

**Technical Report: South Africa
Pharmaceutical Leadership Development Program**

JUNE 2015



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SIAPS 
Systems for Improved Access
to Pharmaceuticals and Services

Technical Report: South Africa Pharmaceutical Leadership Development Program

Sue Putter
Gail Mkele
Tiwonge Mkandawire
Ntefeleng Nene
Katelyn Payne
Claire Tindula

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SIAPS 

The SIAPS logo features the word "SIAPS" in a bold, green, sans-serif font. To the right of the text is a stylized blue graphic of a person with arms raised in a V-shape, suggesting movement or achievement.

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About SIAPS

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

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Challenge, coaching, leadership, management, medicine, medicine supply management, mentoring, monitoring and evaluation, pharmaceutical, primary health care, rational medicine use, root cause

Systems for Improved Access to Pharmaceuticals and Services
Pharmaceutical & Health Technologies Group
Management Sciences for Health
Ditsela Place, 1204 Park Street (Cnr Jan Shoba Street)
P.O. Box 11471, Hatfield, 0028, Gauteng
Telephone: +27 12 364-0400
Fax: +27 12 364 0416-0462
E-mail: siaps@msh.org
www.siapsprogram.org

CONTENTS

Acronyms and Abbreviations	iv
Acknowledgments.....	v
Executive Summary	vi
Introduction.....	1
Background	2
The Pharmaceutical Leadership and Development Program.....	4
Contextual Framework and Learning Methodologies	5
Program Objectives.....	10
Structure of Workshops	10
Technical Modules.....	11
Implementation of PLDP in South Africa	13
Partnering with the Pharmaceutical Services Unit within the Provinces.....	13
PLDP Implementation Under SIAPS.....	14
Lessons Learned.....	45
Participant Feedback.....	45
Lessons Learned and Recommendations	46
Sustainability and Scale-Up.....	48
Sustainability and Scale-Up in the Northern Tygerberg Substructure.....	48
Sustainability and Scale-Up in KwaZulu-Natal.....	51
University Partnerships	53
Conclusion	54
Annexes.....	55

ACRONYMS AND ABBREVIATIONS

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
CDC	community day center
CDL	chronic disease of lifestyle
CDU	Chronic Dispensing Unit
CEO	chief executive officer
DHIS	district health information system
CHC	community health center
DKK	Dr Kenneth Kaunda [District]
GPP	Good Pharmacy Practice
HIV	human immunodeficiency virus
IPHC	Integrated Primary Health Care
IPT	isoniazid preventive therapy
IT	information technology
KPMSS	Klipfontein Mitchells Plain Substructure
KZN	KwaZulu-Natal [Province]
LDP	Leadership Development Program
M&E	monitoring and evaluation
MOU	memorandum of understanding
MSH	Management Sciences for Health
MSM	medicine supply management
NCS	National Core Standards
NDOH	National Department of Health
NPO	nonprofit organization
NTSS	Northern Tygerberg Substructure
PC	personal computer
PDOH	Provincial Department of Health
PFMA	Public Finance Management Act 1 of 1999
PHC	primary health care
PHPM	Public Health and Pharmacy Management [course]
PMIS	pharmaceutical management information system
PMP	patient medicine parcel
RMU	rational medicine use
SIAPS	Systems for Improved Access to Pharmaceuticals and Services
SMU	Sefako Makgatho Health Sciences University
SOP	standard operating procedure
SPS	Strengthening Pharmaceutical Systems
STG	standard treatment guideline
TB	tuberculosis
USAID	US Agency for International Development
WHO	World Health Organization

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- Heads of Pharmaceutical Services
- Senior management and heads of departments for allowing us the opportunity to work in their provinces and districts
- Pharmaceutical Services departments and their staff for their technical and administrative support
- District pharmacists
- All pharmacists participating in the PLDP
- All pharmacists, operational managers, facility managers, and clinical managers participating in the LDP

EXECUTIVE SUMMARY

Since March 2011, the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program and its predecessor, the USAID-funded Strengthening Pharmaceutical Systems (SPS) Program, have been successfully implementing a participatory training program using innovative strategies to strengthen health care professionals' leadership and management skills. Based on the framework behind Management Sciences for Health (MSH)'s Leadership Development Program (LDP), the Pharmaceutical Leadership Development Program (PLDP) was developed at the request of provincial heads of Pharmaceutical Services to strengthen pharmacy managers' leadership capacities and target key pharmaceutical management challenges.

The PLDP presents a novel approach by combining technical pharmaceutical knowledge with sound leading and managing practices to better equip pharmacy managers to respond to challenges in their work environment and improve service delivery. The PLDP was first introduced in South Africa in 2012 and has been implemented in eight of South Africa's nine provinces. The SIAPS Program expanded the LDP/PLDP to the KwaZulu-Natal, Limpopo, North West, and Western Cape Provinces. By June 2015, a total of 183 health care workers, including 154 pharmacists, 20 facility managers, and 9 clinical managers, had completed the LDP/PLDP under SIAPS South Africa. Workplace-based teams use information gained during the workshops to address real workplace challenges and produce measurable results. Inspired by a shared vision of what they can accomplish, participants gain confidence in their ability to lead, manage, and produce results. Through the PLDP, leadership and management capacity has been strengthened, and pharmaceutical service delivery in the provinces has improved.

Teams working across the country have succeeded in increasing medicine availability and accessibility, improving medicine supply management, ensuring facility compliance with national standards, improving rational medicine use (RMU), reducing clinic waiting times, and improving the patient experience at the facility level. Based on these successes, SIAPS has encouraged and supported the teams to scale up and sustain the quality improvement initiatives. KwaZulu-Natal, and the Northern Tygerberg Sub-Structure (NTSS) in Western Cape Province, requested further collaboration with SIAPS to help ensure the sustainability of the work that had been conducted and the accomplishments that were achieved. SIAPS supported this request in an effort to expand and institutionalize the programs and ensure country ownership.

The implementation of the LDP/PLDP program in South Africa has created an opportunity for a multidisciplinary approach to address challenges in the workplace. When applied consistently, the leading and managing practices strengthen organizational capacity and improve the delivery of pharmaceutical services.

INTRODUCTION

The Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program, funded by the US Agency for International Development (USAID), is striving to improve access to quality pharmaceutical products and effective pharmaceutical services through systems strengthening for lasting positive health outcomes. SIAPS takes a comprehensive approach to improving pharmaceutical systems: enhancing countries' capacity to procure and distribute high-quality medicines and health technologies, while working with local partners to develop strong systems for health financing, human resources, governance, information, service delivery, and pharmacovigilance. By promoting local ownership of wide-ranging initiatives, stronger, more sustainable health systems are fostered.

The program's five result areas are as follows:

- Intermediate Result 1: Pharmaceutical sector governance strengthened
- Intermediate Result 2: Capacity for pharmaceutical supply management and services increased and enhanced
- Intermediate Result 3: Information for decision-making challenges in the pharmaceutical sector addressed
- Intermediate Result 4: Financing strategies and mechanisms strengthened to improve access to medicines
- Intermediate Result 5: Pharmaceutical services improved to achieve desired health outcomes

The overall goal of the SIAPS Program in South Africa is to strengthen the capacity of pharmaceutical systems at all levels, to support the South African Government priority health programs and initiatives to improve health outcomes. Program aims include strengthening pharmaceutical sector governance, enhancing capacity for pharmaceutical supply management and services, improving use of information for decision making for pharmaceutical services, improved access to medicine, improving availability of medical products and improving RMU and patient safety.

One of the key challenges facing the provision of pharmaceutical services in South Africa is the lack of a sufficient number of trained personnel with the appropriate pharmaceutical knowledge and skills.

SIAPS works closely with the National Department of Health (NDOH) and government counterparts at the national, provincial, district, and facility levels. Providing staff development for health care professionals is one of the cornerstones of SIAPS South Africa's platform for system strengthening. Pharmaceutical management capacity building through the Pharmaceutical Leadership Development Program (PLDP) in South Africa was initially approached through the SIAPS predecessor: the USAID-funded Strengthening Pharmaceutical Systems (SPS) Program, implemented by MSH from 2007 to 2012.

BACKGROUND

Effective leadership is the catalyst that drives improvements and overall success in any health system, but cultivating leaders working in the health care system can be extremely challenging. In South Africa, which is implementing the largest antiretroviral therapy (ART) program in the world, effective, accountable, and transparent leadership in the pharmaceutical system is central to ensuring that high-quality medicines are available when and where they are needed. While overseeing the provision of pharmaceutical services, pharmacy managers often face multifaceted management challenges for which they may not be well equipped or adequately trained to handle. Left unaddressed, these challenges can impede efficient pharmaceutical service delivery and affect patient care.

To address these types of challenges, Management Sciences for Health (MSH) developed the Leadership Development Program (LDP), a structured program that ties together personal development and real-life challenges, utilizing a team-based, action learning approach to improve health outcomes. Over the past decade, the LDP has enhanced the leadership skills of health professionals in more than 40 countries. Designed to strengthen leadership, governance, and management capacity, the LDP is an action-oriented leadership development process that enables teams to face challenges and apply leading and managing practices to achieve results. The LDP was first introduced in South Africa by the Integrated Primary Health Care (IPHC) project¹ in 2010, when it was offered to facility managers in the Mpumalanga and North West Provinces.

In response to the NDOH's 10 Point Plan, released in 2009, the Committee of Heads of Pharmaceutical Services in the provinces identified the need for a targeted intervention to provide professional development opportunities for pharmacy managers as well as expand operational research at the facility level. A collective decision was made to source a provider that would put together a program on leadership and management to address areas relevant to the provision of pharmaceutical services in the public sector. SPS offered to support the heads of pharmaceutical services in customizing a program that would meet the needs of pharmacists in the public sector in South Africa.

In 2011, SPS adapted the LDP program for South Africa's pharmaceutical system, thereby creating the Pharmaceutical Leadership Development Program (PLDP). The PLDP brings together pharmacists and other health care professionals to strengthen leadership and management skills, while engaging them in analyzing a persistent challenge that they face within the health facility or district they serve. As participants confront service delivery, compliance, and management challenges, trained facilitators provide supportive coaching to assist them in working through action plans to provide better health services.

A Transformational Approach

LDP/PLDP is designed to foster a series of "leader shifts"—changes in how participants think about leadership, management, and governing.

¹ http://pdf.usaid.gov/pdf_docs/PDACR896.pdf

SPS and now SIAPS have made inroads to building leadership and management capacity for managers to help address the pharmaceutical knowledge and skills gap through the customization and delivery of the LDP and the PLDP. Both programs provide a platform for pharmacy personnel and other health care professionals to address real workplace challenges in a systematic way, while building individual and institutional capacity toward effective service provision.

THE PHARMACEUTICAL LEADERSHIP AND DEVELOPMENT PROGRAM

Pharmacy managers are in an important position to direct interventions to address issues related to governance, supply, rational use, and patient safety in South Africa. Realizing the unmet capacity-building challenges in South Africa's pharmaceutical system, SIAPS has continued to implement the PLDP throughout the provinces to build human resource capacity in pharmaceutical management.

Common challenges experienced in the pharmaceutical system relate to:

- Medicine access and availability
- Compliance with national standards
- Rational use of medicines
- Inadequate human resources

The PLDP is delivered in a series of five workshops over a period of six to seven months. As an integral part of the program, participants, who work at different levels of service delivery, develop quality-improvement projects aimed at addressing a key challenge experienced within their workplace. They bring what they learn back to their workplaces, where they teach and inspire their coworkers to apply these practices to real challenges in priority health system strengthening areas. PLDP coaches provide feedback and support throughout the process.

“The majority of pharmacy managers do not have the capacity to manage. PLDP was exciting for us because it was the first time we had a program designed just for pharmacy managers.”

—M&E officer, KZN Pharmaceutical Services

This approach to leadership development differs from traditional leadership training programs that introduce leadership theories and behaviors in a course setting. The PLDP improvement process links learning to the implementation of actions that achieve measurable results. Teams not only initiate changes but they also carefully monitor the results of those changes over time.

Leaders and decision makers apply leading, managing, and governing practices to:

- Oversee performance improvement processes and the use of proven interventions to address specific priority areas
- Ensure strong technical leadership of programs for which they are responsible
- Sustain and scale up performance improvements and the PLDP process

Teams apply leading, managing, and governing practices to:

- Carry out proven interventions to achieve measurable results in the priority areas
- Build a productive workgroup climate
- Measurably improve performance in priority areas
- Incorporate ongoing performance improvement processes into their work

Snapshot of Key PLDP Results

As of June 2015, the PLDP or LDP has been implemented in eight of South Africa's nine provinces (all provinces except Mpumalanga). A total of **183 pharmacists, clinical managers, and facility managers** have completed the program. Working in a total of **55 teams**, these health care workers have implemented quality improvement initiatives in **213 health facilities**. More than 50% of these teams achieved the targets set for their respective initiatives. Both the LDP and PLDP continue to be rolled out at different levels of the health care system throughout the country.

Contextual Framework and Learning Methodologies

The primary objective of both the LDP and PLDP is to develop managers who can lead by enabling others to face challenges and achieve results. Participants in the program learn leading and managing practices from the following resources:

- *Managers Who Lead: A Handbook for Improving Health Services*²
- *An eHandbook for Leaders and Managers*³
- *Managing Access to Medicines and Health Technologies, 3rd ed. (MDS-3)*⁴

At the core of the LDP/PLDP is the concept that good leadership is about achieving measurable improvements in health services, thus permitting better health outcomes, as illustrated in figure 1.

When applied consistently, good leading and managing practices strengthen organizational capacity and result in higher-quality services and sustained improvements in health outcomes. According to the model, there are three core components of a strong, well-functioning organization—a good work climate, the capacity to respond to change, and good management processes and systems. Participants learn that these changes do not happen overnight. They learn to enlist the support of others as they work toward the achievement of the desired results.

² Management Sciences for Health (MSH). *Managers who lead: a handbook for improving health services*. 3d ed. Cambridge, MA: Management Sciences for Health; c2005

³ MSH. *Health systems in action: an eHandbook for leaders and managers*. Cambridge, MA: MSH; c2010.

⁴ MSH. *Managing access to medicines and health technologies*. 3d ed. (MDS-3) Cambridge, MA: MSH; c2011.

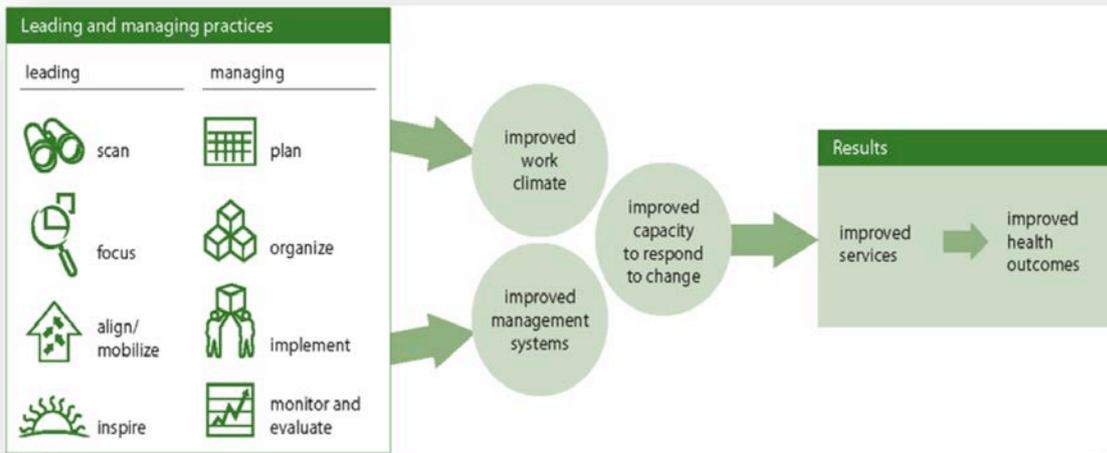


Figure 1. Leading and managing for results model

The Leading and Managing Framework, from the *Managers Who Lead Handbook*, is used to introduce key leadership and management practices during the workshops (figure 2). Each of the practices and organizational outcomes associated with its application is explained and discussed in detail during the workshops. Participants begin to see the value and expected results of integrating these practices into their daily work. These leading and managing practices are informed by the collective experience of MSH and its partners in applying leadership and management concepts and best practices, as well as the work of renowned leadership thinkers and researchers.

Working in teams, participants learn how to overcome identified health care service delivery challenges in their respective facilities and districts. The intended results of the actions taken by program participants are improvements in the work climate, strengthening capacity of facility teams to respond to change, and stronger workplace management systems and processes. As they practice the application of the lessons learned during the workshops, teams create work climates that support staff motivation and a commitment to continuously improve health service delivery. The LDP and PLDP are grounded in three methodologies: experiential learning, the challenge/feedback/support triangle, and the Challenge Model.

Experiential Learning

During the workshops and coaching visits, participants learn through a cycle of doing and then thinking or reflecting on what they have done. Experiential learning allows participants to engage in hands-on activities and apply tools and concepts learned in a practical way. Throughout the process of experiential learning, participants reflect on what they have learned and how it impacts their actions, and how their actions in turn impact outcomes within their work environment. Teams apply the leading and managing practices to real workplace challenges and engage in continuous reflection and improvement within their teams. This cycle of application and reflection moves teams through the experiential learning cycle.



Figure 2. Leading and managing framework

Challenge, Feedback, and Support

The LDP/PLDP process provides challenge, feedback, and support to enable participants to develop their leadership, management, and governance skills. The teams choose the challenge they want to address, and receive feedback from facilitators, coaches, colleagues, senior management, and other stakeholders during the workshops and coaching sessions. Support is offered in a variety of ways, and includes support provided by managers, facilitators, and experts on the program. Teams are provided with technical support and mentoring and coaching during the development and implementation of monitoring and evaluation (M&E)

plans and action plans, as well as the development of tools that may be needed to address the challenge identified.

“We decided our Challenge Model at the quarterly meeting of the district pharmacy managers where we look at the district’s overall performance. The decision on which challenge to choose was made by all managers, not just those who participated in the PLDP program.”

—PLDP participant, KZN Province

The Challenge Model

In the implementation of the LDP and PLDP, the Challenge Model is used by teams to provide structure to address challenges in the workplace. Each team completes their own Challenge Model (figure 3) for the specific challenge identified. The model leads teams through a process of forming a commitment to a shared vision that contributes to realizing a mission, defining and owning a challenge, obtaining a greater understanding of their current situation, prioritizing actions for implementation, and carrying out the work plan to achieve results.

Action Plan

The activities that teams will implement to achieve their measurable results are documented in their action plan. The plan describes each activity in detail, who is responsible for each activity, when each activity will take place, and what resources will be required for completing each activity. The indicators that will be used to track progress toward the measurable result are also listed.

Monitoring and Evaluation Plan

Details about the indicators that will be used to track progress toward the measurable result are contained in the M&E plan. This information includes indicator definitions, baseline and goal/desired measurable result, data sources, and responsibility for data collection.

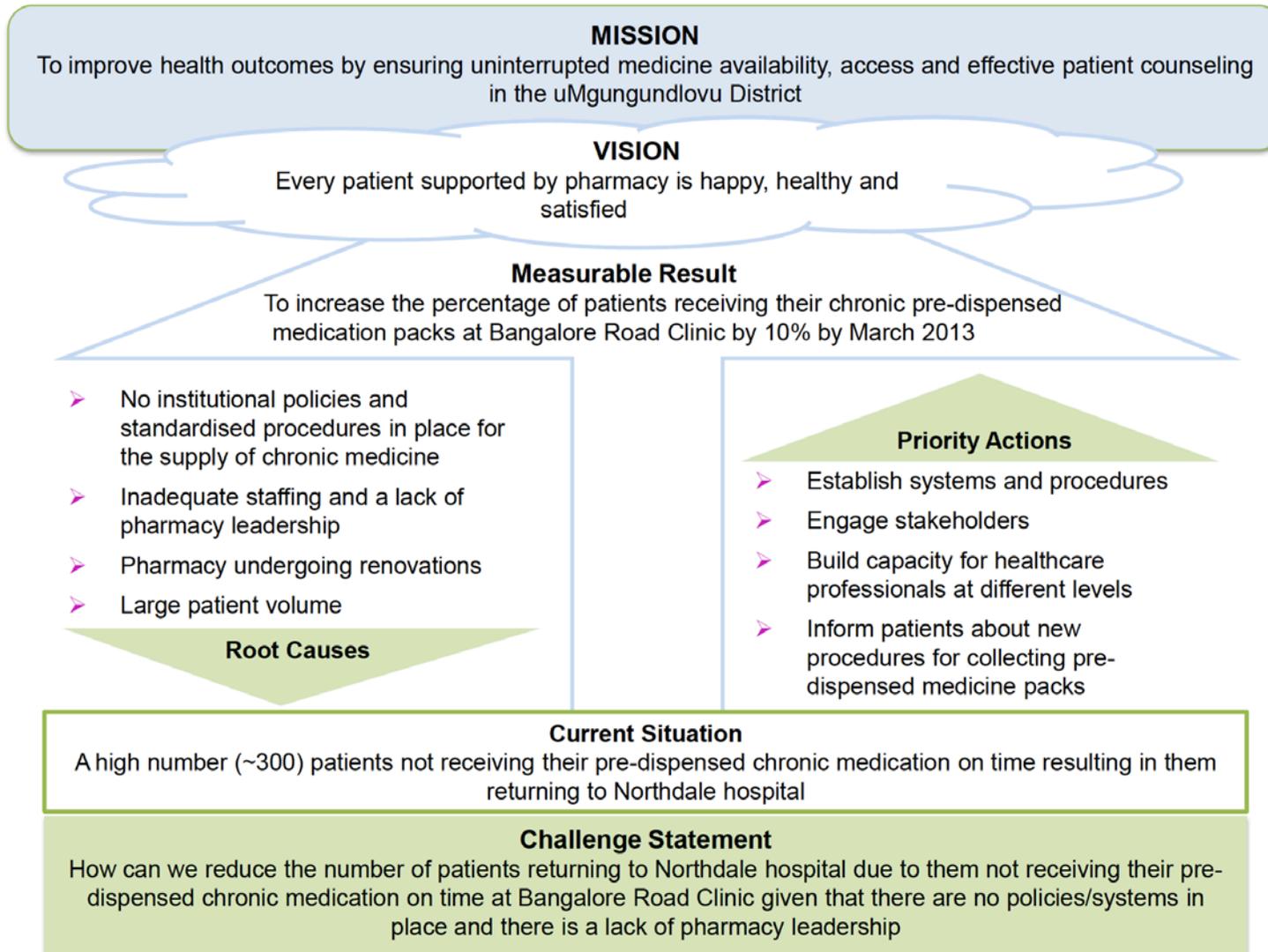


Figure 3. Example of the Challenge Model from KZN PLDP

Program Objectives

The PLDP curriculum is designed to provide participants with the skills and tools necessary to be leaders within the work environment. It aims to equip managers with the skills necessary to lead, manage, and add value to the service they provide within their organization.

Program participants learn how to:

- Lead and manage to enable others to face challenges and achieve results
- Apply reliable and proven tools and processes for defining and addressing challenges
- Produce measurable results that support the organizational mission and shared vision of the work group
- Manage resources, such as finances, budgets, human resources, and pharmaceutical supplies in a public health setting to ensure optimal delivery of an efficient and effective pharmaceutical service
- Analyze and control pharmaceutical expenditure within the workplace
- Apply good governance principles in the context of public health systems and pharmaceutical services
- Consider principles, rules, and codes of conduct when dealing with ethical dilemmas in the workplace
- Understand the legislative and regulatory frameworks, which are the building blocks of pharmaceutical service delivery in South Africa
- Build a work/group climate that supports commitment to continuous quality improvement
- Lead teams to deliver high-quality health services to the communities they serve

Structure of Workshops

Consisting of five separate workshops, the PLDP is implemented over a period of six to seven months, with workshops scheduled every four to five weeks (figure 4), allowing time for participants to apply the principles learned and implement strategies chosen to overcome workplace challenges. (Detailed LDP/PLDP workshop schedules can be found in Annexes A and B.)



Figure 4. PLDP workshop schedule

Between workshops, coaching visits take place, during which facilitators meet with participants to provide mentoring and support in addressing the team’s quality improvement initiatives. Facilitators assist participants in monitoring and evaluating the progress they have made, while reinforcing lessons learned from the workshops. Coaching is also about challenging the members of a team to find creative, novel ways of dealing with challenges, recognizing achievements made by the teams, giving honest, constructive feedback, and encouraging the team to stick to their commitments.

Throughout the process, participants are encouraged to take what they have learned from the PLDP and apply it in the workplace, using these practices to strengthen their own managing and leading skills as well as leading those they work with to face challenges and work toward achieving results.

At the end of the program, participants present on their PLDP experience to senior managers and other key stakeholders within their province, district, and facility, sharing their results and learning, as well discussing ways to build on and scale up successes.

Technical Modules

The PLDP combines sound leadership practices of the LDP with technical pharmaceutical knowledge

The PLDP is based on the principles of the original LDP, and has been adapted specifically for pharmacists, with added modules on the legislation and ethics, governance, financial management in pharmaceutical services, advanced medicine supply management, basic principles of pharmacoeconomics, and human resources management. Table 1 provides a summary of the concepts covered under these sessions.

These modules are facilitated using a series of PowerPoint slides, training notes, and handouts. The facilitation approach is highly participatory and includes group discussions and practical activities. The exchange of experiences and ideas among participants adds depth to the learning process and provides a forum for sharing best practices.

Table 1. PLDP Modules and Objectives

Module	Objectives
Legislative Framework	To provide a broad overview of the legislation governing the provision of health services in South Africa. Topics include: <ul style="list-style-type: none"> • Defining legislation • Classification of law • Overview of the Constitution of the Republic of South Africa • The hierarchy of legislation • Moving from policy to legislation
Governance	To provide knowledge on how poor governance can impact the efficient and effective delivery of pharmaceutical services. Topics include: <ul style="list-style-type: none"> • Defining governance

Module	Objectives
	<ul style="list-style-type: none"> • Exploring the characteristics of good governance • Corruption and conflict of interest • Governance issues which can impact pharmaceutical systems • Potential problems relating to poor governance • Strategies that can be used to improve governance in pharmaceutical systems • Using leadership and management practices to strengthen governance
Financial Management in Pharmaceutical Services	<p>To provide information and tools that will enable participants to plan and budget for pharmaceutical services within their facilities and monitor and mitigate for financial risks. Topics include:</p> <ul style="list-style-type: none"> • Legislation that informs financial management in the public sector in South Africa (the Public Finance Management Act and Treasury Regulations) • Allocation of funds in the health care system • Planning and budgeting process in the public sector • Accounting systems in pharmaceutical services within the public sector • Identifying and managing risks in pharmaceutical services • The auditing process
Advanced Medicine Supply Management	<p>To provide methods and tools to identify medicine use problems, control pharmaceutical expenditure, and plan for future needs. Topics include:</p> <ul style="list-style-type: none"> • An overview of the importance of medicine supply management • The Pharmaceutical Management Framework • Quantification methods and their practical application • Inventory management in the context of the public sector pharmaceutical supply chain • Analyzing and controlling pharmaceutical expenditure including tools that can be used to analyze pharmaceutical expenditure
Pharmacoeconomics	<p>To give participants a basic understanding of the principles of pharmacoeconomics. Topics include:</p> <ul style="list-style-type: none"> • Defining pharmacoeconomics • Understanding health care costs • The four types of pharmacoeconomic analyses: <ul style="list-style-type: none"> ○ Cost minimization analysis (CMA) ○ Cost-effectiveness analysis (CEA) ○ Cost utility analysis (CUA) ○ Cost benefit analysis (CBA)
Managing Human Resources in Pharmaceutical Services	<p>To provide a practical approach to managing various aspects of human resources management within the participants' setting. Topics include:</p> <ul style="list-style-type: none"> • Legislation governing employer/employee relationships • Key components of human resources management and planning • Improving work climate and staff motivation to strengthen performance • Skills required to confront and deal with difficult situations and people • Managing change and conflict in the workplace • Understanding and applying the public sector processes stipulated for grievances, discipline, and dismissal • A practical guide to ethical dilemmas in the workplace

IMPLEMENTATION OF PLDP IN SOUTH AFRICA

South Africa has nine provinces, Eastern Cape, the Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, the Northern Cape, North West, and the Western Cape, each with its own legislature, premier, and executive council. Each province has its own distinctive population, economy, and climate. SIAPS provides support across all nine provinces and has signed memoranda of understanding (MOUs) with many of the provinces which include implementation of the PLDP or LDP. As per the MOUs, SIAPS provides support to government to build capacity for the effective provision and management of pharmaceutical systems and other related health services.

Partnering with the Pharmaceutical Services Unit within the Provinces

Upon a Provincial Pharmaceutical Services Office indicating interest in using the PLDP to build the capacity of the pharmacy personnel in their province, SIAPS meets with key staff members to discuss the objectives, structure, and benefits of the PLDP. After an overview of the PLDP is provided, the responsibilities of the province and SIAPS are discussed and agreed upon. The province is then tasked with identifying possible program participants based on the following selection criteria. Participants must:

- Commit to attending all workshops and coaching visits
- Obtain written permission/approval for attendance of the program from their manager/CEO
- Hold the post of pharmacy manager or above (otherwise, they must obtain a letter of motivation from their pharmacy manager as well as their CEO)

It is also imperative that there be sufficient backup in the workplace to allow for the participant to be away to attend the workshops.

Exclusion criteria include:

- Any person who was previously enrolled in, but did not complete, a leadership and management program
- Anyone who is currently enrolled in a leadership and/or management program with another institution

Prospective participants, who meet the above criteria and have been selected by their provincial office, are required to complete an application form (Annex C). The application is submitted to SIAPS and archived in a central database. The list of prospective participants, as well as attendance at the workshops and coaching visits, must be confirmed and approved by the coordinators at the Provincial Pharmaceutical Service Offices and by facility CEOs. A standard request for participation is sent to the respective CEO (Annex D) and their note of approval is filed.

SIAPS works closely with the province in the identification of suitable participants as well as in the location of suitable venues and organization of logistical arrangements. Provinces

always support the travel of participants to the workshops and provide venues for coaching visits. In some cases, provinces also provide venues for workshops, as well as for the final presentation.

SIAPS collaborates with the Provincial Departments of Health (PDOHs) to customize training sessions based on the provinces’ priorities. With assistance from the province, SIAPS identifies technical experts to co-facilitate various modules of the program, such as human resources management. The Office of Pharmaceutical Services is given the option to propose priority health areas on which PLDP workshops should focus. The priority health areas may be based on:

- The six NDOH priority areas (values and attitudes of staff; cleanliness; waiting times; patient safety and security; infection prevention and control; availability of basic medicines and supplies)
- Results from the National Core Standards (NCS) assessment
- Key indicators tracked within the province

These are suggested as broad areas of interest from which teams participating in the PLDP can focus their interventions.

PLDP Implementation Under SIAPS

Under SIAPS, the PLDP or LDP has been implemented in four provinces: North West, KwaZulu-Natal, Limpopo, and the Western Cape.⁵ Through these programs, 183 pharmacists, facility managers, operational managers, and clinical managers, making up 55 teams, have been able to isolate and examine chosen workplace challenges and work to understand and solve them. (Figure 5 presents some of the common challenges addressed.) The programs have equipped these health care workers with the knowledge and skills needed to approach critical challenges in pharmaceutical service delivery, and we have seen many of the groups continue implementing the tools and methods they learned against new challenges, long after completion of the PLDP.

Improving quality of service provision 12 teams	Improving medicine availability 9 teams	Improving medicine accessibility 7 teams	Ensuring RMU 4 teams
Enhancing organization capacity 1 team	Improving patient safety 1 team	Improving patient compliance 1 team	Improving patient experience 8 teams

Figure 5. Common challenges addressed by PLDP teams

Table 2 provides details for each PLDP held in the provinces, with number of participants, team breakdown, and challenges addressed.

⁵ The LDP, rather than the PLDP, was implemented in two sub-structures in the Western Cape, to accommodate the request of the PDOH to include non-pharmacy managers in the training.

Implementation of PLDP in South Africa

Table 2. Pharmaceutical Leadership Development Program Details

Province	Participants	Teams	Challenge	Priority Area
North West (July 2012)	18 (16 female)	Bojanala District	Improve adverse drug reaction awareness and reporting	Improving patient safety
		Ngaka Modimo Morema District	Improving compliance with NCS relating to provision of pharmaceutical services	Improving quality of service provision
		Dr. Ruth Segomotsi; Mompoti District	Improving uptake of isoniazid preventive therapy (IPT)	Ensuring RMU
		Dr. Kenneth Kaunda District	Increasing the availability of indicator medicines	Improving medicine availability
		Pharmaceutical Services Provincial Office	Improving timely payment of invoices received	Improving quality of service provision
KZN— Group 1 (October 2012)	20 (15 female)	uMzinyathi District	Improving compliance with NCS: availability of medicines and supplies	
		Ugu District	Improving pre-dispensed chronic medicine supply	Improving medicine accessibility
		Sisonke District	Reduction of expired stock through the implementation of medicine supply management practices	Improving medicine availability
		uMgungundlovu District (1)	Efficient use of medication in chronic care	Ensuring RMU
		uMgungundlovu District (2)	Improving the down-referral system for patients on chronic medication	Improving medicine accessibility
Western Cape: Northern Tygerberg Sub-Structure (November 2012)	24 (14 female)	Bishop Lavis Community Health Center (CHC)	Introduction of a new bin/stock card system to improve stock control and availability	Improving medicine availability
		Durbanville CHC	Increasing off-site service delivery of medication	Improving medicine accessibility
		Elsies River CHC	Improving off-site supply of chronic medications	Improving patient experience
		Goodwood CHC	Improving patient compliance with chronic medication appointment dates	Improving patient experience
		Kraaifontein CHC	Reducing Chronic Dispensing Unit (CDU) waiting times	
		Reed Street Community Day Center (CDC)	Increasing patient knowledge on chronic medication	Improving patient compliance
		Ruyterwacht CDC	Reducing waiting times for patients collecting pre-packed chronic medicines	Improving patient experience
		Delft CHC	Minimizing the number of prescriptions rejected by the CDU	Improving quality of service provision
		Parow CHC	Reducing patient waiting times	Improving patient experience
		Ravensmead CDC	Reducing the number of out-of-stock items	Improving medicine availability

South Africa PLDP

Province	Participants	Teams	Challenge	Priority Area
KZN— Group 2 (February 2013)	24 (21 female)	Bellville CDC	Compliance with NCS related to pharmacy	Improving quality of service provision
		Metro District Health Services	Monitoring of expired medicines at facilities	Improving medicine availability
		eThekwini North	Improving the supply of chronic medication	Improving quality of service provision
		eThekwini South	Improving the reporting of pharmaceutical data elements	Ensuring RMU
		iLembe District	Improving prescription compliance with standard treatment guidelines for nonsteroidal anti-inflammatory drugs	Improving medicine accessibility
		Ugu District	Reducing the defaulter rate of patients collecting pre-dispensed chronic medicines	Improving medicine availability
		uThungulu District	Improving tracer medicine availability	Improving quality of service provision
		Umkhanyakude District	Improving compliance with medicine supply management standard operating procedures	
		Zululand District	Improving the quality of reported pharmaceutical data	Reduction of time to prepare main orders
Provincial Pharmaceutical Supply Depot (PPSD)				
Western Cape: Klipfontein Mitchells Plain Sub- Structure (April 2014)	25 (10 female)	Dr. Abdurahman CDC	Reducing the rate of rejection of chronic prescriptions issued by the CDU	Improving medicine accessibility
		Crossroads CDC	Improving the collection rate of pre-packed medication parcels	Improving patient experience
		Gugulethu CHC	Reducing turnaround time for club patients	Enhancing organization capacity
		Hanover Park CHC	Reducing median waiting time	
		Heideveld CDC	Ensuring continuity of care through optimal patient filling systems	Improving patient experience
		Inzame Zabantu CDC	Reducing average patient waiting times	Improving medicine accessibility
		Mitchells Plain CHC (MPCHC) and Mitchells Plain Hospital (MPH)	Strengthening the referral system	Enhancing organization capacity
		Nyanga CHC	Reducing staff absenteeism rate	
MPH Emergency Center	Investigating time taken to administer analgesia for trauma patients	Improving patient experience		
Limpopo (June 2014)	25 (13 female)	Waterberg District	Utilization of RxSolution for stock management	Improving medicine availability
		Vhembe District	Improving efficiencies of the Central Chronic Medicine Dispensing and Distribution Program	Improving quality of service provision

Province	Participants	Teams	Challenge	Priority Area
		Sekhukhune District	Improving compliance with NCS—Pharmacy Sub-Domain 3.1	
		Mopani District	Improving RMU and compliance of prescriptions with legal requirements	Ensuring RMU
		Capricorn District	Improving stock accuracy	Improving medicine availability
		Limpopo Province Pharmaceutical Depot	Reducing time taken to pay supplier invoices and improve compliance with the Public Finance Management Act (PFMA)	Improving quality of service provision

* Project presentations for each province and team can be found in Annex E.

Improving Quality of Service Provision

Making sure that quality medicines and supplies are available requires compliance with policies and procedures. SIAPS South Africa supports facilities and staff in the adoption and expansion of a number of national standards to promote transparency and better service provision.

South Africa’s NCS for health establishments⁶ were introduced by the NDOH in 2011 to assist in setting the benchmark for quality care against which delivery of services could be monitored. The standards are focused at the delivery-of-care level, the health establishment.

Six priority areas have been identified to fast-track the improvement of the quality of care.⁷ Although all priorities are important for delivery of high-quality pharmaceutical services, priority number 6 relates specifically to pharmaceutical services:

1. Improving staff values and attitudes
2. Waiting times
3. Cleanliness
4. Patient safety and security
5. Infection prevention and control
6. Availability of medicines and supplies

⁶ National Department of Health (NDOH). National core standards for health establishments in South Africa. Tshwane: NDOH; c2011. www.doh.gov.za/docs/tenders/NCS%20for%20Health%20FINAL_1.pdf

⁷ Bradley H, Putter S, Johnson Y, von Zeil M. Improving the quality of pharmaceutical services. *S Afr Pharm J.* 2011; 78(4).

“This programme (PLDP) is pivotal in achieving the strategic goal and objectives of Pharmaceutical Services. It will be useful if this programme could be rolled out to more pharmacy managers”

—KZN PLDP workshop participant

The NCS uses questionnaires and checklists to evaluate standards compliance at the health facility level and to monitor progress. The focus areas in pharmaceutical services are availability of medicines (tracer drugs); compliance with legislation; drug supply management; SOPs; and dispensing practices and counseling.

The Public Finance Management Act (PFMA) promotes the objective of good financial management in order to maximize service delivery through the effective and efficient use of the limited resources. The key objectives of the act are:

- Modernize the system of financial management in the public sector
- Enable public sector managers to manage, but at the same time be held more accountable
- Ensure the timely provision of quality information
- Eliminate the waste and corruption in the use of public assets

During the implementation of the PLDP throughout the provinces, a number of teams recognized that their districts were not in compliance with national policies and procedures and chose to address those issues as their quality improvement project. The following are highlights of those teams that focused on improving quality service provision during the PLDP.



Improving Compliance with NCS Relating to the Provision of Pharmaceutical Services: Ngaka Modimo Morema District, North West Province

Ten primary health care (PHC) clinics in the Ngaka Modiri Molema (NMM) District, in the North West Province, recorded an average 44% overall improvement in compliance with the NCS relevant to the provision of pharmaceutical services. This improvement was achieved between September and December 2012, contributing to the overall quality of care that patients receive at these facilities.

Health facility compliance with national quality standards for health establishments is recognized as a critical component for the successful delivery of health services. For this reason, a team of pharmacists working in the district set out to improve compliance with NCS relating to pharmaceutical services at the 10 clinics.



Health facility pharmacy storage before (left) and after (right) intervention. Credit: NMM PLDP team

First, the team conducted an assessment of compliance at the clinics. Data collected were evaluated according to the standard risk classification method used in the NCS: Vital measures are those that ensure the safety of patients and staff to prevent unnecessary harm or death. Essential measures are those fundamental to the provision of safe, decent, quality care. Developmental measures are those to which management should aspire to achieve optimal care.

The team, working with personnel from the PHC facilities, identified gaps in compliance, explored the root causes for these gaps, and developed and implemented quality improvement plans. Key strategies included:

- Training clinic personnel on Good Pharmacy Practice standards, proper storage of medicines, cold chain management, and setting minimum/maximum stock levels
- Introducing an interim service level agreement between hospital pharmacies and clinics for supply of medicine
- Developing and implementing SOPs on medicine supply management

At the follow-up assessment conducted three months later, overall improvement in compliance with the NCS related to the provision of pharmaceutical services was 44%. Vital and essential measures showed an improvement across the 10 facilities from 50% to 68% and 32% to 76%, respectively (figure 6).

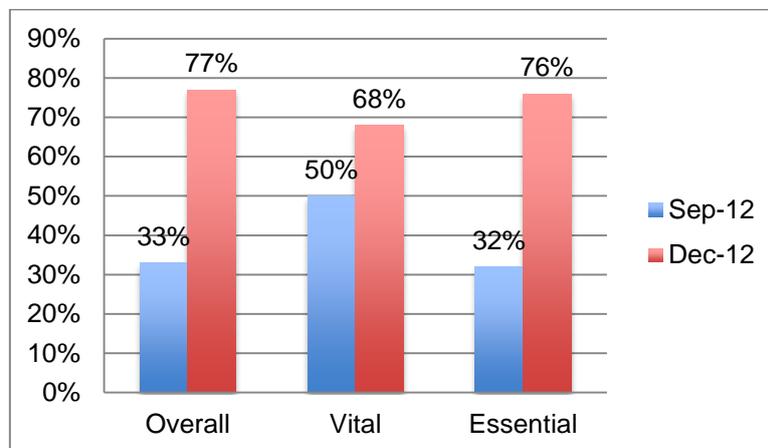


Figure 3. Overall score on vital and essential NCS measures, NMM District, North West Province

In addition to the quantifiable outcomes of improved compliance, the team also saw an improvement in patient counseling, drug supply management, and improved compliance to drug prescribing legislation due to the correct labeling of medicines. The estimated cost of addressing these challenges in the 10 PHCs, including transport, shelving, files, labels, cartridges, bins, and paper, was only 8,085 South Africa rand (ZAR)—approximately 800 US dollars (USD).

The positive impact of this project at the selected clinics provided a starting point for pharmaceutical services within the district. It was encouraged that these interventions be rolled out to all the clinics in the district. All stakeholders need to work toward improving adherence to NCS in line with the primary health care reengineering focus of the NDOH.

Lessons Learned

- * Pharmacist intervention at the clinic level is important to achieve an improvement in NCS compliance
- * Teamwork between stakeholders is necessary for adherence to the NCS
- * Infrastructure challenges have a negative impact on overall compliance with the NCS
- * Unclear delegation of duties leads to a lack of acceptance of responsibility
- * Poor commitment of stakeholders negatively affects job satisfaction, causing reduced performance and decreased compliance

Improving Timely Payment of Invoices Received: Mmabatho Medical Depot, North West Province

The Mmabatho Medical Depot is situated in Mahikeng, and delivers pharmaceutical and surgical products to 27 public sector pharmacies. The pharmacies in turn supply these products to 467 health care providers in the North West Province. In July 2011, the Provincial Department of Health (PDOH) took over the management of the depot from a private company, and as a result, the processes used to pay suppliers changed. During that same period, the financial systems in the province were also updated. These changes had a negative impact on supplier payments, which in turn contributed to shortages of pharmaceutical and surgical products.

The Mmabatho Medical Depot PLDP team recognized that the depot was not in compliance with the PFMA for invoice payments and determined to address this challenge.

The team mapped all financial process in the depot and performed a retrospective analysis of invoices from receipt through payment to the supplier. This analysis determined the number of days it took to process invoices for payment in the different sections within the depot as well as at the provincial office. Invoices received during July 2012 were used as a baseline. It was discovered that only 1% of the invoices received at the depot were being paid within the required 30-day time frame (figure 7).

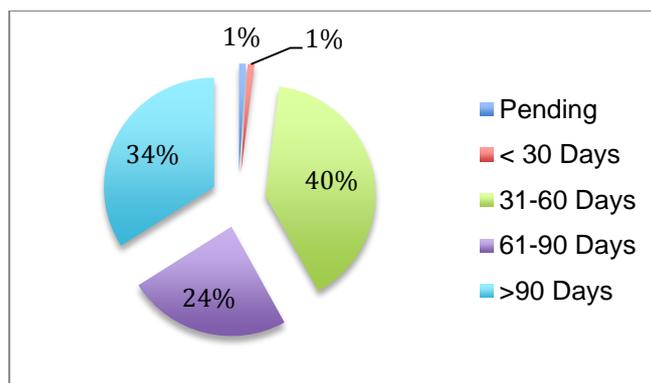


Figure 7. Number of days for Mmabatho Medical Depot, North West Province, to process invoices, (baseline, July 2012)

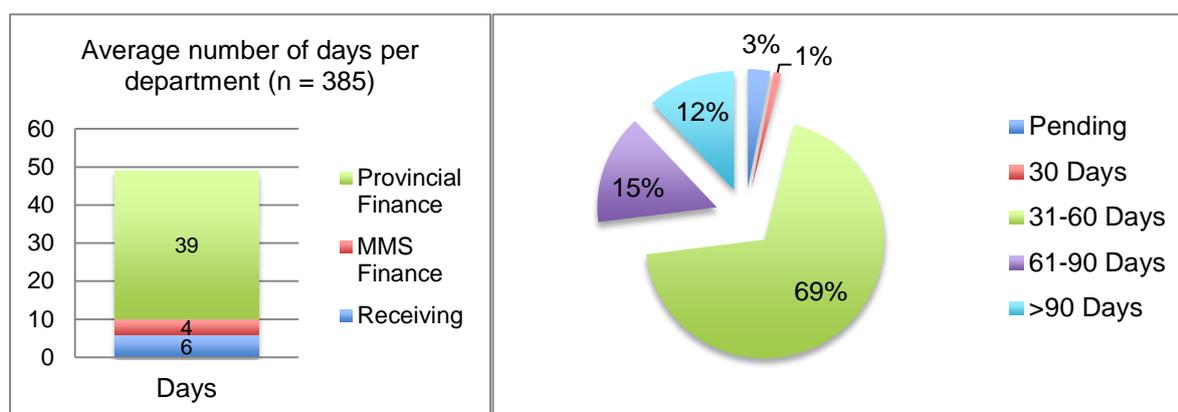


Figure 8. Depot invoicing process, number of days for Mmabatho Medical Depot, North West Province, to process invoices (October 2012)

To address this problem, the team revised the monitoring tools and implemented changes to the administrative processes and procedures, in an effort to improve efficiency. Analysis of invoices received during October 2012 was repeated and compared to the July 2012 baseline (figure 8).

Post-intervention, there was improvement in the time taken to process payments, although the target of 30 days, which is a requirement of the PMFA, was not reached. Although the team was unable to achieve the desired outcome, payment periods were shortened and the project created awareness regarding obstacles leading to delays in supplier payment within the province.

Future Plans

- * Streamline all invoice registers into one electronic register, to have a better flow of information.
- * Decentralize the payment processes pertaining to the budget, internal control, and purchasing, which are currently done at Head Office, to the depot.
- * Conduct pilot study: Change the ordering process so an order is generated on the Walker system before the stock and invoice are received at the depot.
- * Monitor and evaluate the interventions made.
- * Strengthen communication among stakeholders.



Improving Compliance with the NCS Priority Area Related to the Availability of Medicines and Supplies: uMzinyathi District, KwaZulu-Natal Province

The uMzinyathi District in KwaZulu-Natal Province was chosen as one of 10 districts nationwide to pilot South Africa’s National Health Insurance Scheme. This rural district has 42 PHC facilities, which are supported by 14 pharmacists, 9 community service pharmacists, and 9 pharmacist’s assistants (PAs).

As part of the NHI pilot program, the Office of Health Standards Compliance (OHSC) conducted assessments in the district to monitor compliance with the NCS. To ensure that PHC facilities were compliant with the standards, the PLDP team selected two PHC facilities from each of the four sub-districts to be part of their quality improvement project. A baseline survey conducted at each facility in March 2013 showed overall compliance with the NCS ranging between 70% and 79%, with none of the PHC facilities attaining 100% compliance in the priority area “Availability of medicines and supplies.” The pharmacists identified a number of root causes for noncompliance with NCS. Not only was staff morale low, staff at PHC facilities were overloaded with work owing to a lack of pharmacist’s assistants, and there was inadequate space in medicine storerooms. Subsequently, interventions were implemented to address these areas of noncompliance. The interventions consisted of updating each facility’s medicine supply management manual and policies, formalizing stock-taking procedures, implementing supervisory visits by pharmacists, and displaying information posters about side effects in high-traffic patient areas. The team also provided training on the essential medicines list (EML) and standard treatment guidelines (STGs) to 42 nurses working at the selected facilities.

A follow-up assessment conducted a month later, in April 2013, showed an average increase of 13% in compliance with NCS (figure 9). Moving forward, the team proposed rolling out the interventions to additional facilities. The team also suggested recruiting and training more pharmacist’s assistants, and finding transport mechanisms that can specifically support pharmaceutical services.

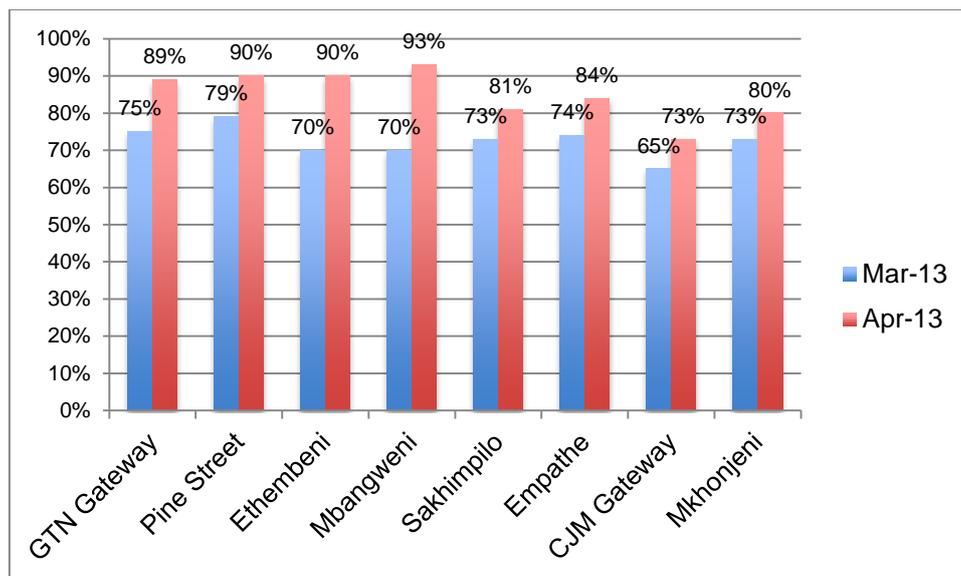


Figure 9. Overall compliance with measures related to availability of medicines and supplies, uMzinyathi District, KZN Province

Future Plans

Roll out quality improvement project to the remaining 34 PHC facilities in the four sub-districts. To ensure sustainable compliance with NCS, it is recommended that:

- Pharmacist's assistants are up-skilled and recruited as PHC PAs
- Dedicated transport be acquired for pharmacy to support medicine supply management at clinics.
- Prioritize the improvement of PHC infrastructure in order to ensure the success of the National Health Insurance primary health care approach

Since the completion of the PLDP in uMzinyathi, the district has endeavored to roll out and sustain the improvements made in NCS compliance. With support from the district, 20 PHC facilities were selected for the expansion of the quality improvement initiative. This number constitutes 38% of the total fixed PHC facilities in uMzinyathi. PHC clinics from the four subdistricts were selected for inclusion if they were serviced by pharmacist's assistants on a full-time basis. In November 2014, a baseline assessment was conducted using a peer evaluation approach, utilizing the latest tools for all quality standards. The results were analyzed to show the percentage compliance with each set of standards. None of the facilities in uMzinyathi had reached 80% compliance with the set standards. These peer assessments for NCS were further confirmed by OHSC audits conducted in November 2014. Follow-up peer assessments in the sub-districts were conducted in January, March, and August 2015. In total, four cycles were conducted. After each assessment, the shortcomings were identified and the pharmacy department utilized the Challenge Model to identify targeted interventions to be implemented. These included:

- Development of a pharmacist supervisory tool for use at PHC clinics
- Conducting monthly pharmacist supervisory visits to clinics
- Implementing a medicine supply management manual at PHC facilities
- Management of medical supplies by pharmacist's assistants
- Holding subdistrict pharmacy governance meetings every second week with PHC PAs
- Training on a new stock management computer system (RxSolution[®])

Although the project did not yield 80% overall compliance, results showed improvement in all 20 PHC clinics (figure 10). Seventy-five percent of facilities reached 80% in the Ideal Clinic tool (pharmaceutical services section), 65% of facilities reached 80% in the NCS tool (availability of medicine and supplies), 70% of facilities reached 80% in the KZN Department of Health Risk Assessment Toolkit (pharmacy management at PHC), and 70% of facilities reached 80% in the SAPC PHC Inspection tool.

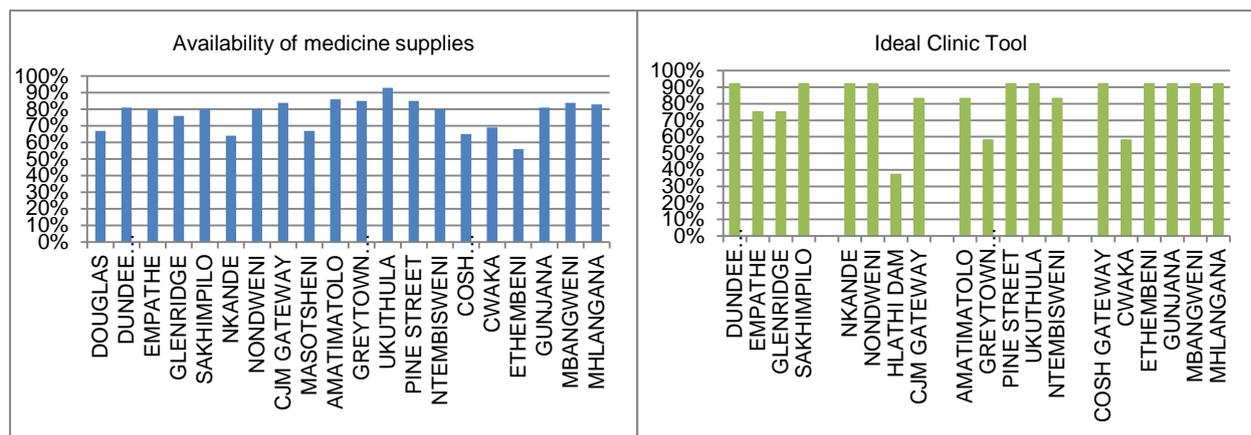


Figure 10. PHC facilities reached 80% compliance with NCS tools (“Availability of medicine supplies” and Ideal Clinic Tool), August 2015, uMzinyathi District, KZN Province

This increase from 0% to 65%–75% of PHC clinics reaching 80% compliance with set standards for pharmaceutical services across the district is impressive. Targeted interventions and the appointment of adequately skilled PAs at PHC clinics has resulted in an improvement in the quality of pharmaceutical services provided at this level of care.

Improving the Reporting of Pharmaceutical Data Elements in 15 Primary Health Care Clinics: eThekweni South Subdistrict, KwaZulu-Natal Province

eThekweni Health District is divided into the North, West, and the South service areas. The District services a population of approximately 3,492,345. The South service area has 12 hospitals: one central, five regional, one district, one TB, one psychiatric, two specialized hospitals, and one hospital complex.

Prince Mshiyeni Memorial Hospital (PMMH) is a regional hospital providing a comprehensive health care service to a population of approximately 1.9 million. It is a “mother” hospital to 15 primary PHC clinics. The annual review of the District Health Information System (DHIS) highlighted poor reporting by PHC facilities on data elements as related to “medicine stock outs” and “expired medicine.” Information from the DHIS forms the basis for planning and decision making at the district, provincial, and national levels. The PLDP team from eThekweni South Subdistrict embarked on an initiative to improve reporting of these data elements at the 15 PHC clinics supervised by PMMH.

A baseline assessment was conducted in August 2013. Based on findings, interventions were introduced to improve the level of reporting. These included strengthening the system for monitoring and reporting of data; strengthening the data validation process; training of PHC and pharmacy personnel on data elements, their collection, and interpretation of information generated. As shown in figure 11, following these interventions reporting on medicine stock-outs (TB, tracer, and ART medicines) improved from 67% to 100% from August to December 2013. Reporting on expired medicines also improved from 33% to 100% during this period. In addition, the reporting on ART and TB medicines improved from 53% to 100% and 27% to 100%, respectively.

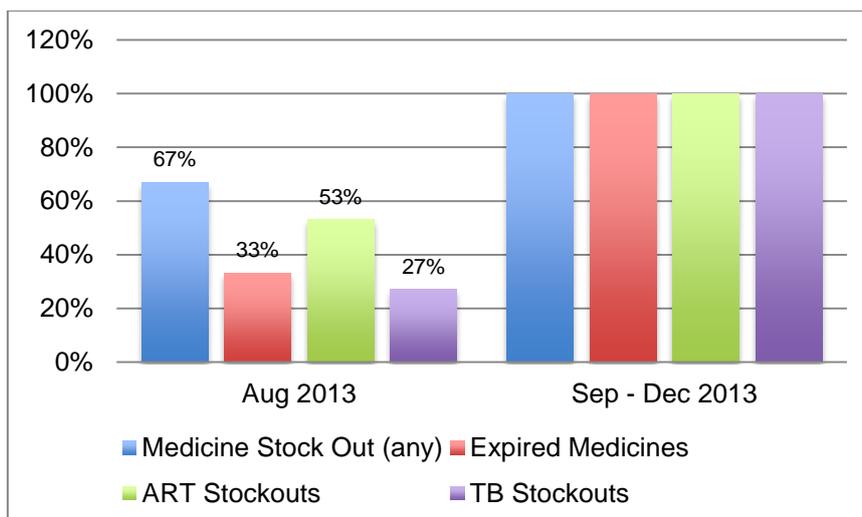


Figure 11. PHC facilities reporting on stock-outs and expired medicines (n = 15), eThekweni South Subdistrict, KZN Province

Future Plans

- * Implement monthly validation of pharmacy data elements by the pharmacy manager, pharmacists, and pharmacist's assistants
- * Expand the validation checklist to include all tracer medicines
- * Add PHC data monitoring to pharmacists' and PAs' job descriptions
- * Roll out this quality improvement project provincially as a benchmark, with the approval of the Provincial Office



Establishing an Optimally Functioning Pharmaceutical and Therapeutics Committee: eThekweni South Service Area, KwaZulu-Natal Province

Based on the success of the PLDP in eThekweni South service area, the team implemented another quality improvement initiative.

All provinces and districts are required to establish pharmaceutical and therapeutics committees (PTCs). PTCs are governance structures that promote cost-effective, RMU with the overarching aim of optimizing health care outcomes. In the absence of effective PTCs, inappropriate disease management may lead to high mortality and morbidity as a result of complications. In August 2014, a team of pharmacists and clinicians from the eThekweni South service area embarked on an initiative to establish the eThekweni South PTC.

Using the PLDP tools and approach, the team scanned their environment and identified the establishment of a district PTC as a key enabler for organizing and focusing the use of limited resources for medicine to improve health outcomes. Following the mobilizing and alignment of key stakeholders, including senior management, the eThekweni District PTC (EDPTC) was formed and PTC members were trained on the terms of reference. An operational plan and

communication protocol to streamline communication on out-of-stock medicines were developed, implemented, and monitored using a cooperative approach.

Pharmaceutical expenditure was analyzed using a district ABC analysis. An ABC analysis is a technique used to analyze consumption patterns and the value of total consumption of items. Inventory items are classified into three categories (A, B, and C) based on the value of their usage. Through this exercise, multivitamins were identified as a possible medicine use problem area in the district. A prescription audit for multivitamins was then undertaken across the seven hospitals, where this category was identified as a high cost driver (figure 12).

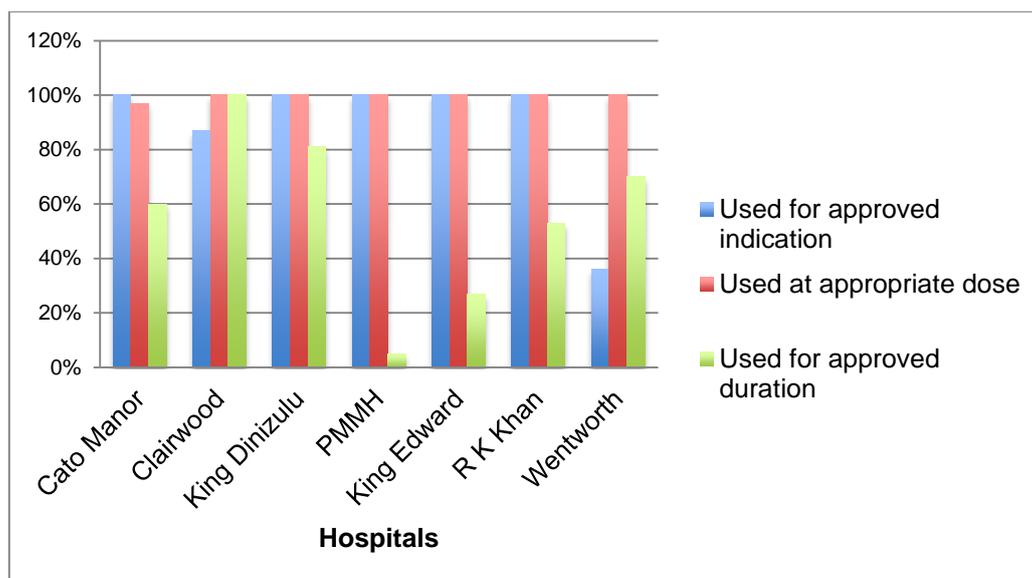


Figure 12. Multivitamin audit results: first quarter, 2015, eThekweni South Subdistrict, KZN Province

Results indicated that although multivitamin prescribing patterns adhered to STGs for approved indication and dosage, there were remarkable deviations in duration of use. Policy recommends multivitamins be used for six months; this was exceeded in many of the hospitals, resulting in high expenditure. Consequently, a PTC-driven educational intervention strategy for all prescribers was rolled out to health facilities.

Through participatory work on the establishment of the EDPTC, an additional cadre of leaders is now committed to bringing about sustainable organizational change by addressing workplace-based problems, using leadership practices and tools. Furthermore, a positive work climate has been created, with the overarching vision and mission of improved pharmaceutical health service and health care outcomes. It is envisaged that the establishment of the PTC will improve access to quality medicines and pharmaceutical care in the district.

Minimizing the Number of Prescriptions Rejected by the CDU: Delft Community Health Center, Northern Tygerberg Substructure, Western Cape Province

Delft CHC provides comprehensive primary health care services, including level 1 trauma care, family planning, HIV, mental health, dental, and pharmacy service. It hosts a total staff complement of 160, including four pharmacists and six pharmacist’s assistants.

The Delft CHC team recognized that a high number of prescriptions for patients was being rejected by the CDU. This situation interfered with the efficient running of the CDU system within the facility, prolonged patient waiting times, and resulted in dissatisfaction with services rendered at the facility.

Reasons for the rejections were investigated and analyzed, with the types of rejections found mainly to be:

- Deviation from code list and referral policy
- Illegible or missing prescriber details
- Illegible or missing patient details
- Dosage/direction/item error

To address these findings, the team provided in-service training for all prescribers and involved pharmacy staff in the discussion of problems. Over the course of five months, the rejection rates varied from 3% to 8% of all prescriptions received at the CDU. Although the desired result of less than 1% rejections was not achieved at the time of reporting, improvements had been made in addressing and preventing the major type of rejections. Additional improvements will be pursued by continuing to educate prescribers and encouraging checking of prescriptions on a daily basis.



Reducing the Time Taken to Process an Order at the PPSD: KwaZulu-Natal Province

The PPSD supplies pharmaceuticals to approximately 550 health facilities in KwaZulu-Natal Province. Since 2010, several assessments have been conducted to better understand gaps in service delivery. Some of the operational challenges identified were:

- Ordering and delivery schedule not adhered to (delivery reported being as 15 days behind)
- No clear system to monitor and calculate backlog
- Lack of consultation in decision making on various issues including the allocation of facilities to routes
- Manually driven systems, which are ineffective in providing timely information for management decisions
- Great variation in lead time from date of order to receipt

The depot PLDP team chose to focus their quality improvement initiative on reducing the time taken to process a main order at the facility. A retrospective analysis of operational data was conducted to determine the time taken at various stages to process an order at PPSD. Data for two complete order cycles, from May 27 to July 17, 2013, were analyzed, and the average time taken to prepare an order was found to be 27 days.

The team conducted a scoping exercise, which clearly defined the process for preparing an order. They then developed and piloted a Microsoft Access–based tool for tracking an order at each stage in the depot. This tool was used to monitor the time taken to process 548 orders for the period October–November 2013. Use of the new tracking tool, and strengthening the planning and organization of the staff workload, resulted in a reduction of the average number of days to complete an order to 13 days (figure 13).

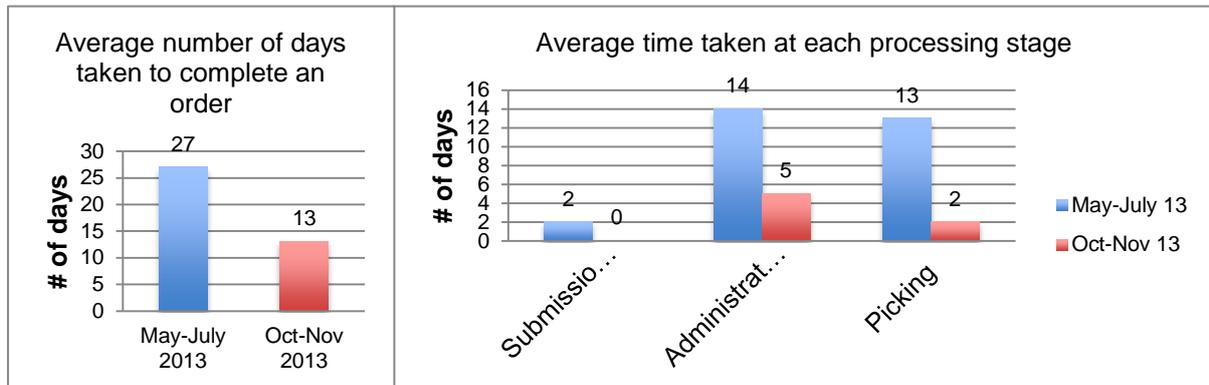


Figure 13. Time taken to process an order at the PPSD, KZN Province

The reduction in time was evident at each of the stages involved in completing an order. Administration and picking were the two slowest stages in the process at 14 and 13 days, respectively, in the June/July cycle; these were reduced to 5 and 2 days, respectively, in the October/November cycle.

Future Plans

- * Implement the order tracking tool
- * Continue monitoring depot performance with the performance indicators developed
- * Develop a comprehensive distribution plan and service-level agreement
- * Realign human resources structures with legislative prescripts

Improving Medicine Availability

Availability of medicines is critical to the provision of PHC services and highly dependent on compliance with SOPs for medicine supply management (MSM). To ensure product availability, SIAPS helps partners and national-level staff members build their capacity through staff education and training in providing medicine information and counseling, monitoring medicine use to assure patient safety and achieve desired health outcomes, formulating policies and regulations to improve pharmaceutical care, and disseminating information and educational materials to promote public health.

The following sections highlight teams that focused on improving medicine availability in their districts during the PLDP.

Increasing the Availability of Indicator Medicines: Dr Kenneth Kaunda District, North West Province

Dr Kenneth Kaunda District (DKK) is one of the pilot districts for Integrated Chronic Disease Management (ICDM) and the National Health Insurance scheme. The ultimate goal of both initiatives is to ensure quality health services are accessible to all surrounding communities. Uninterrupted availability of medicine is critical for the success of these initiatives. Medicine availability is also one of the six ministerial priorities routinely tracked by the district. The DKK PLDP team took on the quality improvement initiative of increasing the availability of indicator medicines in five pharmacies and nine PHCs in DKK by 5%.

The team knew that medicine supply management systems and data collection methods were not functioning optimally at either the supplier or facility levels. A baseline assessment in August 2012 showed the availability of indicator medicines at 89% in pharmacies and 72% at PHC facilities. To address this challenge, and strengthen MSM and monitoring and evaluation, the team provided in-service training for health care workers, increased the frequency of clinic support visits, and improved communication with stakeholders, which included routine pharmacy management meetings. Additionally, MSM was strengthened by:

- Revising minimum and maximum stock levels at all 14 facilities involved in the project
- Allocating pharmacist's assistants to PHC facilities to monitor and evaluate stock
- Ensuring timely submission of accurate data

Three months after the initiation of the quality improvement initiative, the availability of indicator medicines at these facilities was increased by an aggregate value of 6% (figure 14). This was accomplished despite the decreased availability of supplies from the Mmabatho Medical Stores. The pharmacies were able to increase the percentage availability of indicator medicines at PHC facilities through the strengthening of medicine supply management systems and increasing the frequency of clinic support visits.

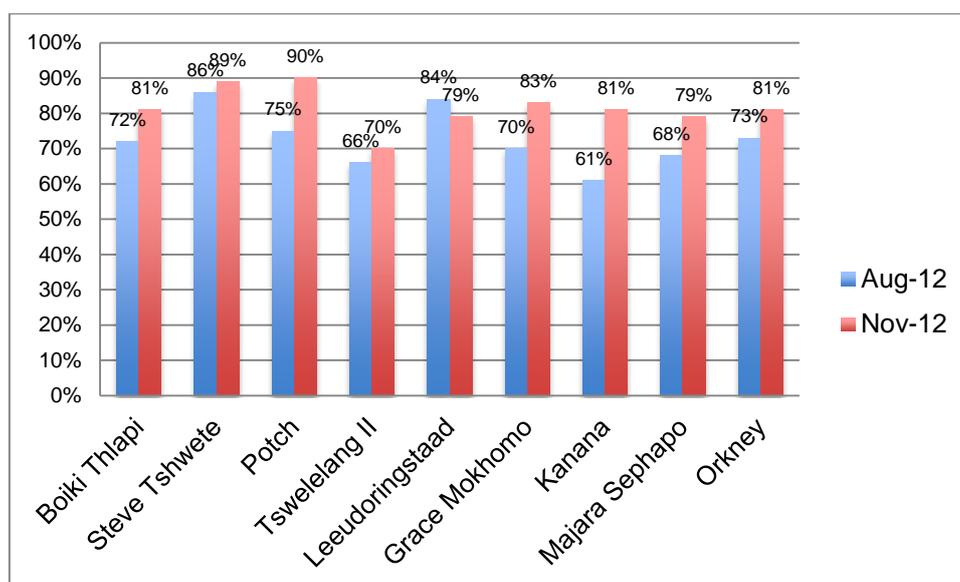


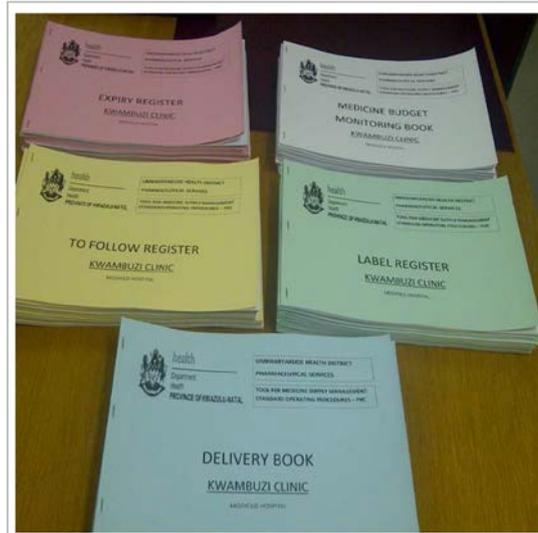
Figure 14. Medicine availability at PHC facilities, Dr Kenneth Kaunda District, North West Province

Based on this achievement, the team forged a dynamic alignment strategy with the medical depot and committed themselves to on-time submission of correct orders to the depot.

Future Plans

- * Rollout to all PHC facilities and patient care units in DKK District
- * Human resources capacity building for pharmacist's assistants (post-basic), to enable their employment at PHC facilities to implement sustain efficient and effective MSM systems
- * Human resources capacity building for nursing staff at PHC facilities and patient care units, to improve their accountability for efficient and effective MSM systems

Improving Compliance with Medicine Supply Management SOPs at Primary Health Care Facilities: uMkhanyakude District, KwaZulu-Natal Province



Medicine supply management tools used in uMkhanyakude District

uMkhanyakude Health District, a rural district in northern KZN Province, has 67 health facilities: five hospitals, six mobile bases (17 teams), and 56 fixed clinics, serving approximately 670,000 people. PHC clinics are the first point of contact with health services for the majority of the population. Routine monthly audits indicated poor medicine supply management at PHC facilities, contributing to stock-outs, expired stock, and overstocking.

The uMkhanyakude PLDP team recognized the need for a PHC quality improvement project for MSM. The team conducted a baseline audit in August 2013, and determined that levels of compliance with seven SOPs for MSM in 10 PHC facilities were low. To improve compliance, the team implemented the following key priority interventions: development of standardized MSM recording tools (e.g., order forms, expiry registers, external and internal requisition numbers); allocation of dedicated medicine store personnel at PHC facilities; provision of theoretical and practical in-service training on PHC MSM SOPs; and increasing hospital pharmacies' support for PHC facilities.

A follow-up assessment conducted five months later found a notable improvement in compliance with individual SOPs at nine PHC facilities (figure 15). Four of nine facilities achieved 80% compliance with six SOPs. The team planned to continue rolling out the project and ensuring updating of the PHC MSM tools on an ongoing basis.

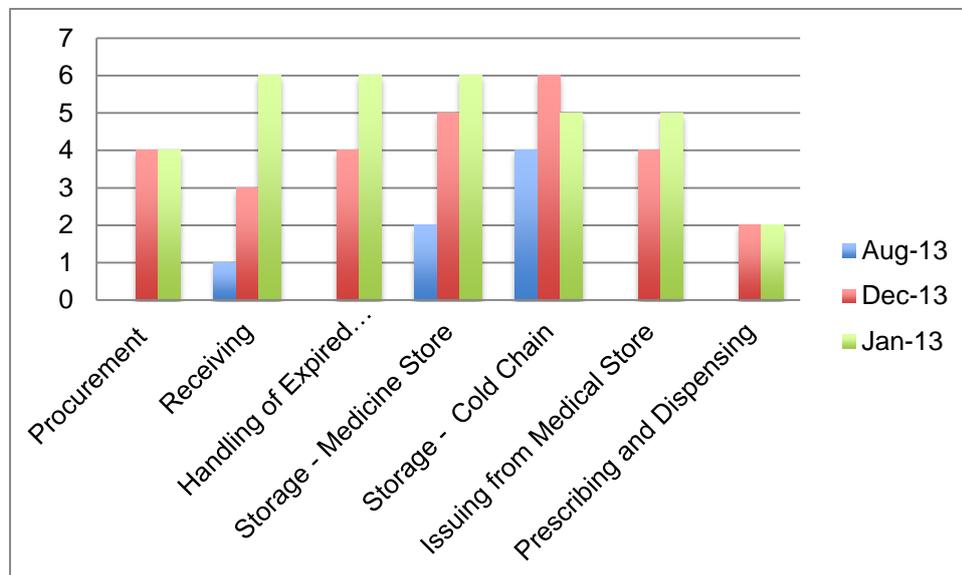


Figure 15. Facilities achieving 80% overall compliance with MSM SOPs (n = 9), uMkhanyakude District, KZN Province

Future Plans

- * Rollout to all PHC facilities in uMkhanyakude District with biannual training
- * Review of the PHC MSM audit tool by the province for possible adoption and rollout
- * Continual updating of the PHC MSM recording tools

Utilization of RxSolution for Stock Management: Mokopane and Warmbath Hospital Pharmacies, Waterberg District, Limpopo Province

Waterberg District is located in the western part of Limpopo Province and includes eight hospitals, 33 mobile clinics, and 53 clinics. Poverty levels are high, and the district has the highest prevalence of HIV and AIDS in the province.

Pharmaceutical Services in Waterberg District identified the need to change the pharmaceutical management information system (PMIS) from the existing pharmaceutical distribution system (PDSX) to RxSolution in Mokopane and Warmbath Hospital pharmacies. RxSolution is a computerized pharmaceutical management system. The system focuses on the management of medicine logistics, inventory, finance, and dispensing and is used to improve access and availability of medicines.

The acting senior manager at the Limpopo Province Pharmaceutical Depot (LPPD) and SIAPS engaged management of the two hospitals regarding the implementation of a new

PMIS. Stakeholder meetings were held to assess the need and readiness of the facilities to implement RxSolution, and in-service training on RxSolution was conducted. Hospital staff were trained on the system and the system was installed. Data for orders, receipts, and requisitions generated from RxSolution were collected and analyzed after three and six months, respectively, to assess the utilization of the system. Results showed greater use of the system, with the number of orders, receipts, and requisitions generated increasing by 31%, 65%, and 14% respectively, between October 2014 and January 2015.

Future Plans

- * Continued use of the RxSolution stock management module at the two hospital pharmacies. The next planned modules for implementation are those on RxSolution dispensing module and down referral.
- * Expansion of RxSolution into other districts in the province.

Improving Medicine Accessibility

In South Africa, health care access is constitutionally protected, yet patients face considerable barriers: great distance, high travel costs, high out-of-pocket payments, long lines and waiting times, and general disempowerment.

SIAPS South Africa recognizes that quality service provision does not stop with medicines availability, and therefore works to strengthen health systems to improve access as well to pharmaceutical services, which help to ensure that medicines are used rationally and responsibly.

The following sections highlight teams that focused on improving medicine accessibility in their districts during the PLDP.



Improving the Supply of Predisposed Chronic Medicine: GJ Crookes Hospital and Umzinto PHC Clinic, Ugu District, KwaZulu-Natal Province

The principle of *Vuka Uzenzele*—“Wake up and do it for yourself”—inspired a team of pharmacists in KwaZulu-Natal Province to implement initiatives leading to a 16% reduction in the number of packs of chronic medicine left uncollected by patients at Umzinto PHC clinic in the Ugu North District. This improvement was achieved by the introduction of new systems and processes for managing medicine packs prepared at GJ Crookes Hospital (GJCH) and sent to the nearby Umzinto Clinic for collection by patients.



GJ Crookes pharmacy staff together with the Umzinto PHC staff
Photo credit: Ugu District PLDP team

GJ Crookes Hospital is located in the Umdoni Municipality of the Ugu North District. The hospital supports 10 PHC clinics, of which Umzinto PHC is the largest. Umzinto sees approximately 10,000 patients and issues an average of 1,200 chronic prescriptions per month. One of the clinic's major challenges was the lack of systems for managing chronic, predispensed medicines packs from the pharmacy, with the result that patients did not receive their chronic medicine packs on time, contributing to poor compliance. In some instances, patients resorted to again collecting their medicine packs from the hospital. This meant further transport costs incurred by the patient, as well as an increase in the hospital's workload.

Pharmacists from GJCH developed a quality improvement project with the aim of improving access and availability, and reducing patient waiting times for chronic medicines issued from the clinic. The team implemented three important changes:

- **Optimizing the use of space in the consulting room:** The furniture in the consulting room was rearranged to allow for the use of steel cabinets to store patient-ready packs within easy reach. Old and nonfunctional equipment previously stored in the room was removed to allow more space for the nurses to work.
- **Arranging chronic medicine packs in alphabetical order:** A pharmacist's assistant from the hospital visits the clinic on a weekly basis to organize the individual packs in alphabetical order in the newly reorganized steel cabinets. This made it easier for the nurse to retrieve and issue the right pack for each patient who presents at the clinic.
- **Using patient appointment cards:** Patients receive a card with the date on which to return to collect their medicine pack.

At a follow-up assessment in March 2013, results showed an 18% reduction in uncollected medicine packs (figure 16), as well as a reduction of the retrieval time to 21 seconds.

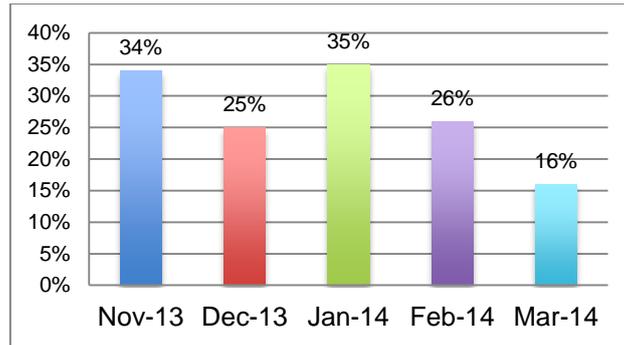


Figure 16. Uncollected medicine packs at Umzinto clinic, Ugu District, KZN Province



Reduction in dispensing time at Umzinto clinic
Photo Credit: Ugu District PLDP team

A staff survey showed that over 97% of those interviewed felt that the interventions had a positive influence, and 55% of the patients surveyed felt that the interventions were useful and decreased their waiting times.

Future Plans

- * Organize a satellite unit for chronic patients at Ghandi Nagar in Umzinto once a week to alleviate the growing number of patients.
- * Recruit additional comprehensive care management and treatment PAs, who will focus on supporting PHCs.
- * Continue M&E using qualified pharmacist's assistants to support clinics in medicine management and distribution of chronic packs.

Reducing the Defaulter Rate of Patients Collecting Predispensed Chronic Medicines: Ugu District, KwaZulu-Natal Province

Ugu District lies on the lower south coast of KwaZulu-Natal Province. It provides a comprehensive health care service to an estimated population of over 760,000. Ugu District offers the complete package of health services, with one regional hospital, three district hospitals, two community health centers, one specialized hospital, and 52 PHC facilities.

District health services in Ugu experienced a challenge with patients defaulting in the collection of their predisposed chronic medicines at PHC facilities. A detailed situational analysis conducted by the group found that 28% of patients were not collecting their predisposed medicines. The reasons for non-collection were both patient-related and system-related. Patient-related reasons ranged from people being at work and finding the PHC working hours inconvenient for them, to lack of a caregiver to collect medicine for the patient. System-related reasons included duplication of appointment dates, cumbersome and slow systems, and nonavailability of medicines.

Clearly defined processes and procedures for the management of predisposed chronic medicines were required in the district. The PLDP team focused on three key areas for intervention:

- Development and implementation of SOPs for both clinics and hospitals to streamline the process. SOPs developed included:
 - The management of predisposed medicines supplied from hospitals/CHCs to PHC facilities.
 - The issuing of predisposed chronic medicines at PHC facilities.
 - The management of defaulters at PHC facilities.
- Development of patient education aids to improve patient knowledge about the process.
- Implementation of a computerized dispensing system to improve process flow within the pharmacies.



Appointment Cards and Adherence Pamphlet Created by Ugu Health District
Photo Credit: Ugu District PLDP Team

With these interventions the defaulter rate was reduced from 28% to 23% and improvements were made in processes and procedures for supply of predisposed chronic medication from Hospital/CHC to PHC facilities.

Future Plans

- * Redistribution and regular training on SOPs for pharmacy and PHC staff
- * Distribution of adherence aids and patient appointment cards to chronic patients at PHC facilities
- * Quarterly meetings with stakeholders to discuss progress
- * Creation of network points at dispensaries for installation of a computerized dispensing system for PHC facilities
- * Creation of PA (post-basic) posts for PHC facilities
- * Decongestion at PHC facilities by identification of alternate sites for collection of chronic medication
- * MSM training at PHC facilities
- * Development of SOPs for an Integrated Chronic Disease Management model

Strengthening the Referral System between Mitchells Plain CHC and Mitchells Plain Hospital: Klipfontein Mitchells Plain Substructure, Western Cape Province

Triage is the 'process of sorting patients into different priorities based upon their degree of illness or injury' so that appropriate action can be taken timeously.

Colour-Code	Indication for Colour-Code	Maximum Waiting Time
Red	Resuscitation cases	Immediate
Orange	Potentially life or limb threatening pathology	Within 10 minutes
Yellow	Significant pathology	Within 60 minute
Green	Minor injuries or illnesses	Within 240 minutes
Blue	Deceased	

The Mitchells Plain Hospital (MPH) services a population of approximately 800,000. The casualty department was opened in October 2013, allowing for patients from Mitchells Plain CHC (MPCHC) to be referred to this facility as needed. New referral pathways and guidelines from the CHC were established. This came with a few challenges for both institutions. Casualty personnel at MPCHC perceived a high rate of inappropriate and missed referrals, with inappropriate referrals categorized and defined as under-referrals (those that should have been referred to a higher level of care); over-referrals (those that should have been treated at the CHC); and incomplete referrals (procedure or treatment not completed at the CHC). The inappropriate referrals resulted in delays in appropriate treatment of patients, wastage of resources such as transportation, time wasted in reassessing patients, and inappropriate use of staff time and medicine.

A baseline assessment (July 2014), found 5% of referrals to be under-referrals, 11% over-referrals, and 7% incomplete referrals. A need was identified for clinicians at the CHC to refer appropriately and not miss referral indications, as well for the establishment of a strong communication platform between MPH and MPCHC. The PLDP took steps to strengthen communication between clinicians at MPH and at the CHC, train CHC casualty staff on the referral guidelines, and educate patients on referral pathways in order to minimize demands.

A follow-up assessment (November 2014), found that 3% of referrals were under-referrals, 7% over-referrals, and 2% incomplete referrals. Missed referrals were also reduced over the same period from 7% to 6%.

In addition, the PLDP quality improvement project had a positive impact on the working environment at the two facilities. At the MPCHC, casualty staff appreciated that their challenges were being recognized and addressed, while also being aware that their referrals were being monitored, making them more likely to comply with the guidelines. MPH reported a better working relationship with the CHC, and the significant reduction in inappropriate referrals have allowed for better services for the patients in need.

Future Plans

- * Maintain the communication platform between the two facilities through meetings, outreach, and doctor rotations
- * Continue weekly debriefing sessions
- * Develop guidelines for clinicians, for inclusion in the orientation packet.
- * Educate clients on referral pathways

Ensuring RMU

Rational medicine use occurs when “patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community.”

—World Health Organization

Health care providers and patients alike contribute to irrational medicine use. Providers may prescribe too many, too few, or inappropriate medicines; or may prescribe the appropriate medicines in the wrong dose, formulation, or duration. Patients contribute through self-medication, pill sharing, or not completing a treatment regimen as prescribed.

At a systems level, the policy and regulatory environment in which a provider prescribes and a patient uses medicines heavily impacts rational use. Regularly updated standard treatment guidelines, sufficient capacity and systems to monitor and regulate how medicines are used, and appropriately educated health care workers are all important for ensuring RMU.

SIAPS aims to strengthen pharmaceutical services that make medicines information available and easy-to-understand, provide effective pharmaceutical care and counseling, and help to monitor the use of medicines and patient adherence. Additionally, SIAPS develops and updates STGs, and implements advocacy and education campaigns to improve public awareness of the importance of RMU.

The following sections highlight teams that focused on improving RMU in their districts during the PLDP.

Improving Prescription Compliance with Standard Treatment Guidelines for Nonsteroidal Anti-inflammatory Drugs: Ilembe District, KwaZulu-Natal Province

In Ilembe District, public health services are provided through one regional hospital, three district hospitals, two community health centers, and 31 PHC clinics. NSAIDs consume a significant part of the medicines budget in the district and in 2012–2013 there were several NSAID stock-outs. In light of the potential implication on overall expenditure for the district, and the levels of potential inappropriate use for NSAIDs across a spectrum of medical conditions (acute and chronic), a team of pharmacists set out to determine the level of compliance with STGs for NSAIDs at different levels of care.

In an effort to address this challenge, the team prospectively audited 400 prescriptions to determine prescriber compliance with the relevant STGs for NSAIDs at Stanger Hospital, Montebello Hospital, and Sundumbili CHC. Knowledge of the STGs/EML among doctors and pharmacists was assessed using a standard questionnaire. The assessment found only 57%, 60%, and 37% prescription compliance with STGs/EML on NSAIDs at Stanger Hospital, Montebello Hospital, and Sundumbili CHC, respectively. To address this issue, the team implemented the following interventions: training of doctors and pharmacists on the National Drug Policy (1996); training on appropriate prescribing of NSAIDs as per the STG/EML; and the inclusion of STGs/EML as a standing item on the agenda of PTC meetings.

A post-intervention audit of 400 randomly selected prescriptions conducted two months after the training at the three identified facilities found that prescriber compliance with STGs for NSAIDs improved by 39% at Stanger Hospital, 8% at Montebello Hospital, and 30% at Sundumbili CHC (figure 17).

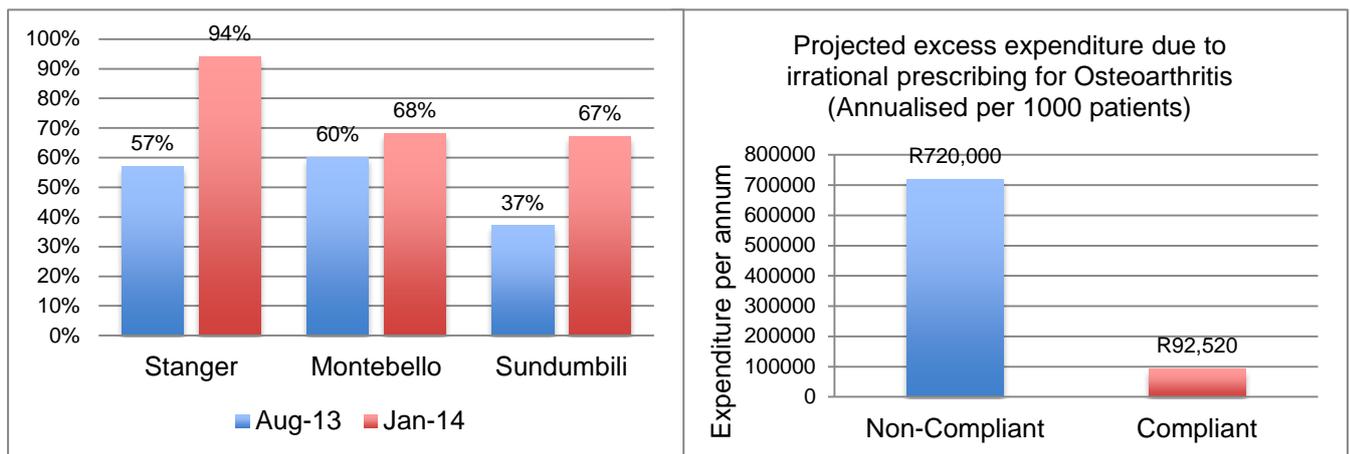


Figure 17. Prescription compliance with STGs/EML for NSAIDs at three hospitals in Ilembe District, KZN Province

In addition, the team calculated the projected excess expenditure on NSAIDs for osteoarthritis. Most patients were prescribed indomethacin suppositories (1 per night, at a cost of ZAR 60 per month) instead of ibuprofen (400 mg 3x daily, at a cost of ZAR 7.7 per

month), which is the standard recommended treatment. Following the STGs would result in an estimated savings of ZAR 630,000 per year. Since the completion of the intervention, an increasing number of doctors have requested copies of the STGs/EML.

Future Plans

- * Continue to ensure that PTCs include STGs/EML as a standing agenda item
- * Monitor prescriptions on a daily basis for compliance with STGs across different disease conditions and present this information to management at clinical fora
- * Address deviations and noncompliance with relevant prescribers and medical managers
- * Provide feedback to prescribers and pharmacists
- * Provide ongoing training to new doctors and pharmacists as part of the orientation program
- * Conduct similar projects at two additional hospitals and one CHC in Ilembe

Improving Patient Experience

Understanding and improving how patients experience their care is a key component of successfully delivering high-quality services that are based on their needs. One of the most reported issues that patients face when going for care is long waiting times which are linked to poor medication compliance, skipped appointments, delayed implementation of clinical programs, and low health care worker morale.⁸

The following sections highlight teams that focused on improving the patient experience in their districts during the PLDP.

Improving Patient Compliance with Chronic Medication Appointment Dates: Goodwood Community Health Center, Northern Tygerberg Substructure, Western Cape Province

Goodwood CHC is an eight-hour community day center serving approximately 6,000 patients per month. Goodwood's 21 staff members provide the following services: pharmaceutical, chronic and acute, psychiatry, women's health, nutrition, school health, and dental. The CDU caters for 2,500–3,000 patients per month.

The Goodwood LDP team recognized that not all patients were collecting their patient medicine parcels (PMPs) on their designated date/time, which was putting pressure on the work flow of the pharmacy and resulting in patient noncompliance with their medicine regimens. The team therefore devised a system to encourage patients to collect their PMPs on their specified date: a new appointment system was implemented using time slots by surname and new appointment cards. The progress of patients collecting their PMPs on the specified day was monitored and recorded. A patient information leaflet was designed and distributed in order to explain the new system to patients.

⁸ Sastry M, Long K, de Sa A, Salie H, Topp SM, Sanghvi S, van Niekerk L. Action research to reduce patient waiting in South Africa. http://www.gsb.uct.ac.za/files/Wait_Time_Study.pdf

Example of patient information leaflet

CHRONIC DISPENSING UNIT (CDU)

How to make the chronic dispensing unit system work for you.

- > On your CDU card is an appointment date and time for the collection of your patient medication pack (PMP).
- > Please adhere to this time and date.
- > About 5- 10 min before your appointment time you can put your CDU card in the allocated box at the pharmacy. Please note this only apply for cards that are for that specific day.
- > When your name is called please have your hospital card ready as proof of identification.
- > If there is one repeat left, please make an appointment at reception to see the club sister (chronic sister) the following month. We will inform you about this. This date will be highlighted on your CDU card.
- > After you have seen the Dr or Sister and you are put on the CDU system again you will get a new CDU card on collection of your first repeat the following month.
- > If you don't come on your specific date for collection of your PMP you will unfortunately have to fetch your folder at reception which will cause a delay in receiving your packet.
- > Your waiting time at the pharmacy will be minimized if you adhere to these rules.
- > Please work with us and if you have any questions please consult the pharmacy staff or reception staff.

Example of patient information leaflet, Goodwood CHC

Between January and March 2013, the number of patients collecting their medicine on their specified day/time increased from 64% to 69%, and overall collection rates increased from 75% to 80%. This improvement resulted in a reduction of burden on the single pharmacist in the CHC, improved work flow, and decreased waiting times for patients.

Future Plans

- * PMPs will be available for issue off-site.
- * The reduction in waiting times will be quantified.
- * When patients return to the CDC for their last repeat prescription, they will receive PMPs in the chronic club and be issued a new script.



Reducing Chronic Medicines Dispensing Unit Waiting Times: Kraaifontein Community Health Center, Northern Tygerberg Substructure, Western Cape Province

In a period of six months, the Kraaifontein CHC (KCHC) managed to halve the average patient waiting time for pre-prepared packs of medicine (PMPs) for chronic diseases from slightly over 40 to below 20 minutes per visit, culminating in reduced queues and an improved overall patient experience.

KCHC is a 24-hour facility providing a comprehensive health care service to communities in the Northern Tygerberg Substructure of Metro District Health Services in the Western Cape. The facility sees an average of 23,000 patients per month. The average number of patients seen in the pharmacy on a daily basis is 838. Each day, an average of 328 patients collect PMPs, which are prepared off-site by a private service provider from the facility.

A change in the provincial service provider contracted for the preparation of prescriptions for patients with chronic diseases had a negative impact on patient waiting times. This, in turn,

affected the quality of PMPs and the workload for pharmacists and other personnel. Increased waiting times also affects service delivery and patient experience, and can result in some patients defaulting on medication.

To address these issues, the LDP team first conducted a root cause analysis to better understand the causes of the long waiting times at their facility, and then took a number of steps to address these root causes. Interventions included ensuring clients received a copy of their prescription so as to reduce time waiting at reception; opening a second window for prescription collection during peak times; and staggering client appointments between 8 am and 2 pm. Due to these interventions, waiting times decreased from an average of 41 minutes in October 2012 to 19 minutes in March 2013 (figure 18).

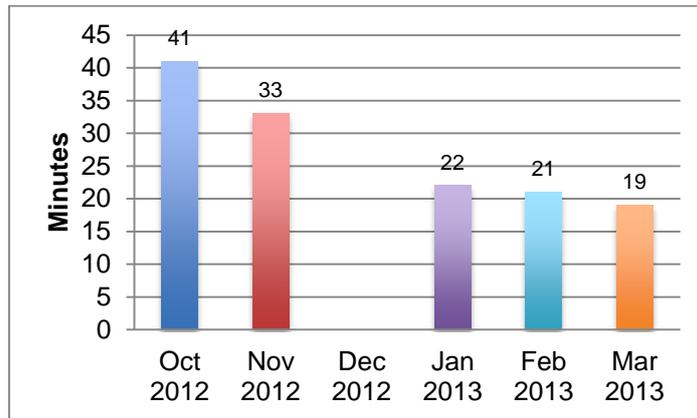


Figure 18. Average waiting time per month at Kraaifontein CHC, NTSS, Western Cape Province



Kraaifontein pharmacy waiting area, before (left) and after (right) intervention
Photo Credit: Kraaifontein PLDP team

Patients have responded well to accepting responsibility for carrying a copy of their own prescription, and staff at KCHC are committed to sustaining these short waiting times and keeping their clients happy.

Future Plans

- * Continue providing clients with a copy of their prescription
- * Ensure good communication with clients and staff and the sharing of information to keep everyone informed of the daily events at the facility

Reducing Turnaround Time for Club Patients: Gugulethu Community Health Center, Klipfontein Mitchells Plain Substructure (KPMSS), Western Cape Province



Club patients queuing for admission; Photo Credit: Gugulethu PLDP team

Gugulethu CHC is a busy 24-hour facility, offering a full range of services, including acute care, chronic diseases of lifestyle (CDL), emergencies, HIV care, and rehabilitation. The CHC sees approximately 25,000 patients per month, of which 1,300 to 1,700 are CDL patients. The prescriptions for between 6,800 and 10,000 patients with chronic diseases are prepared by the CDU each month. CDL club patients spend a long time waiting to see the doctor or receive their medication at the facility, which results in complaints from patients and in turn puts staff under enormous stress. Staff providing CDL services included two nurses doing the observations, and one Health Promotion officer doing patient education. Booked patients are all seen by doctors, but the number of doctors available to see club patients varied, depending on the load in the other areas, leave, intern allocation, and other factors.

The LDP team from Gugulethu CHC set out to have at least 75% of the CDL patients leaving the facility within three hours of their appointment time. Working with key stakeholders within the facility, the team identified some of the root causes of these delays and implemented targeted interventions to address these root causes. With changes to the electronic booking system, training users of the system, training nurses, changing the doctor schedules to start at the club at 8 am, the addition of a new computers, increasing the organization and work flow processes prior to appointment times, and restructuring pharmacy break times, significant improvement was made in patient waiting times.

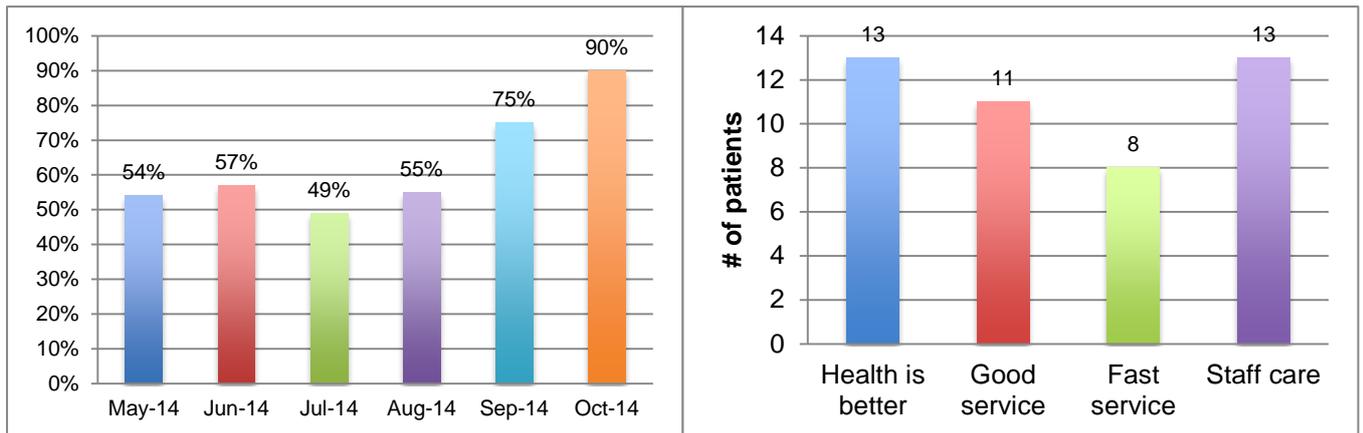


Figure 19. Patients leaving facility within three hours, and CDL patient feedback, Gugulethu CHC, KPMS, Western Cape Province

The percentage of CDL patients leaving the facility within three hours increased from 54% to 90% between May 2014 and October 2014. As a result of these initiatives, club nurses and the doctors are much happier, pharmacy work flow has improved, and club patients have fewer complaints, as shown in figure 19. The team provided a survey to 60 patients in August/September 2013 asking about client satisfaction: 45 patients reported they were happy with the changes.

Reducing Median Waiting Time: Hanover Park Community Health Center, Klipfontein Mitchells Plain Substructure, Western Cape Province

Hanover Park CHC operates in the Greater Athlone District of the Metro Region, an area with frequent gang violence. The CHC services 65,000 formal and 18,900 informal dwellers. The CHC attends to approximately 800 patients per day, 3,500 per week, and 15,000 per month. The pharmacy staff is made up of two pharmacists and four pharmacist’s assistants and they prepare approximately 450–550 scripts daily.

The LDP team determined that the median waiting times for the collection of chronic medicines by patients at Hanover Park CHC pharmacy between the hours of 10 am and 2 pm was greater than two hours. This was in part due to high rates of staff absenteeism, long tea and lunch breaks, unfilled posts at the pharmacy, staff arriving late, a high CDU caseload, queries on prescriptions, and long management meetings. The management team at the facility set out to monitor and report on the absenteeism rates to create awareness among staff, increase the number of patients collecting their chronic medicines off-site, motivate for the filling of pharmacist’s assistant posts at the pharmacy, and encourage prescribers to write clear, concise prescriptions. These practical, manageable interventions resulted in a reduction in median waiting times for patients from 157 minutes in July 2014 to 75 minutes in November 2014 (figure 20).

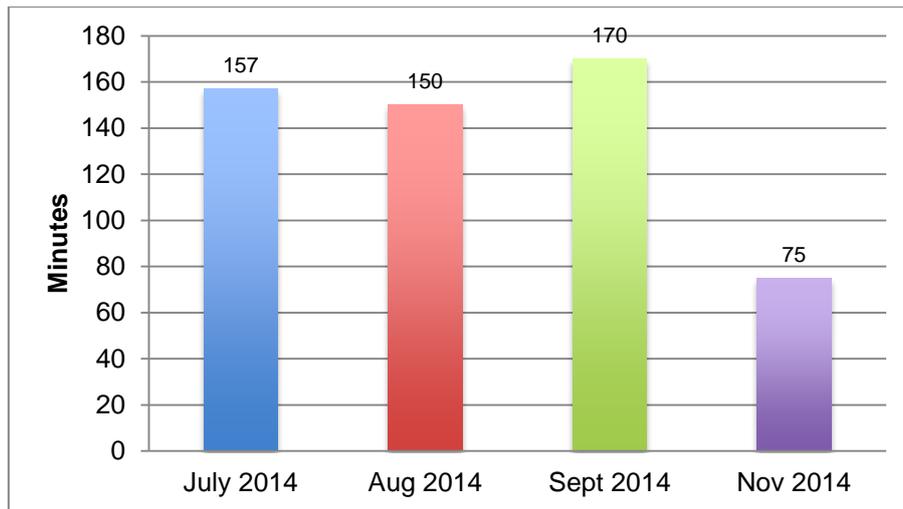


Figure 20. Median Waiting Time (between 10 am and 2 pm) at Hanover Park CHC, KMPSS, Western Cape Province

Staff members were initially apprehensive about the changes (especially the monitoring of late arrivals at work), but palpable attempts to change were noted. Based on this a “buzz” was created and people were eager to prove they were part of the positive changes. In addition, there was greater clinician prescriber awareness of their impact on pharmacy processes, and better rational prescribing was noted.

Future Plans

- * Make further improvement to reception processes: develop SOPs for bookings when offline, results filing, and preparing folders
- * Arrange for facility manager to meet with social worker
- * Make IT infrastructure improvements (network points and PCs for results)
- * Strengthen new lab results process
- * Re-look at the issues of stocking stationery in rooms
- * Strengthen CNP club involvement
- * Finalize “Rules of Club” poster and leaflet

LESSONS LEARNED

Participants in the LDP/PLDP expressed their satisfaction with the program due to its level, quality, and duration. The workshop presenters were considered experts in their field, and the mentors provided in-depth feedback and support, including on-site visits which bolstered the efforts of the teams to complete their challenges and trouble-shoot issues as they emerged. The relationship between the teams and the PLDP program staff was described as “highly professional,” “participatory,” “helpful,” and “engaged” (i.e., “they were one of us”). The engaged nature of the mentorship helped teams specify their challenges and produce effective, evidence-based solutions to service delivery issues.⁹

Participant Feedback

“Because of the applicability of the course material I am looking forward to employing better leadership and management skills.”

—Pharmacy Manager from North West Province

Program evaluation is critical to assessing whether participants feel that they are gaining valuable skills and knowledge from the program. Evaluation forms (Annex F) were handed out at the end of each LDP/PLDP workshop. While the form has evolved over the course of the program’s implementation, the form’s general format provided an opportunity for participants to comment specifically on whether the workshop met their expectations. Participants commented on the clarity of the facilitators and the usefulness of the reference materials and handouts, while identifying the most and least applicable topics and areas of the program that could be improved.

“I really appreciated listening to projects undertaken and progress made. All have an impact on work and service delivery and can be replicated across districts”.—

—Participant in KZN Province

Participants have consistently rated the workshops from “very good” to “excellent” with regard to meeting their initial expectations. Participants commented that the workshops were enlightening and exceeded expectations. Participants felt that the concepts presented could be immediately applied in the workplace, adding that the case studies were also extremely informative. The program allowed participants to think “outside the box” and feel empowered to tackle difficulties within the workplace and achieve results. A number of participants were especially pleased with the practicality of the modules.

⁹ SIAPS. Leadership and management intervention assessment report, September 2015. Unpublished.

"Excellent workshop - Facilitators and presenters are passionate about the topics."

—Participant in Khayelitsha, Western Cape Province

The facilitators were universally praised as being clear, knowledgeable, and engaging. The reference material and handouts were also said to be clear, concise, and informative, although participants suggested that it would be helpful to have copies of the presentations and other materials beforehand to facilitate easier note taking. Participants found the finance sessions, including the session on the Public Finance Management Act, and human resources management sessions included in the PLDP to be the most useful of the topics presented. The majority of participants also praised the high level of interaction, participation, and teamwork built into the sessions.

Participants found that the greatest area for improvement of the program was in time management. Some participants found some sessions were too long, and suggested that more time should have been devoted to the group's quality improvement project. Many participants have suggested that the program should be extended to other stakeholders, from senior management to other employees within the health sector.

"It was excellent. Very relevant and time appropriate. It is for the first time attending a course of this nature. It is actively going to bring a change to our facility."

—Participant in Khayelitsha, Western Cape Province

Overall, participants agreed that the LDP/PLDP provides essential training on best practices related to leadership and management. For some participants, the knowledge gained through the program supplemented and reinforced what they already knew. Other participants stated that they had never been exposed to this type of training and that it was essential professional development in their training as managers. The type of training provided in the program showed them how to think strategically in planning initiatives and apply M&E techniques to assess their work.

Lessons Learned and Recommendations

Since the inception of the LDP/PLDP, SIAPS has gained considerable experience on what works well, what can be improved, and what does not work. This has allowed SIAPS to refine and improve on the program over time. Adaptations made to the program as a result of lessons learned include:

- Combining the scanning and planning components in workshop 1 and strengthening these sessions by including tools such as the SWOT analysis, developing a conceptual framework, and incorporating a session on engaging stakeholders

- Strengthening the sessions on the development of the desired measurable result and indicators and ensuring that the measurable result and indicators are robust, and well aligned early in the process
- Encouraging teams to address a challenge, which is a national or provincial priority, and involving management in leading teams to choose the challenge to be addressed
- Ensuring that by the end of workshop 2 all teams have a complete Challenge Model
- Encouraging participants to create a broader team in the workplace to work together on the challenge identified
- Strengthening the M&E component and aligning it with M&E systems in use.
- Exposing participants to various M&E frameworks, such as the conceptual framework, logic model, and results framework as discussed in the *Health Systems in Action: An eHandbook for Managers and Leaders*
- Use of technical experts from within the provinces and districts to facilitate the financial management and HR technical modules; this has allowed for the theoretical aspects of the topic to be discussed alongside current practice/s in the province/district
- Additions to the program, such as the pharmacoeconomics module, which provides participants with a basic knowledge of the field and its application

By consistently applying the leading and managing practices, pharmaceutical services can be improved.

The workshops have provided a very important forum for sharing best practices. The approach of having participants work as teams and the building of teams around a quality improvement initiative has fostered a multidisciplinary approach to addressing real workplace challenges. One of the key successes of the program has been the coaching component. This has prevented the teams from quickly slipping back into “business as usual,” and has provided facilitators an opportunity to encourage teams to recommit to their objectives. Flexibility has been built in, to allow for additional coaching visits to teams when deemed necessary. In KZN and the Western Cape, provincial personnel were also involved in the mentoring and coaching of teams.

SUSTAINABILITY AND SCALE-UP

SIAPS encourages and supports the teams to scale up and sustain the quality improvement initiatives in an effort to expand and institutionalize the programs and ensure country ownership.

SIAPS has, together with the management of NTSS in the Western Cape and KwaZulu-Natal, explored ways of sustaining the quality improvement initiatives implemented as well as the use of the LDP approach. The sections below provide detail on the different approaches taken in each of these provinces to promote sustainability and ownership.

Sustainability and Scale-Up in the Northern Tygerberg Substructure

Following the successes of the LDP in the NTSS, management in the substructure requested a meeting with SIAPS to discuss possible areas of further collaboration to help ensure sustainability of the work that had been conducted. The substructure requested assistance with the development and facilitation of an approach to sustain use of leading and managing practices as well as the quality improvement initiatives implemented in 12 facilities.

The substructure identified four key outcomes (measurable results) from the LDP initiative to be incorporated into performance agreements of both the facility managers and pharmacy managers. These included:

- Waiting times for patients collecting prepacked chronic medicines of less than 30 minutes
- At least 15% of patients collecting prepacked chronic medicines off-site
- Total (100%) compliance with applicable domain (norms and standards) as per the NCS
- Sustaining a quality improvement initiative unique to each facility

In April 2014, a workshop was held with all facility managers and pharmacy managers to map out the plan for sustaining the LDP initiatives. The desired measurable results were discussed, agreed upon, and written into the key performance plan for each manager for the year 2014–15.

The sustainability initiative of the LDP was delivered through a combination of interactive workshops, support visits from the substructure pharmaceutical services management team, and coaching visits with the facilitators. The interactive workshops were facilitated by SIAPS, with coaching visits undertaken by both SIAPS and pharmaceutical services substructure management. The aim of the workshops was to review some of the concepts learned during the LDP and support the teams as they applied these concepts to the new challenges identified. Two one-day workshops were held, and two coaching visits and support visits took place.

Participants continued to work in facility teams to identify root causes of the challenges identified and to determine key priority actions that needed to be implemented. Participants were encouraged to involve all the key stakeholders and other relevant members of their work team. The facilitators and substructure management visited the teams in their respective facilities and discussed the implementation of the action plans, the challenges faced, and successes with their interventions. Feedback and support was provided to the teams as they applied the leading and managing practices and addressed the challenges identified. The substructure team (deputy director and training pharmacist) were also supported to take over the coaching and mentoring role and to provide guidance to their facility teams.

The deputy director developed a pharmacy monitoring tool to keep track of the key indicators, including the measurable results, identified for sustainability across all the facilities. Facilities were required to submit data to the Pharmaceutical Services Office by the 7th of each month. The data were entered into a Microsoft Excel™ spreadsheet, collated, and analyzed, and feedback then provided to the facilities.

In March 2015, the results achieved by the teams were shared with senior management from the province, NTSS, and neighboring substructures. Each team presented a summary of their progress against the three measurable results common to all and then provided details on the interventions and outcome on their unique measurable result. Table 3 summarizes the desired measurable results and the results achieved, across the facilities.

Table 3. NTSS Sustainability Quality Improvement Projects

Facilities	Measurable Result	Result Achieved
All 12 facilities	To decrease waiting times for patients collecting prepacked chronic medicines to less than 30 minutes	10/12 facilities reached target (Waiting time for CDU PMPs ≤ 30 minutes) = 83% <i>(Improvement)</i>
All 12 facilities	To reach 15% of patients collecting prepacked chronic medicines off-site	6/12 facilities reached target (percentage of patient medicine parcels collected off-site within the catchment area ≥ 15%) = 50% compliance <i>(Improvement)</i>
All 12 facilities	To reach 100% compliance with applicable domain (norms and standards) as per NCS	Baseline was recently conducted at all facilities. As of February 2015, not all facilities had their baseline score. (Awaiting substructure NCS gap assessment results)
Bellville CDC	To increase percentage of clients who collect their CDU medication on their due date from 60% to 80% by end of February 2015	76% of patients collect their CDU medication on their due date <i>(Improvement)</i>
Bishop Lavis CDC	To improve overall patient satisfaction from 30% to 70%, as measured by the Service Systems monthly report, by end of February 2015	93% patient satisfaction as of January 2015 <i>(MR achieved)</i>
Delft CHC	To reduce the percentage of valid rejected CDU prescriptions to less than 1% by March 31, 2015	0.47% rejections as of February 2015 <i>(MR achieved)</i>
Durbanville CDC	To increase the total respondents on the “System Service Report Manager” to more than 500 patients/month for all 5 questions asked to evaluate patient satisfaction, by end of February 2015	48 total respondents as of December 2015
Elsies River CHC	To decrease new CDU prescription rejections from 25% to less than 20%, by end of February 2015	< 10% rejections as of February 2015 <i>(MR achieved)</i>
Goodwood CDC	To increase the percentage of CDU PMPs collected on specified date from 60% to 75%, by March 2015	75% of the CDU parcels collected on correct date, as of January 2015 <i>(MR achieved)</i>
Kraaifontein CHC	To increase the number of ADR forms submitted from 0 to an average of 10 per month	6 ADR reports submitted as of February 2015 <i>(Improvement)</i>
Parow CDC	To decrease the percentage of rejected CDU prescriptions from 10% to less than 3%, by February 2015	23% rejections as of January 2015
Ravensmead CDC	To decrease the number of out-of-stock items from 3 to 0 lines, (excluding Cape Medical Depot dues out), by end of February 2015	0 out of stocks as of February 2015 <i>(MR achieved)</i>
Reed Street CHC	To increase the percentage of patients collecting PMPs on the specified date from 70% to 85% by end March 2015	79% of patients collecting PMPs on specified date as of January 2015 <i>(Improvement)</i>
Ruyterwacht CDC	To increase patients adherence to collection dates from 40% to 60% by end of February 2015	76.8% of parcels collected on specified date as of February 2015 <i>(MR achieved)</i>

* Final presentations for the LDP teams can be found in Annex G.

The teams also identified best practices from the interventions applied by their peers. These were the interventions that they considered to be novel, innovative, and creative, and that they would like to see scaled up across the substructure. The best practices selected were:

- A comprehensive step-by-step guide to preparing for a successful NCS assessment. Presented by Durbanville CHC, which showcased what their team had done to prepare for a NCS assessment.
- Using WhatsApp™ for information dissemination to clinicians. The team at Kraaifontein CHC showcased how effective communication with prescribers using current technology can ensure that critical information regarding issues such as stock availability is easily and quickly disseminated.
- Establishing and nurturing off-site delivery of chronic prepacked medication parcels. The team at Elsie's River CHC demonstrated how they had grown the number of alternate/off-site facilities for the collection of chronic PMPs and how this had positively impacted on the waiting times within their facility as well as patient satisfaction.
- Reducing patient waiting times, by ensuring efficient management of queues at the pharmacy. Delft CHC shared some of the novel initiatives used to minimize waiting time, relieve overflow in the waiting areas, and prevent patient confusion.

Teams resolved to apply these best practices across all facilities within the substructure with the support and encouragement of the substructure management. In addition, the deputy director of Pharmaceutical Services developed a pharmacy monitoring tool that is now used to record data across the key indicators for the substructure. All facilities are now submitting data on a routine basis. The data are collated and statistics from this data are shared across all the facilities, helping to ensure that the data are being used for decision making.

For 2015–16, Pharmacy Services has resolved to maintain these initiatives as performance outputs for the facility managers and pharmacy managers and to continue monitoring performance using the pharmacy monitoring tool.

Sustainability and Scale-Up in KwaZulu-Natal

“My chief director wasn’t too sure about PLDP because there are so many trainings that waste time, with people sitting in conference rooms instead of doing service delivery, and with no target or results. So we had to stop the program midway. Then the first group presented their work and my boss also attended. She told the entire conference openly that she had initial reservations. But after seeing the team presentations she said, ‘I have changed my mind. I endorse it. I am fully behind it.’ She saw the evidence.”

—Head, KZN Pharmaceutical Services

Following the presentations to senior management by both groups who had completed the PLDP in the province, the KwaZulu-Natal Pharmaceutical Services office identified the need to sustain and to scale up some of the interventions. Working with the provincial office,

SIAPS agreed to provide support to the province and districts with an emphasis on promoting the sustainability and scale-up of interventions.

A workshop was held in August 2014 with all the district and facility pharmacy managers, as well as Pharmaceutical Services provincial staff, to select the quality improvement initiatives for scale-up and sustainability and to discuss the process that would be followed. Each district shared their initial PLDP quality improvement project and results achieved, and also considered their performance on the district quarterly progress reports (DPQRs). Districts then determined whether they would sustain and scale up the quality improvement initiative they had already been working on or select a new challenge based on their DPQR performance.

The teams crafted their desired measurable results and again used the Challenge Model to work toward achieving these results. The teams were supported as they scanned their environment to get a clear understanding of their current situation, conducted a baseline assessment, analyzed the root causes of the problem, determined key priority actions, and started implementing their interventions. Two workshops and three coaching visits were held with the teams. The final presentations were scheduled for September 2015. Table 4 demonstrates the challenges and measurable results that have been selected by the teams.

Table 4. KwaZulu-Natal Sustainability Quality Improvement Projects

District	Desired Measurable Result
eThekweni North	To improve the compliance of PHC clinics to MSM principles from 33% to 90% by June 2015
eThekweni South	To establish a functional district PTC by August 2015
iLembe	To reduce expired stock (open and closed) from 0.18% at hospitals/CHCs and from 0.29% at PHC clinics, to < 0.1% of the iLembe District quarterly medicines expenditure by end of June 2015
Ugu	To increase the supervision rate of PHC facilities by pharmacists from 28% to 100% by end of March 2015
uMgungundlovu	Decrease the percentage of patients who do not receive their full quota of prescribed medicines from 23% to 5% by March 2016
Harry Gwala	To improve the percentage compliance of prescriptions with legal requirements at all hospitals from 0% to 60% by end of June 2015
uThukela	To increase the number of stable, compliant chronic patients collecting predisposed medicines at community-based sites (two per subdistrict) from 817 to 3,000 per month by end of July 2015
Amajuba	To reach 100% of PHC facilities reporting on availability of PHC tracer medicines in the DHIS, with a reported tracer medicine availability stock-out rate of less than 2% by April 2015
uMzinyathi	To achieve full compliance with uMzinyathi District's requirements for pharmaceutical services at 20 clinics by end of July 2015
uThungulu	To reduce the percentage of medicine expiring in the bulk storeroom in 4 hospitals and 1 CHC from a range of 0.7%–7.3% to < 0.5% by end of June 2015
Zululand	To enroll 10 of the 13 qualified basic PAs as learner post-basic PAs by August 2015 <i>and</i> To ensure that 10 learner post-basic PAs have completed 43% of all the program sessions by end of August 2015
uMkhanyakude	To improve compliance with the SOP for " <i>handling of hospital pre-dispensed chronic prescriptions collected at PHC</i> " from 25% to 100% in 5 hospitals and their clinics by end of August 2015
Provincial team	To ensure that the service level agreement between Pharmaceutical Services and demanders has been signed by 16% of demanders by end of July 2015

* Final presentations for the PLDP teams can be found in Annex H.

UNIVERSITY PARTNERSHIPS

An MOU has been entered into between the Department of Pharmacy at Sefako Makgatho Health Sciences University (SMU), and SIAPS. Through this agreement, SIAPS provides support to the department to build capacity through the education and training of pharmacists and pharmacy support staff for the effective provision and management of all aspects of pharmaceutical services within the health system.

As part of the MOU, SIAPS is also collaborating with the Department of Pharmacy in the design and delivery of a results-orientated leadership and management module for the Master of Pharmacy, Public Health Pharmacy and Management (PHPM) course. This module will help students understand how to use and apply leading and managing practices in the effective and efficient management of medicines within pharmaceutical services. SIAPS will facilitate the use of the Challenge Model and its associated tools to support students enrolled on the SMU PHPM program as they develop and implement their projects. SIAPS will also build capacity of SMU staff in facilitating the course, with the goal that selected SMU staff members are fully conversant with the material and able to run the course themselves in 2016–17.

The module provides experiential learning that will empower students to apply leading and managing practices, face challenges, and achieve measurable results in their work environments. Students will be capacitated with the skills to manage and add value to the service they provide within their organization.

A study guide (Annex I) for the module has been jointly developed by the university and SIAPS. This guide helps students move through the different topics, and make progress toward their respective general and specific learning objectives. It also provides the full schedule for the contact sessions, assessment criteria, and details on both the formative and summative assessments for the module.

In May 2015, the first group of students began using the Management of Pharmaceutical Services module, facilitated by SIAPS. This group includes 14 students from the public and private sectors as well as academic interns.

CONCLUSION

Pharmacy managers in South Africa are presented with the daunting task of improving the quality of pharmaceutical service delivery amid the high number of patients accessing ART and other services in the public health system. In addition to current challenges in service delivery, the country is preparing to implement the National Health Insurance program. This requires health facility managers and health workers to address the overwhelming workplace challenges, such as ensuring availability and accessibility of medicines and supplies, ensuring RMU, and optimizing patient care at the health facilities.

“I was motivated to such an extent that when we got back, I started a mini PLDP with my own staff who did not attend the program...”

—PLDP participant

Through the LDP/PLDP, leadership and management capacity is being strengthened, and pharmaceutical service delivery in the provinces improved. Workplace-based teams use information gained during the workshops to address real workplace challenges and produce measurable results. Inspired by a shared vision of what they can accomplish, participants gain confidence in their ability to lead, manage, and produce results.

The PLDP, through facilitated capacity development, accompanying technical assistance, and mentoring and coaching, has strengthened the institutional capacity of NDOH, PDOH, and district-level health services. The interventions put in place have resulted in a wide range of positive individual, organizational, and health service delivery outcomes including improving the reach and quality of services, time savings, and resource mobilization.