the NHTC. It is envisaged that as the program expands the MOHSS will take on additional positions, thus creating greater room for their ownership.

I-TECH is providing support to NHTC for other programs.

Quality of Implementation

As a result of the acute shortage of pharmacy professionals, this training program has had a positive impact in ameliorating the human-resource development challenges, and in provision of needed expertise to support the ART services scale-up and services provision. The graduates are employed in the MOHSS and the private sector

Sustainability

From a sustainability point of view, the MOHSS has planned to adopt the four MSH-seconded lecturers' positions; thus indicating sustainability potentials. As part of the MOHSS sustainability and capacity building initiative, MSH/SPS has been encouraged to involve other health care professionals (such as nurses, doctors, etc.) in the pharmacy assistant workshops they are conducting in the field. It is believed that this will create awareness and make for ease in cooperation and collaboration among these health-care professionals.

The NHCT coordinator indicated that MSH will procure lab raw materials that were previously provided by the MOHSS which is counter to capacity-building initiatives.

Recommendations

The MOHSS and MSH/SPS should further persevere in the efforts to have the Namibian parliament put its weight behind the prompt commencement of all manpower development and capacity-building support activities.

Include the nurses in the pharmacy management workshops.

Impressions

The directorate places a major emphasis on ensuring that more support is provided by donors and other sources available. This, it believes, will enable the building of sustainable structures for manpower development. It is poised to go the extra mile to secure the support from both governments in the pursuit of this noble agenda.

The graduates are employed in the MOHSS and the private sector

There is a need for the NHTC coordinator to emphasize to the MOHSS administrative heads that having MSH procure laboratory raw materials that were previously provided by the MOHSS would be seen in some quarters as counter to the capacity-building initiative.

ORGANIZATION: **SUBDIVISION NATIONAL MEDICAL REGULATORY COUNCIL**

Key Informant(s): Mr. Rite P.W., Registration Pharmacist,
Ms. Elena Moreno, TIPC
Mr. Howard Masiyachengo, Manager
Mr. Ruigu Njiriri, Pharmacist Inspection and Licensing
Mr. Indongo Lazarus M., Pharmacist Registration
Mr. Johannes Gaeseb, Registrar of Medicines

Relevant Program Area(s): Policy

Date: August 31, 2010

Support Received

- SPS helped to establish the medication register. It provided support for one person and the database that is effective. The goal is to register all the medications in South Africa and neighboring countries, which is approximately 8,000 dossiers. They have entered 5,000 to date through SPS-supported retreats. There is a pharmacist supported by SPS who is not currently in the MOH staff plan. The database is currently being upgraded to include QSL, the inspectorate, and TICP; but there are IT challenges.
- SPS helped to establish the Therapeutic Pharmacovigilance Center. There are four project supported staff (two pharmacists, one medical doctor and one librarian). SPS is also providing books, a database on medication interactions and side effects, and subscriptions to journals. They receive on average five queries/week in the hospital.
- SCMS supports the manager and analyst.
- SCMS has provided quality support through provision of equipment, reference books (USP), EP stocking, library and information center, standards for ARVs, and testing/analysis.
- SCMS has trained staff in South Africa on international standards organization.

Capacity Building

- The trainings have increased the capacity of the unit, which is evident in the large amount of work it has accomplished with project support.

Duplicities

- None noted.

Synergies

- Spanish Cooperation (Medicos du Mondos) is providing support to the pharmcoviligience center (TIPC).
- WHO is also active with the TIPC.
- Global Fund has provided equipment and testing and carried on the protocols developed by SPS.

Quality of Implementation

- High quality of implementation expressed for both projects.

Sustainability

- The TIPC is increasing the capacity of practitioners in the hospital and increasing sustainability.

- There is a proposal for the project support pharmacist in registration to be converted to an MOH position. The subscriptions will also transferred to MOH.

Recommendations

- Train the regional pharmacist in mini labs.
- Be supportive of the merger, as it will provide for more unified assistance and combined expertise.
- MSH is clearly strengthening systems, especially at the implementation level.
- SCMS should provide international standards organization standards.
- The registration unit needs more personnel, as only one pharmacist is currently project-supported through MSH. It compared its unit to the South Africa unit that has approximately 106 positions.

Impressions

- The Subdivision is responsible for all pharmaceutical control and inspection. It is comparable to the U.S. Food and Drug Administration (FDA), performing quality testing and supporting the pharmaceutical vigilance center.

ORGANIZATION: FINANCE & LOGISTICS DIVISION MOHSS

Key Informant(s): Mr. H.C.R. Beukes, Director, Finance & Logistics
Mr. R.C.M. Platt, Deputy Director, Logistics
Relevant Program Area(s): Policy, logistics
Date: September 1, 2010

Support Received

No report received to date but recently met with MSH to discuss needs.

Capacity Building

Not relevant.

Duplicities

Not relevant

Synergies

Not relevant.

Quality of Implementation

Not relevant.

Sustainability

Not relevant.

Recommendations

They indicated their needs to strengthen the MOHSS capacity to complete accurate stock-taking reports. The Finance & Logistics Division receives annual stock reports in which they can see there are deficiencies that are not adequately explained. They request assistance to better understand the reasons for the shortfalls.

Support to train stock takers. Facilities are using clerks who are not educated in pharmaceuticals, resulting in many errors.

Syspro System at CMS lacks needed accounting capacity and there are not sufficient people trained in the use of the system to use it to its fullest potential. The system also allows the use of delivery slips rather than a physical count of inventory to be used when inputting data into Syspro.

Transport System—MOHSS is not capable of doing both pharmaceutical management and transportation well. The Director is aware of the SCMS assessment and would like further cost analysis to be done on the out-sourcing.

MSH should look at logistics as a whole and provide assistance beyond pharmaceuticals.

Management—Nurses and doctors who are running the hospitals lack management and finance capacity, and coupled with this there is a lack of trained hospital clerks/administrators.

The Finance & Logistics Division requests assistance in establishing stronger linkages with CMS.

Impressions

The Finance & Logisitics Division could be a useful partner in making substantial improvements in the supply system. It appears that Mr. Habimana at CMS is beyond the reach of this division even though the CMS impacts the division profoundly. This should be investigated more deeply by the project and USAID to see how they can assist.

ORGANIZATION: NATIONAL INSTITUTE OF PATHOLOGY

Key Informant(s):	Senior Manager of Quality Assurance Mr. Douglas, Chief Medical Technologist Procurement Officer Mr. Benson Makchi, Store Control
Relevant Program Area(s)	SCM laboratory support
Date:	September 1, 2010

Support Provided

SCMS started project implementation activities with NIP in 2008, and received logistics management support from the project for warehousing and inventory control and management.

SCMS further conducted countrywide evaluation on NIP warehousing network, and included some NIP's activities in their COP 08 workplan. NIP and SCMS have not reviewed their project workplan for this year (2010) to ascertain the level of progress achieved so far.

SCMS supported the NIP in the purchase of two containers for storage of unused items that are not in urgent need.

SCMS supported the assessment of NIP's procurement efficiency and practices, and saw how to improve it. This also involved analysis of vendors and their response to orders that have been placed. Both NIP and SCMS have agreed that the recommendations in this assessment report should be included in the workplan as activities.

NIP also received support from USG/CDC for the laboratory side of the Meditech electronic system software package.

NIP has 37 laboratories, with varying storage space. NIP's storage capacity for cold-chain items also received support from SCMS, which donated cold-chain storage cabinets to all the 37 laboratories countrywide. Most of the laboratories got at least one of these item. In addition to this, coolers and freezers, which have useful in maintaining an uninterrupted cold-chain system when moving materials to far-flung facilities and locations, were also provided by SCMS.

SCMS also supported NIP in the renovation and building of their original warehouse in the National Reference Laboratory, with a view to installing a cold room in that site; and further planned to install another cold room at their NIP temporary warehouse site with funding resources from their current PEPFAR/CDC agreement.

SCMS supported the conduct of a baseline assessment of all these laboratories facilities for warehousing and storage in year 2008 and the recommendations in the report were inputted in the COP 08 workplan.

Capacity Building

NIP staff feel empowered by the training opportunities provided by their association with SCMS in the project.

SCMS supported NIP staff to attend quantification and Meditech electronic system training for materials management in South Africa; and the software package is now installed and being used for materials management in NIP facilities. To enable it to maximize use of the Meditech software for materials management, NIP's request was granted by SCMS for additional training in inventory/stock control and warehousing management for one month in South Africa for two

NIP staff. The two NIP staff who attended this training were to later resign their appointments; one left for a private sector supplier of NIP, while the other went into semi-retirement. Thus NIP is further requesting that SCMS should avail more of their staff the opportunity to attend this training.

Training in quantification conducted in Windhoek and sponsored by SCMS, which built the capacity of NIP staff, could not be put into use because of staff attrition.

Duplicities

There is need for CDC, SCMS, USAID, and NIP to meet and deliberate on how NIP has been using funds/resources available to it through agreements they have signed with USG/CDC, USAID/SCMS to support their activities. The ware house in the National Reference laboratory site is about a quarter of the size of the warehouse at the NIP temporary site that they presently occupy. When NIP is moved back to its original site at the National Reference Laboratory, it will have significantly scaled down its activities to be accommodated in that location, and all resources invested in the NIP temporary site would have been lost. This is even more so in that government policy clearly states that all government facilities belong to the Ministry of Works, and that all occupants are mere primary assignees—as in this case that MOHSS/NIP are temporary occupants and will be relocating to their original site at the National Reference Laboratory.

Synergies

USG/CDC supported NIP by funding the installation of the laboratory side of the Meditech electronic system software package.

Quality of Implementation

The NIP has a corporate strategy plan which encompasses all laboratory activities as well as guides its implementation activities. This is different from the pharmaceutical master plan.

Sustainability

There is no direct operational continuous cost incurred on monthly basis by NIP, which SCMS has been incurring and paying. Furthermore, SCMS has not seconded any staff to NIP, and thus no staff costs. SCMS support to NIP is such that if and when it stops, NIP can seamlessly take over the operations without any burden of costs.

Recommendations

Some recommendations in the baseline assessment report have been implemented by the project. But the recommendations of the procurement assessment are intended for implementation in the next COP year.

Impressions

The importance of the role NIP places in the health-care system cannot be over-emphasized, and as such NIP should endeavor to be prudent in all its operational activities; especially those supported by donor agencies. There is need for CDC, SCMS, USAID, and NIP to meet and deliberate on how NIP has been using funds/resources available to it through agreements they have signed with USG/CDC, USAID/SCMS to support these activities.

ORGANIZATION: OSHAKATI INTERMEDIATE HOSPITAL

Key Informant(s): Dr. Shanon Kajungulu, Sr. Med. Superintendent

Mrs. Kabushi, Matron

Relevant Program Area(s): Rx Solution (Integrated pharmacy management system); SPS pilot /Program issues.

Date: September 2, 2010

Support Received

SPS

Technical Assistance and Trainings

MSH/SPS procured two tablet-counting machines for OIH to expedite pharmaceutical service provision, and this augured well for a facility which sees up to 1,500 patients per day.

Infrastructure

MSH, with the government's approval, supported the installation of Rx Solution, integrated pharmaceutical management system software (a computerized integrated pharmaceutical system) in 2009. This software system was aimed at addressing the problems of stock and inventory control, issues of quantifying amounts spent on each drug and on each patient, problems encountered in generating periodic management reports manually on a monthly and quarterly basis, ensuring efficiency in the delivery of pharmaceutical services to patients, ensuring minimization of wastage and over-ordering of drugs, and the difficulty in tracking fraud, theft, and pilferage in the pharmacies. The program came up with a Gantt chart of the implementation activities as well as showing the time line for achieving completeness in the implementation of operational objectives in service provision.

The Rx Solution system put in place is one which could link up with management systems already in existence in the hospital; namely, PMIS, EDT, IFMS, HRMS, HIS, and ePMS. The hospital management envisages that all these systems will be integrated such that its environment will be a paper-free setting in five years time.

To put the activities of this project into operation, MSH procured and supported the first phase of this pilot project with 50 computers as well as recruited and dedicated an IT person to run this OIH system. SPS also supported the integration of PMIS into Rx Solution.

The EDT and ePMS soft ware is currently installed and being used in the OIH pharmacy and clinics, respectively. The EDT software is used for pharmacy-dispensing data collection; and the ePMS, which is used for clinic patient data management in the hospital, is supported by MSH/SPS and the USG/CDC respectively. But these systems are presently not being used for validating each other's data and reports; a potential advantage of their joint installation and use in a facility. This lapse is attributed to verticalization of programs, as the data/reports generated by the ePMS are sent directly to CDC by the data clerks and are not shared with the hospital manager. The two systems capture data for the same patients from two different settings, and since they are both ACCESS data-based, they could actually be compatible.

MSH/SPS procured two tablet-counting machines for OIH to expedite pharmaceutical service provision, and this augured well for a facility which sees up to 1,500 patients per day.

Capacity Building

MSH/SPS has trained pharmacists, pharmacy assistants, data clerks, and management level staff in the use of the Rx Solution software package for service provision and daily enquiries and analysis.

OIH pharmacy staff have also benefited from MSH/SPS support in the provision of training in the use of the EDT software to manage patient dispensing data as well as sponsored workshops for the update of the EDT whenever that was carried out. The pharmacy reverts to a manual approach of operating the EDT when a repair is embarked upon.

Therapeutic committees exist at the OIH district and regional levels and meetings are held every third week of the month.

Rx Solution keeps patient information, demography, and history; and is fast and expedient as well as aids the pharmacy personnel in patient education and counseling.

MSH/SPS supported the pharmacy forum activities held at Oshakati for all pharmacists in the country. Major issues in contention in pharmaceutical practice and services provision were deliberated upon.

MSH/SPS procured two tablet-counting machines for OIH to expedite pharmaceutical service provision, and this augured well for a facility which sees up to 1,500 patients per day.

Duplicities

Not relevant.

Synergies

ePMS, which is installed in the clinics for clinic patient data management, is supported by CDC, and has the potential for enabling data validation with the EDT software-generated pharmacy dispensing data.

MOHSS and the Global Fund and PEPFAR are responsible for paying the total cost of the ARV medicines used for ART therapy. MOHSS pays for 40%, while Global Fund and PEPFAR pay equal shares of the remaining 60% (i.e., 30% each).

The Global Fund is also reported to be another donor directly supporting activities in the OIH.

Quality of Implementation

The quality of patient services has been reported to have improved since the RxSolution software package was put into use; and patient registration time has been reduced to 1.5 minutes. Further to this, pharmacy service has become expedient since the tablet-counting machines were put into use.

Rx Solution has helped OIH in reducing expiry of medicines by identifying them and enabling their redistribution before expiry on shelf.

The Rx Solution software is able to generate orders based on a maximum/minimum ratio of 4:2 months; and can carry out analysis of pharmaceutical costs. The supplies that are procured are based on the analysis carried out by the RxSolution software which has the ABC analysis capability.

Sustainability

Upon the resignation of the MSH-recruited IT dedicated person who runs the RXSolution system, OIH plans to recruit a replacement. This is currently being deliberated on because of

the challenges posed by the very low and unattractive salary scale in the hospital service. However, the effort made so far by OIH portends for significant performance for sustenance.

On-the-job training of OIH staff by other staff that has been trained by SPS is the best expression of potential for sustainability to be carried out for RxSolution.

The MOHSS plans to take over the payment of the total cost of all ARVs used in the management of AIDS patients in Namibia. By 2015, it is expected that the MOHSS, which currently pays for 40% of the total cost of these ARVs, will be responsible for the entire cost of these medicines. This will portend significant performance on the side of the government for sustainability. Presently, the Global Fund and PEPFAR share equal payment for the balance of 60% of the total cost of these medicines.

OIH used a public-private partnership initiative approach to get Bank of Namibia to sponsor the setting up of a Reference Library (a resource centre) for research in the hospital.

MSH's activities in OIH are in line with the Namibia pharmaceutical master plan.

Recommendations

The outcome of the merger should ensure that there are no stock-outs of ARVs.

The supply chain management services need to be more efficient, effective, and of high quality. The need for an electronic ordering system cannot be over emphasized as against the manual approach, and this should be a major objective of the new outfit.

The limitation of use of RxSolution to provide efficient and effective services in OIH is the pharmacist. OIH would appreciate if they had more staff to address the high patient work load, which is a function of the quality of RxSolution's output.

Impressions

Oshakati Intermediate Hospital (OIH) covers five districts; namely, Oshana, Oshikutu, Ongwena, Kunene, and Oshakati. OIH is a referral hospital and has the leeway to buy medicines from the private sector, but the district hospitals cannot do the same and must buy from the CMS. However, the services from CMS have been poor lately with delays for three or more months.

The hospital pharmacy stocks up to 1,800 items, and attended up to 1,500 patients per day; all of whom require medications. Ninety prescriptions per dispenser per day is presently the order of the day, instead of the ideal 15 prescriptions per dispenser per day. The budget for pharmaceuticals in OIH is larger than that of all other regions combined.

ORGANIZATION: OSHAKATI INTERMEDIATE HOSPITAL PHARMACY

Key Informant(s): Mr. Robert, Acting Hospital Pharmacist-in-Charge

Relevant Program Area(s): Stock control and management, Rx Solution (Integrated pharmacy management system).

Date: September 2, 2010

Support Received

SPS

Technical Assistance and Trainings

Conducted many trainings on ART and EDT as well as trainings for therapeutic committtees and TIPC.

MSH/SPS procured two tablet counting machines for OIH to expedite pharmaceutical service provision, and this augured well for a facility which sees up to 1,500 patients per day.

The EDT and ePMS soft ware is currently installed and being used in the OIH pharmacy and clinics respectively. The EDT software is used for pharmacy-dispensing data collection, and the ePMS, which is used for clinic patient data management in the hospital, is supported by MSH/SPS and the USG/CDC respectively.

Capacity Building

MSH/SPS has trained pharmacists, pharmacy assistants, data clerks and management level staff in the use of the Rx Solution software package for service provision and daily enquiries and analysis.

OIH pharmacy staff have also benefited from MSH/SPS support in the provision of training in the use of the EDT software to manage patient dispensing data as well as sponsored workshops for the update of the EDT whenever that was carried out. The pharmacy reverts to manual approach of operating the EDT when a repair is embarked upon.

Therapeutic committees exist at the OIH, district, and regional levels; and meetings are held every third week of the month.

RxSolution keeps patient information, demography, history, and is fast and expedient; as well as aids the pharmacy personnel in patient education and counseling.

MSH/SPS supported the pharmacy forum activities held at Oshakati for all pharmacists in the country. Major issues in contention in the pharmaceutical practice and services provision were deliberated upon.

MSH/SPS procured two tablet-counting machines for OIH to expedite pharmaceutical service provision, and this augured well for a facility which sees up to 1,500 patients per day.

Duplicities

Not relevant.

Synergies

Not relevant.

Quality of Implementation

RxSolution has helped the OIH pharmacy reduce the expiry of products by identifying them and enabling prompt redistribution before their expiry on shelf. Also, the pharmacy service has become expedient since the tablet-counting machines were put into use.

The limitation of the RxSolution in providing efficient and effective services in the hospital pharmacy is the pharmacist—and the workload on the dispensers is a function of the quality of the Rx Solution output.

Sustainability

On-the-job training of OIH staff by other staff who have been trained by SPS is the best expression of the potential for sustainability to be carried out for RxSolution.

Recommendations

The limitation of use of RxSolution to provide efficient and effective services in OIH is the pharmacist. OIH would appreciate if it had more staff to address the high patient work load, which is a function of the quality of RxSolution's output.

The supply chain management services need to be more efficient, effective, and of high quality. The need for an electronic ordering system cannot be overemphasized as against the manual approach, and this should be a major objective of the new outfit.

Impressions

The hospital pharmacy stocks up to 1,800 items, and attended up to 1,500 patients per day; all which require medications. Ninety prescriptions per dispenser per day is presently the order of the day, instead of the ideal 15 prescriptions per dispenser per day. The budget for pharmaceuticals in OIH is larger than that of all other regions combined.

ORGANIZATION: OSHANA REGIONAL OFFICE

Key Informant(s): Dr. J. Augustinus, Acting Regional Director, Oshana Region
Relevant Program Area(s): Courtesy and Overall program issues.
Date: September 2, 2010

Support Received

SCMS

Technical Assistance and Trainings

The Director is aware of the services carried out by both SPS and SCMS in the region, and is very satisfied with their support and assistance to the health services. Further comments were that the services of both projects are indispensable and that without them the regional health services will not be in existence.

SPS

Technical Assistance and Trainings

MSH/SPS has provided a lot of support to health facilities in the area of pharmaceutical services, and TC meetings and training of health personnel. This impact of their support has resulted in improvement in prescribing pattern.

Infrastructure

Provided computers for operating the OIH RxSolution software package.

Capacity Building

The Director is aware of the services carried out by both SPS and SCMS in the region, and is very satisfied with their support and assistance to the health services. Further comments that the services of both projects are indispensable and that without them the regional health services will not be in existence.

MSH/SPS has trained pharmacists, pharmacy assistants, data clerks, and management level staff in the use of the RxSolution software package for service provision and daily enquiries and analysis.

Duplicities

Not relevant.

Synergies

Not relevant.

Quality of Implementation

There is a dramatic improvement in the quality of pharmaceutical services being provided in the health facilities.

Sustainability

The services of both projects are indispensable and without them the regional health services will not be in existence.

Recommendations

It will be possible for staff to put together some documentation to show improvement and significant change in prescribing pattern as a result of the impact of both SPS and SCMS; i.e.,

there is a dramatic improvement in the quality of pharmaceutical services being provided in the health facilities. The main health facility in this region is the Oshakati Intermediate Hospital. Oshakati Intermediate Hospital (OIH) covers five districts; namely, Oshana, Oshikutu, Ongwena, Kunene, and Oshakati.

OIH is a referral hospital and has leeway to buy medicines from the private sector, but the district hospitals cannot do the same and must buy from the CMS. However, the services from CMS have been poor lately with delays of three or more months.

The prescribing pattern has moved away from poly-pharmacy to standard practice. Oshana Regional management should meet with the evaluation team for their concerted recommendations.

Impressions

The Acting Region Director is very appreciative of the support from MSH/SPS project, and is very willing to get the feedback from the evaluation team as well as pledge her management's willingness to cooperate with project down the line.

ORGANIZATION: REGIONAL MEDICAL STORE–OSHANA

Key Informant(s): Mr. Msafiri Kweba, Regional Pharmacist

Relevant Program Area(s): Supply chain management, pharmaceutical care services/support supervision

Date: September 2, 2010

The Chief Pharmacist has been in the system for about 16 years, and has been secretary of the TC in the region. The RMS is responsible to the Regional Directorate, not to the CMS; while the CMS falls under the pharmaceutical services directorate of the MOHSS. CMS has benefited more from the pharmaceutical services directorate.

Support Provided

Before SCMS there was MSH, and the stock control system was not in existence. MSH procured the initial license for the regional medical stores operation before the government took over later. After this, not much interaction occurred between the RMS and SCMS

Several assessment visits have been carried out at this RMS; such as for fleet management, security, materials management, warehousing, etc. These were well-spent resources because they created awareness in government/MOHSS.

A big difference would be observed if the support provided by both SCMS and SPS were to terminate. This is because of the bottlenecks in getting requests responded to by government—that is, the bureaucracy—in releasing funds for implementing activities.

Capacity Building

SCMS sponsored the training of two RMS staff persons in warehousing management in South Africa. Records are available for transactions of last five years, so RMS can carry out ABC analysis on how much of budget is spent for sharing with the economizing committee. Also, the analysis carried out is shared with TC.

MSH/SPS supported RMS in therapeutics committee (TC) related activities by providing training to them in rational use of medicines and in TC functions and management. The regional TC meetings were held every two months

SPS also supported the PMIS software installation at the RMS, and procured a computer for use in the RMS. SPS also assisted in the development of the Standard Treatment Guidelines (STG), and the final version is expected to be produced very soon.

Training of junior staff in the use of computers in 2005 by SCMS, has resulted in their being able to produce reports on CISPRO.

Duplicities

Not noted.

Synergies

PEPFAR/CDC and Global Fund sponsoring three pharmacists at the regional level is an indication that there is some synergy.

Quality of Implementation

Materials-handling equipment, which was provided to the RMS, assisted in improving efficiency in warehousing operations. An example is the loading of a truck which was formally a day's assignment; it now takes about two hours.

Sustainability

A request by the regional level for Establishment/MOHSS to fill pharmacist and pharmacy assistant positions points to the potential for sustainability in the system.

Recommendations

The RMS would like to carry out batch tracking activities of all items, especially medicines it has issued out to lower levels; but with only three pharmacists and two pharmacy assistants it is almost impossible. At the regional level, the hospital has requested 12 pharmacists and 12 pharmacist assistants to be filled by MOHSS to match the demand of patient workload.

There is a communication gap between the RMS and what obtains at the MOHSS pharmaceutical services directorate and the donor-support forum. This keeps the RMS in the dark as to what agreements government and donors have arrived at for project implementation. The emerging outfit should endeavor to ensure that this gap is bridged.

Project activities that would be recommended for continued implementation include training and capacity-building for people who are on the job. Training should be provided in stock control in the clinics, where nurses who have no experience in pharmacy are in control.

Training in stock control and inventory management targeted at those providing pharmaceutical services in the RMS.

Training in functions and management of TC activities would also have positive impact on the outcome of their deliberations as well as improve attendance of meeting sessions. Addressing irrational prescribing patterns through TC meetings can also result in rational use of medicines, which could also reduce budget and spending for medicines and related commodities.

Impressions

The communication gap between the RMS and the MOHSS pharmaceutical services directorate, CMS, and the donor support forum when bridged is envisaged to give more muscle to the RMS performance. As they say, information is power. This free flow of information will further enhance the RMS ability to plan ahead, despite other shortcomings at the CMS and upper levels.

ORGANIZATION: OKAHAO DISTRICT HOSPITAL

Key Informant(s): Dr. Namundjebo, Chief Medical Officer
Mr. Samson Saruchera, Pharmacist
Mr. Constantine Marowe, Pharmacist Assistant

Relevant Program Area(s): Rational use of medicines, stock control/inventory management, pharmaceutical support service supervision.

Date: September 3, 2010

Support Provided

MSH/SPS supports EDT and addressed any problems and provided upgrades as well as supported the provision of one EDT mobile for outreach location. This made data collection easier from this outreach location. EDT has been found to be useful when ordering ARVs.

MSH provided counting trays, measuring cylinders, and the SOP for dispensing ARVs.

MSH/SPS also provided ePMS for clinic services, but this was not linked to the EDT in the pharmacy. The data clerk in the clinic keyed the data into the ePMS.

MSH/SPS-installed PMIS is also in use in the hospital, and from this it has been observed that the TC preferred that there is only generic prescribing in the hospital. Furthermore, the PMIS gives the pharmacy the direction on the area to focus in managing the activities and personnel in its operation.

Capacity Building

MSH supported training for pharmacists in the use of the EDT software package.

MSH/SPS also provided TC functionality and management improvement training for the staff. The district pharmacist is the secretary of the TC meeting. The meeting has been well-attended since after the MSH TC training, and the facility has never gone for three months without holding a TC meeting.

Duplicities

None noted.

Synergies

MSH support to this hospital boosts the services provided by other donors, and vice versa. PEPFAR/CDC and Potentia supported the pharmacist and pharmacy assistant in the past, but now use a different mechanism in providing support to the hospital.

The Global Fund supports TB activities in this hospital.

Quality of Implementation

The quality of services provided to patients is still below standards and could be significantly enhanced. Most facilities providing pharmaceutical services to patients; especially drug dispensing, target 30 prescriptions per dispenser per day. However, the acceptable figure is about 50 prescriptions per dispenser per day.

Drug supplies from the RMS have been erratic, and only 70% of all orders have been received lately; including some short-dated supplies. When short-dated drugs are delivered, the hospital retains what it can consume and returns the balance.

Sustainability

The pharmacist who had been trained by MSH on the use of EDT provides on-the-job training for the pharmacy assistant while she awaits formal training in a workshop setting.

The district hospital would have problems continuing services should the SPS project support be withdrawn. Computer supplies and accessories replacement would be delayed because of the bureaucracy involved before the release of funds for procurements.

Recommendations

Computerization of the main pharmacy will enhance performance.

Installation of a quantification tool for the EDT may be applied in the main pharmacy to improve services.

Training in PMIS and quantification will useful to improve quality of services.

Impressions

The services of this hospital could significantly improve if SPS project support and assistance is provided. The impact of any support or assistance will be easily discernible, considering that the pharmacist and pharmacy assistants have shown signs of willingness to persevere in their bid to serve the patients.

ORGANIZATION: OMUSATI REGIONAL OFFICE

Key Informants: Ms. H.N.T. Haipinge, Regional Director, Omusati Region
Ms. Helena Shifotoka, Sr. Program Administrator

Relevant Program Area(s): Courtesy and overall program issues.

Date: September 3, 2010

Support Provided

The Regional Director is aware of the SPS project activities in that region, and is very appreciative of the support the project has been providing to the people of that region through several supported activities.

MSH/SPS supports the pharmacy units by sponsoring their attending meetings, and annual pharmacy forum as well as supporting the secondment to the region of a pharmacist at the death of the erstwhile regional pharmacist.

Synergies

The Global Fund through the Directorate of Special Programs has also supported the region by equipment supply and trainings, vehicles, and seconding staff to the region.

Sustainability

The region intends to sponsor successful candidates to attend the pharmacy assistants' program at the NHTC in Windhoek.

Recommendation

The Regional Director gave a verbal approval for the managers at the district hospitals earmarked to be visited by the team to entertain questions fielded to them.

Impressions

The Regional Director is very appreciative of the support from MSH/SPS project, and is very willing to cooperate with the evaluation team in its deliberations with the regional management staff, and looks forward to receiving feedback from them.

ORGANIZATION: OUTAPI DISTRICT HOSPITAL

Key Informant(s): Mr. Davie Kaurirai, Pharmacist
Relevant Program Area(s): Rational use of medicines, pharmaceutical support services supervision, stock control, and inventory management.
Date: September 3, 2010

Support Provided

SPS provided support to the pharmacy unit to attend meetings and the annual pharmacy forum as well as provided the regional hospital counting trays to expedite the pharmaceutical services.

SPS supported the region by seconding a staff pharmacist to the region upon the demise of the regional pharmacist. The region highly appreciates the support of the project to the region.

SPS has installed PMIS in the pharmacy unit, but it is still paper-based.

Capacity Building

MSH/SPS provided trainings to pharmacy and medical staff on the functions and management of the TC meetings. The TC in this hospital is held monthly, while the regional meeting is held on a quarterly basis.

Duplicities

None noted.

Synergies

The Global Fund, through the Directorate of Special Programs (DSP), has also supported the region through the provision of equipment, vehicles, trainings, and the secondment of staff.

Quality of Implementation

Pharmacy staff carries out the ordering of medicines and supplies. Medicines and supplies come from the Oshakati multi-store, and ordering is done manually. Interim orders have lately become epidemic, as they are too frequent and uncoordinated.

A major constraint experienced in the pharmacy unit is that of storage space. With a stock control and management system with a maximum stock level of four months and a minimum stock level of three months, the dispensing area has been converted to a storeroom, leaving little space for patient education and counseling services.

Sustainability

The region, in its long-term plan to ensure manpower sustainability, has interviewed candidates who applied to attend the pharmacist assistant program at the NHTC in Windhoek. The successful applicants will get funding from the regional government for the program.

Recommendations

The management of the hospital would recommend the installation of a computerized system in their operations, as this will be more efficient and expedient for services provision.

Impressions

The MSH/SPS focal persons who routinely have oversight of the project implementation activities in this region should endeavor to ensure that there is some manner of equity in

distribution of training opportunities, and the provision of support materials and supplies to hospitals as well as general implementation of project activities using patient load, etc., as a guide.

The hospital has 4,000 patients on ARV therapy and attends to about 200 to 300 ARV patients per day. The patient load at this facility could go by up to 30% with the commencement of the guideline that patients with a CD+4 counts of 350 should be started on therapy.

This hospital would benefit from additional space in the pharmacy services and dispensing area.

ORGANIZATION: TSANDI DISTRICT HOSPITAL

Key Informant(s): Mr. Tinotaramunashe H. Shava, Pharmacist
Ms. Selma Bandi, Pharmacist Assistant

Relevant Program Area(s): Rational use of medicines, pharmaceutical support services supervision, stock control and inventory management

Date: September 3, 2010

Support Provided

- MSH/SPS supported the hospital with computers and the installation of the EDT software program at both the main site and the output site pharmacies. MSH/SPS also assisted the Tshandi hospital with installation of the PMIS. Both the PMIS and the EDT are manual.
- The USG/CDC has installed the eEPMS software for use in the hospital CDC clinic, and it is used for patient data validation.
- MSH/SPS supported the hospital with four counting trays, wall thermometers, measuring cylinders, and laboratory coats for the pharmacist.
- A TC meeting held every month discusses all hospital issues. The pharmacist is the secretary of the TC and ART committees; while the PMO is the chairman of the TC.
- At the ART committee meeting, issues discussed include, but are not limited to, EDT data, ePMS, and PMIS.

Capacity Building

- MSH/SPS provided support for six persons per district to attend TC training for functionality and management. The training has benefited members as the attitude toward attending meetings improved and the PMIS report improved, but there is a need to train the pharmacy assistant on how to complete the PMIS report properly to improve quality of the report reaching upper levels upon submission.
- The pharmacy assistant has been trained in the use of the ADT software program before the EDT version came on.
- MSH/SPS has supported staff in all clinics with training in the manual PMIS; but this is a problem when the rains/floods come as incomplete report submission result in incomplete data submission.
- The pharmacist has benefited from MSH/SPS-supported training on EDT, but has not been trained to use the PMIS.

Duplicities

Not noted.

Synergies

- The pharmacist is PEPFAR /CDC sponsored, while the pharmacist assistant is Global Fund sponsored.
- The ART medical doctor is supported by PEPFAR/CDC.
- The USG/CDC installed the ePMS software in the hospital clinic, and the EDT installed in the pharmacy for dispensing data management is used for patient data validation.

Quality of Implementation

Implementation of activities shows some improvement despite the limiting constraints faced by the facility.

Sustainability

Based on ideas from MSH/SPS, the pharmacist has trained ward nurses on the use of EDT to minimize frequency of ordering supplies and medicines.

Recommendation

- The project should consider computerization of the PMIS and EDT software systems installed in this hospital, and provide communication linkages to the different sites to enable real-time data entries. This should address the challenges encountered when the rains/floods come resulting in incomplete report submission which further leads to in incomplete data submission.
- To ensure that the merger of SPS and SCMS is successful, efficient, and effective, it was further recommended that they should carry out training in PMIS, EDT, and ePMS for all relevant hospital personnel and those at the outreach.
- They should also provide capacity building and training in drug management systems; as well as training on stock control and inventory management at lower levels. They should consider training in quantification methodology for ordering.
- They should consider providing storage support items, such as medicine cabinets to be placed in the outreach sites.

Impressions

The hospital has 1,321 patients on ART therapy. Thirty to 40 patients are attended to daily for ARVs; while 80 to 90 patients are seen during outreach, which is carried out every two weeks, i.e., every other Friday. The hospital has not benefited from any direct SCMS project activity, but has been involved with MSH/SPS.

The need for the computerization of the systems in this facility, as well as for sponsoring staff for training on stock control and inventory management, cannot not be over-emphasized.

ORGANIZATION: KAVANGO REGIONAL MEDICAL STORES

Key Informant(s): Ms. Mary Katongo, Regional Pharmacist
Relevant Program Area(s): Warehouse/inventory control, Syspro
Date: September 6, 2010

Support Received

SCMS

Technical Assistance and Trainings

Consultants conducted assessments of warehouse security, infrastructure, and fleet management.

- After reports and recommendations, no follow-through or actions. Different from MSH, which provided more technical support.

Supported the Regional Pharmacist to attend the Warehouse Operations Management (WOM) course and provided ideas for improvement that were implemented.

- Scheduled with Environmental Health regular fumigations.
- Control of food and beverages in the main warehouse (now kept separate).
- Transport (previously no dedicated truck) worked with MOHSS to have a dedicated truck for RMS to deliver to all 29 facilities.

Human Resources

Not relevant

Infrastructure

Forklift battery purchased by SCMS [Confirmed that GFATM procured the forklift].

- Forklift is still owned by GFATM and has not been transferred to GRN.

Purchased two pallet stackers, however, they have not been functioning.

- SCMS is aware of the issue as of first week in August and promised to make arrangements with the manufacturer/supplier.

Purchased six trolleys to assist in moving drugs and commodities throughout the warehouse.

Replaced the server after disk failure (motherboard/data drives identified by CMS Systems Administrator) of server procured by MSH.

SPS

Technical Assistance and Trainings

Conducted many trainings on ART and EDT as well as trainings for therapeutic committtees and TIPC.

Materials provided by SPS for National Pharmacy Week (Week of September 6).

Human Resources

Not relevant.

Infrastructure

MSH (under RPM-Plus and SPS) procured seven (7) computers, computer server, photocopier, and Syspro system (ERP)

- All of this infrastructure is still owned by MSH and has not been transferred to GRN.

Capacity Building

Training in Syspro has not been conducted frequently; the last training was held in 2005 and new staff have been trained by the Regional Pharmacist but not as in-depth as previous training.

Duplicities

Not relevant

Synergies

URC has been tasked with supporting waste management from the national to facility level. Waste management is a critical area of an in-country supply chain system and should be coordinated with other supply chain and pharmaceutical management activities.

- It is unclear if URC monitors expiry rates at the different levels (national, regional, district, facility) and whether there have been increases/decreases in the rate of expired and unusable drugs and commodities.

GFATM supports the Condom Logistics Officer at RMS. (Wonder if he is concerned about condoms being stored in receiving area and in higher temperatures?)

Quality of Implementation

Unclear about the scope of work of SCMS (no MOU had been developed with GRN), unlike RPM-Plus and SPS which had a MOU and clear scope of work.

SCMS has not followed through in implementing recommendations or providing further technical assistance.

Replacement of the warehouse floor has been stalled and SCMS indicated that it cannot replace the floor due to construction restrictions (as of August 2010).

- It is not an issue with the Ministry of Works; when SCMS commences the project, the Inspector for MoW would be on-site.

Sustainability

Syspro system is good at the local level, except for the issue of networking medical stores for real-time data. However, equipment is old (server and computers were installed in 2005). Since July/August 2010, every day the system does not start up properly and there has not been any servicing since it was purchased. It is not owned by GRN and thus difficult to service and discuss replacement. Syspro has not been upgraded (a newer version available).

A distribution system in place at RMS allows active distribution from the RMS to the 29 facilities and no longer requires nurses to travel to Rundu to leave their facilities to verify orders.

- An issue could be if that truck (approximately 10 years old) breaks down; it is not sure if a replacement would be available

SPS has done a significant number of trainings that have built capacity. The Regional Pharmacist is not aware of training of trainers (TOT) or cascading training, but she has been able to conduct trainings on inventory control.

The Regional Pharmacist conducted a training in May 2010 on inventory control for 60 nurses and health personnel at the facility level. There will be an assessment of performance in September/October 2010.

Recommendations

SCMS needs to provide more trainings and to develop SOPs for the Regional Medical Stores

- Promised two years ago but not yet delivered.

Need assistance in improving storage capacity at the warehouse and providing infrastructure improvements to the upper floor.

- Roof insulation is poor and it experiences high temperatures. Currently, the forklift does not have the right specifications to lift pallets to the upper floor.

Clearly state what the projects can/will do, clear up confusion since there is no MOU.

Need to address Syspro and older equipment before there is a breakdown and everything is handed over to GRN.

- Indicated that Girmal (CMS seconded staff member) is concerned about the system and its creating a back-up at the central level.

Need to follow up on the warehouse floor issue and clarify USAID regulations regarding renovation and rehabilitation.

Impressions

An issue with CMS emerged regarding poor order-fill rate (approximately 60%) and on-time delivery. All three medical stores have Syspro (warehouse management ERP) installed but it they are not networked (i.e., no real-time data on stock availability). An order submitted by Kavango RMS is not known what drugs/commodities are available in full or partial supply. The Regional Pharmacist is only aware of low order-fill rates upon delivery from CMS. There is resistance for RMS to have access to real-time data for CMS stock availability.

- Issue with majority (60%) of suppliers not providing on-time or full supply as well as no tender has been in place for the past year.
- First line antibiotics have been running out as well as syringes (2, 5ml.) were out of stock)

Waste management and reporting of waste management and drug expiries to the CMS and MOHSS. Whether it is required by the two RMSs. This could be applied to the health facilities. Are they responsible for reporting the amount of destroyed drugs to authorities? *Regional Pharmacist seemed adamant that RMS owns all drugs/commodities and has no duty to report what has expired and been destroyed.*

For COP10, SCMS received only funds for TA/Ops, it is unclear if the medical store physical improvements would be funded out of TA/Ops (including racking, trolleys, pallet stackers, replacing warehouse floor, etc.). If not, then some funds should be planned for medical store improvements in the commodity budget.

The Regional Pharmacist opposed potential disbandment of the two RMSs and one new CMS to support entire country. She questioned whether CMS could deliver to the lowest levels. RMS should continue but with better support as part of decentralization.

The Regional Pharmacist recognized that CMS is blocking assistance from SCMS to the RMS

CMS delivered cartons on cotrimoxazole with an SCMS label without paper work. Drugs are sitting in the hallway and the Regional Pharmacist is unclear what to do with them. It is unclear if drugs are needed in the facilities.

The issue with Clearview RTKs was indentified (tiebreaker test), and Ms. Muremi (Kavongo Regional Director) requested all facilities stop using Clearview and use the EIA as the tiebreaker (more expensive and time-intensive).

RMS warehouse layout and operations:

- Bin cards are in place and appear to be updated frequently. A random selection of a few commodities revealed slight inaccuracies between stock and the bin card. Physical inventory is conducted every six weeks and informs the regular requisition form sent to CMS.
- Most issues and recommendations from the warehouse assessment conducted by SCMS remain valid.
- Floors have debris (e.g., boxing materials and some spills) that should be removed and cleaned.
- SCMS-procured co-trimoxazole (CTX) for CMS had been sent to RMS due to storage capacity issues at CMS (approximately 5 pallets). RMS has begun to use this CTX instead of ordering from CMS.
- Boxes torn open in quarantine area in the receiving area and some condoms lying on the floor.
- Dispatch door cannot be opened so dispensed goods must be moved through the warehouse and back to the receiving area. *Unclear why the RMS cannot request Ministry of Works to replace the broken door*

ORGANIZATION: KAVANGO REGIONAL OFFICE

Key Informant(s): Ms E.K. Muremi, Regional Director
Dr. Wambugu Maina, Chief Medical Officer
Relevant Program Area(s): Inventory control, rational drug use, M&E
Date: September 6, 2010

Support Received

SCMS

Technical Assistance and Trainings

Supported the training of one pharmacist (Mary Katongo, Regional Medical Stores) to attend the PhD/Fuel Group WOM month-course in Pretoria, South Africa.

Conducted two (week-long) *(Mary Katongo indicated only one training of 60 staff)* trainings for staff at health centers and district hospitals in inventory control. (SCMS, Alemayehu Wolde; RMS, Mary Katongo; and an additional pharmacist)

Regional Medical Stores Assessment in 2009, both Ms. Muremi and Dr. Maina indicated that it was a useful assessment.

- Several recommendations from the report were discussed including replacement/maintenance of A/C and entire warehouse floor (not suitable).
- Renovation requires Ministry of Works input and significant capital required to implement recommendations; may not be able to be completed in one year.

Human Resources

Not relevant.

Infrastructure

Purchased a forklift and battery for the Regional Medical Stores based on an assessment (Mary Katongo confirmed that the forklift was procured by GFATM and SCMS purchased a replacement battery).

SPS

Technical Assistance and Trainings

Conducted trainings in rational drug use; provided resources and materials (e.g., South Africa's drug formularies).

Support to district therapeutic committees (TC) and regional TC meeting held on a quarterly basis.

- Problem motivating the four district TCs, other regions are sponsored by MSH and assist in motivation (e.g., sponsoring conference facilities and lunch).
- Dr. Maina and Regional Pharmacist (Mary Katongo) trained by MSH, but other principal members of the TCs have not yet been trained.

Implemented PMIS over three years ago, 54 facilities out of 55 facilities (e.g., health centers, clinics, district hospitals) have implemented PMIS.

- System helps to identify most of the issues related to pharmaceutical management.
- PMIS is paper-based at health facilities/district hospitals and compiled at the regional level (automated).

Human Resources

Support seconded staff (pharmacists and pharmacist assistants) approximately 50% of posts supported by SPS.

- All pharmacists posts have been covered under the MOHSS restructuring.

Infrastructure

Provided one computer for M&E for the Regional Medical Stores.

Capacity Building

Regional pharmacist (Mary Katongo) will be reviewing all facilities that attended the inventory control training to assess performance (approximately four months post-training)

Duplicities

Synergies

- URC's training on injection safety and waste management
- Male circumcision training of one (1) doctor and five (5) nurses

Quality of Implementation

Sustainability

Recommendations

- Conduct a local training for all members of the district TCs and provide sponsorship for the quarterly regional TC meeting.
- Increase the number of seconded staff (pharmacists and pharmacist assistants).
- Refresher training focused on dispensing (dispensers would be anyone working at a health center).
- Provide a resource center with materials and reference guides for health centers and district hospitals.
- Provide warehouse/inventory control refresher trainings
- Need data clerks to support PMIS (capacity-building for existing data clerks and increased staffing) (Data clerks are only in CDC ART clinics)
- Assistance to develop clear treatment protocols to ensure appropriate referrals through the health system.

Impressions

Approximately 8,500 patients on ART (with over half receiving treatment at the Rundu Clinic), and 12,000 registered HIV positive patients

Waste management was discussed and technical assistance is provided by URC (PEPFAR-project).

- Issue of aging incinerators (temperature is not optimal to process waste), breaking frequently, and unable to handle waste management needs.
- Three new clinics being built will include an incinerator (not yet operational).

A question was raised about when to expect additional support, and at a planning session a number of activities were requested to USAID/Namibia costing approximately NAD $70,000, but it is unclear what has been the decision on those proposed activities.

ORGANIZATION: RUNDU CDC CLINIC (RUNDU INTERMEDIATE HOSPITAL)

Key Informant(s): Mr. Mate Vincent, Pharmacist
Relevant Program Area(s): Inventory control, rational drug use, M&E
Date: September 6, 2010

Support Received

SPS

Technical Assistance and Trainings

Trainings covered topics such as EDT and ART.

- Pharmacist has seen past assistance for TCs (e.g., training); however, he has not been trained and unsure how to access trainings.

Attended the annual Pharmacy Forum and found it beneficial.

Human Resources

Previously, pharmacist post supported by MSH but she has joined MOHSS.

- Two (2) staff (pharmacist and pharmacist assistant) supported by U.S. CDC

Infrastructure

Provided one computer, EDT software, one printer, and memory sticks for the CDC Clinic.

Capacity Building

Duplicities

Synergies

GFATM provided a vehicle for the CDC Clinic: it has been included in the hospital fleet.

Quality of Implementation

Sustainability

Recommendations

Improve infrastructure in the pharmacy and clinic. The past support was based on a different patient load; the number of patients has doubled and requires infrastructure to handle an increased number of patients.

Improve pharmacy store room (currently it is makeshift); need to increase storage capacity, tablet counter machine, and medicine trays.

Staffing need for CDC Clinic (an additional pharmacist and a pharmacist assistant).

Refresher training in PMIS, EDT, and medical stores management and inventory control.

CMS should outsource transport/drug distribution to a private trucking company to improve on-time delivery. Also, it needs to address supplier issues of not providing agreed upon amounts of commodities (lead to rationing of drugs at central level).

Impressions

Rundu CDC Clinic has 4,800 patients on ART.

CDC Clinic can now prescribe both ARVs and essential medicines to patients; previously they only prescribed ARVs and then patients had to queue for essential medicines.

ePMS is installed in the Data Department at the hospital and they have tried to integrate ePMS and EDT (supposedly MSH is working to achieve integration)

- The pharmacist indicated that they are integrated but it is unclear if systems are actually integrated.

PMIS is completed manually and automated at the regional level. Mr. Martin will compile the report and conduct analysis and share it with RMS.

- At the hospital it is not an issue of completing PMIS report. However, at district level it is a problem since there are no PAs and nurses must complete.
  - Used data from PMIS to advocate for a pharmacist post at the Intermediate Hospital.

Rundu CDC Clinic orders directly from CMS for all ARVs, ARVs and essential medicines will arrive on the same truck from CMS.

- ARV orders are provided in full supply; however, they are never on time (usually a week late). Essential medicine orders are never provided in full supply.

ORGANIZATION: RUNDU INTERMEDIATE HOSPITAL

Key Informant(s): Dr. Yuri Yadanoz, Chief Medical Officer
Ms. T. Ngwira, Chief Control Nurse

Relevant Program Area(s):

Date: September 6, 2010

Support Received

SPS

Technical Assistance and Trainings

TCs have received support and trainings (including organizational support) and have produced stronger TCs and helped to strengthen rational use of drugs and the monitoring system.

Capacity Building

Duplicities

Synergies

Quality of Implementation

Sustainability

Recommendations

- Need increased human resources (including a data clerk or workhand in the pharmacy), provides service to four districts.
  - Intermediate Hospital has only one pharmacist and four PAs.
- Need to establish proper monitoring and tracking system for pharmaceuticals (aware of RxSolution pilot in Oshakati) and proposed new activity to automate health systems at hospital.
- Need to provide automated inventory control system to replace paper-based bin cards. It is a time-burden to conduct frequent physical stock counts.
- Storage capacity for CDC Clinic pharmacy and hospital pharmacy. Need to increase storage capacity and potentially separate store rooms for hospital and CDC clinic.

Impressions

- Rundu district catchment area (140,000 persons, unofficial is 500,000 due to influx of Angolans).
- Highest prevalence in Rundu District (approximately 20%), and approximately 8,500 persons on ART.
- Bed capacity is currently 400 beds with 72% occupancy. Will add 150 more beds.
- Intermediate Hospital orders directly from CMS; there are approximately eight routine deliveries.
  - CMO indicated that one cannot get everything ordered (excluding ARVs).
  - CMS has issues with the tendering process and suppliers performance (indicated issue with syringes, previously discussed by the Regional Pharmacist)
  - CMS does not provide information to hospital if it will not supply in full the requisition form. Once the order is received from CMS, the hospital confirms full supply, low supply, or no supply.

- Emergency orders are difficult as the hospital needs to arrange transport from Windhoek and prices can be three to four times higher. It is used in limited cases.

ORGANIZATION: NANKUDU DISTRICT HOSPITAL

Key Informant(s): Dr. Chris Okebie, Acting Principal Medical Officer
Mr. Fusire Terrence, Pharmacist
Ms. Hiata Peter, Acting PHC Supervisor
Mr. Tembo Munyamani, RN in Infection Control
Ms. Grace Osumu, Maternal Mortality Survey
Ms. Margareth Kangowa, Transport/Administration

Relevant Program Area(s): Inventory control, rational drug use, EDT, PMIS.

Date: September 7, 2010

Support Received

SPS

Technical Assistance and Training

Conducted training on how to use EDT for the pharmacist and PA at the CDC Clinic/district hospital.

Conducted trainings on inventory management, PMIS, and rational use of medicine to nurses in charge of the four health centers.

Human Resources

Previously, had a MSH seconded staff (pharmacist assistant), however, she resigned and moved to Windhoek.

Infrastructure

Provided a computer(s) for the recording systems as well as the EDT software.

Capacity Building

Capacity built through training of nurses at the health centers on inventory management and rational use of medicines.

Enormous improvement as indicated by the PMIS indicators. PMIS has been implemented at all facilities.

Used data from PMIS to justify adding an additional PA post to support ART dispensing.

Duplicities

Synergies

U.S. CDC supports eight posts at the district hospital (three nurses, one each of data clerk, pharmacist, PA, Condom Logistics Officer, and workhand).

URC conducted trainings in infection control, waste management, injection safety, rational drug use, and the dangers of hospital waste.

UNICEF is supporting a maternal mortality study that is looking at missed opportunities, providing guidance to midwives, and how to reach the MDG target to reduce rate by 75% by 2015. *(Interviewee stated much more work is required to reach MDG target.)*

Quality of Implementation

Sustainability

Hospital staff indicated that if the project (i.e., MSH) were to close, it would be difficult. Staff are not yet fully trained due to staff turnover and the need to expose staff to other trainings.

Recommendations

MSH should second a position (pharmacist assistant) as a short-term measure, this post has been included in the staffing plan sent to the MOHSS.

- Recommendation from the TC is for a PA to serve at the health center in town to alleviate pressure (request forwarded to MSH at beginning of 2009) *It is unclear whether MSH received this request and whether it responded.*

Refresher trainings for TCs, the last training held in 2006/2007, and no trainings conducted since the new pharmacist joined.

- Trainings help refocus and orient health personnel.
- TCs meet fairly regularly (approximately 67% or twice a quarter).
- Additional resource materials need to be provided to TCs.

Rollout of IMAI to four health centers requires basic infrastructure (e.g., chairs, one computer, one printer, lockable cabinet, and A/C).

- Recommendation not yet shared with MSH. This will help reduce patient load at district hospital and assist with treatment adherence.

Impressions

Four HCs and nine CDC clinics are connected to this district hospital. None of the health centers have PAs, so nurses are in charge and have received training by MSH in inventory management, PMIS, and rational use of medicine.

A few problems with drug availability, Dr. Chris mentioned an issue with tenders.

- ARVs are provided in fully supply.
- Issues with truck at the Rundu RMS breaking down, current delay in receiving order (approximately a month). District hospital does not have the capacity to collect its order from Rundu RMS.

District has a population of 61,000 (acknowledged an influx of Angolan patients) and approximately 1,800 people are on ART. Recent PMIS data indicates 180 patients per dispenser per day (this includes the in-patient/out-patient/CDC clinic).

- Angolans accessing treatment services have not been included in the ART budget or the quantification. *(USAID/Namibia should follow-up with USAID/Angola regarding cross-border programs.)*

ePMS is installed at the CDC Clinic and is trying to reconcile the data with EDT on a monthly basis. Sometimes there are discrepancies. *(Unclear how they respond to discrepancies or what support has been provided on reconciling ePMS and EDT reports.)*

Storage capacity has been experienced by the district hospital, with one location serving as both the main pharmacy (in-patient, out-patient, CDC Clinic) and medical stores. Need to partition the CDC Clinic to decongest the main pharmacy.

- Discussed need to partition for two years and nothing has happened
- An ideal district hospital will be built by MoHSS/MoW (not yet decided what to do with this current site) within four years.
- Minimum stock level is two months and there are delayed deliveries by Rundu RMS.

A pilot at one site is rolling out ART to health centers, need to shift from mobile outreach activities to permanent ART dispensing at health centers.

Staff commented on project (e.g., SPS) activities that most do not really happen at the district level.

ORGANIZATION: **NYANGANA DISTRICT HOSPITAL (CATHOLIC HEALTH SERVICES FACILITY)**

Key Informant(s): Dr. Sylvester Nzenza, Principal Medical Officer
Mr. Rightwell Zulu, New Start Site Manager
Mr. Kativa Joseph Shitunda, Pharmacist Assistant

Relevant Program Area(s): EDT, PMIS, inventory control, rational drug use

Date: September 7, 2010

Support Received

SCMS

Technical Assistance and Trainings

SCMS-trained Regional Pharmacist (Mary Katongo) and SCMS staff held training in inventory control and PMIS (*This was a SPS-supported training at RMS).*

Staff from the VCT site attended two trainings in Windhoek led by SCMS on ordering supplies and stock management.

SPS

Technical Assistance and Trainings

SPS supported one training on EDT attended by the PA.

SPS has developed educational materials for people starting ART (English/local language). Materials used local people in the development of educational materials.

- Training conducted on how to use the educational materials.

Capacity Building

Duplicities

Synergies

- GFATM procured equipment for the hospital and clinics including four fridges, five televisions, and one TB vehicle.
- U.S. CDC supports two PAs.
- IntraHealth is involved with New Start facilities, however, these stand-alone VCTs sites will be closed over the next year.

Quality of Implementation

Sustainability

Recommendations

Pharmacy needs a laptop for ART outreach.

  - Mobile EDT sometimes is out of order and does not work properly (Unsure if this is user issue or issue with device and system. Not clear how they capture data during outreach without mobile EDT. PA cannot use the mobile EDT, but can use EDT on the desktop).

Need additional counting trays for facility.

Provide trainings and refresher trainings on mobile EDT and EDT.

Impressions

CDC Clinic should have at least three months of stock on hand.

Dr. Nzenza is new to post and has only been here for four months.

Nine clinics attached to the hospital. Approximately 1,102 people are on ART. Nurses serve as dispensers at all eight clinics. Mixed information provided on PMIS indicator (prescriptions per dispenser), at first stated the ideal range (30–50) and then stated sometimes 160–180 per dispenser per day. Last quarter, the indicator was 52.

Indicated that wait times are as short as 5–10 minutes per patient; however, issues arise when trying to support two pharmacies. *Unsure if that is an average waiting time?*

District hospital must order from CMS (*unsure if this is a CHS-supported facility requirement)* and services are okay and on-time.

- If CMS does not supply drugs in full to the hospital, then it asks RMS. Usually, it is less than 20 items per order are missing.

TC meeting are held monthly, although it depends on schedule and availability of committee members.

Expired drugs are not an issue, although it is not possible to avoid—but working to minimize. Clinics have a form to track expiries and send expired drugs along with form to hospital.

The primary health care (PHC) department is under the jurisdiction of the MoHSS and all other departments and staff are under CHS.

A human resource issue regarding ART outreach is that it is required to conduct outreach three times per week, which means the pharmacy at the hospital experiences further staff shortages.

Interview did not provide in-depth information and there was some confusion on what support had been provided and by which project.

Discussed staff posts (pharmacist and PAs) at district hospital and clinic and it was unclear the number of vacant posts.

ORGANIZATION: CENTRAL MEDICAL STORES

Key Informant(s): Mr. Girma Tadesse, Systems Administrator
Relevant Program Area(s): IT, CMS, RMS, Syspro
Date: September 9, 2010

Support Received

SCMS

Technical Assistance and Training

Last Syspro training held in 2006. SOPs have been developed for Syspro users. (Unsure of availability of SOPs at the two RMS, but they are available at CMS to users.)

SMCS will sponsor a training for CMS on the new upgrade for Syspro (not data indicated).

Infrastructure

Purchased a new server for Rundu RMS to run Syspro ERP.

SCMS will support installation of Syspro 6.0 service pack 2.0 (recommended by IT consultant firm EOH in South Africa).

- Concerns that Syspro 6.1 may interfere with the Tender Management System and cause other unanticipated issues.
- Time line depends on Mr. Habimana (*pending*).

SCMS purchased an ASDL for Systems Administrator to provide remote access and support to the two RMS. CMS believes this is outside of their scope and would not allow use of their existing data lines.

Capacity Building

Duplicities

Synergies

Quality of Implementation

Sustainability

Recommendations

Need to conduct a costed plan for several options on how to network/link the three medical stores.

- Need to first address relationship between CMS and the two RMS, and that will inform how to proceed.
- Option: Place orders using eDoc net where customers can place online orders.
- Option: Business-business Syspro (EDI format) where an order can be placed electronically and emailed, and then imported at CMS. This has been done a few times at Rundu, but then stopped. There have been some issues at Oshakati.
- Option: Create company profiles within Syspro (Oshakati RMS) which would have unique identities and could represent 80% of the orders in the region. Least expensive option.
- Option: Establish a VPN (virtual private network) and allow web-ordering system to be accessed by customers. Could be higher benefits but unsure about cost.

Each RMS needs to select users (i.e. super users) and receive a TOT on Syspro ERP and be able to train new users.

Impressions

Syspro is installed at all three sites (CMS, Rundu RMS, and Oshakati RMS). It is a legacy system, previously known as InCore (from South Africa).

Discussed establishing networking between all three sites (ultimate goal).

- Over five years of discussions and no decisions.
- It is technically possible with the Syspro ERP to network
- CMS has not asked about cost-benefit and has not decided on moving forward with linking. No actions taken.
- Benefit and risk for the two RMS to see inventory levels at CMS.

CMS is creating a website that would provide stock availability (not real-time) on a weekly basis.

- Not a permanent solution and would not be password protected although there would be selected viewership for certain information.
- Could provide new catalogs for its clients.

CMS manages multiple warehouse sites in Windhoek and at first Syspro had not been installed or linked. It is now installed and linked at all sites.

Issues with old hardware (e.g., computers, servers) and whether to replace parts or to replace equipment. SCMS is not going to deal with replacing hardware, this responsibility falls upon the government. *(Issue raised by Mary Katongo that MoHSS has not been handed over hardware so difficult to justify in budget.)*

- Syspro upgrade could lead to unanticipated issues at the two RMS if hardware (e.g., switches) is insufficient or too old.

Doing preventive work to ensure there is a back-up of data from Rundu RMS.

ORGANIZATION: KATUTURA HOSPITAL

Key Informant(s): Dr. R. Collin Gariceb, Senior Medical Superintendent
Mr. Erastus Ndungu, Pharmacist.

Relevant Program Area(s): Rational use of medicines, stock control/inventory management, pharmaceutical support service supervision.

Date: September 9, 2010

Support Provided

- MSH/SPS supports Katutura hospital pharmaceutical services by sponsoring one of its pharmacists.
- MSH/SPS supports Katutura hospital pharmaceutical services with installation of EDT software package, and also provides EDT equipment maintenance to the facility.

Capacity Building

- The Katutura hospital pharmacy staffs have benefited from MSH/SPS-sponsored trainings on EDT software system use and operation; as well as EDT update trainings.
- Therapeutics committee (TC) functionality and management trainings supported by MSH/SPS for Katutura hospital pharmacy staff.

Duplicities

Not noted.

Synergies

PEPFAR/CDC supports Katutura hospital's pharmaceutical services with two pharmacists, and three pharmacy assistants. Two pharmacists are supported by the Cuba volunteer service; and the Global Fund supports one pharmacy assistant.

Quality off Implementation

Katutura hospital attends to 10,000 HIV positive patients; 5,000 of these patients are on ART therapy. With an average of 50 prescriptions per dispenser per day, the pharmacy sees at least 300 patients per day; and patient-waiting time in the pharmacy has risen above 10 minutes.

Sustainability

With only one pharmacist sponsored by MSH/SPS in the hospital's pharmacy unit and the other pharmacy staffs having benefited from the EDT trainings, the unit will be able take over the running and use of the EDT software package in providing dispensing services in the facility should MSH/SPS cease to provide support and assistance to the hospital.

Recommendations

The project should liaise with the hospitals management to increase pharmacy dedicated space to enable the ease of staff operation, and improve the quality of implementation as well as accommodate the teaming patient load the pharmacy will have to attend to.

Additional pharmacy personnel are needed to meet the challenges of a large patient load.

The new outfit should support trainings to build capacity of pharmacy officers in providing quality counseling on adherence to patients.

To closely monitor, and counsel as appropriate, patients who are using any excuses to refuse their medications.

Examine the possibility of having viral load tests done at the NIP.

Support for the screening of ARV patients; e.g., females for Pap smear for cervical cancer.

Train nurses to carry out circumcision because medical practitioners are not enough.

Promote male circumcision.

Support the hospital with additional computers to enable the network for expediency in operations. In addition, provide mobile EDT to facilitate dispensing, since more than 90% of pharmacy officers have received training in the operation and use of the EDT software package for dispensing data management.

Put in place private and public sector linkages to ensure pharmacy best practices, and rational use of medicines in line with the standard treatment guidelines.

Impressions

Katutura hospital attends to 10,000 HIV positive patients; 5,000 of these patients are on ART therapy. With an average of 50 prescriptions per dispenser per day, the pharmacy sees at least 300 patients per day; and the major challenge the hospitals pharmacy has is space constraint, which is more pronounced in the hospital's CDC clinic pharmacy unit. This challenge portends to become more severe with the implementation of the new policy that approves the commencement of ART therapy for any patient with a CD+4 count of below 350, instead of below 200.

The Senior Medical Superintendent and the Hospital Pharmacist are most appreciative of the support from the project, and stated that the hospital staff and patients are the most important beneficiaries of the assistance.

The need for establishing linkages between private and public sector prescribers and dispensers cannot be overemphasized. Most patients coming from the private sector are believed to have used all sorts of regimens, and can no longer cope; and, as such, are a risk group for drug resistance.

ORGANIZATION: KHOMAS REGIONAL PHARMACY

Key Informant(s): Mr. Fabrice Mbikaye, Regional Pharmacist
Relevant Program Area(s): Inventory control, EDT, cold chain, waste management
Date: September 9, 2010

Support Received

SPS

Technical Assistance and Training

The pharmacist attended a 2005 training on rational use of medicines when he worked at Katutura Hospital. Eighty percent of pharmacy services training is supported by MSH.

A one-week inventory management and rational use workshop was supported by MSH for nurses and PAs in 2009.

- Planned workshop at the end of September 2010.

Trainings for PMIS and EDT are fully supported by MSH and whenever issues arise, people speak directly with MSH.

Supervision visits conducted by the Regional Pharmacist are financially supported by MSH.

- Supervision visits enable the Regional Pharmacist to provide support, assess performance, and advise.
- Spends one to two days per facility per quarter, depending upon how busy the facility is.

MSH is trying to strengthen TCs at the regional level (No specifics on support or how TCs have been strengthened discussed during interview.)

Infrastructure

All regional pharmacists received a computer and EDT.

Capacity Building

Duplicities

Synergies

No clear linkages between public and private pharmaceutical sectors, with the only potential link existing in the Pharmaceutical Society.

Quality of Implementation

Sustainability

For rollout of ART program to health centers, previously MSH provided computers; but now MoHSS will have to include a budget line. MSH will provide software and four computers purchased by MoHSS waiting to be installed by a MSH IT staff member.

The pharmacist indicated that programs would experience difficulties without MSH. He believes there is continued need for technical support from MHS as it is difficult to receive/access such support from MoHSS.

HR challenge for pharmaceutical sector with approximately 99% of the pharmacists outside of Namibia. Namibian pharmacists once trained will work for one to two years and then leave for the private sector.

- Key factors include the salary/benefit package, workload, and a work environment that causes public sector staff to join the private sector.

Recommendations

Expect SCMS to give support to Expanded Programme on Immunization (EPI)vaccine program (biggest challenge), especially the cold chain storage.

- Need guidance on cold chain best practices.
- Fridges should be non-domestic and include temperature monitoring. Sites may have fridges but could experience power outages, poor temperature control, and limited space.
- Need proper cold-chain storage equipment (e.g., use SRW fridges) and ensure facilities have cold chain storage SOPs.

The Pharmacist is excited for SCMS to come onboard with MSH and believes service will improve.

Impressions

Region includes 11 clinics and a district hospital (Windhoek Central Hospital is under the direct supervision of MoHSS Tertiary Health Care).

The Regional Pharmacist raised the issue that SCMS is not involved at the regional level during the National Pharmacy Forum.

PMIS is installed at the district hospital and intermediate hospital, but it is rolling out to all 11 clinics. (It is a paper/automated system)

Issues from supervision visits includes poor pharmaceutical and inventory control management at the facility level (e.g., expiries, poor monitoring of medicines) as well as staff improperly ordering medicines, maintaining stock cards, and the need for increased human resources.

Waste management (including incineration), Katutura Hospital has an old incinerator. (Note that SCMS has finalized an environmental health impact assessment for a new incinerator; there is a need to finalize incinerator specifications).

- Only ARVs and biohazard materials are incinerated.
- All other drugs and commodities are dumped at a nearby landfill *(No other methods to destroy or encapsulate drugs discussed)*.
- Incinerator location is advised to be located outside of town.
- Katutura Hospital maintains its own oversight of waste management and collection of expired drugs. Pharmacist oversees the 11 clinics.
- National Pharmacy Forum includes an update on expired medicines and total drug budget vs. the total cost of expiries and unusable drugs.
- The Directorate of Pharmaceutical Services maintains records on expiry and unusable drugs.

CMS has procurement and supply issues, such as where the facility will order 100 medicines and only receive 30.

- Significant issues with 1st line antibiotics (e.g., amoxicillin and penicillin). There has been no stock for three months.

- STI treatment regimens have been out of stock for nearly two months.
- CMS satisfactory services: ARV is 95% and essential medicines are 40%.

The pharmacist acknowledged that CMS's physical infrastructure and policies have improved from 2004 to present and attributes it to the work of SCMS and MSH.

- The level of service, however, has declined and is gradually worsening.

NIP is functioning well, but there are delays in sending specimens and providing results.

No integration of ePMS with EDT. (In multiple interviews it is unclear what the overall MIS strategy is for EDT, RxSolution, ePMS, PMIS, etc.)

ORGANIZATION: WINDHOEK CENTRAL HOSPITAL (WCH)

Key Informant(s): Dr. S.K. Shalongo, Senior Medical Superintendent
Mr. Joseph Rushubiza, Hospital Pharmacist

Relevant Program Area(s): Rational use of medicines, stock control/inventory management, pharmaceutical support service supervision

Date: September 9, 2010

Support Provided

- MSH has had good relationship with WCH, and this has benefited the hospital tremendously, especially in the area of pharmaceutical management.
- MSH/SPS has supported the strengthening of the hospital's ability to store medicines and related supplies, by providing WCH with cupboards and cabinets that have been put to serving that purpose.
- WCH was also supported by SPS by providing it with extensive literature materials for improving patient education, and for best prescribing habits by health care professionals.
- MSH/SPS assisted WCH by providing support in the area of therapeutic information and pharmacovigilance, by serving as a source for addressing queries sent to pharmacists; thereby relieving the pharmacist to attend to patient care.
- The SPS project has also assisted pharmacists in making presentations for various purposes; including professional, technical, administrative, and financial purposes.
- MSH/SPS also serves as a medicines information resource for the pharmacy through its publications, and similar opportunities that give the pharmacist an opportunity to make contributions to publications.
- MSH/SPS has supported WCH with the installation of an EDT software package in the pharmacy, which helps in stock control and management, in producing reports; as well as the management of patient care.
- The ePMS that is installed in the hospital's CDC clinic for patient data management is also sponsored by MSH/SPS. Both EDT and ePMS-generated data have been used for validating each other.

Capacity Building

- MSH/SPS supported WCH to be of assistance to NHTC in the training of pharmacist assistants. NHTC is a now full-time capacity-building institution, and the supporting trainer-pharmacists have more time to attend to other professional issues.
- Trainings on EDT and its update versions have been supported by MSH/SPS, and this has been a major capacity-building asset for subsequent on-the-job training.
- Stock control and management training was supported by SPS. Significant improvement has been observed since after the training, based on comparison of indicators for stock management such as discrepancies between physical stock and bin cards balances.
- MSH/SPS provided therapeutic committee (TC) training for TC activities functionalities and management. The training was to try and revitalize the TC meeting activities, such as increased attendance and active involvement in discussing issues presented for deliberation. Observation shows that nothing much has changed.

- The TIPC unit, an MSH-supported initiative, has shown interest and willingness to support and participate in fortnightly seminars. This, it is believed, will help address identified need for pharmaceutical care.

Duplicities

None noted.

Synergies

- USG/CDC has been supporting WCH with the services of one pharmacist, but she has just left their service. Out of the other pharmacists, six are employees of the MOHSS, while four are volunteers from Cuban volunteer service. The Cuban support comes in cycles of two years.
- Global Fund is supporting the procurement of ARVs for services provision. It is not direct support to WCH, but they are benefiting from the support.
- The activities being supported and implemented by SPS and SCMS are in the Namibian context, and are in alignment with the draft Namibian National Pharmaceutical Master Plan, which has been finalized and will be produced for circulation soon.

Quality of Implementation

The challenges with stock management are its being a manual recording keeping system; but if the system is computerized, there will be significant improvement, which will be most manifest in the accuracy of the record keeping.

Sustainability

- WCH will be able to take over implementation activities related to the EDT if given six months notice of the SPS project exit. But it will face some challenges if the exit is sudden.
- WCH will not be able to take over operations of the TIPC because presently, not one Namibian is in the TIPC. It is believed that since the MSH is supporting UNAM, the graduates from that program will most likely be exposed to the workings of the TIPC unit and will be in a better position to take over subsequently.
- WCH trains pharmacy assistant interns and they are considered interns.

Recommendations

MSH/SPS should support more training to develop pharmacy personnel skilled in stock control and management to manage the hospital's pharmacy.

Impressions

WCH has 1,100 patients on ART therapy, and the pharmacy services unit has an average of 20 to 30 prescriptions per dispenser per day. With the shift from CD+4 count of 200 to 350 as basis for commencing treatment, a larger number of patients will now be on ART therapy and will have the tendency to further stretch available human and material resources.

ORGANIZATION: MEDSCHEME NAMIBIA

Key Informant(s): Tiaan Serfontein, Managing Director
Relevant Program Area(s): Private sector, health insurance
Date: September 10, 2010

Support Received

They have had a 2.5-year association with MSH, focusing on three areas:

- Stimulate and facilitate the involvement of the private sector in the health sector and with HIV/AIDS care and treatment. MSH has included the private sector through the Pharmacist Council, Medical and Dental Council, Namibian Association of Medical Aid Funds (NAMAF), which is a private regulatory body, in workshops and forums with the aim of building the capacity of private providers to adhere to treatment guidelines.
- Facilitation of private and public forums that have focused on management interventions, and brought in external consultants to evaluate data to access compliance with treatment guidelines. The first assessment showed many deficiencies that were addressed through counseling and educating the deficient providers. The second assessment showed improvement.
- MSH facilitated provider workshops that included the public sector as well. They were scheduled in the evening to allow for increased participation by private providers and awarded continuing medical credits to meet licensing requirements and Medscheme requirements.

Capacity Building

They have improved the capacity of Medscheme providers to adhere to HIV treatment guidelines

Duplicities

None noted.

Synergies

None noted.

Quality of Implementation

They are very appreciative of the support provided and expressed that the assistance has allowed them to improve HIV care and treatment in the private sector.

The issue is that not all providers are under Medscheme and not all private providers are captured in the trainings nor do they have any incentive to follow treatment guidelines. There is a flaw in the Namibian health system in that the GRN, as the largest employer, provides unlimited, unmanaged, health coverage through the Public Service Medical Aid Scheme. This is a cost center and reports to the Ministry of Finance (MOF). The MOF does not see it as its responsibility to manage the quality of care and does not appear to grasp the risk involved in their approach.

Sustainability

There is a high likelihood of sustainability in that capacity building of the private sector is not reliant on donor funding.

Recommendations

Mr. Serfontein offered two interesting recommendations that the Mission and the MSH Project should investigate:

- There have been two analysis (one two years ago and a second two months ago, which were presented at industry forums) that identified areas that limit access to ARVs by Namibians. One area was the issue of cost. Medscheme proposes that donors provide technical assistance to the private sector (Namibia Health Program (NHP), Namibia Medical Care (NMC) and other managed care organizations to access better priced ARVs through pooled procurement and assist with lobbying GRN to lift taxes on ARVs.
- Donors could provide a time-limited subsidy to Medscheme to cover the gap in the monthly premium for their "Blue Diamond," low cost option targeting the working poor. Medscheme has brought the monthly premium cost down to a minimum by providing a N$20/month subsidy, through the NCP social responsibility account, along with the employer carrying 50% of the premium, but the cost to the worker is still too high. Currently there are 5,000 subscribers. Medscheme calculates there is a pool of 300,000 working poor and that the option will be sustainable at 10,000 subscribers. With a subsidy either in ARVs or cash over two to three years, Medscheme's Blue Diamond option will be sustainable. It provides unlimited HIV benefits to subscribers in the managed care program (N$200–250/month)

Impressions

A refreshing approach and solid ideas of how to assist the GRN to incorporate the private sector and ensure care according to international guidelines.

ORGANIZATION: NATIONAL COMMUNITY HOME BASED CARE PROGRAMME

Key Informant(s): Mr. A.N. Shapumba, National Programme Coordinator
Relevant Program Area(s): HBC kit procurement
Date: September 10, 2010

Support Received

SCMS has been providing support for 2.5 years, beginning with an assessment of the logistics system. The activities from 2008–2011 are technical assistance designed to meet the recommendations of that assessment.

Redesigned the system and integrated it into CMS and GMS (government management system–non pharmaceuticals).

Developed standard operating procedures (SOP) for integration of the HBC Kits into CMS and GMS.

Developed and implemented training on the SOP.

Monitoring implementation in the regions, SCMS and MoHSS provide TA in the field.

Assisted in quantification exercises and built the capacity of MoHSS.

MOHSS and SCMS joint planning for activities in FY 2011.

SCMS assisted MoHSS to develop and submit an abstract for the Implementer's Conference in 2009. The abstract was accepted and jointly presented.

Capacity Building

They have improved the capacity of Medscheme providers to adhere to HIV treatment guidelines.

Duplicities

None noted.

Synergies

Global Fund is procuring the kits.

Quality of Implementation

The assessment identified gaps in delivery of HBC Kits because they were separate from the CMS distribution system. The integration has addressed this gap and the supply of HBC Kits has improved.

Recommendations

TA should continue for one to two more years with a clearly-articulated phase out strategy.

Impressions

ORGANIZATION: NATIONAL INSTITUTE OF PATHOLOGY (NIP)

Key Informant(s): Mrs. Tangeni Angula, CEO
Mr. Harold Kaura, General Manager, Technical Operations
Mr. Boniface Makumbi, Manager, Specialised Services

Relevant Program Area(s): Laboratory system, inventory control, procurement

Date: September 10, 2010

Support Received

SCMS

Technical Assistance and Training

SCMS team in 2007 assessed the Oshakati facility and compared regional/peripheral facilities and central site using the ATLAS tool. An action plan was developed based on the findings and recommendations.

SCMS supported training of two NIP staff on the Materials Management module in Meditech (IT system for NIP).

- Both staff have since left NIP.

Quantification workshop held in 2008, but it has been difficult to operationalize knowledge from the workshop.

In July 2010, the consultant reviewed procurement processes and supplier performance for NIP and provided many recommendations.

- Issues include assessing vendor performance, cost, and reagent leasing.
- Need to strengthen contract and performance management of suppliers.

Human Resources

Not relevant.

Infrastructure

SCMS supported the renovation of NIP's warehouse as well as assessed overall storage capacity and volume. Management was pleased with the renovated warehouse, however, its storage capacity is too small for existing and future volume.

- MoHSS provided a larger facility; SCMS supported architects to review the new facility; and NIP will find funds to renovate larger space.
- Vision is a SCMS-supported renovated warehouse (a small one) that will be the store from the central reference laboratory. The other to-be-renovated warehouse (a large one) will support all other sites.
- The CEO informed us that the large space is temporary and has not yet received approval from MoHSS. There is the issue of renovating a building not owned by NIP. A letter has been sent to the PS or SPS and NIP needs to follow up.
- The contractor should have already begun renovations at larger space with MoW monitoring renovations.
- Commodities are stored at the larger space that is undergoing renovations. *(Unsure how that will work regarding renovations and warehouse operations.)*

SCMS procured 14 fridges (nine large ones, and five small ones) for cold storage (too large to use at central level) and installed them at regional/peripheral sites.

Capacity Building

Duplicities

Synergies

U.S. CDC is a significant partner with NIP and has a cooperative agreement. Need to ensure coordination between support provided by U.S. CDC, SCMS, and any other NIP partners.

Quality of Implementation

Overall, NIP management is pleased with the support provided by SCMS, but expressed concerns that the action plan may have been too ambitious and not much has happened at the peripheral level.

Sustainability

Recommendations

Need to look at storage capacity at peripheral sites and determine the need to expand space or revise layout, racking, and workflow.

Need to assess workflow processes and provide further training on the Materials Management module in Meditech.

- Work with SCMS to review modules and reports (currently, not user-friendly) to make modifications to modules to improve reports. No time line.

Need to conduct a follow-on workshop/training on quantification as well as review Meditech modules that can be used in quantification. *(CEO discussed this, would help with sustainability.)*

Need to review action plan and prioritize activities.

- Need to work on a strategic planning for transitioning, NIP does not want to be caught off-guard when funding and support ceases.

Plan to conduct additional trainings and identify super users in the Lab and Materials Management modules of Meditech.

Continue to conduct joint work planning and identify what partners will support each activity.

Impressions

Specimen transport support from SCMS has not yet been received. It will address these issues:

- Specimen storage at facility level,
- Transportation between labs (cool boxes to be procured),
- Specimen referral outside of Namibia (following WHO specifications), and
- Leadership changes at SCMS delayed activities but have not restarted.

The challenge with platform standardization is that they are closed systems and dependent upon distributors/suppliers of that specific set of reagents.

NIP lab standardization relies upon classification of sites by characteristics (e.g., catchment area, testing volume, etc) and has three to four categories of sites which are standardized within each category/level.

- Not having a single or two platforms for the entire country guarantees that if there is a problem with the reagent distributor/supplier it will not completely affect all testing services.

Reagent lease agreements are with the parent company and not the distributor and rely upon the parent company (e.g., Abbott, Becton Dickinson, etc.) to select the appropriate distributor/local support.

- Sometimes NIP orders directly from the parent company

The NIP approach is to lease instruments (in particular analyzers) instead of purchasing. In past, when NIP formed there was obsolete equipment in the country and analyzers that had been supported by companies that had gone out of business. *(As a parastatal, NIP focuses on maintaining flexibility and adaptability.)*

This year, work planning had improved between SCMS and NIP as well as its other main partner (U.S. CDC). Need to have a joint workplan and delineate a lead organization for each organization.

Moving to increased automation/higher throughput analyzers at larger facilities to address staffing issues.

- Hard to decentralize to peripheral sites. Need to be able to sustain a flexible and adaptable organization that can increase and decrease capacity as MoHSS and GRN changes policies (e.g., increased/decreased CD4)

NIP is collecting data for quantification and it has been delayed for SCMS. It will likely occur in October/November 2010.

ORGANIZATION: UNIVERSITY OF NAMIBIA

Key Informant(s): Prof. Lazarus Hangula, Vice Chancellor
Prof. Osmund D. Mwandemele, Pr.-Vice Chancellor
Relevant Program Area(s): Training
Date: September 10, 2010

Support Received

MSH has supported the University in the development of a Pharmacy Degree that was in the University's master plan to begin in 2012, but with MSH support they have been able to accelerate the time frame.

Capacity Building

Duplicities

Synergies

University of Washington is also assisting the University with nursing education.

Quality of Implementation

They are very appreciative of the support provided. All terms of the MOU signed between the University and MOH have been respected.

The Senate approved the curriculum this week and they will begin the first class of students in February 2011.

Sustainability

Recommendations

Impressions

The visit was mainly a courtesy and the Dean of Nursing, and Public Health will provide more details.

ORGANIZATION: UNIVERSITY OF NAMIBIA

Key Informant(s): Dr. L. Haoses-Gorases, Dean School of Nursing and Public Health

Relevant Program Area(s): Training

Date: September 10, 2010

Support Received

Dr. Haoses-Gorases acted as the internal resource during the development of the pharmacy program. She was the change agent that was needed to move the process forward through the University's bureaucracy

Capacity Building

The six-step process and inclusive approach to developing the program was highly appreciated and will likely be adopted by the University in future curriculum development.

Strong intention to establish a Pharmacy School in the near future

Duplicities

None noted.

Synergies

The University of Washington is also assisting the University with nursing education. Northwest University in South Africa is linked up and involved in the development of the pharmacy school.

Quality of Implementation

They are very appreciative of the support provided. All terms of the MOU signed between the University and MOH have been respected.

The Senate approved the curriculum this week and they will begin the first class of students in February 2011.

Sustainability

Given the learning process described by Dr. Haoses-Gorases, the activity is sustainable in that there is the intention to adopt the curriculum development process employed by MSH.

Recommendations

None noted.

Impressions

Dr. Haoses-Gorases has been a pivotal change agent in the implementation of this activity.

ORGANIZATION: PACT (AFRICAN PALLIATIVE CARE ASSOCIATION)

Key Informant(s): Ms. Molissa Manyando
Relevant Program Area(s): HBC kits
Date: September 13, 2010

Support Provided

Have been involved with SCMS.

Based on work with HBC kits.

Capacity Building

Turnaround after the first order was quite long, because of delay in FDA approval.

Duplicity

Not relevant.

Synergies

Not relevant.

Quality of Implementation

Quality of implementation was not up to par, because of logistic delays; long time before FDA approval, and subsequent use of companies which had their own supply system.

Sustainability

The challenges confronted with were overwhelming, that sustenance was not in contention.

Recommendations

The FDA delay was due to the involvement of Paracetamol tablets as part of the cargo. Caution should be taken when shipping items, because of the FDA and its equivalent on both ends. They could be suspected to be narcotics, or other controlled substances; even though cotton, wool, linen, dettol solution, and Vaseline were the items that they ordered.

Impressions

They threw caution to the wind in the packaging and shipping of the items they had in the consignment.

ORGANIZATION: CATHOLIC HEALTH SERVICES (CHS)

Key Informant(s): Ms. Emmy Hango, M&E Officer
Mr. Alex Munba, Accountant
Relevant Program Area(s): Treatment Literacy support for ART Adherence
Date: September 13, 2010.

Support Provided

SPS

Technical Assistance and Trainings

SPS supports CHS on pharmaco-vigilance TIPC, and communicates with them at the facilities directly.

SPS is also leading the adherence survey; and was involved during the preparation of the protocol.

Human Resources

CHS involves SPS in the interview process when CHS is recruiting pharmacists; and SPS is also involved along with MoHSS during the orientation of pharmacists.

MSH is often invited by CHS, and is involved in any updates on pharmaceuticals.

Infrastructure

Not relevant

Capacity Building

SCMS sponsored some CHS staff to a workshop as their commodities come through the CMS, but has not worked with them directly.

SPS supported CHS in treatment literacy support for ART adherence, and empowered them knowledge-wise.

CHS worked with SPS to develop flipcharts and video, which were shot in four regions and translated into different languages. The videos were adapted for use for different purposes. The project was chosen because of the increased dropout rate and need for adherence

Duplicity

Not relevant.

Synergies

IntraHealth supported a research methodology to stimulate staff to become involved in operational research. CHS is a sub of IntraHealth.

Quality of implementation

CHS's translation of flipcharts and videos which were shot in four regions into different languages were with a view to spreading its reach and possible use and impact in those regions. The videos were adapted for use for different purposes. The project was chosen because of increased dropout rate, and need for adherence

Sustainability

CHS has four district hospitals which focus on AIDS. The employees at CHS hospitals are a mixture of CHS and GRN-sponsored persons. There are no SPS-sponsored staff at the CHS hospitals; but there are Global Fund supported persons (one pharmacist and one condom logistics officer). The data clerks are USG/CDC sponsored.

Recommendation

They would appreciate more support from SPS for technical assistance in addressing challenges that may face implementing project activities.

CHS has to look at which logistics and storage option is most sustainable and most convenient for their operational arrangements.

Impression

CHS should ensure that sustainability is the watch word in their operations; as they seem not to have physical structures that could portend for standard storage of their commodities.

ORGANIZATION: **DIVISION OF PHARMACEUTICAL SERVICES (PHSS)**

Key Informant(s): Ms. Jennie Lates, Deputy Director PhSs
Relevant Program Area(s): Technical Assistance
Date: September 13, 2010

Support Received

CMS has benefited from SCMS, but would prefer it if USAID would allow some renovations in addition to the TA provided. Believes even small resources from materials handling equipment and targeted renovations would contribute to being able to affect change and would like to revisit the decision with USAID/Namibia.

SPS/SCMS provided joint planning with PhSs in accordance with the National Pharmaceutical Master Plan. Includes some equipment to allow for maximizing available space during the interim period when the new warehouse will be constructed.

SCMS provided four assessments over a short period of time (e.g., Transportation and Fleet Management, Suppliers Performance, Physical Enhancements at RMSs, etc.). Quality of assessments and consultants were good and appreciated by the PhSs; however, human resource capacity issues at PhSs and CMS require more time to implement some of the assessments' recommendations. The MoHSS does not have the same capacity as the implementing partners and cannot move as swiftly. MoHSS must be in the lead so the implementing partners must be patient. There is a moratorium on more assessments until they have a plan for the recommendations already made.

SCMS provides TA to conduct quantification exercises.

Warehouse specification technical support from SCMS was very useful

The regional pharmacist, chief medical officers and regional deputy directors need training and technical support.

Capacity Building

Need to build the professional capacity in CMS. Recognizes there are issues with working with CMS that make it difficult to provide required assistance.

Not welcoming of SCMS procuring ARVs, as it will lead to a weakening of their current system and only addresses ARV procurement while they also procure all medications for the public system.

Welcome TA to improve PhSs market intelligence, but this is not on the current plan for support in FY 2011

SCMS is supporting CMS to develop a website to increase information-sharing between CMS and RMSs. A decision is still pending regarding the exact configuration of linking or sharing information between CMS and its clients, primarily the RMSs. *As noted by Girma Tadesse, there should be a cost analysis for the configuration options and a decision made by CMS and Mr. Habimana.*

Duplicities

None noted.

Synergies

Global Fund and U.S. CDC support is complementary. PhSs works with all partners and determines priority posts based on needs of the GRN.

Quality of Implementation

Expressed concerns about data quality in the National Database which aggregates EDT data from the regional, district, facility levels.

- Regional Pharmacist is responsible to provide training and to oversee facilities (technical assistance) on EDT and PMIS.
- Issue of high staff turnover and need for ongoing training.

Sustainability

Not discussed.

Recommendations

Supportive of merging the two projects, as it will allow access to more technical assistance. There was discussion about the former project, RPM plus, not being as robust in SCM issues or having sufficient staff.

Want to see action and no more studies.

MoHSS/PhSs is in the process of replacing its fleet with donor funding (U.S. CDC, Global Fund) and GRN. The PS wants to outsource the management of the fleet.

- PS recommended outsourcing of transport, where a private company would provide maintenance support and manage logistics and the delivery schedule.
- MoHSS would purchase the vehicle fleet and drivers. It could need support in developing and reviewing specifications for the RFP.

Involvement of SCMS Advisors at PhSs needs to be increased with clear scopes of work that are jointly agreed upon.

Finalize MOU with MSH project to include SCM.

Quantification exercise will be conducted once per quarter and will rely on SCMS position. Ideally it will involve all stakeholders.

Would like to create a Division of Medical Services to assist with training and appropriate implementation of standard treatment guidelines.

SPS/MSH provision of refreshments as an incentive to attend TC meetings is not appreciated, as it is not sustainable.

Need to work on stock control using appropriate and basic technology

Satisfied with current TA staff support and suggest SCMS approach partnership with PhSs using active participation.

SCMS COP should refrain from requesting information from seconded staff. He should approach her for any information needs.

Private-public linkages should be lead by the MoHSS, not by an implementing partner, but recognizes the MoHSS needs more capacity to move on these issues. The implementing partner

should advocate actions with the PS that are slowed by the lack of capacity and campaign for increased staff levels.

Impressions

The MoHSS restructuring is attempting to bring RMS back under PhSs as subdivisions but it is politically charged. *Presently, the two RMS fall under the jurisdiction of the Regional Directorates (2003 restructuring) and CMS is looking after itself. Proposed restructuring would elevate CMS to a division with Oshakati and Rundu sub-divisions.*

Based on conversations about past performance of SCMS COP, it is imperative that in-country staff, especially the COP or Country Director, be of high quality. Perhaps, USAID could elicit comments from key GRN partners (PhSs, CMS, NIP) on candidates.

Transportation is an urgent issue in that the need for CMS to contract private carriers to deliver goods is eating at their budget and slowing progress on other priorities.

Waste management needs to be addressed. Informant indicated that the MoHSS is evaluating the incinerators and awaiting a decision of how to address the needs.

Raised the issue identified in several key informant interviews regarding stock availability and order fill-rate of essential medicines, in particular 1st line antibiotics and syringes (2 and 5ml).

- Indicated that this is not an issue and data from PMIS indicates that stock on hand for key items is approximately 93% (it has dropped) and the percent dispensed is approximately 92–93%.
- Minimum stock level should be two order cycles, so if an order does not arrive, it will arrive at next delivery and should still be stock on hand.
- Need to untangle the issue of stock on hand, inventory control systems, and order fill-rates for essential medicines. This could be an area of support that the MSH project can provide.

Supplier performance remains an issue for Namibia. Less than one-third of suppliers provide their orders on-time and in full. Often orders are broken into up to 15 deliveries. There are significant delays and CMS struggles to keep medicines available.

- Need more professionals in the medical stores, including logisticians.

New pharmacists receive a three to four day orientation in Windhoek on the CMS system, National Referral Hospital, PhSs, MIS, and quantification.

- There could be a potential for MSH to prepare some brief orientation materials or update to new pharmacists at the direction of MoHSS.

The equitable distribution and role of MoHSS is to prioritize and work with partners. This needs to be led by MoHSS and supported by MSH.

ORGANIZATION: INTRAHEALTH

Key Informant(s): Ms. Agatha Kutedre, VCT Advisor
Dr. Chani, Technical Advisor
Relevant Program Area(s): Technical Assistance
Date: September 13, 2010

Support Received

They have worked with the two projects in VCT (SCMS provision of RTK) and Care & Treatment and Prevention with SPS

SPS/MSH collaborated with EDT and ePMS. They are working to harmonize the reports to better see the correlation of the two systems that have different entry points in the health system.

MSH is involved with the literacy program implemented in CHS sites. MSH is providing support and supervision at the sites. IntraHealth developed the tool.

Capacity Building

SCMS has built the capacity of the sites to manage the stock levels of RTK. The staff have demonstrated they can handle the stock.

Duplicities

None noted.

Synergies

None noted.

Quality of Implementation

Good.

Sustainability

The RTK procurement will be migrated to CMS to improve sustainability

Recommendations

Centralize the procurement system.

Provide TA to ensure the supply of RTK is improved, especially in integrated sites.

Impressions

Better understanding of how the EDT and ePMS systems are complementary and need not be exclusive. They both provide data at different parts of the system. ePMS begins when patients enter the system and ends when they receive diagnosis and prescriptions. EDT then picks up the patient through dispensing the prescriptions. Working on harmonization and validation of the two systems with M&E unit.

ORGANIZATION: PHARMACCESS

Key Informant(s): Ms. Ingrid DeBeers
Relevant Program Area(s): Technical Assistance
Date: September 13, 2010

Support Received

PharmAccess has not worked directly with MSH beyond discussions.

SCMS has provided RTK and consumables for outreach screening pilot.

Capacity Building

Not relevant.

Duplicities

None noted.

Synergies

Strengthening Health Outcomes through the Private Sector (Abt Associates) provides a forum for dialogue between public and private sector.

Quality of Implementation

Not relevant.

Sustainability

Working with the private sector will increase the sustainability of USAID initiatives. All efforts should be made at the Mission to explore areas of collaboration between MSH project and the private sector. PharmAccess can assist.

Recommendations

Investigate is SCMS could also provide pooled procurement for managed health care schemes to bring the cost down to a premium that the working poor can afford, which is estimated at N$120/month. Current costs are N$240/month.

Impressions

PharmAccess works closely with the private sector and aims to fill gaps in the health system using the private sector to increase sustainability. It works exclusively with the open funds that are non-profit.

It provides operational research in health-system strengthening and health financing primarily with the private sector.

The fund administrators are for profit and have no incentive to implement controls and manage the care provided to subscribers. This is a dangerous scenario as drug resistance is increasingly likely in this situation.

The open funds (NHP, NMC, Renaissance, and NATMED) have low-income schemes trying to provide access to 300,000 working poor and unemployed in Namibia. Currently these funds reach 40,000. There are many challenges with the geography and population being so widely

dispersed. The cost of medications in the private market is much higher than to those to which the GRN has access. The system is at the mercy of the wholesalers.

ORGANIZATION: **PHARMACEUTICAL SOCIETY OF NAMIBIA (PSN)**

Key informant(s): Ms. Karen Brookman
Relevant Program Area(s): Private Sector Partnerships.
Date: September 13, 2010.

Support Provided

PSN–Namibia is familiar with SPS; but the organization has not benefitted from SPS program. A lot of ideas have been put in writing, but what they want to achieve is not known. SPS has focused its operations more in the public sector.

PSN is a voluntary organization, and private sector pharmacists contribute the most; especially, retail pharmacists, to keep PSN running.

PSN can assist members to secure legal service; especially in malpractice cases.

The PSN is not a member of the national Medicine Regulatory Council, but we are not if the Pharmacy Council of Namibia is.

Capacity Building

There is a loan fund for Namibians to study bachelor's degree in pharmacy in South Africa. There are 19 students currently benefitting from this loan scheme. The loan is for five students per year.

PSN has every pharmacist, both private and public sector practicing as member.

There are registers for three categories of pharmacy officers; namely, Pharmacist, Interns, and Pharmacy Assistants.

Real statistics of registered members is with the Pharmacy Council of Namibia (PCN).

Professional CPD is required for licensing to practice; and it began July, 2010. CPD has a fee that a new member/an already registered member has to pay annually to retain their name in the register. There is no collaboration with Medscheme in CPDs.

As PCN committee member, it meets every six weeks.

Duplicity

Not relevant.

Synergies

As a service provider, the activities of the representative are documented for accreditation.

There is another pharmacy assistant program being conducted in the private sector. It is an external candidate kind of setting program. This program has been accredited by the Pharmacy Council of Namibia, and the National Qualifications Authority (NQA).

Quality of Implementation

In HIV treatment, there is a huge difference between in the public and the private sectors, with private sector lagging behind.

The pharmacy assistants speak the language of the locals as most of them are Namibian indigenes; so they can deliver better communication and consultation in local language; and, as such, much more can be achieved by for patient adherence.

Sustainability

The pharmacy assistants should be able to further their studies to a bachelor's degree at the University of Namibia if they meet the minimum entry requirement for admission into the university and the program. However, not every pharmacy assistant can be admitted into the program, only those that have the minimum of ordinary level six credits.

Recommendation

PSN has not benefitted from SPS program. A lot of ideas have been put in writing, but what they want to achieve is not known. SPS has focused its operations more in the public sector.

Impressions

PSN is currently a small organization which has little operational funds, thus it does not have the means of exploring other private sector partnership/initiatives that could lead to an expanded involvement in private sector activities.

The government of Namibia should increase its subvention to enable the PSN to embark on more consolidated private sector partnership initiative activities that will boost the resource base of the professional body and its membership.

For more information, please visit:
http://www.ghtechproject.com/resources

Global Health Technical Assistance Project
1250 Eye St., NW, Suite 1100
Washington, DC 20005
Tel: (202) 521-1900
Fax: (202) 521-1901
www.ghtechproject.com