Public Health Supply Chain Competency Mapping in Namibia

Results and Recommendations from the People that Deliver Initiative collaboration between the Ministry of Health and Social Services, SCMS, and Capacity*Plus*

March 2014

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SCMS

Providing quality medicines for people
living with and affected by HIV and AIDS

PEPFAR
Implementing Partner

About SCMS

The Supply Chain Management System (SCMS) was established to enable the unprecedented scale-up of HIV/AIDS prevention, care and treatment programs in the developing world. SCMS procures and distributes essential medicines and health supplies, works to strengthen existing supply chains in the field, and facilitates collaboration and the exchange of information among key donors and other service providers. SCMS is an international team of 13 organizations funded by the US President's Emergency Plan for AIDS Relief (PEPFAR). The project is managed by the US Agency for International Development.

Recommended Citation

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Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral treatment
ARVs	Antiretrovirals
CMS	Central Medical Store
DCE	Discrete Choice Experiment
DPS	Division of Pharmaceutical Services (under MOHSS)
EMLC	Essential Medicines List Committee
GRN	Government of the Republic of Namibia
HR	Human resources
HRH	Human resources for health
MOHSS	Ministry of Health and Social Services
MRMD	Multi-Regional Medical Depot
NEMLIST	Namibia Essential Medicines List
NGCL	Namibian-German Centre for Logistics
NMPC	National Medicines Policy and Coordination (sub-division of Pharmaceutical Services)
PA	Pharmacist assistant
PCI	Pharmaceutical Control and Inspection (sub-division of Pharmaceutical Services)
PMIS	Pharmaceutical management information system
PtD	People that Deliver
RMS	Regional Medical Store (or Multi-Regional Medical Depot — MRMD)
SOP	Standard Operating Procedures
SCM	Supply chain management
SCMS	Supply Chain Management System
USAID	United States Agency for International Development
WHO	World Health Organization
WISN	Workload Indicator of Staffing Needs

Executive Summary

Background

Namibia is faced with one of the most severe health workforce shortages in the world, including a shortage of supply chain personnel to manage the key institutions of the public health supply chain, the Central Medical Store (CMS) and Regional Medical Store (RMS). As Namibia is a focus country for People that Deliver (PtD), a global initiative focused on raising awareness of human resource (HR) challenges for supply chain management (SCM), the Namibian Ministry of Health and Social Services (MOHSS) requested the Initiative's assistance in tackling its supply chain human resource challenges.

Leveraging the expertise of supply chain and human resources for health (HRH) experts in its membership, the PtD Initiative proposed a suite of activities that would holistically assess and address the HR for SCM challenges. The overall objectives of the collaboration are:
- To provide technical assistance to the MOHSS for enhanced planning, deployment, training and retention of the SCM workforce
- To document the implementation process, identify lessons learned and draft a case study/guidance document on strengthening the SCM workforce that can be shared for additional testing and replication in other countries.

Successful completion of this work will help achieve the following benefits and results:
- A map of the supply chain workforce at CMS and RMS, with detailed tasks and competencies required for SCM staff.
- An estimated number of staff, including the skills mix required for proper supply chain functioning.
- Improved supply chain workforce performance, resulting in improved supply chain performance on a set of identified key performance indicators.

This collaboration began in November 2013 and is expected to finish in September 2014, demonstrating an efficient and coordinated response to Namibia's specific HR for SCM needs. The collaboration consists of four distinct activities that, when combined, create a powerful suite of interventions able to develop a supply chain competency framework, identify number of supply chain personnel required, build their capacity in the required competencies, and leverage context-specific incentives to encourage staff retention.

Namibia PtD Collaboration Activity and Results Framework
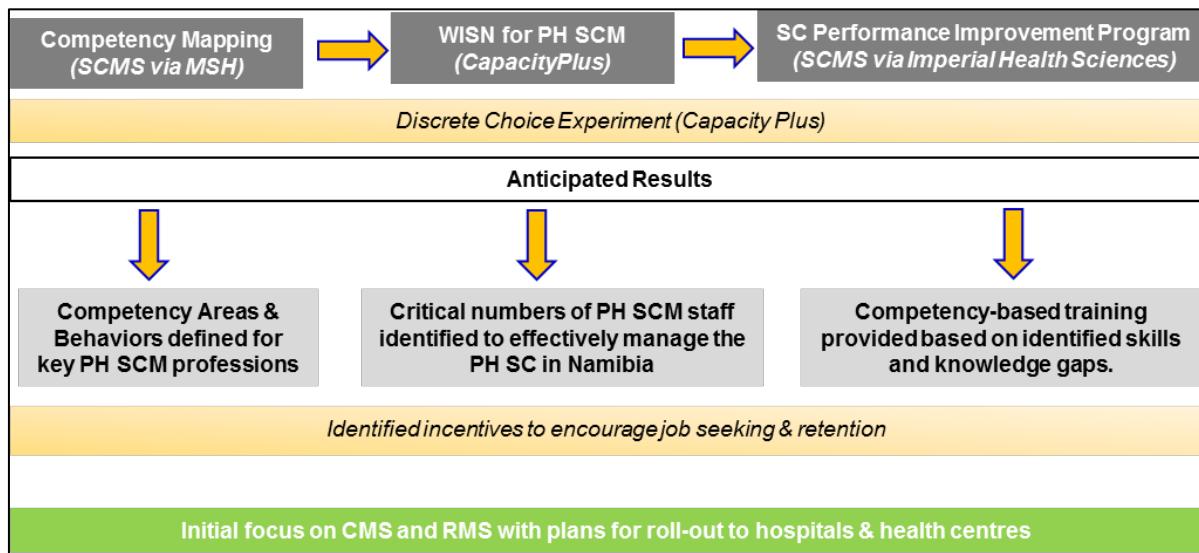
Competency Mapping Methodology

The purpose of this first technical assistance activity in the PtD–Namibia collaboration was to outline the domains and competencies required for the workforce at the central and regional levels of the supply chain by trialing an approach of applying the recently published PtD Competency Compendium. This activity will provide Namibia with a detailed competency map for pharmacists, pharmacist assistants and administrative officers/clerks[1] at CMS and RMS, which will help inform future decisions on supply chain staffing, job descriptions, education and training, with an end goal of improving supply chain performance.

This technical assistance comprised a series of activities, including:

- A desk audit of key SCM workforce resources (i.e., job descriptions, SOPs, policies) to produce a draft competency map of supply chain competencies by cadre, highlighting gaps and overlap.
- A stakeholder engagement workshop to introduce the activity to key partners and validate the initial desk audit findings.
- In-country interviews and focus groups to outline SCM activity process maps, which highlight responsibilities of each cadre.
- Comparison and compilation of desk audit and process map results into draft competency frameworks by cadre.
- Key informant validation of draft competency frameworks.

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[1] Note: The MOHSS recently changed the title of clerk to administrative officer in the official Staff Establishment. However, since this is a recent change and all parties interviewed still went by the title of clerk, this report will use clerk.

Competency Mapping Results and Recommendations

A desk audit of 26 documents revealed a few relatively important gaps when mapped back to the PtD Competency Compendium's identified competency areas for the six domains. The team identified two types of gaps: competency was covered in the system but not by CMS/RMS; or the competency was not covered by anyone in the system and thus equated a system gap. The team highlighted these gaps to be reviewed during the stakeholder meeting, workplace observations and interviews. Please reference Table 4 in the full report to see the gaps by domain.

In addition to the gaps, the desk audit revealed, as was hypothesized, that there is an overlap in the responsibilities of all three cadres (pharmacists, pharmacist assistants and clerks) and for pharmacist assistants and clerks in particular. However, given the overarching nature and description of some of the tasks in the desk audit documents, additional interviews and validation were needed to determine the exact overlap.

Based on the key informant interviews, the technical assistance team updated the original competency areas from those listed in the PtD Competency Compendium to reflect the Namibian context. In some cases, the team combined competency areas that were deemed repetitive or expanded other competency areas that were deemed too broad (see Table 1).

Table 1. Final Domains and Competency Areas for CMS/RMS Pharmacists, Pharmacist Assistants and Clerks

Domain	Competency Area
1. Selection and Quantification	1.1 Select the appropriate product
	1.2 Define the specifications and quality of the product
	1.3 Forecast product needs
	1.4 Develop supply plans
2. Procurement	2.1 Manage procurement costs and budget
	2.2 Manage tendering processes
	2.3 Execute management of contract, including maintaining supplier relationship and risk and quality management
	2.4 Assure quality of products
	2.5 Manage importation of products
	2.6 Manage donations of products
3. Storage and Distribution	3.1 Make product replenishment requests to re-supply entity
	3.2 Receive products
	3.3 Properly store products/implement good warehousing practices
	3.4 Process customer orders (capture order/pick/pack/dispatch)
	3.5 Manage transport for commodities
	3.6 Manage the return of products (e.g., expired, damaged, redundant, overstocked)
	3.7 Manage disposal of products (e.g., expired, damaged, redundant)

Domain	Competency Area
4. Resource Management	4.1 Design or recommend changes to the design of a public health supply chain
	4.2 Oversee operation of a logistics management information system (LMIS)
	4.3 Maintain safe and secure working conditions
	4.4 Monitor and evaluate supply chain activities
	4.5 Manage outsourcing SCM functions
	4.6 Manage and plan projects (senior-level management responsibilities)
	4.7 Manage finances/financial activities
	4.8 Support human resources (e.g., recruitment, training, team management/supervision)
5. Professional and Personal	5.1 Demonstrate basic generic skills (e.g., literacy, numeracy, technology)
	5.2 Demonstrate communication skills
	5.3 Utilize problem-solving skills
	5.4. Exhibit professional and ethical values
	5.5 Prove leadership abilities
	5.6 Abide by rules/laws/legislation

Competency maps for each of the domains are presented in this report with the roles of pharmacists, pharmacist assistants and clerks noted. Detail and recommendations are provided by competency area for each of the domains in Section IV of the full report.

The team compiled five overarching recommendations to for the MOHSS to consider when moving forward with CMS and RMS staffing structure revisions:

1. Create sub-specialties for the clerk/administrative officer level.
Since the new CMS/RMS staffing structure has already been approved, adding new positions to the structure is not possible. However, adding sub-specialties to existing positions is a possibility. By adding sub-specialties for administrative officers, the MOHSS can require that these positions have specific skillsets needed to strengthen CMS/RMS operations. In addition, pre-service and in-service training programs can be tailored to these areas. The team recommends the following new sub-specialties:

- **Administrative officer/data analyst:** This position would fill a gap in multiple domains, specifically in tasks related to forecasting, supply planning, monitoring and Pharmaceutical Management Information System (PMIS) reporting. This position would require specific capacity in accounting, computational skills, data collection and analysis.
- **Administrative officer/logistics (receiving, warehousing, dispatch):** While establishing a logistics manager position is not possible, by creating a sub-specialty of administrative officer for logistics, RMS and CMS could require skills in receiving, warehousing, dispatching and even transport management.

- **Administrative officer or pharmacist assistant/procurement and contracting:** Contract negotiation and management is a skill set not inherent to the training of pharmacists and pharmacist assistants, but it could be included as a sub-specialty for pharmacist assistants and administrative officers.

2. Re-allocate division of labor around storage and distribution tasks.

In the storage and distribution domain, the division of labor around many functions is currently split by commodity type, with pharmacists handling Schedule 3 and 4 commodities and ARVs, pharmacist assistants handling pharmaceuticals, and clerks handling non-pharmaceuticals. The team recommends that additional responsibility be shifted to clerks for management of both pharma- and non-pharma commodities, while shifting the pharmacist assistant's role to one of oversight in these competency areas. Pharmacists will still handle restricted commodities, but by shifting some of these tasks to clerks, it may free pharmacist assistants for other higher-level tasks related to procurement and facility-level responsibilities. As noted in the previous section, for overlapping storage and distribution competencies, the team recommends a task allocation model whereby the pharmacist takes on approximately 5 percent of the task (for restricted commodities), the pharmacist assistant about 15 percent, and the clerk about 80 percent.

3. Use the competency map framework to update SOPs, job descriptions and training programs, and to advocate for rational distribution of tasks.

This first-ever comprehensive documentation of competencies across the three cadres provides an excellent repository of data for updating SOPs, job descriptions as they are updated for the new staffing structure, and curricula for pre-service and in-service training programs. If the previous recommendation on task shifting is adopted, additional work will be needed to update requirements for all job descriptions and training. The Deputy Director of DPS recognized during his interview that the MOHSS should leverage the current logistics programs provided by the Polytechnic of Namibia and the Namibian-German Centre for Logistics, as well as managerial programs at the Namibian Institute for Public Administration and Management (NIPAM). The results of these competency maps should be shared with these institutions to strengthen their training programs.

4. Create a logistics management unit[2].

Currently, the responsibility for coordinating stakeholders involved in financing, procurement and distribution of health commodities is not well defined. It is recommended that MOHSS consider establishing a unit, possibly within NMPC, consisting of at least one senior pharmacist and two data analysts to oversee supply chain operations — forecasting, analyzing LMIS data (e.g., national stock status), coordinating stakeholders around commodity security issues, and other responsibilities as

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[2] A logistics management unit is "management structure responsible for organizing, monitoring, and supporting all supply chain activities within the logistics system. The LMU, typically based at the central level, should have both an operational and a strategic purpose. [It is] a vehicle to institutionalizing good supply chain management practices and is involved in all logistics functions, linking upstream and downstream logistics activities" (USAID|DELIVER PROJECT 2010).

assigned. With the current diffuse management, accountability and strategic planning are limited, minimizing opportunities for gaining efficiencies in procurement, distribution and other critical functions.

5. Strengthen overall HR functions to ensure proper on-boarding, support and retention.
While not unique to CMS and RMS, and supported by the results of the national supply chain assessment, current HR functions — including induction, annual performance appraisals and workforce development, including on-the-job training and supervision — are inadequately implemented. The team recommends that after completion of the Workload Indicator of Staffing Needs (WISN) and Discrete Choice Experiment (DCE) (See Annex 1 for explanation of WISN and DCE methodology) additional recommendations of a few simple and inexpensive yet concrete ways to improve human resource management for CMS and RMS be compiled to present to the MOHSS.

Proposed Next Steps

With the first phase of the collaboration activity complete and the competency areas and behaviors defined for pharmacists, pharmacist assistants and clerks at CMS/RMS, the next phases of the collaboration will move forward simultaneously:

- Update the Discrete Choice Experiment tool based on the competency mapping results and run for pharmacists and pharmacy assistants.
- Kick off the supply chain performance improvement program with a week-long executive leadership short course at Imperial Health Sciences in South Africa for key CMS management.
- Adapt standard activity definitions for the WISN based on competency mapping results to run a variety of scenarios at CMS and RMS.

At the culmination of collaboration activities, the teams will host a high-level workshop and presentation of the suite of results from each activity. The aim is that the results and recommendations will influence MOHSS strategic plans for CMS/RMS and also highlight lessons learned for future application of this process in other countries. But more importantly the aim is that the results will strengthen the supply chain workforce, ultimately strengthening the public health system and improving health outcomes for Namibian citizens.

I.   Background

People That Deliver Collaboration in Namibia

By 2011, development partners and national governments had spent nearly $10 billion procuring health products for low-income countries (Ballou-Aares 2008; Kopczak 2008). Reliable, well-performing health supply chains are essential for ensuring access to health supplies, and thus for positive health outcomes. Yet all too often, these life-saving supplies do not reach the people who need them, resulting in more than 1.7 billion people — nearly one-third of the world's population — without access to essential medicines (WHO 2004). The World Health Report 2006 describing the global health workforce crisis highlighted the urgent need for a competent, recognized and empowered health supply chain workforce to ensure that supplies are forecasted, procured, transported, stored, distributed and dispensed to the people who need them (WHO 2006).

To address this need, the People that Deliver (PtD) Initiative (www.peoplethatdeliver.org) was launched in June 2011 during a global consensus meeting at WHO in Geneva. Since then, PtD has successfully begun to raise awareness of HR challenges for SCM not only in the SCM community, but also in the human resources for health (HRH) community. The Initiative's board includes representatives from public, private and academic institutions, as well as high-level Ministry of Health officials from three of PtD's seven focus countries[3].

The Initiative is positioned to focus on country-level action, and a priority need is to develop, test and refine guidance for country-level stakeholders on how to strengthen their country's SCM workforce. USAID/Washington, as part of its support for PtD and in collaboration with selected USAID missions, agreed to provide management and financial support through its implementing partners for this effort.

To develop such guidance, PtD took "bottom up" approach — that is, implement a set of strategic activities in a country that is already actively engaged in health workforce efforts; that includes or would like to include the SCM workforce more specifically in these larger workforce efforts; and that is ready to be an active partner in implementation. Namibia — recommended by then PtD Board member Mrs. Paulina Nghipandulwa, Director of Tertiary Health Care and Clinical Support Services for the MOHSS in Namibia, which has oversight over the Division of Pharmaceutical Services (DPS) — proved to be just that partner. Mrs. Nghipandulwa, a strong advocate for HR for SCM, recommended Namibia as a focus country to test a "proof of concept" suite of HR for SCM strengthening activities given the HR for SCM challenges experienced by the Central and Regional Medical Stores in particular. Namibia was also well poised to undertake these activities given the

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[3] People that Deliver focus countries are Burkina Faso, Dominican Republic, Ethiopia, Indonesia, Liberia, Mozambique and Namibia.

presence of three USAID projects: Supply Chain Management System (SCMS), Systems for Improved Access to Pharmaceuticals (SIAPS) and Capacity*Plus*.

Each of these projects has activities funded by USAID/Washington in support of PtD and a portfolio of activities supported by USAID/Namibia, with the goal of strengthening the supply chain workforce and/or contributing to improved overall HRH/health system functioning. These projects are ideally situated to carry existing efforts forward and to expand SCM efforts in Namibia with limited additional funding from USAID/Washington to encompass a strategic set of interventions that can be documented, yielding lessons learned for dissemination.

Human Resource and Supply Chain Management Context in Namibia

Namibia is faced with one of the most severe health workforce shortages in the world. Ranked the third least densely populated country in the world (World Bank 2014)[4], it relies mainly on expatriate cadres (doctors, nurses, pharmacists) to fill critical health posts. As an example, in the year 2000, the national ratio of public sector physicians per person was 1 to 7500, and more than 55 percent of those doctors were expatriates (El Obeid, 2001). In the last three years, the human and institutional capacity development in Namibia has been enhanced with the launch of the medical school and pharmacy degree training programs at the University of Namibia and the Polytechnic of Namibia's Namibian-German Centre for Logistics (NGCL), which offers a Bachelor of Logistics program, in addition to the nursing and public health trainings that have been running for the past several years at the National Health Training Centre. It is expected that in the medium- to long-term, the HRH crisis in Namibia will be alleviated through increased local training and less reliance on staff importation.

Additionally, as defined in the Report of the Presidential Commission of Inquiry (Ministry 2013), there are major systems barriers associated with HRH — notably, the Ministry experiences high vacancy rates, high levels of attrition and outdated staffing norms that do not accommodate the current and emerging health system needs. Given the rapid scale-up of HIV/AIDS services (including those in public and faith-based facilities), the health care workforce also required expansion but at a rate the government could not support. Therefore, many health care worker salaries have been heavily dependent on financing from donors, namely the United States Government through the President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund for AIDS, Tuberculosis, and Malaria (Cairney 2014). Given the impending decline in external resources due to Namibia's 2011 shift in economic status to an upper-middle-income country, all donor-supported health workers were transitioned to the GRN payroll by September 2013, when external funding assistance for those positions ended.

While this describes the Namibian health workforce situation broadly, these same factors also affect SCM workers as a subset of the wider workforce. They share the need for training, sustainable

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[4] Based on 2011 Namibian Census

salaries and personnel management practices to enhance their performance. In particular, with the rapid expansion of HIV/AIDS programming from 2007 to 2012, the quantity of commodities required for prevention, care and treatment has increased almost three-fold, creating additional burden on the supply chain staff that manage them (Habimana 2012).

The MOHSS currently manages an integrated health commodity supply chain that serves approximately 350 public health facilities in Namibia, including 35 hospitals, 43 health centers and about 270 clinics (see Figure 1). The CMS in Windhoek is responsible for the quantification, procurement, warehousing and distribution of all pharmaceuticals and clinical supplies, including antiretroviral medicines (ARVs), anti-malarial medicines, TB medicines, HIV rapid test kits, contraceptives and other reproductive health supplies and vaccines. Being the sole procurement agent for all pharmaceuticals and related supplies, CMS handles a significant portion of the public procurement budget. The annual procurement value, which was just under US $9 million in 2007, increased almost three-fold to just over US $24 million in 2012, driven mainly by the rapid scale-up of antiretroviral treatment (ART) coverage (Habimana 2012).

Figure 1. Namibia Health Supply Chain
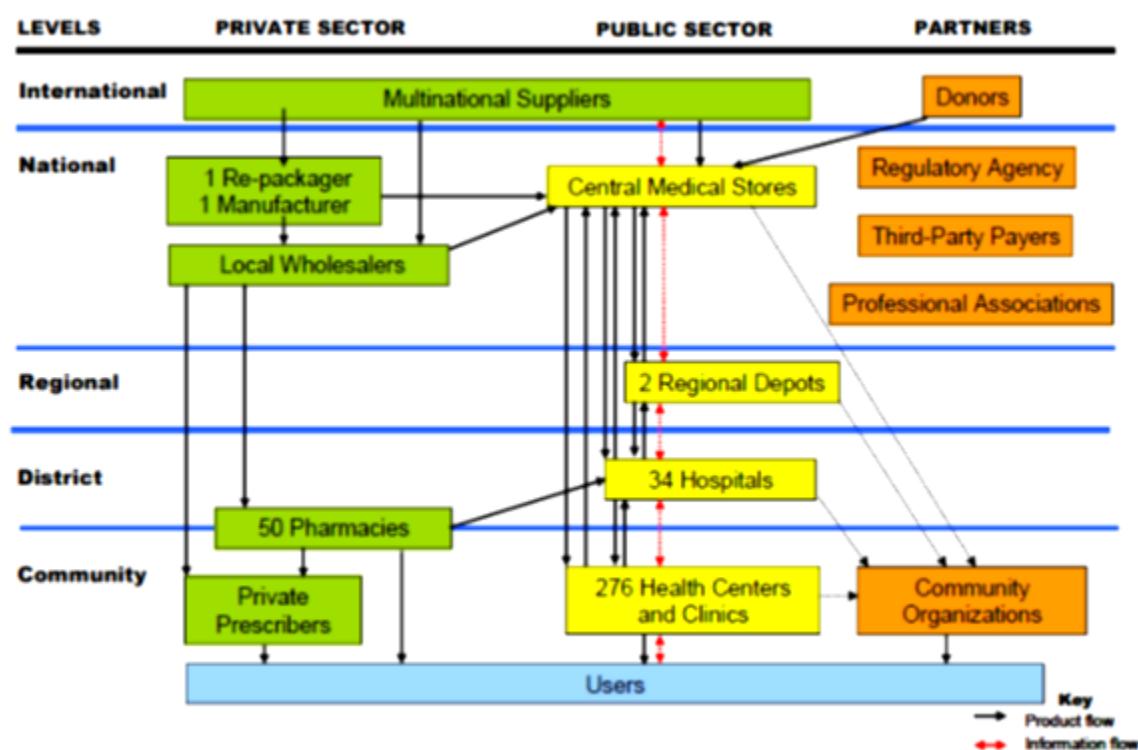
Source: CMS Standard Operating Procedures, 2006

CMS distributes directly to about 45 health facilities on a six-week cycle, including 26 of the 34 district hospitals and the two RMSs (also referred to as Multi-Regional Medical Depots) at Oshakati and Rundu.

Within the public sector, the PtD–Namibia collaboration is focusing first on two of the main players of the public health supply chain —the Central and Regional Medical Stores, which are under management of the MOHSS's DPS. The DPS also has oversight for two other entities — the National Medicines Policy Coordination (NMPC) Sub-division and the Pharmaceutical Control and Inspections (PCI) Sub-division — which also have supply chain responsibilities related to medicine selection and quality assurance. CMS and RMS have similar internal structures, as shown in Figure 2; however, neither of the RMSs have a Procurement and Tenders section, as this is a CMS responsibility.

Figure 2. CMS Organagram
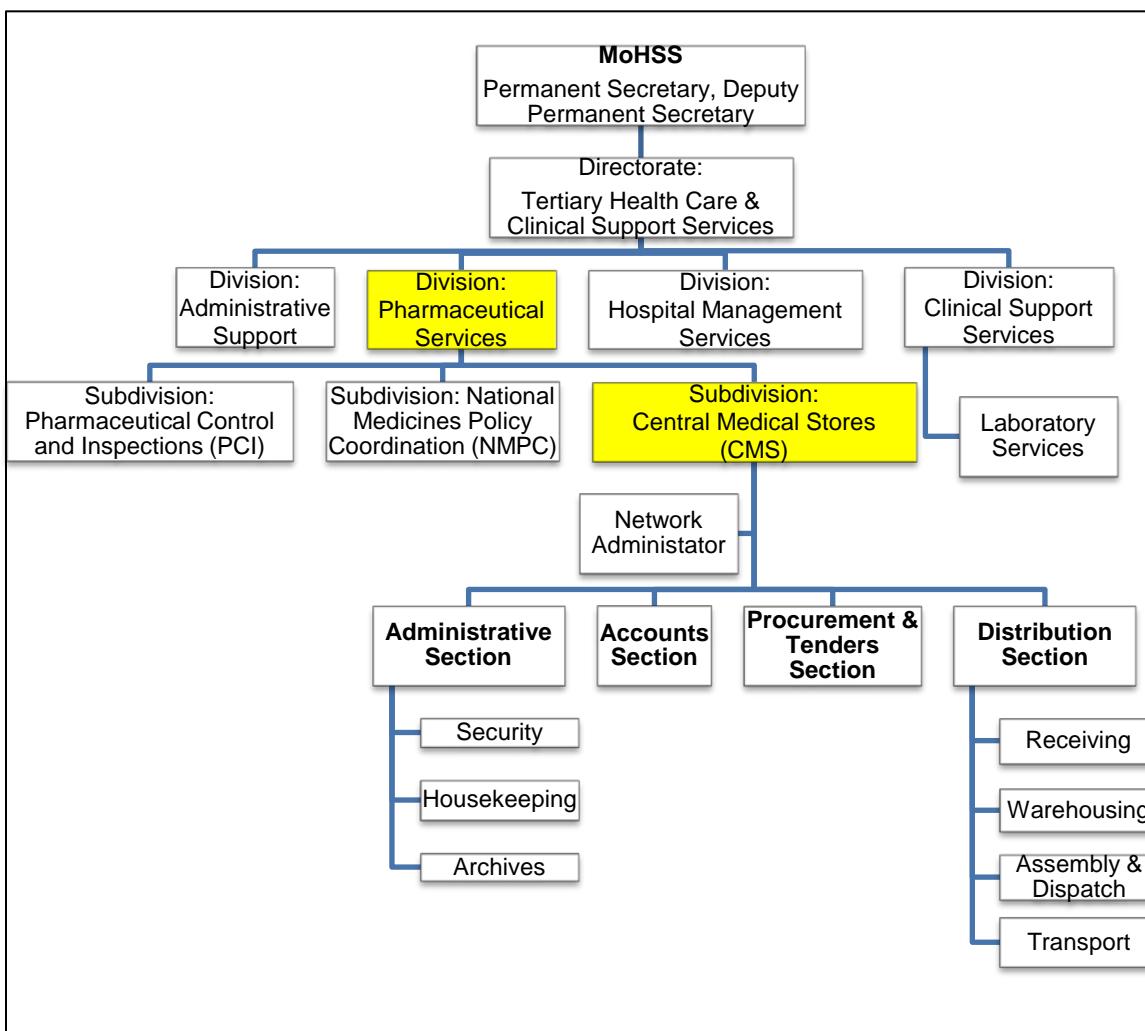
Source: Human Resources for Supply Chain Management Assessment Report, 2011

Each facility in the supply chain relies on a trained workforce to perform routine activities — including reporting, ordering, storeroom and warehouse management, and distribution — to ensure health commodities reach every patient who needs them. The frontline supply chain workforce is

primarily composed of pharmacists and pharmacist assistants but also includes clerks, nurses and drivers. Similar to the larger HRH crisis in Namibia, the public health sector in Namibia faces shortages — as of 2008, it had only 27 pharmacists and 65 pharmacist assistants to serve the approximately 1.7 million clients who utilize public sector health services (O'Hanlon 2008). The University of Namibia is due to graduate its inaugural class of 15 students from the new pharmacy program in 2014, and the National Health Training Centre continues to train and graduate approximately 28 pharmacist assistants each year. Over the long term, these programs will increase the number of pharmacists and pharmacy assistants. However, it is important for these members of the supply chain workforce to have a defined competency framework in health supply chain management that informs their training curricula and to be offered appropriate incentives to seek out employment in the public sector. It is also important to ensure efficient use and allocation of these critical supply chain personnel.

Objectives and Anticipated Benefits of the PtD–Namibia Collaboration

The overall objectives of the collaboration are:

- To provide technical assistance to the MOHSS for enhanced planning, deployment, training and retention of the SCM workforce.
- To document the implementation process, identify lessons learned and draft a case study/guidance document on strengthening the SCM workforce that can be shared for additional testing and replication in other countries.

Successful completion of this work will help achieve the following benefits and results:

- A map of the supply chain workforce at CMS and RMS, with detailed tasks and competencies required for SCM staff.
- An estimated number of staff, including the skills mix required for proper supply chain functioning.
- Improved supply chain workforce performance, resulting in improved supply chain performance on a set of identified key performance indicators.

In addition, the results of this work will provide global benefit to USAID's work in HRH and SCM, as well as to the People that Deliver Initiative, by producing:

- Defined metrics to measure inputs, processes, outputs and outcomes of investments in developing the supply chain management workforce.
- Documentation of the implementation process and lessons learned from this collaboration to inform replication in other settings.

The collaboration in Namibia began in November 2013 and is expected to finish in September 2014, demonstrating an efficient and coordinated response to Namibia's specific HR for SCM needs. The collaboration consists of four distinct activities that, when combined, create a powerful suite of

interventions (see Figure 3) able to develop a supply chain competency framework, identify number of supply chain personnel required, build their capacity in the required competencies, and leverage context-specific incentives to encourage staff retention.

Figure 3. PtD–Namibia Collaboration Activity and Results Framework
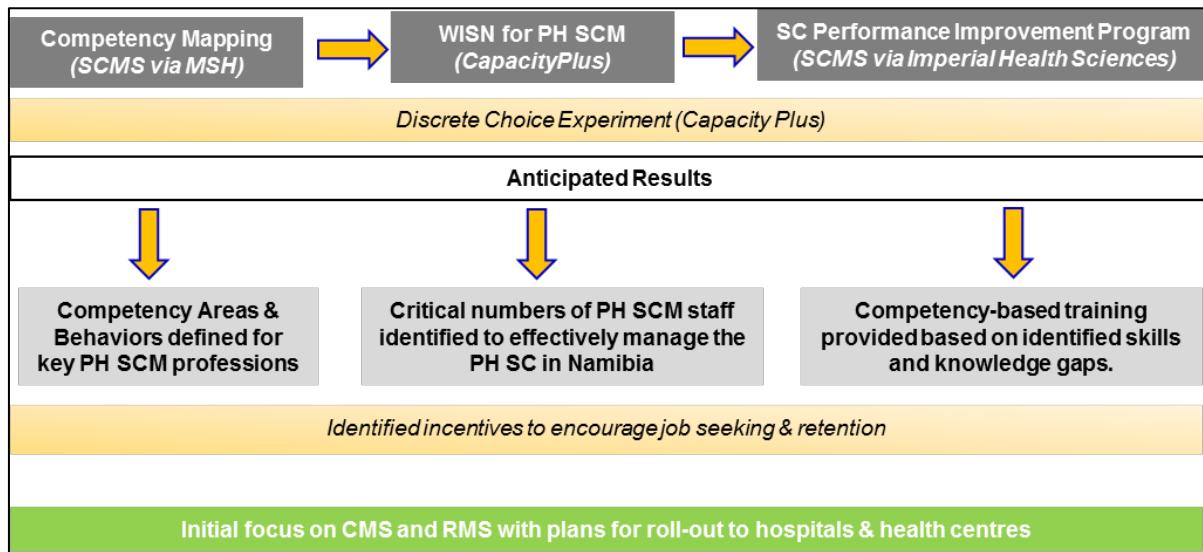
Each of these activities is described in Annex 1. This technical report focuses on the implementation and results of the first activity, competency mapping of the public health supply chain.

II. Competency Frameworks Defined

As defined in the People that Deliver Competency Compendium for Health Supply Chain Management, a competency framework is "a collection of domains and competency areas with associated behavioral competencies that define the expected skills requirements of a particular cadre" (PtD 2014). For example, the competency framework for a warehouse manager would be different than the competency framework for a hospital pharmacist. The composition of country-based, cadre-specific competency frameworks also depends on the structure of the supply chain and at which levels various competencies are allocated.

Each component of a competency framework can be further defined by the following and through visual relationship representation in Figure 4:

- **Domains:** The high-level groups, or clusters of competency areas, within a given competency framework.
- **Competency area:** The overarching capacity/skills needed to perform in a specific area.
- **Behavioral competencies**: Expressions of what an individual does; is observed when effective performers apply motives, traits and skills to a relevant task.

Figure 4. The Structure of Competency Frameworks
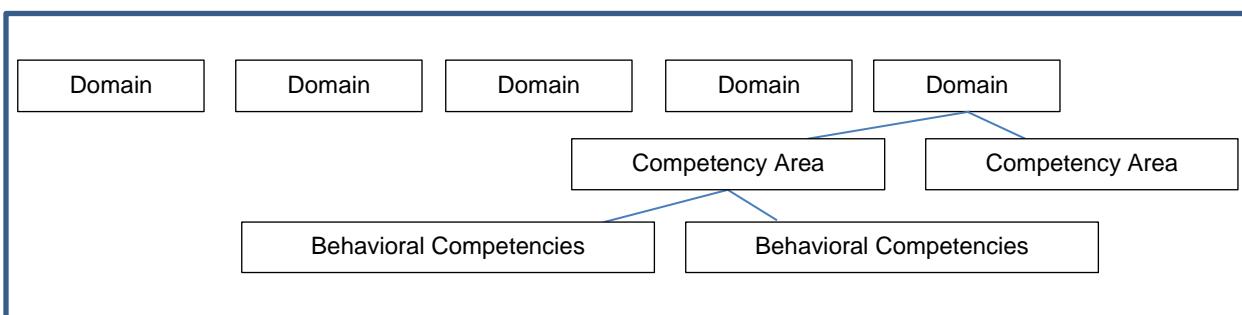
The PtD competency compendium defines six health supply chain management domains. Figure 5 displays the visual relationship of the six domains: selection and quantification, procurement, storage and distribution, use, resource management and personal/professional. Table 2 lists the domains and their associated competency areas as defined in the compendium. The compendium also features a catalog of behavioral competencies that users can select as they relate to their supply chain context.

Figure 5. PtD Competency Domains
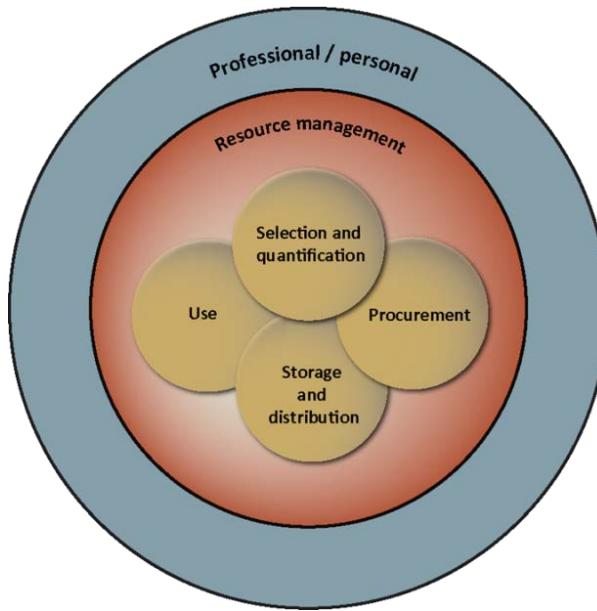
Table 2. PtD Health Supply Chain Management Domains and Competency Areas

Domain	Competency Area
1. Selection and quantification	1.1 Select the appropriate product
	1.2 Define the specifications and quality of the product
	1.3 Define any special considerations for the product (e.g., temperature requirements, size, implications for infrastructure)
	1.4 Forecast and quantify product needs
	1.5. Supply planning
2. Procurement	2.1 Manage procurement costs and budget
	2.2 Build and maintain supplier relationships
	2.3 Manage tendering processes and supplier agreements
	2.4 Execute management of contract, including risk and quality management
	2.5 Ensure quality of products
	2.6 Manage import and export of products
	2.7 Manage donations of products
3. Storage and distribution	3.1 Practice storage, warehousing and inventory management standard procedures
	3.2 Supply commodities to facilities
	3.3 Supply commodities to sections within a facility
	3.4 Manage transport for commodities
	3.5 Manage disposal of products (e.g., expired, damaged, redundant)
	3.6 Manage manufacturing or compounding of products
	3.7 Manage re-packing of products

Domain	Competency Area
4. Use	4.1 Properly use medical products according to international/national regulations
	4.2 Provide information and advice to the product user/patient
	4.3 Report product use/consumption
	4.4. Dispense or provide commodities to patients/users
5. Resource management	5.1 Design or recommend changes to the design of a public health supply chain
	5.2 Oversee operation of a logistics management information system
	5.3 Implement risk management and monitoring and evaluation activities
	5.4 Manage outsourcing SCM functions
	5.5 Manage and plan projects
	5.6 Manage financial activities
	5.7 Support human resources (e.g., recruitment, training, team management/supervision)
	5.8 Prepare for product supply during disasters and emergencies
6. Professional and personal	6.1 Demonstrate generic skills (e.g., literacy, numeracy, technology)
	6.2 Demonstrate communication skills
	6.3 Utilize problem-solving skills
	6.4. Exhibit professional and ethical values
	6.5 Prove leadership abilities
	6.6 Abide by rules/laws/legislation

By developing a competency framework(s) for health supply chain staff, stakeholders will be able to identify:

- SCM tasks required in the supply chain.
- Competencies required to complete those tasks.
- Who currently completes those tasks.
- What gaps, redundancies, recruitment or training needs may exist.

Once the cadre-specific competency frameworks have been created, they can be used to:

- Guide the design of training and curricula, performance frameworks, and job descriptions for different cadres of health workers.
- Identify gaps in services.

III. Competency Mapping Exercise Methodology

While the methodology of this competency mapping exercise was based on other evidence-based applications — primarily the University of Canberra and UNFPA application in Vanuatu (Brown 2012) — this exercise also had to be adapted to the specific context of Namibia's public health supply chain. This section briefly describes the purpose and methodology executed for each of the four activities, with results and recommendations for future implementation described in the subsequent sections of this report. See Annex 2 for the Scope of Work and Annex 3 for detailed activity schedule.

Desk Audit

The purpose of the desk audit was to review key documents outlining job responsibilities and critical activities of the three cadres selected — pharmacists, pharmacist assistants and clerks. Key responsibilities and activities identified in the documents were then mapped (linked) to the appropriate competency area from the PtD competency compendium. This gave the team a broad picture of where job responsibilities overlapped among the three cadres and helped identify gaps where no cadre was tasked with fulfilling a particular competency area.

The SCMS field office in Namibia provided 26 documents for the team to review, including SOP manuals, job descriptions, assessment reports and policy documents. Table 3 lists the title and publication date of each document reviewed.

Table 3. Desk Audit Documents Reviewed

Title of Document	Year of Publication
1. Standard Operating Procedures Manual for Pharmaceutical and Related Supplies at Central Medical Stores (MOHSS)	2006
2. Training Report on Standard Operating Procedures for Warehousing and Distribution for Central Medical Store Staff (SCMS)	2013
3. Development of a Pharmacy Degree Course at the University of Namibia: Competency Framework for a Pharmacist in Namibia (MSH-SPS)	2010
4. Assessment of Human Resources Capacity in Public Health Supply Chain Management in Namibia (SCMS)	2011
5. Central Medical Store Work Load Assessment (MOHSS-CMS)	2012
6. CMS Work Load Assessment for Procurement (MOHSS-CMS)	2012
7. Ministry of Health and Social Services Strategic Plan 2009–2013 (MOHSS)	2009
8. Namibia Health Facility Pharmaceutical Standard Operating Procedures (MOHSS)	2009

Title of Document	Year of Publication
9. Namibia Supply Chain Assessment Technical Report (SCMS)	2013
10. Pharmaceutical Management Information System Indicators Manual (MOHSS)	2012
11. Sample Job Descriptions (various) (MOHSS)	2013
12. Workload Indicator of Staffing Needs Activity Standards for Pharmacists Intermediate Hospital Katutura (Capacity*Plus*)	2013
13. Namibia Central Medical Store Procurement Policy and Procedures Manual (MOHSS)	2005
14. Central Medical Store Staff List May 2013 (MOHSS)	2013
15. Oshakati and Rundu Regional Medical Store Staff List (MOHSS)	2014
16. Namibia Health Supply Chain Description (MOHSS/SCMS)	2013
17. Namibia National Pharmaceutical Master Plan September 2012 (MOHSS/SCMS)	2012
18. Pharmacy Assistant Curriculum Modules and Standards Namibia (MOHSS/SPS)	2011
19. Career Opportunities within the Ministry of Health Namibia (MOHSS)	2009
20. Job Description Principal Pharmacist National Medicine Policy Coordination (MOHSS)	2009
21. Job Description for Senior Pharmacist–Assistant at Central Medical Store (MOHSS)	2014
22. Job Description for Procurement Pharmacist at Central Medical Store (MOHSS)	2014
23. Job Description for Procurement Chief Clerk at Central Medical Store (MOHSS)	2013
24. Job Description for Procurement Clerk at Central Medical Store (MOHSS)	2013
25. Central Medical Store Procurement Standard Operating Procedures (MOHSS)	2012
26. Standard Operating Procedures for Regional Medical Store at Oshakati (MOHSS)	2011

Stakeholder Engagement Meeting

In January, the team hosted a stakeholder engagement meeting on public health supply chain competency mapping and framework development, with the objective that by the end of the meeting, all participants would be able to:

- Describe the overall goals and approach of competency frameworks for SCM.
- Introduce the concept of the competency mapping tool.
- Review the desk-based activities and in-country processes.
- Validate the desk audit and allocate high-level domains and competency areas.

The meeting served as the official launch of the PtD collaboration and included such stakeholders as MOHSS officials from Pharmaceutical Services and Human Resources, CMS and RMS staff, and local academic and training institutions (see Annex 4 for a full participant list).

The meeting introduced participants to the concept and utility of competency frameworks and outlined the scope of this first portion of work under the PtD–Namibia collaboration. Participants also had an opportunity to validate that the six domains and accompanying 37 competency areas as outlined in the PtD competency compendium were relevant to the Namibia context, and to identify which cadres would be responsible for each competency. (Annex 5 includes a link to a detailed facilitator guide outlining activity instructions and facilitator assignments.)

Key Informant and Small Group Interviews

The third component of the competency mapping exercise was a series of one-on-one and small group interviews with CMS and RMS staff representing each cadre being examined. Of the 24 interviewees, nine were pharmacists, three were pharmacist assistants, three were chief clerks, and nine were clerks/administrative officers at CMS and Oshakati RMS.

The team used a modified business processing mapping (Conger 2011) approach to conduct the interviews and small group meetings. The team followed the 37 competency areas in the PtD competency compendium and inquired with interviewees first if they had any responsibilities in that competency area, and if the answer was yes, the interviewee was asked to describe the step-by-step process they followed to complete the tasks in for that particular competency area. A full list of interviewees can be found in Annex 6 and a copy of the interview guide in Annex 7.

Upon completion of the interviews, each interview team compiled their findings in an Excel® workbook that included a worksheet for each of the six domains.

Development and Validation of the CMS/RMS Competency Frameworks

At the conclusion of in-country technical assistance, the team reconciled desk audit findings with interview findings to create draft competency frameworks for each cadre. Team members reviewed these drafts to identify where roles overlapped, where other cadres may be utilized, and any gaps with behavioural competencies as outlined in the PtD competency compendium. The in-country SCMS team lead then re-engaged key informants to review and validate the draft competency frameworks to ensure all tasks and responsibilities were accurately captured and allocated.

IV. Competency Mapping Results

Desk Audit Results

The desk audit of 26 documents revealed a few gaps when mapped back to the PtD competency compendium's identified competency areas for the six domains. The desk audit workbook includes a worksheet for each document reviewed and a master "desk audit gap analysis" worksheet that compiles the maps of all 26 documents.

The team identified two types of gaps: the competency was covered in the system but not by CMS/RMS; or the competency was not covered by anyone in the system and thus equated a system gap. The team highlighted these gaps to be reviewed during the stakeholder meeting, workplace observations and interviews. Table 4 highlights the initial gaps identified.

While the desk audit provided a picture of Namibia's unique supply chain landscape, it had a few limitations:

- Four of the documents were five or more years old, and more than 10 had no official date of authorship.
- The newly updated CMS procurement SOP manual was still in draft form.
- Some tasks and procedures were outlined and assigned in written documents but then not followed, and vice versa — some tasks and procedures were not documented but were being conducted by staff.

Table 4. Desk Audit Competency Area Gap Analysis

Domain	Competency	Covered at CMS/RMS or GAP
1. Selection and quantification	1.1 Select the appropriate product	*Covered in system but not by CMS/RMS*
	1.2 Define the specifications and quality of the product	Covered at CMS/RMS
	1.3 Define any special considerations for the product (e.g., temperature requirements, size, implications for infrastructure)	Covered at CMS/RMS
	1.4 Forecast and quantify product needs	Covered at CMS/RMS
	1.5. Develop supply plans	SYSTEM GAP
2. Procurement	2.1 Manage procurement costs and budget	*Covered in system but not by CMS/RMS*
	2.2 Build and maintain supplier relationships	Covered at CMS/RMS
	2.3 Manage tendering processes and supplier agreements	Covered at CMS/RMS
	2.4 Execute management of contract, including risk and quality management	Covered at CMS/RMS

Domain	Competency	Covered at CMS/RMS or GAP
	2.5 Ensure quality of products	Covered at CMS/RMS
	2.6 Manage import and export of products	SYSTEM GAP
	2.7 Manage donations of products	Covered at CMS/RMS
3. Storage and distribution	3.1 Practice storage, warehousing and inventory management standard procedures	Covered at CMS/RMS
	3.2 Supply commodities to facilities	Covered at CMS/RMS
	3.3 Supply commodities to sections within a facility	Not in CMS/RMS scope
	3.4 Manage transport for commodities	Covered at CMS/RMS
	3.5 Manage disposal of products (e.g., expired, damaged, redundant)	Covered at CMS/RMS
	3.6 Manage manufacturing or compounding of products	Covered in system but not by CMS/RMS
	3.7 Manage re-packing of products	Covered in system but not by CMS/RMS
4. Use	4.1 Properly use medical products according to international/national regulations (e.g., safety, dispensing protocols, standard treatment/testing guidelines)	Not in CMS/RMS scope
	4.2 Provide information and advice to the product user/patient	Not in CMS/RMS scope
	4.3 Report product use/consumption	Covered at CMS/RMS
	4.4. Dispense or provide commodities to patients/users (i.e., ensuring the product goes "the last mile" appropriately)	Not in CMS/RMS scope
5. Resource management	5.1 Design of public health supply chain system	SYSTEM GAP
	5.2 Oversee operation of a logistics management information system	Covered at CMS/RMS
	5.3 Implement risk management and monitoring and evaluation activities for the supply chain	*Covered in system but not by CMS/RMS*
	5.4 Manage outsourcing SCM functions	SYSTEM GAP
	5.5 Manage and plan projects	Covered at CMS/RMS
	5.6 Manage financial activities	Covered at CMS/RMS
	5.7 Support human resources (e.g., recruitment, training, team management/supervision)	Covered at CMS/RMS
	5.8 Prepare for product supply during disasters and emergencies	Covered at CMS/RMS
6. Professional and personal	6.1 Demonstrate generic skills (e.g., literacy, numeracy, technology)	Covered at CMS/RMS
	6.2 Demonstrate communication skills	Covered at CMS/RMS

Domain	Competency	Covered at CMS/RMS or GAP
	6.3 Utilize problem solving skills	Covered at CMS/RMS
	6.4. Exhibit professional and ethical values	Covered at CMS/RMS
	6.5 Prove leadership abilities	*Covered in system but not by CMS/RMS*
	6.6 Abide by rules/laws/legislation	Covered at CMS/RMS

In summary, the desk audit key results included the following overall supply chain system gaps:

- **Competency area 1.5, develop supply plans:** CMS does not develop supply plans (i.e. shipment schedules for routines orders, usually based on an annual quantification exercise) or set up regular re-supply dates with wholesale distributors; rather, CMS places orders for products when they hit their specified minimum level.
- **Competency area 2.6, manage import and export of goods:** A government mandate requires that CMS purchase pharmaceutical supplies via local wholesale distributors; therefore, CMS does not engage in much importation or exportation.
- **Competency area 5.1, design of public health supply chain systems:** While the MOHSS has a Division of Pharmaceutical Services, there is a lack of clarity on what central entity has the overall mandate to implement and monitor public health supply chain operations.
- **Competency area 5.4, manage outsourcing functions:** Currently, the MOHSS manages all supply chain activities; therefore, no outsourcing responsibilities were outlined in any of the documents reviewed. CMS leadership has discussed the possibility of outsourcing particular functions, such as transport.

In addition to the gaps, the desk audit revealed that there was overlap in the responsibilities of all three cadres, but particularly of pharmacist assistants and clerks. However, given the overarching nature and descriptions of some of the tasks in the desk audit documents, additional interviews and validation were needed to determine the exact overlap.

Current Required Qualifications for Pharmacists, Pharmacist Assistants and Clerks

The results of the desk audit provided an overall introduction to the variety of job descriptions for pharmacists, pharmacist assistants and clerks at CMS and RMS depending on the section of the warehouse in which the staff member was employed. However, qualifications for each of these cadres have been standardized across MOHSS. Table 5 outlines each cadre's basic qualifications as listed in the SCMS "Working Draft: Assessment of Human Resources Capacity in Public Health Supply Chain Management in Namibia" report (June 2011) and informed by additional desk audit documents.

Table 5. Qualifications for Pharmacists, Pharmacist Assistants and Clerks

Pharmacist	Pharmacist Assistant	Clerk
A four-year full-time degree at a University majoring in pharmacology, pharmaceutical chemistry, pharmaceutics and pharmacy practices, plus one year vocational training (internship in an approved institution); additional qualifications depending on placement (i.e., warehousing, procurement).	Two-year pharmacy education (i.e., certificate of completion of pharmacist assistant course in Namibia or equivalent qualification, registrable by Namibia Pharmacy Council); Senior Pharmacist Assistants require a minimum working experience of five years, out of which at least three years should have been spent at a supervisory level in a pharmaceutical store.	Entry-level criterion is secondary-level education (grade 12); Chief Clerks require secondary-level education (grade 12) and previous experience as a clerk.

Key Informant Interview Results

The key informant interviews yielded three critical outputs for the technical assistance team:

- Updated domains and competency areas for the competency map and corresponding behavioral competencies/tasks.

- Contextual insight into the environment in which the three cadres operated.

- After review and validation, a final competency map for the pharmacists, pharmacist assistants and clerks at CMS and RMS.

Updated Domains and Competency Areas

Based on the CMS/RMS staff interviews, the technical assistance team updated the original competency areas from those listed in the PtD competency compendium to reflect the Namibian context, combining repetitive competency areas or expanding others that were deemed too narrow.

These changes are noted in Table 6, with an asterisk (*) denoting a where two PtD competency areas were merged together; a plus sign (+) where a competency area was expanded/added; and a minus sign (-) where a portion of the competency area was removed. The domain "use" was not included in the CMS/RMS competency framework as CMS and RMS do not have direct responsibility over the end use of the pharmaceuticals or health commodities they distribute. In addition, the competency areas "manufacturing or compounding of products" and "managing the re-packaging of products" were not deemed within CMS/RMS responsibilities and thus not included in the competency framework.

Table 6. Final Domains and Competency Areas for CMS/RMS Pharmacists, Pharmacist Assistants and Clerks

Domain	Competency Area
1. Selection and Quantification	1.1 Select the appropriate product
	1.2 Define the specifications and quality of the product*
	1.3 Forecast product needs
	1.4 Develop supply plans
2. Procurement	2.1 Manage procurement costs and budget
	2.2 Manage tendering processes
	2.3 Execute management of contract, including maintaining supplier relationship and risk and quality management (*)
	2.4 Assure quality of products
	2.5 Manage importation of products (-)
	2.6 Manage donations of products
3. Storage and Distribution	3.1 Make product replenishment requests to re-supply entity (+)
	3.2 Receive products (+)
	3.3 Properly store products/implement good warehousing practices
	3.4 Process customer orders (capture order/pick/pack/dispatch) (+)
	3.5 Manage transport for commodities
	3.6 Manage the return of products (e.g., expired, damaged, redundant, overstocked)
	3.7 Manage disposal of products (e.g. expired, damaged, redundant)
4. Resource Management	4.1 Design or recommend changes to the design of a public health supply chain
	4.2 Oversee operation of a logistics management information system
	4.3 Maintain safe and secure working conditions
	4.4 Monitor and evaluate supply chain activities
	4.5 Manage outsourcing SCM functions
	4.6 Manage and plan projects (senior-level management responsibilities)
	4.7 Manage finances/financial activities
	4.8 Support human resources (e.g., recruitment, training, team management/supervision)
5. Professional and Personal	5.1 Demonstrate basic generic skills (e.g., literacy, numeracy, technology)
	5.2 Demonstrate communication skills
	5.3 Utilize problem-solving skills
	5.4. Exhibit professional and ethical values
	5.5 Prove leadership abilities
	5.6 Abide by rules/laws/legislation

Contextual Interview Findings

While the interviews focused on identifying the behavioral competencies of each of the three cadres, they also proved to be an excellent source of additional contextual information on the environment in which the cadres work. These details are important to review along with the competency frameworks and also have implications for how these frameworks and resulting job descriptions, training programs or administrative changes are affected based on this report's recommendations. These findings are listed from broader, national-level findings/implications to more specific and not in order of importance.

1. Pharmacists are part of the supply chain "culture" in Namibia. The pharmacist's role is in the fabric of the public health supply chain as well as in law and policy. By law, pharmacists have to handle Schedule 3 and 4 medicines (narcotics and psychotropic substances) and all tasks associated with them. Given the shortage of pharmacists, one focus of this competency mapping exercise was to identify tasks that might be shifted away from pharmacists to free them for other non-supply chain tasks. Interviewees discouraged moving much responsibility and authority away from pharmacists. However, the Deputy Director of DPS stated that there is a need in the supply chain to look beyond the pharmacist and pharmacist assistant cadres. He expressed a need for multi-skilled personnel and noted that if pharmacists are utilized in the supply chain, they will require additional training in management and other supply chain functions (such as warehousing, distribution and procurement). Overall, interviewees advocated that pharmacists and their support staff should receive additional training in supply chain management to ensure efficient supply chain functioning and adherence to pharmaceutical standards, policies and practices.

2. Desire for an overall coordinating unit for the public health supply chain. Many interviewees noted the lack of one "voice" or coordinating body for the overall supply chain. The Division of Pharmaceutical Services and its subdivisions (NMPC, CMS, PCI) have clear leadership on national policies; however, an operational oversight gap exists for the supply chain. Interviewees expressed a need for a clear line of communication and a locus of responsibility for supply chain operations. There have been previous discussions within the MOHSS around creating a logistics management unit, but the idea has not been implemented, partly due to the rigid MOHSS organization structure that makes it difficult to introduce new positions, as well as the shortage of appropriately qualified staff.

3. Overarching human resource management challenges are affecting the performance of the supply chain workforce. CMS/RMS staff play a critical role in the public health supply chain and thus in public health programs and outcomes, but interviewees felt that most CMS/RMS staff do not fully understand this important role they play. General human resource challenges — including the lack of a formal performance appraisal process, lack of structured job induction, lack of training incentives or on-the job training, and lack of meaningful disciplinary action addressing issues such as absenteeism and theft — create a challenging work culture. The Deputy Director of DPS confirmed these sentiments, adding that incentives are also a critical part of this challenge, including the discrepancy in salary levels between public and private sector positions, as well as the ability to recruit, train and retain workers in the public sector.

4. Technical specialists are needed in certain areas of CMS and RMS. While pharmacists, pharmacist assistants, and clerks fill most of the supply chain roles at CMS and RMS, the majority of them have no specialized training in their supply chain functions and reported learning most skills on the job. Interviewees recommended a few technical positions be added to CMS/RMS staff establishment, including a data analyst to assist with quantification, monitoring and evaluation. The Deputy Director of DPS reinforced this idea and expressed a need for additional data visibility between health facilities and CMS/RMS. Capturing information, possibly by a data analyst cadre at each facility, would assist in better monitoring and management of the supply chain. Interviewees also identified the need for a contracts manager/officer position in the CMS Procurement and Tenders Section.

5. RMSs have significant staffing and infrastructure challenges. While the RMS feedback was limited to information provided by the Oshakati RMS, this was deemed representative of Rundu. Basic infrastructure challenges inhibit proper functioning of the warehouses and have been reported to higher-level officials. This situation is exacerbated by critical support positions not being filled, such as accountants and cleaners. Pharmacists, pharmacist assistants and clerks all have a "warehouse-in-charge" role, depending on the type of product being managed (i.e., all have responsibilities to put away, pick, pack, update stock cards, and so forth). Interviewees expressed a desire to have pharmacist assistants take on more of this role given the low literacy levels of clerks. They also expressed that overall staffing numbers were adequate but that staff still required basic qualifications and supply chain training to complete tasks properly.

6. CMS Distribution Section sees opportunities for increased efficiency. The CMS Distribution Section could be considered the heart of supply chain operations in Namibia. CMS interviewees noted that the high rate of emergency orders and buyouts (items ordered without a standing contract) create a significant burden on CMS Distribution Section staff, affecting their ability to efficiently complete daily tasks and routine order fulfillment. Other challenges reported range in complexity — security/theft risks, self-management of an off-site non-pharma storage facility, and lack of a full-time forklift driver. Interviewees also noted that the lack of compliance with disposal/waste management policies for damaged or expired goods has resulted in inefficient use of CMS space (e.g., overflow of the expired items room into halls and the receiving bay). Lastly, CMS leadership sees the outsourcing of transportation maintenance and possibly the entire transportation function as an opportunity for increased efficiency.

Proposed Competency Map and Recommendations for Pharmacists, Pharmacist Assistants and Clerks at CMS and RMS

The final competency maps for the three cadres are presented by domain in the following sections. Each table displays the current practice, followed by recommendations for change, with more specific detail on individual behaviors included in the Excel workbook. Each "X" denotes a cadre's responsibility for that behavioral competency. A larger X indicates primary responsibility and a smaller X indicates a supportive role. Recommendations, overlapping responsibilities, competency gaps and observations for each competency area are discussed following each table. (Annex 8 includes a copy of the CMS-validated competency map for all three cadres.)

Selection and Quantification

Table 7 displays the resulting competency map for the selection and quantification domain. There is a well-established system for product selection and quantification in Namibia, for which pharmacists have the primary responsibility as can be seen in the table. Due to the high-level nature of many of the behavioral competencies, the pharmacists at NMPC also play a role in this domain. While some of these competencies are not the responsibility of CMS/RMS, the team felt it was important to retain these competencies in the overall map to document their importance and note the national-level behavioral competencies required for this domain. The behavioral competencies for NMPC pharmacists are noted in the table with an X-NMPC.

Table 7. Selection and Quantification Competency Map

Domain	Competency Area	Behavioral Competencies (Tasks/Skills)	Pharmacists (incl Chief/ Principal/ SR.)	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
1. Selection & Quantification	1.1 Select the appropriate product	Develop national list of essential medicines	X- NMPC		
		Participate in NEMLIST Committee when invited and provide product data (pricing, availability, market info) to NEMLIST committee as needed	X		
		Review health facility requests for item additions to be included in NEMLIST and use the established government system to add or delete items in the the NEMLIST	X- NMPC		
		Ensure review & implementation of National Comprehensive Treatment Guidelines for Namibia	X- NMPC		
		Ensure regular review & implementation of NEMLIST	X- NMPC		
	1.2 Define the specifications and quality of the product	Develop and maintain specifications schedule for pharma and non-pharmaceutical products	**X**	X	
		Prepare/format product specifications to create a Schedule of Requirements prior to advertisement of tenders		X	X
	1.3 Forecast product needs	Gather data for forecast (e.g. from Syspro, population data) and document assumptions for quantification calculations	X		
		Review Syspro distribution data to determine annual forecast quantities for tendering	X		
		Run Syspro monthly to review forecast and update quantities, and if needed, based on assumptions, current usage, and max/min levels, calculate/update "forecasted" quantities required	X		
		Convene regularly scheduled coordination meetings with stakeholders involved in financing, procuring or distributing commodities	X- NMPC		
		Establish policies and procedures for forecasting	X- NMPC		
		Establish key performance indicators of forecast accuracy	X- NMPC		
		Apply VEN or ABC analysis to program requirements for national level procurement	X- NMPC		
	1.4 Develop supply plans	Run Syspro MRP monthly to determine quantity to order	X		
		Create purchase requistion report to indicate all products below minimum indicating quantity to order and send to Procurement & Tenders Section (CMS)	X		

Summary and Recommendations for Selection and Quantification Domain

1.1. Select the appropriate product. All competencies require a pharmacist. While there is a well-established system for product selection, which is included in Namibia's essential medicines list (Nemlist), specialist hospitals are increasing direct requests for procurement of non-Nemlist items. These requests are sent directly to CMS and bypass the established product selection review system. This is reported to be causing a workload increase for CMS staff, as well as introducing product quality risks into the supply chain. It is recommended that the MOHSS determine ways to streamline this process.

1.2. Define product specifications and quality. The two behavioral competencies for this competency area relate specifically to CMS responsibilities for preparing tender specifications. (It should be noted that pharmacists are primarily responsible for developing and maintaining the specifications schedule, and pharmacist assistants and clerks provide administrative support.)

1.3. Forecast product needs. Currently, these behavioral competencies are completed by a pharmacist; however, there are no policies and procedures for forecasting. In addition to filling this gap, the team recommends adding a data analyst position (or adapting the administrative officer role) to focus primarily on the data gathering and management required for quantification.

Additionally, as mentioned previously, establishing a logistics management unit with coordinated oversight of national-level forecasting would help strengthen this competency area.

1.4. Develop supply plans. Currently, these behavioral competencies are completed by a pharmacist; however, CMS effectively does not develop national supply plans, but rather simply raises purchase orders against framework contracts when a product hits its minimum stock level at the end of a monthly review period. As a result of this approach and given the variation in local supplier lead times, CMS risks frequent stock imbalances. Establishing a dedicated unit to calculate annual forecast quantities and including annual supply plans in framework contracts (i.e., setting bi-annual, quarterly, bi-monthly and/or monthly deliveries) will help better prepare local suppliers to meet supply needs, prevent stock imbalances and reduce the number of buyouts/emergency orders. A data analyst cadre with pharmacist oversight may be well suited to execute such tasks.

Procurement

Table 8 displays the resulting competency map for the procurement domain. All procurement functions relate only to CMS, as RMS does not have procurement responsibilities. CMS has authority for procurement at the national level, procuring for RMS, hospitals and health facilities. Unlike the selection and quantification domain, more behavioral competencies are shared across the three cadres. As in Table 7, differing levels of responsibility are denoted with larger and smaller Xs. Chief pharmacist and chief clerk are listed where the behavior is specific to those roles.

It is important to note that in many cases where the pharmacist assistants and clerks are both listed for a behavioral competency, pharmacist assistants are usually responsible for tasks related to pharmaceutical products (essential medicines) and clerks for non-pharmaceutical products (clinical supplies/medical consumables). Additionally, the process for buyouts is listed as a sub-process for competency areas 2.2 and 2.3 because it requires significant effort of pharmacist assistants and clerks.

Table 8. Procurement Competency Map

Competency Area	Behavioral Competencies (Tasks/Skills)	Pharmacists (incl Chief/ Principal/Sr)	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
2.1 Manage procurement costs and budget	Provide managerial oversight over CMS procurement function	X (Chief Pharm)		
	Provide information to MOHSS on value of orders placed and order received in last year	X		
2.2 Manage tendering processes	Follow procurement legislation/policies/regulations	X (Chief Pharm)		
	Capture tender/bid prices and information into Syspro and the Tender Management System to develop a Tender Evaluation Report		X	X
	Verify bid information captured into Syspro	X		
	Develop Standard Tender Document	X		
	Seek approval of Standard Tender Document from Ministerial Tender committee	X		
	Draft tender advert	X		
	Approve tender advert	X (Chief Pharm)		
	Print tender documents			X
	Manage tender samples: including storage, registration, display and destruction		X	X
	Address questions from suppliers on the tender	X		
	Register tenders in the Log Book		X	X
	Prepare pre-evaluation checklist	X		
	Assist in tender opening meeting; Open tender envelopes in presence of bidders and tender committee		X	X
	Complete pre-evaluation checklist on all bidders		X	X
	Review pre-evaluation checklist to confirm all bidder information was captured accurately	X		
	Prepare, review and print tender Price Ranking Report	X	X	X
	Be the secretary and member of the Tender Adjudication Committee	X		
	Prepare copies of tender evaluation report and product samples in readiness for the Technical Evaluation		X	X
	Liaise with Tender Board at all stages of the tender process and with regard to all subsequent matters which may arise concerning a tender (such as price, increase applications, change of pack size), etc., and ensure prompt action	X		
	Evaluate the supplier responsiveness	X		
	Close the tender	X		
	Enter evaluation results in Tender Management System		X	X
	Write letters of award to suppliers	X		X
	Photocopy and file award letters			X
	Debrief unsuccessful suppliers	X		
	For Buyouts& Emergency Order items			
	Receive request from facilities for buy-out products/emergency orders or for buy-outs against contracted suppliers not delivering on-time	X		
	Send requsition report to Procurement & Tenders Section	X		
	Manually generate a Request for Quotation to be used to seek quotations from approved suppliers for procurement of non-contract items and emergency requests		X	X
	Send out requests for quotation for items for buy-out items		X	X
	Enter data from signed buyout quotation into Tender Mgmt. System		X	X
	Produce price ranking /evaluation report	X	X	X
	Evaluate quotations received	X	X	
	Approve quotations	X		
	Maintain electronic and hard copy files of RFQs			X

Competency Area	Behavioral Competencies (Tasks/Skills)	Pharmacists (incl Chief/Principal/Sr)	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
	Draft contract for procuring commodities	X		
	Send contract to suppliers for review and signature			X
	Negotiate contract with supplier	X		
	Make copies and file signed contract			X
	Monitor and follow-up with suppliers (i.e. are orders received on time)	X		X
	Write letters to suppliers/contact suppliers when issues of product quality arise and/or late deliveries	X		X
	Review any changes to the technical specifications of contracts (including price increases, product specs, etc.)	X		
	Make amendments to purchase orders	X		
	Run Outstanding Order Reports		X	X
	Run Stock Level Reports (monthly)			X
	Assist in obtaining and maintaining procurement performance indicator statistics such as monthly value or purchases from tender contracts & buy-outs		X	
	Review contract compliance (i.e. on-time orders, etc.)	X		
	Calculate penalty charges against a contracted supplier for failure to delivery or for late delivery		X	X
	Assist in expediting overdue orders		X	X
	React promptly to overdue orders and emergency orders, by initiating buy-out process or borrowing stock	X		
	Update catalog item data in the computer	X		
	Maintain complete and secure custody of procurement records			X
	Respond to queries from suppliers	X		
2.3 Execute management of contract, including maintain supplier relationships, risk & quality management	Respond to queries from Distribution section on order status and deliveries	X		
	Develop and maintain supplier database	🟥	🟥	🟥
	Maintain good communication with all suppliers (including order status updates)	X		X (Chief Clerk)
	Address supplier challenges (i.e. in upstream logistics)	X		
	Efficiently address product quality complaints	X		
	Monitor and document performance of tender suppliers and bring to the attention of the Tender Board and tender adjudication committees if appropriate	X		
	Terminate contracts legally and appropriately if necessary	X		
	Ordering against a contract			
	Receive requisition report from Distribution Section; link to current contract and check/update oroduct, supplier and price information		X	
	Create a purchase order in SysPro for products with existing contracts			X
	Approve purchase order	X		
	Send PO to supplier			X
	Ensure supplier receives PO			X
	Ordering w/o a contract (Buyout/Emergency Order)			
	Create a purchase order in SysPro for approved supplier from RFQ			X
	Approve purchase order	X		
	Send PO to supplier			X
	Ensure supplier receives PO			X
	Ensure all possible action taken to recover buy out costs from defaulting tender suppliers	X		

Competency Area	Behavioral Competencies (Tasks/Skills)	Pharmacists (incl Chief/Principal/Sr)	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
2.4 Assure quality of products	Ensure product quality by ensuring appropriate documentation/specification in the tender document, including provisions for packaging, labeling, shelf life (expiry date), storage specifications, etc.	X		
	Ensure products called for in tender are registered in Namibia and approved for sale	X		
	Check all goods delivered from suppliers for quality and compliance with specifications	X		
	Address complaints received from Receiving Bay and/or customers	X		
	Request adequate samples when needed for evaluation of quotations		X	X
	Check all goods returned from customers for quality and suitability for redistribution	X		
2.5 Manage importation of products	Request in tender that suppliers comply with Delivery Duty Paid (i.e. deliver direct to CMS and cover importation costs)	X		
	For supplies that can't be delivered DDP draft Standard RFQ for Customs Clearing Agent			X
	Authorize and approve RFQ for Customs Clearing Agent	X		
	Generate a Purchase Order in SysPro for Customs Clearance			X
	Provide import documents (i.e. tax exemption) to Customs Clearing Agent			X
	Ensure timely completion and processing of customs clearance documentations			X
	Clear products from customs			X
2.6 Manage donations of products	Create a Purchase Order for Donated Products		X	X
	Coordinate receipt of donations with higher level officials	X		
	Follow national donations policy; referring to appropriate Minstry for advice	X		

Summary and Recommendations for Procurement Domain

2.1. Manage procurement costs and budget. While these competencies are listed in the map, CMS and RMS are not really involved in managing a procurement budget. The MOHSS manages a revolving fund for medicines. CMS has always received the funding it needs for medicines it procures, and provides the MOHSS with only minimal data on historical procurement costs for the MOHSS budget planning. This process does not encourage or require CMS to have strong financial management of a procurement budget. Ideally, however, this competency area should be linked with competency area 1.3 (forecast product needs) and staff responsible for it.

2.2. Manage tendering process. The tendering process has overlap in responsibilities for pharmacist assistants and clerks. For the most part, these responsibilities are broken down by product category, with pharmacist assistants handling pharma items and clerks handling non-pharma items. Pharmacists primarily have an oversight role in this competency area. Given the significant number of buyout requests from specialist hospitals and the overlapping responsibilities of pharmacist assistants and clerks, hiring separate pharmacist assistants and clerks for the tendering process is recommended.

2.3. Execute management of contracts. The primary recommendation for this competency area is to shift contracting responsibilities from pharmacists and establish a contract officer or contract manager position (which could either be a new post or a designation of an administrative officer/contracts). The pharmacists would still have an oversight role, but since most of the contracting behavioral competencies do not require pharmacy skills, they could be conducted by a more administrative position. The current pharmacist, pharmacist assistant and clerk in the Procurement and Tenders Section taught themselves how to negotiate, draw up and manage contracts. CMS recommended a contracts post/unit in the revision of the MOHSS staffing structure, and this review of current competencies supports this recommendation. While clerks have a role in adding new suppliers to the supplier database, proactive maintenance of the supplier database (i.e., removing suppliers or updating contact information) is a gap in the system that should be a contract officer's responsibility or a behavioral competency that all three cadres conduct.

2.4. Assure quality of products. These behavioral competencies are primarily the pharmacist's responsibility. However, while assuring product quality here only refers to how the procurement function addresses product quality, product quality assurance is a cross-cutting responsibility of all CMS and RMS staff.

2.5. Manage importation of products. Since CMS includes "delivered duty paid" (DDP) in most of its procurement contracts (which requires suppliers to deliver products to CMS in Windhoek), staff rarely have to manage importation of commodities. When suppliers are not able to provide DDP, CMS engages customs clearing agents to manage importation. As such, this competency area could be managed by a contracts officer/manager position given that DDP contracting language would need to be included in a contract with support from outsourced customs clearing agents.

2.6. Manage donations of products. Receipt of donations is approved by MOHSS staff and requires minimal duties from the CMS Procurement and Tenders Section. Since the behavioral competencies in this competency area are similar to others in previous areas, and since donations are rare at CMS, the team recommends not running the WISN for this competency area.

Storage and Distribution

Table 9 displays the resulting competency map for the storage and distribution domain. This domain sees significant overlap in behavioral competencies among the three cadres due mostly to the fact that pharmacists are legally responsible for handling all Schedule 3 and 4 commodities, including during all warehousing functions. The responsibilities of pharmacist assistants and clerks are split along pharma and non-pharma lines, similar to the procurement domain. The workhand cadre also plays a significant role at CMS and RMS, supporting many of the behavioral competencies in this domain under the supervision of pharmacist assistants and clerks. Security guards/officers are also involved in a few of these competencies in their role to secure dispatch, delivery and disposal. However, neither workhands nor security guards are noted in the competency map tables as this exercise focused on only the three cadres.

Table 9. Storage and Distribution Competency Map

Competency Area	Behavioral Competencies (Tasks/Skills)	Pharmacists (incl Chief/ Principal/Sr)	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
3.1 Make product replenishment request to re-supply entity (RMS to CMS)	Create Purchase Order for re-supply quantities in Syspro according to Max-Min levels every 6 weeks to CMS	X	X	X
	Complete Purchase Order for resupply of Schedule 4 Commodities	X		
	Approve orders and make any amendments in SysPro	X		
	Send email with Purchase Orders to CMS	X		
	Annually, calculate Max-Min quantities (based on set Max/Min levels) to assist RMS with re-supply calculations	X	X	
	Update physical Stock Cards and electronic records with updated Max/Min quantities	X	**X**	**X**
	Approve interim/emergency orders	X		
3.2 Receive products	Receive delivery note and purchase order upon receipt of goods/Confirm against Delivery book w/delivery note and invoice (if shipment from CMS)	X	**X**	**X**
	Observe opening of truck, verify seal, and verify quantities match delivery book numbers			X
	Enter purchase order info into Syspro to verify that it matches the PO in the system	X	**X**	**X**
	Perform visual inspection (i.e. expiry dates, pack size, quantities, etc) to check invoice and delivery note against products; Sign delivery note, keep one copy and return a copy with the driver	X	**X**	**X**
	Send back damageded products with driver OR if count does not match then do not sign for delivery, request credit from supplier	X	**X**	**X**
	Complete Supply Discrepancy/Reject report if required	🟥	🟥	🟥
	Generate Goods Received Note in Syspro	X	**X**	**X**
	Transfer delivery note and accompanying paperwork to accountants for payment and sign log to record receipt	X	**X**	**X**
	Generate transfer note for each Warehouse In-Charge to collect respective products from receiving bay	X	**X**	**X**
	Countercheck and pick up stock from receiving bay and transfer to respective warehouses	X	**X**	**X**
	Select products for testing based on direction from procurement and follow QSL sampling procedures	X		
	Adjust stock levels to remove sampled stock from Syspro	X		
	Give samples for testing to dispatch and register them in sampling log; inform QSL to pick-up			X
	Enter stock received on stock cards	X	**X**	**X**
	Organize warehouse at end of week to be ready to receive the week's deliveries of new stock	X	**X**	**X**
	Receive non-NEMLIST goods and notify hospital that BuyOut Stock is available and send to dispatch		X	
3.3 Properly store products/Implement good warehousing practices	Check stock regularly for expiry (visual inspection) and rotate if necessary	X	**X**	**X**
	Monitor temperature in the warehouse and complete the temperature log-sheet	X	**X**	**X**
	Conduct annual stock take	X	**X**	**X**
	Secure medical store and restrict access into the warehouse	X	X	X
	Monitor stock levels and notify head of distribution if minimum stock level is reached (after checking warehouse stock and pending orders) or stocked out		X	X
	Conduct periodic cycle stock coun to identify discrepancies between physical stock and what is in Syspro; determine cause and inform Distribution pharmacist		X	X
	Initiate stock adjustment request & complete stock adjustment request form		X	X
	Approve stock adjustments and make adjustment in Syspro	X		
	Maintain internationally accepted housekeeping standards inside the warehouse		X	X
	Establish & maintain a logical stock arrangement system in the warehouse in compliance with SOPs & First-Expired, First-Out methodology	X	X	X
	Make judgment calls about distribution of stock based on space and shelf life of products	X	X	X
	Keep all warehouse documents in order	X	X	X
	Maintain a credible batch tracking system for ARVs, HIV Test Kits, anti-malarials, and Anti-TB medicines	X		
	Collect stocks and put away products in their appropriate location/bin/warehouse under supervision		X	X

Competency Area	Behavioral Competencies (Tasks/Skills)	Pharmacists (incl Chief/ Principal/Sr)	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
3.4 Process customer orders (capture order/pick/pack/dispatch)	Retrieve picking slips for responsible warehouse	X	**X**	**X**
	Pick and pack the products as directed by supervisor, and according to batch number (where applicable)		x	x
	Pick and pack Schedule 4 (Narcotics) & ARVs, and according to batch number	X		
	Review order and make any amendments to picking slip quantities (i.e. to issue full boxes, ration quantities) and enter in Syspro	X	**X**	**X**
	Record total boxes in log book then transfer products and pick slips to dispatch manager	X	**X**	**X**
	At dispatch, check quantity, items, and expiry of items from warehouse against pick list and correct any discrepancies noted		x	x
	Palletize shipments to be ready for loading			x
	Label and secure shipments in cages according to facility prior to loading		x	x
	Complete loading control sheet as products are loaded on truck; segregate orders		x	x
	Supervise workhands to load truck according to delivery sequence		x	x
	Complete Stock Movement Form/Deliver Book in duplicate for each order			x
	Complete separate dispatch documents for ARVs and Schedule 3/4 commodities		x	
	Seal truck prior to departure, and record seal number, picking list number, invoice number in delivery book/dispatch register; # boxes loaded, sign and have driver sign			x
	Process the dispatch of emergency orders & buy-outs			x
3.5 Manage transport for commodities	Prepare annual delivery schedule including truck routing	X	x	**X**
	Receive & process transport requests from different departments			x
	Participate in weekly briefing meeting with warehouse and dispatch clerks to identify where variations should be made from standard weekly schedule	X	x	x
	Dispatch informs transport clerk(s) on daily activities (what will go out today/tomorrow); Receive dispatch schedule for planning			x
	Prepare trip authorization for drivers			x
	Arrange for renewal of road licenses			x
	Review logbooks,and validate travel for drivers by comparing with GPS tracking system			x
	Use a spreadsheet to track and calculate fuel consumption using receipts & vouchers from drivers on a daily basis			x
	Debrief with drivers and inspect vehicles after daily deliveries			x
	Prepare and file accident reports			x
	Develop and implement a vehicle maintenance plan			x
	Compile monthly fleet management reports			x
	Process travel allowances, expenditure reconciliations, overtime claims, and payments for drivers			x
	Deliver documents/mail to Head Office			x
3.6 Manage the return of products (expired, damaged, overstocked, redundant)	Prepare a Goods Returned to Supplier Note for product recalls		x	x
	Inform Procurement & Tenders Section to liaise with supplier to receive a credit note or replace stock if the returning of stock is due to quality,	X		
	Handle requests from customers to return goods; grant approval when appropriate	X		
	Inspect returned goods to confirm quantity received and that the products match the description of what was approved for return	X		**X**
	Process credit note for approved returned products	X		
	Put away the usable returned stock to warehouse and damaged/expired returned stock to separate area		x	x

Competency Area	Behavioral Competencies (Tasks/Skills)	Pharmacists (incl Chief/ Principal/Sr)	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
3.7 Manage disposal of products (e.g. expired, damaged, redundant products)	Initiate stock disposal request & complete a "Expired/Damaged Stock Removal Request Form"	X	**X**	**X**
	Approve stock disposal request and remove stock in Syspro by making a stock adjustment	X		
	Store expired stock for disposal separately	X	**X**	**X**
	Complete "Goods Disposal Form"		X	**X**
	Arrange with municipality for disposal at the landfill site	X		
	Load and Seal truck with commodities for disposal			X
	Accompany driver to landfill, sign invoice for disposal services, return to CMS		X	X
	Accompany driver to landfill and witness destruction of schedule 3&4 drugs	X		

Summary and Recommendations for Storage and Distribution Domain

3.1. Make product replenishment request to re-supply entity (RMS to CMS). This competency area is for RMS only. Given local context for replenishment orders at RMS, all three cadres have some involvement. Pharmacists are responsible for replenishment requests for Schedule 4 commodities and ARVs, while pharmacist assistants manage pharma and clerks non-pharma purchase orders. Pharmacists are also responsible for consolidating the replenishment requests from different warehouses to generate one purchase order that is sent to CMS. The recommendation is to leave pharmacists with overarching approval, policy setting authority, and responsibility for Schedule 3 and 4 medicines (5 percent of the task), give pharmacist assistants supervision over clerks (15 percent of the task), and have clerks complete the tasks for all products (80 percent of the task).

3.2. Receive products. Given the significant overlap in responsibilities among the three cadres, the recommendation is the same 5 percent/15 percent/80 percent division of responsibilities as in 3.1. Currently, pharmacists are the only staff with authority to make stock adjustments in Syspro. For the gap in completing the supply discrepancy/reject report, CMS management needs to enforce compliance with the SOP that requires documentation of non-conforming deliveries. This information is useful for contract management and evaluation of supplier performance.

3.3 Properly store products/implement good warehousing practices. Once again, given the significant overlap in responsibilities among the three cadres, the recommendation is the 5 percent/15 percent/80 percent division of responsibilities.

3.4 Process customer orders (capture order/pick/pack/dispatch). Pharmacist assistants and clerks have the primary responsibility in this domain; however, as with the previous competency areas, the recommendation is the 5 percent/15 percent/80 percent division of responsibilities. For behavioral competencies that are split 50/50 between the pharmacist assistant and clerk, the recommendation is to try to run the WISN with a 20/80 split, with oversight from the pharmacist assistant and implementation by the clerk.

3.5 Manage transport of commodities. Currently, the majority of these tasks are conducted by the clerk and chief clerk. However, a transport/fleet manager (i.e., designating an administrative officer/transport management) may be better suited for preparing annual delivery schedules with

truck routing and designing and implementing a vehicle maintenance plan. Clerks assigned to oversee transport operations need the requisite training for fleet management responsibility.

3.6 Manage the return of products (expired, damaged, overstocked, redundant). The pharmacist is responsible for the majority of these behavioral competencies due to restrictions in who can accept the product returns to CMS and RMS.

3.7 Manage disposal of products (e.g., expired, damaged, redundant). Given the local context for product disposal, pharmacists have primarily an oversight role in this competency area; however, as with previous competency areas, the recommendation is the 5 percent/15 percent/80 percent division of responsibilities. Also, it is recommended that the more administrative tasks (such as "arrange with municipality for disposal at the landfill site") be shifted away from pharmacists when possible.

Resource Management

Table 10 shows the resulting competency map for the resource management domain. Similar to the selection and quantification domain, this domain includes a number of national-level responsibilities that are not under the purview of CMS/RMS. However, the team felt it was important to retain these competencies in the overall map to document their importance and note the national-level behavioral competencies required for this domain. The behavioral competencies for NMPC and regional pharmacists are noted in the table with an X-NMPC or X-Reg.Pharm (regional pharmacist).

Many of the competencies in this section that fall to pharmacists are not related to their pharmaceutical training, but rather to their status as the highest level of authority in CMS/RMS. These tasks are about management and do not require technical pharmaceutical expertise, but they do need to rest with upper management, which is how they end up under pharmacists by default. It is worth considering additional managerial training/experience for pharmacists in these roles and/or a different executive managerial cadre to take on some of these tasks.

In addition, many of the behavioral competencies listed in this domain are not quite time-measurable tasks, but rather behaviors that should be followed in all aspects of day-to-day work; therefore, it is not recommended that the WISN be run for those competencies.

Table 10. Resource Management Competency Map

Competency Area	Behaviorial Competencies (Tasks/Skills)	Pharmacists (incl Chief/ Principal/Sr)	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
4.1 Design or recommend changes to the design of a public health supply chain	Provide input to some decisions, such as decisions around where to build new warehouse, how it should look, etc	X		
	Participate in the establishment of clinics ordering from hospitals instead of RMS directly in consultation with the regional directorate	X- Reg. Pharm		
	Set Max Min levels for regional depots	X- Reg. Pharm		
4.2 Oversee operation of a Logistic Management Information System	Review and manage logistics data from facilities (EDT reports) (on a monthly basis) and analyze quarterly; communicate directly with facilities for receipt, review and approval of reports; generate feedback reports (ART only)	X- NMPC		
	Facilitate implementation of computerised inventory control system (EDT)	X- NMPC		
	Provide EDT manuals to all necessary staff	X- NMPC		
	Prepare ARV stock report based on SysPro data; send to NMPC	X		
	Monitor the supply pipeline and assess stock status	X -NMPC		
	Establish the urgency of required information (i.e. supervise flow of information, including receipt and review of EDT reports)	X-NMPC		
4.3 Maintain safe and secure working conditions	Oversee material forklifts, trollies, pallets, fire extinguishers			X
	Determine when equipment needs service & request as required			X
	Maintain the official Inventory of materials			X
	Lock doors and otherwise secure warehouse		X	
	All staff responsible to wear uniforms when in the warehouse (blue overalls, boots and hardhat)	X	X	X
	Notify supervisor when there are any hazardous conditions such as slippery floors	X	X	X
	Responsible for ensuring overall safety of warehouse	X		
	Clean office space and bathrooms			X
	Adhere to and monitor minimum safety standards set out in Labor Act; responsible for any additions and to monitor that the minimum standards in	X- Reg. Pharm		
4.4 Monitor and evaluate supply chain activities	Enhance day-to-day efficiency by contributing suggestions for improvement	X	X	X
	Collect, record and report data from Stock Cards and Syspro for PMIS- to submit to Regional Pharmacist or NMPC	X	X	X
	Coordinate ART PMIS so appropriate data is shared for decision-making	X- NMPC		
	Coordinate PMIS data collection exercises and oversee data analysis necessary to monitor implementation and effects of National Medicine Policy (Overall)	X- NMPC		
	Review reports and validate information before submission to national level	X- Reg. Pharm		
	Receive feedback reports from national level; reviews and utilizes information	X- Reg. Pharm		
	Monitor/track CMS order fill rate for facilities	X		
4.5 Manage outsourcing SCM functions	Provide feedback on warehouse security services			X
	Manage customs clearing agent services and contracts			X
	Provide feedback on warehouse cleaner services		X	X
	Manage outsourcing of transport services (NamCourier or NamPost to make urgent deliveries)			X
4.6 Manage and plan projects (Senior Level Mgmt)	Participate in national strategic and policy planning meetings	X		
	Advise Regional Director on Pharmaceutical Sector	X- Reg. Pharm		
	Participate in monthly regional management meetings	X- Reg. Pharm		
	Attend Executive meetings (Bi-weekly)	X		
	Complete pharmaceutical sections of annual regional plans	X		
	Participate in CMS Senior Management meetings/decisions	X		
	Prepare annual and quarterly reports	X		
	Monitor implementation of Medicines & Related Substances Control Act	X- PC&I		
	Oversee implementation of National Medicine Policy through National Pharmaceutical Master Plan	X- NMPC		
	Regularly review SOPs to ensure compliant with current practice	X		
	Enforce compliance with SOPS by staff	X		

Competency Area	Behaviorial Competencies (Tasks/Skills)	Pharmacists Principal/Sr	Pharm Assistants (incl. SR. PA)	Clerk (incl.Chief)
4.7 Manage finances/financial activities	Develop budget for pharmaceutical section of Annual Regional Plan	X- Reg. Pharm		
	Provide information on high level pharmaceuticals budget estimate to Director of Pharmaceutical Services annually	X		
	Complete Global Fund financial reports for reimbursement for ARVs	X		
	Compile Regional Depot Financial Report	X- Reg. Pharm		
	Monitor costs of medicines within the public and private sector and work together with stakeholders to ensure medicines are appropriately priced	X-NMPC		
4.8 Support human resources (e.g. recruitment, training, team management/supervision)	Supervise subordinate staff (including reporting disciplinary actions, and enforcing CMS Code of Conduct & Public Service Staff Rules)	X	X	X
	Conduct performance appraisals & keep appropriate records	X		
	Develop/update job descriptions	X		
	Determine future needs of various categories of staff	X		
	Initiate hiring process on requests for new positions with approvals from Director and PS	X- Reg. Pharm		
	Sit on disciplinary hearings and boards as requested	X- Reg. Pharm		
	Assist in orientation/induction of new staff	X		
	Identify training needs for staff and develop budget	X		
	Provide on-the-job training to ensure adherence to policies and guidelines and provide necessary knowledge, equipment, materials to complete job efficiently	X		
	Prepare and implement a daily set of tasks for subordinate staff		X	X
	Plan for staff coverage in cases of absences/leave	X	X	X
	Manage leave of absence so as to ensure adequate staffing of section	X		

Summary and Recommendations for Resource Management Domain

4.1 Design or recommend changes to the design of a public health supply chain. These tasks apply to high-level CMS and other national-level staff. This function would also most logically be under the purview of a logistics management unit, if established, as the nature of designing a supply chain system is larger than CMS functioning.

4.2 Oversee operation of a logistic management information system (LMIS). The majority of this competency area does not apply to CMS/RMS. While CMS/RMS run SysPro and other software systems related to tenders, supplier management and so forth, an LMIS is the system that lower-level facilities use to record and report logistics data up the system. There is no established LMIS for any product group other than ARVs; therefore, there is no national-level stock analysis on health commodities. Facilities determine their own maximum and minimum levels, and CMS fulfills facility requests. One key recommendation is to design and implement a national-level LMIS to have end-to-end visibility of data on the movement and consumption of health commodities. Also, similar to 4.1, if a logistics management unit were established, it could be primarily responsible for the behavioral competencies in this area.

4.3 Maintain safe and secure working conditions. This is a general responsibility for all CMS/RMS staff. The original competency area "risk management" in the PtD competency compendium was reworded, as it was not well understood. Some of these behavioral competencies are the responsibility of all CMS/RMS staff, while others could be outsourced, including equipment maintenance and office cleaning. In addition, this competency can generally be understood to include preventing theft and maintaining a secure warehouse.

4.4 Monitor and evaluate supply chain activities. The majority of these behavioral competencies are not the primary responsibility of CMS/RMS staff; the regional pharmacists and pharmacists at

NMPC have these roles. However, since CMS/RMS will now be required to input pharmaceutical commodity data into the electronic PMIS, there is an increasing role for the two institutions to compile the required data and submit it to NMPC. As this role grows, an administrative officer/data analyst or one with M&E training and responsibilities at CMS and RMS would help ensure this data is collected and submitted.

4.5 Manage outsourcing SCM functions. This relates to the oversight of contractors conducting outsourced activities to support CMS/RMS. Currently, very few CMS/RMS activities are outsourced — only customs clearance, security services and urgent deliveries — and CMS/RMS management's role is primarily to provide feedback on the services, as MOHSS does the contracting. Depending on MOHSS's decisions to outsource additional activities, responsibilities for this area could grow. However, the management of this function would either need to stay with MOHSS or be managed by a unit/individual with experience in contract management and performance-based financing.

4.6 Manage and plan projects (senior-level management). As noted in the national supply chain assessment findings, the recent turnover in CMS leadership has resulted in some high-level management activities being on hold while new leaders get accustomed to their roles and responsibilities. While pharmacists at CMS, NMPC, PCI and regional offices have responsibilities in this area, the team recommends adding a few additional competencies to expand the role of CMS/RMS leadership and engage other cadres in these activities.

4.7 Manage finances/financial activities. Similar to competency area 2.1 (manage procurement costs and budget), CMS is not monitoring the budget "spend." CMS/RMS pharmacists and accountants do provide some financial data to NMPC and the regional pharmacist, but this competency area is one that will remain relatively inapplicable to CMS/RMS as long as the MOHSS maintains control of financial management.

4.8 Support human resources (e.g., recruitment, training, team management/supervision). As human resource responsibilities usually fall to managers, pharmacists — the primary managers at CMS/RMS —are responsible for most of these behavioral competencies, with a few tasks for pharmacist assistants and clerks. However, most of these tasks are not done in a systematic way. The team recommends that during the WISN assessment, Capacity*Plus* draw upon its HR expertise to assess what level of effort would be required and by whom to carry out these responsibilities in a more systematic manner.

Personal and Professional

Given time restrictions and the general nature of this domain, the team was not able to validate its behavioral competencies with CMS/RMS staff. Participants at the stakeholder workshop did validate the competency areas for this domain, which are:

- 6.1 Demonstrate basic generic skills (e.g., literacy, numeracy, technology).
- 6.2 Demonstrate communication skills.
- 6.3 Utilize problem solving skills.
- 6.4. Exhibit professional and ethical values.

- 6.5 Prove leadership abilities.
- 6.6 Abide by rules/laws/legislation.

The team selected three to four behavioral competencies per area from the PtD competency compendium that applied across all three cadres; however, since these behavioral competencies were not validated, they are not included in this report. It is recommended that when completing the WISN, as well as through the supply chain improvement program, additional time be taken to review the behavioral competencies of this domain across all three cadres to complete the full competency map.

V. Recommendations and Next Steps

Recommendations

In addition to the specific recommendations for each domain and the recommendations for task allocation to inform the running the WISN on each behavioral competency, the team compiled five overarching recommendations for the MOHSS to consider when moving forward with CMS/RMS staffing structure revisions.

1. Create sub-specialties for the clerk/administrative officer level. Since the new CMS/RMS staffing structure has already been approved, adding new positions to the structure is not possible. However, adding a sub-specialty to existing positions is a possibility. Clerks (i.e., administrative officers in the new structure) have significant responsibilities within the CMS/RMS competency framework and can move around within the MOHSS structure. By adding sub-specialties for administrative officers, the MOHSS can require that these positions have specific skillsets needed to strengthen CMS/RMS operations. In addition, pre-service and in-service training programs can be tailored to these areas. The team recommends the following new sub-specialties:

- **Administrative officer/data analyst:** This position would fill a gap in multiple domains, specifically in tasks related to forecasting, supply planning, monitoring and PMIS reporting. This position would require capacity in accounting, computational skills and data collection and analysis.
- **Administrative officer/logistics (receiving, warehousing, dispatch):** While establishing a logistics manager position is not possible, by creating an administrative officer sub-specialty for logistics, CMS and RMS can require skills in receiving, warehousing, dispatching, and even transport management.
- **Administrative officer or pharmacist assistant/procurement and contracting:** Contract negotiation and management is a skill set not inherent to pharmacists' training, but it could be included as a sub-specialty for pharmacist assistants and administrative officers.

2. Re-allocate division of labor around storage and distribution tasks. In the storage and distribution domain, the division of labor around many functions is currently split by commodity type, with pharmacists handling Schedule 3 and 4 commodities and ARVs, pharmacist assistants handling pharmaceuticals, and clerks handling non-pharmaceuticals. The team recommends that additional responsibility be shifted to clerks for management of both pharma- and non-pharma commodities, while shifting the pharmacist assistant's role to one of oversight in these competency areas. Pharmacists will still handle restricted commodities, but by shifting some of these tasks to clerks, it may free pharmacist assistants for other higher-level tasks related to procurement and facility-level responsibilities. As noted in the previous section, for overlapping storage and distribution competencies, the team recommends a task allocation model whereby the pharmacist takes on approximately 5 percent of the task (for restricted commodities), the pharmacist assistant about 15 percent, and the clerk about 80 percent.

3. Use the competency maps framework to update SOPs, job descriptions and training programs, and advocate for task shifting. This first-ever comprehensive documentation of competencies across the three cadres provides an excellent repository of data for updating SOPs, job descriptions as they are updated for the new staffing structure, and curricula for pre-service and in-service training programs. If the previous recommendation on task shifting is adopted, additional work will be needed to update requirements for all job descriptions and training. The Deputy Director of DPS recognized during his interview that the MOHSS should leverage the current logistics programs provided by the Polytechnic of Namibia and the Namibian-German Centre for Logistics, as well as managerial programs at the Namibian Institute for Public Administration and Management (NIPAM). The results of these competency maps should be shared with these institutions to strengthen their training programs.

4. Create a logistics management unit. Currently, the responsibility for coordinating stakeholders involved in financing, procurement and distribution of health commodities is not well defined. It is recommended that MOHSS consider establishing a unit, possibly within NMPC, consisting of at least one senior pharmacist and two data analysts to oversee supply chain operations — forecasting, analyzing LMIS data (e.g., national stock status), coordinating stakeholders around commodity security issues, and other responsibilities as assigned. With the current diffuse management, accountability and strategic planning are limited, minimizing opportunities for gaining efficiencies in procurement, distribution and other critical functions.

5. Strengthen overall HR functions to ensure proper on-boarding, support and retention. While not unique to CMS and RMS, and supported by the results of the national supply chain assessment, current HR functions — including induction, annual performance appraisals and workforce development, including on-the-job training and supervision — are inadequately implemented. The team recommends that after completion of the WISN and DCE, additional recommendations of a few simple and inexpensive but concrete ways to improve human resource management for CMS and RMS be compiled to present to the MOHSS.

Proposed Next Steps
While the team held immediate briefings for USAID/Namibia and USAID/Washington in February 2014 (see Annex 9 for a one-page brief), final analysis of all data was not complete. A more thorough review of the results and methodology was also shared with key members of the PtD–Namibia collaboration team — including SCMS, USAID/Washington, Capacity*Plus* and Imperial Health Sciences —to review the results presented in this report and the final competency maps, and to make any final notations before the SCMS office in Namibia shared this report and recommendations with the MOHSS. The team also shared observations and recommendations on the activity methodology with the Executive Manager and Technical Working Group of People that Deliver (see Annex 10).

With the first phase of the collaboration activity complete and the competency areas and behaviors defined for pharmacists, pharmacist assistants and clerks at CMS/RMS, the next phases of the

collaboration can begin (see Figure 6). The remaining three activities are set to move forward simultaneously:

- Update the Discrete Choice Experiment tool based on competency mapping results and run for pharmacists and pharmacist assistants.
- Kick off the Supply Chain Performance Improvement program with a week-long executive leadership short course at Imperial Health Sciences in South Africa for key members of CMS management.
- Adapt standard activity definitions for the WISN based on competency mapping results to run a variety of scenarios at CMS and RMS.

Figure 6. PtD–Namibia Collaboration Activity and Results Framework
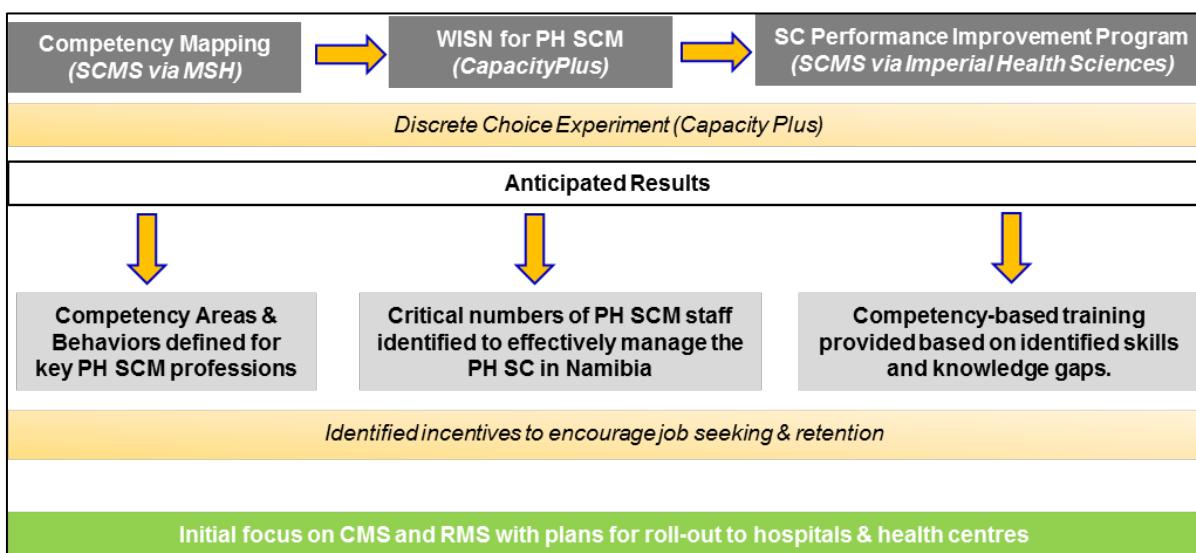
At the culmination of collaboration activities, the teams will host a high-level workshop and presentation of the suite of results from each activity. The aim is that the results and recommendations will influence MOHSS strategic plans for CMS/RMS and also highlight lessons learned for future application of this process in other countries. But more importantly the aim is that the results will strengthen the supply chain workforce, ultimately strengthening the public health system and improving health outcomes for Namibian citizens.

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Annex 1. PtD—Namibia Collaboration Activity Summary

Activity 1: Health Supply Chain Competency Mapping Exercise

PtD recently released its Health Supply Chain Competency Compendium reference document, outlining the domains and competencies required for the workforce at different levels of the supply chain. The compendium draws on 20 competency frameworks and related documents from a number of organizations globally. SCMS will lead the application of the PtD competency compendium to help the Namibian MOHSS and CMS identify:

- SCM tasks required at CMS and RMS.
- Competencies required to complete those tasks.
- Who currently completes those tasks.
- What gaps, redundancies, recruitment or training needs may exist.

The competency mapping exercise is evidence based, is designed to be activity based rather than based on an individual's job, and has been reviewed against current best practice in the available literature. See Annex 2 for the Scope of Work. A comprehensive competency framework requires country-specific input to outline all the relevant competencies. This can be achieved through six iterative steps that include:

- A desk audit of key SCM workforce resources (i.e., job descriptions, SOPs, policies) to produce a cursory map of supply chain competencies by cadre, highlighting gaps and overlap.
- A stakeholder engagement workshop to introduce the activity to key partners and validate the initial desk audit findings.
- In-country interviews and focus groups to outline SCM activity process maps, which highlight responsibilities of each cadre.
- Comparison and compilation of desk audit and process map results into draft competency frameworks by cadre.
- Key informant validation of draft competency frameworks.
- Presentation of results to high-level stakeholders to agree on next steps for application of the competency framework(s).

The end result will be a competency framework for specific supply chain cadres, which in Namibia's case includes pharmacists, pharmacist assistants and clerks. Once the cadre-specific competency frameworks have been created, they can be used to:

- Guide the design of training and curricula, performance frameworks, and job descriptions for different cadres of health workers.
- Identify gaps in services (including accurate implementation of the WISN tool — see description under Activity 2).

Activity 2: Workload Indicator of Staffing Need (WISN) Tool

One step to improving the accessibility and quality of health care is to establish what numbers and types of health workers are needed to match the volume of services in particular facilities. In Namibia, where staffing norms had not been revised in more than 10 years, Capacity*Plus* is assisting the MOHSS in using the Workload Indicators of Staffing Need (WISN) tool to estimate workload requirements for doctors, nurses and pharmacists in all 13 regions of the country.

Developed by WHO, WISN supports data-based decision making in workforce planning and management by calculating the number and types of staff a health facility should need based on actual workload. Users of the tool define the components of the workload for the particular type of staff; set the time it takes a trained, well-motivated worker to perform components to acceptable professional standards; determine the time a health worker has available in one year to do his or her work, taking into account absences (such as leave days); and identify available workload data. These staffing standards and service statistics are then entered into the WISN software for analysis.

The WISN application in Namibia revealed staff shortages — especially among medical officers and pharmacists — and inequities in staffing, particularly between health centers and clinics. Some clinics offer the same amount of care as large health centers, yet they may have only one or two nurses according to current staffing norms (as opposed to the national average of 9 nurses per health center). In addition, workload can vary widely at the same type of facility. For example, in the case of two clinics, each staffed with one registered and one enrolled nurse, data revealed that one clinic had seen 13,541 outpatients in a year while the other had only seen 1,867.

WISN results have informed numerous policy recommendations that will now be considered by the MOHSS's restructuring committee to help address shortages and imbalances of staff in facilities. The same approach can be used to estimate the country's need for staff with supply chain management functions.

The WISN method is based on a position's workload, with activity (time) standards applied for each workload component. The method:
- Determines how many workers of a particular type are required to cope with the workload of a given facility.
- Assesses the workload burden of that facility's staff.
- Estimates the staff mix required to deliver expected services based on workload.
- Establishes fair workload distribution among staff.

Activity 3: Supply Chain Performance Improvement Program (SCPI)

SCMS — through one of its partners, Imperial Health Sciences — offers an in-country Supply Chain Performance Improvement (SCPI) Program, designed by specialists with in-depth field experience in warehousing and distribution. The program is focused on enhancing public health supply chains, based on ISO-accredited best practice, and is designed for unique in-country supply chain settings. The program has been structured to complement the outputs of assessment tools, such as WISN, and other programs, such as workload assessments.

The SCPI begins by assessing system performance of a defined level of the supply chain and assists with identifying and/or establishing baseline metrics (pick slips per day, volume received/dispatched per day, picking accuracy, stock count accuracy, etc.), working with the system owner(s) to set targeted performance by metric. The training solution is then designed, taking into consideration the results of the competency mapping and WISN exercises. The SCPI will then deploy the necessary training interventions and measure their impact by the improvement of performance metrics and staff over time.

The current SCPI program is accredited by the South African Department of Higher Education, and the complete program contributes 30 percent toward a bachelor's degree in Supply Chain, registered in South Africa. With in-country ownership and sustainability in mind, SCPI will look to align with the Polytechnic of Namibia as well.

SCPI Program Outline	
Initiation	• A visit to work with senior management to set performance metric targets and then select applicable training modules. • Local legislation and ISO and WHO standards are used to determine the benchmark for the training. • Provides an easy-to-follow step-by-step program that will guide the management team to guaranteed improvement.
On-Site Training	• The physical training is performed onsite within the warehouse surroundings and infrastructure. • Theoretical sessions are done in a classroom setting, after which the delegates will implement practically what they have learned under the supervision of trainers, managers and supervisors. • Training and assistance is given in compiling key documentation required by good warehousing practices (GWP) and good distribution practices (GDP). • On completion of the course, a full report is developed of practical work done in the warehouse and how individual performance will contribute to improving the overall system.
Post Review	• A follow-up site visit is conducted two months after the training to review the implementation of approaches and processes. • Shared experiences and lessons learned through the training program are captured and shared with key stakeholders.

Activity 4: Discrete Choice Experiment (DCE)

Capacity*Plus* is working with the MOHSS to apply the Discrete Choice Experiment (DCE) methodology to determine attraction and retention factors for various cadres of health staff,

including pharmacists and pharmacy assistants. The Discrete Choice Analysis (DCE) is a quantitative research method that measure the strength of preference and trade-offs of the health workers towards different job characteristics that can influence their decision to take up rural postings (WHO, 2012). This approach is useful to better understand which economic and non-economic incentives are necessary in order to attract health workers to work in the public sector in rural areas and address the urban/rural misdistribution of human resources for health. It is a robust methodology which uses the choice-based conjoint analysis to test the impact of any proposed actions or strategies. (Huber, 2005) (Mengoni, Alessandro, Seghieri, Chiara, Nuti, 2013).

The DCE has two components, the use of discrete choice analysis to model preferences from data gathered through focus group discussions and the use of experiments, and the DCE questionnaire, to generate the required data, eliciting stated preferences for products of programs (Viney et al., 2002). The approach will use logistic regression analysis to establish preferences that respondents have between different job attributes. The outcome of the logistic regression model would establish a preference calculation, the Preference Impact Measure. This measure would be indicated as "willingness to pay" and would be used to compare the "utility coefficients" of each job characteristic in terms of flexibility of the salary coefficient and it would be used to offset an increase in one job characteristic towards other and thereby influences preferences for health workers to choose urban job postings as opposed to rural job postings. The Preference Impact Measure which would identify, for instance, how much salary a respondent would be willing to forgo in order to obtain other benefits or incentives. In short, it would be used to measure the impacts of an improvement of one of six job characteristics to the appetite for respondents to choose a job posting in a rural area as opposed to a job posting in an urban area.

The envisioned impact would be to design incentive systems and retention strategies to attract and retain health professionals and scarce skills to remote/rural and hardship areas in the public sector. The overall impact on the public health sector would be better service delivery to populations since the current shortage of health workers would have been relieved, especially in rural and hardship areas. In December 2013, Capacity*Plus* conducted a hands-on training on the methodology with MOHSS counterparts which covered the DCE concept, process and application of results followed by a pilot survey administered to pharmacists and pharmacy students to determine factors that motivate them to work in district hospitals. The full survey is expected to be implemented in the third quarter of FY14 after revision of the survey tool based on the pilot.

Annex 2. PtD—Namibia Competency Mapping Exercise: Scope of Work

The purpose of this first technical assistance activity in the PtD–Namibia collaboration was to outline the domains and competencies required for the workforce at the central and regional levels of the supply chain by applying the PtD competency mapping tool. This activity will provide a detailed competency map for pharmacists, pharmacist assistants and clerks at CMS and RMS, which will help inform future decisions on supply chain staffing, job descriptions, education and training, with an end goal of improving supply chain performance.

Team Composition

While this activity was originally scoped and budgeted for two consultants, the project was fortunate to have additional participation at no additional cost due to overlapping trips and desired engagement from USAID. The team was composed of:

- Erin Hasselberg, Principal Advisor, Human Resource Capacity Development, SCMS, USA
- Abre Van Buuren, Manager–Training, Imperial Health Sciences (SCMS), South Africa
- Bridget McHenry, Organizational Development Advisor, USAID, USA
- Juanita Folmsbee, Global Program Manager, SCMS, USA
- Benjamin Ongeri, Senior Technical Advisor, SCMS, Namibia

Activity Plan

This technical assistance was comprised of a series of activities, including:

- A desk audit of key SCM workforce resources (i.e., job descriptions, SOPs, policies) to produce a draft competency map of supply chain competencies by cadre, highlighting gaps and overlap.
- A stakeholder engagement workshop to introduce the activity to key partners and validate the initial desk audit findings.
- In-country interviews and focus groups to outline SCM activity process maps, which highlight the responsibilities of each cadre.
- Comparison and compilation of desk audit and process map results into draft competency frameworks by cadre.
- Key informant validation of draft competency frameworks.
- Presentation of results to high-level stakeholders to agree on next steps for application of the generated competency framework(s).

Period of Performance

The period of performance is November 2013 to March 2014, with in-country activities taking place in January and February. Annex 1 has a detailed calendar. A final dissemination workshop will be held in September 2014 in Namibia at the completion of all four PtD collaboration activities.

Annex 3. Activity Schedule and Meetings

Mon 27 Jan	Location /Venue	Task Description			
08:30 - 09:30	USAID	In-briefing with USAID/Namibia			
10:30 - 11:30	MSH	In-briefing with local MSH staff			
11:00 - 12:30	MSH	Prepare for high level stakeholder workshop			
		LUNCH BREAK			
14:00-17:00	MSH	Prepare Interview Guide for Wednesday Interviews			
Tues 28 Jan					
08:30 - 16:30	Safari Hotel, Brandberg Room	High level stakeholder workshop with objectives to: (1) Describe the overall goals and approach of competency frameworks for SCM (2) Introduce concept of the competency mapping tool (3) Review the remote & in-country processes (4) Validate desk audit and allocate high level domains and competencies			
Wed 29 Jan					
08:30 - 16:30	Multiple locations	9:00 – 1:00 Interview with Sr. Pharmacist, Oshakati Multi-regional Medical Depot (Erin & Maritza) 2:30 – 3:30 Continued interview	9:00 – 10:00 Interview with Emmanuel Ugburo, ART Logistics Pharmacist (Bridget & Abre)	9:00 – 12:00 Review & update of Compendium "language" (Juanita and Greatjoy)	3:00 – 5:00 Update of interview questionnaire in preparation for interviews on Wed

Thurs 30 Jan					
08:00 - 17:00	CMS & MSH	9 – 11 a.m. Interviews with Procurement Pharmacist Harriet Lema, Transport and Dispatch Clerks, Richard Hangara and Dina Hartley. Interview with Receiving Clerk Olivia Shitumbe (Erin, Abre, Bridget and Juanita)		2 – 4 p.m. Interviews with Procurement Pharmacist Assistant Leontine Shikukulu and Procurement Clerk Mary Biliyati. Interview with Distribution Pharmacist Barnabas Kirwisa and ARV Pharmacist Emilia Anannias (Erin, Abre, Bridget and Juanita)	
Fri 31 Jan					
08:30 - 16:30	MSH & MOHSS	9:00 a.m. – 11:30 a.m. Meeting with Lazarus Indongo, Tonata Ngulu, Dr. Qamar Niaz (Senior Pharmacist, NMPC)		11:30 a.m. – 1:00 p.m. Team review of Thursday interviews	2:00 – 4:00 Team compilation of interviews
Mon 03 Feb					
08:30 - 16:30	CMS & MSH	9:00 a.m. – 11:30 a.m. Interview with the Warehouse Pharmacist Assistant Zita Ilukena (Juanita and Abre)		11:30 a.m. – 1:00 p.m. Team working on completing the Trip report and interview guides	2:00pm – 4:00pm Interviews with two Chief clerks, Monika Iilonga and Aaron Ngolonga. Interviews with three Warehouse Clerks, Alfred Lubinda, Saima Johannes and Anna Sheetekela (Juanita and Abre)
Tue 04 Feb					
08:30 - 16:30	CMS & MSH	9:00 a.m. – 11:30 a.m. Team working on capturing interview guides, gallery walk sheet and updating the trip report.	11:30 a.m. – 1:00 p.m. Team meeting with Intrahealth on the Mission out brief.	2:00pm – 4:00pm Interview with the Receiving and Warehouse Pharmacist Diana Sheehama. (Bridget and Abre)	
Wed 05 Feb					
08:30 - 16:30	MSH	9:00 a.m. – 13:00 p.m. Team working on capturing interview guides, nuggets and updating the trip report. Preparing for out brief and trip to Oshakati		3:00 – 4:00 p.m. Call with Erin Hasselberg to prep for Friday USAID debrief	

Thur 06 Feb			
06:30 - 08:00	RMS	Travel to Oshakati to interview RMS Pharmacist Assistant, Clerks, etc.	
08:30 – 04:00	RMS	9:00 a.m. – 11:30 a.m. Interview with the Regional Pharmacist at RMS Msafiri Kweba. (Juanita and Benjamin) Interview with the Pharmacist and Pharmacist Assistant at RMS Monica Shwarukeni and Lydia Kuryslidiya. (Abre and Bridget)	2:00pm – 4:00pm Interview with the RMS Dispatch Clerk Josaphine Higinus. (Benjamin, Bridget, Juanita and Abre)
Fri 07 Feb			
10:30 – 12:00	USAID	Debrief	
14:00 – 16:00	CMS	Preparation meeting for the SCPI with Tonata Ngulu, Chief Pharmacist CMS	
9:30 – 10:30	MSH	Debrief with in-country staff and determination of next steps	
10:30 – 1:00	MSH	Compile RMS interview notes for technical report and competency map	

Annex 4. Participant List from Stakeholder Meeting

#	Title	Name	Surname	Gender	Organization	Email
1	Mr.	Lazarus	Indongo	Male	MoHSS/THC&CSS – Pharmaceutical Services	lindongo@nmpc.com.na
2	Mr.	Emmanuel	Ugburo	Male	MoHSS/NMPC – ART Logistics Pharmacist	eugburo@nmpc.com.na
3	Mr.	Archie	Shikameni	Male	MoHSS HR policy and planning	ashikameni@mhss.gov.na
4	Mr.	Moses	Shifotoka	Male	MoHSS HR policy and planning	batienine@gmail.com
5	Mr.	Angrey	Tjipura	Male	MoHSS HR policy and planning	atjipura@mhss.gov.na
6	Ms.	Anna	Isaacs	Female	MoHSS HR policy and planning	aisaacs@mhss.gov.na
7	Ms.	Rosalia	Indongo	Female	USAID Namibia	rindongo@usaid.gov
8	Ms.	Pam	McQuide	Female	Intrahealth	pmcquide@intrahealth.com
9	Mr.	Tonata	Ngulu	Male	MoHSS/CMS – Acting Chief Pharmacist	tngulu@cms-namibia.com
10	Ms.	Emilia	Salomo	Female	MoHSS/PhS – Chief Accountant	esalomo@cms-namibia.com
11	Ms.	Seija	Nakamhela	Female	MoHSS/CMS – Procurement Pharmacist	snakamhela@cms-namibia.com
12	Mr.	Barnabas	Kirwisa	Male	MoHSS/CMS – Distribution Pharmacist	bkirwisa@cms-namibia.com
13	Ms.	Farida	Goronga-Mushi	Female	MoHSS/MRMD Oshakati – Senior Pharmacist	fgoronga@yahoo.com
14	Mr.	Dan	Kibuule	Male	University of Namibia – School of Pharmacy	jkibuule@unam.na
15	Dr.	Honore	Mitonga	Male	University of Namibia – School of Medicine	honoremitonga@gmail.com

#	Title	Name	Surname	Gender	Organization	Email
16	Ms.	Esther	Naikaku	Female	University of Namibia – School of Pharmacy	enaikaku@unam.na
17	Prof.	Christopher	Savage	Male	Polytechnic of Namibia – Namibia German Centre for Logistics	csavage@polytechnic.edu.na
18	Mr.	Dan	Mavu	Male	National Health Training Centre – Pharmacist Assistants	danmuleya@gmail.com
19	Ms.	Harriet	Kagoya	Female	M&E Advisor MSH/SIAPS	hkagoya@msh.org
20	Mr.	Evans	Sagwa	Male	Acting Country Director MSH/SIAPS	esagwa@msh.org
21	Ms.	Erin	Hasselberg	Female	SCMS	ehasselberg@pfscm.org
22	Mr.	Abre	Van Buuren	Male	SCMS	avanbuuren@ihs.za.com
23	Mr.	Benjamin	Ongeri	Male	MSH/SCMS	bongeri@na.pfscm.org
24	Mr.	Alemayehu	Wolde	Male	MSH/SCMS	awolde@msh.org
25	Ms.	Maritza	Titus	Female	Intrahealth	mtitus@intrahealth.org
26	Ms.	Juanita	Folmsbee	Female	SCMS	jfolmsbee@pfscm.org
27	Ms.	Bridget	McHenry	Female	USAID Washington	bmchenry@usaid.gov
28	Ms.	Selma	Ndimhuaka	Female	Intrahealth	snaimhuaka@intrahealth.org
29	Ms.	Giselle	Gowases	Female	MSH/SIAPS	ggowases@msh.org
30	Ms.	Monika	Iilonga	Female	MoHSS – Chief Clerk – CMS	miilonga@cms-namibia.com
31	Ms.	Leontine	Shikukutu	Female	MoHSS – Clerk - CMS	shikukutu@cms-namibia.com
32	Dr.	Tim	Renne	Male	University of Namibia – School of Medicine	trenne@unam.na
33	Ms.	Mide	Rundell	Female	University of Namibia – School of Medicine	mrundell@unam.na
34	Mr.	Logan	Fransman	Male	Polytechnic of Namibia – Namibia German Centre for Logistics	lfransman@gmail.com

Annex 5. Facilitator Guide for Stakeholder Meeting

See "Jan 28 Detailed Agenda and facilitation guide.pdf" attachment

Annex 6. List of Interviews by Date of Interview

Date of Interview	Name	Title	Location of Work
29/01/2014	Farida Goronga-Mushi	Senior Pharmacist	RMS – Oshakati
29/01/2014	Emmanuel Ugburo	ART Logistics Pharmacist	NMPC – ART
30/01/2014	Harriet Lema	Procurement Pharmacist	CMS
30/01/2014	Leontine Shikukutu	Procurement Pharmacist Assistant	CMS
30/01/2014	Mary Biliyati	Procurement Clerk	CMS
30/01/2014	Richard Hangara	Dispatch Clerk	CMS
30/01/2014	Alina Ashipala	Assistant Admin Officer	CMS
30/01/2014	Dina Hartley	Chief Transport Clerk	CMS
30/01/2014	Nanguei Katjijeko	Transport Clerk	CMS
30/01/2014	Olivia Shitumbe	Receiving Clerks	CMS
30/01/2014	Barnabas Kirwisa	Distribution Pharmacist	CMS
30/01/2014	Emilia Anannias	ARV Pharmacist	CMS
31/01/2014	Lazarus Indongo	Deputy Director: MoHSS/THC&CSS	MoHSS
03/02/2014	Zita Llukena	Pharmacist Assistant (Buy-outs)	CMS
03/02/2014	Monica Iilonga	Chief Clerk- Distribution	Non pharma CMS
03/02/2014	Aaron Ngolonga	Chief Clerk- Distribution	Non pharma CMS
03/02/2014	Alfred Lubinda	Clerk- Distribution	Non pharma CMS
03/02/2014	Saima Johannes	Clerk- Distribution	Non pharma CMS
03/02/2014	Anna Sheetekela	Clerk - Distribution	Non pharma CMS
04/02/2014	Diana Sheehama	Receiving Pharmacist	CMS
06/02/2014	Msafiri Kweba	Regional Pharmacist	RMS – Oshakati
06/02/2014	Josaphine Higinus	Dispatch Clerk	RMS – Oshakati
06/02/2014	Monica Shwarukeni	Pharmacist Assistant	RMS – Oshakati
06/02/2014	Liydia Kurys	Pharmacist	RMS – Oshakati

Annex 7. Interview Questionnaire Guide

See "Final Interview Questionnaire.pdf" attachment

Annex 8. Validated Competency Map

See "NA Competency Map Workbork for Tech Report.pdf" attachment

Annex 9. USAID Debrief Presentation

People that Deliver Namibia Collaboration: PART I Debrief
7 February 2014

Overall Namibia PtD Workplan Activity Recap
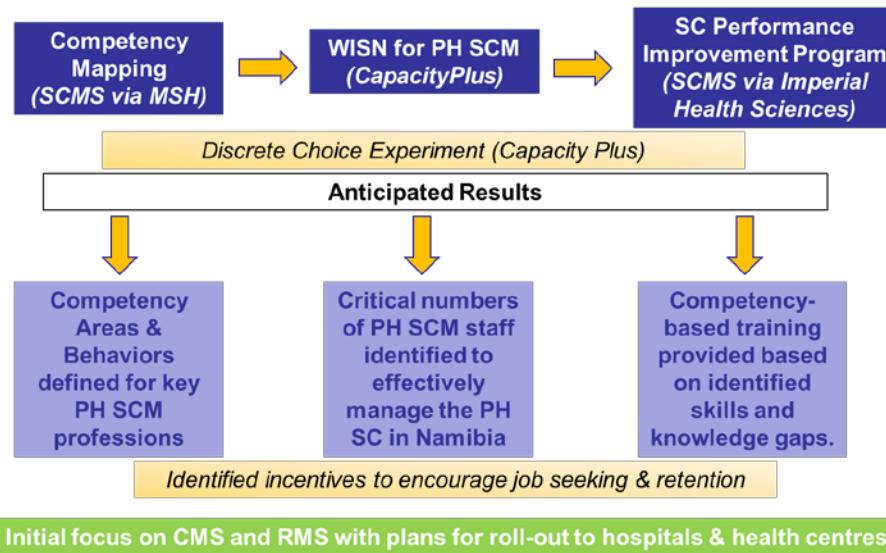
Highlights of CMS & RMS Competency Mapping Activity

ACTIVITIES	OBJECTIVE	RESULTS
Desk Audit	Identify PH SCM competency gaps and levels of responsibilities in the system	• 25 documents reviewed and mapped to the PtD PH SCM Competency Framework • Identified competency gaps and highlighted areas to ask specific questions of stakeholders
Stakeholder Engagement Meeting	Validate high-level desk audit findings & adapt competency framework to Namibia context	• 24 participants representing stakeholders from academy, MOHSS- HR and Pharm Services, CMS and RMS staff at various levels attended • Collected valuable feedback for Namibia Competency Map and "who" is responsible for each area • Also gathered critical feedback for PtD on implementation of the activity and the Compendium
Workplace Interviews	Identify cadre-specific SC tasks and potential opportunities for new	• 24 interviews conducted to map tasks and validate desk audit findings, including visits CMS, Oshakati Regional Medical Depot, NMPC, and

cadres	MOHSS-Pharmaceutical Services.

HIGHLIGHTS
- Expansion of ARV treatments over past several years has increased burden on CMS and RMS staff, taxing the overall performance of the supply chain and the ability to deliver these critical treatments in a consistent, sustainable manner
- General openness for a few new "positions" within CMS and RMS to execute specific functions
- On-the-job learning is how most pharmacists, pharmacist assistants and clerks have learned their supply chain responsibilities; request for additional either pre-service or in-service training to understand and properly execute their jobs
- Pharmacist Assistants, Chief Clerks, and Clerks share many of the same job responsibilities
- Unclear as to "who" actually has responsibility for the overall oversight and management of the PH SC; communication channels are not clear and coordination is piece-meal; a Logistics Management Unit within Pharmaceutical Services connecting the various players might be a solution.
- No designated performance management system or monitoring & evaluation personnel of CMS performance; no authority to discipline staff
- Systems challenges reported and observed consistent with National Supply Chain Assessment completed in late 2013 – leading to frustrations and inefficiencies

Next Steps	Estimated completion date:
Draft Competency Map for Pharmacists, Pharmacist Assistants, and Clerks combining desk audits and workplace observation/interview findings	End of Feb
In-country SCMS team to validate that draft with focus groups of specific cadres	Mid-March
Competency Framework and tasks/behaviours/competencies for those three cadres will inform the WISN activity standards	Mar/April
Plan for SCPI & initiate SCPI baseline assessment on CMS KPI's	April/May
Stakeholder debrief on overall PtD Activities	May/June

USAID Support & Follow-Up Requested
- Support generating and sustaining political will for implementation of recommendations from both this activity and the National Supply Chain Assessment. These suggested improvements are critical for the Namibian supply chain to be able to support consistent supply of ARVs and other products.

Annex 10. Excerpt from the Summary and Recommendations to PtD Executive Manager & Technical Working Group (Lessons Learned)

SUMMARY AND RECOMMENDATIONS ON THE PUBLIC HEALTH SUPPLY CHAIN MANAGEMENT COMPETENCY MAPPING ACTIVITIES IN NAMIBIA:

BRIEF TO THE PEOPLE THAT DELIVER EXECUTIVE MANAGER & TECHNICAL WORKING GROUP

Purpose & Scope

The purpose of this first technical assistance activity in the PtD Namibia collaboration was to outline the supply chain domains and competencies in Namibia required for the supply chain workforce at central and regional levels of the supply chain by applying the PtD competency mapping tool. The completion of this activity will provide Namibia with detailed competency map for pharmacists, pharmacist assistants, and clerks at CMS and RMS which will help inform future decision on supply chain staffing, job descriptions, education, and training with an end goal of improving supply chain performance.

This activity was the first in a suite of activities that PtD with support from USAID is implementing through SCMS and Capacity*Plus*.

Team Composition:

While this activity was originally scoped and budgeted for two consultants, the project was fortunate to have additional participation at no additional cost due to overlapping trips and desired engagement from USAID.

- Erin Hasselberg, Principal Advisor, Human Resource Capacity Development, SCMS, USA
- Abre Van Buuren, Manager- Training, Imperial Health Sciences (partner on SCMS), South Africa
- Bridget McHenry, Organizational Development Advisor, USAID, USA
- Juanita Folmsbee, Global Program Manager, SCMS, USA
- Benjamin Ongeri, Senior Technical Advisor, SCMS, Namibia

Additionally, Alemayehu Wolde, Senior Technical Advisor (SCMS-Namibia), Maritza Titus (Capacity*Plus* Namibia), and Evans Sagwa, Acting Country Director (SCMS-Namibia) provided valuable support to the technical team.

Activity Plan:

This technical assistance included a series of activities, including:

- A desk audit of key SCM workforce resources (i.e. job descriptions, Standard Operating Procedures, policies) to produce a cursory map, highlighting gaps and overlap, of supply chain competencies by cadres

- Stakeholder engagement workshop to introduce the activity to key partners and validate the initial desk audit findings
- In-country interviews and focus groups to outline SCM activity process maps which highlight responsibilities of each cadre
- Comparison and compilation of desk audit and process map results into draft competency frameworks by cadre
- Key informant validation of draft competency frameworks
- Presentation of results to high-level stakeholders and agree on next steps for application of the generated competency framework(s).

Period of Performance: November 2013 – March 2014, with in-country activities taking place from 24 January – 7 February 2014. A final dissemination workshop is expected to be held in September 2014 in Namibia at the completion of all four PtD Collaboration activities.

Activity Timing & Requirements

Timing	Activity	Key Stakeholders	BUDGETED Level of Effort (2-member team)	RECOMMENDED LOE (4-member team)
3 months before in-country mapping activity	Complete the scope of work	TA team	1 day	1 day
	Obtain country approval	TA lead PtD Executive Manager PtD country representative	3 days (over a two week period)	1 day (over a two week period)
	Obtain donor approval	Consultants Donor representative PtD country representative	5 days (over a 30 day period)	5 days (over a 30 day period)
	Collect key country documents	In-country TA team	5 days	5 days
	Draft desk audit	TA lead	2 days	5-8 (depending on the number of documents)
	Brief MoHSS counterparts and other local counterparts, including University of Namibia staff, on the SoW and expectations	In-country TA team	0.5 day	0.5 day

Timing	Activity	Key Stakeholders	BUDGETED Level of Effort (2-member team)	RECOMMENDED LOE (4-member team)
1 month before in-country mapping activity	Technical briefing call to review compendium and identify areas to adapt/select for application and identify resources required for desk audit.	TA team	0.5 day	0.5 day
	Finalise desk audit and map supply chain levels and cadres and tailoring of compendium.	TA team	1 day	5 days
	Complete competency Framework per cadre	Task team	0 days	3 days per cadre framework
	Workshop, focus group and workplace observation preparation	TA team	1 day	1 day
	Prepare travel arrangements and schedule appointments	TA team	0 days	2 days
	Perform STTA readiness briefing	TA Team USAID counterpart	0.5 day	0.5 day
In-Country mapping activity	Mission and staff In-brief	TA team	0.5 day	0.5 day
	Prepare for high level stakeholder workshop	TA team	0.5 day	1 day
	Conduct high level stakeholder workshop	TA team	1 day	0.5 day
	High level stakeholder debrief and focus group preparation	TA team	1 day	1 day
	Conduct interviews with key cadres	TA team	8 days	10 days (depending on the number of facilities)
	Workplace observation	TA team	2 days	0 days
	Workplace observation debrief and preparation for final presentation	TA team	2 days	2 days
	Presentation of results to high level stakeholders	TA team	1 day	1 day

Timing	Activity	Key Stakeholders	BUDGETED Level of Effort (2-member team)	RECOMMENDED LOE (4-member team)
	Out briefing with in-country host organization	TA team	0.5 day	0.5 day
Post mapping activity	Finalize Technical Report, including final competency map and recommendations for next steps	TA team	3 days	14 days (over 2 months)
	Share technical report with People that Deliver Board	TA team	0.25 day	0.5 day
	People that Deliver debrief	TA team	0.25 day	0.5 day
	TOTAL LOE		~40 days	~65 days
	Estimated cost		$80,000 USD *(Note that two additional team members were available from SCMS and USAID but provided their own funding)*	

KEY OBSERVATIONS & RECOMMENDATIONS
- **General Recommendations to PtD**
  - The Compendium is a thorough resource but a bit daunting to "use" throughout this exercise. Producing a draft/basic Competency Framework (complete with a simple listing of base behavioral competencies) would be an easier starting point for most programs (JSI to develop this).
  - Team made some recommendations to the "competency areas" (See Annex 2) including:
    o Combining of a few competency areas in Selection & Quantification and also in Procurement
    o Expansion of Storage and Distribution competency areas
    o Elimination of "Advising Patients" competency area in Use
    o Questions related to: "Manage manufacturing or compounding of products" in Storage & Distribution; should Manufacturing be its own separate domain? Compounding is a very pharmacy/lab specific competency that's not specifically supply chain?
  - At this stage, the suite of activities (Figure 1) and combination of expertise in supply chain management and human resources for health seems to be a welcomed approach to tackling

the large issue of HR for SCM strengthening. Would encourage PtD to find funds to implement a similar suite of activities in other countries.

- The competency mapping activity requires a decent amount of conceptual level thinking in order to come to the final deliverable (i.e. team members should allocate time and energy to process quite a lot of data).

- **Activity-Specific Observations & Recommendations**

Team Composition & Availability
o Recommend at least 4-5 team members depending on the number of facilities expecting to visit/staff to interview
o If using results to inform the WISN, try to include a member of the WISN team on competency mapping team
o Activity requires one full-time or nearly full-time team lead and in-country counterpart to keep the activity on track; if scope of activity is central level only- a 4 member TA team plus in-country counterpart is ideal. Larger scope will require additional team members to conduct all interviews.
o Team members must adequately allocate roles, responsibilities and time for prep/follow-up
o Days in-country dependent on numbers of facilities/units required to visit (i.e. do any require travel) and number of staff to be interviewed [Minimum two weeks in-country]

Desk Audit
o Desk Audit is a useful exercise to gain understanding of the supply chain context, create an initial competency "map" for each of the cadres (to the competency area level), and identify supply chain gaps for the overall system
o However to note: prior to mapping, the team should prioritize which documents should be reviewed (i.e. those that are most current, most implemented, most relevant) and not simply map/review all documents found.
o Excel was a rather cumbersome tool for "housing" the results of the desk audit mapping; consider creating a simple Access database for future applications.
o Our original goal was to create three competency maps – down to the behavioral competency level and map to some of the behavioral competencies in the compendium, but given the size and lack of streamlined order of the behavioral competencies in the compendium, this was not possible, and in retrospect would likely only have been useful if the compendium had a distilled set of behavioral competencies.

Stakeholder Engagement Workshop
o The Stakeholder Engagement Workshop served two purposes in the Namibia exercise: to engage the broad range of players that will have responsibilities in implementing the competency frameworks (MOHSS- HR and CMS/RMS divisions, training institutions and universities, implementing partners) and to also validate (or disprove) the gaps revealed in the desk audit.

- o The team also conducted an exercise to have stakeholder input into "who completes" each of the competency areas and while this exercise was interesting and engaged the participants many of them did not have enough knowledge of the supply chain (i.e. the HR staff, academic institution staff) to make informed comments.
- o Participants need to be chosen carefully to ensure that a well-balanced mix of expertise but also knowledge of the supply chain and human resource challenges are present in the room.
- o The best use of time of all these important stakeholders might be a shorter three-hour meeting to engage them to the overall exercise and validate the desk audit gaps only.

Adaptation of the Competency Compendium & Development of an Interview Guide
- o Since the public health supply chain is different from country-to-country- and sometimes program-to-program, the Competency Framework laid out in the PtD Competency Compendium will need to be adapted to suit each context. The results of the desk audit, stakeholder engagement meeting, and interviews provided input into the final frameworks for Namibia.
- o The key informant interviews relied on the interviewees to describe the steps of each of the competency areas (i.e. in a business process map/flow type format) and then the interviewers compiled these results across cadres; what would have been helpful is to have mapped out those business process flows ahead of time (from the desk audit documents) and to have had the interviewees confirm or correct those maps.
- o CMS/RMS staff were extremely willing to participate in the interviews and share their views.
- o Recommend that interviews are conducted in pairs so that one of the interviewers can engage in the questioning and the other take notes in order to capture the majority of the information from the participants.
- o For the mapping to truly reflect capture all the behavioral competencies, the cadres would need to be observed completing actual tasks. While this would be the ideal, the amount of time required to complete workplace observations would increase the cost of the activity with unclear returns on the improved quality of the competency map.

Finishing Up
- o A Stakeholder Debriefing may have been useful, but would require additional in-country time; better option would be to have the in-country team host a debriefing meeting after all the interview and desk audit findings are compiled.
- o Consider adding additional in-country LOE to draft and complete final deliverables in order to keep TA team's attention to task.

NEXT STEPS
In-country team is currently validating draft competency maps and finalizing Technical Report. By the end of March, the TA team will share these deliverables with the MOHSS, CMS, RMS, as well as the PtD Namibia Collaboration team. The competency maps will inform the next activity, the WISN, in the "suite" of activities for Namibia. A stakeholder dissemination event will be held at the completion of all activities.