AUDITOR-GENERAL
SOUTH AFRICA

Auditing to build public confidence

PERFORMANCE AUDIT of the **management of pharmaceuticals** at departments of Health

An independent auditing process to evaluate the measures instituted by management to ensure that resources have been procured economically and are used efficiently and effectively.

Performance audit

ACRONYMS AND ABBREVIATIONS

Aids	Acquired immune deficiency syndrome
CCMD	Central chronic medicine and dispensing
CCTV	Closed-circuit television
CHC	Community health centre
DHIS	District health information system
DOS	Disk operating system
DPTC	District Pharmaceutical and Therapeutics Committee
FEFO	First expiry first out
FIFO	First in first out
HIV	Human immunodeficiency virus
HoD	Head of department
MCC	Medicines Control Council
Medsas	Medical stock administration system
NHC	National Health Council
PDSX	Pharmaceutical distribution system
Persal	Personnel salary system
PPTC	Provincial Pharmaceutical and Therapeutics Committee
SAPC	South African Pharmacy Council
SLA	Service level agreement
SOP	Standard operating procedure
TB	Tuberculosis
WHO	World Health Organization

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FOREWORD

I am pleased to present the outcomes of the performance audit of the management of pharmaceuticals at departments of Health.

Improving and maintaining the health of South Africans are intrinsically linked to social and economic upliftment in the country. South Africa is undertaking a major health sector reform with the introduction of a national health insurance. A national health insurance will ensure that every South African, regardless of their socioeconomic status, has access to appropriate, efficient and quality health services by 2025. However, for this to be successful, health services must be delivered according to the required norms and standards.

This performance audit was undertaken to provide insights into the pharmaceutical value chain that included planning, procuring, storing and distributing pharmaceuticals to patients. Pharmaceuticals are a cornerstone of health care delivery. It is therefore critical for departments of Health to ensure that essential medicines and medical supplies are always available and accessible at designated health institutions. The health sector continuously invests substantial resources to procure and distribute pharmaceuticals annually to almost 44 million people in South Africa that rely on the public sector for health care services.

I recognise the considerable efforts made by the departments of Health in introducing and implementing a number of initiatives to increase the availability and accessibility of pharmaceuticals. These initiatives include introducing the stock visibility system and other tools that serve to detect stock shortages early at a primary health care level. In addition, direct deliveries to hospitals reduce the workload of medical depots and delivery lead times. The successful implementation of these initiatives can be seen in the improvements in the pharmaceutical stock-out rates from the 2013-14 to the 2015-16 financial years. The Gauteng, KwaZulu-Natal, Mpumalanga, Northern Cape and North West provinces reported a decrease of between 1% and 8% in their stock-out rates for certain essential medicines at the clinics and community health centres. Also, the average stock-out rates for vaccines, antiretroviral and tuberculosis medicines decreased between 6% and 52% since the implementation of the stock visibility system. The stock visibility system was implemented in phases across provinces; therefore, the highest improvements in medicine availability were reported in KwaZulu-Natal and Limpopo where the system was first implemented.

Even though decreases in the pharmaceutical stock-out rates were reported, some inefficient and ineffective practices were identified and remained prevalent at certain stages in the pharmaceutical value chain. These include poor supplier management, the shortage of pharmacists and pharmacist assistants to deliver pharmaceutical services and to provide operational support to nurses, ineffective stock management practices, poor storage practices and record keeping of pharmaceuticals at the medical depots and health institutions.

This performance audit covered the 2011-12 to 2014-15 financial years. The detailed testing focused on the 2014-15 financial year as the departments of Health, medical depots and health institutions were visited during this period. The outcomes of the performance audit were shared with management of the provincial departments of Health, who committed to addressing them through the recommendations made. A follow-up audit was also done during the 2015-16 financial year to monitor progress. The outcomes of the follow-up audit are included in annexure A to this report.

Further follow-up audits will be done as part of the annual statutory audits until the deficiencies highlighted in this report are addressed and all the internal controls are restored to efficiently and effectively manage the processes within the overall pharmaceutical value chain.

I would like to thank the executive authorities, accounting officers and relevant staff of the national and provincial departments of Health for supporting this audit and engaging with our teams.

Auditor- General

Pretoria
November 2016

EXECUTIVE SUMMARY

KEY FINDINGS

The following key, inefficient and ineffective practices identified at certain stages in the pharmaceutical value chain contributed to stock-outs or shortages and ultimately, to patients not receiving their prescribed pharmaceuticals in time. Areas of improvement were noted between the performance audit and the follow-up audit. The details of the follow-up audit are provided in annexure A to this report.

1. Policies and planning for pharmaceuticals

1.1 The standard operating procedures developed to manage pharmaceuticals were not always implemented and, where implemented, were not always monitored for adherence.

1.2 The pharmaceutical budgets were not always aligned to the actual health care needs of the uninsured population. Some departments of Health (provincial departments) overspent on their budgets as they budgeted incrementally based on historical information rather than on the health care needs of the uninsured population. The Auditor-General of South Africa has due appreciation for the fiscal constraints under which these departments operate.

1.3 The shortage of pharmacists and pharmacist assistants to deliver pharmaceutical services and provide operational support to nurses increased the workload of the nurses and had a negative impact on the quality and timeliness of health care delivery.

2. Procurement of pharmaceuticals

2.1 Some pharmaceuticals procured using the national contracts were delivered late. Reasons for late delivery included stock shortages at suppliers, payments to suppliers being made late and penalties not being imposed on suppliers for late delivery by some medical depots. When suppliers had limited stock, they first deliver to those provinces that do impose penalties for late delivery.

2.2 When suppliers report non-payment to the national Department of Health, the director-general writes to the heads of departments requesting compliance with the payment within 30 days. As at July 2014, payments for pharmaceuticals procured on national contracts worth R674,1 million were outstanding for more than 30 days. An improvement of 41% was recorded during the 2015-16 financial year as this amount decreased to R394,6 million as at September 2015.

3. Stock management at medical depots and health institutions

3.1 Pharmaceutical stock was lost to damage and expiry at some medical depots, district pharmacies, sub-depots and health institutions before dispensing to patients due to the following poor storage practices:

- Pharmaceuticals were not stored at the required temperatures. However, improvements were noted in the temperature controls at the Free State medical depot during the 2015-16 financial year.
- Pharmaceuticals were not arranged in an orderly manner and rotated properly to ensure that those that expire first were issued first. At some of the medical depots, district pharmacies, sub-depots and health institutions, the stock was inappropriately stored.

3.2 Some medical depots and health institutions could not accurately and completely account for the movement and rand value of their stock due to poor record keeping. The stock management systems at some of the medical depots were outdated or not used properly by staff. Bin cards used to capture the movement of stock at some health institutions were not completed accurately and in time to reorder pharmaceuticals. The stock visibility system introduced at the health institutions will replace the use of bin cards.

4. Distributing pharmaceuticals to patients

4.1 Over the past decade, an increase in the burden of disease was reported in both communicable and non-communicable diseases in South Africa. However, the health care system has not seen a proportional increase in the infrastructure. For example, patients waited for extended periods, sometimes standing until seats became available or sit on the floors or outside the health institution to receive health care on the day of their visit as:

- The waiting areas were too small or the number of seats was limited. Therefore the waiting areas could not accommodate the number of patients that visited daily.
- Separate dispensing windows or queues for chronic medication were not used. Chronic medication was also not pre-packed to improve the efficiency of staff and shorten patients' waiting times.
- The space allocated to consult with patients and dispense pharmaceuticals to them was insufficient. Consulting and dispensing sometimes took place in venues not suitable for these purposes.

4.2 Staff at some health institutions did not record patients' details and the medicines dispensed to them on the day of their visit. As a result, some health institutions could not account for the pharmaceuticals dispensed. Improvements in keeping the records of pharmaceuticals dispensed were noted in the Eastern Cape, Gauteng, Mpumalanga, Northern Cape and North West during the 2015-16 financial year.

KEY RECOMMENDATIONS

The following actions are recommended to address the findings in this report:

1. Policies and planning for pharmaceuticals

1.1 Standard operating procedures to manage pharmaceuticals should be implemented by provincial departments. Medical depots' and health institutions' compliance with the standard operating procedures should be monitored.

1.2 Provincial departments should reconsider the current incremental budgeting approach. They should adequately provide for the health care needs of the communities by taking the burden of disease in the provinces and heath care utilisation statistics into account during the planning process.

1.3 Provincial departments should review and, where appropriate, update their human resource plan and align the organisational structures according to human resource needs.

2. Procurement of pharmaceuticals

2.1 To avoid late deliveries, provincial departments should institute measures to ensure that payments are made to suppliers within 30 days of receipt of an invoice.

2.2 Where pharmaceuticals are not delivered within the agreed time, penalties should be imposed.

3. Stock management at medical depots and health institutions

3.1 The directorates responsible for pharmaceutical services at the provincial departments should regularly monitor the availability of pharmaceuticals at the medical depots and health institutions. Pharmaceuticals should be procured in time to prevent stock-outs. Also, the staff at the health institutions and medical depots should accurately update the stock visibility system and/or other electronic stock management systems to reflect stock availability at the health institutions and medical depots.

3.2 Provincial departments should institute measures to ensure that medical depots and health institutions comply with the *Good pharmacy practice in South Africa*, and the appropriate standard operating procedures. All staff responsible for stock management should receive formal training in these practices and procedures.

4. Distributing pharmaceuticals to patients

4.1 Provincial departments should identify those health institutions where the waiting areas, storerooms, dispensaries and consulting rooms do not comply with the *Good pharmacy practice in South Africa*. Appropriate action should be taken to rectify the situation.

4.2 Provincial departments should develop and implement dispensing registers and measures to ensure that patient records are retained at health institutions. All patient records should also be kept safe to comply with the standards set by the South African Pharmacy Council. Patient details and their dispensed medicines should be recorded promptly.

KEY INITIATIVES IMPLEMENTED

The national and provincial departments of health had implemented a number of initiatives to address the findings in this report. The implementation of some of these initiatives commenced prior to the performance audit. The following, among others, contributed to the improvements in the health care system:

1.1 The national Department of Health continues to convene the heads of pharmaceutical services, pharmaceutical services and National Health Council sub-committee's meetings. These were established to provide platforms for staff to discuss policies and procedures, financial management, human resources, medicine supply management, information systems, pharmaceutical contracts and the functioning of Pharmaceutical and Therapeutics Committees in the provinces. Representatives from all the provinces were invited to these committee meetings.

1.2 The national Department of Health monitored the performance of suppliers on the national contracts. When suppliers did not supply pharmaceuticals within the required times, letters were sent to them indicating non-compliance.

1.3 The national Department of Health continued to develop policies such as the *National drug policy*, 1996, the *Policy for the establishment and functioning of Pharmaceutical and Therapeutics Committees*, the *Policy and information document for the provision of pick-up point services* as part of the central chronic medicine and dispensing programme. This improved access to medicines and shortened patients' waiting times as patients can collect their medication at a point closer to their place of residence or work.

1.4 The national Department of Health developed the national core standards for health institutions. Staff from the office of health standards compliance inspected some of the health institutions to measure compliance to the standards and identified areas that required improvement. Also, questionnaires were provided to provincial departments for their own assessment against these standards.

1.5 The national Department of Health, in terms of their oversight function, assessed and analysed the function and performance of the directorates responsible for pharmaceutical services in the provinces. Management dashboards and medicine availability reports were generated from the information supplied quarterly by provincial departments. Based on the outcomes, training was provided to the provincial departments.

1.6 The national Department of Health implemented a number of initiatives to strengthen the health care system and reduce the pharmaceutical stock-out rates. These initiatives include electronic stock management systems such as the pipeline analysis tool and stock visibility system for the early detection of stock shortages on primary health care level, development of software to manage the performance of suppliers and a provincial medicines procurement unit was established to facilitate the direct delivery of high volume items to the hospitals in some provinces to reduce the workload of the medical depots and delivery lead times.

1.7 All the provincial departments provided action plans to address the shortcomings in their provinces. The departments were very proactive in terms of the implementation of all the recommendations. The detail was included under the section that refers to the corrective actions and initiatives implemented by management towards the end of this report.

OVERVIEW

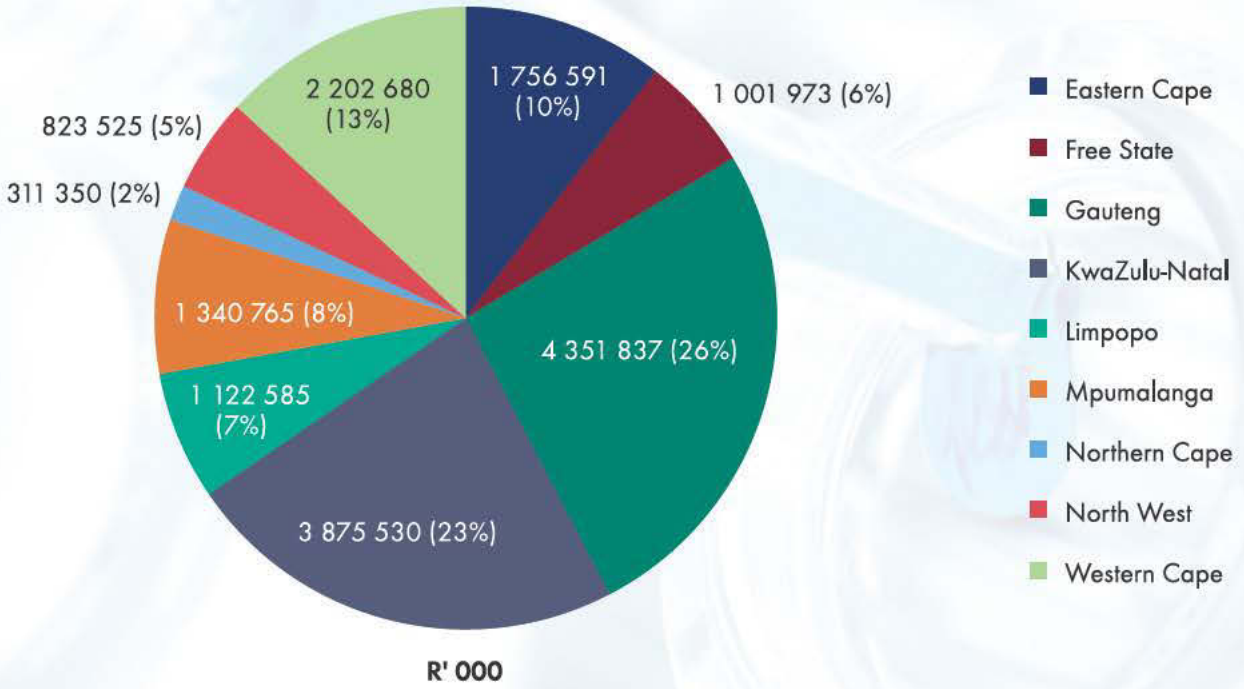
The Constitution of the Republic of South Africa states *that everyone has the right to have access to health care services.*

The annual reports of the provincial departments and a number of other strategic documents state that a key strategic priority is to ensure, and ultimately improve, the availability of pharmaceuticals at all health institutions in provinces.

During the 2014-15 financial year, provincial departments spent R16,8 billion to procure pharmaceuticals for approximately 79% of the population who were not members of medical aid schemes (uninsured population). The total population of South Africa at the time was approximately 55 million; therefore, almost 44 million people relied on the public sector for health care services. Of the total population, 41% is rural. This differs among the nine provinces, with Gauteng having the lowest rural population at 3% and Limpopo the highest at 82%.

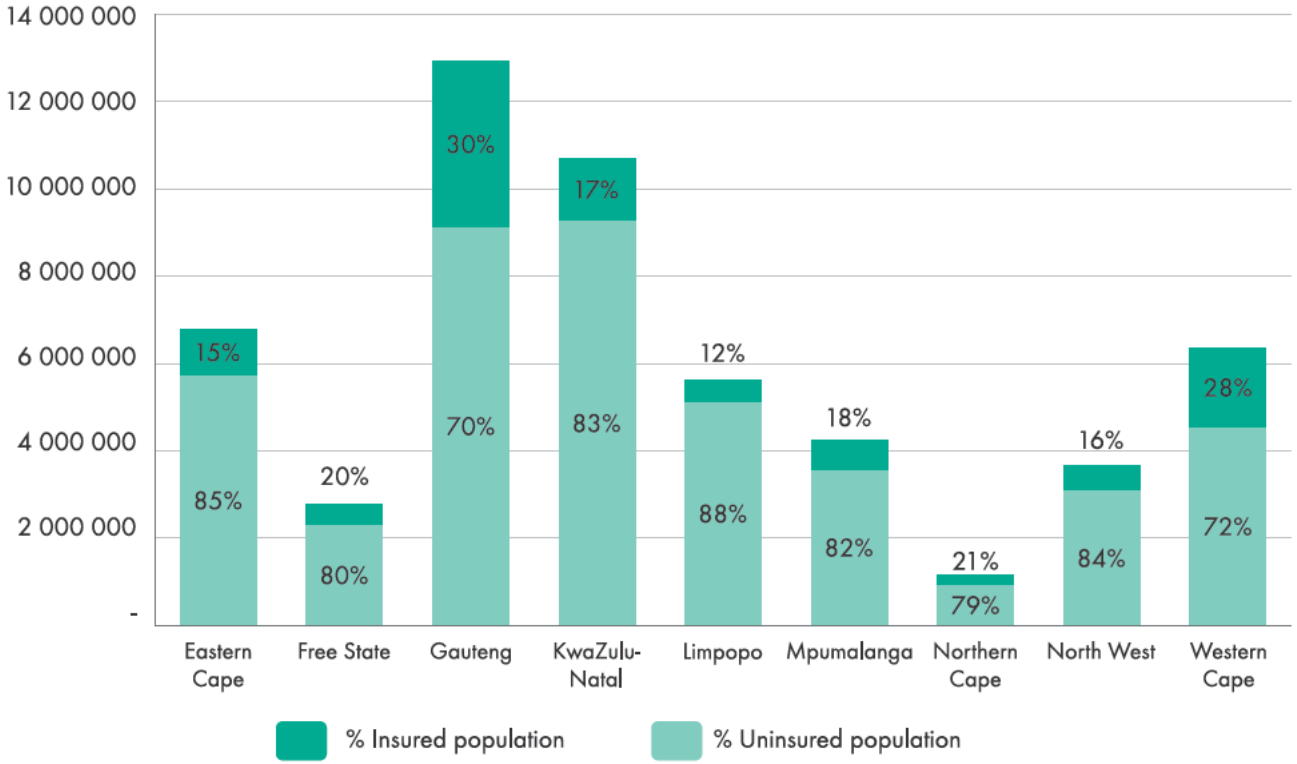
Figures 1 to 3 illustrate the expenditure on pharmaceuticals for the 2014-15 financial year, the total population, the percentage of insured and uninsured population, and the actual expenditure per uninsured person per province.

Figure 1: Total expenditure on pharmaceuticals per province



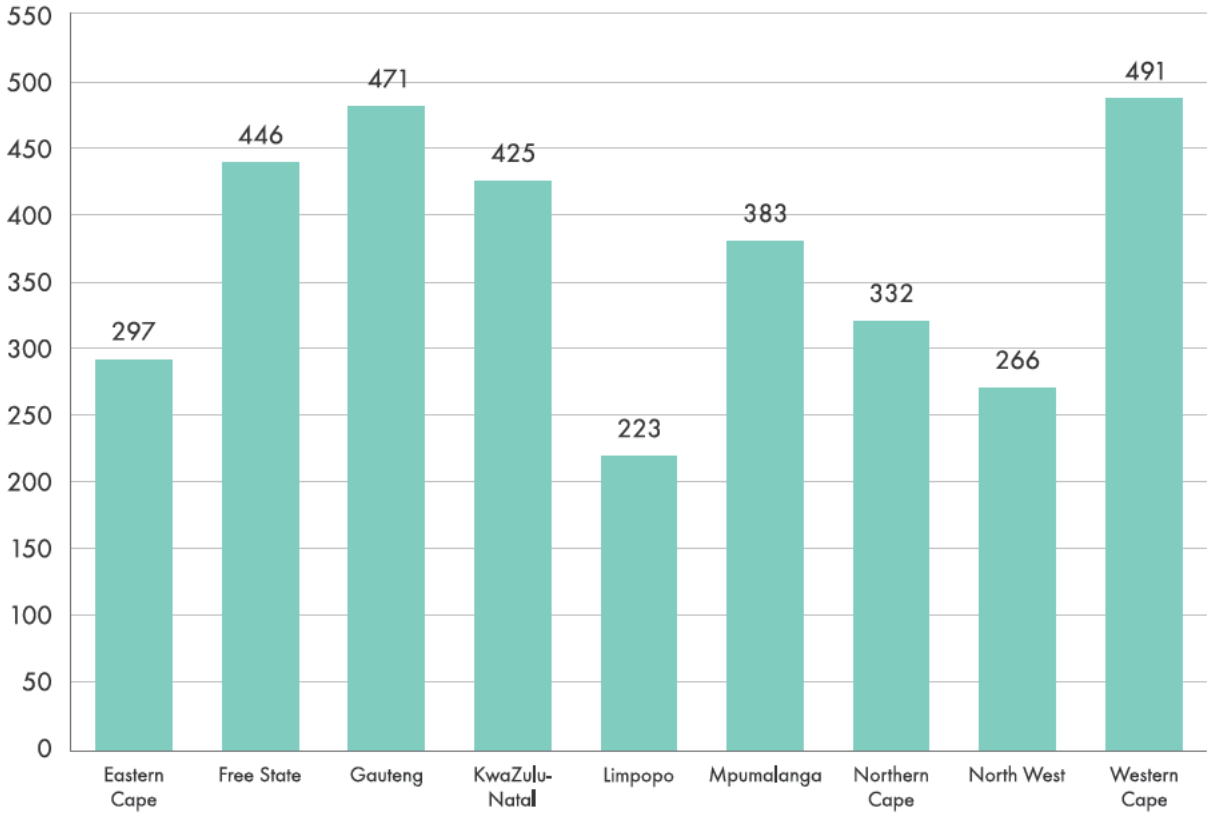
Source: Annual reports for the 2014-15 financial year

Figure 2: Total population and percentage of insured and uninsured population per province



Source: *South Africa Survey 2016*, published by the Institute of Race Relations, extracts from the Statistics South Africa, *General Household Survey 2014*, May 2015

Figure 3: Expenditure in rand value per uninsured person per province



Source: Annual reports for the 2014-15 financial year and the *South Africa Survey 2016*

The management of pharmaceuticals in the public sector, the relevant role players and their responsibilities are presented in the value chain below:

Figure 4: Pharmaceutical value chain

National Department of Health: Responsible for the development of policies and procedures, the provision of support to their provincial counterparts and the administration of pharmaceutical contracts.

Provincial departments: Responsible for planning (including funding, providing and developing human resources, providing and maintaining infrastructure, providing pharmaceuticals), monitoring, evaluating and reporting on health care services in the respective provinces.

District and sub-district offices: Responsible for managing and monitoring the implementation of the district health plans and reporting on their delivery. South Africa has of 52 districts and 235 sub-districts.

Medical depots: Responsible for procuring, storing (and safeguarding) and delivering pharmaceuticals to district pharmacies, sub-depots and health institutions.

There are 10 medical depots in South Africa, one per province, except for the Eastern Cape which has two medical depots. A service provider has been contracted to manage the medical depot in Mpumalanga while the remainder are managed by departmental staff. Pharmaceuticals from nine medical depots are delivered to district pharmacies, sub-depots and health institutions by external service providers.

Health institutions: Responsible for rendering health care services in the provinces. Pharmacists and pharmacist assistants (and nurses) request, store, keep a record of, and dispense pharmaceuticals to patients.

There are 397 hospitals, 242 community health centres and 3 567 clinics in South Africa. A total of 3 018 pharmacists and 3 295 pharmacist assistants are employed to manage and provide pharmaceutical services to patients.

Patients: Pharmaceuticals are provided to almost 44 million potential patients in South Africa that rely on the public sector for health care services.

AUDIT SCOPE

The performance audit was conducted at the national Department of Health and the nine provincial departments.

At the national Department of Health, we focused on its oversight function in terms of managing pharmaceuticals in South Africa and administering pharmaceutical contracts. At provincial departments, we focused on how they managed pharmaceuticals to ensure that patients received their prescribed pharmaceuticals in time. For the purposes of this report, pharmaceuticals include only medicine and medical supplies.[1] The audit was divided into the following four sub-focus areas:

- Policy and planning for pharmaceuticals
- Procurement of pharmaceuticals
- Storage and safeguarding of pharmaceutical stock (stock management)
- Distribution of pharmaceuticals to patients

The audit covered the 2011-12 to 2014-15 financial years. The detailed testing focused on the 2014-15 financial year, as departments, medical depots and health institutions were visited during this period.

We visited medical depots in all nine provinces. We audited various health institutions based on the stock-out rates of their districts. In each province, we selected health institutions at the district with the highest stock-out rate and in some provinces, up to four other districts with lower stock-out rates.[2] In total, we visited 73 health institutions which comprised of 6 hospitals, 10 community health centres and 57 clinics. The outcomes of the performance audit are included in the detailed audit findings of this report.

A follow-up audit was also done during the 2015-16 financial year to monitor progress. We visited nine medical depots and 36 clinics between January and March 2016. The audit covered the procurement of pharmaceuticals, storage and safeguarding of pharmaceutical stock at medical depots and health institutions as well as distributing pharmaceuticals to patients. The outcomes of the follow-up audit are included in annexure A to this report.

[1] According to the basic accounting system (BAS), medicine and medical supplies are two separate line items. Surgical items and medicines that are provided by the use of grants were excluded from the audit

[2] Stock-out rates according to the district health information system (DHIS) per province

PERFORMANCE AUDIT of the **management of pharmaceuticals** at departments of Health

DETAILED AUDIT FINDINGS AND RECOMMENDATIONS

1. Policy and planning for pharmaceuticals

Audit question 1
Did the planning process effectively ensure that prescribed pharmaceuticals were available for distribution to patients in time?

The planning process was not always effective and it contributed to some prescribed pharmaceuticals not always being available for distribution to patients at the time of their visits.

1.1 Policies and procedures not developed, implemented and monitored

1.1.1 Four of the nine provinces, the Free State, KwaZulu-Natal, Limpopo and the Northern Cape, did not develop province specific policies to manage pharmaceuticals. Policies were not developed as they relied on the *Good pharmacy practice in South Africa* issued by the South African Pharmacy Council (SAPC), the *National drug policy*, 1996, and the National Health Act, 2003, to guide them.

1.1.2 All provincial departments developed and documented standard operating procedures (SOPs) critical to managing pharmaceuticals in their provinces. However, these were not implemented and adherence was not monitored at some health institutions visited. This was due to a shortage of pharmacists in provinces or high vacancy rates in the pharmaceutical services directorates, specifically the staff responsible for policies and procedures, pharmaceutical compliance and monitoring.

1.1.3 SOPs were not consistently implemented at health institutions, which contributed to pharmaceuticals not being managed in the most efficient manner. Furthermore:

- There was not always a common understanding of what needed to be done at health institutions to comply with the pharmaceutical services standards. In some instances, the staff lacked the requisite skills and knowledge to order, take stock of and dispense pharmaceuticals
- Staff roles and responsibilities were not always clear. Vagueness about responsibilities led to work being duplicated and tasks being left incomplete
- Tasks such as ordering, taking stock of and dispensing pharmaceuticals to patients were not consistent across all health institutions in the various provinces.

1.2 Budgets not aligned to health care needs

1.2.1 The budgets allocated to procure pharmaceuticals were not always aligned to the actual health care needs of the population served. The actual health care needs of the uninsured population were not adequately provided for during the planning and, specifically, the budgeting process.

For example, in the Eastern Cape and Limpopo R259 and R281, respectively, were allocated per uninsured person compared to the R430 and R411 per uninsured person allocated in Gauteng and the Western Cape, respectively. This difference could not be explained by the number of tertiary and central hospitals in each province, which provide more costly health care services.[3]

The *National drug policy*, 1996, states that the annual budget to procure pharmaceuticals in the public sector should be based on the proper quantification of estimates of the population served. In addition, medicines and medical supplies are regarded by the national Department of Health as non-negotiable items. These items relate to essential services. The aim is that the provincial departments should, at any time during the entire financial year, have adequate funding for these items.

[3] Gauteng has seven tertiary and central hospitals, Eastern Cape and KwaZulu-Natal four each, Western Cape three, Free State, Limpopo, Mpumalanga and North West two each and the Northern Cape one hospital at the same level

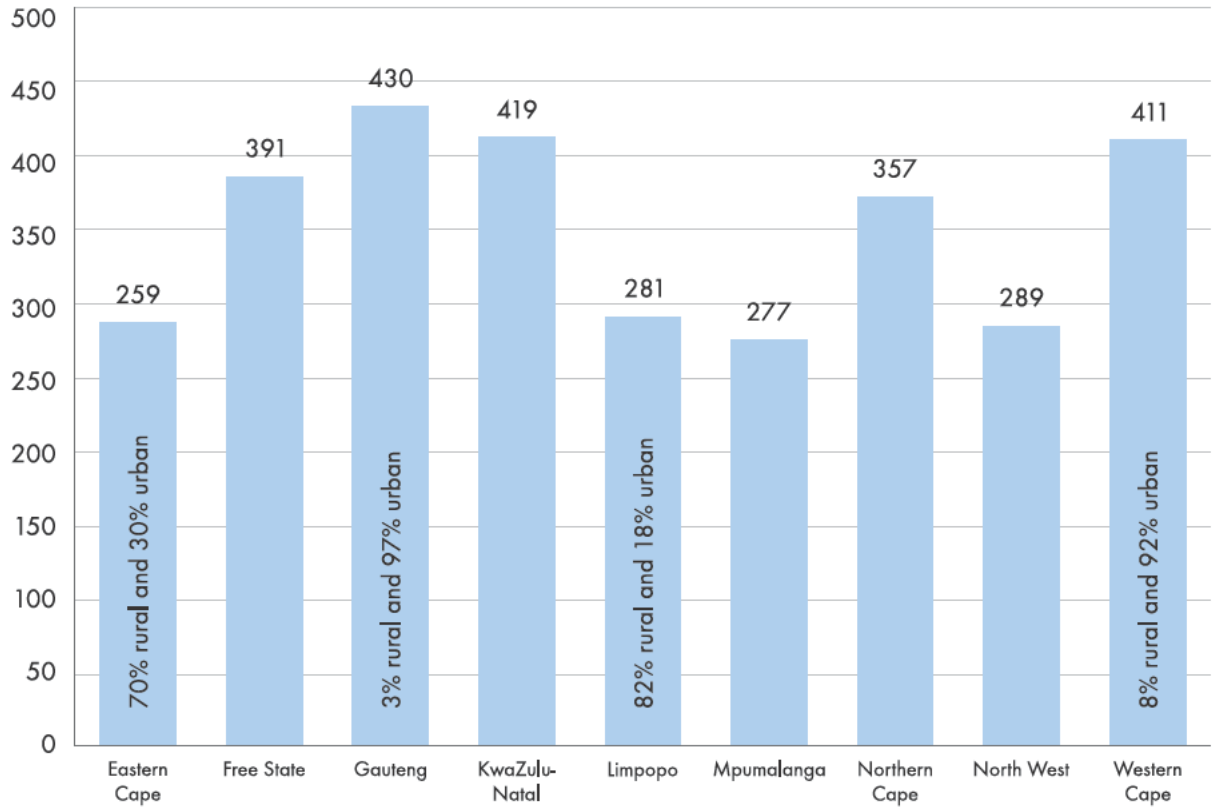
Figure 5 demonstrates the budgeted rand value per uninsured person per province for the 2013-14 financial year. For the provinces in the example above, the percentages of rural and urban population were also included.

1.2.2 The actual health care needs of the uninsured population were not adequately provided for during the budgeting process for the following reasons:

- Seven of the nine provincial departments, excluding the Northern Cape and the Western Cape applied the incremental budgeting principle. With incremental budgeting, budgets are based on historical information and only slight changes are made to the preceding year's budget. The provincial departments used this approach due to the fiscal constraints experienced by them.

- A top-down approach was used in seven of the nine provinces, there was no formal structure for budget decision-making and communication between the directorates responsible for planning, budgeting and pharmaceutical services, except for the Northern and the Western Cape.

Figure 5: Budget in rand value per uninsured person per province



Source: Budgets from the provincial estimates of revenue and expenditure for 2014-15 and the % rural and urban population extracted from the annual reports and information received from Statistics South Africa

- The provincial departments did not always have accurate, complete and reliable statistical information on institutions (hospitals, community health centres [CHCs] and clinics) in terms of their stock availability and the annual consumption of pharmaceuticals at these during the budgeting process.

- Members of medical aid schemes[4] and foreigners received health care, including the required pharmaceuticals, from some health institutions funded by the state. It was difficult for the provincial departments to distinguish as all patients that visited the health institutions received health care. This placed an additional burden on the budget.

1.2.3 Thus, from the outset, the pharmaceutical budgets were not crafted well enough to achieve the health objective of consistently providing patients with the required pharmaceuticals. To ensure that pharmaceuticals were consistently available, some provinces overspent on their pharmaceutical budgets by up to 23% during the 2013-14 financial year.

1.3 Shortage of pharmacists and pharmacist assistants

1.3.1 The provincial departments were short of pharmacists and pharmacist assistants. Pharmacists[5] are responsible for dispensing pharmaceuticals to patients, ensuring that it is suitable for patients, and providing information about pharmaceuticals and its usage to patients and health providers. In addition, they supervise the procurement of pharmaceuticals and ensure that pharmacy premises are fit for their purpose. Pharmacist assistants are trained to process prescriptions and dispense certain schedules of pharmaceuticals under the supervision of a pharmacist.

1.3.2 Despite the implementation of the occupation specific dispensation for pharmacists, it was difficult for some provincial departments to attract and retain health professionals (including pharmacists and pharmacist assistants). Pharmacists were regarded as one of the critical occupations with the highest number of resignations. During the 2013-14 financial year, 654 pharmacists terminated their services at provincial departments. Figure 6 demonstrates the vacancy rate of pharmacists and pharmacist assistants for the 2013-14 financial year per province. The average vacancy rates were 26% and 14% for pharmacists and pharmacist assistants, respectively.

1.3.3 The following contributed to the shortage of pharmacists and pharmacist assistants in the provinces:

- The migration of staff abroad poses a threat to the already limited number of health professionals in South Africa.

- As far as the private and public sector is concerned, pharmacists and pharmacist assistants preferred the private sector to the public sector. Only 26% of the pharmacists and pharmacist assistants in provinces registered at the SAPC were employed in the public sector serving 79% of the population.[6]

- Pharmacists and pharmacist assistants preferred urban areas to rural areas as the physical working environments were not always conducive in rural areas.[7] The non-availability of suitable housing for their families and schools for their children in rural areas was a contributing factor.

- The need for pharmacists and pharmacist assistants was not satisfied by the number of graduates in the profession annually. The number of pharmacists and pharmacist assistants graduating annually through the eight pharmacy schools in six of the nine provinces was not sufficient to satisfy the health care needs in South Africa. The Free State, Mpumalanga and the Northern Cape did not have any pharmacy schools. Consequently these provinces experienced the highest vacancy rates for both pharmacists and pharmacist assistants.

4 The National Health Act, 2003, states that the state must provide free health care services to all persons, with the exception of members of medical aid schemes

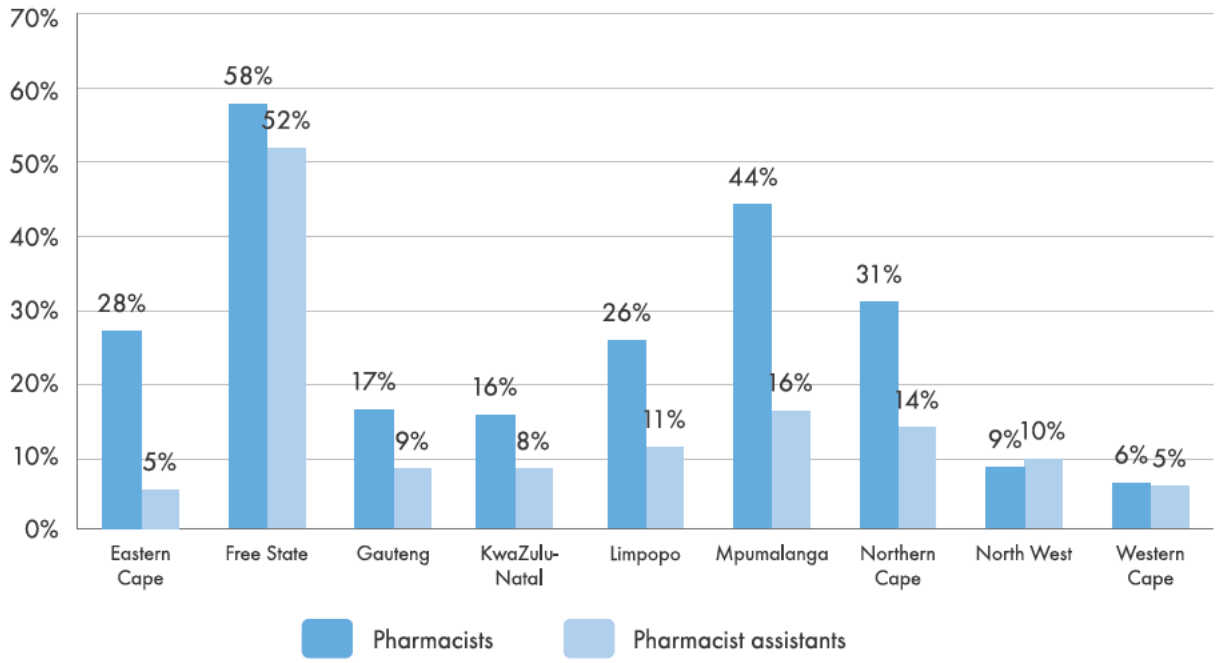
5 The Medicines and Related Substances Control Amendment Act 90, 1997 states that medicines can be dispensed by a pharmacist, pharmacist assistant, or person (which can be a nurse) who is the holder of a licence contemplated in terms of section 22C(1)(a) of the Act

6 The Pharmacy Act 53, 1974 regulates the registration of pharmacists and pharmacist assistants. These calculations were based on the assumption that all these employed by provincial departments were registered. However, the registration of some pharmacists and pharmacist assistants employed were not on the SAPC database

7 To address the unequal distribution of staff between rural and urban areas, the rural allowance was introduced during 2004

- Human resource plans and organisational structures were not based on the needs of each health institution. For example, a generic organisational structure was used for all the clinics in the Eastern Cape, according to which 16 posts were allocated to each clinic. The head count[8] at the Zwide Clinic was 111 931, compared to that at the Hlomendlini Clinic, which had a head count of 7 150 between April and December 2013. Although the Zwide Clinic served up to 16 times more patients than the Hlomendlini Clinic, their organisational structures were the same.
- The organisational structures were outdated as some were last approved during 2007, more than nine years ago. Where organisational structures were approved, it was not always loaded onto the personnel salary system (Persal). These structures were consequently not aligned to the commitments contained in their latest strategic plans, or to support the envisaged health outcomes.
- A time-consuming recruitment process was followed.

Figure 6: Vacancy rates for pharmacists and pharmacist assistants per province



Source: Data extracted from Persal as at 31 March 2014 and the annual reports for the 2013-14 financial year

[8] Patients of all ages attending the health institution for primary health care services daily; each patient is counted once a day regardless of the number of services provided on the day

- Funded posts that had been vacated were not filled due to budget constraints. Some funded posts for pharmacists and pharmacist assistants were not filled for years after they became available. For example, in Limpopo 33 pharmacist assistant posts have been vacant since 2012 and in KwaZulu-Natal two pharmacist posts have been vacant at the Murchison and Wentworth Hospitals since July and October 2009, respectively.

1.3.4 The shortage of pharmacists and pharmacist assistants had a negative impact on the timely delivery and quality of health care services. The lack of a sufficient complement of pharmacists and pharmacist assistants contributed to the following:

- No or limited supervisory visits and operational support from district and sub-district offices' pharmacists to staff at health institutions. Board notice 271 of 2013, issued by the SAPC, states that those pharmacists who undertake supervisory support while not physically present at the health care institutions, must visit the institutions at least once a month. At some health institutions visited, staff indicated that the pharmacists only visit them on request or once every year.

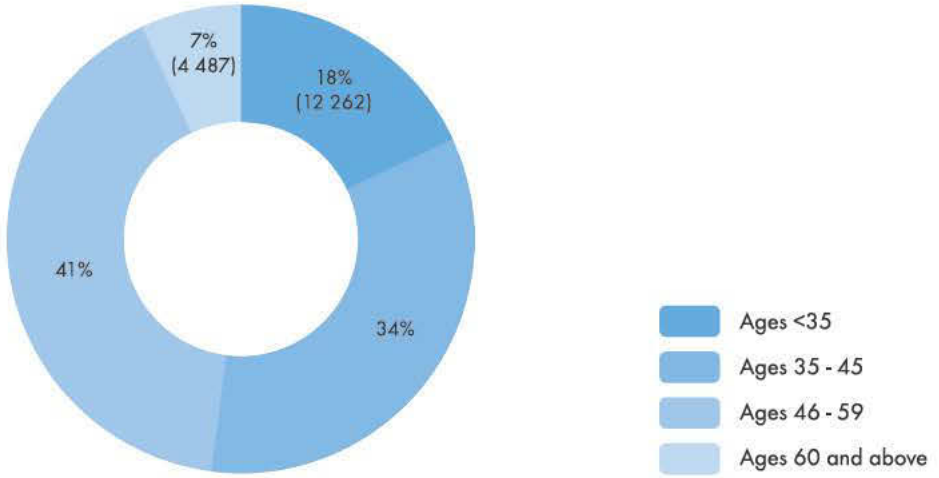
- Increased workload for pharmacist assistants. At some health institutions visited, the pharmacist assistants dispensed pharmaceuticals for up to 100 prescriptions per day. For example, at the Laetitia Bam CHC in the Eastern Cape, the pharmacist assistants dispensed pharmaceuticals for approximately 90 prescriptions per day each. This is 50% more than the norm of 60 prescriptions per day recommended by the World Health Organisation (WHO). At this CHC, one pharmacist assistant dispensed pharmaceuticals for approximately 11 prescriptions per hour. This means the assistant effectively spent five minutes on each prescription.

- Shifting the tasks of the pharmacists and pharmacist assistants to nurses increased the workload of nurses. The WHO describes task shifting as an acceptable process of delegation whereby tasks are moved, where appropriate, to less specialised health workers such as qualified nurses. However, this process resulted in longer waiting periods for patients since nurses have to first consult patients before dispensing their medicine. This also contributed to the potential burnout of the nurses. Task shifting was evident at 25 of the 73 health institutions visited (34%).[9]

  At some of the health institutions visited, the nurses attended to more than 40 patients per day per nurse. For example, at the Naas Clinic in Mpumalanga, the nurses each attended to approximately 80 patients per day. This was 100% more than the norm of 40 patients per day recommended by the WHO.

Furthermore, the nursing population is slowly becoming an aging population, with low numbers of young nurses entering the ranks. As at 31 March 2014, the ages of the professional nurses in the provinces varied between 20 and 81 years old. Figure 7 shows the percentage of professional nurses in different age categories. There were 4 487 professional nurses that were 60 years old (retirement age) and above (7%), compared to 18% who were younger than 35 years.

Figure 7: Age categories of professional nurses



Source: Data extracted from Persal as at 31 March 2014

[9] These were health institutions visited with no pharmacists or pharmacist assistants

1.4 Oversight functions not executed optimally

1.4.1 Some oversight functions at national level could not always be executed in the most effective manner due to, among others, the following reasons:

- The information submitted by the provincial departments to the national Department of Health was sometimes of poor quality and submitted late. As a result, staff at the national Department of Health could not always assess and analyse the functioning and performance of the directorates responsible for pharmaceutical services in all the provinces on a quarterly basis. For example, Mpumalanga did not submit any of the required information during the 2013-14 financial year due to the suspension of the responsible director.

- Even though the national Department of Health issued reports that highlighted the key issues and challenges experienced by provincial departments in terms of the functioning of the Provincial Pharmaceutical and Therapeutics Committees (PPTCs), financial management, medicine supply management and human resources, it was not always used. Some of the directorates responsible for pharmaceutical services in the provinces did not always address the issues and challenges identified and did not implement the recommendations as per the medicine availability reports in a timely manner.

- Even though the national Department of Health facilitated the bid specification and bid evaluation committee meetings, representatives from all the provinces did not always attend and contribute during these meetings. These committees were established to provide platforms for staff at national and provincial level to discuss, amongst others, the evaluation of tenders for the award of pharmaceutical contracts, bid specifications, challenges with suppliers and the submission of the estimates for new tenders.

1.4.2 The directorates responsible for pharmaceutical services in the Eastern Cape, KwaZulu-Natal, Mpumalanga and North West did not execute all of their oversight functions optimally. This was mainly due to the vacancy rates in the directorates. The Eastern Cape and Mpumalanga experienced the highest vacancy rates of 50% and 93% respectively. The following functions, among others, were not executed in the most efficient and effective manner:

- Monitoring the implementation of policies and/or SOPs with regard to pharmaceutical services.
- Ensuring access to, and the availability of, medicine at all levels of health care.
- Monitoring and evaluating health institutions' compliance with legislation.
- Overseeing and monitoring the effective functioning of medical depots.
- Supervisory visits and support to health institutions in terms of the storage conditions (suitability, neatness and cleanliness), security (access control), stock management systems and procedures, and medicine availability. Some staff at the health institutions visited indicated that management last visited their institutions prior to 2012. Therefore, inspections were not undertaken and reports (covering the shortcomings noted during the visits and recommendations to address these) were not issued to the health institutions.

1.4.3 The accounting officers in all the provinces appointed some members for the PPTCs. However, in the Eastern Cape, Mpumalanga, Northern Cape and North West examples were identified where District Pharmaceutical and Therapeutic Committees (DPTCs) were either not established or were not functioning optimally in some of the districts.

These committees are used by pharmacists (and other relevant role players) to share experiences, discuss achievements and find solutions to challenges relating to the provision of health care services. They also determine which pharmaceuticals should be available at the health institutions and, if it is not on the provincial medicine list, motivate to procure such for the patients.

1.5 Recommendations

1.5.1 The policies and SOPs for the management of pharmaceuticals should be developed, reviewed, approved and implemented by provincial departments. Compliance of medical depots and health institutions with the policies and SOPs should be monitored.

1.5.2 Provincial departments should reconsider the use of the incremental budgeting approach in compiling the pharmaceutical budgets and rather consider the actual health care needs of the communities by taking the burden of disease in the provinces and health care utilisation statistics into account during the planning process.

During the budgeting process, the planning and budgeting directorates at the provincial departments should consult with the relevant role players. These could include the directorate responsible for pharmaceuticals services, the district managers and sub-district pharmacists. Also, the estimates provided by provincial departments to the national Department of Health during the tender phase for pharmaceuticals contracts should be based on this planning and budgeting process.

1.5.3 Provincial departments should review and, where appropriate, update their current human resource plan and align the organisational structures accordingly. The following should be taken into account during the review of the current human resource plan:

- Availability of funds
- Guidance provided by the *Implementation guideline of Health Workforce Normative Guides and Standards for fixed primary health care facilities*
- Critical positions, which should be filled by persons with appropriate competencies, qualifications and experience at district, sub-district and institutional levels
- Distribution of pharmacists and pharmacist assistants among the various districts (and even down to institutional level), especially taking into consideration head counts at the various health institutions
- Number of pharmacists and pharmacist assistants that annually graduate
- Working conditions, including the physical work environment.

1.5.4 Provincial departments should investigate the DPTCs and PPTCs to determine why they are not operating effectively. Corrective actions should be implemented to ensure that these oversight committees function effectively as they play a critical role in pharmaceutical management in the respective provinces.

2. Procurement of pharmaceuticals

Audit question 2
Were pharmaceuticals procured in accordance with a process that promoted economy and efficiency?

Pharmaceuticals were not always procured in accordance with a process that promoted economy and efficiency.

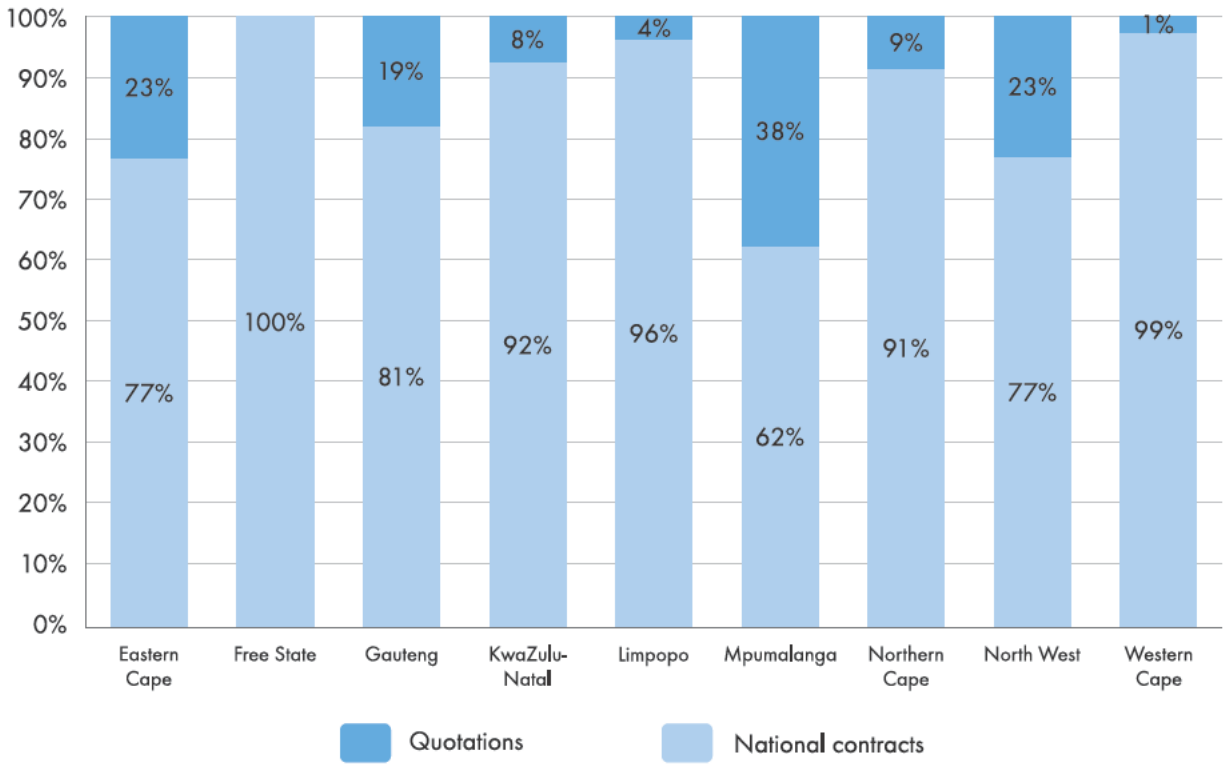
Medical depots[10] procured pharmaceuticals using the 25 contracts administered by the national Department of Health. Buy-outs occurred when essential medicines were not available from the suppliers on the national contracts. In these cases, medical depots procured the required pharmaceuticals directly from the suppliers by following the supply chain management prescripts issued by the National Treasury.

The administration of the national contracts was transferred from the National Treasury to the national Department of Health during the 2011-12 financial year. As the national Department of Health was leveraging on market intelligence during the tender processes, savings worth approximately R2,1 billion and R76 million were reported during the 2012-13 and 2013-14 financial years respectively. Using the national contracts also promotes efficiency in the procurement process, as less time is spent on obtaining and evaluating quotations.

Since the 2011-12 financial year, there has been a steady increase in the use of the national contracts by medical depots except for Mpumalanga and North West, that showed a slight decrease in the use of these contracts. In the 2013-14 financial year, medical depots procured, on average, 86% of their pharmaceuticals using the national contracts. The medical depot in Mpumalanga and the Mthatha medical depot in the Eastern Cape only procured 62% and 69%, respectively, of their pharmaceuticals using the national contracts. In the same year, these two medical depots procured pharmaceuticals of approximately R556 million by obtaining quotations from suppliers. Figure 8 includes the percentage of pharmaceuticals procured by the medical depots using the national contracts and those procured by obtaining quotations per province for the 2013-14 financial year.

[10] Each province has one medical depot, except for the Eastern Cape, which has two: the Mthatha medical depot and the Port Elizabeth medical depot

Figure 8: Percentage of purchases on national contracts versus those on quotation per province



Note 1: The percentage of purchases on national contracts and on quotations was 69% and 31% respectively at the Mthatha medical depot and 85% and 15% respectively at the Port Elizabeth medical depot in the Eastern Cape
Note 2: In the Free State and Limpopo, pharmaceuticals were mainly procured using the national contracts as these departments' financial management authority was transferred to the provincial treasuries
Note 3: Some of the hospitals in Gauteng and Western Cape procure pharmaceuticals on the national contracts directly from the suppliers. Therefore their buy-outs are not reflected in the figure

2.1 Pharmaceuticals not provided for in national contracts

2.1.1 Some essential medicines were not provided for in the national contracts as there were no responses from prospective suppliers for these items during the tender process. A supplementary tender process was followed and if a tender could not be awarded after the second attempt, the national Department of Health advised provincial departments to go out on provincial tenders or quotations.

2.1.2 The WHO describes essential medicines as those that satisfy the priority health care needs of a specific population. Essential medicines are intended to be available within the health care system at all times in adequate quantities. The following are examples of essential medicines (treatment for conditions given in brackets) that were not provided for in the national contracts, which resulted in buy-outs in some provinces:

- Activated charcoal (used to manage overdosing with certain substances)
- Amphotericin B (treatment for fungal infections)
- Phenobarbital tablets (used to control and manage seizures)
- Ringer lactate (used for intravenous infusions in certain situations).

2.2 Pharmaceuticals not delivered within the agreed times

2.2.1 Pharmaceuticals procured using the national contracts were not always delivered to medical depots within the agreed delivery time.[11] Prior to 2014, the delivery lead time was set at six weeks (42 calender days). Since 2014 the delivery lead time in the national contracts has been set at three weeks (21 calender days). Table 1 includes examples of purchase orders that had not been delivered up to 711 days (almost two years) after they were placed.

2.2.2 Some suppliers exceeded the delivery lead time for the following reasons:

- Suppliers experienced stock-outs of items due to, for example, the shortage of active pharmaceutical ingredients (manufacturing challenges).
- Suppliers would allocate their limited stock to those provinces that imposed penalties first.
- Payments made to suppliers were late and, as a result, the suppliers were reluctant to supply stock until they were paid.
- Suppliers provided only a portion of an order within the expected lead time and the rest after the delivery lead time.
- Suppliers did not have stock on hand, as the quantities provided for in the national contracts were exceeded before the end of the contract period. Therefore, the quantities in these contracts were not sufficient to meet the demand from the provinces. This occurred as the initial estimates provided by provincial departments to the national Department of Health during the tender process were too low.

2.2.3 When pharmaceuticals included in the national contracts were not delivered to medical depots within the agreed delivery times, buy-outs occurred. In such cases pharmaceuticals were procured by obtaining quotations from other suppliers to address the stock-outs or shortages caused by the late or non-delivery of pharmaceuticals.

[11] Time from the placement of an order to the delivery

Table 1: Orders not delivered within the required lead time

Province	Purchase order number	Item description	Order date	Days since ordering	Value of purchase order
Eastern Cape	479681	Clonazepam tablets	9 January 2013	533	R27 664
	480000	Paper bag for steam sterilisation	24 January 2013	518	R29 296
	480689	Diphenhydramine cough syrup	15 March 2013	467	R102 110
Free State	215869	Cefixime tablets	28 February 2014	246	R53 160
	215945	Nifedipine tablets	10 March 2014	236	R68 610
	216150	Paracetamol and codeine tablets	14 April 2014	201	R60 646
Gauteng	317559	Gentamycin injections	17 April 2013	266	R34 821
	322303	Ciprofloxacin injections	15 January 2014	211	R111 700
	320984	Amitriptyline HCL tablets	15 October 2013	132	R142 008
KwaZulu-Natal	349509	Cetirizine dihydrochloride tablets	25 February 2013	711	R9 880
	357488	Amoxycillin and clavulanic acid	11 October 2013	483	R40 772
	360383	Ferrous sulphate tablets	13 December 2013	420	R87 846
Limpopo	LP/14/4767	Nebuliser for Beta 2 and mask	17 November 2014	168	R19 892
	LP/14/4817	Vaccine BCG 20 vial	2 December 2014	163	R92 983
	LP/14/5105	Lanzoprazole capsules	24 December 2014	141	R32 242
Mpumalanga	MP/13/4977	Albendazole	25 June 2013	464	R1 000
	MP/13/5083	Thyroxine Sodium	28 June 2013	461	R12 575
	MP/13/5940	Acetylcholine	30 July 2013	429	R15 680
Northern Cape	PX-108924	Perindopril tablets	8 May 2014	122	R29 598
	FB-109466	Ciprofloxacin suspension	8 May 2014	122	R4 489
	KH- 112500	Chloramphenicol eye ointment	6 May 2014	124	R1 869
North West	29059	Human coagulation factor	13 August 2014	208	R220 681
	29224	Antazoline Tetrahydrozoline eye drops	20 August 2014	201	R111 930
	29340	Amitriptyline hydrochloride tablets	25 August 2014	196	R42 237
Western Cape	514991	Ferrous sulphate tablets	10 January 2014	251	R25 622
	429434	Autoclave tape	20 March 2014	230	R77 414
	186469	Alendronate sodium trihydrate	11 March 2014	168	R459

Note 1: The number of days since ordering was based on a specific point in time during the audit. These varied between 26 June 2014 for Eastern Cape and 19 May 2015 for Limpopo
Note 2: Lead times for the Western Cape are the time elapsed between the order dates and the dates at which the buy-out order was placed. When the department realised that the national contract suppliers would not deliver, they placed a buy-out order with alternative suppliers

2.3 Penalties not imposed for delivering pharmaceuticals late

Penalties were not imposed when the suppliers to whom the national contracts had been awarded failed to deliver the required pharmaceuticals within the delivery lead time in seven of the nine provinces. Gauteng and the Western Cape were the only provinces that imposed penalties for late delivery. As a result, there were no consequences for suppliers who did not deliver pharmaceuticals within the required lead time.

Section 22.1 of the general conditions of the national contracts states that the purchaser, the provincial department, shall deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods using the current prime interest rate calculated for each day of the delay until actual delivery.

2.4 Late payments to suppliers

2.4.1 Pharmaceutical suppliers were not always paid in time. As at July 2014, provincial departments owed 50[12] of the 123 suppliers to whom the national contracts were awarded approximately R1,09 billion for the procurement of pharmaceuticals. Of this amount, R674 million (62%) was not settled within 30 days. The treasury regulations issued in terms of the Public Finance Management Act, 1999, require all payments due to creditors to be settled within 30 days from receipt of an invoice.

When suppliers report non-payment to the national Department of Health, the director-general writes to the heads of the departments (HoDs) requesting compliance with the Public Finance Management Act, 1999. Table 2 includes a summary of the outstanding debt per province as at July 2014.

Table 2: Outstanding debt to suppliers on the national contracts per province

Province	Period of debt				Total outstanding debt
	≥30 days	60 days	90 days	≥120 days	
Eastern Cape	R23 186 485	R2 857 705	R1 356 407	R10 490 434	R84 230 963
Free State	R15 480 693	R10 300 695	R12 891 980	R20 118 589	R79 488 361
Gauteng	R123 673 432	R36 562 370	R8 732 464	R39 151 908	R282 270 539
KwaZulu-Natal	R66 134 818	R20 974 164	R17 274 075	R40 323 669	R266 281 808
Limpopo	R25 609 075	R7 287 352	R2 367 580	R19 873 292	R99 188 275
Mpumalanga	R49 720 011	R23 441 252	R5 319 282	R950 763	R111 331 271
Northern Cape	R10 099 820	R2 025 022	R510 400	R2 040 646	R24 442 197
North West	R26 047 042	R3 603 566	R1 320 564	R18 676 412	R81 863 761
Western Cape	R14 247 995	R1 942 461	R988 219	R8 526 350	R65 715 490
Total	**R354 199 372**	**R108 994 586**	**R50 760 972**	**R160 152 064**	**R1 094 812 665**

Note: The total outstanding debt included the current debt of R420 705 671 as at July 2014

[12] The source is a presentation done by the national Department of Health's chief director responsible for sector wide procurement dated 8 September 2015. This is supplier reported debt only (not confirmed by the provincial departments) and it's made up of the outstanding debt to 50 suppliers that responded to a request; it is not the top 50, therefore the amount could be understated

2.4.2 In some instances, the invoices were not settled within 30 days because of the following:

- Financial constraints prohibited some provinces from settling their outstanding debt. For example, the North West department did not process any payments to suppliers during March 2014 due to financial constraints, as the 2013-14 financial year's budget was exhausted by February 2014. As a result, the department started the 2014-15 financial year with a backlog of payments to clear from the previous year.[13]

- There were variances between the unit prices on the medical stock administration system (Medsas)[14] and the invoices received from the suppliers. This was because the application was not always updated with the national contract price adjustments for pharmaceuticals in a timely manner. For example, the Gauteng department identified 1 429 purchase orders during the 2013-14 financial year, where the unit prices on the purchase orders did not correspond with those on the suppliers' invoices due to outdated unit prices on Medsas. The difference between the purchase orders and invoices for the 1 429 purchase orders amounted to R22 013 826. This placed an administrative burden on staff at the medical depot. The correction of prices on Medsas resulted in internal investigations, the compilation of additional documentation and approvals for the corrections, delay of payments to the suppliers and, ultimately, the late delivery of pharmaceuticals.

2.4.3 The late or non-payment of suppliers had a negative impact on medicine availability in the provinces. Without regular payments, the suppliers face undue levels of debt, giving them cause to default on orders, leading to pharmaceutical shortages and stock-outs at medical depots and, ultimately, the health institutions. Pharmaceutical shortages have a direct impact on the well-being of patients who rely on the regular and timely supply of medicines.

2.5 Procuring pharmaceuticals at higher prices

Medical depots in eight[15] of the nine provinces procured pharmaceuticals at higher prices from suppliers who were not part of the national contracts. Buy-outs occurred regularly at medical depots as the national contract suppliers did not maintain the required pharmaceutical supplies consistently throughout the duration of their contracts. Instances occurred where the quotations accepted[16] by the provincial departments were up to 7 512% higher than the prices in the national contracts. Therefore, pharmaceuticals were not always procured in the most economical manner.

Table 3 provides examples of the differences between prices set in the national contracts and the quotations accepted per province. The national contract numbers start with HM or HP and the quotations has their individual numbers.

13 During the 2014-15 financial year, the payment turnaround time to suppliers improved
14 Medsas is an electronic stock management system used for the ordering, receiving, issuing and maintenance of pharmaceutical stock

15 The Free State was excluded as they only procured pharmaceuticals by using the national contracts
16 The medical depots in Gauteng and Western Cape recovered the difference between the price on the national contract and the price on the quotation (on a buy-out) from the defaulting suppliers

Table 3: Pharmaceuticals procured at higher prices from suppliers who were not part of the national contracts

Province	Purchase order number	Item description	Quotation or national contract number	Unit price	Difference	Units on buy- out	Difference in rand
Eastern Cape	332969	Wound dressing	DDV2013	R148,20	716%	200	R26 008
			HM02-2013	R18,16			
	201147	Simvastatin tablets	QT021/13DM	R27,65	384%	18 000	R394 895
			HP092012SD	R5,71			
Gauteng	327212	Risperidone tablets	36/05/14	R326,54	7 512%	1 500	R483 375
			HP09/2012	R4,29			
	327490	Co-trimoxazole injection	36/43/14	R50,64	1 804%	9 800	R470 204
			HP02/2013	R2,66			
KwaZulu-Natal	361784	Dopamine injection	ZQ36/03.14	R39,96	1 241%	1 050	R38 829
			HP06-12SVP	R2,98			
	363122	Albendazole tablets	ZQ47/03.14	R25,39	704%	5 000	R111 153
			HP09-12SD	R3,16			
Limpopo	LP/14/4645	Catheter 14 FG	DEPO 0816	R6,38	61%	15 080	R36 343
			HM07-2013CT	R3,97			
Mpumalanga	MP-14-3665	Amoxicillin suspension	MP-14-3665	R28,26	105%	15 000	R216 750
			HP02-2013AI	R13,81			
	MP-15-1913	Midazolam injection	MP-15-1913	R92,34	177%	4 700	R277 347
			HP06-2012SVP	R33,33			
Northern Cape	AL-100143	Suxamethonium ampule	AL-100143	R9,99	277%	2 760	R20 258
			HP06-2012SVP	R2,65			
	KH-113451	Sodium valproate vial	KH-113451	R240,52	135%	640	R88 301
			HP06-2012SVP	R102,55			
North West	20218	Clotrimazole cream	0446	R6,37	149%	19 243	R73 316
			HP02-2013AI	R2,56			
Western Cape	520917	Benzoyl peroxide gel	Not indicated	R133,60	479%	2 000	R221 020
			HP08-2012S	R23,09			
	521316	Sodium bicarbonate injection	Not indicated	R51,64	95%	1 000	R25 190
			HP06-2012S	R26,24			

Note: The national contract numbers start with HM or HP and the quotations have individual numbers. Some of the references included as a quotation number are not the number on the physical quotation provided by the prospective supplier, but a number allocated per the stock management systems used by medical depots

2.6 Time-consuming and labour-intensive procurement process

2.6.1 When buy-outs occurred, the pharmacists at medical depots procured the required pharmaceuticals from the suppliers by obtaining three quotations as required by the management prescripts of the National Treasury. Due to the number of buy-outs, this was a time-consuming and labour-intensive process, as the pharmacists had to obtain the quotations, evaluate them and award the bids.

2.6.2 As buy-outs occurred weekly in some of the provinces, it did not promote efficiency in the procurement process. Table 4 contains the number and value of quotations accepted by medical depots in the three provinces with buy-out rates in excess of 20% during the 2013-14 financial year. It also contains the average number of quotations obtained and evaluated per working day based on the assumption that three quotations were obtained for each purchase order (or quotation accepted).

Table 4: Quotations evaluated and accepted during the procurement process

Province	Quotations accepted	Value of purchase orders	Quotations evaluated	Quotations obtained and evaluated per working day
Eastern Cape	1 196	R135 968 031	3 588	14
Mpumalanga	4 297	R386 459 473	12 891	51
North West	2 157	R179 017 590	6 471	26

Note: The number of quotations requested and evaluated per working day was calculated on the 251 working days during the 2013-14 financial year

2.7 Recommendations

2.7.1 Provincial departments should use the national contracts to procure pharmaceuticals. Inviting quotations (buy-outs) should be kept to a minimum. When buying outside the national contracts, provincial departments should follow the supply chain management prescripts issued by the National Treasury.

2.7.2 Provincial departments should engage with the national Department of Health to include all the essential medicines in the national contracts, or the provinces should obtain tenders for province-specific needs. This will reduce costs, save time (as the procurement clerks would not need to obtain quotations) and ensure that essential medicines are always available in adequate quantities.

2.7.3 Provincial departments should communicate instances where the suppliers to whom the national contracts were awarded failed to deliver pharmaceuticals within the agreed lead times to the national Department of Health. Provincial departments (purchasers) should impose penalties for late delivery.

2.7.4 Provincial departments should institute measures to clear the outstanding debt and to ensure that payments are made to suppliers within 30 days of receipt of an invoice.

3. Stock management at medical depots and health institutions

Audit question 3
Did the stock management systems effectively and efficiently ensure that pharmaceuticals were available for distribution to health institutions and patients in time?

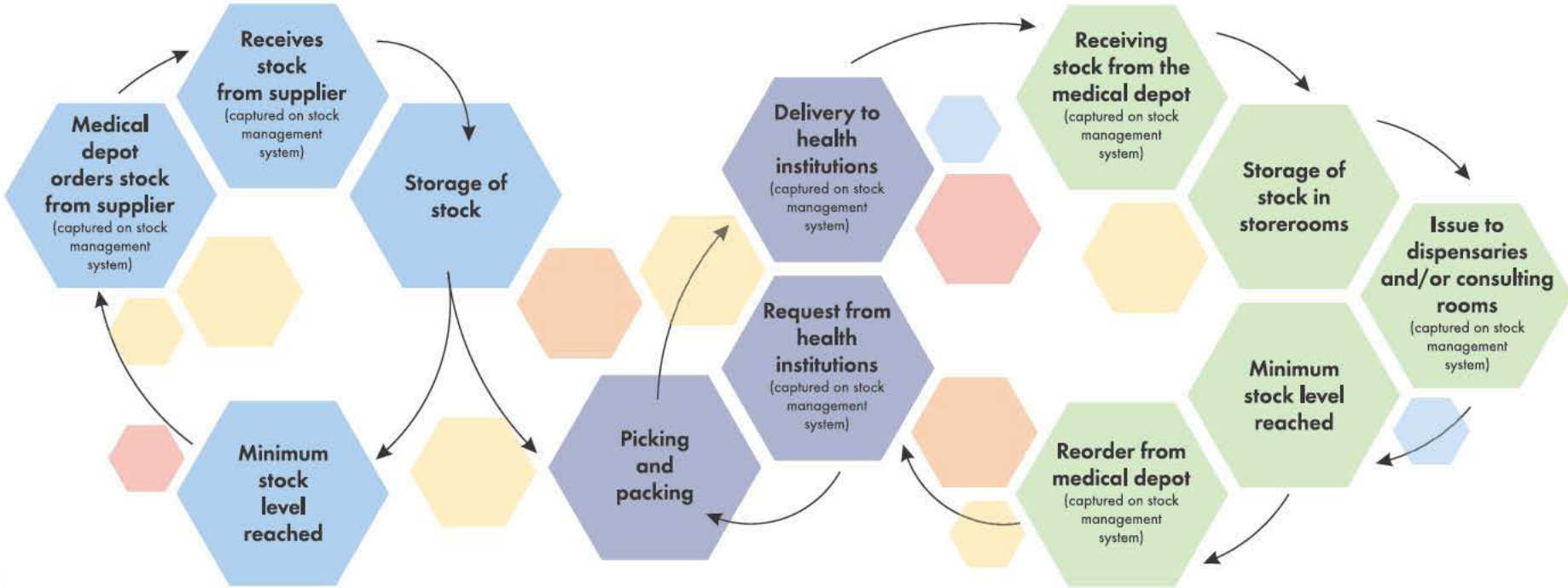
The stock management systems were not always effective and efficient. As a result, pharmaceuticals were not always available for distribution to health institutions and patients in time.

Pharmaceuticals were stored and safeguarded at medical depots and, in some provinces, in the district pharmacies and sub-depots before delivery to health institutions. District pharmacies and sub-depots are points between medical depots and health institutions that request pharmaceuticals on behalf of some health institutions, store pharmaceuticals and deliver these to health institutions. Sub-depots can be in the form of district offices, sub-district offices, storerooms at hospitals, small warehouses etc.

Pharmaceuticals were then stored in the storerooms of health institutions after delivery. The stock management process at medical depots and health institutions is illustrated in figure 9.

Nine of the ten medical depots were managed by own staff. The management of the medical depot in Mpumalanga was contracted out to a service provider with a staff establishment of 178. The current service provider was appointed during 2010 to manage the medical depot. This included the procurement, repacking, warehousing

Figure 9: Stock management process at medical depots and health institutions



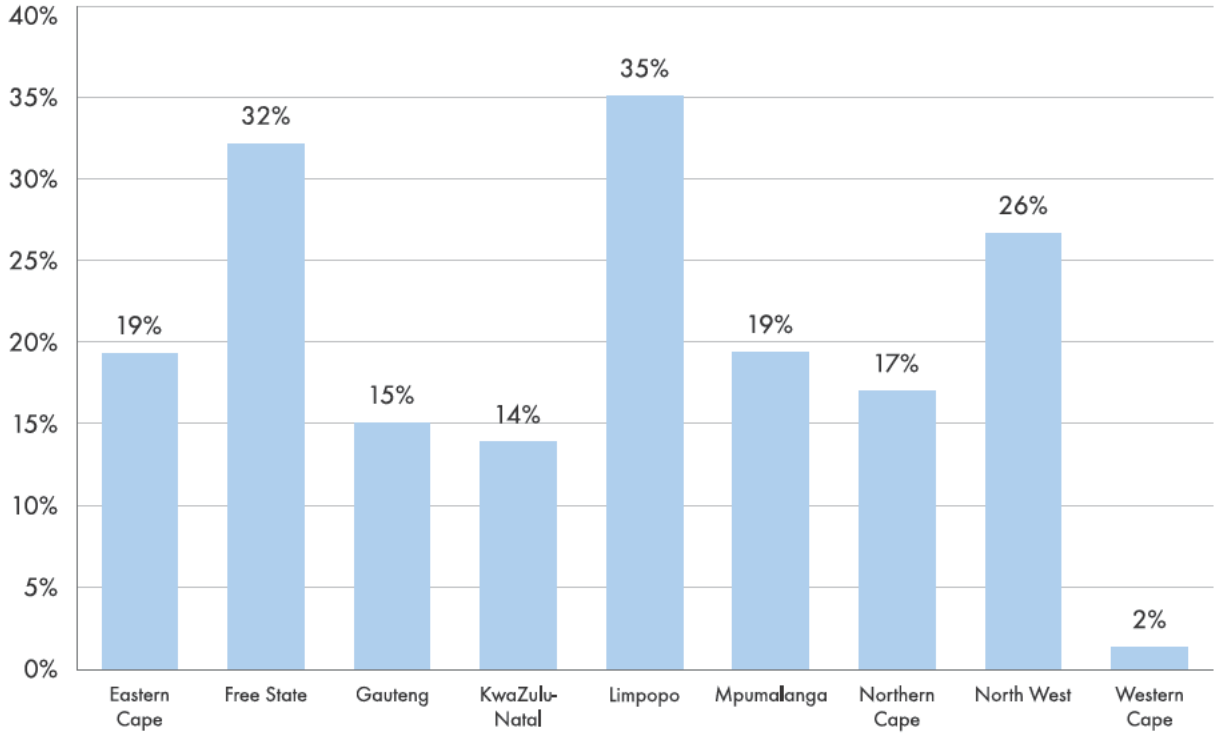
and distribution of pharmaceuticals at the medical depot on behalf of the department. The department concluded a temporary service level agreement (SLA) with the service provider and appointed them on a month-to-month basis. As at December 2014 the department had still not signed a contract with the service provider.

A contract was not signed between the department and the service provider, as the department was in the midst of a court case with the previous service provider and was therefore not in a position to sign a contract. As at February 2015, the department had made payments to the value of approximately R4,3 billion to the service provider to deliver these services.

3.1 Pharmaceutical stock-outs and shortages

3.1.1 Patients did not always receive their prescribed pharmaceuticals in time. During the 2013-14 financial year, Free State and Limpopo experienced the highest pharmaceutical stock-out rates for certain essential medicines at the clinics and CHCs. Pharmaceuticals were not always available and accessible at 32% and 35%, respectively, of the health institutions situated in these provinces. Figure 10 illustrates the stock-out rates per province for the 2013-14 financial year.

Figure 10: Pharmaceutical stock-out rates per province



Source: Extract from the DHIS[17] as at 31 March 2014. Stock-out rates for traceable stock at clinics, community health centres and community day centres only

[17] The data captured on the DHIS was not always accurate, complete and/or reliable. As a result, some provinces did not use or rely on this system to report on the availability of pharmaceuticals on primary health care level

3.1.2 All medical depots ran out of stock of essential medicines at certain points in time. The following are examples of essential medicines that were ordered by the health institutions but could not be delivered to them as the medical depots experienced stock-outs of these items as at 30 June 2014. Table 5 also includes the conditions that can be treated by using these.

3.1.3 Fifty-eight of the 73 health institutions visited (79%) experienced stock-outs on the days of the visits. Pictures 1 to 4 show the empty spaces and boxes in storerooms at the Mathibestad and Stilfontein clinics in the North West, the Maclear Town Clinic in the Eastern Cape and the Katrina KoiKoi Clinic in the Northern Cape. At the Stilfontein Clinic, some of the empty boxes were turned upside down while at the others, the bin cards used to capture the movement of stock at health institutions were left in the empty boxes.

3.1.4 Stock-outs and shortages at medical depots and health institutions affected service delivery negatively and led to the following practices:

- Patients were provided with a small supply of medication and asked to return on another day. This was financially crippling for patients as they paid, for example, between R10 and R50 in taxi fees per visit to a health institution.
- Sending patients to nearby health institutions to collect their medicine.
- Patients ignored the clinics and CHCs and went directly to the hospitals, which they knew had stock. They bypassed the patient referral system.
- Patients were sent home without the required medicine, which could worsen their conditions or cause drug resistance because treatment was delayed.

Table 5: Pharmaceutical stock-outs at medical depots

Item description	Stock-outs at medical depots as at 30 June 2014									Condition treated with this medication
	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape	
Chlorhexidine gluconate and alcohol solution	✓	✓	✓	✓		✓				Used to maintain infection control when used by staff for hand hygiene and disinfecting patients' skin
Co-trimoxazole tablets	✓		✓	✓				✓	✓	Provided to human immunodeficiency virus (HIV) positive patients to prevent infections. Also used to treat uncomplicated pneumocystis pneumonia
Folic acid tablets	✓	✓			✓	✓		✓	✓	Used to treat anaemia due to folic acid or iron deficiencies
Ferrous sulphate tablets		✓	✓	✓		✓	✓	✓	✓	
Chloramphenicol eye ointment	✓	✓	✓	✓	✓					Used to treat eye infections (conjunctivitis). Also applied to new-born babies to prevent eye infections
Ergometrine maleate injection	✓	✓	✓	✓	✓					Used to manage uncontrolled bleeding after birth (post-partum haemorrhage)

Source: Letters from the national Department of Health to the heads of provincial departments dated 24 June and 11 July 2014

Pictures 1 to 4: Pharmaceutical stock-outs at health institutions

Note: Pictures 1 and 2 refer to the Mathibestad and Stilfontein clinics in North West, respectively

Note: Pictures 3 and 4 refer to the Maclear Town Clinic in the Eastern Cape and the Katrina KoiKoi Clinic in the Northern Cape, respectively

Table 6 includes examples of health institutions visited where medicine that was used to treat chronic conditions such as diabetes, high cholesterol and kidney failure were out of stock[18] for two months or more.

Table 6: Medicine used to treat chronic conditions were out of stock

Health institution	Item description	Period of stock-out
Caluza Clinic (KwaZulu-Natal)	Simvastatin tablets	9 months
Condition		
Medication to treat high cholesterol and triglyceride levels in the blood. Not receiving this medication can result in increased cholesterol levels, which can lead to heart disease, heart attacks and strokes		
Trichardt Clinic (Mpumalanga)	Calcium gluconate	4 months
Condition		
This medication is used when a patient with acute kidney (renal) failure experiences high potassium levels. It is also used: • if a patient has symptoms due to a lack of calcium (symptomatic hypocalcaemia) • to overcome respiratory depression due to magnesium sulphate given for eclampsia • for muscle pain and cramps after a spider or scorpion bite		
Ikhutseng Clinic (North West)	Metformin	2 months
Condition		
Medication to treat diabetes. Without treatment, a severe acute rise in blood sugar levels can be life threatening, while a chronic persistently raised blood sugar level can cause damage to the heart (cardiomyopathy), nerves (neuropathy), kidneys (nephropathy) and retina (retinopathy)		

[18] In some instances, therapeutic alternatives were provided to the patients to treat the condition

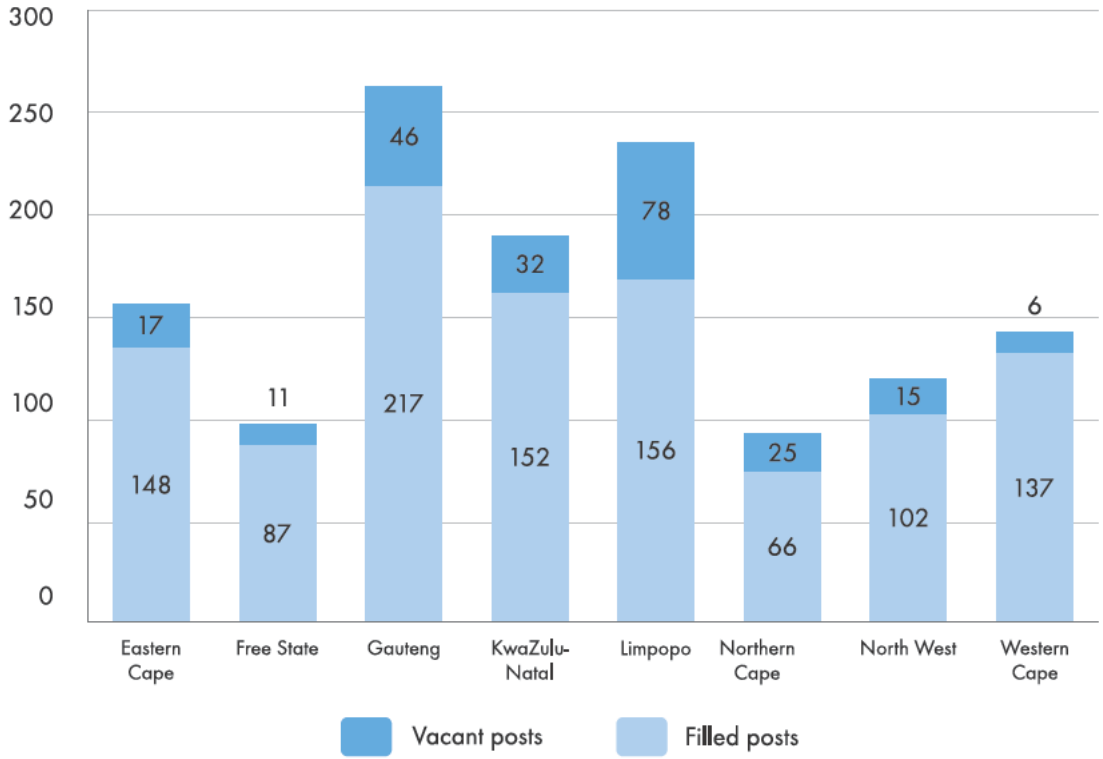
3.2 Medical depots operating without licences

Five of the 10 medical depots (50%) were operating without the required licences issued by the Medicines Control Council (MCC) and an SAPC certificate of recording. These are the medical depots in the Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga. As a result, these provincial departments did not comply with the Medicine and Related Substances Control Act, 1997.

3.3 Staff shortages at medical depots

3.3.1 Of the 1 295 posts at medical depots in all the provinces (except for Mpumalanga which was contracted out to a service provider) 230 (18%) were vacant. The vacancy rates varied between 4% and 33% at medical depots in the Western Cape and Limpopo respectively. Figure 11 shows the number of filled and vacant posts at medical depots per province.

Figure 11: Filled and vacant posts at medical depots per province



Note: The figure excludes the staff at the medical depot in Mpumalanga as the management of the depot was contracted out to a service provider

3.3.2 The vacancies at medical depots resulted in delays in the picking, packing and dispatching of pharmaceuticals, as well as the processing of requests for pharmaceuticals from health institutions, district and sub-district pharmacies and offices. This led to delays in the delivery of pharmaceuticals, which ultimately contributed to the stock-outs and shortages at some health institutions.

3.3.3 Only four departmental staff members were employed at the medical depot in Mpumalanga. Due to resource constraints, the monitoring of the service provider's performance against the temporary SLA was not done in the most optimal manner. The following serve as examples:

- The service provider did not develop and implement an induction, orientation and training programme to transfer skills to departmental staff. As training and the transfer of skills had not taken place, the department was not in a position to take over the daily operations at the medical depot should the temporary SLA be terminated.

- The Mpumalanga Department of Health did not always monitor the fees paid to the service provider, for example:

  - The monthly management fees relating to procurement, warehousing and distribution were not followed up or justified by supporting documentation and satisfactory explanations. For the period April to December 2014, the monthly management fees charged by the service provider varied between 4% and 6% of the value of the pharmaceuticals procured.

  - Even though the SLA did not make provision for any additional fees over and above the monthly management fees, the department paid an additional R4,1 million during December 2014 (one month). The department indicated that these fees were for the supply, development and implementation of an information technology system at the medical depot. However, the department provided the service provider with a fully functional stock management system during 2010.

- The Mpumalanga Department of Health did not inspect the delivery vehicles to ensure that they were suitable for the transportation of medicines.

- The Mpumalanga Department of Health paid the service provider approximately R26,5 million for the delivery of pharmaceuticals from the medical depot to health institutions for the period April 2014 to December 2014 (nine months). According to the department, the delivery fees were calculated by the service provider based on a standard rate of 23,31% of their total fee. According to calculations done by the Auditor-General of South Africa, the department paid the service provider approximately R3,4 million more than the 23,31% of the total fees for the delivery of pharmaceuticals for the period.

3.4 Stock losses due to theft, damage and expiry

3.4.1 Stock losses due to damage and expiry were experienced in all nine provinces. Medical depots wrote off approximately R76,3 million of expired and damaged stock during the 2011-12 to 2013-14 financial years.[19]

3.4.2 The disposal of damaged and expired stock was delayed in the Free State, Gauteng, Mpumalanga and North West. For example, at the medical depot in Mpumalanga, expired and damaged pharmaceutical stock to the value of R11,2 million was stored in the containers outside the medical depot since April 2012. However, as at October 2014, the pharmaceutical stock had not yet been condemned and the HoD had not given approval for its disposal.[20]

At the medical depot in the Free State, the stock was stored inside the quarantine area since October 2013, one year prior to the visit, as there was no contract in place for the disposal thereof. Pictures 5 and 6 show expired and damaged stock at the medical depots in the Free State and Mpumalanga.

[19] This amount excludes the expired or damaged stock at the medical depot in the Free State as they could not determine its value. Records of expired items were not kept by the medical depot

[20] The department's policy and SOPs for pharmaceutical services at primary health care level require that approval be given by the HoD and the provincial treasury before stock may be disposed of

Pictures 5 and 6: Damaged and expired stock at medical depots

Note: Picture 5 refers to damaged and expired pharmaceutical stock in the medical depot in Free State

Note: Picture 6 refers to expired and damaged pharmaceutical stock stored outside the medical depot in Mpumalanga

3.4.3 In addition, some damaged and expired stock was stored in medical depots. Some of the damaged and expired stock was stored on the same pallets and shelves from which staff daily picked and packed items for distribution to health institutions.

Damaged stock included broken, ripped or stained packaging (due to dampness and moisture) and bottles where seals were broken. Pictures 7 to 10 show examples of stock that was damaged and expired at the Mthatha medical depot in the Eastern Cape and the medical depot in North West. Some of the stock on the shelves at Mthatha had expired as far back as November 2013, almost eight months prior to the visit.

Pictures 7 to 10: Damaged and expired stock at medical depots

Note: Pictures 7 to 9 refer to the Mthatha medical depot in the Eastern Cape

Note: Picture 10 refers to the medical depot in North West

3.4.4 Stock was damaged due to poor storage conditions (refer to paragraphs 3.5 and 3.6 below) and the following, among others, contributed to the expiry of stock while stored in medical depots:

- Overstocking of certain pharmaceuticals
- The suppliers delivered short-dated stock[21]
- Limited staff to monitor the work of the pickers. Even though items that expire first were supposed to be issued first, it was not always done as there were not sufficient staff members to monitor expiry dates of stock received and rotate stock, if necessary.
- Changes in the regimens and treatment protocol. Stock stored at medical depots was not being ordered by health institutions due to these changes. If stock has been opened, these cannot be returned to the suppliers and, therefore, expires at medical depots.

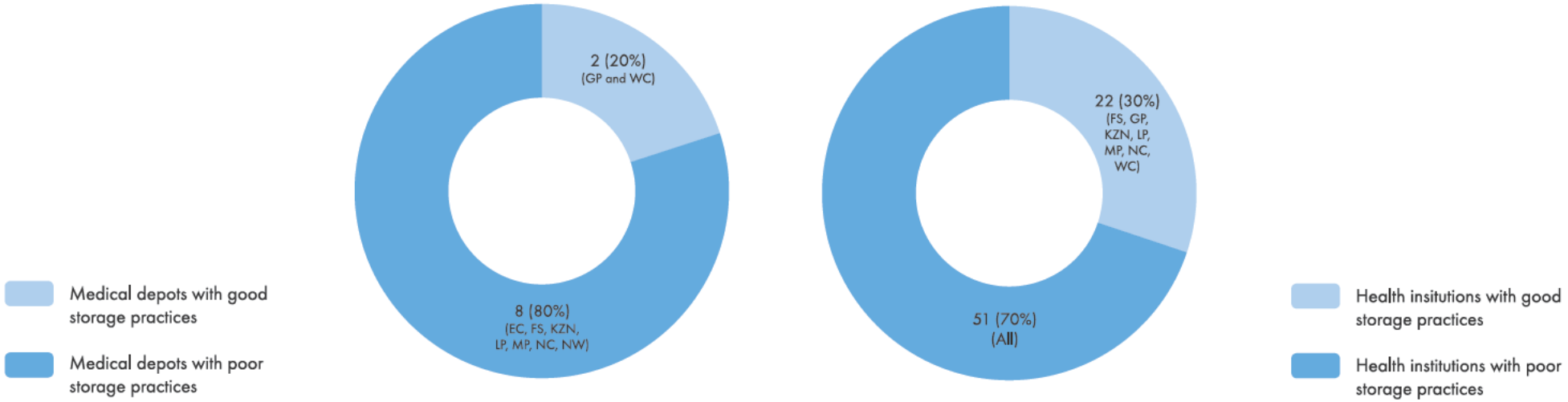
3.4.5 Furthermore, in five of the nine provinces, the value of stock lost due to theft or damage could not be determined. This was because continual stock counts were not always done at the medical depots in the Eastern Cape, Free State, Limpopo, Mpumalanga and North West to ensure the timely identification of stock differences, including the loss of stock through theft and damage.

Also, in general, stock losses due to theft, damage and expiry were only identified during the biannual stock counts in March and October each year. The biannual stock counts provide data for accounting purposes while continual stock counts are used for stock control purposes.

3.5 Poor storage practices

3.5.1 Pharmaceuticals were not always stored in a manner that would promote orderly warehousing and efficient picking and packing. Instances of poor storage practices were observed at eight of the 10 medical depots (80%) and 51 of the 73 health institutions visited (70%). Figures 12 and 13 show the number and percentage of medical depots and health institutions visited where issues that hampered the optimal storage of pharmaceuticals were identified.

Figures 12 and 13: Poor storage practices at medical depots and health institutions



[21] Short-dated stock is pharmaceuticals with a limited shelf life. Depending on the type of product and the industry involved, this can vary between three to six months

3.5.2 The following serve as examples of issues that hampered the optimal storage of pharmaceuticals at medical depots and health institutions visited:

- The boxes, pallets and pharmaceuticals were not always neatly arranged at medical depots. Pictures 11 to 14 show examples of stock that was stored on pallets in the walkways due to limited storage space. Furthermore, pictures 15 to 18 show examples of stock that spilled out of the boxes and was left on the floor or outside the boxes.

  As a result, there was limited or no room for forklifts to upload and unload stock. The staff responsible for picking items also had restricted access to such stock. Furthermore, the stock could be damaged and was unprotected from theft.

- The boxes were stacked to the ceiling. This was due to the high volumes of stock and the limited storage space at some medical depots. The guidelines for the storage of essential medicine and other health commodities state that when using pallets, boxes should not be stacked higher than 2,5 meters. Pictures 19 and 20 show examples where the boxes were stacked much higher at medical depots. In some instances, this was more than three times the maximum height.

  As some boxes can fall from the top, it can cause a safety risk for the staff members responsible for picking and packing stock for delivery. In addition, the oldest batches (orders closest to expiry or received first) were not picked, packed and distributed first. This was due to the first expiry first out (FEFO) or first in first out (FIFO)[22] principles for rotating stock not being applied optimally.

Pictures 11 to 14: Stock stored in the walkways

Note: Pictures 11 and 12 refer to the medical depots in the Eastern Cape (Mthatha) and Northern Cape, respectively

Note: Pictures 13 and 14 refer to the medical depots in Mpumalanga and KwaZulu-Natal, respectively

[22] The FEFO and FIFO principles ensure stock rotation and prevents wastage through expiry

Pictures 15 to 18: Stock spilled and left on the floor or outside the boxes

Note: Pictures 15 and 16 refer to the medical depots in the Eastern Cape (Mthatha) and Northern Cape, respectively

Note: Pictures 17 and 18 refer to the medical depots in the Northern Cape and North West, respectively

Pictures 19 and 20: Boxes stacked up to the ceiling

Note: Pictures 19 and 20 refer to the medical deports in the Eastern Cape (Mthatha) and KwaZulu-Natal, respectively. At the KwaZulu-Natal medical depot, the ceiling was also damaged

- Storerooms at health institutions were not always large enough and did not have sufficient shelving to carry the stock on hand. Therefore, stock could not be arranged in an orderly manner and rotated properly. Some pharmaceutical stock was stacked up to the ceiling and stored on the floor in the storerooms, while others were stored in the toilets, linen rooms, maternity wards, waiting areas and consulting rooms.

Pictures 21 and 22 show pharmaceutical stock that was stacked up to the ceiling or on the floor while pictures 23 to 26 show examples where stock was stored inappropriately in a toilet, a linen room, a waiting area and a maternity room due to the lack of space.

Pictures 21 and 22: Pharmaceuticals stored up to the ceiling or on the floor

Note: Pictures 21 and 22 refer to the Thokozani Clinic in Mpumalanga and Rethabile CHC in Limpopo, respectively

Pictures 23 to 26: Pharmaceuticals stored in the toilet, waiting area and linen or maternity rooms

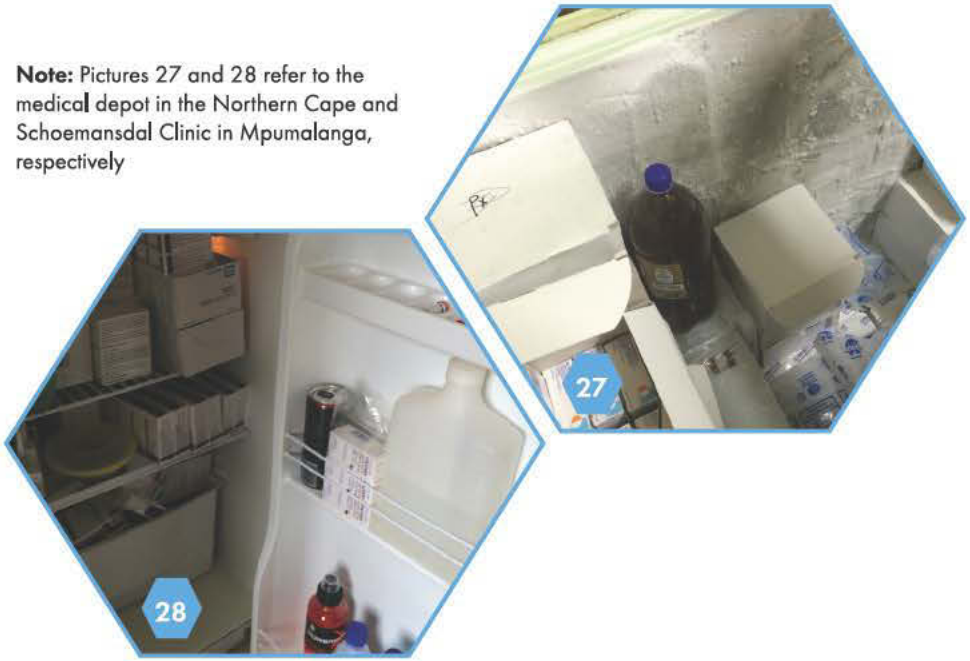
Note: Pictures 23 and 24 refer to the Embalenhle Extension 14 Clinic in Mpumalanga and Hlomendlini Clinic in Eastern Cape, respectively

Note: Pictures 25 and 26 refer to the Sterkspruit Clinic in Eastern Cape and Rearabetswe Clinic in Free State

- Food and beverages of staff were stored in the freezer and cold rooms containing vaccines and other pharmaceuticals. This could have a detrimental effect on the quality and the effectiveness of the pharmaceuticals, should the food develop harmful bacteria or should beverages spill onto the pharmaceuticals. Pictures 27 and 28 show food and beverages stored with pharmaceuticals in a freezer and refrigerator at a medical depot and health institution, respectively.

Pictures 27 and 28: Food and beverages stored with pharmaceuticals

Note: Pictures 27 and 28 refer to the medical depot in the Northern Cape and Schoemansdal Clinic in Mpumalanga, respectively

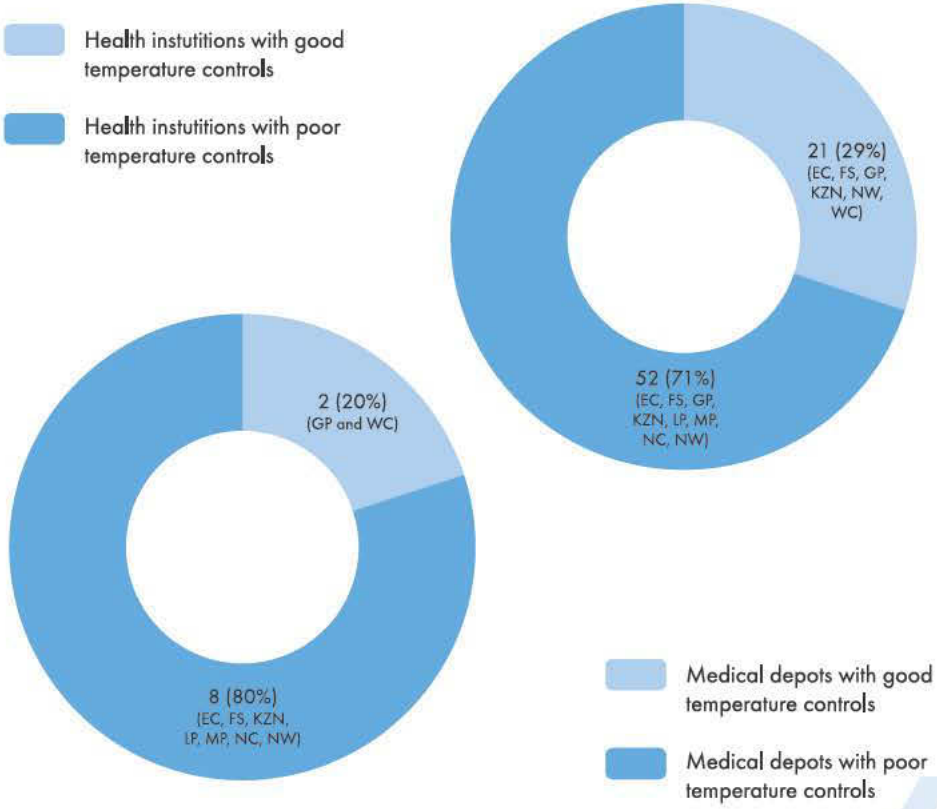


3.6 Limited temperature controls

3.6.1 Pharmaceuticals were not always stored at the required temperatures. The temperature in the warehouse should be between 15 and 25 degrees Celsius and cold rooms between 2 and 8 degrees Celsius.

Instances of poor temperature control were observed at eight of the 10 medical depots (80%) and at 52 of the 73 health institutions visited (71%). Figures 14 and 15 show the number and percentage of medical depots and health institutions visited where deficiencies were identified with temperature control.

Figures 14 and 15: Deficiencies with temperature control at medical depots and health institutions



3.6.2 If pharmaceuticals are not always stored at the required temperatures, the manufacturers cannot guarantee the product quality. Exposure to heat, sunlight and artificial light can damage pharmaceuticals. The following serve as examples:

- Some products, such as vitamins, furosemide and hydrocortisone, are photosensitive and will be damaged if exposed to light.
- Ointments and creams will separate and other products will break down and become useless when exposed to sunlight (or artificial light). Damage of some pharmaceuticals such as insulin or nitro-glycerine can result in life-threatening situations if they are rendered ineffective.

3.6.3 The following temperature control deficiencies were observed at medical depots and health institutions visited:

- Pharmaceuticals were exposed to direct sunlight. Pictures 29 to 32 are examples of sun shining directly onto the medicines at medical depots and health institutions visited. The windows were not shaded to protect pharmaceuticals from direct sunlight.
- Hot spots were created by shelving and pallet storage in medical depots. Temperature levels stratify due to the fact that warmer air rises. Pictures 33 and 34 show that boxes were stacked to the ceilings and close to the lights, which obstructed air circulation.
- Thermometers were not installed or were defective in some medical depots. Temperatures could therefore not be monitored and controlled inside these medical depots' warehouse areas.
- Even though thermometers were installed at some medical depots, temperatures were not always monitored as the control sheets or charts were not updated regularly. For example, the temperature in the cold room at the Mthatha medical depot in the Eastern Cape was neither checked nor recorded for seven of the 12 months during the 2013-14 financial year. On the day of the visit, the cold room was measured at 12 degrees Celsius, four degrees higher than the prescribed 8 degrees Celsius.

Pictures 29 to 32: Pharmaceuticals exposed to direct sunlight

Note: Pictures 29 and 30 refer to medical depots in Mpumalanga and KwaZulu-Natal, respectively

Note: Pictures 31 and 32 refer to the Naas Clinic in Mpumalanga and Katrina KoiKoi Clinic in Northern Cape, respectively

In addition, the control charts in the transit-in area and store number 3 at the medical depot in Free State was last updated during August 2010 and May 2013, respectively. Store number 3 carried essential medicines such as Paracetamol, Mebendazole tablets and vitamin B tablets.

Pictures 33 and 34: Boxes stacked against or close to the lights

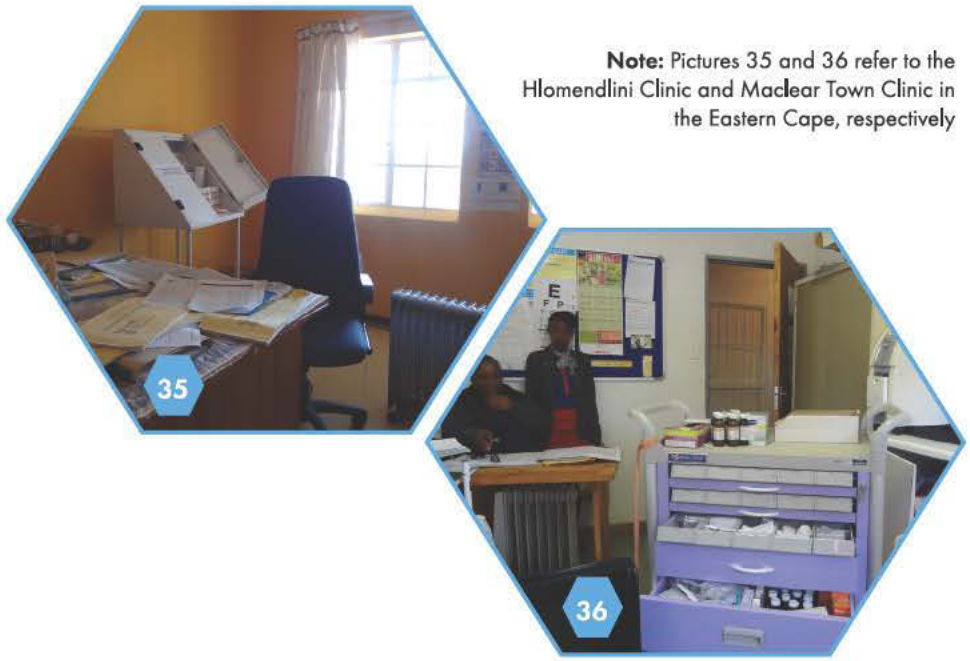
Note: Pictures 33 and 34 refer to the medical depots in the Mpumalanga and Northern Cape, respectively

- Exterior doors at the receiving and dispatching areas at medical depots were not kept closed to keep the cool air inside.

- Air conditioners were not installed or were not functioning at some medical depots and in storerooms at some health institutions. For example, the air conditioner in the schedule 5 and 6 storeroom at the medical depot in KwaZulu-Natal was not working. During February 2015, the thermometer reading was 34 degrees Celsius, 9 degrees higher than the prescribed 25 degrees Celsius. This makes the viability and effectiveness of these medicines questionable.

- Medication was dispensed from trolleys in the consulting rooms that had heaters in them. For example, pictures 35 and 36 show that there were heaters close to the medicine in the consulting rooms at the time of the visits. The temperature in these consulting rooms at that time was measured at 28 degrees Celsius, three degrees Celsius higher than the prescribed 25 degrees Celsius. These examples are only in the Eastern Cape as it was the only province that was visited during winter.

Pictures 35 and 36: Pharmaceuticals exposed to heaters



Note: Pictures 35 and 36 refer to the Hlomendlini Clinic and Maclear Town Clinic in the Eastern Cape, respectively

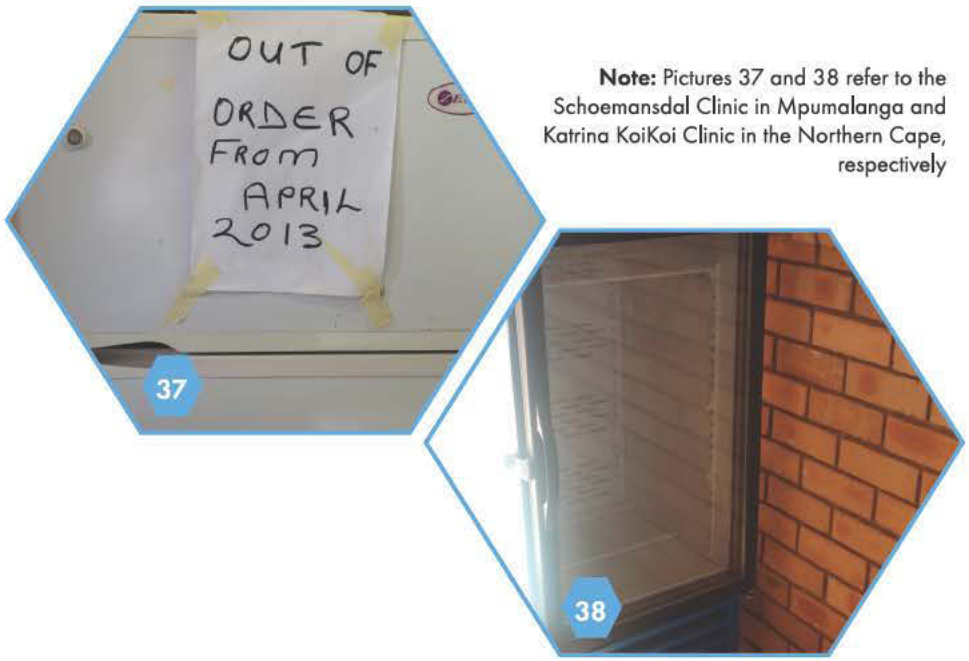
- Backup generators had not been installed at some health institutions visited. Due to the rural nature of some of the provinces, a number of health institutions experienced power outages on a regular basis.

  When power outages occurred, staff took the vaccines to the nearest health institution for storage. For example, if a power outage occurred

at the Chatty Clinic in the Eastern Cape, the vaccines were taken to either the Port Elizabeth medical depot or the Livingston Hospital that are 22 and 11 kilometres from the clinic, respectively.

- Refrigerators at some health institutions have not been in a working condition for more than one year. Pictures 37 and 38 show examples of refrigerators that had been out of order since April 2013 and 2014, respectively. The one refrigerator was standing outside the clinic on the day of the visit.

Pictures 37 and 38: Refrigerators to store pharmaceuticals out of order



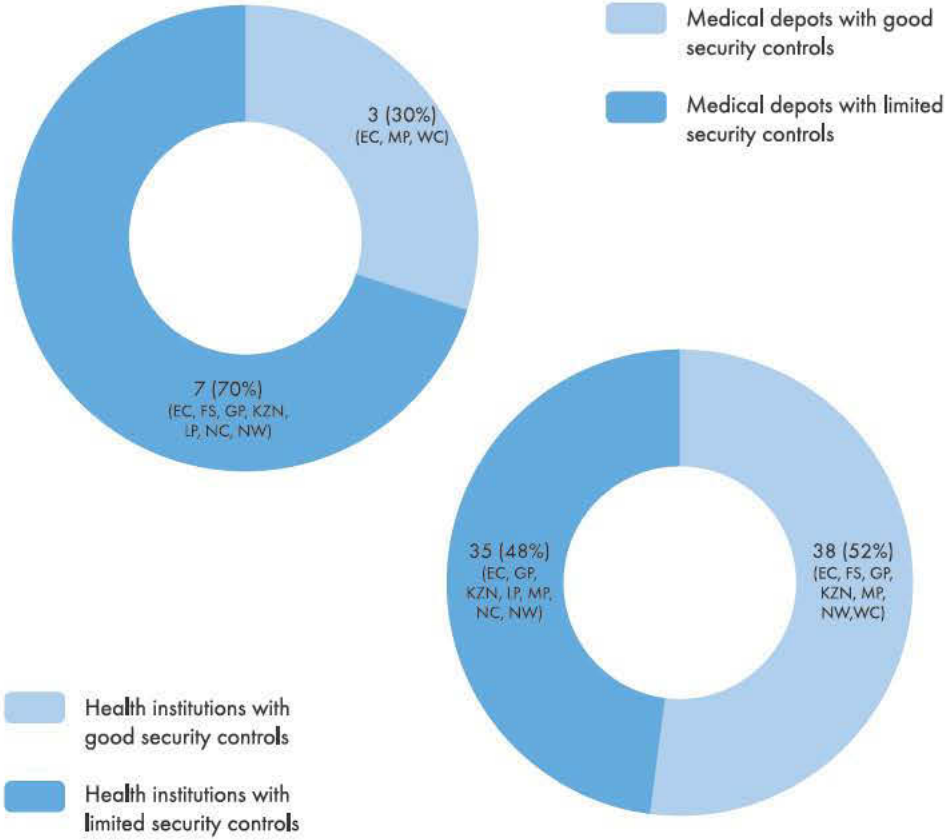
Note: Pictures 37 and 38 refer to the Schoemansdal Clinic in Mpumalanga and Katrina KoiKoi Clinic in the Northern Cape, respectively

- The refrigerators' capacity and temperature was not always suitable to store vaccines at some health institutions. Instances were identified where health institutions in the Eastern Cape stored their vaccines at the nearest administrative office in a nearby municipal area due to the limited refrigerator capacity. Furthermore, at the Rethabile CHC in Limpopo, the temperature in the refrigerator where the vaccines were stored was measured at 13,7 degrees Celsius (5,7 degrees Celsius higher than the prescribed 8 degrees Celsius) in March 2015.

3.7 Limited security controls

3.7.1 Pharmaceuticals were not always stored in a secure environment. At seven of the 10 medical depots (70%) and 35 of the 73 health institutions visited (48%), access to pharmaceuticals was not always restricted. Figures 16 and 17 show the number and percentage of medical depots and health institutions visited where access to pharmaceuticals were not always restricted.

Figures 16 and 17: Limited security controls at medical depots and health institutions



3.7.2 The following are examples of security controls that were not effective to mitigate the risk of theft at medical depots and health institutions visited:

- Vehicles and people that entered and left the premises at medical depots and health institutions were not always searched and recorded in the register by the security guards.

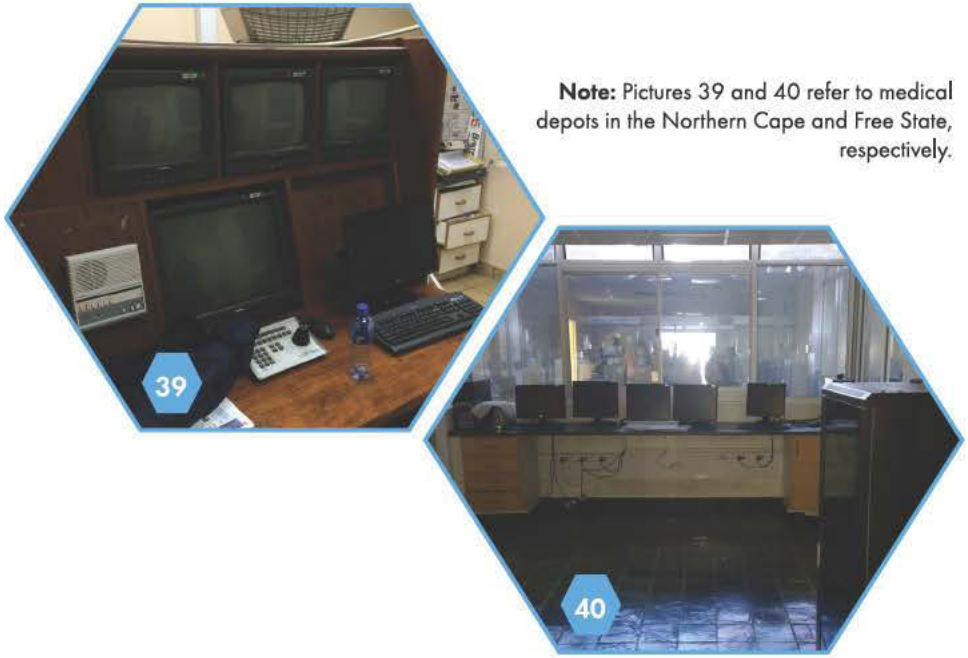
- Security gates between the various sections of medical depots (receiving, warehousing and dispatching areas) were left open and were not controlled during working hours. The limited security controls resulted in pilfering (petty theft) at medical depots.

- Closed-Circuit Television (CCTV) camera systems were not installed at some medical depots or, where the systems were installed, it was not always functional. Pictures 39 and 40 show examples of the television monitors that were not used by security staff to monitor the movement at the medical depots in Free State and Northern Cape, as they were not functional.

  The CCTV camera system installed at the medical depot in the Free State was not functional since early 2014. Prior to 2014, the system had been partly functional as the movement in sections of the 11 528 square meter depot could not be monitored. The cameras were not able to complete a 360-degree rotation and, therefore, could not perform surveillance of the entire depot. Furthermore, the video footage transmitted via the cameras in the medical depot in the Free State was of poor quality, which hampered the identification of objects and staff. The visuals were only available for 24 hours after recording as there was no back-up system in place. In addition, at the medical depot in Limpopo the CCTV cameras had visuals but were not able to record or rewind any of these.

- Security gates, fencing and burglar bars were not installed at some health institutions. At these institutions, theft was reported during the 2013-14 financial year. Pictures 41 and 42 show examples of a health institution with no fencing and a defective security gate and another without burglar bars. At the Embalenhle Extension 14 Clinic in Mpumalanga a wheelbarrow was used as a temporary solution to limit access to the premises.

Pictures 39 and 40: CCTV systems not functioning



Note: Pictures 39 and 40 refer to medical depots in the Northern Cape and Free State, respectively.

- Schedule 5 and 6 medicines were not always stored in lockable and secure cupboards. Picture 43 shows an example of schedule 5 and 6 medicines stored in chipboard cupboards. The doors can be easily removed to gain access to the medication. Picture 44 shows an example of schedule 5 medicines stored in an unlocked cabinet; the keys are left in the door. According to the Board Notice 271 of 2013, issued by the SAPC, and Government Gazette number 34851 of 2011, issued by the national Department of Health, pharmacists or registered nurses must be involved when dispensing schedule 5 and 6 medicine. Some health institutions visited had no pharmacists and registered nurses to dispense the schedule 5 and 6 medicine.

Pictures 41 to 44: Pharmaceuticals not stored in a secure environment

Note: Pictures 41 and 42 refer to the Embalenhle Extension 14 Clinic in Mpumalanga and St Michael Clinic in the Eastern Cape, respectively

Note: Pictures 43 and 44 refer to the Zwide Clinic in the Eastern Cape and Rethabile CHC in Limpopo, respectively

- Doors of storerooms and cupboards in the consulting rooms were not always locked to prevent unauthorised access to pharmaceuticals. Pictures 45 and 46 show examples of a cupboard with medicines in the consulting room that was not locked at the time of the visit and a broken handle of a storeroom door. Furthermore, picture 47 shows that the keys to the storerooms and schedule 5 and 6 medicines were located in the waiting area. These keys were open to access by the patients that were sitting in the waiting area.

Pictures 45 to 47: Unlocked cupboards and storeroom and keys open to access by patients

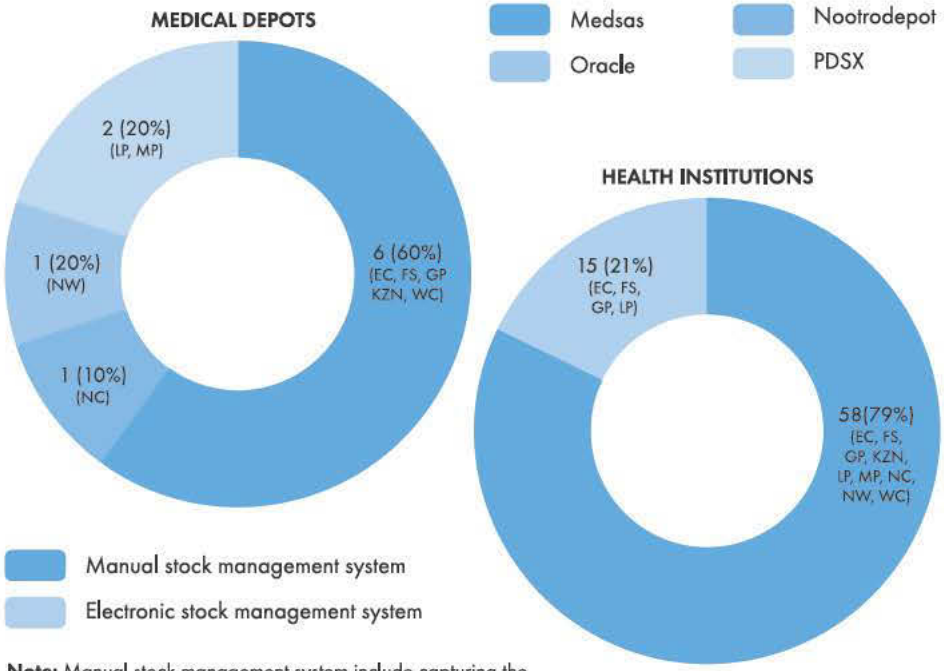
Note: Picture 45 refers to the Mathibestad Clinic in North West and pictures 46 and 47 to the Lingelethu Clinic in the Northern Cape

3.8 Stock management systems not integrated

Eight of the nine provincial departments (excluding the Western Cape) did not have an integrated stock management system to account for the pharmaceutical stock in their provinces. Pharmaceutical stock was recorded and maintained on a number of electronic and manual stock management systems at medical depots, district and sub-district pharmacies or offices and health institutions. However, these systems were not integrated. As these systems were not integrated, provincial departments could not accurately and completely account for pharmaceutical stock in their financial statements.

Figures 18 and 19 show the number and percentage of medical depots and health institutions visited and the type of stock management systems that are in use at these.

Figures 18 and 19: Stock management systems in use at medical depots and health institutions



Note: Manual stock management system include capturing the movement of stock on bin (stock) cards

3.9 Stock management systems not used optimally at medical depots

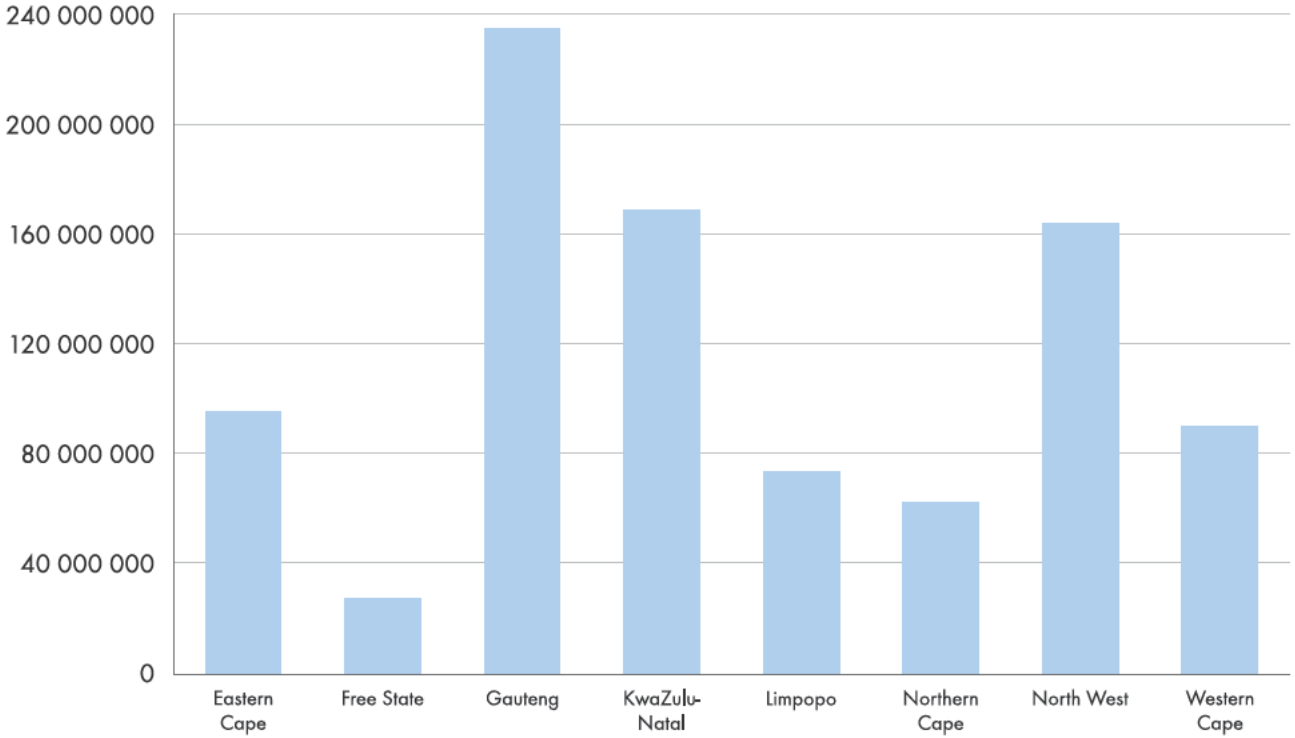
3.9.1 The movement of the number of pharmaceutical items and their rand value were not always accounted for accurately and completely at medical depots.

Instances were identified where the actual stock on hand and the prices on the national contracts did not correspond with the information on the stock management systems. Even though provincial departments reported a total value of stock on hand of approximately R916 million at medical depots as at 30 June 2014, it could not be determined whether it was accurate or complete. Figure 20 shows the value of the stock on hand according to the stock management systems as at 30 June 2014.

3.9.2 The stock management systems at medical depots were outdated and not used optimally by the staff. The following serve as examples:

- Medsas was implemented approximately 20 years ago. Although the intention of the State Information Technology Agency was that all medical depots should use the Windows version of the application, some medical depots still used the disk operating system (DOS) version of the application. Staff indicated that the system operated slowly and was not user friendly.
- There was inaccurate or incomplete data capturing by staff. When requests from health institutions, receipts from suppliers, stock counts, dispatching to health institutions, etc. were captured on the application, they were not always accurate or complete due to human errors.
- Information such as the national contract price adjustments was not updated by the staff in a timely manner. The differences between the prices on the orders generated by the Medsas and the invoices provided by the suppliers led to incorrect payments to the suppliers.
- Staff did not know how, or were not trained, to use the systems to its full potential. Even though the systems had the functionalities of an effective stock management system, it was not always used. Reports that provided vital information for the daily management of a medical depot and for decision-making purposes were not generated.

Figure 20: Value of the stock on hand



Note: The stock on hand at the medical depot in Mpumalanga was not included as the medical depot was managed by a service provider

3.10 Bin cards not accurate, complete and updated in time

3.10.1 The bin cards[23] were not always compiled accurately, completely and in time to reorder pharmaceuticals. At some health institutions visited in all nine provinces, the bin cards in the storerooms were not updated with medicines issued to the dispensaries and consulting rooms, or receipt of stock from medical depots or district and sub-district pharmacies or offices.

3.10.2 The information on the bin cards was not always accurate as the physical pharmaceutical stock in the storerooms did not match the last balances recorded on the bin cards. These discrepancies occurred because of the following reasons:

- Clinic supervisors were not always involved in the stock management process. They did not verify, check or sign the stocktaking sheets.
- Bin cards were completed by nurses due to the shortage of pharmacists and pharmacist assistants; however, as nurses were responsible for both stock management and providing health care services, their tasks

[23] The bin cards are the most important record to keep track of stock. At a minimum, space should be provided for a description of the item and its stock number, the unit of issue and expiry date. Columns and rows to document receipt and issue of stock should appear below this standard information

were not always done properly and errors occurred due to heavy workloads.

- Some nurses responsible for managing stock were not trained to do so and the use of SOPs on stock management was not enforced at all health institutions visited.

- Bin cards were not used by health institutions to inform the reordering of pharmaceuticals. For example, in the Northern Cape it was general practice for some health institutions to provide a repeat of the previous week's order to the district office. In the Eastern Cape and North West, instances were identified where the sub-district or district offices prescribed the number of items to be delivered, which was not necessarily based on the actual needs of those health institutions.

3.10.3 As the bin cards were not updated regularly and completely, neither the staff nor management were aware of the actual quantities of pharmaceuticals at their health institutions. Furthermore, health institutions were not able to generate monthly and annual pharmaceutical consumption patterns to calculate appropriate stock levels. Issues of theft, trends in usage and problems within the pharmaceutical stock management system were also not detected.

3.11 Inadequate equipment to manage pharmaceuticals

3.11.1 Receiving requests for pharmaceuticals from health institutions, keeping record of, and reordering pharmaceuticals from, medical depots were not always done in the most efficient and effective manner due to a lack of equipment such as telephones, fax machines, computers or printers.

3.11.2 All medical depots had telephones, fax machines, computers and printers. However, staff at four of the 10 medical depots (40%) indicated that the technology used to handle the requests for pharmaceuticals from health institutions in the Eastern Cape, Limpopo, Mpumalanga and North West was not adequate to ensure that the requests were received and processed in the most efficient manner. For example, the medical depots in the Eastern Cape (Mthatha) and Mpumalanga received requests from 470 and 404 health institutions, respectively, during the 2013-14 financial year. Only one photocopier (fax machine) per medical depot was used to receive requests for pharmaceuticals from these health institutions.

3.11.3 Some health institutions visited in the Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape and North West had no telephones, fax machines, computers and printers, or they had the equipment, but it was not used. This had a negative impact on the recording and timely reordering of pharmaceuticals. The following serve as examples:

- The fax machines at the Masisi and Nancefield clinics and Rethabile CHC in Limpopo were out of order. The staff compiled their requests for pharmaceuticals manually and delivered the forms by hand to the medical depot, nearest hospital or district office to place the orders on their behalf.

- In Tshepong Clinic in the Free State, the four-in-one multi-copier machine's (fax, copier, scanner and printer) toner had not been replaced since 2012. The staff at the clinic could therefore not print order forms and send these to the medical depot. As an alternative, the staff made use of the fax machines and copiers at the local municipal office or courier services, thereby incurring additional costs.

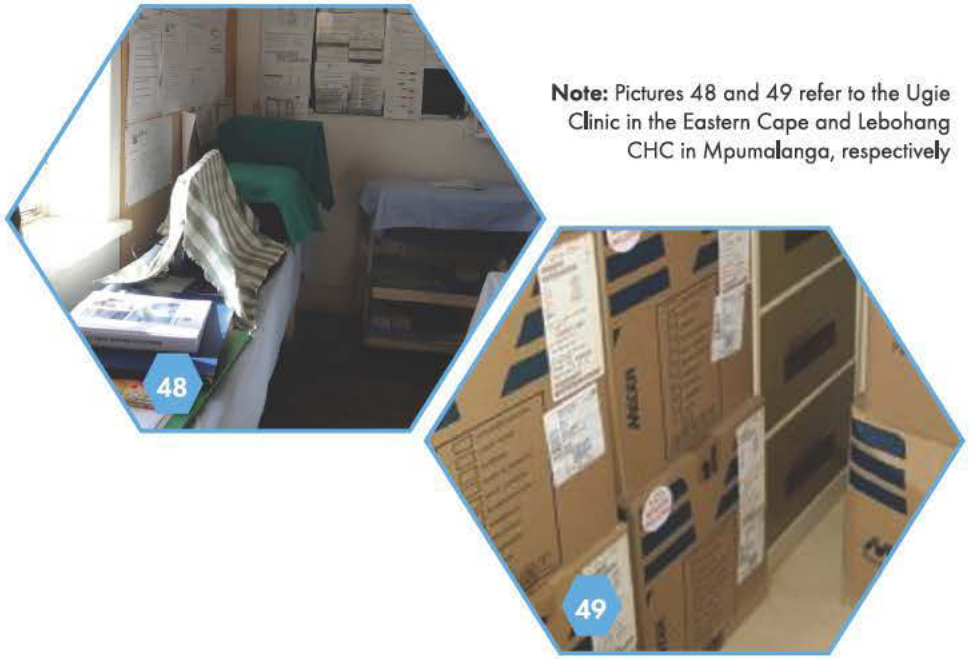
- Some of the computers at the Zwide Clinic in the Eastern Cape was stolen or damaged during a burglary in December 2013. These had not been replaced or repaired. The staff compiled the requests for pharmaceuticals and then sent it to the medical depot after hours from home using a private computer or fax machine.

- The computers at the Ugie Clinic in the Eastern Cape and Lebohang CHC in Mpumalanga was not used as the staff had not received training on how to use it. Pictures 48 and 49 show the computers not being used at these health institutions. At the Lebohang CHC, 11 computers were still in boxes.

3.11.4 Some health institutions visited in the Eastern Cape, Free State, Limpopo, Mpumalanga, Northern Cape and North West experienced problems with connectivity. Network availability varied from district to district due to the

geographical nature of the provinces. Some health institutions are situated in more remote areas than others. The poor connectivity had a negative impact on service delivery. The requests from health institutions did not always reach medical depots in time, which ultimately led to the late delivery of pharmaceuticals.

Pictures 48 and 49: Computer equipment not used



Note: Pictures 48 and 49 refer to the Ugie Clinic in the Eastern Cape and Lebohang CHC in Mpumalanga, respectively

3.12 Erroneous requests for pharmaceuticals from health institutions

3.12.1 Some health institutions in the Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga and North West did not always provide medical depots with requests for pharmaceuticals that were accurate or complete. The following serve as examples of errors on the requests received from health institutions:

- Item code numbers were not captured or were incorrectly captured on the order forms. As a result, medical depots' staff had difficulty determining which pharmaceutical items were required.
- Quantities of items required were incorrectly captured on the order forms. This occurred even though the shipper pack[24] sizes were included as a guideline on pre-printed order forms.

3.12.2 This placed an administrative burden on medical depots' staff as they had to follow up (via emails, faxes and phone calls) to determine the real needs of health institutions and rectify the requests before capturing it on the stock management system. For example, the administration clerks at medical depots in the Eastern Cape and KwaZulu-Natal spent up to 50% of their time correcting erroneous requests from health institutions.

3.12.3 The requests for pharmaceuticals were not always accurate or complete because the staff at health institutions did not always receive training on how to request pharmaceuticals and the order forms were not always reviewed and approved by pharmacists before submission to medical depots. In some instances, nurses approved the requests and sent it directly to medical depots.

3.13 Use of sub-depots and district pharmacies to request, store and deliver pharmaceuticals

3.13.1 In seven of the nine provinces (except Limpopo and Mpumalanga) district pharmacies or sub-depots were used in some districts to request pharmaceuticals on behalf of health institutions store it and deliver it to health institutions once received from medical depots. Two district pharmacies and four sub-depots were visited. Sub-depots were created as some health institutions:

- Was not allocated demander codes to enable them to request pharmaceuticals directly from medical depots. For example, in the Amathole and J Gqabi districts in the Eastern Cape, 100% and 78% of the clinics did not have demander codes.
- Had limited storage space. The storerooms at health institutions were not always large enough and did not have sufficient shelving to carry at least one month's worth of stock.

[24] The consolidated unit of issue of a pharmaceutical by the manufacturer as provided for in the relevant contract

- Needed supporting structures to improve their stock management practices and eliminate pharmaceutical stock-outs and shortages. For example, the central dispensing unit in the Free State was primarily used to provide support and store buffer stock for health institutions in the Mangaung district.

3.13.2 Some of these sub-depots contributed to inefficiencies such as delays in the delivery process and the uneconomical use of resources such as the duplication of tasks, the need for additional human resources and infrastructure (buildings).

3.13.3 Pharmaceuticals were transported from the sub-depots to health institutions using vehicles, some without canopies. Pictures 50 and 51 show the vehicles used to transport the pharmaceuticals between the sub-depots and health institutions in the J Gqabi and uMgungundlovu districts in the Eastern Cape and KwaZulu-Natal, respectively, to health institutions. This created a challenge as the vehicles were not always equipped to maintain the cold chain of pharmaceuticals during transit.

3.13.4 At all the district pharmacies and sub-depots visited, examples of poor storage practices were identified. Also, at four of the six (67%) district pharmacies and sub-depots visited, substantial amounts of damaged or expired pharmaceutical stock was kept on these premises. Some of the stock at the warehouse in the uMgungundlovu district in KwaZulu-Natal had already expired in 2003. Pictures 52 to 55 show the expired stock at the district pharmacies and sub-depots visited.

Pictures 50 and 51: Vehicles used to deliver pharmaceuticals

Note: Pictures 50 to 51 refer to the vehicles used in the Eastern Cape and KwaZulu-Natal, respectively

3.14 Recommendations

3.14.1 The directorates responsible for pharmaceutical services at the provincial departments should regularly monitor the availability of pharmaceuticals at the medical depots and health institutions. Pharmaceuticals should be procured in time to prevent stock-outs. Also, the staff at the health institutions and medical depots should accurately update the stock visibility system and other electronic stock management systems to reflect stock availability at the health institutions and medical depots.

3.14.2 The provincial departments should prioritise the licensing of medical depots by the MCC to allow it to operate legally as a wholesaler. This process should be tracked to ensure that it is completed without any further delays.

Pictures 52 to 55: Expired stock at district pharmacies and sub-depots

Note: Pictures 52 and 53 refer to the warehouse in the uMgungundlovu district in KwaZulu-Natal and the storeroom at the Klerksdorp Hospital in the Motlasana sub-district in North West, respectively

Note: Pictures 54 and 55 refer to the East Rand and Hillbrow district pharmacies in Gauteng

3.14.3 The services rendered by the service provider for the Mpumalanga Department of Health should be monitored regularly and action should be taken when necessary. The department should also undertake a feasibility study and conduct a cost-benefit analysis to determine the cost of using a service provider versus the cost of using departmental staff. If it is more economical to manage the medical depot using departmental staff, the use of a service provider should be phased out and staff should be appointed and trained to manage pharmaceuticals at the medical depot.

3.14.4 Provincial departments should monitor stock counts at medical depots to ensure that stock differences are identified timeously and that short-dated stock is identified and utilised. This would also assist in identifying the loss of stock to theft, damage or expiry. Should theft be identified, an investigation should be launched and, where appropriate, corrective action should be taken. Damaged or expired stock should be disposed of in a timely manner.

3.14.5 Provincial departments should institute measures to ensure that medical depots and health institutions comply with all the *Good pharmacy practice in South Africa*, as well as with the appropriate SOPs. The following matters should be afforded specific attention:

- Boxes, pallets and pharmaceuticals on shelves should be neatly arranged to enable the staff responsible for picking and packing to work efficiently.
- Pharmaceuticals should be stored on the shelves and not in the walkways. At medical depots, this would enable the forklifts to upload and unload stock.
- Sufficient storage space and shelving should be provided at health institutions.
- Boxes should not be stacked to the ceiling and should be rotated during regular stock counts to ensure that the oldest batches are picked, packed and distributed first, to avoid expiry of pharmaceuticals.
- A quarantine area should be established to isolate damaged and expired stock at medical depots and health institutions. All stock that

is damaged, expired, recalled or incorrectly received from medical depots for various reasons should be removed from the shelves and stored in this area.

- Backup generators should be installed to ensure continued power supply should power outages occur.
- Air conditioners, refrigerators and thermometers should be installed and maintained to ensure that pharmaceuticals are stored at the required temperatures. The temperatures should be checked and recorded daily.
- Windows should be shaded to protect the pharmaceuticals from direct sunlight.
- The doors of storerooms for pharmaceuticals in health institutions and security gates at medical depots should only be opened to receive and deliver stock.
- Burglar bars and security gates should be installed where pharmaceuticals are stored at medical depots and health institutions.
- Schedule 5 and 6 medicines should be stored in lockable and secure cupboards. Only pharmacists and registered nurses should have access to these medicines.
- The vehicles and people entering and leaving the premises should be searched and recorded.

3.14.6 Formal training in the SOPs should be provided to all staff responsible for stock management at health institutions. Provincial departments should consider investigating instances of non-compliance with the SOPs and, where applicable, management should take appropriate corrective actions.

3.14.7 Adequate and updated technology and equipment (including CCTV cameras for medical depots, fax machines, photocopiers, computers, internet access and printers) should be provided to medical depots and health institutions.

3.14.8 Medical depots should allocate demander codes to all health institutions. All health institutions should be registered as demanders at medical depots to enable them to request pharmaceuticals directly from medical depots and to eliminate the necessity of having to require district pharmacies and sub-depots to request stock. Furthermore, the use of sub-depots should be reconsidered and direct deliveries of medicine from medical depots to health institutions should be made where possible.

3.14.9 Provincial departments should ensure that electronic stock management systems are adequate and up to date. The departments should also investigate the possibility of implementing an integrated stock management system. The system should have the capability to consolidate the information of computerised and manual (bin cards) systems at the departments, district and sub-district offices, medical depots and health institutions. This would assist provincial departments to accurately and completely account for pharmaceutical stock in their financial statements and improve stock management and decision-making.

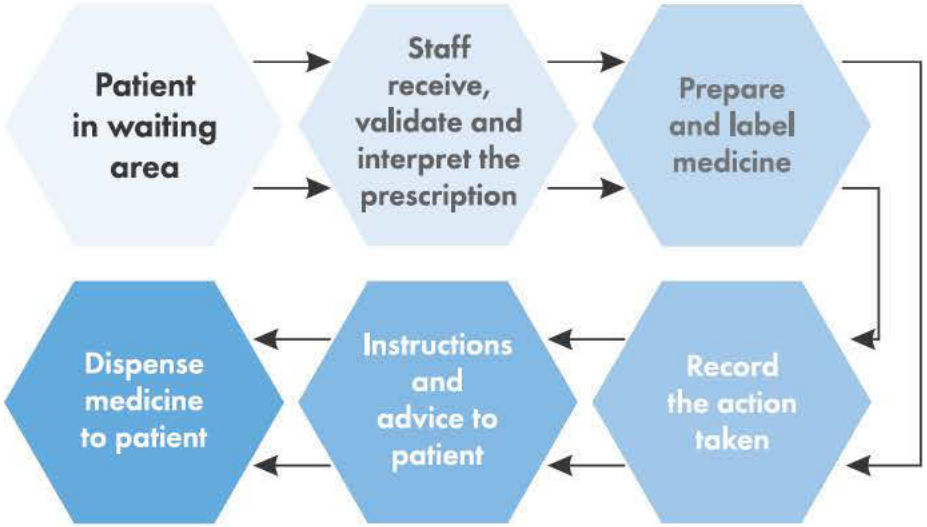
4. Distribution of pharmaceuticals to patients

Audit question 4
Did the distribution process effectively and efficiently ensure that patients received prescribed pharmaceuticals in time?

The process of distributing pharmaceuticals to patients was not always effective and efficient, which led to patients not receiving their prescribed pharmaceuticals at the time of their visits.

Good dispensing practices ensure that an effective form of the correct pharmaceuticals is dispensed to the right patient, in the correct dosage and quantity, with clear instructions and in a package that maintains its potency. The dispensing process at health institutions is illustrated in figure 21.

Figure 21: Dispensing process at health institutions

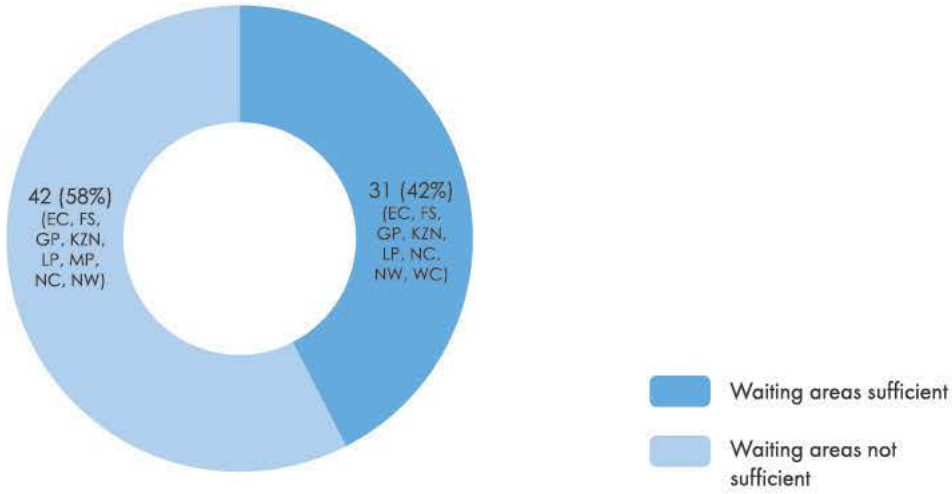


Staff at health institutions dispensed pharmaceuticals from dispensaries (through dispensing windows), dispensing trolleys and cupboards in the consulting rooms. At 30 of the 73 health institutions visited, pharmaceuticals were dispensed through dispensing windows, trolleys and cupboards and at the remainder they only used dispensing trolleys and cupboards in the consulting rooms.

4.1 Waiting areas not sufficient to accommodate patients

4.1.1 Waiting areas at 42 of the 73 health institutions visited (58%) were not sufficient to accommodate the number of patients that visited health institutions daily. The waiting areas were either too small and/or the number of seats in the waiting areas was limited.

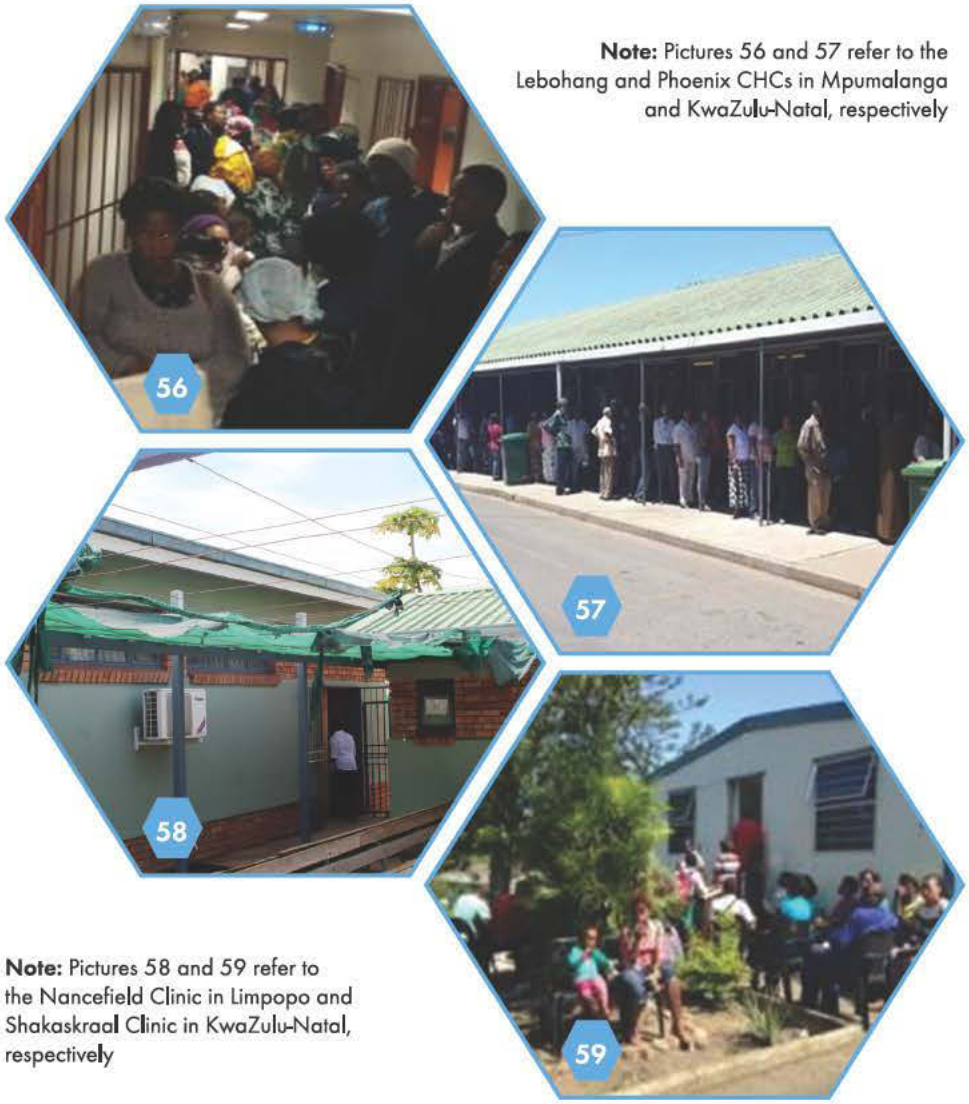
Figure 22: Insufficient waiting areas



4.1.2 As a result, patients had to either stand until seats became available or sit on the floor or outside health institutions, sometimes without shelter from the rain and sun. Pictures 56 to 59 show examples of where patients were waiting

in the hallways and standing outside health institutions for extended periods, waiting to receive health care services on the day of their visits.

Pictures 56 to 59: Patients waiting for extended periods and in all weather



Note: Pictures 56 and 57 refer to the Lebohang and Phoenix CHCs in Mpumalanga and KwaZulu-Natal, respectively

Note: Pictures 58 and 59 refer to the Nancefield Clinic in Limpopo and Shakaskraal Clinic in KwaZulu-Natal, respectively

At the Phoenix CHC in KwaZulu-Natal, patients had to stand outside the health institution for many hours as there was limited space available in the waiting area. At the time of the visit, patients indicated that they had to wait for up to five hours to receive health care.

In addition, at the KwaThema CHC in Gauteng patients waited for more than seven hours before receiving health care.

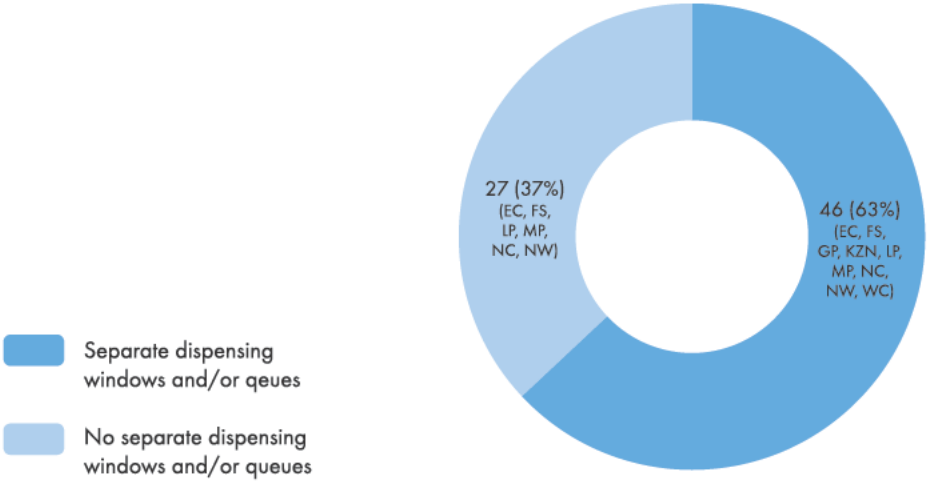
4.2 Inefficiencies in dispensing chronic medication

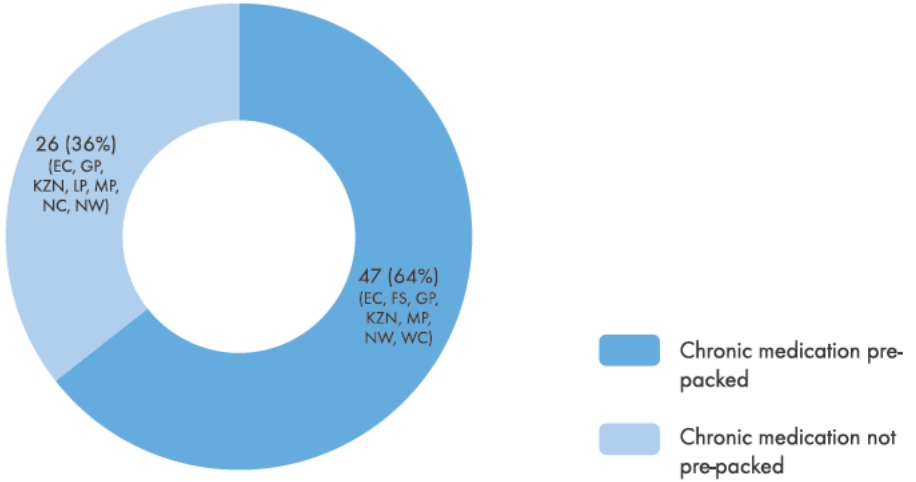
4.2.1 Separate dispensing windows and queues were not always used for the collection of chronic medication in eight of the nine provinces. Furthermore, chronic medication was not pre-packed. The use of separate dispensing windows and queues and pre-packing can improve the efficiency of staff and shorten patients' waiting times.

Figures 23 and 24 show that at 27 (37%) and 26 (36%) of the 73 health institutions visited, separate windows and queues were not used for the collection of chronic medication and pre-packing was not done, respectively.

4.2.2 Pre-packing was not always done because of a lack of staff (including pharmacists) and equipment (counting tables, measures, containers, etc.). Pre-packing was, in some cases, regarded as a time-consuming and labour-intensive process and therefore not done. Packaging of medication can only be performed under the supervision of a pharmacist with strictly controlled conditions and according to a clearly designed system of quality assurance.

Figures 23 and 24: Inefficiencies in the dispensing of chronic medication



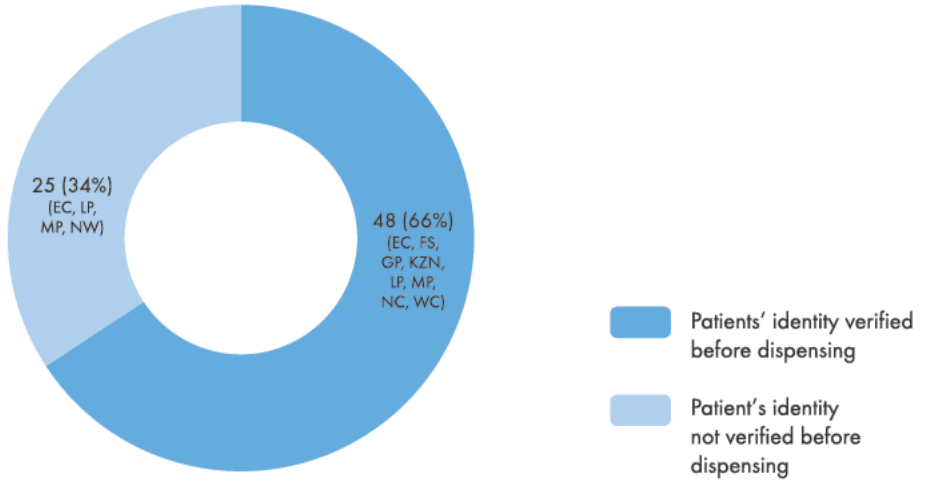


4.3 Patients' identity not verified before dispensing pharmaceuticals

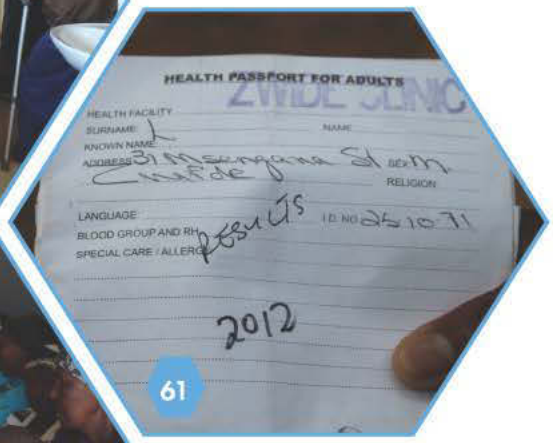
4.3.1 Patients' identities were not always verified before pharmaceuticals were dispensed to them in four of the nine provinces. At 25 of the 73 health institutions visited (34%) the staff did not always identify patients by checking their identity documents before dispensing pharmaceuticals to them.

4.3.2 Medication was dispensed to any person who presented unofficial pieces of paper, pages from notebooks, verbal confirmation, patient files or health passports. These were not always complete and sometimes difficult to read and interpret. Pictures 60 to 62 show examples of unofficial pieces of paper, notebooks, patient files and health passports presented to the staff.

Figure 25: Patients not identified



Pictures 60 to 62: Unofficial pieces of paper, health passports, note books and patient files presented during visits



Note: Picture 60 refers to the Schoemansdal Clinic in Mpumalanga

Note: Pictures 61 and 62 refer to the Zwide and Hlomendlini clinics in the Eastern Cape. The patients bring the documents with them on the day of the visit

4.4 Inefficient workflow in dispensaries and consulting rooms

4.4.1 Sufficient space had not been allowed for consulting and dispensing pharmaceuticals to patients at some health institutions visited in the Eastern Cape, Gauteng, Limpopo and Mpumalanga. Consulting and dispensing at these health institutions took place in kitchens, containers, nurses' quarters, sluice rooms,[25] storerooms and waiting areas.[26] The following serve as examples:

- At the Ugie Clinic and Sterkspruit Town Clinic in the Eastern Cape the kitchen and nurses' quarters, respectively, were used as consulting rooms. Although staff may not prepare or consume food in any area where medicines are dispensed, picture 64 shows that medicine was dispensed from the kitchen table on the day of the visit. Picture 63 shows that some of the pharmaceuticals were dispensed out of boxes stored on the wash basins in the nurses' quarters.

Pictures 63 and 64: Kitchen and nurses' quarters used as consulting rooms

Note: Pictures 63 and 64 refer to the Sterkspruit Town Clinic and Ugie Clinic in the Eastern Cape, respectively

[25] Sluice rooms are where disposable items with human waste are dealt with (for example bedpans) and reusable items are cleaned and disinfected

[26] Over the past decade, an increase in the burden of disease was reported in both communicable and non-communicable diseases in South Africa. However, the health care system has not seen a proportional increase in the infrastructure

- The Glory Hill Clinic in Mpumalanga did not have its own building. The kitchen, toilet and storeroom of the community hall were converted into a clinic. As there was insufficient space, the kitchen was used as an administrative office, consulting room, kitchen and storeroom. Picture 67 shows the toilet that was converted into a voluntary counselling and testing room and pictures 65 and 66 show the kitchen that was used as, amongst others, a consulting room.

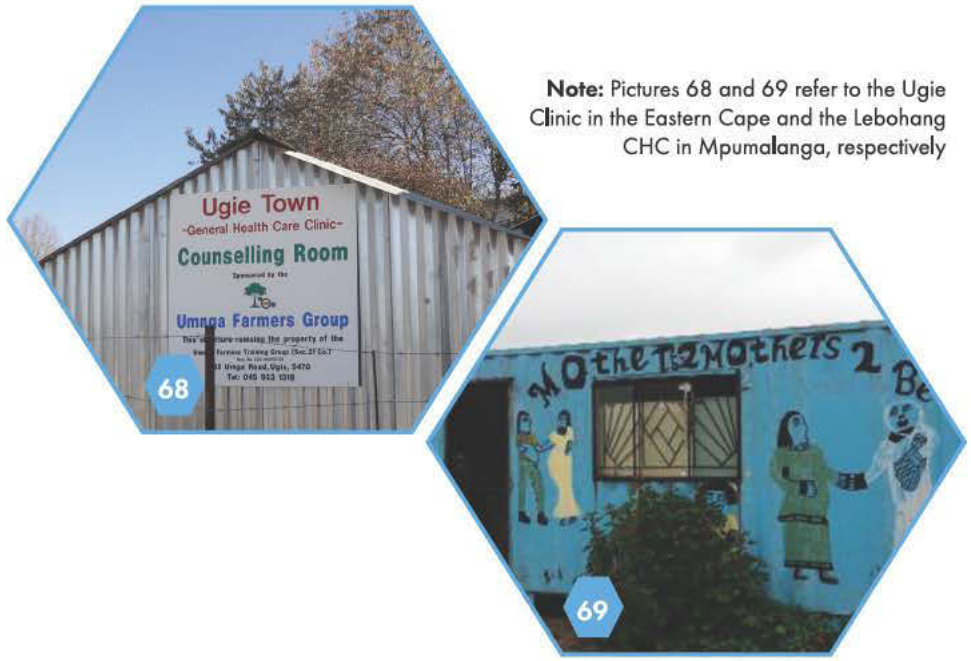
Pictures 65 to 67: Community hall converted into a clinic

Note: Pictures 65 to 67 refer to the toilet and kitchen that was converted into the Glory Hill Clinic in Mpumalanga

- At the Ugie Clinic in the Eastern Cape and the Lebohang CHC in Mpumalanga, the consulting rooms to treat the HIV/Aids and tuberculosis (TB) patients were located in containers or a sink house outside the health institutions.

  These structures were not ideal as they were too hot in summer and very cold during winter. There was no electricity or water in the structures and limited privacy. The communities were aware that these structures were used to treat HIV/Aids and TB patients only and everybody from the street could see who entered these areas. Pictures 68 and 69 show the containers and sink house outside health institutions.

Pictures 68 and 69: Containers or a sink house used as consulting rooms

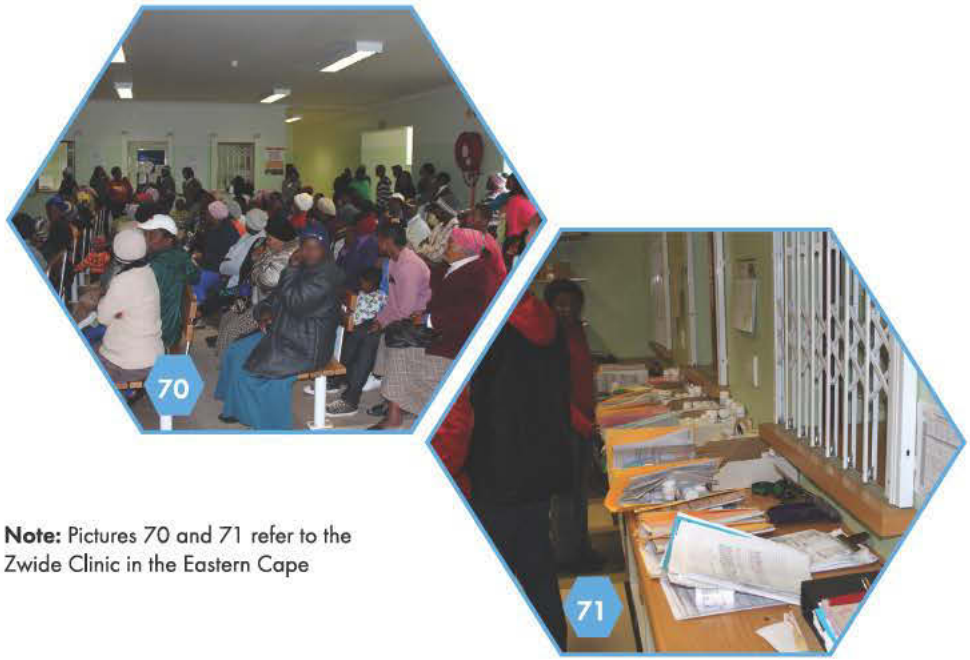


Note: Pictures 68 and 69 refer to the Ugie Clinic in the Eastern Cape and the Lebohang CHC in Mpumalanga, respectively

4.4.2 Sufficient space[27] had not been allowed to dispense pharmaceuticals from dispensaries (through dispensing windows) at some health institutions visited in the Eastern Cape, Gauteng and Limpopo. The limited number of dispensing windows per health institution and the inadequate size of the dispensaries were not conducive to the efficient flow of work. The following serve as examples:

- At the Zwide Clinic in the Eastern Cape, medicines were dispensed to patients through one dispensing window. The head count of the clinic was recorded as 111 931 between April and December 2013. Picture 70 shows the patients crowded at the dispensing window, which made confidential consultations and demonstrating the correct and safe use of specific pharmaceuticals difficult.

Pictures 70 and 71: One dispensing window per health institution



Note: Pictures 70 and 71 refer to the Zwide Clinic in the Eastern Cape

Picture 71 shows the insufficient space in the dispensary to prepare the prescriptions for dispensing to patients. The prescriptions were received from the patients and the medicine was packed in the patient files for dispensing. However, at times, the medicine would fall out of the patient files and get mixed up with those of other patients due to the lack of work space. Time was then spent pairing the correct patient file to the medicine.

- At the Rethabile CHC in Limpopo, seven pharmacists and pharmacist assistants dispensed pharmaceuticals to patients through one dispensing window. Effective communication and supervision in the dispensary was hampered as the staff members were in each other's way for most of the time. This scenario did not facilitate the smooth processing of the high volumes of prescriptions dispensed. The headcount of the clinic was recorded as 65 917 during the 2013-14 financial year.

4.4.3 Dispensaries and dispensing windows at some health institutions visited were not used because the dispensing window was broken and due to the shortage of staff to dispense medicines. These scenarios had a negative impact on patient waiting times. Pictures 72 to 74 show examples of dispensaries and dispensing windows that were not used.

The dispensing window at the New Brighton Clinic in the Eastern Cape had not been used for six months because it was broken. Furthermore, a patient interviewed at the Hillbrow CHC in Gauteng indicated that she had spent up to eight hours waiting for her medicine.

[27] The *Good pharmacy practice in South Africa* states that a clear working surface area of at least 90 centimetres by one meter should be provided for dispensing

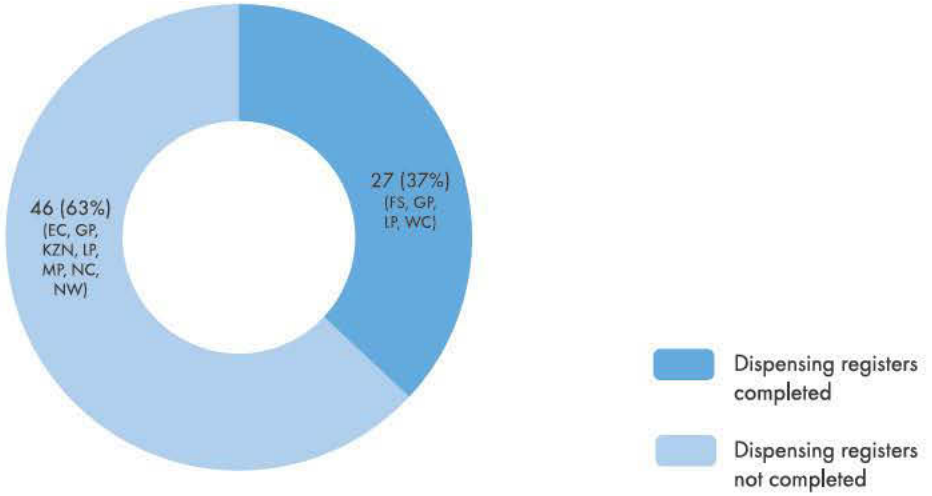
Pictures 72 to 74: Dispensing windows not used

Note: Pictures 72 to 74 refer to the New Brighton Clinic in the Eastern Cape, Masisi Clinic in Limpopo and the Hillbrow CHC in Gauteng, respectively

4.5 Poor record keeping of pharmaceuticals dispensed

4.5.1 Staff at 46 of the 73 health institutions visited (63%) did not record the details of the patients and the medicines dispensed to them on the day of their visit. As a result, some health institutions in seven of the nine provinces could not account for the pharmaceuticals dispensed.

Figure 26: Poor record keeping



The *Good pharmacy practice in South Africa* states that records of medicine dispensed to patients have to be maintained if a dispensary is to be run efficiently. Details of the medicines dispensed have to be entered into a register before the items are issued to the patient. The patient's name and age, the medicine's name and strength, the amount issued, and the dispenser's name should be entered into a register.

4.5.2 Once pharmaceutical stock was moved from the storerooms to the dispensaries and consulting rooms for dispensing to patients, it was regarded as open stock. The open stock principle was based on trust that the pharmacists, pharmacist assistants and nurses who were dispensing the stock would dispense all stock received from the storerooms. Reconciliations between the pharmaceutical

stock moved from storerooms to the dispensaries and consulting rooms and those dispensed to the patients were not done.

4.5.3 Furthermore, patient records were not always retained at health institutions and staff did not record the details of the patients and the medicines dispensed to them on the day of their visit. Although the records of all the patients should be kept safe and accurate, this was not done at some health institutions visited. The Medicines and Related Substances Control Amendment Act, 1997, states that prescriptions in respect of schedule 2, 3, 4, 5 and 6 medicines must be kept on the premises where the medicines are dispensed.

Patients' records were not retained at health institutions and staff did not record the details of the patients and medicines dispensed to them on the day of their visit due to:

- A lack of storage space and filing cabinets to retain such documents
- A lack of staff to extract, record the activities and replace the patients' records in the filing cabinets at the end of each working day. This put an administrative burden on the staff due to the high volume of patients that receive health care at these health institutions every day
- Unofficial pieces of paper and pages from notebooks submitted by the patients in some instances replacing the patient files. These documents were returned to the patients after they had received their medication. The patients kept the files and returned with them on the day of their next visit to a health institution. If these documents were lost, no medical history was available for the patients.

4.5.4 Because patients took their documents with them, they could visit more than one health institution and receive medication (specifically chronic medicine) at each health institution using the same prescription as no indication was given of when medication was issued.

4.6 Recommendations

4.6.1 Management at provincial departments should visit health institutions to identify those where the waiting areas, storerooms, dispensaries, consulting rooms and equipment do not comply with the standards set by the SAPC and the infrastructure unit support systems norms and standards. The needs should be identified, the costs to correct them should be determined and the matter should be escalated to the accounting officers who should launch a project to correct these deficiencies. This would improve the efficient and effective dispensing of pharmaceuticals at health institutions.

4.6.2 Provincial departments should consider instituting practices such as pre-packing medicine and using separate dispensing windows and queues for chronic medication. This would improve the efficiency of staff and shorten the waiting times of patients. Furthermore, consideration should be given to appointing queue marshals.

4.6.3 Provincial departments should institute measures to ensure that staff verify the identity of patients before dispensing pharmaceuticals to them and that only official forms are used for prescriptions.

4.6.4 Provincial departments should implement dispensing registers (manual or electronic format). These registers should at least provide space for details such as the date, the patient's name and age, the medicine dispensed, the strength and amount issued, and the dispenser's (staff) name.

4.6.5 Provincial departments should institute measures to ensure that patient records are retained at health institutions. The patient records should also be kept safe and accurate at all times. In this way, patients would not be able to collect medicine, specifically chronic medicine, from more than one health institution per prescription if pharmaceuticals that were issued were not recorded on the patient records.

5. Overview of audit findings

An overview of the audit findings per sub-focus area (and province) is included in table 7.

Table 7: Overview of audit findings per sub-focus area

Findings	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpuma-langa	Northern Cape	North West	Western Cape
Policy and planning for pharmaceuticals									
Province specific policy to manage pharmaceuticals not developed									
Standard operating procedures not implemented and/or adherence thereto not monitored									
Incremental budgeting approach followed in compiling pharmaceuticals budgets									
Shortage of pharmacists (vacancy rate ≥ 10%)									
Shortage of pharmacist assistants (vacancy rate ≥ 10%)									
DPTCs not establishment and/or functioning									
Optimal oversight not provided by pharmaceutical services directorates									
Procurement of pharmaceuticals									
Penalties not imposed for late deliveries									
Payments to suppliers not made within 30 days									
Procurement of pharmaceuticals via buy-out ≥ 15%									

Legends:

Findings identified
No findings identified

Findings	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpuma-langa	Northern Cape	North West	Western Cape
Stock management at medical depots									
Medical depot operate without MCC and SAPC licences									
Shortage of medical depot staff (vacancy rate ≥ 10%)									
Poor storage practices at medical depot									
Limited temperature control at medical depot									
Limited security control at medical depot									
Erroneous requests for pharmaceuticals from health institutions									
Stock management system at medical depot outdated and/or not used optimally									
Inadequate equipment to manage stock at medical depot									
Stock management at health institutions									
Poor storage practices at health institutions									
Limited temperature control at health institutions									
Limited security control at health institutions									
Stock management records (bin cards) inaccurate and/or incomplete									
No or limited supervisory visits from district or sub-district offices' pharmacists to health institutions									
Inadequate equipment to manage stock at health institutions									
Distribution of pharmaceuticals to patients									
Stock-outs of essential medicines on days of visits to health institutions									
Waiting areas at health institutions not sufficient to accommodate patients									
No separate dispensing windows or queues for dispensing of chronic medication at health institutions									
Pre-packing of chronic medication not done at health institutions									
Patients' identity not verified before dispensing pharmaceuticals to them									
Insufficient workflow in dispensaries and consulting rooms at health institutions									
Poor record-keeping of pharmaceuticals dispensed at health institutions									

Legends:

Findings identified at all the medical depots and health institutions visited
Findings identified at some of the medical depots and health institutions visited
No findings identified