Aspects of the demographic profile and standard of pharmaceutical services in South Africa

J. ADSETTS B.Pharm.

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Supervisor: Prof. M.S. Lubbe

Co-supervisors: Mr. G.K. John

Prof. J.H.P. Serfontein

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Abstract

TITLE: Aspects of the demographic profile and standard of pharmaceutical services in South Africa.

KEYWORDS: Access, quality, inspection results, demographic profile, community pharmacies, institutional pharmacies (public and private), Good Pharmacy Practice, written standard operating procedures, promotion of public health, registration details, references, pharmaceutical care.

The objects of the South African Pharmacy Council in terms of the Pharmacy Act, 1974 (53/1974) as amended are, *inter alia*, "*to uphold and safeguard the rights of the general public to universally acceptable standards of pharmacy practice in both the private and the public sector*" as well as "*to establish, develop, maintain and control universally acceptable standards of practice of the various categories of persons required to be registered...*" One of the major difficulties health care providers worldwide are faced with is how to maintain a proper balance between the trio goals of health care, namely adequate access, high quality and acceptable costs (Li, 2003:192-193). Relatively little is known about such problems as do exist for patients regarding access to pharmaceutical services (Doucette *et al.*, 1999:1268).

Two main objectives were identified for this study, namely to investigate the demographic profile of community and institutional pharmacies registered with the South African Pharmacy Council; and to determine the standard of pharmaceutical services provided by these pharmacies. Inspection results of community and institutional pharmacies were obtained from the South African Pharmacy Council and extracted for the time period 1 January 2004 to 31 May 2005. To determine the demographic and geographic profile of these pharmacies, data of the Register of Pharmacies of the South African Pharmacy Council for August 2003, 2004 and 2005 were merged with the Census data of South Africa of 2001.

It was found that the total number of pharmacies in both the public and private sectors increased with 2.1% (n=68) from August 2003 to August 2005. Public and private pharmacies

that provided services directly to patients increased with 6.3% (n=33) and 1.3% (n=35) from August 2003 to 2005. It was found that the Gauteng province was the best provided with registered pharmacies in South Africa, as only 0.06% (n=5 783) of the population did not have any registered pharmacy available on municipality level. It was also revealed that the majority of inspections were carried out in Gauteng, whilst this province accounts for only 19.7% of the total population of South Africa.

During the study period a total of 1178 community pharmacy inspections were carried out in 1103 community pharmacies (one or more inspections per pharmacy) representing 43% (n=2 550) of the total number of community pharmacies registered with the South African Pharmacy Council during May 2005. Nationally community pharmacies achieved a score of 92.27 (± 6.65 per cent) for compliance with Good Pharmacy Practice guidelines. The lowest compliance score (73.34 ± 27.49 per cent) was obtained for the availability of written standard operating procedures and the highest was for the promotion of public health (99.02 ± 6.30 per cent). No practical significant differences ($d<0.8$) were found between the overall compliance scores obtained by community pharmacies of the different provinces. The highest compliance score was obtained by community pharmacies in the Free State (93.09 ± 4.90 per cent), followed by Western Cape, Eastern Cape, Kwazulu Natal, Limpopo, Northern Cape, Gauteng, Mpumalanga and the North West.

A total of 343 institutional pharmacy inspections (one or more inspections per pharmacy) were carried out in public and state subsidised institutions (n=245), private institutions (n=90) and mine hospitals (n=5). These pharmacies represented 46% of the total number of institutional pharmacies registered with the South African Pharmacy Council during May 2005. Nationally all institutional pharmacies (both private and public) achieved a score of 92.49 ± 8.33 per cent for compliance with Good Pharmacy Practice guidelines for all above-mentioned aspects. Nationally public and state subsidised institutional pharmacies obtained a lower compliance score (91.02 ± 9.08 per cent) than private institutional pharmacies (96.39 ± 3.91 per cent).

Lastly, a grading system was developed that was based on the results obtained through this study, in order to quantify the standard of pharmaceutical services provided by pharmacies in South Africa.

Opsomming

TITEL: Aspekte van die demografiese profiel en standaarde van farmaseutiese dienste in Suid-Afrika.

SLEUTELWOORDE: Toeganklikheid, kwaliteit, inspeksie resultate, demografiese profiel, gemeenskapsapteke, institusionele apteke (publiek en privaat), Goeie Aptekerspraktyk, geskrewe standaard werkmetodes, bevordering van openbare gesondheid, registrasiebesonderhede, farmaseutiese sorg.

Die oogmerke van die Suid-Afrikaanse Aptekersraad in terme van die Aptekerswet (53/1974) soos gewysig is om "*die regte van die breë publiek op algemeen aanvaarbare standaarde van aptekerspraktyk in die openbare en publieke sektor te handhaaf en te beskerm*" en om "*algemeen aanvaarbare standaarde te vestig, te ontwikkel, te handhaaf en te beheer van die praktyk van die verskillende kategorieë persone wat ingevolge die Aptekerswet (53/1974) geregistreer moet word...*" Een van die hoofprobleme wat gesondheidsorg voorsieners wêreldwyd in die gesig staar, is hoe om 'n ewewig tussen die drie hoofdoelwitte van gesondheidsorg, naamlik voldoende toeganklikheid, hoë kwaliteit en aanvaarbare koste te handhaaf. Daar is min bekend oor watter tipe probleme pasiënte ten opsigte van toeganklikheid tot farmaseutiese dienste ervaar (Doucette *et al.*, 1999:1268).

Twee hoofdoelwitte was vir hierdie studie geïdentifiseer, naamlik om die demografiese profiel van gemeenskaps- en institusionele apteke wat by die Suid-Afrikaanse Aptekersraad geregistreer is te ondersoek; asook om die standaarde van farmaseutiese dienste gelewer deur hierdie apteke te bepaal. Inspeksieresultate van gemeenskaps- en institusionele apteke is vanaf die Suid-Afrikaanse Aptekersraad verkry vir die periode 1 Januarie 2004 tot 31 Mei 2005. Om die demografiese en geografiese profiel van hierdie apteke te bepaal is data van die Register van Apteke van die Suid-Afrikaanse Aptekersraad vir Augustus 2003, 2004 en 2005 met die Sensusdata van 2001 integreer.

Met betrekking tot die demografiese profiel van apteke, is daar gevind dat die totale aantal apteke in beide die publieke en private sektor met 2.1% (n=68) vanaf Augustus 2003 tot Augustus 2005 verhoog het. Publieke en private apteke wat dienste direk aan pasiënte lewer, het met 6.3% (n=33) en 1.3% (n=35) onderskeidelik, vanaf Augustus 2003 tot Augustus 2005 verhoog. Daar is gevind dat Gauteng provinsie die beste voorsien is met geregistreerde apteke in Suid-Afrika, met slegs 0.06% (n=5 783) van die populasie nie van 'n geregistreerde apteek op munisipale vlak voorsien nie. Verder, is daar gevind dat die meerderheid inspeksies in Gauteng uitgevoer is, terwyl hierdie provinsie slegs 19.7% van die totale populasie van Suid-Afrika verteenwoordig.

Tydens die studie periode is 1178 inspeksies in 1103 gemeenskapsapteke (een of meer inspeksies per apteek) uitgevoer wat 43% (n=2550) van die totale aantal gemeenskapsapteke wat geregistreer is by die Suid-Afrikaanse Aptekersraad gedurende Mei 205 verteenwoordig. Nasionaal het al die geïnspekteerde gemeenskapsepteke 'n totale Goeie Aptekerspraktyk persentasie van 92.27 ± 6.65 persent behaal. Die laagste persentasie is verwerf vir die beskikbaarheid van geskrewe standaard werkmetodes (73.34 ± 27.49), terwyl die hoogste persentasie behaal is vir bevordering van openbare gesondheid (99.02 ± 6.30). Geen praktiese beduidende verskille ($d<0.8$) is gevind tussen die algehele Goeie Aptekerspraktyk punte behaal deur gemeenskapsapteke van die verskillende provinsies nie. Die hoogste persentasie is verwerf deur die Vrystaat (93.09 ± 4.90), gevolg deur die Wes-Kaap, Oos-Kaap, Kwazulu-Natal, Limpopo, Noord-Kaap, Gauteng, Mpumalanga en die Noordwes.

'n Totaal van 343 institusionele apteekinspeksies (een of meer inspeksies per apteek) is uitgevoer in publieke en staatgesubsidieerde instansies (n=245), privaat institusionele apteke (n=90) en mynhospitale (n=5). Hierdie apteke verteenwoordig 46% van die totale aantal institusionele apteke geregistreer by die Suid-Afrikaanse Aptekersraad gedurende Mei 2005. Nasionaal het alle institusionele apteke (publiek en privaat) 'n persentasie van 92.49 ± 8.33 persent vir Goeie Aptekerspraktyk riglyne behaal. Publieke en staatsgesubsidieerde apteke (91.02 ± 9.08) het 'n laer persentasie as private apteke (96.39 ± 3.91) behaal.

Laastens, is 'n graderingsisteem ontwikkel wat gebaseer is op die resultate verwerf uit die studie om sodoende die standaard van dienste gelewer deur apteke in Suid-Afrika te kwantifiseer.

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Introduction and problem statement

Chapter 1

This dissertation focuses on the following aspects:

- The standard of services provided by community and institutional/hospital pharmacies in South Africa.
- The extent to which these pharmacies conform to Good Pharmacy Practice requirements.
- The demographic profile of the South African population and related factors influencing the distribution of pharmacies.
- The geographic distribution of community and institutional/hospital pharmacies in South Africa.

Hospital and institutional pharmacies are considered to be the same, from this point forward hospital or institutional pharmacies will be referred to as institutional pharmacies. In this chapter the problem statement, research objectives, research methodology and chapter division will be discussed.

1.1 PROBLEM STATEMENT

One of the health objectives of the National Drug Policy (Department of Health, 1996:4) is to ensure the availability and accessibility of essential drugs to all citizens. The vision of the South African Pharmacy Council (South African Pharmacy Council, 2004a:1), in serving the public interest and in terms of its statutory obligation is to guarantee that pharmaceutical services are as efficient as possible to meet the health care needs of the people of South Africa. To have access to essential drugs and comprehensive pharmaceutical services is very important, as people constantly need good quality health care services.

According to the South African Pharmacy Council (1995a:18) the mission of pharmacy practice is to provide medication, other health care products and services and to help people and society to make the best use of these resources. Comprehensive pharmacy services encompass *inter alia* involvement in activities to ensure good health and to avoid ill health in a population. When the treatment of ill health is necessary, the quality of each person's medicine use process

should be ensured to achieve maximum therapeutic benefit and to avoid the presentation of unwanted side effects.

According to the International Pharmaceutical Federation (2004:3) a profession is identified by the willingness of individual practitioners to comply with ethical and professional standards, which exceed minimum legal requirements. The pharmacist continues to be the health professional who is the expert on medicines. Pharmacists are also given the responsibility to help people to maintain good health, to avoid ill-health and, where medication is appropriate, to promote the rational use of medicines and assist patients to acquire, and gain maximum therapeutic benefit from their medicines (International Pharmaceutical Federation, 2004:3).

According to the Inspection of Pharmacies report of the South African Pharmacy Council (2000a:42) it was found that areas of concern in pharmacies in general, were the availability of reference sources, a lack of standard operating procedures and quality assurance mechanisms. This was apparent in community, hospital, wholesale/distribution and manufacturing pharmacies. According to Eagles (2006:5), the South African Pharmacy Council president, patients today are in desperate need of expert pharmaceutical assistance, pharmacists have the unique professional ability and expertise to assist patients in maintaining good health. According to the Royal Pharmaceutical Society of Great Britain (2005a:1) the public places great trust in the knowledge, skills and professional judgement of pharmacists. This trust requires pharmacists to ensure and uphold high standards of personal as well as professional conduct, up-to-date knowledge and continuing competence applicable to their practice.

Kellenberger (1999:83) is of the opinion that the traditional choice for providing pharmaceutical products and services to patients is usually a network of community pharmacies. Having a community pharmacy within a reasonable distance allows patients to obtain prescription drugs and drug information when needed. Drug-related morbidity results from a variety of problems, such as incorrect dosing, therapeutic duplication, and incorrect duration of therapy, unnecessary pharmacotherapy and drug interactions. Many of these problems could be controlled by improved patient contact with health care practitioners, such as physicians, nurses and pharmacists. Contact with pharmacists has been recommended as a strategy to improve the use of drugs by ambulatory patients (Doucette *et al.*, 1999:1268).

In 1993 Serfontein (1993:96) performed a study on the geographical distribution of medicine distribution points (including community pharmacies), according to the community size in South Africa. Serfontein found that 71,06% of community pharmacies were located in the urban areas comprising the Pretoria-Witwatersrand-Vereeniging region, the Durban-Pietermaritzburg region, Port Elizabeth, the Western Cape, Bloemfontein and Kimberley, while 28,94% were located in rural areas. In 2003/2004 there were 2530 (67,2%) community pharmacies, 14 (0,37%) consultant pharmacies, 552 (14,1%) public institutions, 102 (2,71%) manufacturing pharmacies, 368 (9,77%) wholesale distributors and, 46 (1,22%) no-stock pharmacies registered with the

South African Pharmacy Council (South African Pharmacy Council, 2003a; Serfontein, 2004). According to the 1999 inspection report of the South African Pharmacy Council (2000a:7) it was revealed that of the 995 pharmacies inspected, the majority were located in cities (74%) with the balance situated in either small towns or rural areas. Such maldistribution can limit the availability of essential drugs, the accessibility to such drugs and good quality pharmaceutical services.

The greatest inequity in the differences between the public and private sectors is in the context of pharmaceutical services. These differences are highlighted in the number of pharmacists who work in each sector and in the total expenditure in each sector. During 1998 only 26% of pharmacists were employed in the public sector, despite this sector being responsible for the provision of health care to some 80% of the population (Gray 1998:103). According to a general household survey of Statistics South Africa (2005a:xviii) approximately 15.2% of the population were covered by a medical aid scheme in 2002 compared to 14.9% in 2004. Furthermore, more than nine times the percentage of White people (69.7% in 2004) had coverage compared to the Black African population group where only 7.2% had medical aid coverage in 2004 (Statistics South Africa, 2005a:xviii).

A good quality pharmaceutical service relies primarily on the provision of an adequate number of appropriately skilled pharmacists, equitably distributed in proportion to need. Appropriate support personnel should supplement this cadre. The most basic measure of adequacy would therefore be the pharmacist-to-patients population ratio (Gray, 1998:103).

Human resource development is increasingly being recognised as being the key to improved health service delivery and health sector transformation. Policies do acknowledge that health is a human system, and that reformation has to address issues such as the personnel staffing the service, improved planning, capacity and management. Despite these focuses, there is an increasing concern about a lack of strategy and implementation, leading to ever increasing strains on the health sector (Lehmann & Sanders, 2002:119).

Ntuli (2000:3) stated that to promote equity of health services in a society, ways of ensuring access, affordability and availability of sustainable health services must be found. The aim would therefore be to ensure that the necessary resources are available to address health-related problems. These issues include the possible maldistribution of pharmaceutical services, for example rural versus urban as well as the affordability, access, sustainability and quality of these services in the private and public sectors. These aspects form the core contents of this study.

1.2 RESEARCH QUESTIONS

The following research questions can be formulated on the basis of the foregoing discussion:

- How did the pharmacy profession evolve?
- What does Good Pharmacy Practice entail?
- What are the international perspectives on Good Pharmacy Practice?
- What is the geographic distribution of community and institutional (private and public) pharmacies in South Africa?
- What is the current standard of pharmaceutical services provided by community and institutional pharmacies registered with the South African Pharmacy Council?

1.3 RESEARCH OBJECTIVES

This research includes general and specific objectives:

1.3.1 General objective

The general research objectives of this study were to

- investigate the demographic profile of community and institutional pharmacies in South Africa; and
- determine the standard of pharmaceutical services provided by community and institutional pharmacies registered with the South African Pharmacy Council.

1.3.2 Specific objectives

The specific research objectives of the literature review include the following:

- To investigate the evolution of pharmacy and conceptualise pharmacy services, clinical pharmacy and pharmaceutical care as well as to examine the reasons for the changes pharmacy practice has undergone.
- To investigate the role of the pharmacist in the health care system.
- To investigate the concept of Good Pharmacy Practice from available literature.
- To investigate the standards that pharmacies in South Africa must maintain to comply with Good Pharmacy Practice Guidelines in conjunction with international perspectives and views.
- To investigate the geographical distribution of pharmacies by looking at certain aspects of the South African health care system, which in turn would exercise an influence on the distribution of pharmacies.

The specific research objectives of the empirical investigation include the following:

- To investigate the availability of private vs. public pharmaceutical services in different geographical areas in South Africa from August 2003 to August 2005 as well as the location of pharmacies throughout South Africa.
- To determine the geographic distribution of the inspected community and institutional pharmacies within South Africa.
- To determine the availability of pharmacy personnel to provide services to patients.
- To assess the extent to which community and institutional pharmacies in South Africa conform to Good Pharmacy Practice guidelines according to the results of the inspection questionnaire data.
- To determine the possible effect of the availability of pharmacists on Good Pharmacy Practice compliance in community and institutional pharmacies.
- To determine the possible effect of the availability of pharmacists' assistants on Good Pharmacy Practice compliance in community and institutional pharmacies.
- To determine the possible effect of the average number of prescribed items dispensed per day in community and institutional pharmacies on Good Pharmacy Practice compliance.
- To develop a possible grading system for pharmacies.

1.4 RESEARCH METHOD

The research consists of two phases, namely a literature review and an empirical investigation.

1.4.1 Phase one: Literature review

The literature study consists of two sections. Firstly, to discuss the standard of pharmaceutical services that must be provided by pharmacies in South Africa, as stipulated by the South African Pharmacy Council, and contrast these views with international perspectives.

Secondly, to investigate certain aspects of the health care system of South Africa, which could influence the distribution of pharmacies in South Africa.

1.4.2 Phase two: Empirical investigation

The empirical investigation comprises several steps with a complete discussion in Chapter 4. Several analyses were done to determine the Good Pharmacy Practice compliance scores obtained by community and institutional pharmacies inspected during the period January 2004 to May 2005.

The target population for this study consisted of all the community and institutional pharmacies (private and public) that were inspected by the inspectorate of the South African Pharmacy Council. Data of the inspection questionnaires of the South African Pharmacy Council were extracted for a time period of 17 months.

To determine the inspected pharmacies' geographical distribution, the data were merged with the data of the Pharmacy Register of the South African Pharmacy Council for August 2005 and the Census data® of 2001 (Statistics South Africa, 2001). Furthermore, the registers of pharmacies of the South African Pharmacy Council of August 2003, August 2004 and August 2005 were analysed on provincial, district and municipal level. The data analysis was conducted by means of the Statistical Analysis System®, SAS 9.1 (SAS for Windows, 9.1, 2005).

The report and discussion of the results obtained from the empirical investigation, as well as the conclusion, recommendations and limitations based on the results will be discussed in Chapters 5 and 6 respectively.

1.5 DIVISION OF CHAPTERS

Chapter 1: Introduction and problem statement.

Chapter 2: Literature overview: Standard of pharmaceutical services.

Chapter 3: Literature overview: Aspects of the health care sector of South Africa.

Chapter 4: Empirical investigation.

Chapter 5: Results and discussion.

Chapter 6: Conclusion and recommendations.

1.6 CHAPTER SUMMARY

In this Chapter an introduction to the study was given. This included the research questions, the objectives of the study, the research method as well as the division of the chapters of the study. The first literature chapter will be discussed in Chapter 2.

Standard of pharmaceutical services

Chapter 2

This chapter commences with an overview of the changes the pharmacy profession has undergone throughout the years. The focus of this chapter is predominantly on the standards of Good Pharmacy Practice, which are essential to ensure the quality of patient care and pharmaceutical services. The Good Pharmacy Practice document for South Africa is used as the cornerstone for the discussions throughout this chapter, in conjunction with international requirements and views.

2.1 THE PHARMACY PROFESSION

The evolution of the pharmacy profession is an important aspect for understanding the various changes the profession has undergone.

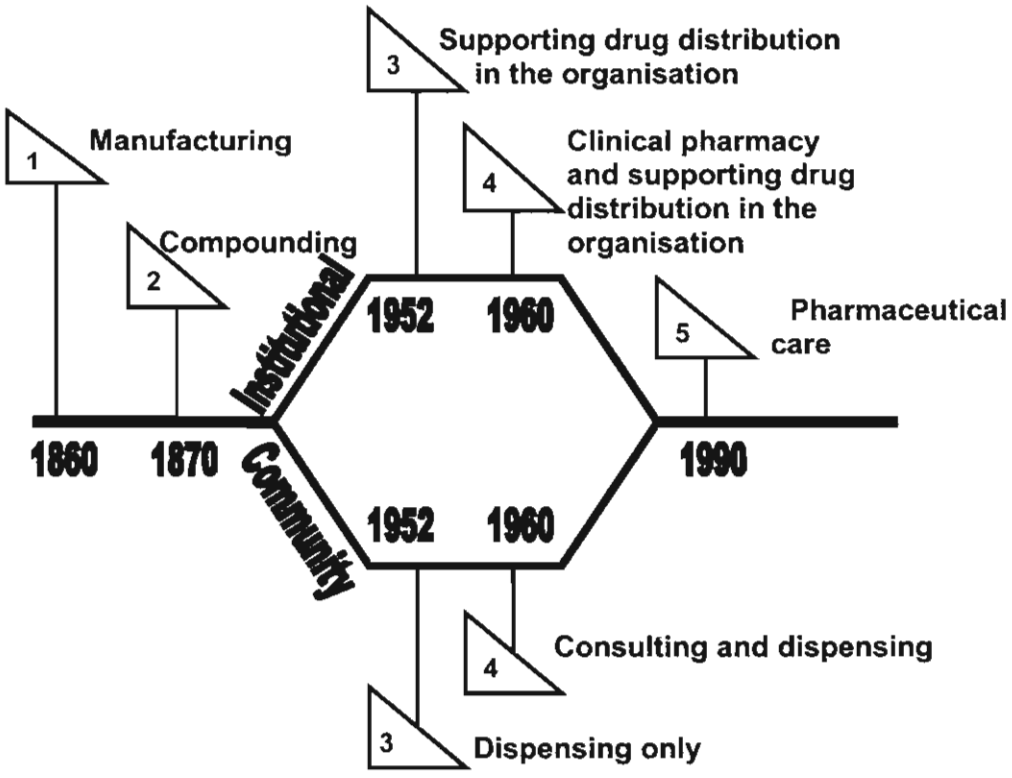


Figure 2.1 *Time lines of the five stages of major change in pharmacy practice* **(Holland and Nimmo, 1999:1759).**

Figure 2.1 shows a timeline for the different stages of the development of pharmacy practice as described by Holland and Nimmo (1999:1759).

Between 1860 and the late 1990s the orientation of the profession shifted from manufacturing, to compounding, to distribution, to a more clinical role, and finally to pharmaceutical care. Seen retrospectively, these shifts seem to represent a series of entirely different professions bound only by a common name and an association with a common product namely, medications (Holland and Nimmo, 1999: 1758-1759). Holland and Nimmo (1999:1758-1759) identified five major shifts to describe how often pharmacists have been required to significantly change what they do and the extent of these changes. During stage 1, the main task of pharmacy was manufacturing. Pharmacists created patent medicines according to their own recipes, selling and prescribing them from their own dispensaries. Those pharmacists were the equivalent of the modern pharmaceutical industry, drugstore, and primary care provider all rolled into one. Products as well as process were valued in that patients came to a pharmacist for the medication itself and for advice and guidance on its selection and use (Holland and Nimmo, 1999:1759). According to Holland and Nimmo (1999:1759) pharmacy had a clearly defined social value during that time.

During stage 2, with the surfacing of the pharmaceutical manufacturing industry, increasing numbers of pharmacists ceased to manufacture drugs and moved to compounding (the mixing of already manufactured drugs according to a prescription) as their primary task. Patients still came to the pharmacist for medications and guidance on the use of patent medicines for self-care and pharmacy continued to have clearly defined social worth (Holland and Nimmo, 1999:1759).

During the third stage, the main task of the pharmacist diverged, depending on the practice site. Change was most dramatic for pharmacists practicing in the community as greater availability of manufactured medication as well as limitations on who could prescribe and who could advise on the use of medications, confined community pharmacy practice to dispensing. Before 1965, South African pharmacists were granted unrestricted authority to compound and to sell medicines for personal use and for self-care to any patient (South African Pharmacy Council, 1994a:15). In 1965, the Medicines and related substances Control Act, or Act 101, was introduced in South Africa. This Act limited the South African pharmacist's discretion to medicines that fell into schedules 1 and 2. All other medicines in the higher schedules could only be dispensed by the pharmacist following a doctor's prescription (Gilbert, 1998:155).

Medicines were divided into prescription and non-prescription drugs. While focus on the product remained, process faded from the picture. The community pharmacist lost social purpose and at the same time institutional pharmacists functioned primarily in a support role for the management of drug products. Their daily activities included distribution, management, large-volume compounding, teaching of nurses, and participation on pharmacy and therapeutics

committees. As in community pharmacy, the emphasis was also on the product (Holland and Nimmo, 1999:1759).

During the fourth stage, community pharmacists resumed providing drug information by way of advice and medication counselling, and institutional pharmacists added clinical pharmacy to their previous role. Though product still focused, community practitioners added to their dispensing function of providing consultations on generic substitution and advice on the use of non-prescription medications. Some community pharmacists moved toward patient-orientated self-care, but the social value of community pharmacy, as a whole remained weak. Institutional pharmacists, meanwhile capitalising on their direct access to patient specific clinical information, patients' caregivers, and the drug literature, added clinical pharmacy as a means of enhancing the ability of physicians to make good decisions about medications (Holland and Nimmo, 1999:1759).

Stage 5, the implementation of pharmaceutical care, suggested that, the tasks associated with practice in the community pharmacy and in the hospital merge. Dispensing remained the foundation. The institutional pharmacist would continue to perform the functions of clinical pharmacy, and the community pharmacy would perform those functions through activities such as disease management. While the knowledge, skills, and abilities of the pharmacist remained the same as in clinical pharmacy, the orientation of professional attitudes and values were different (Holland and Nimmo, 1999:1760). In 1990, Hepler and Strand (1990:539) published a paper, which conceptualised the term pharmaceutical care. The philosophy of pharmacy practice was articulated as pharmaceutical care and the organisational structure that facilitates the provision of this care as the pharmaceutical-care system (Hepler and Strand, 1990:539). Pharmacists worldwide are facing the challenge of providing pharmaceutical care, which according to Lubbe (2004:16) requires accepting responsibility for providing comprehensive drug therapy.

2.2 REASONS FOR THE SHIFT IN PHARMACY PRACTICE

There are various reasons for the shift in the practice of pharmacy and the need of cognitive pharmacy services. According to Putter (1997:4) these include:

2.2.1 A relatively high incidence of drug-related morbidity and mortality.

Drug-related problems are relatively common in hospitalised patients and can result in morbidity and mortality, as well as increased costs (Van den Bemt *et al.*, 2000). A study done by Ernst and Grizzle (2001) in the United States revealed that the costs associated with drug-related morbidity and mortality doubled to an estimated amount of $177.4 billion in 2000.

2.2.2 The need for rational cost-effective medicine use.

According to the Pharmaceutical Society of Australia (1997) the costs flowing from misadventures caused by prescribed medication are grossly underestimated. Pharmacists are therefore, in the unique position to make a significant impact on these costs by considering the following (Pharmaceutical Society of Australia, 1997):

- Identifying potential and actual drug-related problems.
- Resolving actual drug-related problems.
- Preventing potential drug-related problems.

2.2.3 The emergence of an informed patient

A substantial amount of information about medicines is provided to consumers in many countries through items in the media, in information leaflets accompanying medication and sometimes by advertising. Experience has shown that the provision of this additional information may be misunderstood and often raising new questions in consumer's minds. It is also important, that when a medicine is requested by name, it should not be assumed that the enquirer is fully aware of its properties, potential side effects and possible interaction with other medicines (International Pharmaceutical Federation, 1996).

2.2.4 Increased frequency of self-care by patients.

Members of the public are better informed regarding medication therapy and are keen to take more responsibility for their own health status than in the past. They are also more eager to obtain as much information as possible from expert sources to help them take appropriate action in their health care (International Pharmaceutical Federation, 1996). According to Van Niekerk (1995:13) the right of a patient to be informed and to be empowered to play a meaningful role in his/her health care can be used by the pharmacist in embracing the opportunity to change and disregard of a profession pre-occupied with commodity priced medicine distribution systems.

2.2.5 The problem of non-compliance.

Complete adherence to medication therapy occurs when the patient follows instructions completely (Cramer, 1995:S27). Most theories locate the sources of non-compliance in the doctor-patient interaction, patient knowledge or beliefs about treatment and to a lesser extent, the nature of the regimen or illness (Conrad, 1985:29). For instance, in the elderly, their more complex medical regimens place them at greater risk of drug errors; their frailty makes them more vulnerable to the consequences of drug errors; and their cognitive, sensory, and motor deficits make learning and compliance more difficult (Green *et al.*, 1986). It is said that, 40% of hospital admissions of the elderly are due to medication-related problems (Balkrishnan, 1998:769).

A community-based study was conducted during the period January to June 1998 to determine the magnitude and factors of non-compliance with medications prescribed for short periods of time in Gondar town, North–West of Ethiopia. It was found that about 26% of the patients failed to adhere to clinical prescriptions and that the existence of an association between compliance and the outcome of therapy deserves attention, particularly by health care providers (Abula, 2000:1-2). Abula (2000:6) concluded that non-compliance with drug treatment regimes is one of the many interacting factors, which determine the outcome of therapy.

2.2.6 Adverse drug reactions.

A study conducted from November 2001 to April 2002 in two hospitals on Meyerside, England, revealed 1225 admissions related to an adverse drug reaction, giving a prevalence of 6.5%, with the adverse drug reactions directly leading to the admission in 80% of cases. Aspirin was identified as a casual agent in 18% of cases of all admissions for adverse drug reactions, while other Non-Steroid-Anti-inflammatory drugs and diuretics were implicated in 12% and 27%, respectively (Pirmohamed *et al.*, 2004).

The examples above emphasise the need for comprehensive pharmaceutical services provided by health care professionals such as pharmacists.

For the purposes of this study, it is important to distinguish between, pharmaceutical/pharmacy services, pharmaceutical care and clinical pharmacy.

2.3 PHARMACY/PHARMACEUTICAL SERIVCES

Strand *et al.* (1991:547) defined pharmacy services as including all other services the pharmacist might require to resolve a patient's drug-related problems, thus to support pharmaceutical care. Figure 2.2 illustrates the components of pharmacy practice and the relationships between pharmaceutical care, pharmaceutical services and pharmacy management (Strand *et al.*, 1991:547).

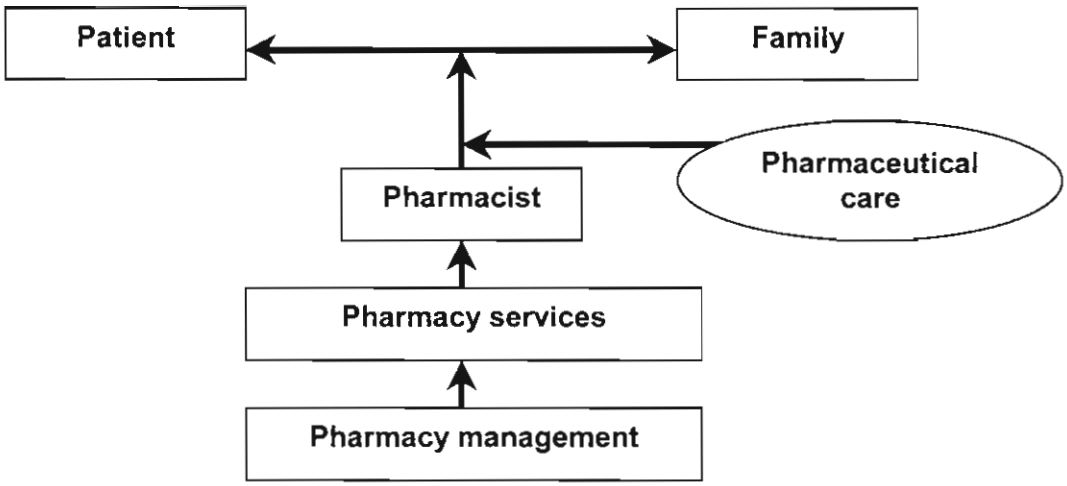


Figure 2.2 ***Patient-specific components of pharmacy practice*** **(Adopted from Strand *et al., 1991:547*).**

2.4 PHARMACEUTICAL CARE

One of the first definitions for pharmaceutical care was conceptualised by Hepler and Strand (1990:539) as *the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life. These outcomes are (1) cure of a disease, (2) elimination or reduction of a patient's symptomatology, (3) arresting or slowing of a disease process, or (4) preventing a disease or symptomatology.*

Strand *et al.* (1992:6) translated the provision of pharmaceutical care into everyday practice as that which an individual pharmacist does when he or she (a) evaluates a patient's drug-related needs, (b) determines whether a patient has one or more actual or potential drug-related problems, and then (c) works with the patient and other professionals to design, implement, and monitor a pharmacotherapeutic plan that will resolve the drug-related problem.

The most recent definition, however, is that pharmaceutical care is *a practice in which the practitioner takes responsibility for a patient's drug-related needs and is held accountable for this commitment* (Cipolle *et al.*, 1998:13).

According to the American Pharmacists Association (2006) *pharmaceutical care is a patient-centred, outcomes oriented pharmacy practice that requires the pharmacist to work in concert with the patient and the patient's other healthcare providers to promote health, to prevent disease, and to assess, monitor, initiate, and modify medication use to assure that drug therapy regimens are safe and effective.*

2.5 CLINICAL PHARMACY

Clinical pharmacy includes all the services performed by pharmacists practising in hospitals, community pharmacies, nursing homes, home-based care services, clinics and any other settings where medicines are prescribed and used. . The term "clinical" does not necessarily imply an activity implemented in a hospital setting. A community pharmacist may perform clinical activities as well as a hospital practitioner (Schreudering *et al.*, 2000:27-30).

Cipolle *et al.* (1998:338) defined clinical pharmacy as *a health speciality, which embodies the application, by pharmacists, of the scientific principles of pharmacology, toxicology, pharmacokinetics, and therapeutics to the care of patients.* It includes services such as individualised (pharmacokinetic) dosing services, nutritional support services, therapeutic drug monitoring, and drug utilisation review.

The above-mentioned description suggests that during the provision of clinical pharmacy the pharmacist applies his/her knowledge and skills regarding the scientific principles of pharmacology, toxicology, pharmacokinetics, and therapeutics to care for patients. Clinical pharmacy services can therefore be used as tools by the pharmaceutical care practitioner in the identification, resolution and prevention of drug-related problems (Lubbe, 2000:40). The terms pharmacy services, pharmaceutical care and clinical pharmacy are thus closely intertwined and influence one another greatly.

2.6 THE SCOPE OF PRACTICE OF A PHARMACIST

New regulations relating to the practice of pharmacy came into effect in South Africa on 20 November 2000. These regulations replaced the old regulations, which dealt with very limited aspects of the practice of the profession. With regard to pharmacists, the regulations specified the acts specially pertaining to a pharmacist, i.e. acts which only a pharmacist could perform or provide, with the exception of other categories of health care professionals under certain circumstances, as well as the full scope of practice of the pharmacist. The scope of practice of the pharmacist is based on the role of the pharmacist as encapsulated in the National Drug Policy (South African Pharmacy Council, 2001:5).

2.6.1 The National Drug Policy and the role of the pharmacist

The National Drug Policy for South Africa, announced by the Minister of Health on 22nd February 1996, can be considered an event of historical importance in the provision of pharmaceutical services in South Africa. The National Drug Policy may be seen as part of the Government's commitment to ensure proper health care services to all the people of South Africa (Putter, 1996:7).

The role of the pharmacist as described in the National Drug Policy (Department of Health, 1996:18) includes *inter alia* the following activities:

- Educational role in instructing patients in the correct use of drugs.
- Involved in the rational utilisation of drugs.
- Role players in greater cooperation between themselves and other health care professionals.
- Participation in primary health care and preventive health services.

2.6.2 Acts specially pertaining to the profession of a pharmacist

The Pharmacy Act (53/1974) describes the following acts specially pertaining to the pharmacy profession:

- The provision of pharmaceutical care by taking responsibility for the patient's medicine related needs and being accountable for meeting these needs.
- The compounding, manipulation, preparation or packaging of any medicine or scheduled substance or the supervision thereof.
- The manufacturing of any medicine or scheduled substance or the provision thereof.
- The purchasing, acquiring, importing, keeping, possessing, using, releasing, storage, packaging, re-packaging, supplying, or selling of any medicine or scheduled substance
- The application for the registration of a medicine in accordance with the Medicines Act (101/1965).

2.6.3 Acts pertaining to the scope of practice of a pharmacist

According to the Pharmacy Act (53/1974) the following services are regarded to be services or acts pertaining to the scope of practice of a pharmacist:

- The acts specially pertaining to the profession of a pharmacist as prescribed in section 2.6.2 (Acts specially pertaining to the profession of a pharmacist).
- The formulation of any medicine for the purpose of registration as a medicine.
- The distribution of any medicine or scheduled substance.
- The repackaging of medicines.
- The initiation and conducting of pharmaceutical research and development.
- The promotion of public health.

2.7 REQUIREMENTS OF GOOD PHARMACY PRACTICE

The International Pharmaceutical Federation (1997:1) in adopting international guidelines for Good Pharmacy Practice at its Council Meeting in Tokyo on 5 September 1993, believed that standards based on these guidelines should be used by national pharmaceutical organisations for nationally accepted standards of Good Pharmacy Practice (International Pharmaceutical Federation, 1997:1).

According to the International Pharmaceutical Federation (1997:3) the Good Pharmacy Practice guidelines are based on the pharmaceutical care given by pharmacists. These guidelines propose that national standards be set for the promotion of health, the supply of medicines, medical devices, patient self-care, and improving prescribing and medicine use by pharmacists' activities.

According to the South African Pharmacy Council (1995a:18) the mission of pharmacy practice is to provide medication and other health care products and services; and to help people and society to make the best use of these resources. Comprehensive pharmacy service encompasses involvement in activities to ensure good health and to avoid ill health in a population. When the treatment of ill health is necessary, the quality of each person's medicine use process should be ensured to achieve maximum therapeutic benefit and to avoid the presentation of unwanted side effects.

The Pharmacy Amendment Act (88/1997) made legislative provision for the development of Good Pharmacy Practice Guidelines. The first edition of Good Pharmacy Practice Guidelines was finalised in 1997 by the Interim Pharmacy Council of South Africa (1997). In keeping with the vision of the South African Pharmacy Council, which is to ensure that pharmaceutical services are the best to improve the health status of the population, the Council developed new Good Pharmacy Guidelines, published in 2004 (Masango, 2005). According to Masango (2005) the primary aim of Good Pharmacy Practice is to ensure that pharmacists as well as other health professionals provide quality services to the whole population.

The document covers areas such as (South African Pharmacy Council, 2004a:1-204):

- Standards for the pharmacy premises and layout and equipment.
- Standards for services provided by pharmacists and other support personnel, such as the dispensing process, storage and distribution, etc.
- Standards for pharmacy human resources, such as the scope of practice of pharmacy personnel.
- Standards for pharmacy management.

According to the South African Pharmacy Council (2004a:4) Good Pharmacy Practice requires the following:

- A pharmacist's first concern must be the welfare of the patient and of the public in general (South African Pharmacy Council, 2004a:4). Considering the patient-pharmacist relationship as a covenant means that a pharmacist has moral obligations in response to the gift of trust received from society. In return for this gift, a pharmacist promises to help individuals achieve optimum benefit from their medications, to be committed to their welfare, and to maintain their trust. (American Pharmacists Association, 2005).
- The core of the pharmacist's activity is the supply and distribution of medicines and other health care products, the provision of appropriate information and advice to the patient, ensuring the correct use of medicine and monitoring the effects of the use of medicines (South African Pharmacy Council, 2004a:4).
- Where applicable pharmacists must adhere to Good Manufacturing Practice as determined by the Medicine Control Council to ensure the safety, quality and efficacy of medicine (South African Pharmacy Council, 2004a:4).
- An integral part of the pharmacist's contribution is the promotion of rational and economic prescribing and of appropriate use of medicines (South African Pharmacy Council, 2004a:4).
- That the objective of each element of the care provided by pharmacists is clearly defined, relevant to the individual and effectively communicated to and accepted by all those involved (South African Pharmacy Council, 2004a:4).

2.7.1 Applying Good Pharmacy Practice

Good pharmacy practice involves four main groups of activities, for each of the four main elements of good pharmacy practice; national standards should be established in relation to processes and facilities. These standards should be promoted amongst members of the profession (International Pharmaceutical Federation, 1997:1).

The term national standards includes laws, regulations, standards, ordinances or other requirements enacted or promulgated by an official body at any level of government, as well as guidelines, recommendations or other pronouncements or professional organisations of pharmacy (International Pharmaceutical Federation, 1997:5).

The four main groups of activities for Good Pharmacy Practice are listed below (International Pharmaceutical Federation, 1997:1):

- Promotion of health and prevention of ill health.
- Supply and use of prescribed medicines and other health care products.
- Self-care and self-medication.
- Influencing prescribing and medicine use.

The four main elements of Good Pharmacy Practice addressed in South Africa include the following (South African Pharmacy Council, 2004a:5):

- Professional standards for pharmacy premises.
- Professional standards for services provided by a pharmacy.
- Professional standards for pharmacy human resources.
- Professional standards for pharmacy management.

2.8 COMMUNITY PHARMACY

The term community pharmacy means a pharmacy wherein or from which some or all of the services as prescribed in Regulation 18 of the regulations relating to the practice of pharmacy are provided to persons requiring pharmaceutical services (South Africa, 2000). Regulation 18 states that except as provided for in the Medicines Act (101/1965), the services, which may be provided in a community or institutional pharmacy, are the services pertaining to the scope of practice of a pharmacist, (discussed previously), together with the following (South Africa, 2000):

- The provision of primary care drug therapy with prior authorisation from the South African Pharmacy Council.
- Any other service as may be approved by council from time to time.

Community pharmacists are the health professionals, who are most accessible to the public. They supply medicines in accordance with a prescription or, when legally permitted sell them without a prescription (World Health Organization Consultative Group, 1988:10). The World Health Organization Consultative Group (1988:11-13) has described the role of community pharmacists as including the following activities and provision of services:

- Processing of prescriptions.
- Care of patients or clinical pharmacy.
- Monitoring of drug utilisation.
- Extemporaneous preparation and small scale manufacture of medicines.
- Traditional and alternative medicines.
- Responding to symptoms of minor ailments.
- Informing health care professionals and the public.
- Health promotion.
- Domiciliary services.

- Agricultural and veterinary practice.

Community pharmacists work in both professional and commercial settings. The professional role is primarily centred on the provision of medicines to patients and advice about medicines to patients, carers and other health care professionals. The commercial role revolves around the sale of over-the-counter (OTC) medicines and other non-medical but often health-related products. Pharmacists are considered both by the primary care team and the public to be experts on medicines and therefore have a strong ethic of service to the community that frequently overrides purely commercial considerations (Anderson, 2001:285).

2.9 INSTITUTIONAL PHARMACY

The term institutional pharmacy means a pharmacy situated in a public or private health facility, wherein or from which some or all of the services as prescribed in Regulation 18 of the Regulations relating to the practice of pharmacy are provided to persons requiring pharmaceutical services from or at the public or private health facility (South Africa, 2000).

While many of the pharmacist's activities in hospitals and other institutions and facilities, such as outpatient clinics, may be similar to those performed by community pharmacists; they differ in a number of ways. The additional role of an institutional pharmacist includes the following (World Health Organization Consultative Group, 1988:13):

- Has more opportunity to interact closely with the presciber and, therefore, to promote the rational prescribing and use of drugs.
- In larger institutional pharmacies, is usually one of several pharmacists, and thus has a greater opportunity to interact with others, to specialise and to gain greater expertise.
- Having access to medical records, is in a position to influence the selection of drugs and dosage regimes, to monitor patient compliance and therapeutic response to drugs, and to recognise and report adverse drug reactions.
- Can more easily access and monitor patterns of drug usage and thus recommend changes where necessary.
- Serves as a member of policy-making committees, including those concerned with drug selection, the use of antibiotics, and hospital infections (Drug and Therapeutics Committee) and thereby influences the preparation and composition of an essential-drugs list or formulary.
- Is in a better position to educate other health professionals about the rational use of drugs.

- ❖ More easily participates in studies to determine the beneficial or adverse effects of drugs, and is involved in the analysis of drugs in body fluids.
- ❖ Can control hospital manufacture and procurement of drugs to ensure the supply of high-quality products.
- ❖ Takes part in the planning and implementation of clinical trials.

In June 2001 the American Society for Health-System Pharmacists created the ASHP Vision Statement for Pharmacy Practice in Hospitals and Health Systems. Essential themes in the vision were that health-system pharmacists would help make medication use more effective, scientific, and safe; and that they would contribute meaningfully to public health. Based on the vision, the American Society of Health-System Pharmacists established goals and objectives in health systems to be achieved by the year 2015 (American Society for Health-System Pharmacists, 2006).

The American Society of Health-System pharmacists (2006) identified the following goals:

Goal 1. Increase the extent to which pharmacists help individual institutional in-patients achieve the best use of medications.

Goal 2. Increase the extent to which health-system pharmacists help individual non-hospitalised patients achieve the best use of medications.

Goal 3. Increase the extent to which health-system pharmacists actively apply evidence-based methods to the improvement of medication therapy.

Goal 4. Increase the extent to which pharmacy departments in health systems have a significant role in improving the safety of medication use (American Society for Health-System Pharmacists, 2006).

2.10 PROFESSIONAL STANDARDS FOR PHARMACY PRACTICE

Pharmacy is a profession, which should fulfil a socially responsible function and keep abreast of modern developments, and be able to adapt to the changing needs of communities for health care. Pharmacy cannot create its own kind of "health care service" to suit its facilities, geographical distribution and training. Pharmaceutical services by pharmacists should form part of national strategies and create a climate, which will be conducive to achieving the accepted aims and objectives of the government for health care services in South Africa (Interim Pharmacy Council of South Africa, 1995:6).

The public places great trust in the knowledge, skills and professional judgement of pharmacists. This trust requires pharmacists to ensure and uphold high standards of personal as well as professional conduct, up-to-date knowledge and continuing competence applicable to their practice (Royal Pharmaceutical Society of Great Britain, 2005a:1).

According to Eagles, the South African Pharmacy Council president (2006:5) patients today are in desperate need of expert pharmaceutical assistance. Pharmacists have the unique professional ability and expertise to assist patients in maintaining good health.

The fundamental objective at all times must be the striving towards even higher standards of practice, for the benefit of the patients and the community being served, by achieving outcomes as well as the development of the profession (International Pharmaceutical Federation, 1998a:3).

2.11 PROFESSIONAL STANDARDS FOR PHARMACY PREMISES, FACILITIES AND EQUIPMENT

Standards for premises, facilities and equipment of both community and institutional pharmacies are essentially the same, but do differ in a few ways. Standards specifically related to the institutional pharmacy will be discussed at the end of each section, where applicable. The following flow chart explains the process.

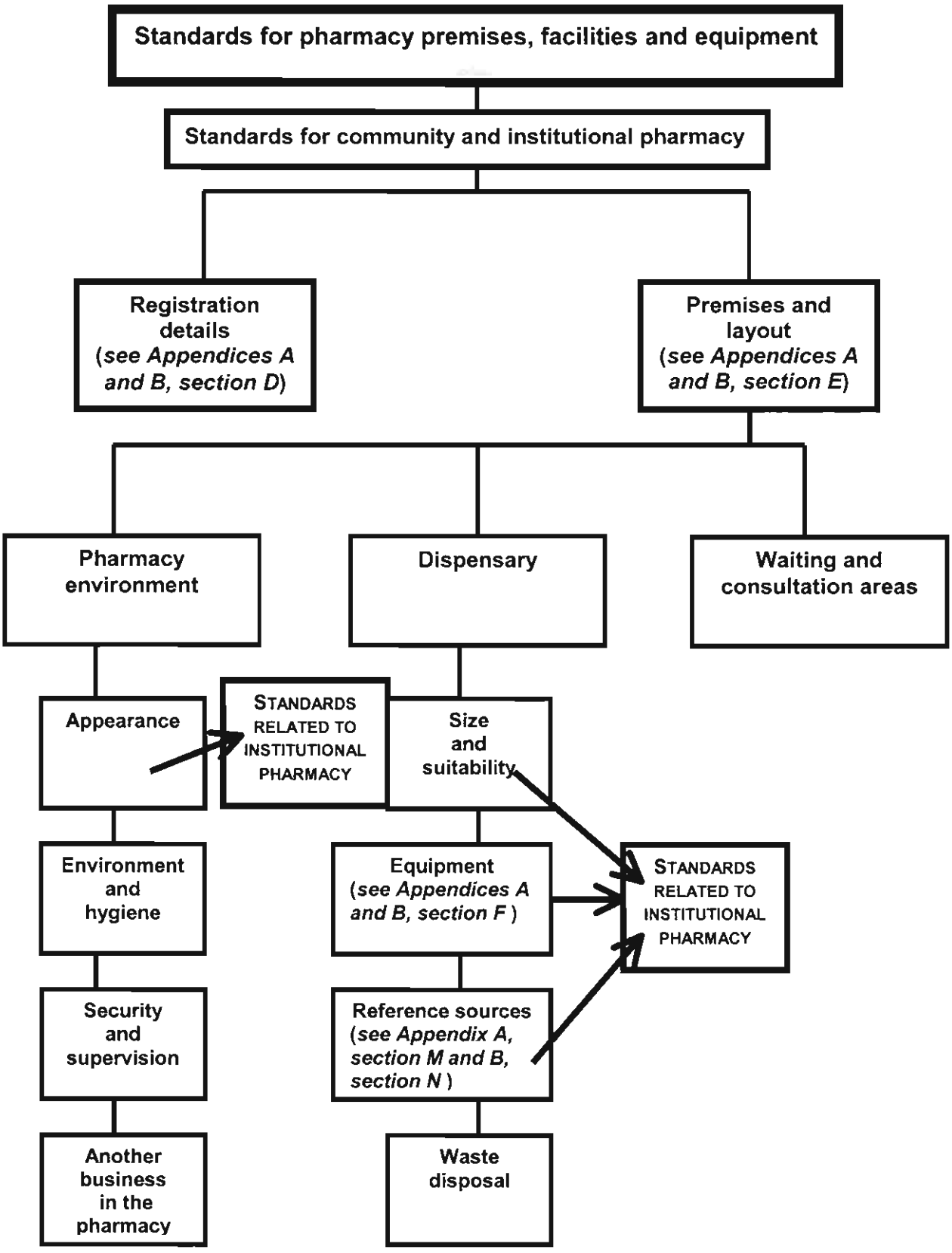


Figure 2.3 Flow chart illustrating the discussion from section 2.11.1 to 2.11.5.1.

2.11.1 REGISTRATION DETAILS

In this section, aspects regarding registration details (*refer to Appendices A and B section D*) are discussed. No person shall be entitled to provide the services which form part of the services specially pertaining to the scope of practice of a pharmacist or assist therewith, unless he or she is duly registered in one of the categories prescribed in terms of the Pharmacy Act (53/1974).

In the United States every person who dispenses, or intends to dispense, any controlled substance, must obtain a registration from the Attorney General issued in accordance with the rules and regulations promulgated by him. The Attorney General determines the period of such registration; registrations shall not be issued for less than one year or for more than three years (United States Drug Enforcement Administration, 2002).

Furthermore, the South African Pharmacy Council (2004a:10) requires the name of the responsible pharmacist to be displayed conspicuously over the main entrance of the pharmacy (*refer to Appendix A, question 34 and Appendix B, question 38*). A responsible pharmacist is a natural person who is a pharmacist and who shall be responsible to the South African Pharmacy Council for complying with all the provisions of the Pharmacy Act (53/1974) and other applicable legislation. Furthermore, the name of the pharmacist(s) on duty must be displayed in or outside the pharmacy and the pharmacist(s) must wear a nametag for identification purposes by the public (South African Pharmacy Council, 2004a:10-11) (*refer to Appendix A, question 35 and Appendix B, question 39*).

2.11.2 PREMISES AND LAYOUT

In each of the following sections discussions will be presented as to the standards for pharmacy premises, facilities and equipment neccessary to ensure that quality pharmaceutical services are provided to patients (*refer to Appendices A and B, section E*).

2.11.2.1 Appearance

According to the International Pharmaceutical Federation (1998a:7) pharmaceutical services and products should be provided from an area, which is separate from other activities/services and products. The overall goal is to guarantee the integrity and quality of the product and minimise the risk of dispensing errors (International Pharmaceutical Federation, 1998a:7).

According to the South African Pharmacy Council (2004a:10) the pharmacy premises must be organised, all parts of the premises must be maintained in an orderly and tidy condition to achieve an effective and logical flow of work, thus minimising the risk of error or cross-contamination (*refer to Appendix A, question 45 and Appendix B, questions 41 and 42*).

According to the National Association of Pharmacy Regulatory Authorities, (2003) premises should be accessible to the public and by telephone and have space for a patient counselling area. The pharmacist should also ensure that the external and internal appearance of the pharmacy inspires confidence in pharmacy services that can be provided (*refer to Appendix A, question 56 and Appendix B, question 61*). These standards are pertinent in the Good Pharmacy Practice Guidelines of South Africa, but include that, entrances, dispensing counters and doorways must be accessible to disabled persons (South African Pharmacy Council, 2004a:6).

2.11.2.1.1 Standards specifically related to institutional pharmacy

According to the American Society for Health-System Pharmacy (1995:2715) adequate operational performance and quality patient care can be achieved, by ensuring that adequate space is available for all professional and administrative functions related to medication use. Resources such as equipment and supplies must be located in areas that facilitate the provision of services to patients, nurses, prescribers, and other health care providers and must be integrated with the hospital's communication and delivery or transportation systems. Furthermore, facilities should be constructed, arranged, and equipped to promote safe and efficient work to as well as to avoid damage to, or deterioration of drug products (*refer to Appendix B, questions 47, 56 and 57*).

Office and meeting areas must be available for administrative, educational, and training activities (American Society of Health-System Pharmacists, 1995:2716) and appropriate for the size of the pharmacy and personnel structure (South African Pharmacy Council, 2004a:26).

2.11.2.2 Environment and hygiene

The National Coordinating Council for Medication Error and Prevention approved the following as its working definition of medication error (2005):

Any preventable event that may cause or lead to inappropriate medication use or patient harm, while the medication is in control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, procedures, and systems including: prescribing, order communication, product labelling, packaging and nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use.

According to the Institute for Safe Medication Practices (2000) having a well-designed system offers the best chance of preventing medication errors; however, the environment in the workplace often contributes to these errors. Environmental factors that often contribute to medication errors include any of the following (Institute for Safe Medication Practices, 2000):

- Poor lighting.
- Noise.

- Interruptions.
- A significant workload.

According to the South African Pharmacy Council (2004a:13) levels of heat, light, noise, ventilation (all pertaining to immediate surroundings) must not exert any adverse effects on the pharmacy personnel or stock within the pharmacy (*refer to Appendix A, questions 47 to 50 and Appendix B, questions 52 to 55*).

Furthermore, the pharmacy premises must be clean, there must be an area where equipment and utensils can be washed which has a source of hot and cold tap water (*refer to Appendix A, questions 41 and 60 and Appendix B, questions 45 and 66*). The walls, floors, ceiling, woodwork and all other parts of the premises must be kept clean and in a good order. Countertops, shelves and walls must be finished in a smooth washable and impermeable material, which is easy to maintain in a hygienic condition (South African Pharmacy Council, 2004a:13) (*refer to Appendix A, questions 43 to 45 and Appendix B, questions 48 to 50*).

According to the Pharmaceutical Society of New Zealand (2003) a hygienic environment can be maintained by

- ensuring that the pharmacy is kept free of animals, birds, pests and vermin (*refer to Appendix A, question 151 and Appendix B, question 166*);
- providing hand-washing facilities with both hot and cold water i.e. apart from those used for pharmaceutical services;
- ensuring that all areas used in the preparation of medicines are subject to an effective and regular cleaning and sanitation programme (*refer to Appendix A, question 150 and Appendix B, question 165*);
- providing appropriate training for staff, regular monitoring and evaluation of the standards of hygiene achieved;
- prohibiting smoking and eating in areas where medicines are dispensed and/or stored; and
- pursuing a smoke free environment in the pharmacy (*refer to Appendix A, question 172 and Appendix B, question 192*).

Tobacco is the cause of serious illnesses and many premature deaths in both developed and developing countries (International Pharmaceutical Federation, 2003). Dependence on tobacco is a chronic condition, which is difficult to overcome. Pharmacists, together with other health professionals, have a responsibility to help people who wish to do so, to give up smoking or other uses of tobacco and to encourage others to do so (International Pharmaceutical Federation, 2003).

2.11.2.3 Security and supervision

Careful consideration must be given to the overall security of the pharmacy, the responsible pharmacist must ensure that every key, key card or other device, which allows access to the pharmacy, be in his/her possession or that of another pharmacist at all times. Control of access to the pharmacy must be of such a nature that only registered pharmacy personnel have direct access to medicine (South African Pharmacy Council, 2004a:11) (*refer to Appendix A, questions 58 and 59 and Appendix B, questions 63 and 64*).

The issue of supervision in pharmacies is a recurring one. In order to maintain a professional image and preserve the range of medicines to be sold in a pharmacy, it is essential that pharmacists continue to ensure appropriate supervision of all transactions occurring in a pharmacy (Pharmaceutical Society of New Zealand, 2003). Supervision normally refers to the relationship between a pharmacist and a member of one of the other occupations in the pharmacy, e.g., dispensing technicians, pharmacy assistants and counter assistants. Furthermore supervision in a pharmacy requires the pharmacist to be present in the dispensary or close to it. The supervisory role cannot be exercised from a distance or on an occasional basis (Harrison, 2001:89). In the absence of a pharmacist, there is no evident difference between a pharmacy and any other retail outlet (Pharmaceutical Society of New Zealand, 2003). If, because of unforeseen circumstances, pharmacist supervision will not be possible, the only proper course of action is for the pharmacy to be closed. A notice specifying the period of closure and recommending another pharmacy or pharmacies where urgent services could be obtained must be prominently displayed on the outer door or window of the pharmacy (Pharmaceutical Society of New Zealand, 2003) (*refer to Appendix A, question 36 and Appendix B, question 40*).

According to the South African Pharmacy Council the responsible pharmacist may be absent from his/her pharmacy to (South African Pharmacy Council, 2004a:190)

- fulfil his/her duties and responsibilities as prescribed in terms of the Pharmacy Act (53/1974);
- provide pharmaceutical services at a pharmacy of which he or she is not the responsible pharmacist; and
- undertake the overall management of the pharmacy concerned, which could include the regulation of pharmacy matters, human resources, or matters relating to processes regarding medicines or scheduled substances including procedures and record keeping as well as compliance with relevant labour legislation.

According to the South African Pharmacy Council (2004a:172) when a pharmacy is closed the following information must be made available to the public:

- The contact details of a pharmacist, practising in the pharmacy in question.

- ❖ Information as to alternative facilities where pharmaceutical services can be obtained in the case of an emergency.
- ❖ Details relating the times the pharmacy will be opened or closed.

2.11.2.4 Another business or practice in a pharmacy

In respect of the sharing of premises (*refer to Appendix A, question 46 and Appendix B, question 51*) the "ethical rules" for South African pharmacists are quite clear. Ethical rule 13(a) states that pharmacists may not share their premises with other health care professionals without the prior approval of the South African Pharmacy Council (South Africa, 1989). Medical practitioners, dentists, veterinarians or any other health care professional practising as such in pharmacies may only do so if the pharmacist concerned has obtained Council's approval. A pharmacist practising as a pharmacist (i.e. performing any act pertaining to the scope of practice of a pharmacist) in a doctor's, dentist's or veterinarian's consulting rooms may also do so with the prior consent of Council (South African Pharmacy Council, 2002a:18).

2.11.3 DISPENSARY

In this section the requirements regarding the dispensing area are discussed.

2.11.3.1 Size and suitability

According to the South African Pharmacy Council, (2004a:17) the size of the dispensary must reflect the volume of the prescriptions dispensed and allow a safe and efficient flow of work and effective communication and supervision for the number of persons working in the dispensary (*refer to Appendix A, questions 51 and 56 and Appendix B, questions 53 and 58*), the temperature in the dispensing area must be maintained below 25°C (*refer to Appendix A, questions 53 to 55 and Appendix B, questions 48 to 50*).

2.11.3.1.1 Standards specifically related to institutional pharmacy

There must be sufficient and suitable space and facilities for normal dispensing activities (as mentioned above) as well as where necessary for ward and clinical services, compounding, pre-packing, parenteral admixture preparation, other aseptic compounding and cytotoxic preparation (South African Pharmacy Council, 2004a:25).

2.11.3.2 Waste disposal

In this section requirements with regard to waste disposal procedures are discussed (*refer to Appendix A, questions 81, 82 and 152, Appendix B, questions 87, 88 and 169*). Responsible environmental practices encompass the management of drugs as well as materials purchased, used and disposed such as plastics, paper and glass. The role for pharmacists in this area is

significant. According to the National Association of Pharmacy Regulatory Authorities (2002) elements of the role for pharmacists include the following:

- Establishing a disposal process.
- Establishing a programme for the return and disposal of unused drugs which includes:
  - Encouraging patients to return their drugs to the pharmacy.
  - Collecting expired, discontinued and unused drugs from patients.
  - Tabulation and documentation of volume of waste and rationale/causes/sources for waste.

In all situations, a pharmacist must use his/her pharmaceutical knowledge and skills, together with any necessary expert advice from Local Authority/Provincial Department of Health, to segregate and dispose of materials, and bio-medical waste safely and in accordance with regulations (South African Pharmacy Council, 2004a:16).

According to the South African Pharmacy Council, (2004a:15-16) suitable and adequate means of waste disposal must be available and in use and waste material must not be allowed to accumulate. Under no circumstances must substances be disposed of down surface water drains, e.g. storm water drains.

Section 27 of the General Regulations made in terms of the Medicines and Related substances Act (101/1965) states that no medicine or scheduled substance may be disposed of in municipal sewerage systems. Furthermore, the destruction or disposal of medicines must be conducted in such a manner as determined by the South African Pharmacy Council to ensure that they are not retrievable (South Africa, 2003).

A medicine containing Schedule 5 or 6 substances may only be destroyed in the presence of an inspector, an officer of the South African Police Service or any other person authorised to do so. Such inspector, person or officer, as the case may be, shall then issue a certificate to confirm the destruction of the medicine (South Africa, 2003).

In the case of Schedule 1, 2, 3 and 4 substances, a pharmacist or authorised person in charge of a place where medicines or substances are kept may destroy such medicines and shall certify that this has been done (South Africa, 2003).

2.11.3.3 Dispensing equipment

This section provides an overview of requirements with regard to equipment (*refer to Appendix A, questions 60 to 71 and Appendix B, questions 65 to 78*). The Quality Standards for pharmacy in New Zealand require every pharmacy to have sufficient facilities and equipment to comply with all relevant regulations. Standard 4.3 b states: *Facilities and equipment meet the requirements of the Pharmacy Regulations and other codes and requirements specified by the*

Pharmaceutical Society of New Zealand. The guidance note to this standard is that sufficient and satisfactory equipment must be held and maintained for all operations covered by the purposes of the pharmacy (Pharmaceutical Society of New Zealand, 2003).

The South African Pharmacy Council (2004a:16) requires that there must be adequate, suitable dispensing equipment in the dispensary. Each item must be clean, in good repair and of suitable material.

Table 2.1 provides the standards for South Africa, according to the Good Pharmacy Practice guidelines (2004a:17-18) and New Zealand, according to the Pharmacy Practice Handbook (2003) respectively.

Table 2.1 Dispensing equipment: South Africa vs. New Zealand.

SOUTH AFRICA	NEW ZEALAND
A suitable means of counting tablets and capsules. This equipment must be cleaned regularly to avoid cross-contamination between products.	Tablet counting trays 2x
An accurate dispensing balance, with proof of annual maintenance.	Class 2 balance, to turn at 10 mg (electronic or beam) – certified annually.
A range of graduated, stamped glass or plastic measures.	5 Assorted stamped glass measures – to include 10, 25, 50, 100 and 250 ml.
A refrigerator equipped with a suitable thermometer and capable of storing products at temperatures between 2°C and 8°C.	Refrigerator for storing medicines, with a max/min thermometer.
A suitable range of dispensing containers and dispensing labels.	An electronic dispensing system with printer producing legible and durable labels.
Ointment tile Spatula Stirring rods, pestles and mortars.	Ointment slab Spatulas 3x Stirring rods, pestles and mortars.
The guidelines for South Africa include: Suitable refuse receptacles.	The Guidelines for New Zealand include: Funnel and heating facilities – gas or electric.

2.11.3.3.1 Standards relating specifically to institutional pharmacies

Where cytotoxic or other hazardous substance preparation is to be carried out in accordance with the Medicines Act, a suitable cabinet that complies with generally accepted Good Manufacturing Practice standards must be provided (South African Pharmacy Council, 2004a:17).

Ventilation and biosafety cabinets should be maintained and evaluated for proper performance in accordance with the manufacturer's instructions (Occupational Safety and Health Administration, 1995).

Horizontal airflow workbenches provide an aseptic environment for the preparation of injectable drugs. However, these units provide a flow of filtered air originating at the back of the workspace and exiting toward the employee using the unit. Thus, the likelihood of drug exposure to both the preparer and other personnel in the room increases. As a result, the use of horizontal Biological Safety Cabinets is contra-indicated in the preparation of hazardous drugs. Smoking, drinking, applying cosmetics, and eating where these drugs are prepared, stored, or used also increase the chance of exposure (Occupational Safety and Health Administration, 1995).

Where sterile or aseptic dispensing is to be carried out in accordance with the Medicines Act, suitable facilities must be available (South African Pharmacy Council, 2004a:17). It is also important to have suitable means for sterilisation of medicinal products if products that require sterilisation are prepared in the pharmacy (South African Pharmacy Council, 2004a:17). Sterile products must be accurately prepared and must remain sterile up to the point of administration to patients. The safety and integrity of such products prepared in pharmacies is critically important (American Society of Hospital Pharmacists, 1991a:2391). Designated space and equipment for packaging and compounding drug products and preparing sterile products as well as an environment that minimises potential for contamination of products is essential (American Society of Hospital Pharmacists, 1993a:2386-2398).

Furthermore, the preparation of Total Parenteral Nutrition (TPN) solutions must be performed in a cabinet equipped with a High Efficiency Particulate Air (HEPA) filter ideally situated in a room with a clean air environment (South African Pharmacy Council, 2004a:129) (*refer to Appendix B, questions 73, 74, 161 to 164, and 177 to 180*).

2.11.3.4 Reference sources

The World Health Organization Consultative Group publication "The role of the pharmacist in the Health Care System" (1993:32) recommends that pharmacists should maintain adequate documentation resources in their pharmacies and have access to necessary information from central information systems (*refer to Appendix A, section M and Appendix B, section N for questions relating to reference sources*).

Standard 5.1a for the Quality Standards for Pharmacy in New Zealand states: *Pharmacy staff has access to appropriate and current reference material.* The guidance note to this standard is that a systematic and up-to-date collection of all relevant information be readily available to staff, and must contain relevant regulatory information, relevant professional information and up-to-date information on medicines. The required minimum reference resources for all pharmacies offering a dispensing or compounding or consultancy service are as indicated directly below according to the Pharmaceutical Society of New Zealand (2003), with the requirements in South Africa, explained next to each item.

Table 2.2 shows the required reference sources in South Africa compared to that of New Zealand.

Table 2.2 Comparison of required reference sources for South Africa and New Zealand.

REFERENCE SOURCES	SOUTH AFRICA	NEW ZEALAND
The acts, regulations and codes relating to pharmacy (Pharmaceutical Society of New Zealand, 2003).	❖ The latest copy of the Pharmacy Act 53 of 1974, as amended. ❖ Medicines and Related Substances Act 101 of 1965, as amended.	❖ Pharmacy Act 143/1970. ❖ Pharmacy Regulations 269/1975. ❖ Pharmacy registration Regulations 94/1972. ❖ Medicines Act 118/1981. ❖ Medicines Regulations 143/1984. ❖ Misuse of Drugs Regulations 37/1977. ❖ Toxic substances regulations 130/1983. ❖ Health Regulations 343/1996. ❖ Health Information Privacy code 2000. ❖ The Health and Disability Commissioner Regulations 78/1996.
A ready reference of concise information on individual medicines (Pharmaceutical Society of New Zealand, 2003).	❖ MIMS. ❖ The South African Medicines Formulary.	❖ New Ethicals Catalogue. ❖ MIMS New Zealand. ❖ British National Formulary. ❖ Australian Medicines Handbook.
A reference containing broad information on individual medicines (Pharmaceutical Society of New Zealand, 2003).	❖ One of the last three editions of the Martindale.	❖ Martindale. ❖ New Ethicals Compendium. ❖ New Ethicals Counselling.
A drug interactions reference	❖ Daily Drug Use. ❖ Other drug interactions	❖ Drug Interactions/ Stockley.

Table 2.2 *(Continue)* Comparison of required reference sources for South Africa and New Zealand.

(Pharmaceutical Society of New Zealand, 2003).	reference sources.	❖ Drug Interactions and Updates/Hansten and Horn.
The Pharmaceutical Society of New Zealand and South Africa Practice Publications.	❖ Good Pharmacy Practice in South Africa Guidelines.	❖ The Code for dispensing and compounding medicines. ❖ Code of Ethics. ❖ Quality Standards for Pharmacy in New Zealand. ❖ Pharmacy Practice Handbook. ❖ Dispensing Guide.
References that are required in New Zealand but not mentioned in South African Guidelines.	**NOT MENTIONED**	❖ Additional resources for pharmacies providing specialist services. ❖ Drugs in pregnancy and breast-feeding references. ❖ Over the counter medicines references.
References that are required in South Africa but not mentioned in New Zealand Guidelines.	❖ A comprehensive textbook on Pharmacology. ❖ A Paediatric Dosing Reference Guide (where applicable). ❖ Pharmacopoeia (BP, USP, EP) (where applicable). ❖ The latest of the Standard Treatment Guidelines and Essential Drug list for the appropriate level of care.	**NOT MENTIONED**

Furthermore, the following reference resources are also required in New Zealand (Pharmaceutical Society of New Zealand, 2003) as well as in South Africa (South African Pharmacy Council, 2004a:18):

- ❖ An herbal medicines reference.
- ❖ A medical dictionary.

A wider range of reference material should be available in institutional pharmacies and in premises approved for pre-registration training. Electronic access to the required references is also acceptable (South African Pharmacy Council, 2004a:18).

2.11.5 WAITING AND CONSULTATION AREAS

A waiting area(s), which is under cover, must be situated near the dispensing area, areas for counselling and the furnishing of information and/or consultation areas (South African Pharmacy Council, 2004a:18) (*refer to Appendix A, questions 54, 55, 139, and 196 as well as Appendix B, questions 59, 60 and 147 for questions relating to waiting areas*).

An effective way to assess whether your practice offers the necessary degree of privacy to your patient is to ask yourself if you would feel comfortable discussing your own personal health issues in your practice; would you feel your privacy was adequately respected and protected? (National Association of Pharmacy Regulatory Authorities, 2003).

Private counselling areas range from private rooms to semi-private counselling areas. National Association of Pharmacy Regulatory Authorities (2003) has a few general suggestions for private counselling areas. Firstly, all counselling areas should have acoustic privacy. A number of options exist for providing privacy:

- Counselling booths at a 45-degree angle to the dispensary with sound panels or opaque glass.
- Semi-private areas attached to the dispensary on one end for stand up interaction, with chairs and a table for private interaction at the other end of the dispensary.
- Semi-private booth adjacent to the prescription pick-up area.
- Office spaces can double as private counselling areas.
- A semi-private counselling area may be an extension of the reception counter – separated by walls that reach the ceiling giving the area a distinct sense of privacy.

Furthermore, ready access to a reference library and the patient profile must be ensured, the chairs and table must provide space for counselling tools and a seated session may reassure the patients that the pharmacist has made time to counsel them. Often family members are with the patients, thus the area must accommodate them as well (National Association of Pharmacy Regulatory Authorities, 2003).

According to the South African Pharmacy Council of South Africa (2004a:20) a semi-private area is for the provision of advice that may occur in an area visible to other patients. Figure 2.4 is a schematic representation of an example of a semi-private area.

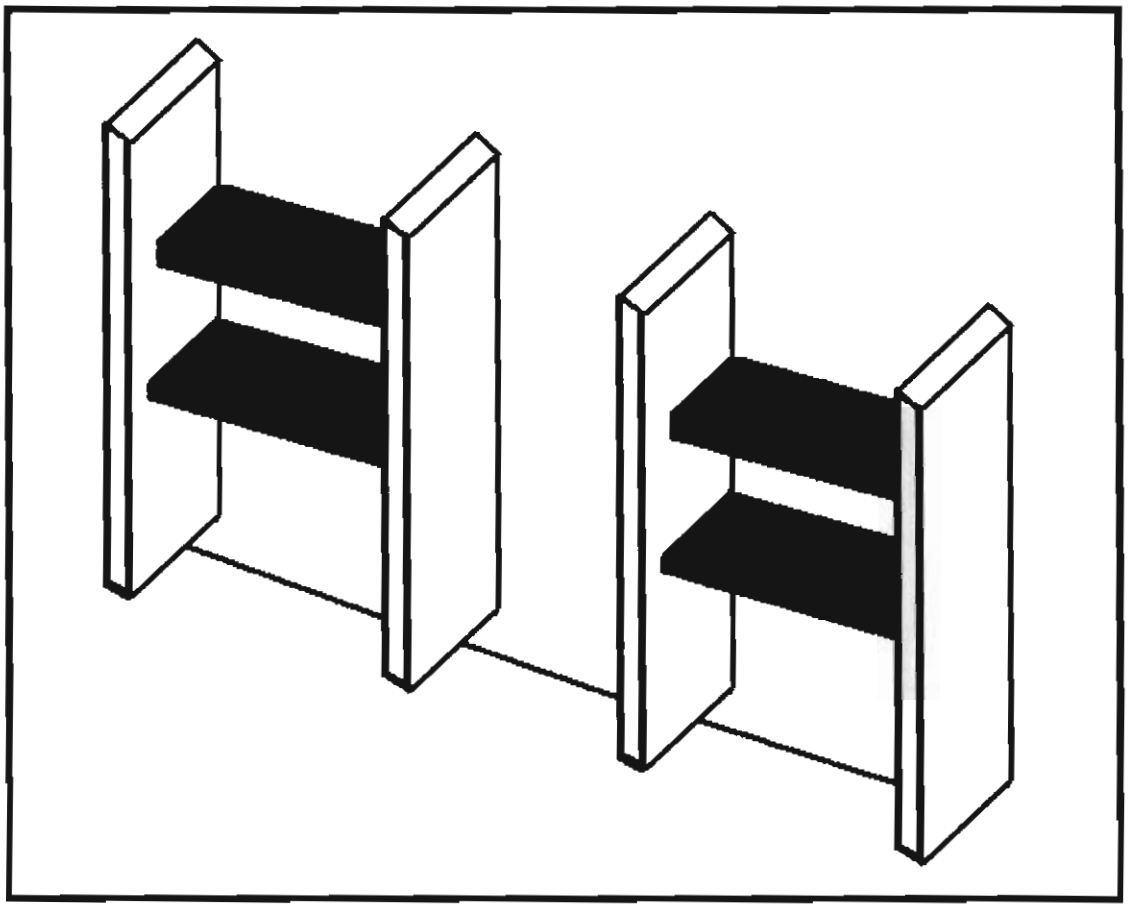


Figure 2.4 ***Semi-private counselling area*** **(Adapted from the South African Pharmacy Council, 2004a:20).**

In such an area, patient counselling may take place in a professional manner regarding medicine use and other relevant information, but does not provide the privacy required to advise patients on sensitive issues (South African Pharmacy Council, 2004a:21).

The purpose of a semi-private area is not to waste space or merely create a nice to have; or that it is used for displays of some or other kind. This area must be regarded as the first step to reach the end goal for pharmacists to interact/consult with a patient in an area, which promotes privacy and confidentiality. It is a pharmacist's responsibility to obtain all the relevant information before a patient can be informed and advised properly on the safe and effective use of medicine. Where more than one pharmacist is on duty simultaneously, provision should be made for every pharmacist for such an area, to enable him/her to interact/consult in a semi-private area. The South African Pharmacy Council expects a semi-private area at all dispensing points or windows (South African Pharmacy Council, 2005a:12-13).

Figure 2.5 is a representation of an example of a private area for the furnishing of advice. This area should be professionally planned, tastefully and professionally furnished and equipped, so as to allow the pharmacist to consult and counsel patients who may have sensitive emotional or health care problems and advise patients on their medicines, and other related issues. The size

of the area should be at least 10 square metres and in close proximity to the dispensary (South African Pharmacy Council, 2004a:21).

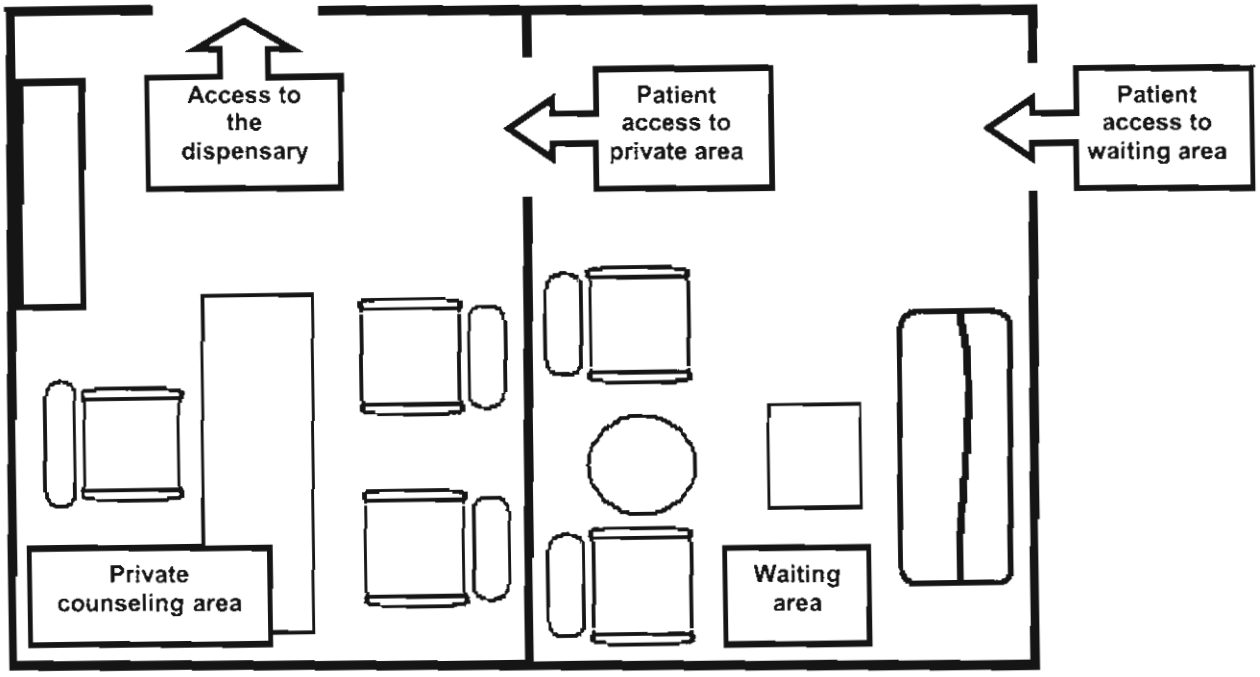


Figure 2.5 ***Private counselling area*** **(Adapted from the South African Pharmacy Council, 2004a:21).**

The use of a consultation room or area has been a matter of debate. In 1992, the overall opinion of pharmacists was that a designated area is more practical than a room, while others felt that a room added to the professionalism of a pharmacist. Counselling areas are an effective way of creating a place for pharmacist and patient to talk in private and space is used more effectively than with a private counselling area or room (Dhalla, 1992:715).

A consultation area for the provision of screening and monitoring services is an isolated area within which the pharmacist can consult in private with a patient and/or perform certain screening and monitoring services, e.g. cholesterol tests or blood pressure monitoring. Figure 2.6 is a schematic presentation of such a consultation area. The area should be clean and tidy, have sufficient space and the working area must be of impermeable washable material (South African Pharmacy Council, 2004a:22).

The services rendered in this consultation area will be discussed at a later stage.

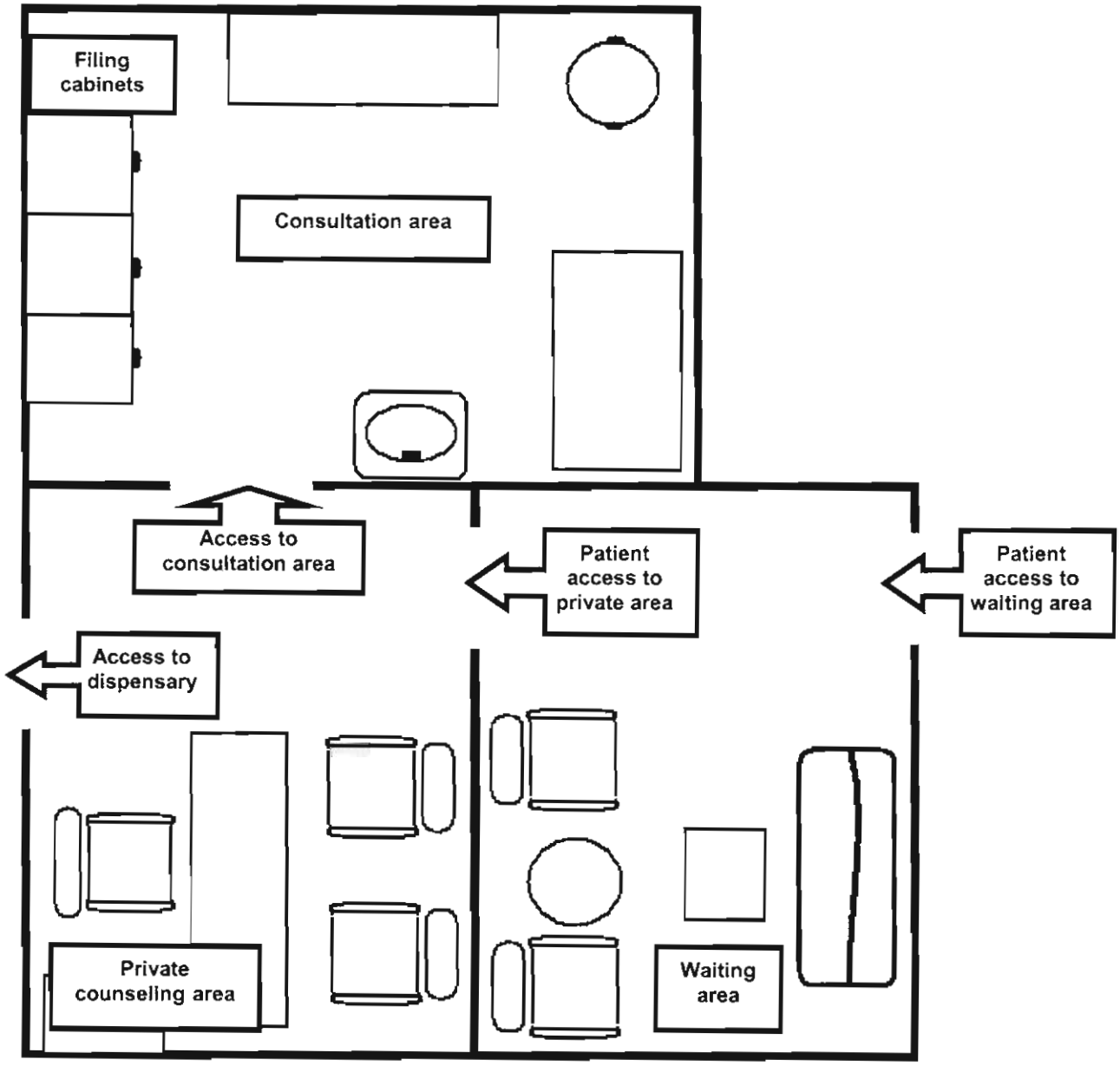


Figure 2.6 ***Consultation area*** **(Adapted from the South African Pharmacy Council, 2004a:22).**

2.11.5.1 Standards specifically related to institutional pharmacy

According to the South African Pharmacy Council (2004a:26) a suitable area and facilities for providing medicine information services must be provided where it is applicable. Separate service areas for out-patients and staff must be provided that are large enough to allow effective communication. It is recommended that separate facilities for the provision of information be provided to ensure patient confidentiality (South African Pharmacy Council, 2004a:26).

2.12 PROFESSIONAL STANDARDS FOR SERVICES PROVIDED IN A PHARMACY

The services provided within a pharmacy can be divided into three main groups, namely:

- Procurement, storage and distribution.
- Dispensing and pharmaceutical care.
- Promotion of public health.

The following flow chart explains the process of discussion for the following sections.

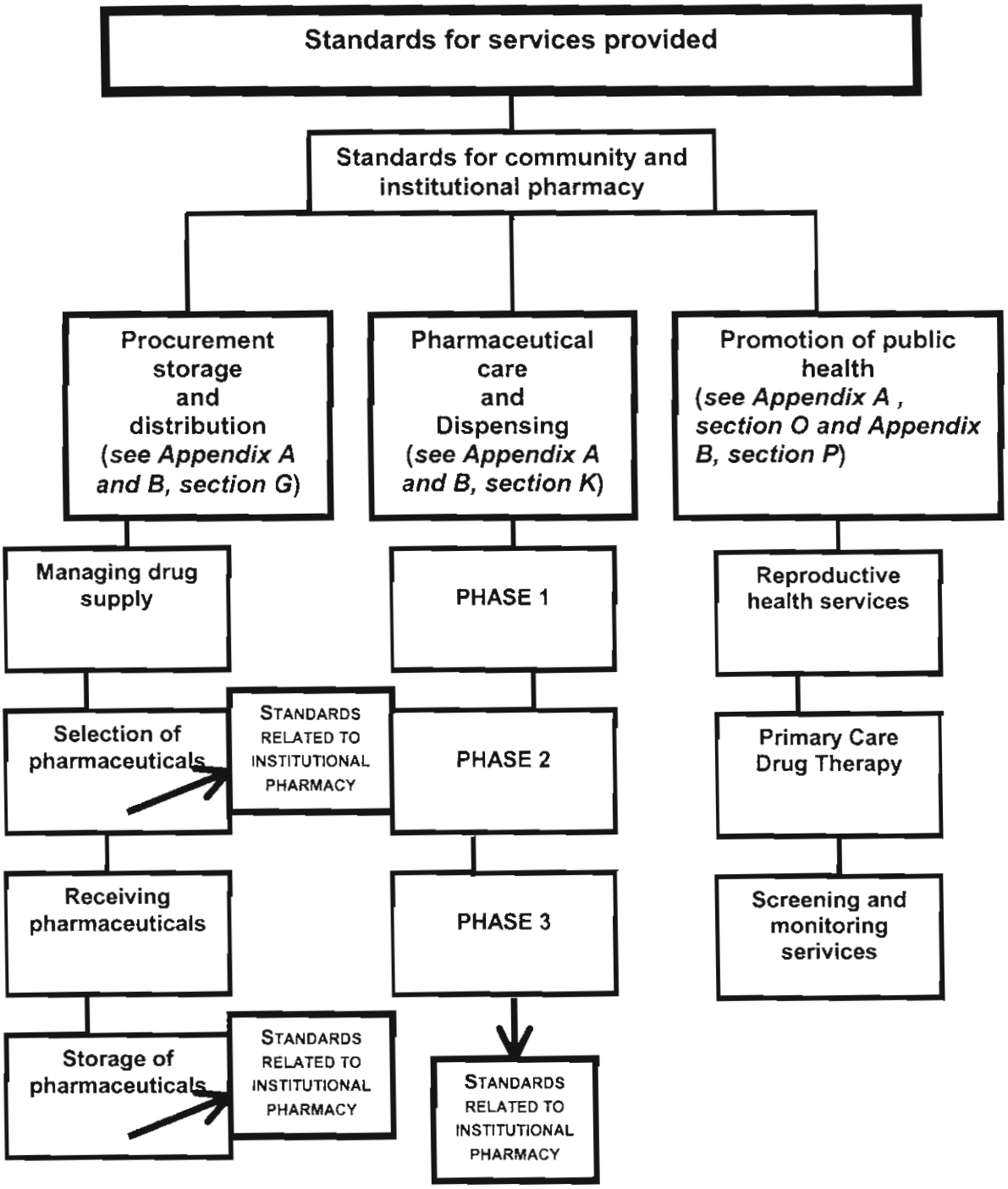


Figure 2.7 Flow chart illustrating the process for discussion of the following sections.

2.12.1 STANDARDS FOR PROCUREMENT, STORAGE AND DISTRIBUTION

The management of drug procurement, storage and distribution should be the responsibility of pharmacists, and adequate facilities should be provided (World Health Organization Consultative Group, 1993:30).

2.12.1.1 Managing drug supply

Managing drug supply at the facility level directly affects the quality of health care. If drugs are constantly unavailable, patients suffer and staffs lose confidence in the health system, and patient attendance decreases. A constant drug supply promotes effective care, inspires confidence in the health facility, and contributes to job satisfaction among staff. Every health facility needs to store and manage its drug stocks. There must be systems to ensure the following (Quick *et al.*, 1997:365):

- Secure storage.
- Storage in correct environmental conditions.
- Accurate record keeping.
- Effective reordering.
- Effective stock rotation and expiry monitoring.
- Effective fire and theft prevention.

In order to avoid accumulation of expired and obsolete stock, items should be stored and issued on a FIFO (FIRST IN, FIRST OUT) or FEFO (FIRST EXPIRY, FIRST OUT) basis (*refer to Appendix A, questions 72 to 80 and 101, Appendix B, questions 79, 85 to 87 and 95*). The stock control system must record the expiry date and the date of receipt. Stock must be stored so that earliest expiring or first delivered batches are picked and issued first. When small quantities are involved, this can be achieved by placing the newly received stock at the back of the shelf behind the existing stock. When larger quantities are involved – for example, several pallet loads – the newly received items can be placed on the upper levels of the pallet racking. They remain there until the older stock has been issued (Quick *et al.*, 1997:344-346). If a FEFO system is used, this stock should be "promoted" so that it is issued before later expiring stock. This is particularly important with products that have short shelf lives, such as vaccines (Quick *et al.*, 1997:346).

Periodic stock reconciliation is of great importance and should be performed by comparing the actual recorded stocks and all significant stock discrepancies should be investigated as a check against inadvertent mix-ups and/or incorrect issue (World Health Organization, 2003a:132).

2.12.1.2 Selection of pharmaceuticals

According to the South African Pharmacy Council (2004a:44-45) the responsible pharmacist has a professional responsibility to exercise control over all medicinal and related products, which are purchased or supplied. The pharmacist must know and select suppliers by applying various quality parameters and must not purchase, sell or supply any medicinal product where there is reason to doubt its safety, quality or efficacy. Pharmacists are responsible for selecting, from the hundreds of manufacturers and suppliers of drugs, those that will help them fulfil and important obligation i.e. to ensure that patients receive pharmaceutical and related products of the lowest cost and highest quality (American Society of Hospital Pharmacists, 1991b:523) (*refer to Appendix A, questions 90 to 92 and Appendix B, questions 98 to 99*).

In South Africa it is essential that a Medicines Control Council registration number must appear on the original container of every medicine in the facility, with the exception of unregistered medicines (*refer to Appendix A, questions 92 and 99*) for which authority for the use thereof has been granted by the Medicines Control Council (South African Pharmacy Council, 2004a:45).

2.12.1.2.1 Standards specifically related to institutional pharmacy

The South African Pharmacy Council (2004a:53) is adamant that a Pharmacy and Therapeutics Committee (PTC) must be in place for the selection of pharmaceuticals as well as the promotion of the rational use of drugs. According to the Council (2004a:53) a pharmaceutical code list and/or the Essential Drugs List must be used as the basis for medicine therapy and the PTC is responsible for the formulary. One of the major responsibilities of a Pharmacy and Therapeutics Committee is to develop and maintain a drug formulary system. The formulary only contains those drugs judged by the PTC to be in the best interest of the patient's health needs in terms of efficacy and cost and can thus be used as the basis for promoting optimal pharmacotherapy. The pharmacist is a key role player of the drug evaluation team because of his/her knowledge of pharmacology, toxicology, therapeutics and drug purchasing (American Society of Hospital Pharmacists, 1988:386).

Furthermore, a pharmaceutical usage review programme must be developed to ensure maximum patient benefit in the most cost-effective manner.

2.12.1.3 Receiving pharmaceuticals

Upon receiving pharmaceuticals (*refer to Appendix A, questions 83 to 85 and Appendix B, questions 90 to 92 for questions regarding receiving of pharmaceuticals*) it is essential that the following be taken into consideration (DELIVER, 2003:13):

- Sufficient storage space must be available.
- Areas used for receiving and storing products must be clean.
- Packages must be inspected for damaged or expired products.

Table 2.3 shows the process to be followed upon receipt of pharmaceutical stock.

Table 2.3 Procedure during the receiving process (DELIVER, 2003:14).

IF	THEN
Products are damaged or expired	1. Separate the damaged or expired stock from the usable stock. 2. Procedures for handling damaged or expired stock must be followed accordingly. 3. If damage or expiry is discovered, stock must not be accepted.
Products are not damaged or expired	1. Count the number of units for each product received and compare to issue voucher. 2. Record the date and quantity received on stock card. 3. Ensure the expiry date is visibly marked on every package or unit. 4. Arrange products in storage areas to facilitate correct stock rotation.

2.12.1.4 Storage of pharmaceuticals

Sections G of both the community and the institutional pharmacy inspection questionnaires (*Appendices A and B*) contain the questions with regard to storage requirements. According to Allen (1999) storage of pharmaceuticals is the pharmacist's responsibility from the time of receipt of the product and continues to the counselling of the patient on the proper storage of the medication at home or in an institution during the time of administration.

There should be an adequate number of qualified personnel to achieve pharmaceutical quality assurance objectives at each storage site. Personnel should receive proper training in relation to good storage practice, regulations, procedures and safety. Staff should be trained in, and observe high levels of, personal hygiene and sanitation (World Health Organization, 2003a:128). The pharmacist must take all reasonable steps to ensure that working conditions are so arranged as to protect the safety of the public and people working in the pharmacy (South African Pharmacy Council, 2004a:45).

There are several possible combinations for classifying items according to their storage requirements (Quick *et al.*, 1997:348):

- Cold storage.
- Storage at uncontrolled room temperature.
- Storage at controlled temperature and humidity.
- Storage of flammable stock.

- Secure storage.

Table 2.4 illustrates the different storage conditions as mentioned above.

Table 2.4 Storage conditions (Quick *et al.*, 1997:348).

Category	A Normal Security	B High Security	C Flammable	D Corrosive
1 Uncontrolled temperature	●	●	●	●
2 +15 to +25-30°C (controlled humidity)	●	●		
3 0 to + 8°C	●			
4 -20°C	●			

The + 15 to +25-30 °C zone is assumed to be air-conditioned and therefore humidity controlled. In temperature climate, this temperature range can be achieved without air-conditioning, but humidity control may still be necessary. Cells marked ● are commonly required temperature and security zones (Quick *et al.*, 1997:348).

2.12.1.4.1 Cold storage of pharmaceuticals

The cold chain encompasses all the storage and transport facilities necessary to ship a product requiring controlled low temperature storage from the manufacturer to the end user (*refer to Sections I of the community and institutional inspection questionnaires show the questions with regard to thermolabile requirements as well as refrigerator requirements*). At every point in the chain precautions should be taken to minimise the effect of adverse external conditions on the quality and stability of that product (Taylor, 2001:128). Pharmacists are trained in the stability of medicines and therefore know the implications and reasons why certain procedures must be followed in the care of temperature-sensitive/thermolabile medicines (Hattingh, 1997:18).

The following points are of importance regarding cold storage of pharmaceuticals (South African Pharmacy Council, 2004a:47):

- Thermolabile medicines must be kept in a refrigerator.
- The refrigerator must only be used for storing pharmaceuticals.
- The refrigerator must be inside the dispensary and must be readily accessible to the pharmacist.
- The size of the refrigerator must prevent overloading at any time.
- The refrigerator must be connected to a standby generator or other emergency power system to ensure uninterrupted power supply in case of power failure.

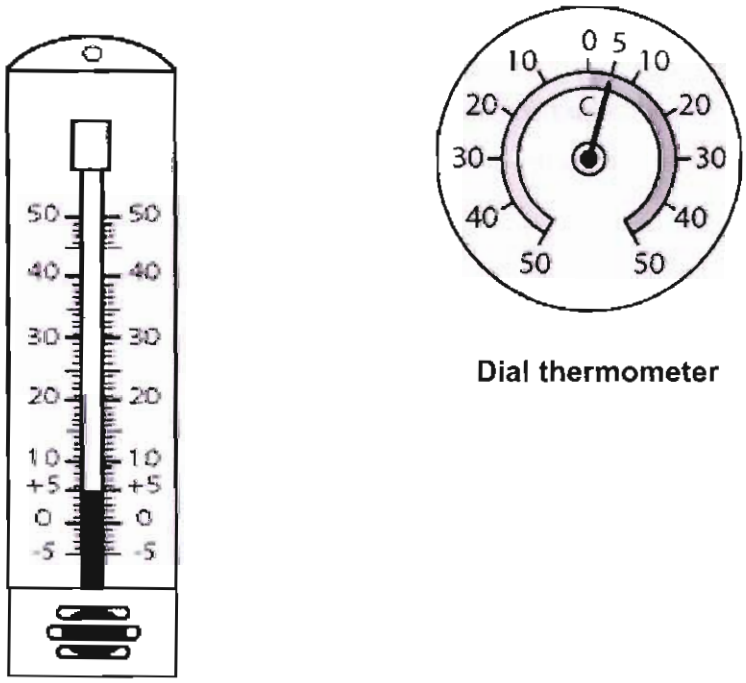
2.12.1.4.2 Cool storage

A small number of medicinal products are labelled "store in a cool place" or "store between 8°C and 15°C". If these requirements are encountered and a facility operating within this range is not available, advice is that the goods may be stored at 2°C and 8°C (Taylor, 2001:130).

2.12.1.4.3 Refrigerators

Domestic refrigerators may be suitable for cold storage of small volumes of some medicinal products, for example eye-drops which require cold storage but which are less susceptible to brief minor excursions outside the recommended temperature range than the high-risk products, such as vaccines, insulins and blood products. Domestic refrigerators are generally not suitable for high-risk products because they may not have the precise electronic control necessary to maintain the temperature within the range 5 ± 3°C. Refrigerators specifically designed for the storage of medicinal products are available and their use is to be encouraged for all products requiring storage between 2°C and 8°C (Taylor, 2001:128).

According to the South African Pharmacy Council (2004a:47) the temperature of a refrigerator must be maintained between 2°C and 8°C as well as monitored and charted twice daily. Health facility staff use dial or stem thermometers to monitor the temperature of refrigerators (Expanded Programme on Immunization, 2004:12). The dial and stem thermometers are illustrated in the figure below. Furthermore, the thermometer must be hung from the middle shelf of the refrigerator (South African Pharmacy Council, 2004a:47).



Dial thermometer

Stem thermometer

Figure 2.8 ***Stem and dial thermometers, respectively*** **(Expanded Programme on Immunization, 2004:12).**

During a power failure of 4 hours or less, the refrigerator door should be closed. If the power failure continues for more than 4 hours, vaccines should be stored in an insulated container with ice packs (Nayda *et al.*, 2001:6).

The refrigerator must be cleaned and defrosted at least once a month. When the refrigerator is being cleaned, the cold chain must be maintained, by using cooler boxes (South African Pharmacy Council, 2004a:48).

2.12.1.4.4 Storage of vaccines

According to the Department of Immunization, Vaccines and Biologicals of the World Health Organization (2005a) all vaccines are sensitive biological substances and will lose their potency with time. This loss of potency becomes faster as vaccines are exposed to higher temperatures. In order to maintain their quality, all vaccines must be continuously at the appropriate temperature from the time they are manufactured up until the moment of use. The commonly used Expanded Programme on Immunization (EPI) vaccines may be ranked according to their sensitivity to heat as seen in figure 2.9:

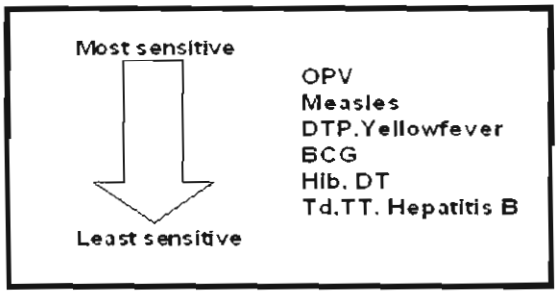


Figure 2.9 ***EPI vaccines most sensitive to heat to least sensitive*** **(Adapted from Department of Immunization, Vaccines and Biologicals , 2005b).**

Some vaccines are also sensitive to being too cold. For these vaccines, freezing or exposure to temperatures below 0°C can also cause loss of potency, causing the vaccine to become useless. For these vaccines, it is essential to protect them not only from heat, but also from freezing (Department of Immunization, Vaccines and Biologicals, 2005b). The vaccines sensitive to freezing (as well as to heat) are illustrated in figure 2.10 (Department of Immunization, Vaccines and Biologicals, 2005b).

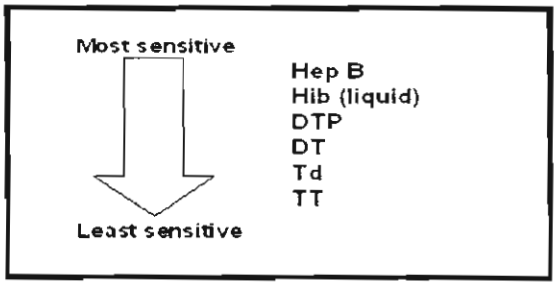


***Figure 2.10 EPI vaccines most sensitive to heat to least sensitive* (Adapted from Department of Immunization, Vaccines and Biologicals, 2005b).**

Correct packing of vaccines and diluents in the refrigerator is vital if they are to be kept at safe temperatures (South African Pharmacy Council, 2004a:49). According to the Expanded Programme on Immunization (2004a:17) a front-loading refrigerator with freezer on top should be loaded as follows:

- Measles, MR (Measles, Rubella), MMR (Measles, Mumps,Rubella), BCG (vaccine against Tuberculosis) and OPV (vaccine against Polio) on the top shelf.
- DTP (Diphteria, Tetanus, Whooping cough), DT (Diphteria, Tetanus), Td, TT (Tetanus only), HepB (Hepatitis B vaccine), DTP-HepB, Hib (vaccine against Haemophilis Influenzae type b only), DTP-Hepb+Hib, meningococcal, yellow fever, and JE (Japanese encephalitis) vaccines on the middle shelves.
- Diluents next to the vaccine with which they were supplied.

It is of great importance that Thermolabile medicines be stored according to a system (*refer to Appendix A, question 123 and Appendix B, question 131*). This section sets out to discuss the correct storage of thermolabile medicines.

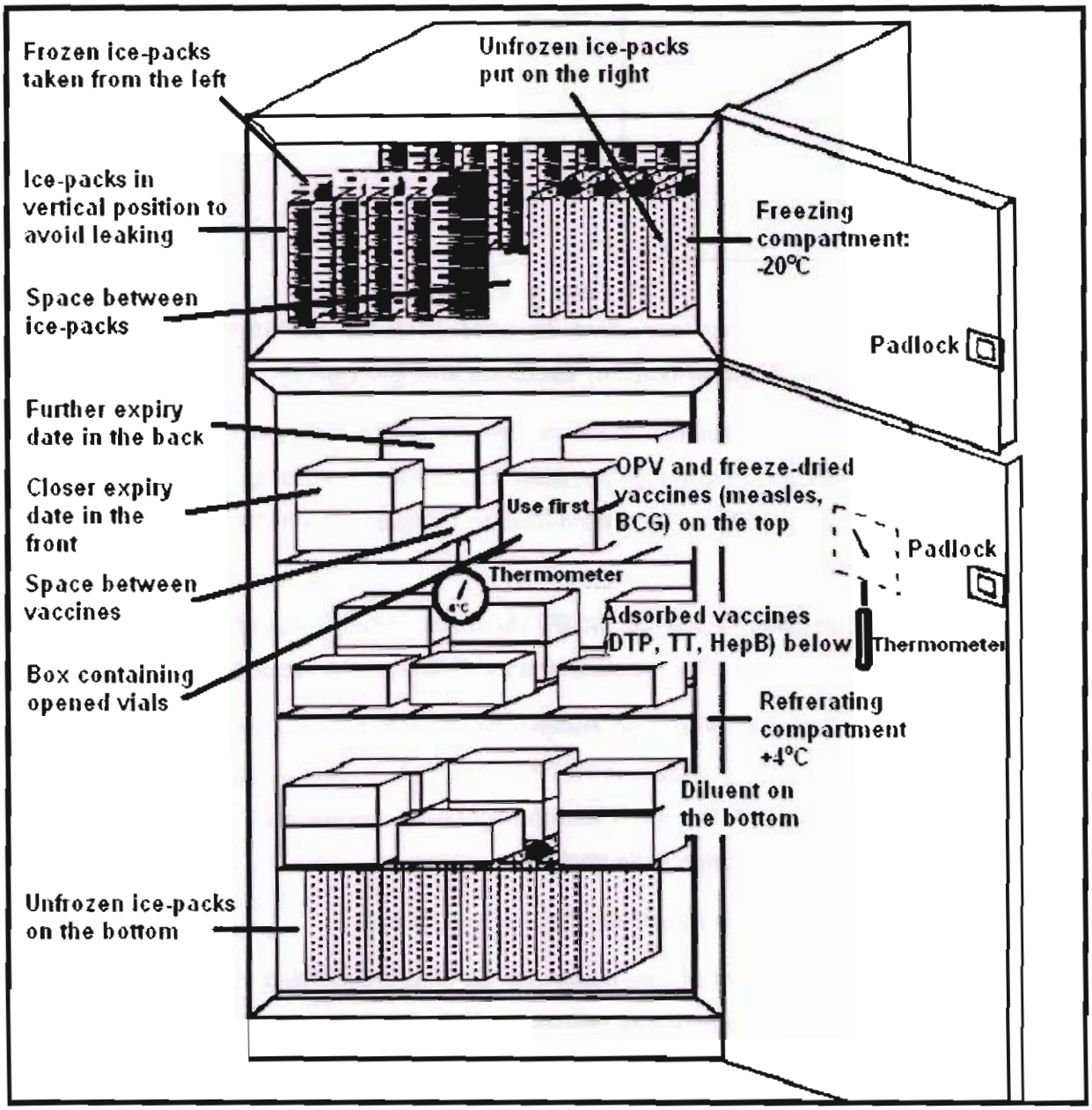


Figure 2.11 ***Loading a front loading vaccine refrigerator*** **(Adapted from Expanded Programme on Immunization, 2004:17).**

It is recommended that refrigerators used for vaccine storage be labelled with the following information to alert all staff (Nayda *et al.*, 2001:8):



Figure 2.12 ***Label for refrigerator*** **(Adapted from *Nayda et al.*, 2001:8).**

It is recommended that the power point of the refrigerator be labelled as follows (Nayda *et al.*, 2001:8):



***Figure 2.13 Label for power point* (Adapted from Nayda *et al.*, 2001:8).**

2.12.1.4.5 Storage at uncontrolled room temperature

Products are best stored at a uniform temperature for optimal results (Allen, 1999), but there are also many products, which can be safely stored at uncontrolled room temperature (Quick *et al.*, 1997:348). However it may be the common practice of many pharmacists to alter the thermostat setting when closing up for the night, such as increasing the temperature setting during the summer months and decreasing the temperature setting during the winter months, to help reduce utility costs. Wide temperature range variations should be discouraged as they may affect the stored drug products (Allen, 1999).

2.12.1.4.6 Storage at controlled temperature and humidity

In hot climates, it is necessary to store many items in air-conditioned rooms. In humid climates, dehumidifiers are useful for preventing moisture damage. In cold climates, stores may need to be heated in winter to protect products that are damaged by freezing (Quick *et al.*, 1997:348).

Unless stated otherwise in product literature and labels, most medicinal products can be stored under conditions of controlled room temperature without compromise to their stability and recommended shelf –life. These products are usually labelled "do not store above 25 °C" (or for some products, "do not store above 30 °C). "Controlled" room temperature is used to imply a degree of control over the temperature of the storage environment; such that extremes of hot and cold temperature are not encountered (Taylor, 2001:130).

When product labels indicate, "protect from moisture" a product must be stored in a space with no more than 60% relative humidity. The following may be considered to reduce humidity (DELIVER, 2003:25):

- Ventilation: Open windows or air vents to allow air circulation.
- Packaging: Secure all lids. Never open a new container unless necessary.
- Circulation: A fan may be used to circulate fresh air.

- ❖ Air conditioners: The use of an air conditioner may be costly, but very effective.

2.12.1.4.7 Storage of flammable stock

Some flammable liquids commonly found in health facilities include acetone, anesthetic ether, alcohols (before dilution), and kerosene. Large supplies of flammables should be stored in a separate location away from the main storeroom preferably outside the main storeroom but on the premises and not less than 20m away from the other buildings. Fire fighting equipment should be easily available. Large supplies of flammables should never be stored in the same areas as medicines (DELIVER, 2003:25).

A small stock of flammables may be kept in a steel cabinet in a well-ventilated area, away from open flames and electrical appliances. The cabinets must be marked to indicate that they contain highly flammable liquids, and display the international hazard symbol. In addition, the shelves of the cabinet should be designed to contain and isolate spillage. Always store flammables in their original container (DELIVER, 2003:25).

2.12.1.4.8 Secure storage

Narcotics and controlled substances should be kept in a secure room or safe. Entry to the store must be controlled and keys to the secure store should be kept in a safe. The ideal would be that a red warning light or warning bell should be fixed close to the store, which will activate if the door is unlocked (Quick *et al.*, 1997:348).

From the time of receipt until use or removal from the pharmacy all medicines should be kept secure, with access only by authorised personnel. The legal requirements related to each category of medicine should be applied at all times. At each stage where a medicine moves from one place to another there should be clear policies explaining where the specific responsibility lies, what should be recorded and how often reconciliation should take place (Royal Pharmaceutical Society of Great Britain, 2005b:24).

2.12.1.4.9 Storage of pharmaceuticals in the institutional pharmacy

The responsibility for establishing and maintaining a system for the security of medicines should be that of the Senior Pharmacist in consultation with appropriate medical staff and senior nursing staff. The appointed nurse in charge should be responsible for ensuring that the system is followed and that security of medicines on the ward is maintained (Royal Pharmaceutical Society of Great Britain, 2005b:33). Where applicable, procedures must be agreed upon with nursing staff to allow pharmacists' assistants access to medicine storage areas (South African Pharmacy Council, 2004a:57). Pharmacy staff should check the security of institutional ward stocks periodically. The responsible pharmacy staff should, furthermore, carry out inspections of ward stock, with reconciliation where necessary (Royal Pharmaceutical Society of Great Britain, 2005b:36).

The delivery of products must be made directly to the pharmacy, or a procedure must be established to ensure secure receipt if products are not directly delivered to the pharmacy (South African Pharmacy Council, 2004a:53). All orders must be on official documents carrying a unique order number, there must only be a small number of signatories and telephonic orders must be confirmed in writing immediately (South African Pharmacy Council, 2004a:54).

There is also the possibility that patients may bring their current and/or old medicines with them on admission, therefore it is important that there should be a policy for managing these medicines (Royal Pharmaceutical Society of Great Britain, 2005b:34).

It is the responsibility of the responsible pharmacist to ensure that all medicine storage areas are inspected regularly, at least monthly, to ensure that (South African Pharmacy Council, 2004a:55)

- ❖ medicines are stored correctly;
- ❖ no expired or obsolete medicines are stocked;
- ❖ stock levels are adequate; and
- ❖ inflammable substances and disinfectants as well as preparations for external use are stored separately.

The American Society for Health-System Pharmacy (1995:2715) further recommends inspections of storage areas to possibly identify storage conditions that would foster medication deterioration and storage arrangements that might contribute to medication errors.

Corrosive or oxidant substances commonly found in hospitals or other high-level health facilities include trichloracetic acid, glacial acetic acid, concentrated ammonia solutions, silver nitrate, sodium nitrate, sodium hydroxide pellets. These corrosive substances must always be stored away from flammables, ideally in a separate steal cabinet to prevent leakage (DELIVER, 2003:25).

Lastly, adequate inventory control systems for pharmaceutical stock stored in the pharmacy, the pharmacy store as well as for ward and clinic pharmaceutical stock must be maintained (South African Pharmacy Council, 2004a:55).

2.12.1.4.10 Distribution of pharmaceuticals to wards, departments, theatres, clinics (WDTC) and other outlets

Regulation 36 of the General Regulations published in terms of the Medicines Act (101/1965) states that: *The responsible pharmacist as required under the Pharmacy Act, 1974, shall be responsible for the safe and secure keeping, purchase, storage, and dispensing of medicines in a hospital* (*refer to Appendix B, questions 103 to 105*).

In each of the WDTC and other outlets, agreement must be reached with the nursing staff and other clinicians on which items are to be held as stock and thus a stock list must be prepared for each of these sections. Furthermore, a stock list must be made available for nursing staff as well as prescribers responsible for servicing the ward (South African Pharmacy Council, 2004a:56). Pharmacy staff should determine the amount of each stock medicine to be held at any time, from usage patterns. This amount should be stated on the record of ward orders and be subjected to a regular review at agreed intervals (Royal Pharmaceutical Society of Great Britain, 2005b:35).

According to the South African Pharmacy Council (2004a:57) the following procedures must be established:

- For the return of empty stock packs to prevent potential misuse.
- To ensure that adequate control of issues are maintained.

Furthermore, regular stock checking by pharmacy personnel must be undertaken at least monthly to ensure that stock rotation is maintained at all times (South African Pharmacy Council, 2004a:57).

2.13 MEDICATION ERRORS

The definition for medication errors was discussed in section 2.11.2.2 and was related to the physical environment of a pharmacy. Medication errors are being discussed in the following sections to identify the possible problems that may be experienced within a pharmacy regarding the medication therapy process. Furthermore, this short discussion gives a broad overview on what these errors encompass. The sections following this discussion address the standards of practice to ensure that these errors do not occur.

Medication errors can be generally classified as prescribing, dispensing or administration errors (National Medicines Information Centre, 2000).

2.13.1 Prescribing errors

Prescribing errors may be defined as a mistaken drug selection for a patient, be it the dose, strength, route, quantity, indication or contraindications (American Society of Hospital Pharmacists, 1993b:305). Contributing factors to the occurrence of prescribing errors are shown in table 2.5 (Robertson, 1995:383-384).

Table 2.5 Possible sources of prescribing errors (Adapted from Robertson, 1995:383-384).

Possible sources of prescribing errors
❖ Illegible handwriting. ❖ Inaccurate drug history taking. ❖ Drug name confusion. ❖ Inappropriate use of decimal. ❖ Use of abbreviations. ❖ Use of verbal orders.

2.13.2 Dispensing errors

Studies in the United States of America have estimated that dispensing errors occur at a rate of 1-24% (Flynn *et al.*, 1999:1319). Several possible sources of dispensing errors have been identified as shown in table 2.6 below (Kayne, 1996:32):

Table 2.6 Possible sources of dispensing errors.

Possible sources of dispensing errors
❖ Inaccurate interpretation of prescription. ❖ Drug product nomenclature (similar, "look alike" names). ❖ Equipment failure (especially computerised labelling leading to a lack of interaction with patient and patient record information). ❖ Inaccurate dosage calculation. ❖ Labelling errors (wrong drug names or strengths). ❖ Substitution of out-of-stock items without good reason. ❖ Lack of knowledge. ❖ Lapses in individual performance (due to stress or fatigue).

2.13.3 Administration errors

A drug administration error may be defined as a discrepancy between the drug therapy received by the patient and the drug therapy intended by the prescriber (Pepper, 1995:391). Drug administration errors largely involve errors of omission where administration is omitted due to

variety of factors e.g. wrong patient, lack of stock, etc. (National Medicines Information Centre, 2000).

2.14 PHARMACEUTICAL CARE AND THE DISPENSING PROCESS

Modern medicines are effective and specific in action. Of all modern therapeutic treatments available, only medicines are primarily self-administered, therefore success depends on the active participation of patients. In order to obtain maximum therapeutic benefit and avoid unwanted side effects from courses of treatment, patients require objective information. Therapy with prescribed medicines is a collaborative process, involving key role players namely: the patient, the physician, the pharmacist and other health care providers (International Pharmaceutical Federation, 1998b). As mentioned in previous sections pharmacists have extended their role to a more patient specific approach over the years. This ensures that both patient care, as well as economic aspects of care, is addressed (International Pharmaceutical Federation, 1998b).

Pharmaceutical care does not only involve medication therapy, but also decisions regarding medication use for individual patients. This includes decisions not to use certain medications as well as judgements about medication selection, dosages, routes and methods of administration, medication therapy monitoring, and the provision of medication-related information and counselling to patients (American Society of Hospital Pharmacists, 1993c:1720).

Studies evaluating factors that influence pharmacists' provision of pharmaceutical care generally cite or place greater emphasis on individual factors such as attitude toward trying to provide pharmaceutical care over environmental factors such as practice setting (Campagna and Newlin, 1997: 1307-1313; Farris and Schopflocher 1999:55-66).

According to the International Pharmaceutical Federation (1998b) *the goal of pharmaceutical care is to optimise the patient's health related quality of life and to achieve positive clinical outcomes.* To achieve this goal, a structured approach is needed (International Pharmaceutical Federation, 1998b):

Pharmaceutical care requires the following (International Pharmaceutical Federation, 1998b):

- A professional relationship must be maintained and established between the patient and the pharmacist.
- Records of medication provided to the patient must be kept and with the patient's consent, additional patient specific information must be collected and recorded.
- Patient specific medical information must be evaluated and, in the case of prescribed medicines, a therapy plan must be developed involving the patient as well as the prescriber.

Cipolle *et al.* (1998:124) developed the patient care process to accomplish the objectives of pharmaceutical care. The process involves three major steps (Cipolle *et al.*, 1998:124):

- The practitioner completes an ***assessment*** of the patient's drug-related needs or problems that need to be prevented.
- The patient and the health practitioner then develop a ***care plan***, together with goals of drug treatment and appropriate interventions.
- Lastly, the practitioner conducts a follow-up ***evaluation*** to determine the actual patient outcomes.

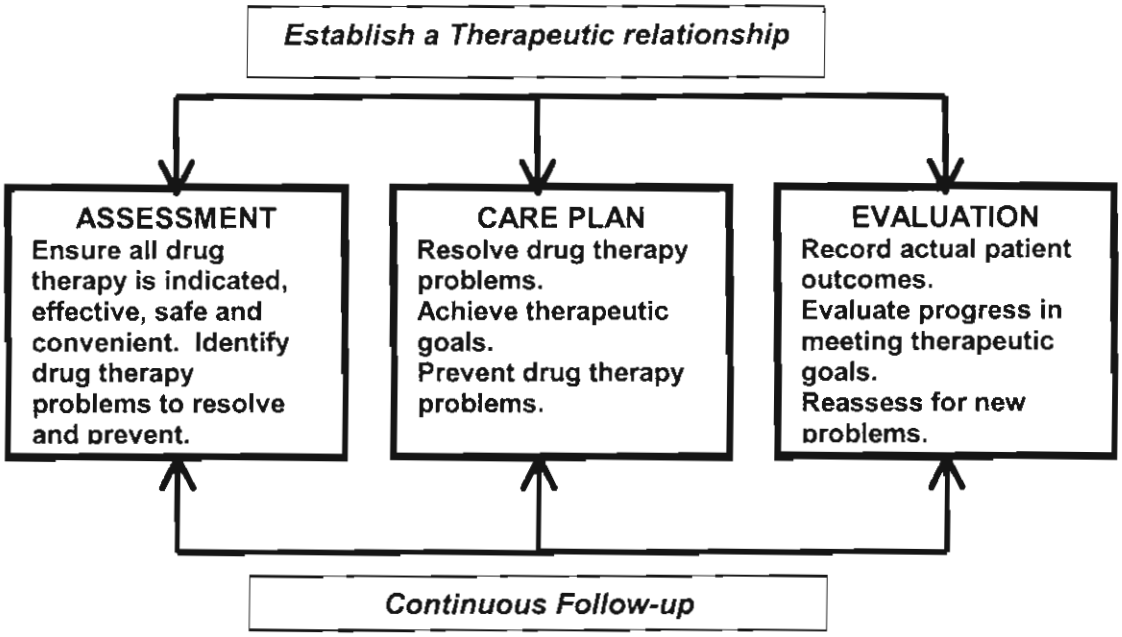


***Figure 2.14 The pharmaceutical care process* (Cipolle *et al.*, 1998:129).**

Dispensing as defined in terms of the Pharmacy Act (53/1974) means *the interpretation and evaluation of a prescription, the selection, manipulation or compounding of a medicine, the labelling and supply of the medicine in an appropriate container according to the medicines Act and the provision of information and instructions by a pharmacist to ensure the safe and effective use of medicines by the patient.*

According to the Pharmacy Act (53/1974) the following health care professionals may perform a dispensing service: pharmacist, pharmacist intern and pharmacist's assistant (post-basic) under the direct personal supervision of a pharmacist and Licensed dispenser (Medical Practitioner, Nurse, Dentist, practitioner or any other person registered under the Health Professions Act, 1974). A pharmacist or pharmacist intern, under the direct personal supervision of a pharmacist may perform the three phases of dispensing. Phases 2 and 3 may be performed by pharmacist's assistants under the direct personal supervision of a pharmacist (South African Pharmacy Council, 2004a:59).

Although the dispensing of medicine is the primary role of the pharmacist in a dispensing pharmacy, it is only one type of intervention within the patient care process of the pharmaceutical care practice (Cipolle *et al.*, 1998:127). The dispensing function requires pharmacists to accept responsibility for the achievement of optimal therapeutic outcomes (South African Pharmacy Council, 1994b:4). One can thus say that dispensing is an important part of pharmaceutical care when done in a professional manner.

According to the South African Pharmacy Council (2004a:59) dispensing is divided into three phases namely:

Phase 1: Interpretation and evaluation of the prescription.

Phase 2: Preparation and labelling of the prescribed medicine.

Phase 3: Provision of information and instructions to the patient to ensure the safe and effective use of medicine.

The standards specifically related to institutional pharmacy regarding the patient care process will be discussed at the end of phase 3, which describes the information process.

2.14.1 PHASE 1: Interpretation and evaluation of the prescription

The following sections describe the dispensing process together with several other considerations regarding dispensing for community pharmacy patients and institutional pharmacy outpatients. Individual patient dispensing in institutional pharmacy will be discussed at a later stage.

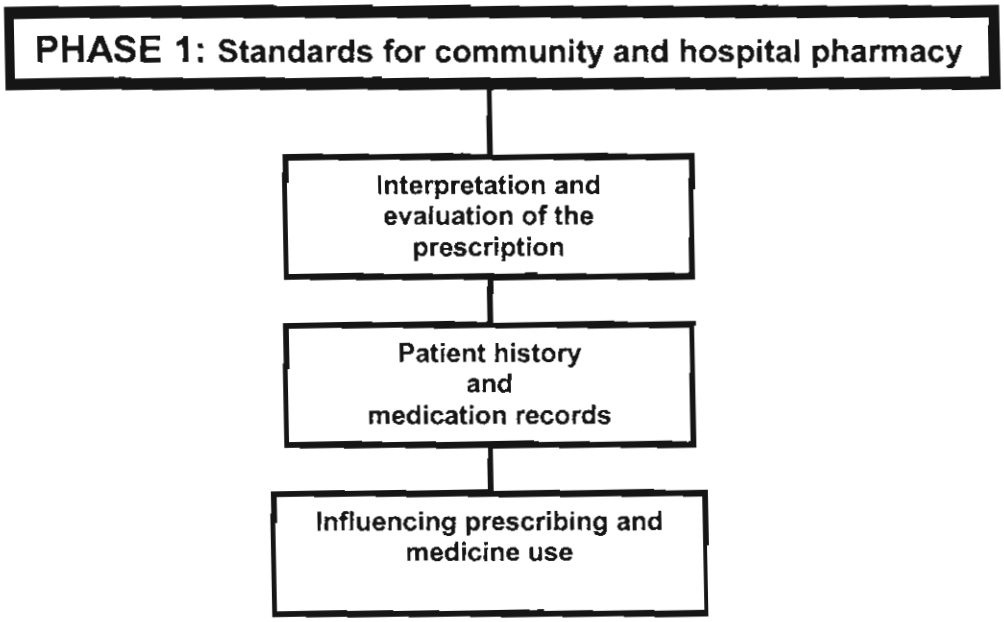


Figure 2.15 PHASE 1 of the pharmaceutical care and dispensing process.

The prescription is responsible for conveying information about the prescribed drug and its usage in a way that anyone reading it may fully understand the instructions (Anacleto *et al.*, 2005:329).

According to the South African Pharmacy Council (2004a:60) the patient, the prescriber (*refer to Appendix A, question 132 and Appendix B, question 140*) and the entity responsible for payment must be identified prior to releasing the prescribed drug. This includes (The Alberta College of Pharmacists, 1996:11) establishing that the prescriber is licensed or registered and authorised to dispense the drug. The authenticity of the prescription must be established (South African Pharmacy Council, 2004a:60) by evaluating the date of issue (*refer to Appendix A, question 135 and Appendix B, question 142*) and current appropriateness of the prescription as well as completeness including the following (The Alberta College of Pharmacists, 1996:11):

- Name and address of the patient.
- Prescriber's name, initials and address, if applicable.
- Date of issue.

Furthermore (South African Pharmacy Council, 2004a:60) (The Alberta College of Pharmacists, 1996:11) the following must also be recorded:

- The drug name, strength, dosage form if applicable and route of administration, if applicable.
- Quantity of the drug to be dispensed.
- Duration of therapy, number of refills authorised and intervals between each refill, if applicable.

Irrespective of how exact a prescription is it may be interpreted incorrectly if it cannot be read. While the prescriber has a professional responsibility to issue a safe and legible prescription, haste, fatigue or a lack of understanding of the importance of clear prescribing may contribute to illegibility (Zellmer, 1993:316).

Each prescription must be assessed by the pharmacist with respect to the following (*refer to Appendix A, question 135 and Appendix B, question 143*):

- Therapeutic aspects such as: the safety of the medication, possible contra-indications, possible drug interactions, drug/disease interactions and treatment duplications.
- Appropriateness for the individual (South African Pharmacy Council, 2004a:61) by considering when necessary, factors such as the patient's age, sex, mental and physical condition (The Alberta College of Pharmacists, 1996:12).

According to the South African Pharmacy Council (2004a:71) the pricing of a prescription or copy of the prescription must include the following (*refer to Appendix A, question 133 and Appendix B, question 141*):

- All information necessary to prevent a member of a medical aid scheme from gaining any benefit to which he/she would not otherwise be entitled to.
- The final price paid by the member or patient.

In cases of uncertainty regarding the prescription (*refer to Appendix A, question 136 and Appendix B, question 144),* the pharmacist or pharmacist intern must make every effort to contact the prescriber (South African Pharmacy Council, 2004a:66). The position of pharmacists between the drug-distribution and drug-use process makes their role in preventing medication errors, especially those that could result from improper prescribing, extremely important. In most drug delivery systems, the pharmacist represents the final point at which prescribing errors and related problems can be recognised and corrected without threatening the quality of care delivered to the patient. As a result, screening prescription orders for problems and intervening when necessary to correct the identified problems, is recognised as an important component of the pharmacist's legal, professional, and ethical responsibilities to patients (Rupp *et al.*, 1992:926-927). In a study conducted by Rupp *et al.* (1992:940) regarding prescribing problems and pharmacist interventions, the researchers concluded that pharmacists could significantly enhance the safety and quality of pharmaceutical care by screening prescriptions for problems and intervening when necessary to resolve these problems.

2.14.1.1 Patient medication records

According to the Royal Pharmaceutical Society of Great Britain (2005a:7) the public is entitled to expect the best pharmaceutical care from pharmacies. In order to provide the best care, pharmacists and their staff need timely and accurate information to be held on pharmacy computer systems or manual records. Patients are furthermore entitled to presume that any information stored about them will be applicable, accurate and up-to-date, stored securely and treated as confidential and used only for the purpose for which it was obtained.

According to the South African Pharmacy Council (2004a:74) the following patient information should be recorded (*refer to Appendix A, questions 100, 101 and 134 as well as Appendix B, questions 109, 110 and 142*):

- Full name of the patient.
- The address and telephone number of the patient.
- The patient's age or date of birth.
- The patient's gender.
- The patient's current mass.

- Medical aid details.
- Name of the prescriber and date of consultation.
- A list of all medicines obtained (prescription as well as non-prescription) by the patient at the pharmacy during the twelve-month period immediately preceding the date of dispensing.
- The number allocated to each prescription and the date thereof.
- Any known allergies of the patient.
- Family history.
- Idiosyncrasies or negative reactions of the patient to medicines.
- Chronic conditions or disease states of the patient.
- The presence of other factors, such as smoking.
- The identity of any other medicine or devices being used at the time of dispensing, which may be relevant to the medicine review and evaluation process.

2.14.1.2 Influencing prescribing and medicine use

On recognising any problem the pharmacist must take appropriate steps to avoid or resolve the problem (*refer to Appendix A, question 136 and Appendix B, question 144*). This area includes consultation with the prescriber, if changes have to be made on the prescription (South African Pharmacy Council, 1994b:4). Close co-operation between prescribers and pharmacists is as important in the area of self-medication as it is in relation to prescribed medicines. Inter-professional relationships will be enhanced if prescribers and pharmacists at local level agree to the procedures to be adopted in dealing with requests for treatment of the symptoms of specific conditions with reference to specified therapeutic groups of medicines. These will ensure effective use of the expertise of both professions, in the best interest of members of the public as patients and consumers (International Pharmaceutical Federation, 1996).

The South African Pharmacy Council (2002a:18) is cognisant of the fact that the pharmacist needs to interact and co-operate with other health care professionals in the treatment of his or her patients. In a holistic approach to healing and patient wellness, it is essential that the pharmacist remains aware of and informed about for instance, the patient's medical history, drug use history, nutrition and lifestyle. The Council encourages pharmacists to interact and co-operate with other health care professionals in their treatment of a particular patient.

Ethical rule 7 specifically addresses this issue by stating that *failure, in the interest of the patient, to co-operate with colleagues or members of other health service professions constitutes unprofessional conduct on the part of the pharmacist, and may be followed by disciplinary action* (South Africa, 1989).

2.14.2 PHASE 2: Preparation and labelling of the prescribed medicine

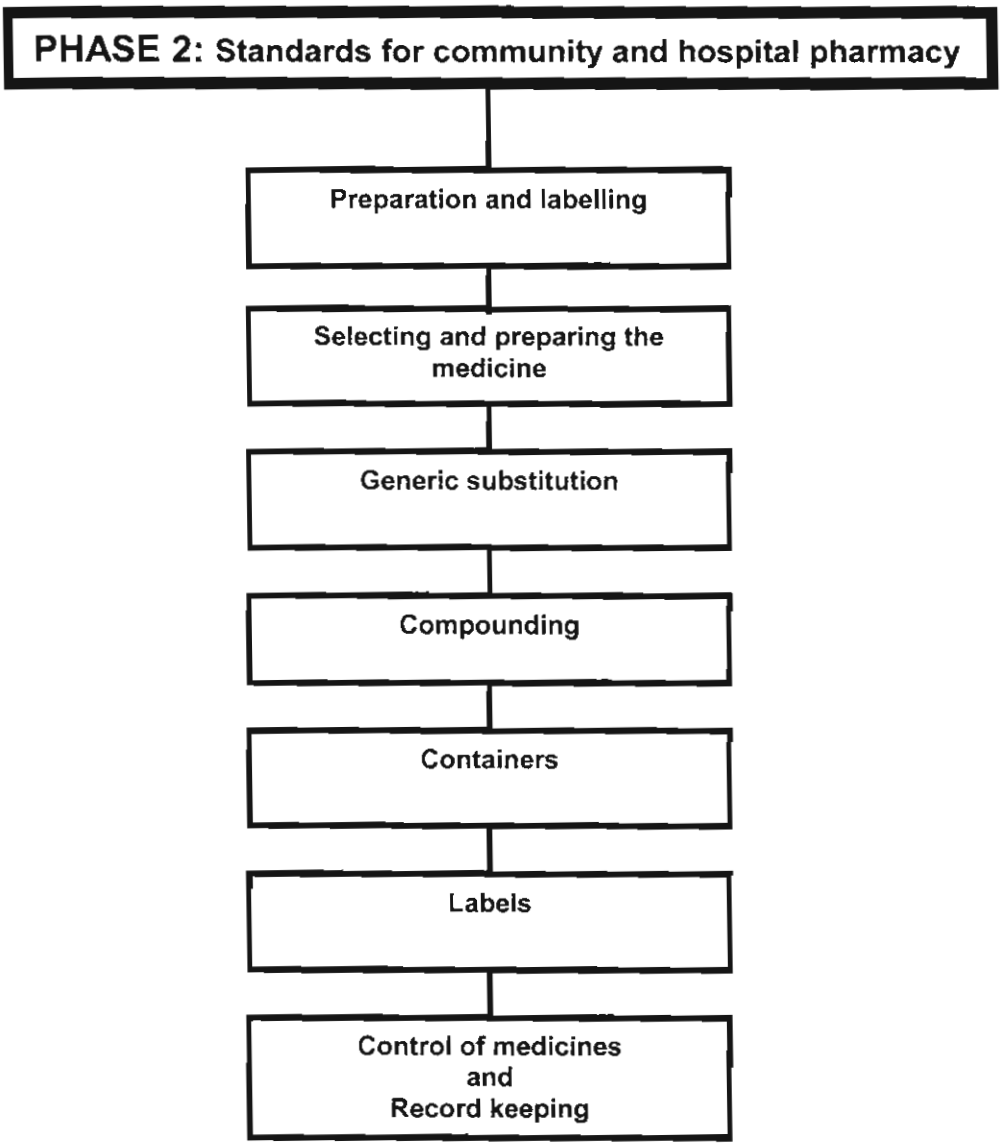


Figure 2.16 PHASE 2 of the pharmaceutical care and dispensing process.

2.14.2.1 Selecting or preparing the medicine

According to Quick *et al.* (1997:488) a good dispenser selects the item by reading the label and cross matching the drug name and the strength against the prescription. A poor dispenser however, selects according to the colour or location of the container, without consciously reading the label. Another dangerous practice that should be discouraged at all times, is having many stock containers open at the same time, as drug selection is frequently made according to appearance only, which could easily lead to errors.

A pharmacist intern or pharmacist's assistant under the supervision of a pharmacist can in many instances do the preparation of a prescription order, this being the product orientated part

of dispensing, such as counting or pouring of medicine (South African Pharmacy Council, 1994b:4).

2.14.2.2 Generic substitution

Section 22F of the Medicines Act (101/1965) states that (*refer to Appendix A, question 129 and Appendix B, question 137*):

A pharmacist shall:

- *Inform all members of the public who visit his or her pharmacy with a prescription of the benefits of substitution, mentioned above.*
- *Dispense an interchangeable multi-source medicine instead of the prescribed medicine, unless expressly forbidden by the patient to do so.*
- *If a pharmacist is forbidden to do so, it must be noted by the pharmacist on the prescription.*

The Alberta College of Pharmacists (1996:12) is of the opinion that therapeutic alternatives may be suggested to the prescriber. The pharmacist should furthermore, communicate with the prescriber regarding any identified problems, to then work out a plan of action with the prescriber and patient (South African Pharmacy Council, 2004a:61).

Although generics are the only way of making medication more cost-effective to the world's population, in no case should their quality, effectiveness and safety be sacrificed. These three criteria form the cornerstone for health products, and have to be demonstrated and verified (Videau, 2001).

2.14.2.3 Preparation of extemporaneous preparations

Compounding (*refer Appendix A, question 177*) must be done under the constant supervision of a pharmacist, except in circumstances granted in terms of the applicable legislation. All the necessary requirements must be provided regarding the following (South African Pharmacy Council, 2004a:134-135):

- Appropriately trained personnel.
- Correct materials, containers and labels.
- Suitable storage and transport.
- Approved procedures such as cleaning procedures.

According to the Alberta College of Pharmacists (1996:18) the pharmacist should be able to perform the tasks required for preparing common dosage forms normally encountered, including sterile products. Furthermore, calculations or any other information pertinent to the prescription should be documented on the back of the prescription or on a compounding record.

2.14.2.4 Pre-packing

The repacking (*refer to Appendix A, questions 88 and 89 as well as Appendix B, questions 95 and 96*) of medicines into patient ready packs may only be carried out by a pharmacist or under the personal supervision of a pharmacist or any other person authorised in terms of Section 29(4) of the Pharmacy Act (53/1974). Repacking must be carried out in an area used only for pre-packing under the required temperature and humidity conditions (Department of Health, 2003).

Section 26 of the Medicines Act of New Zealand (1984) allows pharmacists in a pharmacy or institutional pharmacy to repackage medicines without a licence only if a request is made by the person to whom the medicine is to be sold or supplied or with reference to the needs expressed by that person. Furthermore, there is no allowance in the legislation for a pharmacist to store repackaged medicines on the shop shelf alongside other proprietary brand names (quoted by Pharmaceutical Society of New Zealand, 2003).

Medicine repackaged from bulk containers should be kept in the dispensary until requested by a patient; they can be pre-labelled with space for adding the patient's name (Pharmaceutical Society of New Zealand, 2003).

2.14.2.5 Containers

Dispensing containers must be appropriate for the product, taking into account factors such as moisture, sunlight, mechanical stresses and contamination (South African Pharmacy Council, 2004a:67). The Pharmacy Council of New Zealand (2006) recommends pharmacists to select an optimal container for the medicine, e.g. a light-protective container as well as an optimal container for the patient, e.g. child resistant closures, single dose packages.

Glass containers may be reused after satisfactory cleaning and drying. The following containers, however, may not be reused (South African Pharmacy Council, 2004a:68):

- Plastic containers or caps for solid or liquid dose preparations.
- Re-closable child resistant containers.

2.14.2.6 Labels

Problems related to drug labelling (*refer to Appendix A, question 131 and Appendix B, question 139*) and packaging are the second most reported category in the most frequent medication errors reported to the USP Medication Errors Reporting Program and are responsible for about 20% of notifications (Cohen, 1999:9.12).

According to the International Pharmaceutical Federation (2001) the purpose of labelling a prescribed medicine would include the following:

- To describe and identify it.

- To contribute to optimal therapeutic outcome and to avoid medication errors.
- To achieve appropriate handling and storage.
- To allow the product to be traced if there are problems with either the manufacturing, prescribing or dispensing process.

Label information for prescribed medicines should be considered to supplement and reinforce oral communication between the health care provider and the patient. In many countries, there is no legislation on product labelling. Therefore, the International Pharmaceutical Federation considers it necessary to define an absolute minimum of information for labels of prescribed medicines by indicating the generic name, strength of the medicine and the individual dosage instructions (International Pharmaceutical Federation, 2001).

The following information must be indicated on the label in accordance with Regulation 8 of the General Regulations published in terms of the Medicines Act in South Africa (101/1965):

- The proprietary name, approved name or name of each active ingredient of the medicine, or constituent medicine.
- The name of the medication recipient.
- The directions regarding the use of the medicine.
- The name and business address of the person authorised to sell the medication.
- Date of dispensing.
- Reference number.

The Alberta College of Pharmacists (1996:19) also require that a prescription label indicate the following:

- The quantity dispensed.
- The expiry date, when appropriate.
- Number of refills remaining.

2.14.2.7 Control of substances and record keeping

Section H of the community and institutional inspection questionnaires contain the questions related to control of medicines and record keeping requirements. There are three classes of drugs under the Medicines Act (1968) of the United Kingdom, namely (Royal Pharmaceutical Society of Great Britain, 2005b:7):

- **General sale list medicines** are those medicinal products which in the opinion of the appropriate Ministers can, with reasonable safety, be sold or supplied otherwise than by or under the supervision of a pharmacist.

- **Prescription-only medicines** are medicinal products that may be sold or supplied only from pharmacies in accordance with a prescription given by a practitioner.
- **Pharmacy medicines** are those medicinal products, which are neither prescription-only medicine nor a general sale list medicine.

Records of issues to patients are of great importance in an efficiently run dispensary. These records can be used to verify the stocks used in dispensing and if there is a need to trace any problems with medicines issued to patients. Three different methods can be used to keep a record of medicines dispensed (Quick *et al.*, 1997:489):

- When a prescription is retained, the dispensing staff should initial and annotate the prescription or enter the details in a record book.
- When the prescription is returned to the patient, details of the medicines dispensed must be entered into a record book.
- When computers are used, the computer programme should retain the information, which can then be recalled as needed.

As an alternative to a bound book, pharmacists may keep their prescription records electronically, but adequate backups should be made. Records must be kept in respect of every sale or supply of a prescription-only medicine, unless (Royal Pharmaceutical Society of Great Britain, 2005b:12)

- it is a sale or supply in pursuance of a "health prescription" or a prescription for an oral contraceptive;
- a separate record of the sale or supply is made in the Controlled Drugs register; and
- the sale is by way of wholesale dealing and the order or invoice relating to the sale is retained for 2 years.

The prescription-only record must be preserved for a time-period of two years from the date of the last entry in the register. A prescription must be retained for two years from the date on which the medicine was sold or supplied, or for a repeat prescription, the date on which the medicine was supplied for the last time. The particulars to be recorded are as follow (Royal Pharmaceutical Society of Great Britain, 2005b:12):

- The date on which the medicine was sold or supplied.
- The name, quantity and, except where it is apparent from the name, the pharmaceutical form and strength of the medicine.
- The date on the prescription and the name and address of the practitioner giving it.
- The name and the address of the person for whom the medicine was prescribed.

The Misuse of Drugs Act (1971), controls *dangerous and otherwise harmful drugs* that are designated as *Controlled Drugs*. These drugs are classified in five schedules according to the different levels of control, and are accompanied by the following indications:

- Schedule 1 includes the hallucinogenic drugs.
- Schedule 2 includes the opiates.
- Schedule 3 includes a small number of minor stimulant drugs.
- Schedule 4 is split into two parts, Part 1 contains most of the benzodiazepines and Part 2 contains most of the anabolic steroids.
- Schedule 5 contains preparations of certain Controlled Drugs, for example, codeine, pholcodine, cocaine and morphine.

Records must be kept by persons authorised to possess Controlled Drugs of all Schedule 1 and 2 drugs received or supplied. For Controlled Drugs supplied the following must be recorded:

- Date on which the supply was made.
- Name or address of person (or firm) to whom drugs were supplied.
- Particulars as to license or authority of the person or firm supplied to be in possession of Controlled Drugs.
- Amount supplied.
- Form in which supplied.

According to Regulation 11 of the General Regulations published in terms of the Medicines Act (101/1965) of South Africa a prescription book or permanent record for Schedule 2 to 6 medicines must be kept in the pharmacy. All Schedule 1 and 2 sales must be recorded in a prescription book or permanent record as required in Regulation 11. An up-to-date register of all specified Schedule 5 and 6 sales as well as purchases must also be available. Regulation 30 of the Medicines Act (101/1965) specifies that the schedule 5 and 6 register must be balanced on the last day of March, June, September and December of each year or within 14 days.

Table 2.7 shows the different sets of information required in the Schedule 1 record and the Schedule 2 to 6 records as prescribed in Regulation 11 of the General Regulations published in terms of the Medicines Act (101/1965).

Table 2.7 Information required in Schedule 1 and 2 to 6 records respectively (South Africa, 2003).

Schedule 1 record	Schedule 2 to 6 record
❖ The name of the person to whom it was sold. ❖ The medicine name and quantity. ❖ The name of the person who sold the medicine (pharmacist, pharmacist intern or pharmacist assistant).	❖ The name of the medicine or scheduled substance. ❖ The date on which the prescription was dispensed. ❖ The dosage form and quantity of the medicine or scheduled substance. ❖ The name and address of the patient or in the case of a veterinarian prescription, the name and address of the person it was issued to. ❖ Where applicable, the name of the medical practitioner, veterinarian, dentist or other authorized person. ❖ Prescription reference number.

2.14.3 PHASE 3: Provision of information and instructions to the patient

One of the pharmacist's main functions is the provision of advice (*refer to Appendix A, questions 137 to 142 and Appendix B, questions 145 to 153*) on the safe and effective use of prescribed as well as over the counter medicine. Research has shown that better patient compliance in the correct and appropriate use of medicine can be obtained in cases where pharmacists provide adequate advice to patients. Not only does adequate counselling of patients lead to compliance, it also affects the ultimate outcome of the illness (South African Pharmacy Council, 2000a:12).

It is essential to give clear instructions as well as any appropriate advice about the medicines being dispensed to the patient or the patient's representative (Quick *et al.*, 1997:489). Physical presence is preferred (South African Pharmacy Council, 2004a:64). In order to be able to provide advice and appropriate counselling, an assessment of the patient's preconceived knowledge is necessary (Azzopardi, 2000:75). This should be carried out by a pharmacist or any other authorised person at all times (South African Pharmacy Council, 2004a:64). The pharmacist should also refer to the prescription and patient's medication profile to council the patient (The Alberta College of Pharmacists, 1996:15). Furthermore, the amount of detailed advice about possible side effects differs from patient to patient. Verbal advice is essential, as both illiteracy and poor labelling may be problems. Apart from emphasising the dose, frequency, length of treatment, and route of administration, the priority is to give the patient

information that will maximise the effect of the treatment. Advice should thus focus on aspects such as the following (Quick *et al.*, 1997:489):

- When to take the medicine, particularly in relation to food and other medicines.
- How to take the medicine, for example, chewed, swallowed whole, etc.
- How to store and care for the medicine.

The pharmacist should confirm and clarify a patient's understanding of drug therapy, dosage and frequency, and method of administration, where applicable (The Alberta College of Pharmacists, 1996:15).

Health professionals play a pivotal part in the information process and it is desirable that they provide their patients with oral as well as written information (Meredith *et al.*, 1995:4-5). Gustafsson *et al.* (2005:40) showed that most information in patient information leaflets is generally recognised and comprehended quite clearly when they are asked to read the leaflets and answer a questionnaire. However, information regarding drug-to-drug interactions and contraindications was shown to be difficult for patients to understand.

Patient information leaflets accompanying each package of medicine should provide the appropriate information in written form (Morris and Aikin, 2001). According to the General regulations published in terms of the Medicines Act (101/1965) a patient information leaflet must contain the following information with regard to the medicine in at least English and one other official language:

- Scheduling status.
- Proprietary name and dosage form.
- The composition of the medicine.
- The approved indications and use.
- Instructions before taking the medicine, such as contra-indications, precautions, warnings, etc.
- Instructions on how to take the medicine.
- Side effects.
- Storage and disposal information.
- Presentation, which includes the number, volume or mass per package unit and a description of the packaging material, e.g. bottle.
- Identification of the medicine.
- Registration number of the medicine.

- The name, business address and telephone number of the holder of the certificate of registration.
- The date of publication of the patient information leaflet.

Raynor and Knapp (2000:268-270) have shown that nearly 20% of patients failed to notice the package inserts and among those who remembered receiving a leaflet, only about 60% had read part of or all of the information. One can thus deduce that it is also important to direct the patient's attention to the information leaflet to ensure that it is read.

Furthermore, information regarding non-prescription drugs is just as important as information regarding prescribed drugs. According to the Ontario College of Pharmacists (2003:6) the pharmacist must take steps to offer service, assistance or advice regarding non-prescription drugs if a patient

- requests help in selecting a non-prescription drug;
- appears to be having difficulty selecting a drug;
- is observed to make frequent purchases, or to purchase inappropriate quantities of products; and
- is recognised as someone who would pose a risk for self-selection of medication (such as the elderly, young children, pregnant women, etc.).

The Ontario College of Pharmacists (2003:6) advises that a pharmacist must interview the patient or carer regarding the following:

- Condition or symptoms to be treated.
- Current relative disease states, allergies or sensitivities.
- Current medications.
- Other medications or treatments that the patient may already have tried.
- The need for referral to another health professional.
- The appropriateness of drug therapy or the advisability of non-drug therapies.

Furthermore, the pharmacist must discuss the directions for proper use of the recommended drug therapy, as well as common side effects and the expected response (Ontario College of Pharmacists, 2003:6).

2.14.4 Monitoring patient outcomes

The pharmacist or pharmacist intern under the personal supervision of a pharmacist must assess the patient for compliance, effectiveness and safety of the treatment (South African Pharmacy Council, 2004a:65) (*refer to Appendix A, question 143 and Appendix B, question 154*). This includes that the pharmacist performs an ongoing evaluation of the patient as well as

the therapeutic plan with regard to the progress towards the therapeutic goal (South African Pharmacy Council, 1994b:4). As progress towards outcomes is achieved, the patient should receive positive support to encourage ongoing co-operation. If the expected progress is not being achieved, the plan should then be adapted (International Pharmaceutical Federation, 1998b; South African Pharmacy Council, 2004a:65), applying the principles used in formulating the original plan (International Pharmaceutical Federation, 1998b). The pharmacist should then revise the patient record and record the action taken (South African Pharmacy Council, 2004a:65).

2.15 STANDARDS SPECIFICALLY RELATED TO INSTITUTIONAL PHARMACY

2.15.1 Individual patient dispensing

Patients, hospital staff and management teams are entitled to expect that pharmacists would be involved in the supply of medicines to guarantee that the systems in place are sufficient to ensure the safe and accurate supply and usage of medicines (Royal Pharmaceutical Society of Great Britain, 2005a:7).

According to the Royal Pharmaceutical Society of Great Britain (2005a:7) pharmacists must adopt procedures to support correct use of medicines and minimise the risks of dispensing errors or contamination of stock, incorporating checks to reduce special risks associated with certain products.

When medicines are dispensed for individual patients, the pharmacist must ensure that the medication items are in individually labelled containers and are delivered to the ward before the next medicine round (South African Pharmacy Council, 2004a:77). Pharmacists should review the use of supplementary labels and the use of labels prudently when it is clear that such use may prevent medication errors (e.g., "shake well," "for external use only," "not for injection") (American Society of Hospital Pharmacists, 1993b:310).

If medication therapy is not delivered or if therapy is delayed for any reason awaiting resolution of a detected problem, such as an allergy or contraindication, the pharmacist should notify the nursing staff of the delay and the reason thereof immediately (American Society of Hospital Pharmacists, 1993b:310). Furthermore it is essential that a suitable, lockable trolley is available for the patients' medication (South African Pharmacy Council, 2004a:77). When trolleys are not in use they should be immobilised (Royal Pharmaceutical Society of Great Britain, 2005b:37).

Unused medicines should be returned to the pharmacy and procedures must be in place to ensure that the inspection of returned medicine, their return to stock and crediting take place appropriately and date expired stock must be destroyed (South African Pharmacy Council, 2004a:77; Royal Pharmaceutical Society of Great Britain, 2005a:7). This review processes may

reveal system breakdowns or problems that resulted in medication errors such as omitted doses or unauthorised drugs (American Society of Hospital Pharmacists, 1993b:310).

Furthermore, medicines prescribed outside normal pharmacy hours must be made available through either an emergency cupboard or the pharmacist on call: it must be ensured that there is an on-call pharmacist available when necessary (South African Pharmacy Council, 2004a:77). Medicines must be labelled according to legislation as mentioned in section 2.14.2.6 together with the following minimum detail (South African Pharmacy Council, 2004a:78):

- Name of Ward.
- Name of patient and hospital number.

Medicines brought in to hospital by patients remain the property of the patient and must under no circumstances be supplied to another person (Royal Pharmaceutical Society of Great Britain, 2005a:7).

2.15.2 Emergency medical trolley

Emergency trolleys must be equipped with essential medicines and equipment so that medical and nursing personnel can respond to an emergency situation in a ward or clinic. It is of great importance that adequate control is kept on the emergency trolleys. Policies must furthermore be in place for those medicines to be included in emergency stocks. Lastly, the contents of the trolley must be inspected at regular intervals (South African Pharmacy Council, 2004:197).

2.15.3 Prescription monitoring services

The reason for prescription monitoring (*refer to Appendix B, question 153*) is to help ensure that patients obtain drug treatment as intended by the prescriber and as required for optimal care. Prescription monitoring is referred to as medication-therapy monitoring by the American Society of Health-System Pharmacists (1995:2714). According to both the South African Pharmacy Council and American Society of Health-System Pharmacists (2004a:82; 1995:2714) patients and their medicine therapy must be monitored for the following:

- Possible altered kinetics of drug absorption, distribution, metabolism or excretion, which may affect therapy.
- Administration errors.
- Drug/laboratory interference.
- Drug/food interactions.
- Drug/drug interactions.
- The patient's response to therapy to determine whether it is adequate or excessive.

The South African Pharmacy Council (2004:82) includes the following to the requirements for prescription monitoring:

- The appropriate duration of therapy.
- Additional medication, which may be needed for optimum results.

Furthermore the American Society of Health-System Pharmacists includes an assessment of (American Society of Health-System Pharmacists, 1995:2714):

- The therapeutic appropriateness of the patient medication regimen.
- Therapeutic duplication in the patient's therapeutic regimen.
- Physical signs and clinical symptoms relevant to the patient's medication therapy.

2.16 PHARMACIST INITIATED THERAPY

According to Greeff (1993:61) one of the most important elements of pharmaceutical care is Pharmacist Initiated Therapy (PIT). PIT is when the pharmacist after having made a diagnosis, initiates treatment. The four pillars of PIT are the following:

- Anamnesis.
- Clinical examination.
- Diagnosis.
- Therapeutic decision.

The South African Pharmacy Council divides Pharmacist Initiated Therapy into three phases namely (South African Pharmacy Council, 2004a:88):

- Response to symptoms. When the pharmacist is called upon by a member of the public to advise on symptoms.
- Supply of self-care products including the supply of Schedule 0 to 2 substances. The supply of medicines must be indicated in the patient's profile.
- Follow-up, to assess the outcome of therapy.

2.17 PROMOTION OF PUBLIC HEALTH

According to the International Pharmaceutical Federation (1997:5) national standards are needed for the following, when focussing on the promotion of health (*refer to Appendix A, section O and Appendix B, section P for questions related to the promotion of public health*):

- Facilities for confidential conversation that cannot be overheard by others.

- Provision of general advice on health matters.
- Involvement of personnel in briefings for specific campaigns to ensure coordination of effort and consistency of advice.
- Quality assurance of equipment used and advice given in diagnostic testing.

Pharmacists are in a unique position, in that they are available at least eight hours a day without an appointment. They see the healthy as well as ill patients. Their location enables their premises to be used for health promotion campaigns that will reach a large number of people. Pharmacists build up relationships with patients, customers and their families over several years. Opportunities to promote and develop health occur every day with both healthy and sick individuals. It is extremely difficult to say that health gain has resulted from isolated health promotion events without considering all the other influences on an individual, such as media, friends and family, education and other health professionals. However, the advice that pharmacists give contributes to the overall achievement of health gain in the population (Anderson, 2001).

There are three primary focus points namely, reproductive health services or family planning, Primary Care Drug Therapy and screening and monitoring services. The pharmacist plays a pivitol role in these focus areas.

2.17.1 Reproductive health services

A community or institutional pharmacist may render a comprehensive reproductive health service if the pharmacist has obtained the necessary training and has registered for the supplementary training with the South African Pharmacy Council (2004a:119).

Contraceptives may be sold or supplied in accordance with the Medicines Act (101/1965) and injectable contraceptives or hormones may be administered if the pharmacist is competent in injection techniques (South African Pharmacy Council, 2004a:119).

Four aspects are of importance regarding reproductive health services or family planning:

- Pharmacists must ensure that they have adequate training, knowledge and skills to provide the service. Furthermore, requirements of registration of the applicable supplementary training must be finalised.
- No oral contraceptive therapy must be initiated without the prescribed interview and completion of the client file. Clients on oral contraceptives must be referred to a medical practitioner or reproductive health clinic for a full physical evaluation once yearly.
- Confidentiality must be ensured throughout and counselling must be done in a private designated area described in section 2.11.5.
- Client records must be completed and updated regularly.

2.17.2 Primary care drug therapy

During 1992, the South African Pharmacy Council supported and facilitated applications by pharmacists (particularly "rural" pharmacists) to enable them to identify certain predominant diseases and prescribe specific listed medication for a specific patient for defined indications. This support was conditional in that these pharmacists were expected to comply with certain requirements with regard to facilities, had to complete a supplementary training course and pass an evaluation in Primary Care Drug Therapy, personally consult with each patient in a consultation area, keep the relevant records, and comply with the permit requirements. Pharmacists who had undergone supplementary training could apply to the Department of Health for exemption from the provisions of Section 22A (12), of the Medicines Act (101/1965), which would enable pharmacists to obtain access to defined Schedule 3, 4 and 5 medicines in the provision of primary health care services (Christodoulou, 1997:13).

The object of Primary Care Drug Therapy training is to help the pharmacists to perform the following activities (South African Pharmacy Council, 1994b:1):

- Recognise certain symptoms and diseases and distinguish these symptoms and diseases from one another.
- Utilise certain medicines to treat those symptoms and diseases.
- Decide whether to treat the patient or refer the patient to another health care professional, hospital or clinic.

Self-care by patients is another important factor for the development of Primary Care Drug Therapy as mentioned by Christodoulou (1997:13) regarding the role of the pharmacist in Primary Care Drug Therapy.

According to the World Health Organization (1998:3) the pharmacist is no longer merely a supplier of medicines and a concocter of medicinal products, but also a team member involved in the provision of health care whether in the hospital, the community pharmacy, the laboratory, the industry or in academic institutions. For pharmacists, their greater involvement in self-care means greater responsibility towards their customers and an increased need for accountability (World Health Organization, 1998:3).

Considering the scope of pharmacy and the functions of pharmacists, the role of pharmacists regarding self-care and self-medication must be specified. Professionals also need guidance concerning how they can best discharge their responsibilities, not only at community level, but also through the development and distribution of drugs (World Health Organization, 1998:2).

The role of the pharmacist regarding self-care is that the pharmacist must utilise experience to select the appropriate medicines and to ensure that the patient is well informed regarding the

different aspects of the medication, such as proper use and side effects (South African Pharmacy Council, 2004a:87).

2.17.3 Screening and monitoring services

Pharmacists providing diagnostic testing or health screening services must ensure that all members of staff have completed any training required to ensure competency with the equipment, procedures to be used and in the interpretation of the results. Trained staff must also be aware of the limits of the tests provided (Royal Pharmaceutical Society of Great Britain, 2005a:10). The pharmacy must have a designated area for providing these services as discussed in section 2.11.5.

The following services can be rendered in a pharmacy (South African Pharmacy Council, 2004a:21):

- Blood pressure monitoring.
- Pregnancy testing.
- Determining of blood sugar levels.
- Visio metric determinations.
- Audiometric determinations.
- Cholesterol screening tests.
- Urine analysis screening tests.
- Immunisation services.
- AIDS testing on request from patient.

Before undertaking a test, the procedure being followed must be explained to the patient and the patient's consent must then be obtained (Royal Pharmaceutical Society of Great Britain, 2005a:11; South African Pharmacy Council, 2004a:89).

After performing the test, patients must be counselled regarding the test results together with advice concerning health risks and healthy lifestyles (South African Pharmacy Council, 2004a:90). Pharmacists must keep up-to-date with the latest developments in the field and ensure that they are aware of current advice or local guidance on when to refer patients to a general practitioner (Royal Pharmaceutical Society of Great Britain, 2005a:11). Referral documents must be signed by the pharmacist and must contain the name of the pharmacy as well as pharmacist who performed the test (South African Pharmacy Council, 2004a:90).

Protocols must be established which specify records to be kept of test results and allow objective validation of the quality of both methods and equipment used for screening (South

African Pharmacy Council, 2004a:88). The following information must be kept for a period of at least three years (South African Pharmacy Council, 2004a:90):

- A complete record of patient information.
- The batch number of the testing material.
- The kind of test used.
- The test results.
- A record of advice given.

Confidentiality of patient information must be ensured throughout and only be disclosed with the consent of the patient, or in the case of a minor, with consent from the parent or legal guardian (South African Pharmacy Council, 2004a:90-91).

2.18 WRITTEN STANDARD OPERATING PROCEDURES

A simple definition for a standard operating procedure is a procedure, which specifies in writing what should be done, when, where and by whom (Royal Pharmaceutical Society of Great Britain, 2005b:99) (*refer to Appendix A, section M and Appendix B, section L*).

According to the Royal Pharmaceutical Society of Great Britain (2005:99), the benefits of standard operating procedures (SOPs) are as follow:

- SOPs help to assure the quality and consistency of a service.
- SOPs help to ensure that good practice is achieved at all times.
- SOPs provide an opportunity to fully utilise the expertise of the pharmacy personnel.
- SOPs enable pharmacists to delegate, which in turn provides more time for other activities.
- SOPs help with role clarification, to ensure that all personnel will know what is expected of them.
- SOPs provide useful advice and guidance to locums and part-time staff.
- SOPs are useful tolls for training new staff members.
- SOPs provide a contribution to the audit/inspection process.

According to the South African Pharmacy Council there should be standard operating procedures for the following services/activities (South African Pharmacy Council, 2004c:16):

- Good housekeeping.
- Pest elimination.

- Receipt of stock.
- Effective stock rotation.
- Disposal or removal of Schedule 1 to Schedule 6 expired, damaged and/or contaminated stock.
- Product types requiring special storage or handling instructions.
- Separation and handling of goods returned from patients.
- Recall of medicine.
- Delivery of medicines.
- A relief pharmacist to be followed regarding the handling of keys, money, etc.
- Cold chain management, including procedures to be followed in the event of a power failure.

According to the Royal Pharmaceutical Society of Great Britain (2005b:101) SOPs should be clearly marked with the date of preparation and/or date of review. It is of great importance that the SOPs are kept up to date and relevant at all times, thus being regularly reviewed to allow for changes in practice (South African Pharmacy Council, 2004c:16; Royal Pharmaceutical Society of Great Britain, 2005b:102).

2.19 ADVERTISING

"Ethical rule" 2 for pharmacists in South Africa states that medicines cannot be advertised in such a manner that any other product medicine or substance is disparaged. Advertising must not be done in such a manner that it may be interpreted to as having as its aim as the promotion of the misuse or abuse or detrimental use of the medicine (*refer to Appendix A, question 173 and Appendix B, question 193*).

According to Regulation 45 of the Medicines Act (101/1965) Schedule 1 and 2 medicines may be advertised to the general public. Schedule 3 to 7 medicines, however, may only be advertised to medical practitioners, pharmacists, dentists or veterinarians. The announcement of the price of any scheduled medicine to the general public is, nevertheless, allowed.

The Pharmaceutical Society of Australia (1996) believes that where it is demonstrated that brand advertising of "pharmacist only" products will lead to improved health outcomes, such advertising should be permitted on a case-by-case basis. The objectives of such advertising would include the following:

- Inform consumers of the availability of such medicines.
- Convey information of an educational rather than a promotional nature.

2.20 CONTINUING PROFESSIONAL DEVELOPMENT

The concept of Continuing Professional Development can be defined as *the responsibility of individual pharmacists for systemic maintenance, development and broadening of knowledge, skills and attitudes, to ensure continuing competence as a professional, throughout their careers* (International Pharmaceutical Federation, 2002) (*refer to Appendix A, question 174 and Appendix B, question 194*).

Maintaining competence throughout a career is a fundamental ethical requirement for all health care professionals. In order for patients to obtain maximum therapeutic benefit from their treatment, pharmacists must keep abreast of new developments in pharmacy practice, pharmaceutical sciences, professional standards requirements, the laws governing pharmacy and medicines and advances in knowledge and technology relating to use of medicines (International Pharmaceutical Federation, 2002).

2.21 INSPECTIONS IN SOUTH AFRICA

The goal of the National Drug Policy for South Africa is *to ensure an adequate and reliable supply of safe, cost-effective drugs which are of acceptable quality, to improve access to medicines for all South Africans, and to improve the rendering of pharmaceutical services* (Department of Health, 1996:3). The inspections of pharmacies by the South African Pharmacy Council play an important part in achieving this goal.

The role of inspectors of the South African Pharmacy Council (2003c) is to assist the Council in attaining two of its primary objectives in terms of the Pharmacy Act (53 of 1974) which states, *to uphold and safeguard the rights of the general public to universally acceptable standards of pharmacy practice in both the private and public sectors* and *to establish, develop, maintain and control universally acceptable standards of practice of the various categories of persons required to be registered.*

Inspectors of the South African Pharmacy Council fulfil an important role between the council and the profession. Inspectors have the ability to identify areas for improvement in a pharmacy, as well as to encourage and guide the profession to achieve acceptable standards of practice in an informative way (South African Pharmacy Council, 2000b:8).

2.22 CHAPTER SUMMARY

In this chapter the evolution of the practice of pharmacy, followed by the focus of this chapter, namely the standards of Good Pharmacy Practice were discussed. These standards were described with specific reference to the premises and layout, resources and professional services with respect to community and institutional pharmacies. Furthermore, these sections

were discussed in conjunction with international requirements and perspectives. In Chapter 3 certain aspects of the health care sector of South Africa, which may influence the availability of pharmaceutical services will be discussed.

Chapter 3

Aspects of the health care sector of South Africa

Certain aspects of the health care sector of South Africa which may have an influence on the distribution of pharmacies will be discussed in this chapter. Little is known about the possible problems that may exist for patients regarding access to pharmaceutical services (Doucette *et al.*, 1999:1268). Doucette *et al.* (1999:1267) examined the relationship between the availability of community pharmacies specifically and mentions 4 types of factors, namely:

- Population characteristics, such as age, income and rurality.
- Payer variables, such as the percentage of the population receiving public assistance.
- Health care system factors, such as physicians per 10 000 population.
- Competitive factors, such as the concentration of pharmacy ownership in an area.

This chapter sets out to identify the factors related to the health care system that might influence the availability of pharmacies in South Africa.

3.1 HEALTH OUTCOMES

Among the many objectives set out for the health care systems, the pursuit of concepts such as equal access to health care and equal health outcomes frequently plays an important role. A concern with equal access suggests equal treatment of all, whilst a concern with equal health outcomes suggest that those who are different in relevant respects should in some sense be treated proportionately differently (Rice and Smith, 2001:256). In this section the various factors which play a role in achieving health outcomes will be discussed according to Claeson *et al.* (2002:203-230).

Health care providers worldwide are faced with the challenge of adapting recent and anticipated future reforms in health care policy aiming to control the ever-increasing health care costs. The major difficulty encountered is how to maintain a good balance when taking the trio goals of adequate access, high quality and acceptable cost in health care delivery into account (Li, 2003:192).

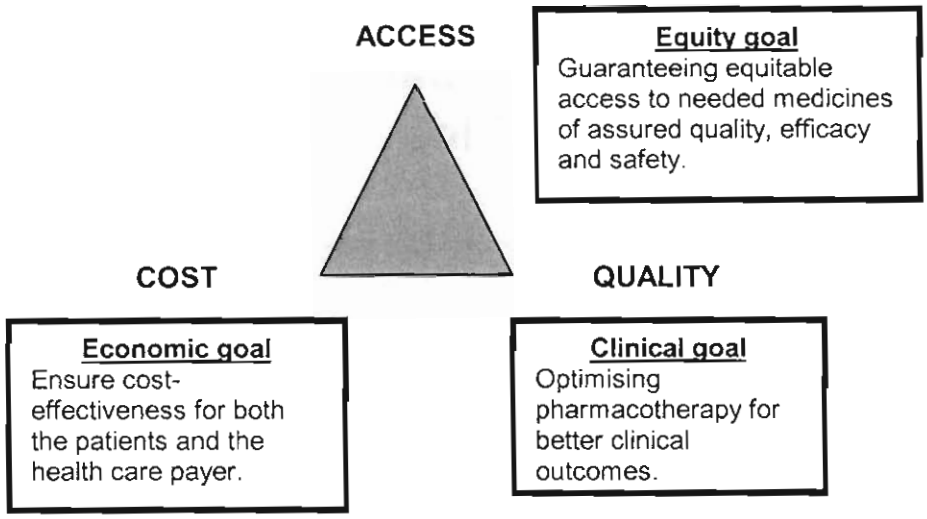


Figure 3.1 Goals of health care **(Li, 2003:193).**

Households are responsible for their health, through their food consumption, sanitary and sexual practices, and their abstinence form consumption of health-damaging commodities such as cigarettes or alcohol consumption and their use of medicinal and preventive health services. Some households seek and manage to attain health care when ill, whilst others do not. Some manage to consume the required amount of nutrients, whilst others do not and so forth. Because of poverty, poor households are then more disadvantaged than wealthier households (Claeson *et al.*, 2002:205).

According to Claeson *et al.* (2001:205) one of the key questions to ask at the household level is: *What household level factors prevent poor households from achieving good health outcomes?* Examples of these factors include: insufficient income, lack of knowledge and gender inequality within the household, etc. The values and norms a community shares, such as the use of reproductive health services by women can influence health outcomes tremendously. Communities can also exert a major influence on the way services are rendered, thus empowering the poor (Claeson *et al.*, 2002:206).

A number of factors regarding health service provision are of importance, one of them certainly being the question of accessibility (*refer to section 2.2*). There is also the question of whether facilities have a sufficient supply of key inputs such as drugs, vaccines, and so forth. The quality of services delivered to the public also plays an important part in health service provision. The question of financing of health care is also of significance, such as aspects mentioned by (Claeson *et al.*, 2002:206):

- How much do different groups have to pay out-of–pocket?
- Who is covered by some kind of insurance scheme, be it public or private?
- How is health insurance financed?

Governments can also influence the provision of health services by the manner in which services are financed and public and private sector services are managed (Claeson *et al.*, 2002:206).

The discussion above is captured in figure 3.1.

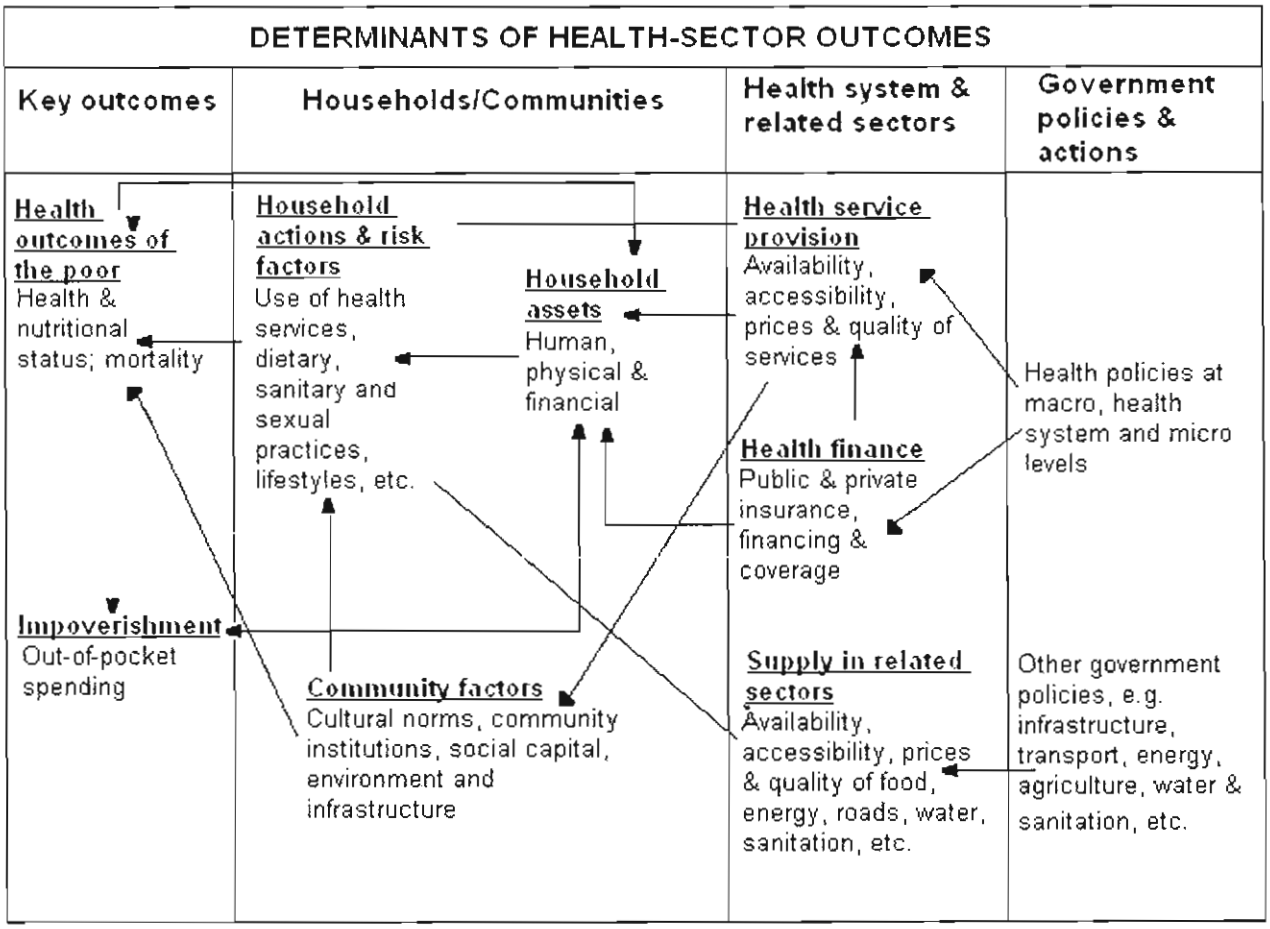


Figure 3.2 ***A conceptual framework for linking government policies to health-sector outcomes*** **(Claeson *et al.*, 2002:207).**

3.2 EQUITY IN HEALTH

Equity in health has been conceptualised and defined in different ways, as its principles derive from the fields of philosophy, ethics, medicine, public health, and others. Common to most definitions of health equity is the idea that certain health differences (most often called inequalities in health) are unfair or unjust. Two major forms of equity are identified namely, vertical equity, which refers to preferential treatment for those with greater health needs, and horizontal equity which refers to equal treatment for equivalent needs (Macinko and Starfield, 2002).

Whether equity in health is measured by health status, by province, by race or according to urban/rural divide, it is almost exclusively poor African people whose lives are mostly affected by inequity in South Africa (Strachan, 2000:6).

According to Braveman and Gruskin (2003:256) key points of equity in health include the following:

- Health equity is the absence of systematic disparities in health between more and less advantaged social groups.
- Social advantage means wealth, power, and/or prestige – the attributes defining how people are grouped in social classes.
- Health inequities put disadvantaged groups at further disadvantage with respect to health, diminishing opportunities to be healthy.
- Health equity is an ethical concept based on the principle of distributed justice and is also linked to human rights.

Equity is different to equal shares or equal opportunities. Equity means that greater resources and more services should be made available to the most vulnerable and needy groups in society. For example, equal shares would mean every district having the same amount of money to spend on each person. In contrast, equity would mean that districts with the most vulnerable populations and worst facilities receive more money than better off districts. In addressing the legacy of inequity inherited by the South African population, three sets of health care policies identified by McIntyre and Gilson (2002:1643) as particularly important to the government's pro-equity agenda are listed below:

- Efforts to reduce geographic disparities in the allocation of public sector health care resources.
- Redressing the historic inequities in access to health care services arising from significant disparities in distribution of public sector health resources between provinces was one of the main challenges facing the health care sector in 1994.
- Policies and programmes designed to strengthen and improve access to primary care services, especially for vulnerable groups.

The World Health Organization (1999:82-83) identified four major challenges to world health which must be addressed. These challenges can be summarised as below:

- Reduction of excess mortality and morbidity among the poor.
- Investing in research and development directed toward diseases of the poor.
- Countering threats to health resulting from economic crises, unhealthy environments and risky behaviours.
- Development of more effective and efficient health systems that can improve health status, reduce health inequities and enhance responsiveness to clients' expectations.

3.3 ACCESS TO HEALTH CARE

The question of quality was discussed in Chapter 2; certain aspects of access to health care will be discussed in this chapter, whilst a short overview with regard to economic aspects will be addressed as the empirical investigation did not take costs into account. The focus was on quality and access.

For many decades the vast majority of the South African population continued to experience either a rejection or violation of basic human rights, including rights to health services (Department of Health, 2002a). To ensure the realisation of the right of access to health care services as guaranteed in the Constitution of the Republic of South Africa, the Department of Health (2002a) therefore proclaimed the Patients' Rights Charter.

According to the Patients' Rights Charter, every South African citizen has the right of access to health care services which include the following (Department of Health, 2002a):

- Receiving timely emergency care.
- Treatment and rehabilitation.
- Provision of special needs in the case of new-born infants, children, pregnant women, the elderly, disabled persons, patients in pain or HIV/AIDS patients.
- Counselling without discrimination.
- Palliative care that is affordable and effective.
- A positive disposition displayed by health workers.
- Health information.

A significant percentage of the South African population is unable to access a health service when ill. The following figure according to Strachan (2000:11) shows some of the main reasons why.

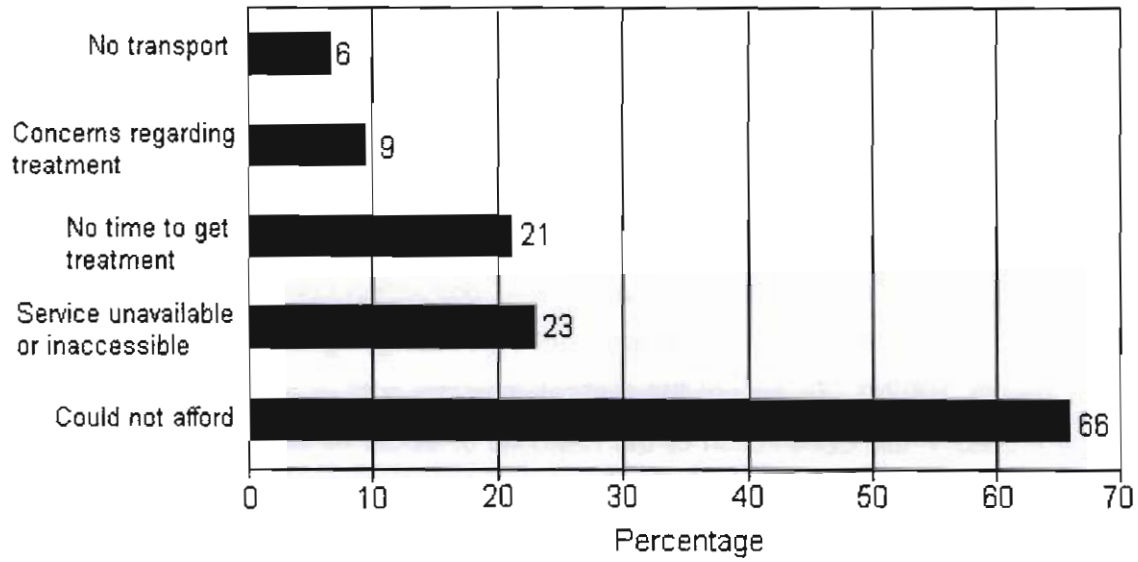
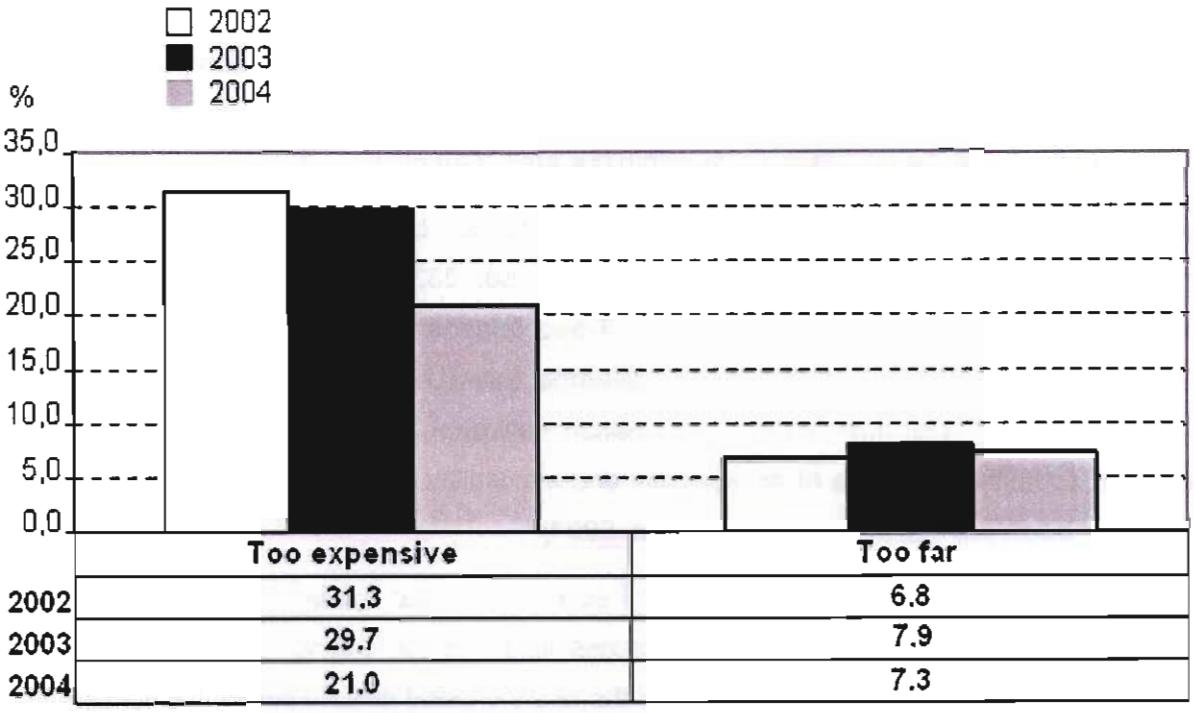


***Figure 3.3 Reasons for not seeking care from health services in 1998* (Strachan, 2000:11).**

According to Statistics South Africa (2005a:xix) in 2004, 10.8% of all persons in South Africa were ill or injured in the month prior to the survey and as a result, consulted a health worker. Approximately 16%-18% of persons that were ill or injured of each survey year did not consult a health worker. The two main reasons for this being that the services were too expensive or too far, as illustrated in figure 3.3. The 2004 survey further suggested that most medical consultations took place in public sector institutions rather than in those belonging to the private sector. Over the period 2002 to 2004, a larger percentage of persons consulted in public sector institutions rather than in private sector institutions (Statistics South Africa, 2005a:xx).



	Too expensive	Too far
2002	31.3	6.8
2003	29.7	7.9
2004	21.0	7.3

***Figure 3.4 Reasons for not consulting a health worker among those injured/ill* (Statistics South Africa, 2005a:xix).**

One must think of the word access in terms of stages and dimensions. The two broad stages of access are *potential* for care delivery, followed by *realised* delivery of care. *Potential* exists when a needy population coexists in space and time with a willing and able health care delivery system. *Realised* care, follows when all barriers to health care provision are overcome. A number of barriers can obstruct the progression from potential to realised access (Guagliardo, 2004). Penchansky and Thomas (1981:127-140) successfully grouped these barriers into five dimensions namely:

- Accessibility.
- Availability.
- Affordability.
- Acceptability
- Accommodation.

According to Guagliardo (2004), measures of spatial accessibility to health care can be classified into four categories

- Provider-to-population ratios.
- Distance to nearest provider.
- Average distance to a set of providers.
- Gravitational models of provider influence.

These ratios are computed for bordered areas, such as states, counties, metropolitan statistical areas, or health service areas. These are the geographic units of analysis. The numerator is some indicator of health service capacity, such as number of physicians, clinics, hospital beds etc. The denominator is the population size within the area (Guagliardo, 2004).

Distance to health care provider was recognised as a significant barrier to health care access in the United States in the 19th century (Hunter *et al.*, 1986:1033-1050). Distance to nearest provider is measured from a patient's residence. Travel impedance (often referred to as travel costs) is often measured in units of straight line distance, travel distance along a road and/or rail system, or estimated travel time via a transportation network. Average distance to a set of providers is a combined measure of accessibility and availability. It too, is measured from any patient or population point of interest (Guagliardo, 2004).

Gravity models are also a combined indicator of accessibility and availability. These models can provide the most valid measures of spatial accessibility, be the setting urban or rural. The simplest formula for gravity-based accessibility is the one indicated directly below this paragraph (Guagliardo, 2004). Studies using this formula have not been done in South Africa, and this could prove to be very useful in determining accessibility to health care in South Africa.

$$A_i \Rightarrow \sum_j \frac{S_j}{d_{ij}^{\beta}}$$

A_i is spatial accessibility from population point *i*. S_j is service capacity at provider location *j*. *d* is the travel impedance, e.g. distance or travel time, between points *i* and *j*. β is a gravity decay coefficient, sometimes referred to as the travel fiction coefficient. *B* represents the change in difficulty of travel as travel time or distance change. Spatial accessibility improves as the numerator increases, or the denominator decreases (Guagliardo,2004).

More than half of the South African population live in rural areas and health care in these areas is largely delivered at primary health care facilities (Kishuna and Smit, 1999:143). Living in a rural area in South Africa indicates limited access to educational and occupational opportunities, health-producing resources, health care services and information (Burgard and Treiman, 2006:1131).

There have been a number of initiatives to improve the access of primary care services. In particular efforts have been made to decrease financial barriers to access and to promote geographical accessibility and service quality through improving financial, physical, human and pharmaceutical resources regarding primary care. Specific action was taken to improve services provided to women, children and the poor, identified by the Department of Health as the main vulnerable groups (McIntyre and Gilson 2002:1643).

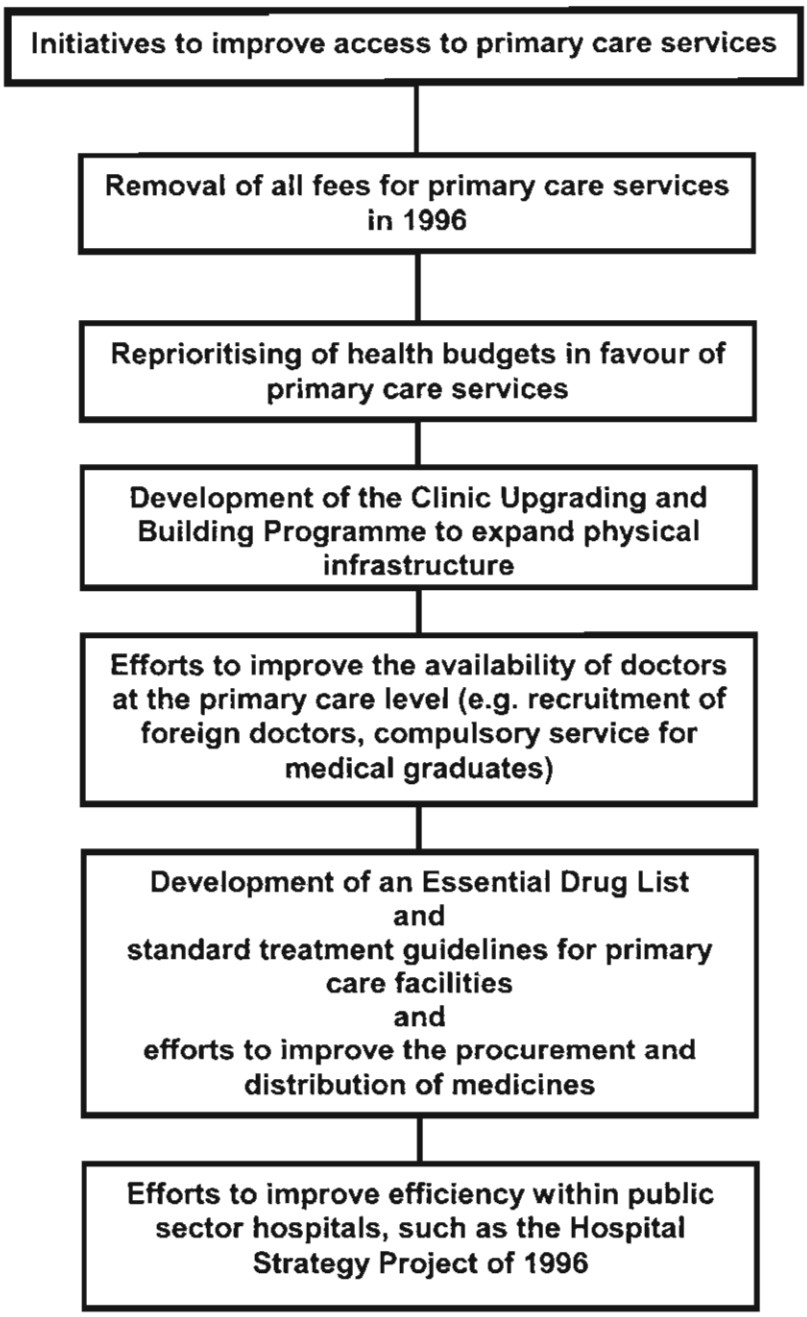


Figure 3.5 ***Flow chart illustrating initiatives to improve access to primary care services*** **(Adapted from McIntyre and Gilson 2002:1643).**

The effectiveness of drugs depends on a long chain of factors:

- Research and development of an appropriate pharmaceutical agent.
- Production.
- Quality control.
- Reliable information for health care professionals and the general public.
- Diagnosis.
- Prescription.

- Financial accessibility.
- Drug dispensing.
- Observance.
- Pharmacovigilance.

At each of the levels mentioned above those involved may have conflicting interests and poor populations are the first to suffer the effects of frail links in this long chain. Essential drugs are the foundation for nearly every public health programme aimed at reducing morbidity and mortality in the developing world. Pharmaceutical expenditure can account for a high proportion of the total health expenditure of a country. Important health programmes that rely on essential drugs include: child survival programmes, antenatal care, treatment of enteric and respiratory pathogens, and control of tuberculosis and malaria (Pécoul *et al.*, 1999:361). Other major public health issues exist for which there is no effective pharmaceutical treatment (Pécoul *et al.*, 1999:361). The lack of access to essential medicines in developing countries is one of the most pressing global health issues. Addressing this issue could save millions of lives every year. Yet major inequities remain, with a limited supply of affordable medicines and inadequate health systems to deliver the medicines (Department for International Development, 2004:5).

With regard to access the following aspects will be addressed in the empirical investigation to determine the distribution of pharmacies throughout South Africa and thus determine areas of need for pharmaceutical services.

- Number of pharmacies per province, district, metropolitan and local municipality.
- Number of pharmacy inspections conducted per province (*refer to Appendix A, question 14 and Appendix B, question 17*), district, metropolitan and local municipality.
- Percentage of pharmacies situated in urban and rural (rural refers to those areas with less than 40 000 population) areas according to the inspection results (*refer to Appendix A, question 15 and Appendix B, question 18*).

3.4 THE HEALTH CARE SECTOR OF SOUTH AFRICA

Even though South Africa is regarded as an upper-middle-income country with *per capita* income similar to that of Botswana, Brazil, Malaysia or Mauritius (May, 1998:1) large sections of its population are poverty stricken and suffer from poor health status. In addition, financial and human resources, in both the public and private sectors, were skewed during the apartheid era in favour of the advantaged. These included those with medical scheme cover, and among those without cover, people living in urban areas (Doherty *et al.*, 2003:25). Furthermore, the distribution of income and wealth in South Africa may be the most unequal in the world (May, 1998:1).

There has been a concerted effort since 1994 to attempt to rectify the inequities forged during the apartheid time (Ntuli, 2000:3). Characteristics of the South African health sector pre-1994 were the following (Van Rensburg and Harrison, 1995; Tollman and Rispel, 1995):

- Fragmented management of public sector health services.
- Fragmentation of curative and preventive services.
- Bias towards hospital-based, doctor-centred, curative care.
- History of racial discrimination in access to health services.
- Systematic under-funding of certain, usually poorer, geographic areas.
- Substantial private health sector, with high levels of health care resources relative to the population served, and heavy concentration in large urban areas.

The South African health care system comprises a strong private sector, serving less than one-fifth of the population and financed through voluntary health insurance and out-of-pocket payments. The public sector, which serves the rest of the population, is funded primarily through taxation (Wadee *et al.*, 2003:7).

Although South Africa has high total health care spending, its health status ranks poorly with respect to countries spending as much and even less on health care (McIntyre, *et al.*, 1995; McIntyre and Gilson, 2002:1639). Public sector financing of health care amounted to around 41% in 2002 of overall funds in the South African health sector (Doherty *et al.*, 2003:13). Public health care spending increased from R17.4 billion in 1995/1996 to R34.0 billion in 2002/2003 and was projected to increase to R44,0 billion in 2005/2006 (Department of Health, 2003b:4). The total health expenditure per capita in 2002 was US$206, and the total health expenditure as a percentage of the gross domestic product was 8.7% (World Health Organization, 2005:196,202).

Slow employment growth in South Africa, combined with continued escalation of medical scheme contributions, has aided to the overall lack of coverage since 1996 (Harrison, 2004:297). The percentage of persons covered by a medical aid scheme was 15.2% in 2002 compared with 14.9% in 2004 (Statistics South Africa, 2005a:17).

Furthermore, the South African population health has declined rapidly in the last decade evidenced by the decreased life expectancy of approximately 55 years. This has been a result of the rapid spread of the HIV epidemic (Bradshaw and Nannan, 2004:55).

3.5 DEMOGRAPHIC PICTURE OF THE SOUTH AFRICAN POPULATION

According to the estimates of the 2001 census there were 44.8 million people in South Africa in October 2001 (Statistics South Africa, 2005c:1). The distribution of the South African population

by province (*shown in table 3.1*) changed between 1996 and 2001 through internal migration into the more industrialised provinces.

Table 3.1 Distribution of the population by province, 1996 and 2001 (Statistics South Africa, 2005c:1).

PROVINCE	1996	2001
	%	%
KwaZulu-Natal	20.7	21.0
Gauteng	18.1	19.7
Eastern Cape	15.5	14.4
Limpopo	12.1	11.8
Western Cape	9.7	10.1
North West	8.3	8.2
Mpumalanga	6.9	7.0
Free State	6.5	6.0
Northern Cape	2.1	1.8
TOTAL	100.0	100.0

Table 3.2 shows the mid-year estimates for 2005 by population group as well as sex. The table shows that the mid-year population was estimated at approximately 46.9 million people. Africans are shown to be in the majority, constituting approximately 37.2 million (79. 4%) of the total South African population. Furthermore, the White population was estimated to be 4.4 million, the Coloured population 4.1 million and the Indian/Asian population 1.1 million. It is shown that 51% of the population consists of females (Statistics South Africa, 2005b:9).

Table 3.2 Mid-year estimates for South Africa by population group and sex (Statistics South Africa, 2005b:9).

Population group	MALE		FEMALE		TOTAL	
	Number	% of total population	Number	% of total population	Number	% of total population
African	18 320 400	79.4	18 885 300	79.3	37 205 700	79.4
Coloured	2 036 700	8.8	2 112 100	8.9	4 148 800	8.8
Indian/Asian	565 100	2.4	588 800	2.5	1 153 900	2.5
White	2 148 100	9.3	2 231 700	9.4	4 379 800	9.3
TOTAL	**23 070 300**	**100.0**	**23 817 900**	**100.0**	**46 888 200**	**100.0**

There is clear evidence that the demographic picture of South Africa is changing and that decision-makers need to address the requirements of a growing African, coloured and Indian/Asian population, in relation to the needs of the declining white population (Statistics South Africa, 2005c:181).

The distribution of households by province in South Africa changed between 1996 and 2001. The number of households increased in each province. The percentage of households in Gauteng increased from 22.6% of all households in the country in 1996 to 23.7% in 2001. In Eastern Cape, however, the percentage decreased, from 14.7% in 1996 to 13.5% in 2001 (Statistics South Africa, 2005c:12).

Table 3.3 Distribution of households by province (Adapted from Statistics South Africa, 2005c:12).

PROVINCE	1996	2001
	%	%
Kwazulu-Natal	18.3	18.6
Gauteng	21.6	23.7
Eastern Cape	14.7	13.5
Limpopo	10.8	10.5
Western Cape	10.9	10.5
North West	8.0	8.3
Mpumalanga	6.7	6.5
Free State	6.9	6.5
Northern Cape	2.1	1.8
TOTAL	100.0	100.0

Statistics South Africa estimated (2005b:9) that approximately 15.2 million (33%) of children are aged between 0-14 years, while approximately 2.6 million people (6%) are older than 60 years. According to Bradshaw and Nannan (2004:48) fertility declines can be seen as the reason for the growing percentage of older persons in the population. The total fertility rate for South Africa was estimated to be 2.87 in 2005 (Statistics South Africa, 2005b:5). It is clear that health services must cater for a wide variety of needs, having to provide maternal, child and geriatric health services. It is of great importance that efforts to promote healthy aging will need to be strengthened to reduce the demands on health services.

The position of women in South Africa is intertwined with class and race. The most disadvantaged group in South Africa is the non-urban African women (Department of Health, 1998:2). According to the World Health Organization (2005:1-2) the health of mothers and children is not making the progress it should. Reasons for this includes: poverty, inequality, the destructive influence of HIV/AIDS but also the failure to translate life-saving knowledge into effective action and to invest in public health and a safe environment. This in turn leaves many mothers and children excluded from access to the affordable, effective and responsive care to which they are entitled.

3.6 SOCIO-ECONOMIC ASPECTS OF HEALTH IN SOUTH AFRICA

Socio-economic inequalities in health manifest in all age groups (Zere and McIntyre, 2003). Studies have revealed wide socio-economic differences in rates of morbidity and mortality among children (Wagstaff, 2002:19-29; Brockerhoff and Hewett, 2000:30-41). According to Zere and McIntyre (2003) avoidable inequities in health during the early years of life deserve special attention, as they are likely to lead to inequality in the future adult population.

The labour force market comprises the following three categories: the employed, the unemployed and the not economically active, among those aged 15-65 years (Statistics South Africa, 2005c:8). Figure 3.6 shows the trend in the number of persons in each of the three

components of the working-age population in South Africa over the period September 2000 to March 2005 (Statistics

South Africa, 2001:ii).

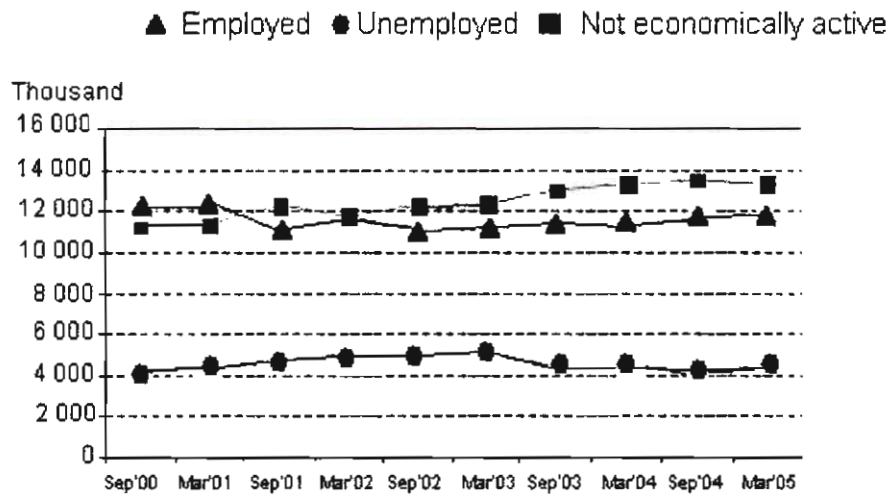


Figure 3.6 ***Components of the working-age population*** **(Statistics South Africa, 2001:ii).**

The labour force survey for the working-age population (15-65 years), furthermore revealed an estimated unemployment rate of 26.5% in March 2005 (Statistics South Africa, 2001:1).

It is well-known that the poor are less healthy, with factors such as poor sanitation, water and housing conditions contributing to the poor health of impoverished people (Ntuli, 2000:5). According to the General Household survey for 2004 (2005a:vi), the percentage of households that use electricity for lighting, rose from 75.6% in 2002 to 80.3% in 2004. Adequate sanitation facilities, refuse disposal and access to clean drinking water are all strongly associated with positive health outcomes (Statistics South Africa, 2005a:xxx). Use of municipality services for refuse removal, increased steadily from 55.0% of all households in 2002 to 57.1% in 2004. Furthermore, the survey revealed that the percentage of households that have access to piped water in their dwelling or on site, rose from 66.1% in 2002 to 67.8% in 2004. Lastly, the percentage of households who had no toilet facilities declined from 13.2% in 2002 to 10.8% in 2004 (Statistics South Africa, 2005a:vi).

By September 2000, Statistics South Africa (2002a:16) estimated that 55.2% of the population were living in urban, and 44.8% in non-urban areas. The non-urban population in South Africa is mainly African, with both young and elderly Africans tending to live in non-urban areas, while those of working age tend to live in urban areas.

The number of people per household as well as the average household size, decreased between 1996 and 2001 in all provinces. In the country as a whole, 16.4% of households were single person households in 1996, increasing to 18.5% in 2001. At the other extreme, 16.2% of

households contained seven or more people in 1996, decreasing to 13.8% in 2001. For both of these periods Gauteng had the smallest proportion of households containing seven or more people (Statistics South Africa, 2005c:13).

The second largest source of finances for health care is households. Households either pay contributions to medical schemes and other forms of private insurance or out-of-pocket payment for services provided by health workers and facilities, and for pharmaceuticals. Even households with private insurance make out-of-pocket payments for services that are not covered, or not fully covered by their benefit packages (Doherty *et al.*, 2003:17).

The last two five-yearly income and expenditure surveys , which were conducted in 1995 and 2000 by Statistics South Africa (2002b:5) revealed that income and expenditure in South Africa were unevenly distributed by population group and sex, by urban and non-urban areas of residence, and by province. In both years African headed households had the lowest average annual income and expenditure in the country, followed by the coloured-, Indian- and then white-headed households. This also varied by type of dwelling in which the household lived as well as household size (Statistics South Africa, 2002b:5). In October 1995, the average annual household income for South Africa was R 37 000. The figures were raised to market values in 2000, taking inflation into account, resulting in an average household income of R 51 000, this being considerably higher than the actual average of that year of R 45 000 (Statistics South Africa, 2002b:27). Thus, when looking at poverty in relation to earning and spending, South Africans, on average, became poorer between 1995 and 2000 (Statistics South Africa, 2002b:32).

3.7 MORTALITY AND MORBIDITY

The proper use of drugs influence the health of patients with a wide range of conditions such as HIV/AIDS, cancer, diabetes, depression, cardiovascular disease, and many infections. Ideally, patients use medicines to attain their desired health outcomes, after obtaining them in a timely manner and acquiring the necessary information needed for their safe and effective use. Having a community pharmacy within a reasonable distance allows patients to obtain prescription drugs as well as information when needed (Doucette *et al.*, 1999:1268). According to Doucette *et al.* (1999:1268) drug-related problems resulting in morbidity could be controlled by means of improved patient contact with health care practitioners, such as physicians, nurses and pharmacists.

3.7.1 Mortality

Mortality statistics can be regarded as an important cornerstone of health status indicators (Bradshaw and Nannan, 2004:50). Mortality is indicated by factors such as the following (Bradshaw and Nannan, 2004:46):

- Infant mortality rate: The number of children less than one year old who die in a year, per 1000 live births during the year.
- Under 5 mortality rate: The probability of a child dying before the age of 5 years per 1000 live births during the year.
- Adult mortality: The probability of dying between the ages of 15 and 60.
- Life expectancy: The average number of years a person could expect to live if current mortality trends were to continue for the rest of that person's life.

Table 3.4 shows the key indicators of mortality for South Africa for the year 2000.

Table 3.4 Mortality estimates for South Africa (Adapted from Bradshaw et al., 2003:11).

INDICATOR	MALE	FEMALE	TOTAL
Infant mortality rate	62	56	59
Under-5 mortality rate	98	91	95
Adult mortality $_{45}q_{15}$ (%)	49.4	35.7	42.9
Life expectancy at birth (years)	52.4	58.5	55.2

The top twenty causes of death for children under the age of 5 years are shown in table 3.5.

Table 3.5 Top causes of death in children under 5 years for 2000 (Adapted from Bradshaw et al., 2003:70).

RANK	CAUSE OF DEATH	DEATHS	%
1	HIV/AIDS	42 749	40.3
2	Low birth weight	11 876	11.2
3	Diarrhoeal diseases	10 786	10.2
4	Lower respiratory infections	6 110	5.8
5	Protein-energy malnutrition	4 564	4.3
6	Neonatal infections	2 920	2.8
7	Birth asphyxia and trauma	2 584	2.4
8	Congenital heart disease	1 238	1.2
9	Road traffic accidents	1 219	1.1
10	Bacterial meningitis	1 141	1.1

According to Bradshaw and Nannan (2004:54) low birth weight, diarrhoea, lower respiratory infections and protein energy malnutrition account for 30% of childhood deaths, as seen in table 3.5. A large number of these deaths are avoidable and factors such as reduction in exposure to

indoor smoke, improved personal and domestic hygiene as well as comprehensive care are important to improve child health.

A study undertaken by Statistics South Africa (2002a:vi) to investigate the causes of death in South Africa for the period 1997-2001, revealed that the five leading underlying causes of death among South Africans between 1997 and 2001 were unspecified unnatural causes such as suicide, drowning and motor accidents, while ill-defined causes, TB, HIV, influenza and pneumonia accounted for 40,9% of deaths in the sample.

3.7.2 Morbidity

Burden of disease information is an important component of the health information needed for monitoring the health of a population. The availability of comprehensive, timely and accurate health information is the basis for formulating health policy and planning to meet the demand for appropriate health services (Bradshaw *et al.*, 2003:1).

The mortality profile reflected in figure 3.7 shows the quadruple burden of disease experienced in South Africa. HIV/AIDS, chronic diseases, poverty-related conditions and injuries all contributed to the number of deaths in 2000. After HIV/AIDS (30%), cardiovascular disease (17%), infectious and parasitic diseases (10%), malignant neoplasms (7%), intentional injuries (7%) and unintentional injuries (5%) are the leading causes of death categories for persons (Bradshaw *et al.*, 2003:31).

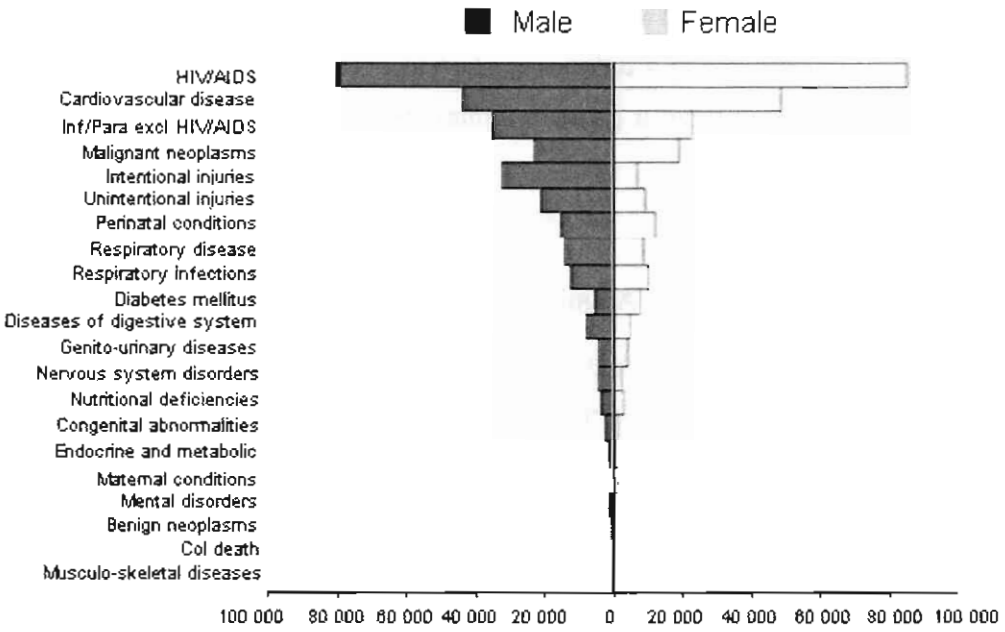


***Figure 3.7 Causes of death according to categories, South Africa 2000* (Adapted from Bradshaw *et al.*, 2003:31).**

According to Bradshaw *et al.* (2003:59) the large burden of disease in South Africa can be reduced by following several strategies that could include the following:

- Reducing the transmission of HIV and delaying mortality from AIDS, through improving treatment of sexually transmitted infections, improving the voluntary counselling and testing services, provision of antiretroviral treatment to pregnant HIV-positive as well as HIV-positive patients and promoting safe sex.
- Improving tuberculosis control.
- Developing strategies to reduce violence and injuries.
- Improving the integrated management of childhood diseases.

3.7.2.1 Chronic diseases

The most prominent chronic diseases/noncommunicable diseases in South Africa include: cardiovascular diseases, cancer, chronic obstructive pulmonary disease and diabetes. In the year 2001, chronic diseases were the number one cause of death in South Africa. Chronic diseases accounted for 37% of deaths and 21% of years of life lost due to premature mortality as well as for 40% of deaths among women and 36% of deaths among males (Bradshaw *et al.*, 2003:36).

Risk factors for chronic diseases include: tobacco use, food consumption, physical inactivity and alcohol use (Reddy, 2004:176). These diseases can be prevented if interventions are targeted at these risk factors. The focus of the prevention of chronic diseases needs to shift from medical treatment for those who are already affected to other solutions such as promotion of public health and primary prevention (World Health Organization, 2003b). As described in section 2.17 of chapter 2, pharmacists are in a unique position to promote public health and to have a pharmacy in close proximity can have a positive influence on the prevention of chronic diseases.

3.7.2.2 Infectious diseases

3.7.2.2.1 Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome

Globally it was estimated that in 2005, there were 38.6 million people worldwide living with HIV. An estimated 4.1 million became newly infected with HIV and an estimated 2.8 million lost their lives to AIDS (Joint United Nations Programme on HIV/AIDS, 2006:8).

In South Africa, the total estimated number of potentially HIV positive individuals was between 5.7 and 6.2 million in 2004 (Department of Health, 2005:12). The findings of the antenatal survey for 2004 further indicated that HIV prevalence among pregnant women was 29.5% compared to the 27.9% observed in 2003 (Department of Health, 2005:6).

Furthermore HIV prevalence continues to differ by province, with differences remaining largely constant over the years. The prevalence trends from 2002 to 2004 are shown in figure 3.8. Three provinces namely: North West, Mpumalanga and Free State recorded slightly lower HIV

prevalence rates compared to 2003. The remaining three provinces, Northern Cape, Gauteng and Western Cape recorded higher rates (Department of Health, 2005:7).

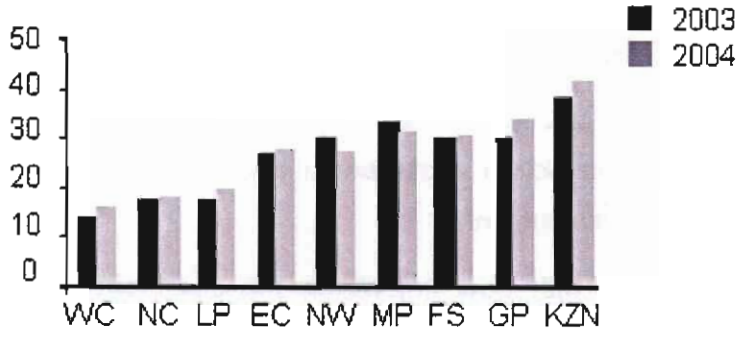


Figure *3.8* ***HIV prevalence by province among antenatal clinic attendees, South Africa: 2003-2004*** **(Department of Health, 2005:8).**

The South African government's key actions to address HIV/AIDS were laid out in the national five-year strategic plan for HIV/AIDS and sexually transmitted diseases. The overall goals stated in the plan were to reduce the number of new HIV infections (especially among youth) and to reduce the impact of HIV/AIDS on individuals, families and communities (Department of Health, 2000:15). In 2002, the Department of Health (2003c) released a report on the progress achieved with the strategic plan. This report highlighted the following aspects:

- Increased resource allocation of R 3.3 billion in the fight against HIV/AIDS.
- Capacity building, through training.
- Implementation of new prevention programmes such as Prevention of Mother-to-Child Transmission (PMTCT).
- Implementation of care programmes including home-based care.

While the report listed the number of programmes or services initiated, no data on coverage or uptake of these services were presented. It is therefore difficult to measure whether the increased resources and programme implementation have resulted in increased access to HIV services (Doherty and Colvin, 2004:194).

The Commonwealth Pharmaceutical Association (2003:783) identified certain outcomes with regard to the role of the pharmacist in the prevention and management of HIV/AIDS at a conference held in 2003.

A few of the key features were the following (Commonwealth Pharmaceutical Association, 2003:783):

- ❖ Pharmacists play a vital role in helping to break down the stigma and discrimination associated with the disease, in providing advice and resources in relation to the prevention of HIV infections and in providing counselling and treatment in the care of HIV infected persons.
- ❖ Pharmacists are committed to working collaboratively with other health care professionals to improve health outcomes for communities, patients and their carers.
- ❖ Pharmacists will work to ensure that both undergraduate and postgraduate training and education will prepare the pharmacist to deliver professional treatment, advice and information in a caring and confidential environment.
- ❖ Pharmacists are committed to working with governments in the development and implementation of policies and strategies to improve access to information and in the provision of affordable antiretroviral therapy.

3.7.2.2.2 Tuberculosis

Tuberculosis (TB) poses an enormous threat to the health of South Africans. In 2002, only six countries were estimated to have more cases of TB than South Africa (Bamford *et al.*, 2004:214). The tuberculosis epidemic is fuelled by HIV infections, which is one of the most frequent causes of death among people living with HIV (Department of Health, 2000:8). A nationwide survey in South Africa incorporated surveillance of HIV among TB patients. The study revealed a prevalence of 55.3% of HIV among TB patients (Aziz *et al.*, 2004:85).

3.7.2.2.3 Sexually transmitted diseases

According to the Department of Health (2000:8) there is compelling evidence of the importance of sexually transmitted diseases (STD) as a major determinant of HIV transmission. There are approximately 11 million STD episodes treated annually in South Africa, with approximately 5 million of these managed by private general practitioners. Even without the HIV epidemic, sexually transmitted diseases pose an important public health problem (Department of Health, 2000:8-9).

3.7.2.2.4 Malaria

Malaria transmission in South Africa is seasonal, with malaria cases starting in October, ending in May with cases peaking between January and February (Department of Health, 2003d:2). In 2000, South Africa experienced a malaria epidemic with 64 622 malaria cases having been reported. Following the epidemic from 2001, the number of reported cases has been decreasing (Department of Health, 2003d:1).

3.7.2.2.5 Cholera

In August 2000, South Africa experienced the start of one of the worst cholera epidemics in the country's recent history (Cottle and Deedat, 2002). By July 2001, 106 389 people had been infected and 229 resulted in death. Between August 2001 and December 2002 a total of 18 224 cases of cholera and 122 deaths were reported to the Department of Health. By September 2003, a total of 3 795 cases and 40 deaths had been reported. Lack of access to safe drinking water, inadequate sanitation and poverty are key factors fuelling cholera outbreaks (Mudzanani, 2004:257).

3.8 THE PUBLIC AND PRIVATE HEALTH CARE SECTORS

The delivery of health care services in South Africa is managed by two systems:

- The public health care system, that is mainly government, subsidised and serves the bulk of the population (Ndimande, 2002).
- The private health care system, that is administered by health insurance programmes and only serves the minority of the population who can afford medical aid coverage (Ndimande, 2002).

The fact that South Africa's health service is divided into a private sector and a public sector is a glaring manifestation of inequity still prevalent in the society (Clarke, 2000:13).

With regard to the empirical investigation, services provided by public and private institutional pharmacies will be compared.

3.8.1 Public health care sector

Thomas and Muirhead (2000:2) revealed two eras of public health sector financing. The first, from 1992/1993 to 1997/1998, was characterised by Thomas and Muirhead (2000:2):

- Substantial growth in funding.
- Reallocation of resources to Primary Health Care.
- Redistribution of health sector funds across provinces.

In contrast, the second era, from 1997/1998 onwards also characterised by Thomas and Muirhead. (2000:2), revealed the following:

- Falling per capita public health sector funding.
- A reversal of redistribution across provinces.
- Limited growth in Primary Health Care expenditure.

The challenges relating to public health care financing and expenditure include the following (McIntyre *et al.*, 2001:1):

- Improving the distribution of public sector health care resources between and within provinces.
- Increasing primary care utilisation levels, particularly for disadvantaged groups, including:
    - Redistributing resources between levels of care to improve resourcing of primary care services.
    - Reducing barriers to primary care access.
- Seeking alternative sources of finance for public health services to reduce the reliance on general tax revenue.

The impact of a chronic shortage of resources on the public health service includes the following (McIntyre *et al.*, 2001:1):

- Failure to keep pace with increasing service demand and a consequent loss of health care quality and efficiency.
- Work overload of health personnel.
- Consequent health worker demoralisation and migration of professionals to the private sector or abroad.
- Continuing cross provincial patient flows, with cost, inconvenience and loss of quality for patients and inefficiency for the health service.
- Perennial under-budgeting in initial health vote estimates followed by end of year adjustment allocations, which then have to be spent with undue speed and insufficient planning.
- A general slowing of the process of health system reform.

Since 1994, over 700 clinics and health centres have been built or upgraded mostly in rural and underserved areas. These facility developments have provided access to primary health care facilities for some seven million people. As a result of the expansion of facilities, the wiser range of services on offer and the free primary health care policy, the average number of public primary health care visits per person increased from an estimated 1.8 per year in 1992/1993 to an estimated 2.3 per year in 2001/2002. The number of admissions to public hospitals increased by over 100 000 a year between 1994 and 2001/2002. Not only did the volume of admissions increase, but the cause mix changed, with inpatients more gravely ill than previously, mainly because of trauma and AIDS. The greater seriousness of inpatient morbidity

placed a tremendous strain on the limited hospital resources as well as on personnel struggling to care for the sick in constrained circumstances (Department of Health, 2003b:7-8).

According to the Department of Health (2003b:11) one of the main challenges facing the public health system is to improve the quality of care, especially for people living in rural as well as underserved areas. Rational drug use improves the quality of care and reduces the costs of medicines. Essential drug lists and standard treatment guidelines have been developed, which are widely used in the public health service. A survey in 2003 showed that on average 89% of medicines in public health facilities complied with the drug lists and 69% of prescriptions complied with the treatment guidelines. All nine provincial health departments have established quality assurance units and in at least four provinces the majority of clinics and health centres have community committees. These community structures monitor the quality of health care from the user's perspective (Department of Health, 2003b:12).

3.8.2 Private health care sector

Private health sector provision in South Africa is substantial and growing. There is an extensive network of private hospitals, with the amount of private hospital beds increasing from 16 415 in 1994 to 23 706 in 1999 (Cornell *et al.*, 2001:7). The majority of all categories of medical practitioners (with the exception of nurses) work in the private sector (Cornell *et al.*, 2001:10).

It is furthermore estimated that less than 20% of the population are covered by private institutional financing intermediaries, which include the following:

- Medical schemes.
- Health insurance products.
- Workplace services provided by private firms.

The two key sources of health care finance in the private sector are employers and households. Medical schemes comprise the single largest category of private heath care intermediaries (Cornell *et al.*, 2001:10). Medical scheme contributions have increased by 12.4% in 2001 and 7.1% in 2002. Furthermore, the ratio of expenditure per capita by medical schemes reveal the following: public sector provincial health spending has risen from 4.5 in 1997/1998 to a staggering 7.1 in 2002/2003. This increase in costs is making medical scheme coverage progressively more expensive resulting in lower coverage (Blecher and Thomas, 2004:285).

The South African Government is considering establishment of a public sector medical scheme and social health insurance, thus extending cover to lower income groups. However both of these hold significant risks if the medical schemes environment continues the above-mentioned cost spiral (Blecher and Thomas, 2004:285).

The emergence of managed care was seen as a strategy on the part of the private sector to deliver more affordable health care on a cost-effective basis (Scheepers, 1995:19).

Goudge *et al.* (2002:81) identified several key policy recommendations for regulating the private sector:

- There is a need for a rational, integrated and comprehensive policy relating to the private health sector that recognises the inter-relationship between private sector financing intermediaries and providers, as well as the interconnection between the public and private health sectors.
- Successful regulation of the private sector requires a qualitative understanding of its interests and motivations.
- Ongoing monitoring of the Medical Schemes Act (131/1998) is crucial to ensure that it achieves its objectives, and that any attempt to undermine the Act is addressed as soon as possible.
- The private sector's attempts to limit growth in expenditure through managed care have had very little impact, partially because it has only attempted to deal with patient incentives to 'over-demand' care. Growth in expenditure will only be controlled if provider incentives to over-supply are contained.
- Growth in out-of-pocket expenditure is of concern as it is the most regressive form of health care financing. It indicates that medical scheme benefits are shrinking and co-payments are increasing. Medical schemes must thus be able to represent members at the yearly negotiations between administrations and providers over how to distribute the 'contribution pie'.

3.8.3 Public-Private Partnerships

In 1997, the White paper on the *Transformation of the Health Sector* stated that *the activities of the public and private health care sectors should be integrated in a manner that makes optimal use of all available health care resources. The public-private mix of health care should promote equity in service provision* (Department of Health, 1997).

Budget constraints within the public sector, as well as an inequitable distribution of resources such as urban vs. rural areas and in hospital vs. primary health care facilities, have put significant constraints upon public sector services. The creation of partnerships between public and private health care sectors was then introduced to alleviate these pressures (South African Pharmacy Council, 2002b:2). For the public sector the anticipated benefits of public-private partnerships would be improved efficiency, improved customer service and improved revenue generation. A key prerequisite is that services should cost less as a result of the collaboration. Closer interaction with the private sector may contribute to the introduction of new management styles in the public sector and facilitate the development of new skills, especially related to cost accounting, contracting, project management and competitive negotiation (Moorman, 2002:83).

Public-Private partnerships present an increasingly important means of generating value in the health system through the efficient distribution of scarce resources. Such partnerships are necessary in the dissemination of information that aims to improve the quality of care and reduce costs for individuals and populations (Health Sciences Industry Services, 2003).

According to Moorman (2002:83) the anticipated benefits of public-private partnerships for the public sector are improved efficiency, improved customer service and improved revenue generation. A key requirement is that services should cost less as a result of the alliance. Closer interaction with the private sector may contribute to the introduction of new management styles within the public sector and facilitate the development of new skills (Moorman, 2002:85-86).

In the report of the Public-Private Interactions Lekgotla (Department of Health, 2002b:4) the purpose and goals of Public-Private-Interactions were identified. The key issues raised included the following:

- To share resources between the public and private sectors. These resources include: people, skills, equipment, facilities and spare capacity.
- To avoid duplication in service provision.
- To obtain better value for money by providing health care cover at lower cost and improving overall health status with the available resources.
- To redress the large disparities in health services and health status.
- To improve the retention of skilled professionals in the country.
- To improve revenue generation with the public sector and thereby reduce the heavy reliance on tax funding for these health services.

3.9 HUMAN RESOURCES

Together with data on the number and type of health facilities, human resource data are an indicator of physical access to health care (Day and Gray, 2001:317). South Africa faces a variety of health personnel problems. These include an overall lack of personnel in key areas of the health sector (Padarath *et al.*, 2004:300):

- An inequitable distribution of those health personnel who are available.
- A significant attrition of trained personnel from the health sector and from the country.

The maldistribution of health personnel occurs within the following sectors or areas (Padarath *et al.*, 2004:300):

- Public and private sectors.

- Urban and rural areas.
- Formal urban and informal peri-urban areas.
- Tertiary and primary levels of care.

There is one health worker per 1 000 population in sub Saharan Africa with more than 10 per 1 000 in Europe and North America. In a number of sub Saharan countries there are fewer health workers than 30 to 40 years ago, despite larger populations and increased health needs (Joint Learning Initiative, 2004:28).

The estimates for health personnel per 100 000 population in 2004 were 69.2 for physicians, 388.0 for nurses and midwives and 24.2 for pharmacists (World Health Organization, 2006).

The empirical investigation will focus on the availability of pharmacy personnel (number of hours pharmacies are open) as well as the influence the availability of pharmacy personnel will have on Good Pharmacy Practice compliance.

3.9.1 Pharmacists

Gray (1998:206) identified certain problem areas regarding pharmacists in South Africa:

- The distribution of pharmacists between the different provinces in South Africa is unequal.
- The distribution of pharmacists and other personnel per sector of practice. During 1998, it was found that 73.6% of pharmacists, 65% of the pharmacist interns and 72.4% of the pharmacist's assistants worked in the private sector (Interim Pharmacy Council of South Africa, 1998:27). The South African Pharmacy Council therefore developed staffing norms that could be used to determine the pharmacy resource needs in the public sector (South African Pharmacy Council, 1999:8).

Figure 3.9 shows the increase in the number of pharmacists from 2001 to 2006, with more than 11 000 pharmacists registered with the South African Pharmacy Council during 2006.

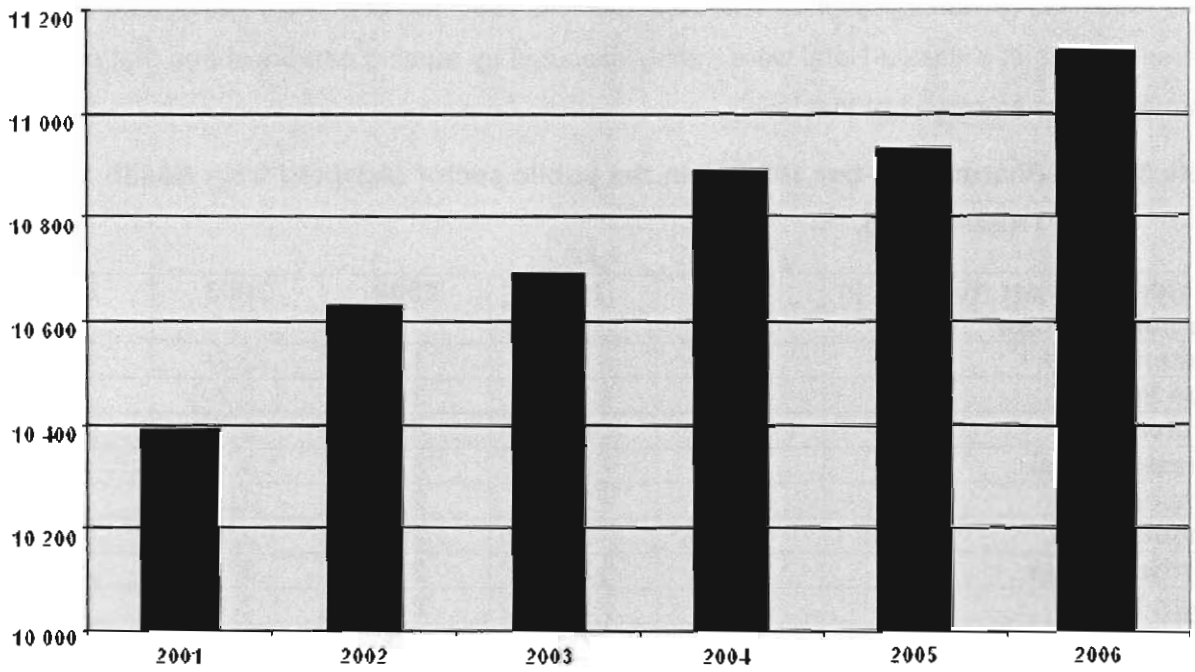


Figure 3.9 Number of pharmacists for the period 2001 to 2006 **(Bornman, 2006)**

Table 3.6 shows that there is still a maldistribution of pharmacists between the public and private sectors in South Africa as most of the pharmacists registered with the South African Pharmacy Council work in the private sector. There is also a noted variation in the number of pharmacists in the different provinces, with the most pharmacists situated in Gauteng, Kwazulu-Natal and the Western Cape. Even though Gauteng has a population of less than 20% of the South African population, this province has the highest number of pharmacists serving the community.

Table 3.6 Number of pharmacists registered with the South African Pharmacy Council and working in the public sector for 2003 and 2005 (Adapted from Health Systems Trust, 2005a).

NUMBER OF PHARMACISTS	REGISTERED WITH THE SAPC 2003	PUBLIC SECTOR 2003	REGISTERED WITH THE SAPC 2005	PUBLIC SECTOR 2005
Eastern Cape	834	131	870	206
Free State	436	75	421	99
Gauteng	4 336	254	4 320	269
Kwazulu-Natal	1 561	274	1 593	365
Limpopo	280	103	310	145
Mpumalanga	70	393	397	123
Northern Cape	135	23	117	35
North West	478	69	512	108
Western Cape	1 783	213	1 832	257
TOTAL	10 629	1 222	10 824	1 617

Table 3.7 shows the number of pharmacists per 100 000 population in the public sector for the different provinces. There has been a slight increase from the year 2000 to 2005, but there is still a pharmacist shortage prevalent in the country. For example, a study done by Kishuna and

Smit (1999:147) revealed that pharmaceutical services delivered at primary health care facilities in three regions of Kwazulu-Natal were mainly executed by nursing personnel and that only one pharmacist was employed at that level.

Table 3.7 Pharmacists per 100 000 in the public sector (Adapted from Health System Trust, 2005b).

Pharmacists per 100 000 in the public sector	2000	2001	2002	2003	2005
Eastern Cape	2.3	1.8	1.7	2.2	3.4
Free State	2.3	3.0	3.5	3.2	4.1
Gauteng	5.1	4.6	4.6	3.7	3.8
Kwazulu-Natal	3.3	3.5	3.4	3.2	4.2
Limpopo	2.0	2.2	2.2	2.2	2.8
Mpumalanga	2.3	3.1	2.9	2.7	4.3
Northern Cape	2.3	3.1	2.8	3.1	5.2
North West	1.6	2.4	2.0	2.1	3.2
Western Cape	6.1	7.3	7.3	6.4	7.5
TOTAL	3.1	3.4	3.3	3.1	4.0

Table 3.8 Distribution of pharmacists by province for the period 2001 to 2006 (Bornman, 2006).

YEAR	EC	FS	Gauteng	KZN	Limpopo	MP	NC	NW	WC	Unknown
2001	832	450	4244	1485	274	385	118	457	1722	347
2002	828	448	4314	1523	276	398	124	483	1798	363
2004	854	432	4367	1590	294	398	125	509	1855	460
2005	881	425	4360	1612	316	400	118	518	1849	448
2006	903	453	4340	1657	342	412	121	541	1892	451

Table 3.8 shows the distribution of pharmacists according to province from 2001 to 2006. The majority of pharmacists were employed in Gauteng, the Western Cape and Kwazulu-Natal, whilst the Northern Cape employed the least pharmacists during these periods.

Due to a shortage of pharmacists in the public sector, community service for pharmacists was introduced in 2001. This has resulted in slightly higher numbers of pharmacists in the public sector. However, the impact of community service in long-term retention of pharmacists has been limited. Fifty-two percent of the 2001 community service pharmacists indicated that they intended to work in the private sector after completion of community service, 21% planned to leave the country, 9% decided on the industry and 18% intended to remain in the public sector (Reid, 2003:155).

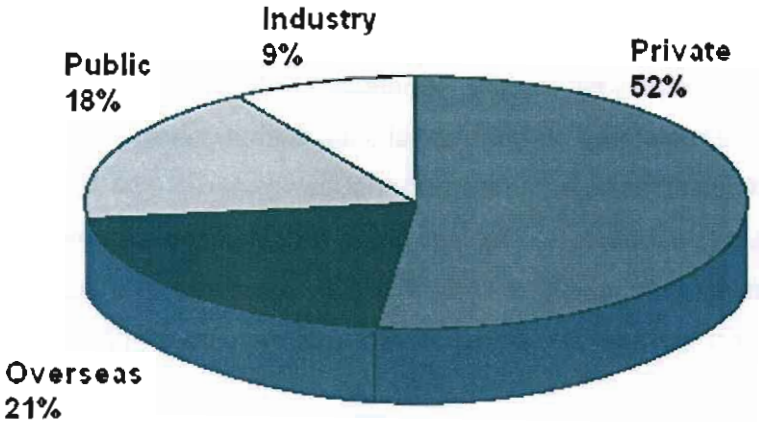


***Figure 3.10 Intended place of work for community service pharmacists* (Reid, 2003:155).**

During 2001, there were 399 community service pharmacists registered with the South African Pharmacy Council. During 2006 there were 435 community service pharmacists registered with council, an increase of 36 pharmacists (Bornman, 2006)

3.9.2 Pharmacist interns

During 1998, 551 pharmacists were registered with the Interim Pharmacy Council of South Africa. Four hundred and forty-six were actually undergoing their internship in 1998, with the balance comprised of the following (Interim Pharmacy Council of South Africa, 1998:9):

- Academic interns, who take more than 12 months to complete their internship.
- Interns from other African countries who underwent their undergraduate training in South Africa and return to their home countries on the completion thereof.
- Other interns that fail to register as pharmacists on completion of their practical training.

At the end of the internship (pre-registration) period the intern should have had exposure to the practice of pharmacy and achieved the status, and be able to fulfil the role of a competent professional (Interim Pharmacy Council of South Africa, 1998:9).

During 2001 there were 476 pharmacist interns registered with the South African Pharmacy Council, in 2002 there were 450, in 2003, 430, in 2004, 444, in 2005, 450 and during 2006 there were 516 (Bornman, 2006).

3.9.3 Pharmacists' assistants

The necessary sections of the Pharmacy Act were amended in 1997. These sections, together with the relevant sets of Regulations published in terms of the Act, came into effect in November 2000, which brought about key changes to the way pharmacist's assistants were trained and registered. Two main categories of pharmacists' assistants, with a 'learner' category for each exist (Gray *et al.*, 2005:165):

- Pharmacist's assistant (basic).

- ❖ Pharmacist's assistant (post-basic).

In 2005 there were 29 pharmacists' assistants (basic) registered with the South African Pharmacy Council. Another 1 279 were registered as pharmacist's assistants (learner basic). A further 516 were registered as pharmacists' assistants (learner post-basic) and 1 239 achieved registration as pharmacist's assistants (post-basic). The last group included the pharmacist's assistants trained under the previous system, giving a total of 3 063 assistants and learners. This number represented one support person per 3 registered pharmacists in practice, a considerable resource (Gray *et al.*, 2005:169).

Table 3.9 Pharmacists' assistants by category for the period 2001 to 2006 (Bornman, 2006).

CATEGORY	2001	2002	2003	2004	2005	2006
Learner basic	56	1072	1709	1279	1549	2170
Basic	0	0	8	29	38	101
Learner post-basic	800	809	774	516	673	897
Post-basic	941	1041	1508	1239	1430	1748

Table 3.9 shows the number of pharmacist's assistants registered with the South African Pharmacy Council according to the four categories of pharmacist's assistants for the time period 2001 to 2006. One can clearly see an increase in all four categories from 2001 to 2006.

The majority of pharmacist's assistants were employed in the Western Cape (22 516) during 2006, whilst the least number of learner basic pharmacist's assistants were employed in the Eastern Cape (69) (Bornman, 2006).

3.9.4 Other health personnel

In 2005, there were 8 747 medical practitioners in the public health sector, this amounts to an increase of almost 13% from 2003 (Health Systems Trust, 2005c). Nationally, the ratio of medical practitioners per 100 000 public sector dependant population increased from 19.7 in 2003 to 21.9 in 2005. The distribution of these doctors confirms the urban rural divide regarding the availability of health personnel in South Africa. For instance, in Gauteng, the number of doctors per 100 000 population in the public sector was 25.9, with this figure standing at 13.6 in the North West (Health Systems Trust, 2005c). Medical doctors were the first to participate in the Community Service programme and are the largest group who undergo community service each year (Reid, 2003:137). In 2005, 1 233 doctors were allocated to government institutions around the country (Health Systems Trust, 2005c).

According to the South African Nursing Council (2005a) there has been an overall increase in the total number of nurses on the registers, from 172 520 to 191 269 (+10.9% growth). Gauteng had the highest figure of 51402 nurses, with the Northern Cape with the least number of nurses,

a total of 3360. There are three different categories of nurses, namely, Registered, Enrolled and Auxiliary. The registered category showed good growth of +13.4% (2005b). According to the South African Nursing Council, this growth could be attributed to the introduction of a bridging programme which allows nurses in the Enrolled Nurse category to "upgrade" to the Registered Nurse category. Furthermore, there was one nurse for every 245 people in South Africa in 2005 (South African Nursing Council, 2005a).

3.10 LEGISLATION AND REGULATION

In this section regulatory aspects which might have an influence on the availability of pharmaceutical services in South Africa will be discussed. This section is divided into the following subsections:

- The National drug policy.
- Medical Schemes.
- Dispensing licences.
- Pharmacy ownership.
- Certificate of need.

The main focus of the empirical investigation will be on compliance with legislation applicable to the practice of pharmacy and not on legislation mentioned above.

3.10.1 The National Drug Policy

The National Drug policy was introduced in 1996 *to ensure an adequate and reliable supply of safe, cost-effective drugs of acceptable quality to all citizens of South Africa and the rational use of drugs by prescribers, dispensers and consumers* (Department of Health, 1996:4).

The following aims, policies and strategies of the National Drug Policy (Department of Health, 1996:6-25) might be of importance to the availability, accessibility and affordability of pharmaceutical services:

- Only practitioners who are registered with the relevant Council and premises registered and/or licensed in terms of the Medicines and Related Substances Control Act (101/1965) may be used for the manufacturing, supply and dispensing of drugs. Medical practitioners and nurses will not be allowed to dispense drugs, except where separate pharmaceutical services are not available.
- To promote the availability of safe and effective drugs at the lowest possible cost. The availability of essential drugs must be encouraged through the implementation of incentives that favour generic drugs and their production in South Africa.

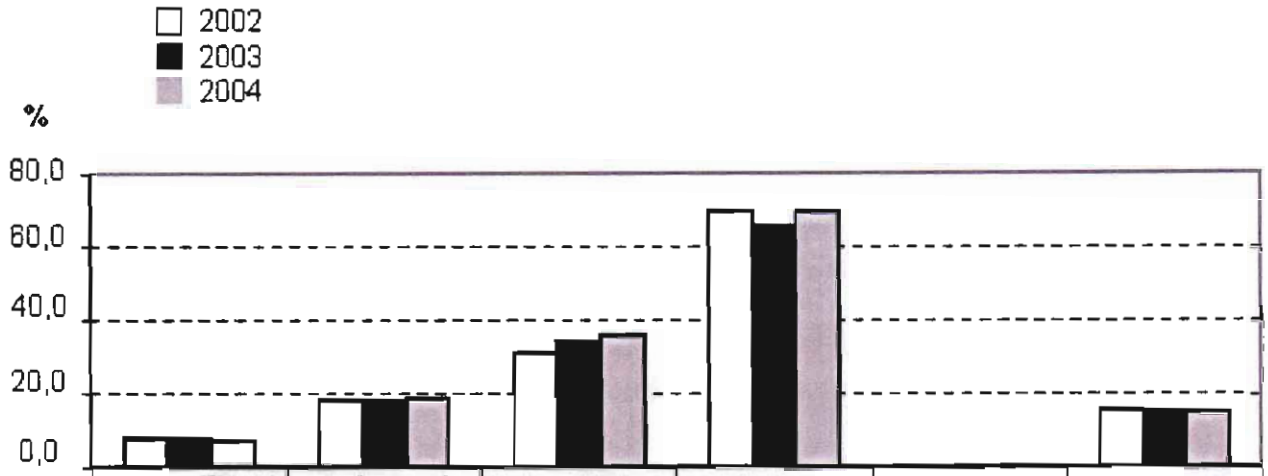
- ❖ Ownership of pharmacies by non pharmacists should be permitted in areas with inadequate pharmaceutical services. Such pharmacies will remain under the management and full-time supervision of a registered pharmacist.
- ❖ Permits in terms of Section 22A (12) of the Medicines and Related Substances Control Act (101/1965) will not be issued to pharmacists except in special circumstances (*refer to section 2.17.2*).
- ❖ The wholesale and retail percentage mark-up system on medicine should be replaced with a pricing system based on a fixed professional fee.
- ❖ Drug selection should be conducted according to the Essential Drug List concept.
- ❖ The optimal use of each health care professional.

The most important aspects with regard to the National Drug Policy that will be addressed in the empirical investigation are the question of availability (hours pharmacies are open), accessibility (distribution of pharmacies) and quality of services provided (Good Pharmacy Practice compliance).

3.10.2 Medical schemes

Medical schemes are the main type of private insurance, the other being health insurance which is considerably smaller. Medical schemes are non-profit associations, but are operated by professional administrators that are essentially for-profit companies. Schemes receive monthly premiums from households as well as employers, whilst health insurance is offered by life and short-term insurance companies and bought by households (Doherty *et al.*, 2003:23).

In 2002, the number of persons covered by medical aid scheme was 15.2%. By 2004, the percentage covered was slightly lower at 14.9 %. Figure 3.10 shows large disparities in medical aid scheme coverage by population group. More than nine times the percentage of white people (69.7% in 2004) had coverage compared to the African/Black population group where only 7.2% had such coverage in 2004 (Statistics South Africa, 2005a:xviii).



	African/Black	Coloured	Indian/Asian	White		RSA Average
2002	7.7	17.8	31.2	69.5		15.3
2003	7.5	18.2	34.5	66.2		14.8
2004	7.2	18.4	36.0	69.7		14.9

***Figure 3.11 Medical aid coverage by population group* (Statistics South Africa, 2005a:xviii).**

The medical schemes industry was de-regulated in 1989 and 1993 through legislation passed by the apartheid government (McIntyre *et al.*, 1995). Between 1982 and 1992 medical scheme contributions had risen from 7.1% of the average salary to 15.2% while salaries had not changed much at all (McIntyre *et al.*, 1995). Cost escalation continued and total contributions grew faster than inflation between the year 1996 and 1998, whilst medical scheme membership remained stable (Cornell *et al.*, 2001:iii-iv). Certain practices that exercised a negative impact on medical scheme coverage became evident. The elderly or chronically ill, seen as risk-rating, high-risk members, had their contributions loaded, were given life-long exclusions for pre-existing conditions or were even denied membership completely. The other practice being the "dumping" of private patients on the public sector once their benefits had been exceeded. Together these two practices reduced medical scheme coverage for those private patients most in need (Doherty and Mcleod, 2003:42).

Various policies that have had an impact on the private sector were developed. The Medical Schemes Act (131/1998) was passed by parliament in 1999. This Act was intended to put a stop to some of the practices of the private pre-payment medical scheme industry which undermined equity such as discarding people who have exhausted their benefits back on the public sector, whilst also strengthening management and authority within the industry (McIntyre and Gilson 2002:1644). In 1998 government passed a new Medical Schemes Act, No. 131. The Act and other accompanying regulations of 1999 were implemented from January 2000, followed by several amendments.

Some of the key features of the Medical Scheme Act (131/1998) can be summarised as follows:

- All medical schemes are required to enrol any person applying to be a member and may not discriminate on the basis of age, gender, past or present state of health of the applicant or applicant's dependants, the frequency of rendering of relevant health services to an applicant or one or more of the applicant's dependants.
- All medical schemes are required to charge contributions that were differentiated only on the basis of income and the number of dependants (Doherty and Mcleod, 2002:42).
- The Act made it compulsory for every scheme to cover a comprehensive package of hospital as well as outpatient services, known as Prescribed Minimum Benefits (Doherty and Mcleod 2002:43).
- Provision is made for continued membership of a member, who retires from the service of his/her employer or whose employment is terminated as well as continued cover for the member's dependants after the death of that member for a limited time period.
- A medical scheme may allocate a personal savings account to a member for payment of any relevant health care service in a prescribed manner.

3.10.3 Dispensing licences

In terms of section 22C of the Medicines and Related Substances Act (101/1965), no person shall compound or dispense a medicine unless he or she is authorised thereto in terms of the Pharmacy Act (53/1974) (South African Pharmacy Council, 2004c:5).

The above-mentioned subsection states that a licence to compound and dispense medicines may be issued by the Director-General of the Department of Health to a medical practitioner, nurse, dentist or other person registered under the Health Professions Act, of 1974 (South African Pharmacy Council, 2004c:5). The main requirements for a licence to be issued are that these professionals must (Tshabalala-Msimang, 2004)

- complete a dispensing course accredited by the South African Pharmacy Council; and
- demonstrate that there is a need for the service and otherwise comply with the requirements of the law.

In terms of the Health Professions Amendment Act (89/1997), section 52 of the Health Professions Act was replaced by a new section 52. The effect of the amendment was that a medical practitioner could only dispense medicines on the authority and subject to the conditions of a licence granted by the Director-General in terms of the Medicines Act (South African Pharmacy Council, 2004c:5). Therefore, doctors who continue to dispense without a dispensing licence are acting in controversy of the law (South African Pharmacy Council, 2004c:7).

3.10.4 Pharmacy ownership

Regulations relating to the ownership and licensing of pharmacies were published in November 1999 for comment. The final regulations then came into operation on 2 April 2003. These regulations prescribed who could own which category of pharmacy, under what conditions such a person could own a pharmacy, as well as the process of licensing (South African Pharmacy Council, 2003c:5).

In terms of the new regulations there is virtually no restriction on the ownership of a pharmacy, pharmacies can thus be owned by non-pharmacists, as long as a qualified pharmacist is employed to run them (Deeney, 2003:453).

Under the new act, the South African Department of Health would have responsibility for the licensing of pharmacies. All persons wanting to own a pharmacy, including registered pharmacists, must therefore apply for a licence. By having control of pharmacy licensing, the Department of Health hoped to obtain a more rational distribution of pharmacies. The South African Pharmacy Council continues to have responsibility for the registration of pharmacists. This includes maintaining acceptable standards in pharmaceutical education and pharmacy practice. With regard to pharmacy premises, the Pharmacy Council's role is being limited to inspection and record keeping only (Deeney, 2003:453).

3.10.5 Certificate of need

Section 36 of the National Health Act (61/2003) makes provision for a certificate of need to be issued before any health establishment ranging from a large hospital to a private medical practice, is opened, extended or expanded. Section 36(3)(k) states that one of the factors that must be taken into account when evaluating an application for a certificate of need is *the need to ensure the availability and appropriate utilisation of human resources and human technology.*

According to Tshabalala-Msimang (2004) the government has a constitutional obligation to take measures to achieve the progressive realisation of access to health care services. The certificate of need provides the mechanism to achieve this. It was envisaged that the certificate of need would contribute to a more even distribution of health care services and that health establishments could then serve the greatest number of people in the most efficient and effective way. The certificate of need is seen as *a sensitive tool for identifying distribution and other problems in the health system.*

However, the proposed implementation of the certificate of need sparked significant protest from the medical community. It was felt that such a prerequisite was a violation of the constitutional right to live and work where one pleases. It was suggested that the certificate of need would then drive health professionals away from the country exacerbating the existing brain drain in South Africa (Padarath *et al.*, 2004:304).

Rural and scarce skills allowances were then implemented to address the inequitable distribution of health professionals and to help reduce the disturbing number of health professionals opting to work in other countries. The effects of these allowances should be carefully monitored to assess whether they will be able to stem the brain drain from the health sector (Padarath *et al.*, 2004:304).

3.11 CHAPTER SUMMARY

In this chapter certain aspects of the health care sector of South Africa that may have an influence on the geographic distribution of pharmacies within South Africa were discussed. Key features were the distribution of the South African population, the impact if HIV, human resources and certain regulatory aspects.

Chapter 4

Empirical Investigation

This chapter contains a discussion of the research objectives, target population, data source, and database as well as the data analysis.

4.1 RESEARCH OBJECTIVES

The research objectives are divided into a general objective and specific objectives.

4.1.1 General objective

As explained in Chapter 1, the general objective of this study was to investigate the demographic profile and standard of pharmaceutical services provided by pharmacies (specifically community and institutional pharmacies) registered with the South African Pharmacy Council and to provide an overview about the findings of inspections conducted in pharmacies by the inspectorate of the South African Pharmacy Council during the period January 2004 to May 2005.

4.1.2 Specific objectives

The specific research objectives of the literature review included the following:

- To investigate the evolution of pharmacy and conceptualise pharmacy services, clinical pharmacy and pharmaceutical care as well as to examine the reasons for the changes pharmacy practice has undergone.
- To investigate the role of the pharmacist in the health care system.
- To investigate the concept of Good Pharmacy Practice from available literature.
- To investigate the standards that pharmacies in South Africa must maintain to comply with Good Pharmacy Practice Guidelines in conjunction with international perspectives and views.
- To investigate the geographical distribution of pharmacies by looking at certain aspects of the South African health care system, which in turn would exercise an influence on the distribution of pharmacies.

The specific research objectives of the empirical investigation included the following:

- To investigate the availability of private vs. public pharmaceutical services in different geographical areas in South Africa from August 2003 to August 2005 as well as the location of pharmacies throughout South Africa.
- To determine the geographic distribution of the inspected community and institutional pharmacies within South Africa.
- To determine the availability of pharmacy personnel to provide services to patients.
- To assess the extent to which community and institutional pharmacies in South Africa conform to Good Pharmacy Practice guidelines according to the results of the inspection questionnaire data.
- To determine the possible effect of the availability of pharmacists on Good Pharmacy Practice compliance in community and institutional pharmacies.
- To determine the possible effect of the availability of pharmacists' assistants on Good Pharmacy Practice compliance in community and institutional pharmacies.
- To determine the possible effect of the average number of prescribed items dispensed per day in community and institutional pharmacies on Good Pharmacy Practice compliance.
- To develop a possible grading system for pharmacies.

4.2 RESEARCH INSTRUMENTS USED

One type of research instrument was used in this study, namely the community and institutional inspection questionnaires of 2004 (*refer to Appendices A and B*).

These questionnaires were developed by the South African Pharmacy Council. (As a rule the Good Pharmacy Practice document is used as a guide for the performance of inspections). The Good Pharmacy Practice guidelines were used to compile the inspection questionnaires (South African Pharmacy Council, 2000b:ii).

The inspectors of the South African Pharmacy Council are all pharmacists and were recruited either by word of mouth or by advertising in the official publication of the South African Pharmacy Council, *Pharmaciae* (a bi-monthly publication available to all pharmacists). Inspectors are responsible for visiting and performing inspections at manufacturing, wholesale, community and institutional pharmacies in order to assist in the maintenance and control of pharmacy practice in both the private and public sectors. Inspectors must not only identify areas for improvement in a pharmacy, but also encourage and guide the profession to attain the

goals of acceptable practice in an informative and educational way (South African Pharmacy Council, 2000b:5).

4.3 TARGET POPULATION

The target population for this study consisted of all the community and institutional pharmacies (private and public) that were inspected by the inspectorate of the South African Pharmacy Council during the period January 2004 until May 2005. Data of the inspection questionnaires of the South African Pharmacy Council were extracted for a time period of 17 months, from January 2004 to May 2005, the reason for doing so being that the questionnaires changed after May 2005. During the study period a total of 1178 community pharmacy inspections were carried out in 1103 community pharmacies (one or more than one inspection per pharmacy) which represent 43% of the total number of community pharmacies registered with the South African Pharmacy Council during May 2005 (n=2 550). Furthermore, a total of 343 institutional pharmacy inspections (one or more than one inspection per pharmacy) were carried out in public and state subsidised institutions (n=245), private institutions (n=90) and mine hospitals (n=5).

To determine the inspected pharmacies' geographical distribution, the data were merged with the data of the Pharmacy Register of the South African Pharmacy Council for August 2005 and the Census data® of 2001. The locations of these pharmacies were documented according to Province, District or Metropolitan Municipality and Local Municipality. There were certain Local Municipalities that changed during 2006; however, this study was based on the Municipalities for 2005.

Furthermore, the registers of pharmacies of the South African Pharmacy Council of August 2003, August 2004 and August 2005 were analysed on provincial, district and municipality level. Pharmacies registered with the South African Pharmacy Council in both the public and private health care sectors were divided into the following categories:

- Public pharmacies providing pharmaceutical services directly to patients, such as public institutional pharmacies, community health centres and primary health care clinics.
- Public support pharmacies which do not directly provide pharmaceutical services to patients (such as medical stores).
- Private pharmacies providing pharmaceutical services directly to patients, such as community pharmacies, mail order pharmacies, private institutional pharmacies.
- Private support pharmacies which do not directly provide pharmaceutical services to patients (such as consultant, wholesale and manufacturing pharmacies).

For the purposes of this study, the pharmacies that provide pharmaceutical services directly to patients were selected.

Basic demographic information regarding the population served by the different pharmacies were analysed by using the Census data® of 2001 (Statistics South Africa, 2001) and the Statistical Analysis System® SAS 9.1® programme (SAS institute Inc., 2002-2003).

4.4 DATA SOURCES AND DATABASE

The data for this study were obtained from the South African Pharmacy Council (inspection questionnaires as well as the Register of Pharmacies) and Statistics South Africa (Census data® of 2001). Data regarding the inspection questionnaires were extracted for the time period January 2004 to May 2005, a period of 17 months. The inspection questionnaires were completed by the inspectors of the South African Pharmacy Council in community and institutional pharmacies (public and private) from 1 January 2004 to 31 May 2005. Furthermore data with respect to the number of registered pharmacies were obtained from the Pharmacy Register of the South African Pharmacy Council for August 2005.

4.5 ETHICAL ASPECTS

The South African Pharmacy Council granted access to the inspection questionnaires. The Register of Pharmacies was bought from the South African Pharmacy Council. Confidentiality of information was maintained throughout the study, as no specific pharmacy was identified at any time. Questions with respect to specific pharmacy details were not analysed at any time to prevent a pharmacy from being identified. These questions included questions 5 to 12 of the community pharmacy inspection questionnaire and questions 5 to 13 of the institutional inspection questionnaire.

The correctness of the inspection questionnaires was presumed to be accurate, as the questionnaires had already been developed by the South African Pharmacy Council with input from the Inspectorate of the South African Pharmacy Council.

4.6 RESEARCH DESIGN AND METHODOLOGY

The findings in respect of community and institutional inspections were formulated according to responses to the questions and are presented in Appendices C and D. These findings are discussed in Chapter 5.

In some instances the inspection questionnaire was not completed or only partly completed for a variety of reasons. These instances were included in the number of inspections but are

excluded from the results obtained during inspections. Whenever a question was not completed, the data were defined as frequency missing, this was then documented as **Not Answered** in the question tables (*refer to Appendices C and D*).

4.6.1 Good Pharmacy Practice percentage compliance calculation

Figures 4.1 and 4.2 show the sections of the questionnaires that were analysed, together with the specific questions analysed in order to determine Good Pharmacy Practice (GPP) compliance. For each question compliance, non-compliance as well as partial compliance with Good Pharmacy Practice standards were calculated according to the frequency of answers marked **Complies, Does not comply and Partially complies.** Furthermore, compliance was calculated for the whole of South Africa according to each of the sections mentioned below.

Table 4.1 shows the maximum Good Pharmacy Practice compliance scores which could be achieved by a pharmacy for the applicable sections. A score of 3 was given for compliance, a score of 1 for non-compliance and a score of 2 for partial compliance. Where **Not applicable** and **Not answered** was indicated, a score of 3 was given to the pharmacy to prevent a pharmacy's compliance score being negatively influenced.

Table 4.1 Maximum scores that could be achieved by community and institutional pharmacies respectively.

SECTION	MAXIMUM SCORE FOR COMMUNITY PHARMACY	MAXIMUM SCORE FOR INSTITUTIONAL PHARMACY
Registration details	21	21
Premises and layout	57	60
Equipment	36	42
Storage	63	51
Control of medicines/recordkeeping	60	75
Thermolabile medicines	24	24
Dispensing of prescriptions	15	15
Provision of pharmaceutical care	30	36
Written Standard operating Procedures	36	54
References	30	27
General	24	24
Promotion of public health	30	30

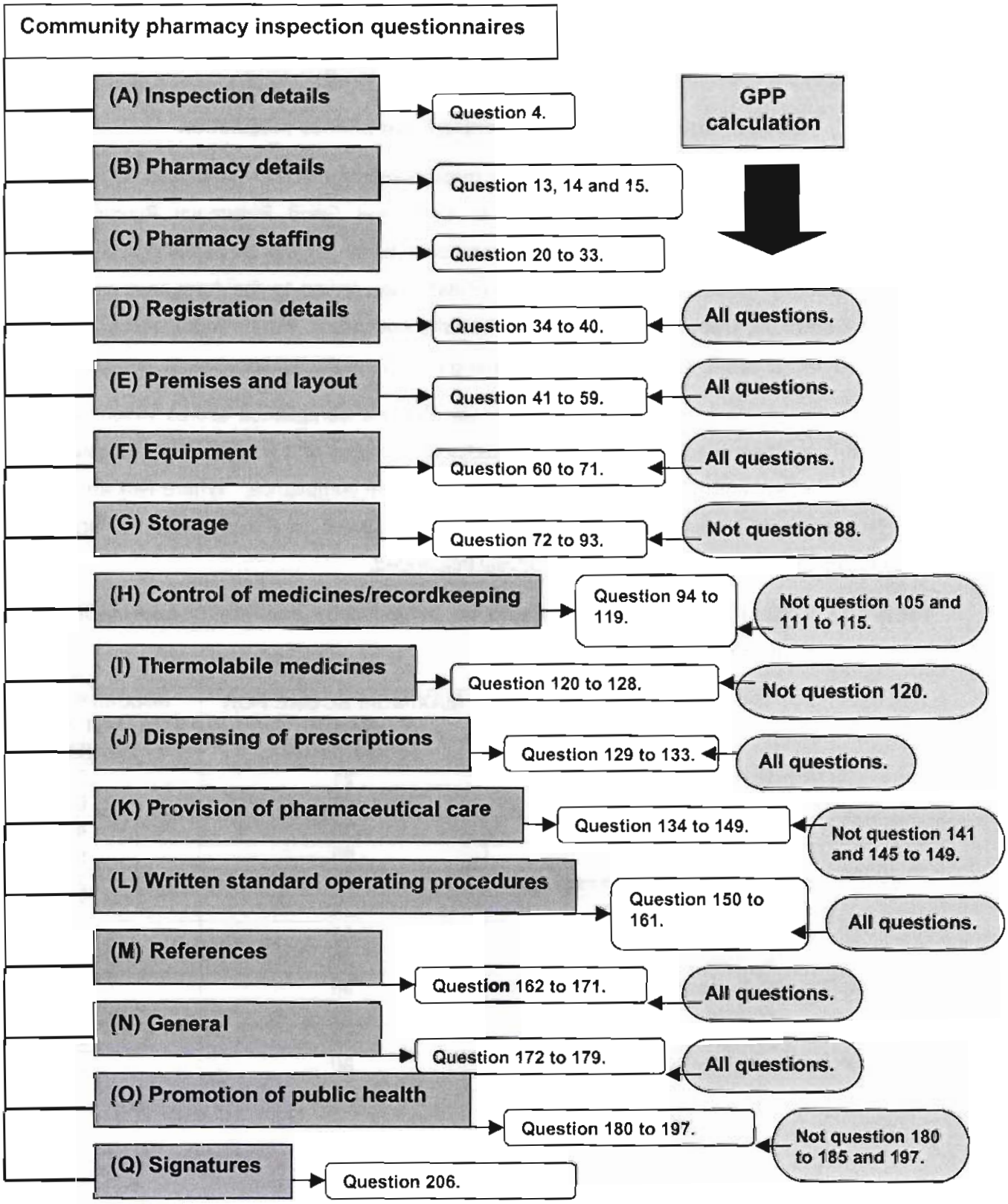


Figure 4.1 Sections of the community pharmacy inspection questionnaire together with the questions that were analysed and relating to the GPP calculation.

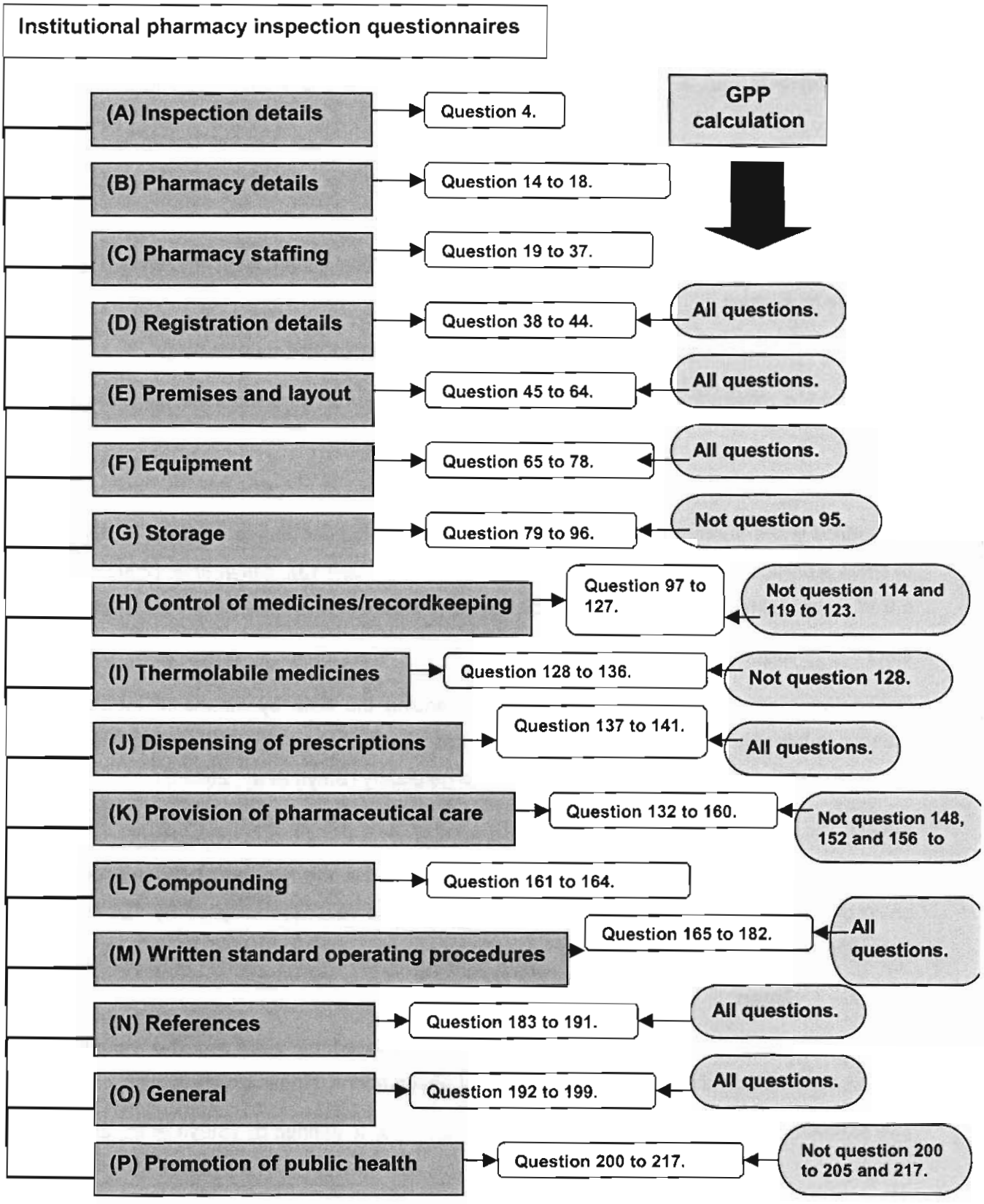


Figure 4.2 Sections of the institutional pharmacy inspection questionnaire together with the questions that were analysed and relating to the GPP calculation.

4.7 DATA ANALYSIS

The data were analysed by using the Statistical Analysis System® for Windows, Version 9.1(SAS Institute Inc., 2002-2003). It was used to extract and analyse certain data from the database.

4.8 STATISTICAL ANALYSIS

In this section the different measuring instruments and statistical analyses that were used in this study are discussed.

4.8.1 Measuring instruments, descriptive statistics and calculations

The following measuring instruments, descriptive statistics and calculations were used in this study:

4.8.1.1 Frequency

Frequency is the number of times that a particular value occurs in a set of data, or the number of times a particular category occurs (Martin and Pierce, 1999:13). Steyn *et al.* (2003:57) define a frequency distribution as a table with classes of values and accompanying frequencies.

4.8.2 Descriptive statistics

Descriptive statistics entail ordering and summarising the data by means of tabulation and graphic representation and the calculation of descriptive measures. In this way the inherent trends and properties of the observed data emerge clearly (Steyn *et al.*, 2003:5).

4.8.2.1 Percentage

According to Fink (1995:17) percentage is a proportion, i.e. the number of observations with a given characteristic divided by the total number of observations) multiplied by 100 to get the percentage.

4.8.2.2 Mean

The mean is the ordinary arithmetic average, calculated by summing the values of the observations and dividing by the total number of observations (Rossman, 1996:41).

The arithmetic mean of a set of observations $x_1, x_2, \ldots, x_n$ is defined by (Steyn *et al.*, 2003:99):

$$\bar{x} = \frac{x_1 + x_2 \ldots x_n}{n}$$

$$= \frac{\sum x}{n}$$

4.8.2.3 Standard deviation

The standard deviation measures spread by looking at how far the observations are from their mean (Moore, 1995:46).

The formula for standard deviation differs slightly depending on whether you are using an entire population or just a sample (Brase and Brase, 1999:103-104):

$$s=\sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$$

The standard deviation is a good descriptive measure of variability, although it can be affected strongly by outliers (Cohen and Lea, 2004:15).

The following equations and guidelines were used to compute and interpret the effect sizes:

Difference between two group means (Steyn, 1999:3):

The effect size is computed as follows:

$$d=\frac{x_1-x_2}{s_1}$$

where x_1 and x_2 are the two group means, and s_1 is the maximum standard deviation of the two groups (Steyn, 1999:3).

The following guidelines are used to evaluate the results:

d= 0.2:	small effect (interpreted as non-significant).
d= 0.5:	medium effect (interpreted as observable which may reflect on significant differences).
d= 0.8:	large effect (interpreted as significant and of practical importance).

4.9 CHAPTER SUMMARY

In this chapter the research methodology was discussed. This included the objectives of the study, the target population, the phases of the research project, the research instruments used as well as the statistical analysis of the data. The results of the empirical investigation will be discussed in Chapter 5.

Chapter 5

Results and discussion

In this chapter the results of the empirical investigation will be reported and discussed. Firstly, the distribution of registered pharmacies across South Africa will be reported, followed by a discussion of the results of the inspection questionnaires (community and institutional pharmacies), with specific reference to the distribution of the inspected community and institutional pharmacies. The distribution of pharmacies in South Africa as well as the distribution of inspected pharmacies was based on municipality data for 2004 and 2005. Comparisons will be made between community, private and public institutional pharmacies. The results of the inspection questionnaires will be presented in the following categories for community and institutional pharmacies respectively:

- **Inspection details.**
- **Pharmacy details.**
- **Pharmacy personnel.**
- **Registration details.**
- **Premises and layout.**
- **Equipment.**
- **Storage.**
- **Control of medicine and record keeping.**
- **Thermolabile medicines.**
- **Dispensing of prescriptions.**
- **Provision of pharmaceutical care.**
- **Written standard operating procedures.**
- **References.**
- **General.**
- **Promotion of public health.**

5.1 DISTRIBUTION OF PHARMACIES PROVIDING SERVICES DIRECTLY TO PATIENTS IN SOUTH AFRICA

The results in Table 5.1 reveal that the total number of pharmacies in both the private and public sectors that provided pharmaceutical services directly to patients, increased from 3202 in August 2003 to 3216 in August 2004 and to 3270 during August 2005 (2.1%, n=68). Public and private pharmacies that provided pharmaceutical services directly to patients increased with 6.3% (n=33) and 1.3% (n=35) from August 2003 to August 2005 respectively. This was mostly due to an increase in the number of community health centres (public health sector), pharmacies of the military and correctional services (public health sector) and private institutional pharmacies registered with the South African Pharmacy Council.

During 2005 only 140 community health centres or clinics were registered (*refer to table 5.1*), a fact that has to be investigated, as many more clinics may be eligible for registration. This aspect of public distribution and providing of medicine may not be according to the Good Pharmacy Practice guidelines and in the interest of the patient. A relatively large increase in the registration of public employee related pharmacies via correctional and military structures were noted – mainly due to the need to comply with the Pharmacy Act (53/1974) and regulations. In this respect it seems that these institutions met the registration requirements which specify that all institutions that provide pharmaceutical services should be registered by the end of July 2005.

Table 5.2 provides an overview of the nature and extent of pharmaceutical services in the different provinces. Gauteng province is the best provided with regard to registered pharmacies in South Africa. Only 0.06 % (n=5 783) of the population of Gauteng did not have any registered pharmacy (public or private sector) on municipality level (*refer to table 5.3*). Although less than 20% of the population of South Africa is situated in Gauteng, 34.57% (n=878) of all community pharmacies (including mail-order pharmacies) and 37.6% (n=67) of all private institutional pharmacies are located in this province (*Table 5.2*).

Although most (17%) of the public institutional pharmacies are situated in Kwazulu-Natal (*refer to table 5.2*), the results in Table 5.3 reveal that the highest percentage of people per province (15%) who did not have any registered pharmacy on municipality level occurred in Kwazulu-Natal, followed by Eastern Cape (11.7%) and Limpopo (11%).

Table 5.1 Total number of registered pharmacies providing pharmaceutical services directly to patients in both the public and private health care sectors from August 2003 to August 2005.

REGISTERED PHARMACIES	August 2003	August 2004	August 2005	% Change from August 2003 to August 2005
Total number of public pharmacies providing pharmaceutical services directly to patients	**519**	**529**	**552**	**6.35% (n=33)**
Public institutional pharmacies	354	354	357	0.8% (n=3)
Community health centres	131	133	140	6.8 % (n=9)
Public pharmacies of the military and correctional services	34	32	55	61.7% (n=21)
Total number of private pharmacies providing pharmaceutical services directly to patients	**2683**	**2687**	**2718**	**1.3% (n=35)**
Community pharmacies**	2524	2521	2534	0.4% (n=10)
Private institutional pharmacies	153	160	178	16% (n=25)
Mail order	6	6	6	0%
Total number of registered pharmacies providing pharmaceutical services directly to patients	**3202**	**3216**	**3270**	**2.1% (n=68)**

* Not indicated on Register of the South African Pharmacy Council.
** Excluding mail-order pharmacies.

Table 5.2 **Types of registered pharmacies in both the public and private health care sectors for August 2005 for the different provinces in South Africa.**

	PROVINCES									
REGISTERED PHARMACIES	**Eastern Cape**	**Free State**	**Gauteng**	**Kwazulu-Natal**	**Limpopo**	**Mpuma-langa**	**North West**	**Northern Cape**	**Western Cape**	**Total number of pharmacies**
Public institutional pharmacies	45 (12.60%)	32 (8.96%)	36 (10.08%)	62 (17.37%)	37 (10.36%)	32 (8.96%)	36 (10.08)	28 (7.84%)	49 (13.77%)	**357**
Community health centres	7 (5.00%)	10 (7.14%)	12 (8.57%)	10 (7.14%)	1 (0.71%)	2 (1.42%)	21 (15.0%)	19 (13.57%)	58 (41.42%)	**140**
Public pharmacies military/correctional services	5 (9.09%)	9 (16.36%)	13 (23.64%)	6 (10.91%)	3 (5.45%)	3 (5.45%)	1 (1.82%)	1 (1.82%)	14 (25.45%)	**55**
Public support pharmacies	5 (15.63%)	2 (6.25%)	10 (31.25%)	4 (12.5%)	1 (3.13%)	–	3 (9.38%)	1 (2.09%)	6 (18.75%)	**32**
Community pharmacies	190 (7.48%)	131 (5.16%)	878 (34.57%)	459 (18.07%)	101 (3.98%)	141 (5.55%)	151 (5.94%)	53 (2.09%)	436 (17.17%)	**2540**
Private institutional pharmacies	13 (7.30%)	11 (6.18%)	67 (37.64%)	28 (15.73%)	10 (5.62%)	10 (5.62%)	12 (6.74%)	2 (1.12%)	25 (14.05%)	**178**
Consultant pharmacies	–	–	11 (73.34%)	2 (13.33%)	–	–	–	–	2 (13.33%)	**15**
Manufacturing pharmacies	7 (4.02%)	1 (0.57%)	136 (78.16%)	9 (5.17%)	—	1 (0.57%)	—	—	20 (11.49%)	**174**
Wholesalers	19 (5.22%)	14 (3.85%)	213 (58.52%)	44 (12.09%)	7 (1.92%)	2 (0.55%)	5 (1.37%)	2 (0.55%)	58 (15.93%)	**364**
Total number of registered pharmacies	**291**	**210**	**1376**	**624**	**160**	**191**	**229**	**106**	**668**	
% of total number of registered pharmacies in SA (N = 3 855)	**7.55**	**5.45**	**35.69**	**16.19**	**4.15**	**4.95**	**5.94**	**2.75**	**17.33**	

Table 5.2 *(Continue)* **Types of registered pharmacies in both the public and private health care sector for August 2005 for the different provinces in South Africa.**

% OF TOTAL POPULATION (N = 44 819 778)	**14.36**	**6.04**	**19.72**	**21.03**	**11.77**	**6.97**	**8.19**	**1.84**	**10.09**	

Table 5.3 **Distribution of registered pharmacies according to municipalities and provinces for August 2005.**

PROVINCE	Total population (N =44 819 778)	Total number of municipalities in provinces (N=272)	Municipalities without any registered pharmacy (n=62)					
			Number of Municipalities			Population		
			n	%*	%**	n	%***	%****
Eastern Cape	6 436 821	43	11	17.7	4.0	756 496	11.76	1.69
Free State	2 706 686	21	3	4.8	1.1	60 107	2.22	0.13
Gauteng	8 837 194	13	1	1.6	0.4	5 783	0.06	0.07
Kwazulu-Natal	9 426 053	55	18	29.0	6.6	1 425 975	15.12	3.18
Limpopo	5 273 312	27	6	9.7	2.2	581 991	11.03	1.29
Mpumalanga	3 123 123	26	6	9.7	2.2	279 161	8.94	0.62
North West	3 669 418	26	5	8.0	1.8	221 987	6.04	0.49
Northern Cape	822 809	31	6	9.7	2.2	35 200	4.27	0.08
Western Cape	4 524 362	30	6	9.7	2.2	38 447	0.85	0.09
TOTAL	**44 819 778**	**272**	**62**	**22.7%****		**3 405 147**	**7.59*****	

* % of total number of municipalities in South Africa without any (n=62) registered pharmacies
** % of total number of municipalities in South Africa (N=272)
*** % of total population in the specific province
**** % of total population per province in South Africa

Table 5.4 Availability of registered pharmaceutical services on municipality level from August 2003 to August 2005.

Year	Availability of different types of pharmaceutical services on municipality level (n=272)	Municipalities without any registered pharmaceutical services (n=272)		Population without any registered pharmaceutical services on municipality level (n= 44819778)		Average number of registered pharmaceutical services per municipality	Total number of registered pharmaceutical services
		n	%	n	%		
August 2003	All registered pharmacies	62	22.79	3 365 953	7.51	17.92 ±61.62	3765
	Registered community pharmacies	81	29.78	5 163 465	11.52	13.21 ±42.45 (n=191)	2524
	Registered private institutional pharmacies	223	81.98	20 426 742	45.58	3.04 ±4.49 (n=49)	153
	Registered public pharmaceutical services	87	31.98	5 362 207	11.96	2.54 ±4.82 (n=185)	470
August 2004	All registered pharmacies	62	22.79	3 365 953	7.51	18.04 ±62.67	3789
	Registered community pharmacies	81	29.78	5 195 750	11.59	13.26 ±42.27 (n=190)	2521
	Registered private institutional pharmacies	219	79.04	19 323 951	44.84	2.94 ±4.47 (n=53)	156
	Registered public pharmaceutical services	87	31.98	5 362 207	11.96	2.55 ±4.87 (n=187)	482
August 2005	All registered pharmacies	62	22.79	3 405 147	7.59	18.36 ±63.71	3855
	Registered community pharmacies	83	29.78	5 290 898	11.80	13.40 ±43.00 (n=189)	2534
	Registered private institutional pharmacies	215	79.04	19 323 951	43.11	3.05 ±4.71 (n=57)	178
	Registered public pharmaceutical services	85	31.25	5 213 796	11.63	2.47 ±5.05 (n=187)	482

The results in Table 5.4 show that the availability of community pharmacies declined from 191 to 189 municipalities, however, the total number of community pharmacies increased slightly with 10 pharmacies (from 2524 to 2534) from August 2004 to August 2005 (*refer to table 5.1*).

On the other hand the availability of private institutional pharmacies on municipality level increased from 49 to 57 municipalities (*refer to table 5.4*). This illustrates an increase of 25 private institutional pharmacies, which is an indication of the relatively fast growth of the private institutional industry in South Africa.

Although the availability of registered public pharmaceutical services increased from 185 to 197 municipalities from 2003 to 2005, there are still indications that 12% of the South African population do not have any registered public pharmaceutical services on municipality level. This is an indication of the importance of the registration of pharmaceutical providers with the South African Pharmacy Council to ensure Good Pharmacy Practice standards including infrastructure, competence, equipment, control of medicine, and the availability of pharmaceutical care services to the public.

5.2 INSPECTION DETAILS

Inspectors of the South African Pharmacy Council perform five kinds of inspections, as listed below:

- Monitoring inspections.
- Training inspections.
- New premises inspections.
- Disciplinary inspections.
- Follow-up inspections.

Monitoring inspections are carried out in order to monitor the standard of pharmaceutical services rendered according to Good Pharmacy Practice guidelines, and are conducted unannounced (South African Pharmacy Council, 1999:3). These inspections accounted for 59.34% (n=699) of the inspections carried out in community pharmacies (N=1178) for the time period January 2004 until May 2005 (*refer to Appendix C, table 1C*). Furthermore, these inspections accounted for 48.98% (n=168) of the inspections carried out in institutional pharmacies (N=343) during the study period (*refer to Appendix D, table 1D*).

Disciplinary inspections are performed following a request from the Committee for Preliminary Investigation after a complaint has been lodged with the South African Pharmacy Council (South African Pharmacy Council, 1999:3). Disciplinary (n=81) and follow-up (n=14) inspections accounted for only 8% of the community pharmacy inspections (*refer to Appendix C, table 1C*).

Only two Disciplinary inspections (0.58%) were carried out in institutional pharmacies during the study period, and zero follow-up inspections. Furthermore, of the 1178 community pharmacy inspections carried out, 8% (n=92) of pharmacies were recommended for re-inspection within 3 months, 3% (n=38) for re-inspection after 6 months and 79% (n=929) for a routine inspection (*refer to Appendix C, table 182C*), which indicates that the majority of community pharmacy inspections conducted, complied with Good Pharmacy Practice standards.

Furthermore, the majority of inspections (n=1079) conducted with the community pharmacy questionnaire (N=1178), were carried out in community pharmacies (91.60%). The remainder were mail/courier (0.51%, n=6), virtual care (3.65%, n=43) and other pharmacies (0.08%, n=1) as indicated by the inspection questionnaire (*refer to Appendix C, table 2C*). The majority of inspections (n=247) conducted with the institutional pharmacy inspection questionnaire (N=343), were carried out in public institutional pharmacies. The remainder were carried out in private institutional pharmacies (26.54%, n=91) and mine institutional pharmacies (1.46%, n=5) (*refer to Appendix D, table 2D*). The hospitals where these pharmacies were inspected were furthermore classified as Academic hospitals, Regional hospitals, District hospitals, Community Health Centres, etc (*refer to Appendix D, table 3D*).

Nationally, there were 2534 (77.50%, N=3270) community pharmacies and 6 (0.2%, N=3270) mail order pharmacies registered with the South African Pharmacy Council during August 2005, providing pharmaceutical services directly to patients. Furthermore, there were 178 (5.44%, N=3270) private institutional pharmacies, 357 (10.92%, N=3270) public institutional pharmacies, 140 (4.28%, N=3270) community health centres and 55 (1.70%, N=3270) public military and correctional services pharmacies providing pharmaceutical services directly to patients during August 2005 (*refer to table 5.1*).

5.3 PHARMACY DETAILS

5.3.1 Number of inspections

During the study period a total of 1178 community pharmacy inspections were carried out in 1103 community pharmacies (one or more than one inspection per pharmacy) which represent 43% (n=2 550) of the total number of community pharmacies registered with the South African Pharmacy Council during May 2005 (South African Pharmacy Council, 2005b).

Furthermore, a total of 343 institutional pharmacy inspections (one or more than one inspection per pharmacy) were carried out in public and state subsidised institutions (n=247), private institutions (n=91) and mine institutions (n=5). These pharmacies represented 46% of the total number of institutional pharmacies registered with the South African Pharmacy Council during May 2005 (South African Pharmacy Council, 2005b).

5.4 LOCATION OF INSPECTED PHARMACIES

This section discusses the location of pharmacies inspected by the inspectorate of the South African Pharmacy Council within the different provinces of South Africa for the period January 2004 to May 2005. There are 272 municipalities in South Africa, of these, 126 municipalities did not have any registered community or institutional pharmacies inspected during the study period January 2004 until May 2005 (*refer to table 5.5*). These municipalities were mostly situated in Kwazulu-Natal (26.19%, n=33), the Northern Cape (18.25%, n=23) and the Eastern Cape (15.87%, n=20) areas. There are certain District Municipalities that form part of two provinces (cross over municipalities); this is indicated clearly in each table representing the different provinces, together with the Local municipality that falls in each of these Districts (*refer to sections 5.4.1 to 5.4.9, table 5.6 to 5.14*).

Table 5.5 **Distribution of registered pharmacies according to municipalities and provinces for the period January 2004 until May 2005.**

PROVINCE	Total population (N=44 819 778)	Total number of municipalities in provinces (N=272)	Municipalities without any inspected registered pharmacy (n=126)		
			Number of Municipalities		
			n	%*	%**
Eastern Cape	6 436 821	43	20	15.87	7.35
Free State	2 706 686	21	6	4.76	2.21
Gauteng	8 837 194	13	2	1.59	0.74
Kwazulu-Natal	9 426 053	55	33	26.19	12.13
Limpopo	5 273 312	27	13	10.32	4.78
Mpumalanga	3 123 123	26	13	10.32	4.78
North West	3 669 418	26	8	6.35	2.94
Northern Cape	822 809	31	23	18.25	8.46
Western Cape	4 524 362	30	8	6.35	2.94
TOTAL	**44 819 778**	**272**	**126**	**46.32%****	

* % of total number of municipalities in South Africa without any (n=126) inspected registered pharmacies.

** % of total number of municipalities in South Africa (n=272).

5.4.1 Eastern Cape



Figure 5.1 ***Municipalities of the Eastern*** **Cape (Municipal Demarcation Board, 2006).**

A total of 60 community pharmacies and 36 institutional pharmacies were inspected in the Eastern Cape, during the study period January 2004 until May 2005. The figure above illustrates the different District Municipalities as well as the Nelson Mandela Metropolitan Municipality in the Eastern Cape.

Table 5.6 illustrates the distribution of the inspected community and institutional pharmacies according to District, Metropolitan and Local municipality. It was revealed that no community or institutional pharmacies were inspected in the Alfred Nzo District municipality (*refer to table 5.6*).

Metropolitan municipalities are large regions, with their own Local government structures, and which usually encompass some urbanised region (or regions), which might be regarded as a city (Wikipedia, 2006). Of the 60 community pharmacies inspected in the Eastern Cape 40 were situated in the Nelson Mandela Metropolitan municipality, a percentage of 67%. Of the 36 institutional pharmacies inspected, 10 (28%) were situated in the Nelson Mandela Metropolitan municipality. Thus, the majority of inspections for both categories of pharmacies were mainly situated in the metropolitan region. This is could be seen as a demonstration of the urban-rural divide present in the Eastern Cape.

Table 5.6 Distribution of community and institutional pharmacies according to municipality for the Eastern Cape.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=60)	Institutional (N=36)
Alfred Nzo District Municipality	O'Conners Camp	0	0
	Umzimkhulu	0	0
	Umzimvubu	0	0
	TOTAL	**0**	**0**
Amatole District Municipality	Amahlathi	0	1
	Buffalo City	6	4
	Great Kei	0	0
	Mbhashe	0	0
	Mnquma	0	1
	Ngqushwa	0	1
	Nkonkobe	0	1
	Nxuba	0	1
	TOTAL	**6**	**9**
Cacadu District Municipality	Aberdeen Plain	0	0
	Baviaans	0	0
	Blue Crane Route	0	1
	Camdeboo	1	1
	Ikwezi	0	0
	Kouga	0	1
	Kou-Kamma	1	0
	Makana	2	2
	Ndlambe	0	1
	Sunday's River Valley	0	1
	TOTAL	**4**	**7**
Chris Hani District Municipality	Emalahleni	0	0
	Engcobo	0	1
	Inkwanca	0	0
	Intsika yethu	1	0
	Inxuba Yethemba	0	0
	Lukanji	2	2
	Mountain Zebra National Park	0	0
	Sakhisizwe	1	1
	Tsolwana	1	0
	TOTAL	**5**	**4**

Table 5.6 *(Continue)* Distribution of community and institutional pharmacies according to municipality for the Eastern Cape.

Nelson Mandela Metropolitan Municipality	**TOTAL**	**40**	**10**
O.R. Tambo District Municipality	King Sabata Dalindyebo	2	2
	Mbizana	0	0
	Mhlontlo	0	0
	Ntabankulu	0	0
	Nyandeni	0	0
	Port St Johns	0	0
	Quakeni	1	2
	TOTAL	**3**	**4**
Ukhahlamba District Municipality	Elundini	1	0
	Gariep	0	0
	Maletswai	0	0
	Oviston Nature Reserve	0	0
	Senqu	1	2
	TOTAL	**2**	**2**

There were 43 Local municipalities in the Eastern Cape, during the study period as seen in table 5.6. According to the results, 20 of these municipalities did not have any inspected community or institutional pharmacies; during the time period January 2004 until May 2005 (*refer to table 5.5*). These 20 municipalities accounted for 15.87% (n=126) of the total number of Local municipalities which did not have any inspected pharmacies and for 7.35% (N=272) of the total number of Local municipalities in South Africa (*refer to table 5.5*).

5.4.2 Free State

A total of 62 community pharmacies were inspected in the Free State during the time period January 2004 until May 2005. Furthermore, a total of 25 institutional pharmacies were inspected during the study period. The figure below illustrates the distribution of the District municipalities within the Free State.

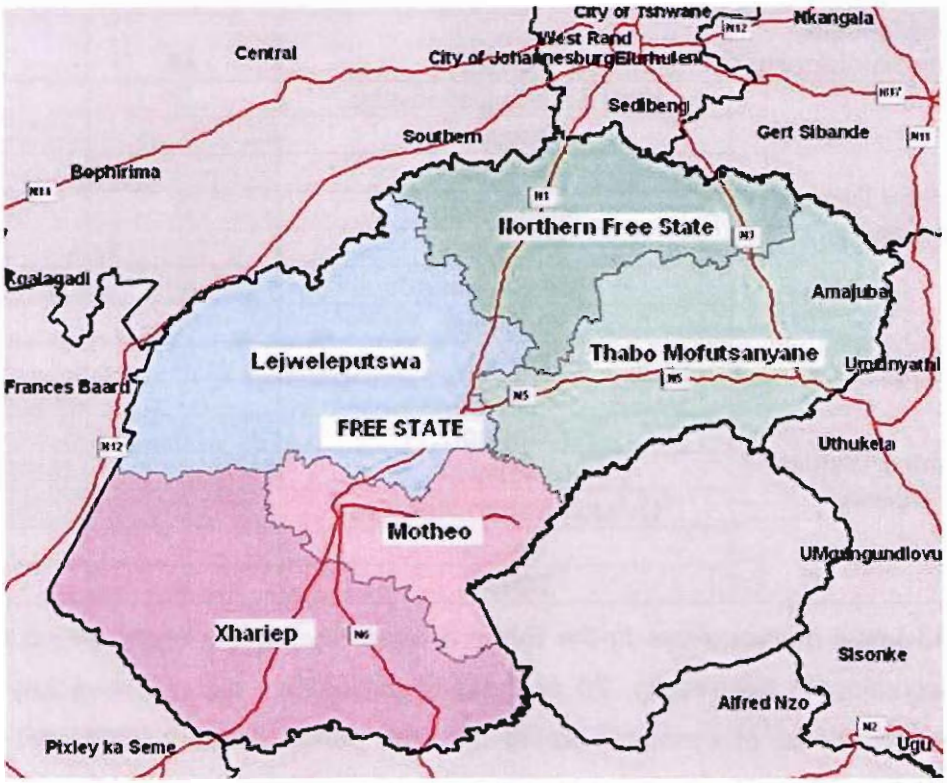


***Figure 5.2 Municipalities of the Free State* (Municipal Demarcation Board, 2006).**

Table 5.7 illustrates the distribution of the inspected community and institutional pharmacies according to District and Local municipalities. The Free State was divided into 20 Local municipalities during the study period as seen in table 5.7. According to the results, 6 (4.76%, n=126) Local municipalities did not have any registered community or institutional pharmacies which were inspected during the time period January 2004 until May 2005 (*refer to table 5.5*). This number accounted for 2.21% (N=272) of the total number of Local municipalities in South Africa (*refer to table 5.5*). Of the 62 community pharmacies inspected in the Free State the majority of these were situated in the Lejweleputswa, Motheo and Northern Free State District Municipalities. The District Municipality with the least community pharmacies was Xhariep District Municipality with 3 community pharmacies situated in this municipality district. Of the 25 institutional pharmacies inspected, 9 (36%) were situated in Motheo District Municipality, 6 (16.67%) in Thabo Mofutsanyane District Municipality and 5 (20%) in Lejweleputswa District Municipality. Xhariep District Municipality accounted for only one inspected institutional pharmacy.

Table 5.7 Distribution of community and institutional pharmacies according to municipality for the Free State.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=62)	Institutional (N=25)
Lejweleputswa District Municipality	Masilonyana	2	0
	Matjhabeng	8	5
	Nala	2	0
	Tokologo	0	0
	Tswelopele	0	0
	TOTAL	**12**	**5**
Motheo District Municipality	Mangaung	18	8
	Mantsopa	1	1
	Naledi	0	0
	TOTAL	**19**	**9**
Northern Free State District Municipality	Mafube	3	0
	Metsimaholo	8	2
	Moqhaka	8	1
	Ngwathe	1	1
	TOTAL	**20**	**4**
Thabo Mofutsanyane District Municipality	Dihlabeng	4	2
	Golden Gate Highlands Nature Reserve	0	0
	Maluti a Phofung	1	1
	Nketoana	2	0
	Phumelela	0	0
	Setsoto	1	1
	TOTAL	**8**	**4**
Xhariep District Municipality	Kopanong	0	0
	Letsemeng	1	0
	Mohokare	2	1
	TOTAL	**3**	**1**

5.4.3 Gauteng

A total of 513 community and 85 institutional pharmacies were inspected in Gauteng during the study period January 2004 to May 2005. The majority of the inspections were carried out in this province, whilst Gauteng accounts for only 19.7% (n=8 837 194) of the total population (N=44 819 778) of South Africa (*refer to table 5.3*). Figure 5.3 illustrates the different District and Metropolitan Municipalities of Gauteng.

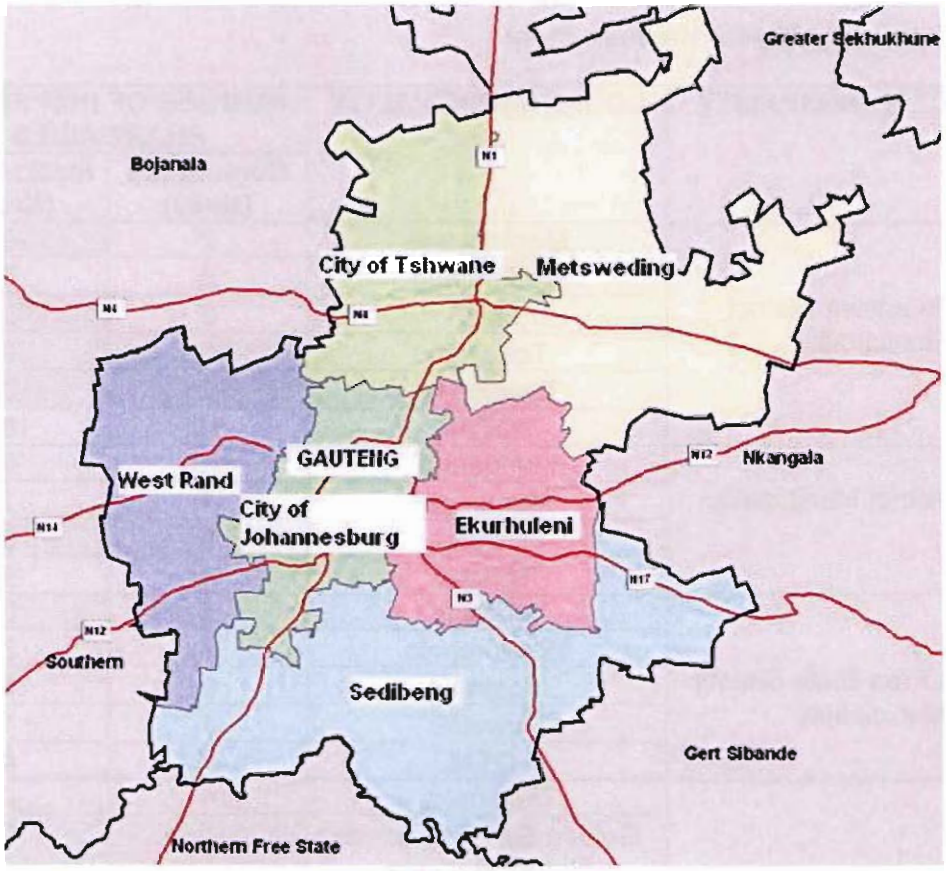


***Figure 5.3 Municipalities of Gauteng* (Municipal Demarcation Board, 2006).**

Table 5.8 illustrates the distribution of the inspected community and institutional pharmacies according to District, Metropolitan and Local municipalities for Gauteng. There are 13 Local municipalities in Gauteng; three of these being Metropolitan municipalities as seen in table 5.8. The results revealed that all of the municipalities had at least one community or institutional pharmacy inspected during the study period, except for two Local municipalities namely, Kungwini Local and West Rand Local municipalities (*refer to table 5.8*). This accounted for 1.59% (n=126) of the total number of municipalities without an inspected pharmacy (*refer to table 5.5*). Of the 513 community pharmacies inspected in Gauteng the majority of these were situated in the City of Johannesburg Metropolitan Municipality (25.5%, n=131), City of Tshwane Metropolitan Municipality (39.4%, n=202) and Ekhurhuleni Metropolitan Municipality (19.7%, n=101). This was also true for the inspected institutional pharmacies (N=85), with 27.1% (n=23), 40% (n=34) and 15.3% (n=13) situated in the City of Johannesburg, City of Tshwane and Ekhurhuleni Metropolitan Municipalities, respectively (*refer to table 5.8*). As mentioned in section 5.4.1, Metropolitan Municipalities are situated in more urban areas, thus the majority of the inspections in Gauteng were situated in the predominantly urban regions. The District Municipality with the least community and institutional pharmacies was Metsweding District Municipality with 3 community pharmacies (0.6%) and 2 institutional pharmacies (2.4%) situated in this municipality district. As mentioned only 19.7% of the total population live in Gauteng, yet

the majority of the municipalities had at least one community or institutional pharmacy which had been inspected during the study period.

Table 5.8 Distribution of community and institutional pharmacies according to municipality for Gauteng.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=513)	Institutional (N=85)
City of Johannesburg Metropolitan Municipality	**TOTAL**	**131**	**23**
City of Tshwane Metropolitan Municipality	**TOTAL**	**202**	**34**
Ekhurhuleni Metropolitan Municipality	**TOTAL**	**101**	**13**
Metsewding District Municipality	Kungwini	0	0
	Nokeng tsa Taemane	3	2
	TOTAL	**3**	**2**
Sedibeng District Municipality	Emfuleni	24	3
	Lesedi	5	1
	Midvaal	4	0
	TOTAL	**33**	**4**
West Rand District Municipality	Merafong City	4	2
	Mogale City	23	7
	Randfontein	12	0
	Westonaria	4	0
	West Rand	0	0
	TOTAL	**43**	**9**

5.4.4 Kwazulu-Natal

A total of 104 community pharmacies were inspected in Kwazulu-Natal during the study period January 2004 until May 2005. Furthermore, a total of 34 institutional pharmacies were inspected during the study period. The figure below illustrates the distribution of the District municipalities together with Ethekwini Metropolitan municipality within Kwazulu-Natal.

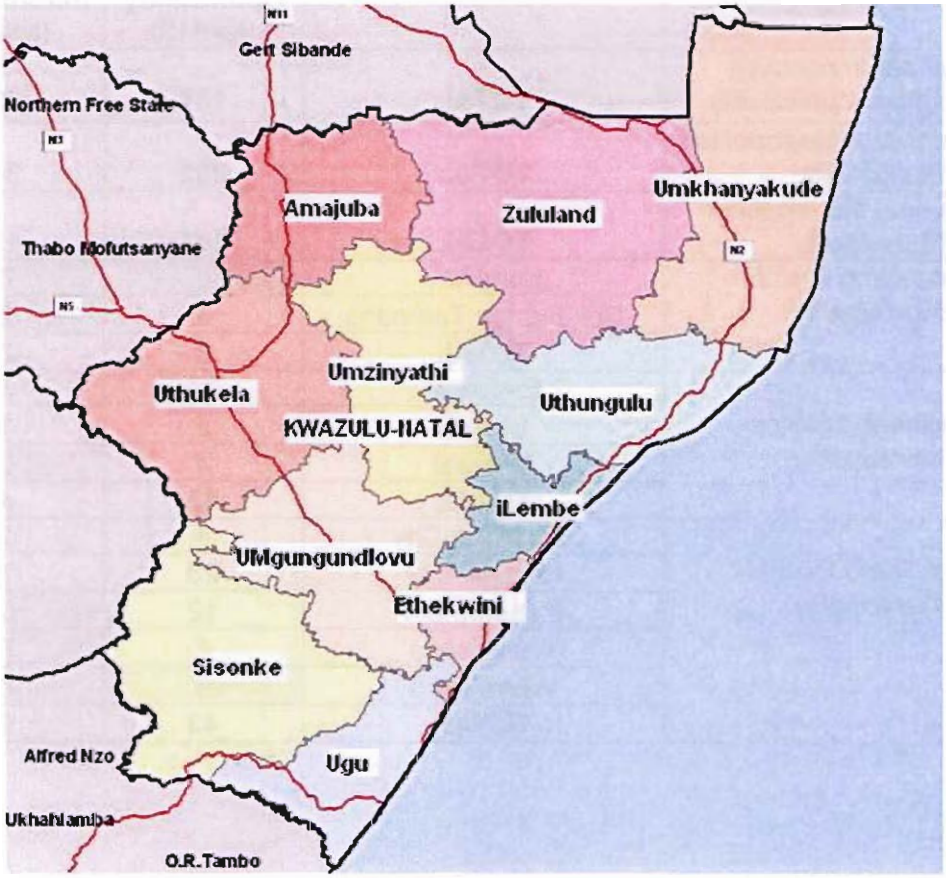


***Figure 5.4 Municipalities of Kwazulu-Natal* (Municipal Demarcation Board, 2006).**

Table 5.9 illustrates the distribution of the inspected community and institutional pharmacies according to District and Local municipalities. There were 55 Local municipalities in Kwazulu-Natal as seen in table 5.9. Of these 26.19% (n=126) Local municipalities did not have any registered community or institutional pharmacies that were inspected during the time period January 2004 until May 2005 (*refer to table 5.5*). This number accounted for 12.1% (N=272) of the total number of Local municipalities in South Africa (*refer to table 5.5*). Of the 104 community and 34 institutional pharmacies inspected in Kwazulu-Natal, the majority of these were situated in the Ethekwini Metropolitan municipality, a percentage of 48.1 (n=50) and 44.1 (n=15) respectively. Ethekwini Metropolitan municipality once again is situated in the more urban region of Kwazulu-Natal. As seen in table 5.9, six District municipalities did not have either an inspected community or institutional pharmacy. As seen in the table Umkhanyakude District Municipality did not have either of the categories of pharmacies inspected during the study period. Kwazulu-Natal accounts for 21% (n=9 426 053) of the total population (N=44 819

778) of South Africa (*refer to table 5.3*), however, when considering the distribution of pharmacies across this province, one can see that there is a maldistribution of pharmacies according to urban/rural divide as well as a shortage of pharmacies when compared to the situation in Gauteng.

Table 5.9 Distribution of community and institutional pharmacies according to municipality for Kwazulu-Natal.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=104)	Institutional (N=34)
Amajuba District Municipality	Dannhauser	0	0
	Newcastle	3	0
	Utrecht	0	1
	TOTAL	**3**	**1**
Ethekwini Metropolitan Municipality	**TOTAL**	**50**	**15**
iLembe District Municipality	eNdondakusuka	1	0
	KwaDukuza	1	0
	Maphumulo	0	0
	Ndwedwe	0	0
	TOTAL	**2**	**0**
Sisonke District Municipality	Greater Kockstad	0	1
	Ingwe	0	0
	KwaSani	0	0
	Mkhomazi Wilderness Area	0	0
	Matatiele	0	1
	Ubuhlebezwe	0	0
	TOTAL	**0**	**2**
Ugu District Municipality	Ezingoleni	0	0
	Hibiscus Coast	21	4
	Umdoni	3	1
	uMuziwabantu	2	1
	Umzumbe	0	0
	Vulamehlo	0	0
	TOTAL	**26**	**6**
UMgungundlovu District Municipality	Highmoor/Kamberg Park	0	0
	Impendle	0	0
	Mkhambathini	0	0
	Mooi Mpofana	0	0
	Msunduzi	10	5
	Richmond	0	0
	uMngeni	1	0
	uMshwathi	0	0
	TOTAL	**11**	**5**
Umkhanyakude District Municipality	Hlabisa	0	0
	Jozini	0	0
	Mtubatuba	0	0
	St Lucia Park	0	0
	The Big 5 False Bay	0	0
	Umhlabuyalingana	0	0
	TOTAL	**0**	**0**

Table 5.9 *(Continue)* Distribution of community and institutional pharmacies according to municipality for Kwazulu-Natal.

Umzinyathi District Municipality	Endumeni	0	1
	Msinga	0	0
	Nqutu	0	1
	Umvoti	0	1
	TOTAL	**0**	**3**
Uthukela District Municipality	Emnambithi/Ladysmith	4	0
	Gaints Castle Game Reserve	0	0
	Imbabazane	0	0
	Indaka	0	0
	Okhahlamba	0	0
	Umtshezi	1	0
	TOTAL	**5**	**0**
Uthungulu District Municipality	Mbonambi	0	0
	Mthonjaneni	0	0
	Nkandla	0	0
	Ntambanana	0	0
	uMhlathuze	5	0
	uMlalazi	0	0
	TOTAL	**5**	**0**
Zululand District Municipality	Abaqulusi	1	0
	eDumbe	0	0
	Nongoma	0	1
	Ulundi	0	1
	uPhongolo	1	0
	TOTAL	**2**	**2**

5.4.5 Limpopo

Forty-seven community pharmacies were inspected in Limpopo together with 21 institutional pharmacies during the study period. The figure below illustrates the distribution of the District municipalities within Limpopo.

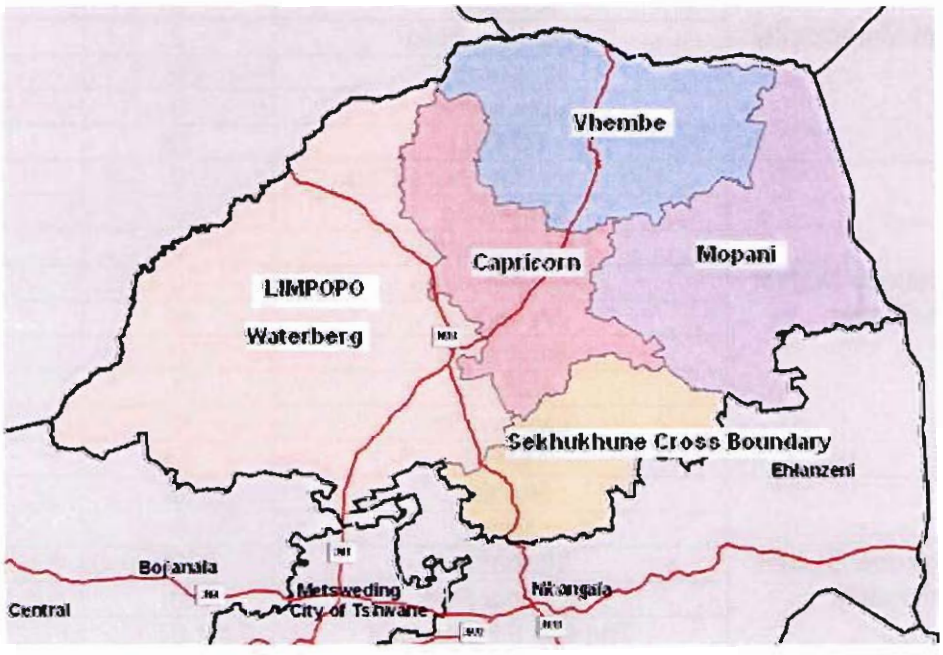


***Figure 5.5 Municipalities of Limpopo* (Municipal Demarcation Board, 2006).**

Table 5.10 illustrates the distribution of the inspected community and institutional pharmacies according to District and Local municipalities for Limpopo.

Table 5.10 Distribution of community and institutional pharmacies according to municipality for Limpopo.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=47)	Institutional (N=21)
Bohlabela District Municipality	Bushbuckridge	0	0
	Kruger Park	0	0
	Maruleng	0	0
	TOTAL	**0**	**0**
Capricorn District Municipality	Aganang	0	0
	Blouberg	2	2
	Lepele-Nkumpi	0	1
	Molembe	0	0
	Polokwane	5	3
	TOTAL	**7**	**6**
Mopani District Municipality	Ba-Phalaborwa	4	3
	Greater Giyane	4	3
	Greater Letaba	2	0
	Greater Tzaneen	6	1
	TOTAL	**16**	**7**
Sekhukhune Cross Boundary District Municipality	Fetakgomo	0	0
	Greater Groblersdal	0	1
	Greater Marble Hall	0	0
	Greater Tubatse	0	0
	Makhuduthamaga	0	0
	TOTAL	**0**	**1**
Vhembe District Municipality	Makhado	8	3
	Musina	0	0
	Mutaler	0	0
	Thumalela	2	0
	TOTAL	**10**	**3**
Waterberg District Municipality	Bela-Bela	2	1
	Lephalale	3	1
	Modimolle	0	0
	Mogalakwena	1	1
	Mookgopong	0	0
	Thabazimbi	8	1
	TOTAL	**14**	**4**

There were 27 Local municipalities in Limpopo (*refer to table 5.10*). Of these 10.32% (n=126) Local municipalities did not have any registered community or institutional pharmacies that were inspected during the time period January 2004 until May 2005 (*refer to table 5.5*). This number accounted for 4.78% (N=272) of the total number of Local municipalities in South Africa (*refer to table 5.5*). Of the 47 community pharmacies inspected in Limpopo, the majority were situated in the Mopani District Municipality (34%, n=16), Waterberg District Municipality (29.8%, n=14) and Vhembe District Municipality (21.3%, n=10). The majority of inspected institutional pharmacies

(N=21) were situated in Mopani District Municipality (33.3%, n=7) and Capricorn District Municipality (28.6%, n=6). As seen in table 5.10, Bohlabela District Municipality did not have either an inspected community or institutional pharmacy and Sekhukhune Cross Boundary District Municipality did not have a community pharmacy inspected during the study period.

5.4.6 Mpumalanga

A total of 27 community and 16 institutional pharmacies were inspected in Mpumalanga during January 2004 until May 2005. The figure below illustrates the distribution of the District Municipalities within Mpumalanga.

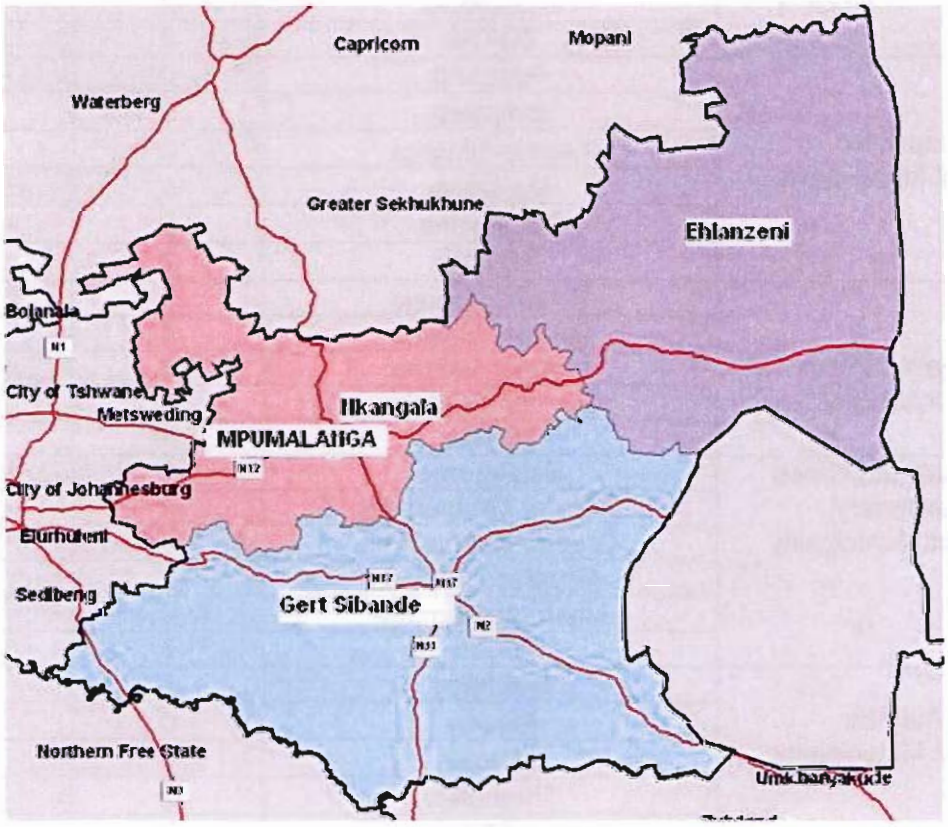


Figure 5.6 ***Municipalities of Mpumalanga*** **(Municipal Demarcation Board, 2006).**

Table 5.11 illustrates the distribution of the inspected community and institutional pharmacies according to District Municipalities for Mpumalanga.

Table 5.11 Distribution of community and institutional pharmacies according to municipality for Mpumalanga.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=27)	Institutional (N=16)
Bohlabela District Municipality	Kruger Park	0	0
	Bushbuckridge	0	0
	TOTAL	**0**	**0**
Ehlanzeni District Municipality	Lowveld	0	0
	Mbombela	5	4
	Nkomazi	0	0
	Thaba Chweu	1	1
	Umjindi	0	1
	TOTAL	**6**	**6**
Gert Sibande District Municipality	Albert Luthuli	0	0
	Dipaleseng	0	0
	Highveld East	3	1
	Lekwa	4	1
	Mkhondo	2	0
	Msukaligwa	2	1
	Seme	2	1
	TOTAL	**13**	**4**
Metsweding District Municipality	Kungwini	0	0
	TOTAL	**0**	**0**
Nkangala District Municipality	Delmas	2	1
	Dr JS Moroka	0	0
	Emalahleni	1	2
	Highlands	0	0
	Mdala Nature Reserve	0	0
	Middelburg	2	2
	Thembisile	0	0
	TOTAL	**5**	**5**
Sekhukhune District Municipality	Greater Groblersdal	2	1
	Greater Marble Hall	1	0
	Greater Tubatse	0	0
	Schuinsdraai Nature Reserve	0	0
	TOTAL	**3**	**1**

The Mpumalanga province consists of 26 Local municipalities. Of these 10.32% (n=126) Local municipalities did not have any registered community or institutional pharmacies that were inspected during the time period January 2004 until May 2005 (*refer to table 5.5*). This number accounted for 4.78% (N=272) of the total number of Local municipalities within South Africa (*refer to table 5.5*). Out of the 27 community pharmacies inspected in Limpopo, 13 were situated in the Gert Sibande District municipality (48.1%). As seen in table 5.11, Bohlabela District municipality and Letsweding District municipality did not have either a community or institutional pharmacy inspected during the study period.

5.4.7 North West

A total of 84 community pharmacies were inspected in the North West, together with a total of 37 institutional during the study period. The figure below illustrates the distribution of the District Municipalities within North West.

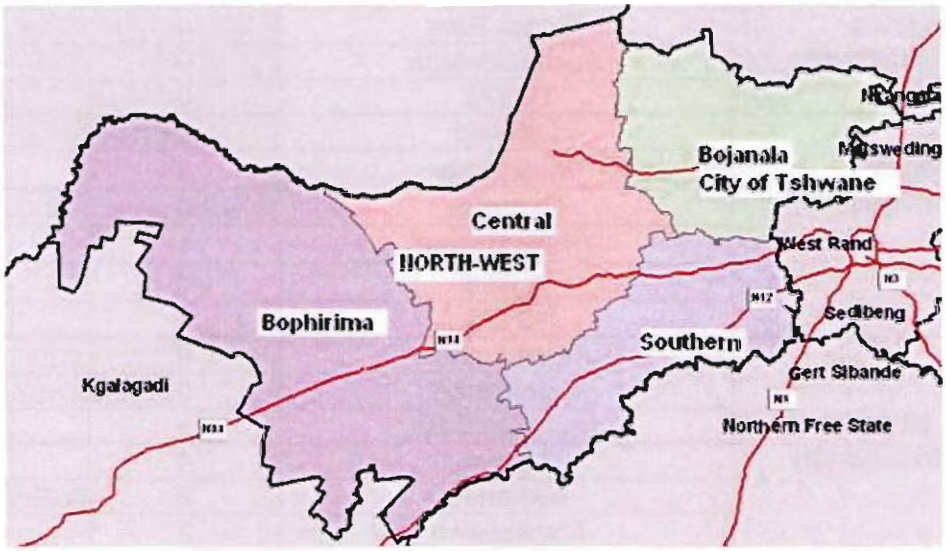


***Figure 5.7 Municipalities of North West* (Municipal Demarcation Board, 2006).**

Table 5.12 illustrates the distribution of the inspected community and institutional pharmacies according to District and Local municipalities for the North West. There were 26 Local municipalities (*as seen in table 5.12*) in the North West. Of these, 10.32% (n=126) Local municipalities did not have any registered community or institutional pharmacies that were inspected during the time period January 2004 until May 2005 (*refer to table 5.5*). This number accounted for 4.18% (N=272) of the total number of Local municipalities in South Africa (*refer to table 5.5*). The majority of inspected community (N=84) and institutional pharmacies (N=37) were situated in the Bojanala District Municipality accounting for 50% (n=42) and 37.8% (n=14) respectively (*refer to table 5.12*). Table 5.12 illustrates that Frances Baard District Municipality, Kgalagadi District Municipality and West Rand District Municipality did not have either an inspected community or institutional pharmacy inspected during the study period.

Table 5.12 Distribution of community and institutional pharmacies according to municipality for the North West.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=84)	Institutional (N=37)
Bojanala District Municipality	Kgetlengrivier	2	0
	Madibeng	19	4
	Moretele	0	1
	Moses Kotane	2	3
	Pilansberg National Park	0	0
	Rustenburg	19	6
	TOTAL	**42**	**14**
Bophirima District Municipality	Greater Taung	0	0
	Kagisano	0	4
	Lekwa-Teemane	3	2
	Mamusa	3	1
	Molopo	0	0
	Naledi	3	3
	TOTAL	**9**	**10**
Central District Municipality	Ditsobotla	0	0
	Mafikeng	2	2
	Setla-Kgobi	0	0
	Tswaing	2	1
	Zeerust	0	2
	TOTAL	4	5
City of Tshwane Metropolitan Municipality	**TOTAL**	**10**	**1**
Frances Baard District Municipality	Ga-Segonyana	0	0
	TOTAL	**0**	**0**
Kgalagadi District Municipality	Moshaweng	0	0
	Phokwane	0	0
	TOTAL	**0**	**0**
Southern District Municipality	City Council of Klersdorp	12	2
	Maquassi Hills	1	1
	Potchefstroom	6	3
	Ventersdorp	0	1
	TOTAL	**19**	**7**
West Rand District Municipality	Merafong City	5	0
	TOTAL	**5**	**0**

5.4.8 Northern Cape

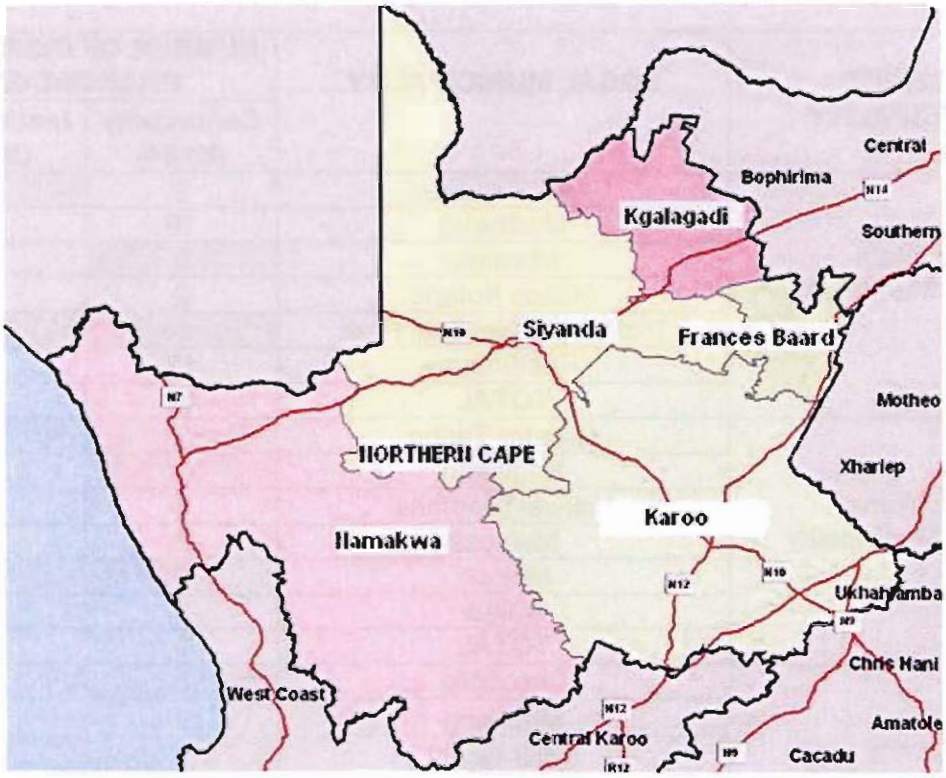


***Figure 5.8 Municipalities of the Northern Cape* (Municipal Demarcation Board, 2006).**

Figure 5.8 illustrates the distribution of the District and Local municipalities throughout the Northern Cape. The number of community and institutional pharmacy inspections were 27 and 14 respectively.

Table 5.13 illustrates the distribution of the inspected community and institutional pharmacies according to District Municipalities for the Northern Cape. Thirty-one Local municipalities form part of the Northern Cape (*as seen in table 5.13*). Of these 18.25% (n=126) did not have any registered community or institutional pharmacies which were inspected during the time period January 2004 until May 2005 (*refer to table 5.5*). This number accounted for 8.46% (N=272) of the total number of Local municipalities in South Africa (*refer to table 5.5*). The majority (77.8%, n=21) of community pharmacy inspections (N=27) were carried out in Frances Baard District municipality, whilst the majority (43%, n=6) of institutional inspections (N=14) were carried out in Namakwa District municipality. Kgalagadi District municipality did not have either a community or institutional pharmacy inspected during the study period, January 2004 until May 2005. Although 23 of the Local municipalities did not have community or institutional pharmacies inspected during the study period, this province accounts for the smallest population density 1.8% (N= 44 819 778).

Table 5.13 Distribution of community and institutional pharmacies according to municipality for the Northern Cape.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=27)	Institutional (N=14)
Frances Baard District Municipality	Diamondfields	0	0
	Dikgatlong	0	0
	Magareng	0	0
	Phokwane	0	0
	Sol Plaatjie	21	5
	TOTAL	**21**	**5**
Karoo District Municipality	Bo Karoo	0	0
	Emthanyeni	0	0
	Kareeberg	0	0
	Renosterberg	0	0
	Siyancuma	0	0
	Siyathemba	1	1
	Thembelihle	0	0
	Ubuntu	0	0
	Umsombomvu	0	0
	TOTAL	**1**	**1**
Kgalagadi District Municipality	Gamagara	0	0
	Ga-Segonyana	0	0
	Kalahari	0	0
	TOTAL	**0**	**0**
Namakwa District Municipality	Hantam	1	3
	Kamiesberg	0	1
	Karoo Hoogland	0	0
	Khâi-Ma	0	0
	Nama Khoi	1	2
	Namaqualand	0	0
	Richtersveld	0	0
	TOTAL	**2**	**6**
Siyanda District Municipality	!Kheis	0	0
	//Khara Hais	1	0
	Benede Oranje	0	0
	Kai! Garib	0	0
	Kgatelopele	0	0
	Mier	0	1
	Tsantsabane	2	1
	TOTAL	**3**	**2**

5.4.9 Western Cape

A total of 249 community pharmacies and 75 institutional pharmacies were inspected in the Western Cape. The figure below illustrates the distribution of the District Municipalities together with the City of Cape Town Metropolitan Municipality within the Western Cape. A percentage of

21.1 (N=1178) and 21.9 (N=343) of community and institutional pharmacy inspections were carried out in this province. This was the second most number of inspections after Gauteng.

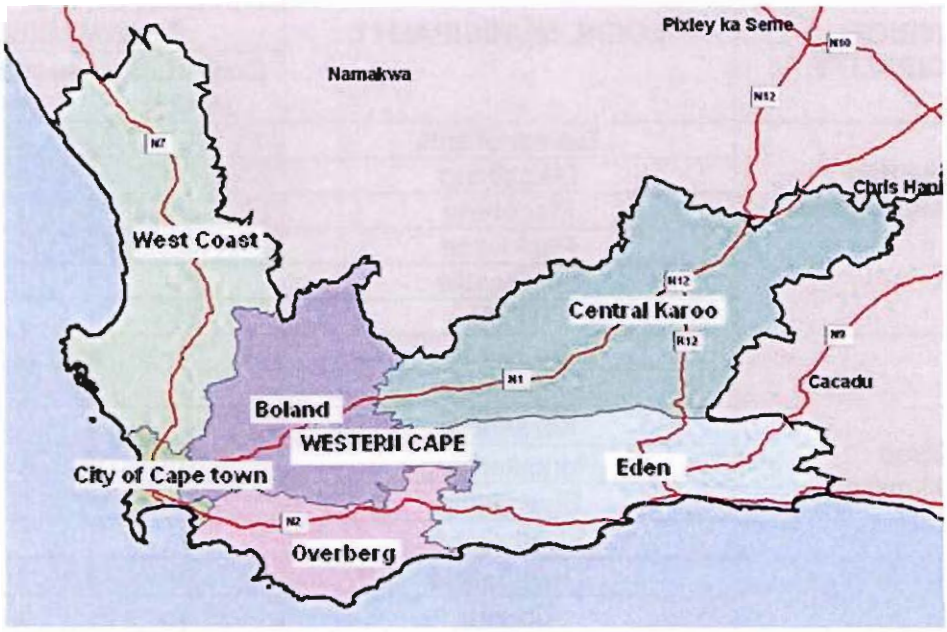


Figure 5.9 ***Municipalities of the Western Cape*** **(Municipal Demarcation Board, 2006).**

Table 5.9 illustrates the distribution of the inspected community and institutional pharmacies according to District, Metropolitan and Local municipalities for the Western Cape. There were 30 Local Municipalities in the Western Cape (*as seen in table 5.14*), one of these being a Metropolitan municipality, namely City of Cape Town Metropolitan municipality. Eight (6.35%, n=126) Local municipalities did not have any registered community or institutional pharmacies which were inspected during the time period January 2004 until May 2005 (*refer to table 5.5*). This number is representative of 2.94% (N=272) of the total number of Local Municipalities within South Africa (*refer to table 5.5*). The results furthermore revealed that all of the District municipalities had at least one community or institutional pharmacy inspected during the study period, except for Central Karoo District municipality where no institutional pharmacy inspections were carried out. The majority of community pharmacy inspections (69.1%, N=249) were carried out in the City of Cape Town Metropolitan municipality. This was also true for the inspected institutional pharmacies, with 80% (N=75) situated in the City of Cape Town Metropolitan municipality. As mentioned in section 5.4.1, Metropolitan municipalities are situated in more urban areas, thus the majority of the inspections in the Western Cape were situated in the urban regions. The District municipality with the least community pharmacy inspections was Central Karoo District municipality with 2 community pharmacies (0.8%). The District municipality with the least institutional pharmacy inspections was Eden District Municipality with 2 institutional pharmacies (2.7%). The population of the Western Cape represents only 10.1% (n=4 524 362) of the total population (N=44 819 778) of South Africa yet

the majority of the Local Municipalities in this province had at least one community or institutional pharmacy which were inspected during the study period (*refer to table 5.3*).

Table 5.14 Distribution of community and institutional pharmacies according to municipality for the Western Cape.

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITY	NUMBER OF INSPECTED PHARMACIES	
		Community (N=249)	Institutional (N=75)
Boland District Municipality	Breede Rivier	0	0
	Breede Rivier/Winelands	4	2
	Breede Valley	3	2
	Drakenstein	6	0
	Stellenbosch	5	1
	Witzenberg	0	0
	TOTAL	**18**	**5**
Central Karoo District Municipality	Beaufort West	2	0
	Central Karoo	0	0
	Laingsburg	0	0
	Prince Albert	0	0
	TOTAL	**2**	**0**
City of Cape Town Metropolitan Municipality	**TOTAL**	**172**	**60**
Eden District Municipality	George	10	2
	Kannaland	2	0
	Knysna	5	0
	Langeberg	3	0
	Mossel Bay	7	0
	Oudtshoorn	2	0
	Plettenberg Bay	3	0
	South Cape	0	0
	TOTAL	**32**	**2**
Overberg District Municipality	Cape Agulhas	2	0
	Overberg	0	0
	Overstrand	7	2
	Swellendam	2	0
	Theewaterskloof	5	1
	TOTAL	**16**	**3**
West Coast District Municipality	Bergrivier	3	1
	Cederberg	1	1
	Matzikama	3	1
	Saldanha Bay	1	1
	Swartland	1	0
	West Coast	0	0
	TOTAL	**9**	**5**

5.4.10 Location of inspections compared to actual location of pharmacies

Figure 5.10 illustrates how the provincial distribution of community pharmacy inspections during the study period (January 2004 until May 2005) compares to the actual distribution of community pharmacies during August 2005. The percentage distribution of the inspections was calculated by dividing the number of inspections in each province by the total number of community pharmacy inspections for the study period. The actual percentage of community pharmacies was calculated by dividing the number of registered community pharmacies (i.e. those that provided services directly to patients in each province) by the total number of community pharmacies registered with the South African Pharmacy Council in August 2005.

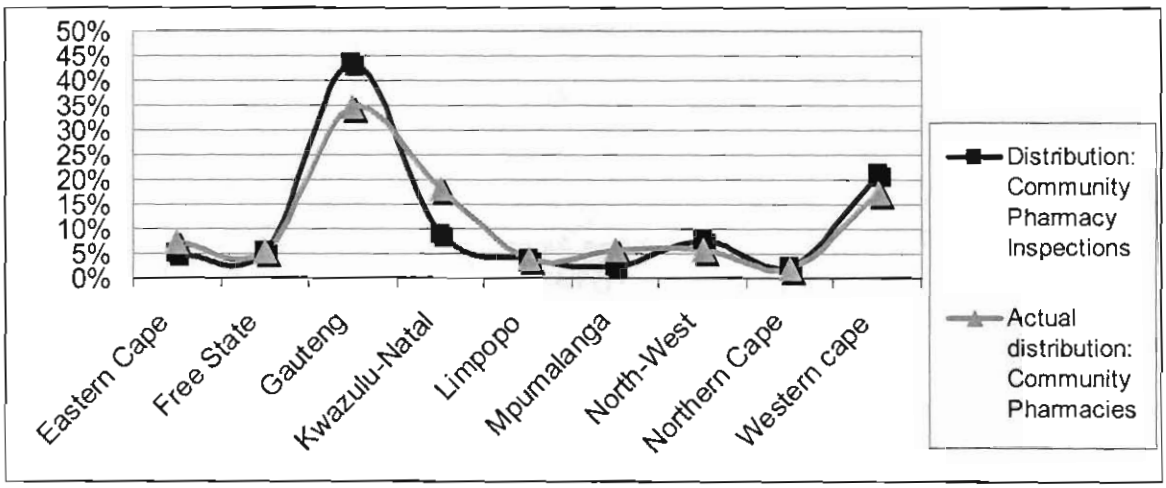


Figure 5.10 Provincial distribution of community pharmacy inspections compared with actual distribution of registered community pharmacies.

The percentage of inspections carried out in Gauteng and the Western Cape exceeded the percentage of registered community pharmacies in those provinces, whilst the percentage of community pharmacy inspections in Kwazulu-Natal and Mpumalanga was less than the actual percentage of pharmacies in these provinces.

Figure 5.11 illustrates how the provincial distribution of institutional pharmacy (public and private) inspections during the study period, January 2004 until May 2005, compares to the actual distribution of registered institutional pharmacies during August 2005. The percentage distribution of the inspections carried out during the study period together with the actual percentage distribution was calculated as mentioned above for community pharmacies. The percentage of institutional pharmacy inspections carried out in Gauteng exceeded the percentage of institutional pharmacies in this province. The percentage of institutional pharmacy inspections in Kwazulu-Natal, Mpumalanga and Northern Cape was, however, less than the actual percentage of these pharmacies in the provinces.

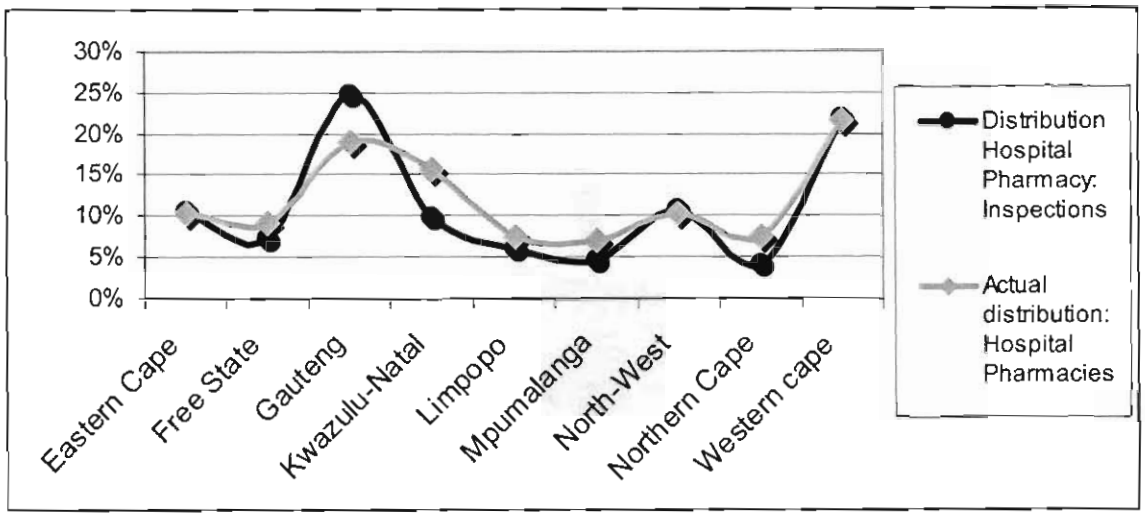


Figure 5.11 Provincial distribution of institutional pharmacy inspections compared with actual distribution of registered institutional pharmacies.

Although less than 20% of the South African population is situated in Gauteng (Statistics South Africa, 2005b:9) the majority of inspections (community and institutional) were carried out in this province as mentioned above. Furthermore, the percentage of inspections in Kwazulu-Natal, Eastern Cape and Limpopo, is much lower than the percentage population distribution of these provinces.

Research has shown that there has been a maldistribution of pharmacies in South Africa for many years. The Browne Commission (1986:74-75) was of the opinion that there is a maldistribution of pharmacies in South Africa with a large number of pharmacies concentrated in white urban areas and a paucity in African and rural areas.

According to the inspection questionnaires rural is seen as those areas with less than 40 000 people living in that area. According to the inspection results for the study period it was revealed that the greater part of community pharmacies inspected (N=1178) were located in cities 71% (n=787), with 29% (n=428) situated in small towns and rural areas as shown in figure 5.12 (*refer to Appendix C, table 4C*). The majority of institutional pharmacy inspections (N=343) were located in cities (55%, n=189) with the balance situated in either small towns or "rural" areas (*refer to Appendix D, table 6D*). Figures 5.12 and 5.13 illustrate the distribution of inspected community and institutional pharmacies according to urban/rural regions for the period January 2004 until May 2005.

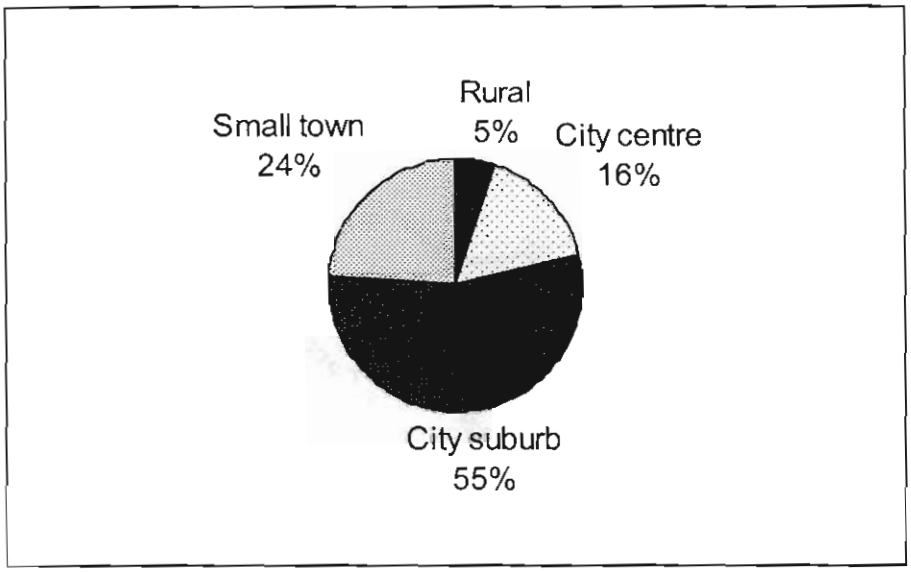


Figure 5.12 Distribution of community pharmacies according to urban/rural divide.

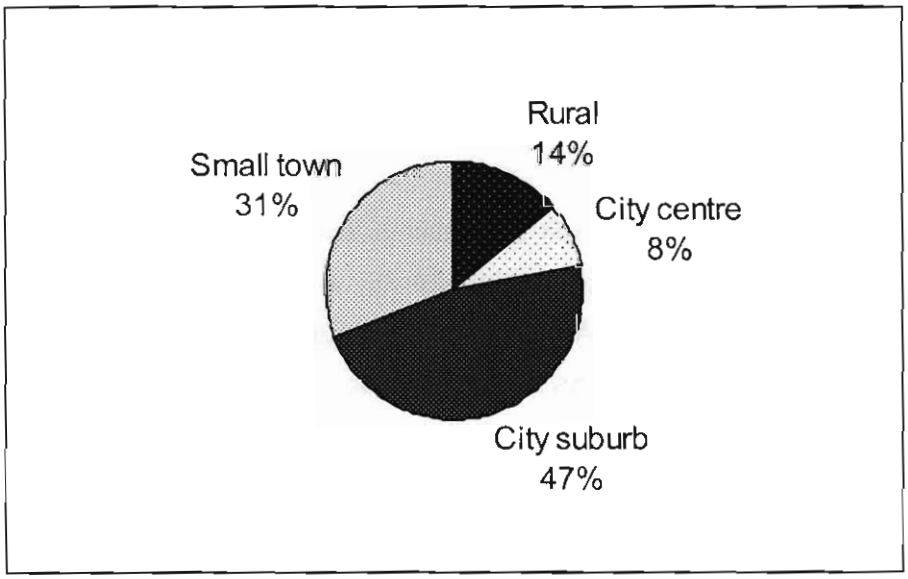


Figure 5.13 Distribution of institutional pharmacies according to urban/rural divide.

In 1993 Serfontein (1993:96) performed a study on the geographical distribution of medicine distribution points (including community pharmacies), according to the community size in South Africa. Serfontein found that 71,06% of community pharmacies were located in the urban areas comprising the Pretoria-Witwatersrand-Vereeniging region, the Durban-Pietermaritzburg region, Port Elizabeth, the Western Cape, Bloemfontein and Kimberley, while 28,94% were located in rural areas. According to the 1998 inspections' results of the South African Pharmacy Council (1999:5) it was revealed that most of the 964 community pharmacies inspected by the inspectorate were situated in cities and 31% in rural areas. In the cities most of the community pharmacies were situated in the suburbs whilst in "rural" areas the majority of community

pharmacies were in the centre of town. Such maldistribution can affect the availability and accessibility of comprehensive pharmaceutical services. This emphasises the shortage of community pharmacies in "rural" areas, where the population is most in need of health care services.

5.5 DISCUSSION OF COMMUNITY PHARMACY INSPECTION QUESTIONNAIRE

In the following sections the results for the community pharmacy inspection questionnaires will be discussed.

5.5.1 TOTAL GOOD PHARMACY PRACTICE COMPLIANCE IN COMMUNITY PHARMACIES

Nationally community pharmacies achieved a score of 92.27 (± 6.65 per cent) or compliance with Good Pharmacy Practice guidelines for all of the different sections mentioned previously. No practical significant differences (d<0.8) were found between the overall compliance scores obtained by community pharmacies of the different provinces. The highest compliance score was obtained by community pharmacies in the Free State (93.09 ± 4.90 per cent), followed by Western Cape, Eastern Cape, Kwazulu Natal, Limpopo, Northern Cape, Gauteng, Mpumalanga and the North West.

The lowest compliance score (73.34 ± 27.49 per cent) was obtained for the availability of written standard operating procedures (*refer to section 5.5.11*) and the highest compliance score was obtained for the promotion of public health (99.02 ± 6.30 per cent) (*refer to section 5.5.14*). The compliance scores achieved for the other sections of the questionnaire will be discussed at a later stage.

Table 5.15 Average percentage compliance score of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	58	92.66	6.60	76.29	99.53
Free State	60	93.09	4.91	77.23	99.53
Gauteng	441	92.11	6.59	50.47	100.0
Kwazulu-Natal	101	92.58	5.56	73.94	99.53
Limpopo	45	92.52	7.99	49.77	99.53
Mpumalanga	25	91.42	6.07	73.71	98.59
North West	81	90.10	7.24	58.22	99.77
Northern Cape	26	92.15	3.97	83.33	98.59
Western Cape	238	92.97	7.26	32.39	100.0
TOTAL	**1083**	**92.28**	**6.65**	**32.39**	**100.0**

5.5.2 PHARMACY PERSONNEL

The World Health Organization emphasised in 1993 (1993:5) that means of ensuring cost-effective and rational use of drugs are needed in all countries. It was further stated that pharmacists have to play a key role in the interest of meeting the needs of individual patients as well as society in this regard. According to the World Health Organization (1990:2) effective health care could only be practised when appropriate pharmaceutical systems are in place for

the supply of medicines to patients when needed. The Interim Pharmacy Council of South Africa (1998:1) stated in 1998 that effective and rational drug use is directly proportionate to three factors: firstly, the number of pharmacists, secondly, the quality of services rendered by pharmacists and lastly the correct distribution of pharmacists throughout the health care system. In this section the results of the number of personnel recorded during the inspections will be discussed.

5.5.2.1 Pharmacists

The total number of pharmacists registered with the South African Pharmacy Council in 2005 was 10 824 (Health Systems Trust, 2005). Gray (1998:106) identified certain problem areas regarding pharmacists in South Africa, one of these areas being the unequal distribution of pharmacists per province. All of the inspected community pharmacies (N=1178) employed one or more full-time pharmacists during the study period. On average there were 1.81 ± 1.61 full-time pharmacists employed per community pharmacy, during the study period. According to the study results, it was found that the majority (888 of 1939) of full-time community pharmacists worked in Gauteng and the Western Cape (433 of 1939) (*refer to Appendix C, table 5C*). The highest average number of full-time pharmacists employed in community pharmacies was revealed for Gauteng (2.01 ± 2.08), followed by Mpumalanga, Eastern Cape, Western Cape, Free State, Northern Cape, North West, Kwazulu-Natal and Limpopo (1.23 ± 0.48) (*refer to Appendix C, table 5C*). No practical significant difference ($d<0.8$) was found between the average number of community pharmacists per community pharmacy for these provinces. All of the other provinces employed fewer than 200 full-time pharmacists in their community pharmacies (*refer to Appendix C, table 5C*). This could be seen as an indication of the urban-rural divide still prevalent in South Africa. Furthermore, the maximum number of full-time pharmacists recorded in a single community pharmacy was 19, this pharmacy was situated in Gauteng (*refer to Appendix C, table 5C*).

Inspectors indicated that 261 (22.16%) of the inspected community pharmacies (N=1178) employed part-time pharmacists and an average of 1.68 ± 1.49 part-time pharmacists were employed in these community pharmacies. According to the study results, it was found that the majority of part-time community pharmacists worked in Gauteng (148 of 439) and the Western Cape (193 of 439) (*refer to Appendix C, table 6C*). In this instance, Mpumalanga reported the highest average number of part-time pharmacists (3.00 ± 0.00), whilst Limpopo (1.00 ± 0.00) and the Northern Cape (1.00 ± 0.00) reported the lowest average number of part-time community pharmacists per community pharmacy. Lastly, the maximum number of part-time pharmacists recorded in a single community pharmacy was 17. This pharmacy was situated in Western Cape (*refer to Appendix C, table 6C*).

5.5.2.2 Pharmacist interns

When a pharmacy student has successfully completed the four years formal undergraduate training he/she must register with the South African Pharmacy Council as a pharmacist intern. The intern then undergoes a year internship at a pharmacy approved by the Council under personal supervision of an approved tutor (Interim Pharmacy Council of South Africa, 1998:8).

Inspectors indicated that 81 (6.88%) of the inspected community pharmacies (N=1178) employed pharmacist interns; an average of 1.23 ± 1.23 pharmacist interns were employed per community pharmacy. The majority of pharmacist interns were recorded in Gauteng and the Western Cape. Gauteng revealed an average number of pharmacist interns of 1.44 ± 0.88, whilst the Northern Cape did not employ any pharmacist interns during the study period. A practical significant difference (d>0.8) was found between the average number of pharmacist interns per community pharmacy between these two provinces. Twenty-seven community pharmacy inspections were carried out in the Northern Cape and no pharmacist interns were recorded. In Kwazulu-Natal an amount of 104 inspections were carried out and only one pharmacist intern was recorded. The number of pharmacist interns recorded in the other provinces in no case exceeded 15 pharmacist interns per province (*refer to Appendix C, table 7C*).

5.5.2.3 Possible effect of the number of pharmacists on Good Pharmacy Practice compliance in community pharmacies

The Good Pharmacy Practice compliance scores were calculated for the following scenarios:

- For inspected community pharmacies that employed one pharmacist (In these scenarios pharmacists refer to full-time and part-time pharmacists as well as pharmacist interns).
- For inspected community pharmacies that employed two pharmacists.
- For inspected community pharmacies that employed three pharmacists.
- For inspected community pharmacies that employed more than three pharmacists during the study period.

5.5.2.3.1 One pharmacist employed in inspected community pharmacies

Community pharmacies (N=489) that employed one pharmacist during the study period obtained an overall compliance score of 90.64 (± 7.43 per cent). Furthermore, as seen in table 5.16, community pharmacies that employed one pharmacist obtained a compliance score of 86.79 (± 14.13 per cent) for provision of pharmaceutical care, 67.75 (± 28.11 per cent) for availability of written standard operating procedures and 77.09 (± 20.96 per cent) for availability of reference sources.

Table 5.16 Good Pharmacy Practice compliance scores for community pharmacies that employed one pharmacist.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	492	91.63	11.79	14.29	100.0
Premises and layout	492	94.23	7.32	45.61	100.0
Equipment	491	96.40	9.03	0.00	100.0
Storage	491	95.40	7.04	31.75	100.0
Control of medicines	492	92.36	8.81	26.67	100.0
Thermolabile medicines	492	90.35	11.84	0.00	100.0
Dispensing of prescriptions	492	97.40	9.44	0.00	100.0
Pharmaceutical care	492	86.79	14.13	0.00	100.0
SOPs	491	67.75	28.11	0.00	100.0
References	492	77.09	20.97	0.00	100.0
General	492	96.34	7.26	0.00	100.0
Promotion of public health	492	98.96	7.16	0.00	100.0
TOTAL GPP	**489**	**90.64**	**7.43**	**32.39**	**100.0**

5.5.2.3.2 Two pharmacists employed in inspected community pharmacies

Community pharmacies that employed two pharmacists during the study period obtained an overall compliance score of 92.88 (± 5.94 per cent). No practical significant difference ($d<0.8$) was found between the compliance scores achieved by community pharmacies that employed one pharmacist and those that employed two; however, one can see that there was a slight increase in the compliance score achieved with two pharmacists.

Furthermore, community pharmacies that employed two pharmacists obtained a compliance score of 91.37 (± 10.12 per cent) for provision of pharmaceutical care, 75.36 (± 27.38 per cent) for availability of written standard operating procedures and 83.54 (± 16.37 per cent) for availability of reference sources. No practical significant difference ($d<0.8$) was found between the compliance scores achieved for the provision of pharmaceutical care and availability of reference sources of community pharmacies that employed one pharmacist and those that employed two pharmacists. Furthermore a *d-value* of 0.6 was calculated for the availability of written standard operating procedures, which could reflect upon a trend difference between those pharmacies that employed one pharmacist and those that employed two.

With regard to the compliance scores obtained by community pharmacies that employed one pharmacist and those that employed two pharmacists; a slight increase in the scores obtained for the different Good Pharmacy Practice sections was observed (*refer to tables 5.16 and 5.17*). It can thus be said that Good Pharmacy Practice compliance increases together with the number of pharmacists.

Table 5.17 Good Pharmacy Practice compliance scores for community pharmacies that employed two pharmacists.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	280	93.25	9.06	52.38	100.0
Premises and layout	280	95.73	5.20	66.67	100.0
Equipment	280	98.29	3.79	77.78	100.0
Storage	279	96.38	4.83	71.43	100.0
Control of medicines	278	93.17	8.93	5.00	100.0
Thermolabile medicines	280	92.22	10.91	0.00	100.0
Dispensing of prescriptions	280	98.88	6.76	0.00	100.0
Pharmaceutical care	280	91.67	10.12	10.00	100.0
SOPs	280	75.36	27.38	0.00	100.0
References	280	83.54	16.37	0.00	100.0
General	280	98.29	4.23	70.83	100.0
Promotion of public health	280	98.70	6.86	30.00	100.0
TOTAL GPP	**277**	**92.88**	**5.94**	**51.17**	**100.0**

5.5.2.3.3 Three pharmacists employed in inspected community pharmacies

Once again an increase in the overall Good Pharmacy Practice compliance score (94.63 ± 4.51 per cent) was observed for community pharmacies that employed three pharmacists. No practical significant difference (d=0.2) was found between the compliance scores of community pharmacies that employed two pharmacists and those that employed three, however a *d-value* of 0.5 was found for the compliance scores achieved by pharmacies that employed one pharmacist and those that employed three pharmacists.

An increase in the compliance scores of the different sections of Good Pharmacy Practice was once again observed. For instance, community pharmacies that employed three pharmacists

obtained a compliance score of 92.57 (± 8.53 per cent) for the provision of pharmaceutical care, 80.39 (± 24.90 per cent) for availability of written standard operating procedures and 87.70 (± 13.99 per cent) for availability of reference sources. No practical significant difference ($d<0.8$) was found between the compliance scores achieved for the provision of pharmaceutical care and availability of reference sources of community pharmacies that employed one, two and three pharmacists. Furthermore a *d-value* of 0.5 was calculated for the availability of reference sources of community pharmacies that employed one pharmacist and those that employed three, which could reflect upon a trend difference between these pharmacies.

Furthermore, community pharmacies that employed one pharmacist revealed minimum percentage scores of zero for eight of the twelve GPP sections, followed by 4 of the 12 sections for pharmacies that employed two pharmacists and then only one section for pharmacies that employed three and more than three pharmacists.

Table 5.18 Good Pharmacy Practice compliance scores for community pharmacies that employed three pharmacists.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	135	95.17	8.92	33.33	100.0
Premises and layout	134	96.36	4.65	66.67	100.0
Equipment	135	98.83	3.19	77.78	100.0
Storage	135	97.46	3.59	82.54	100.0
Control of medicines	135	95.43	5.19	76.67	100.0
Thermolabile medicines	135	94.04	8.07	58.33	100.0
Dispensing of prescriptions	135	99.56	2.33	86.67	100.0
Pharmaceutical care	135	92.57	8.53	36.67	100.0
SOPs	134	80.39	24.90	0.00	100.0
References	135	87.70	13.99	36.67	100.0
General	135	98.89	4.27	58.33	100.0
Promotion of public health	135	99.16	5.44	40.00	100.0
TOTAL GPP	**133**	**94.63**	**4.51**	**83.30**	**100.0**

5.5.2.3.4 More than three pharmacists employed in inspected community pharmacies

Community pharmacies that employed more than three pharmacists obtained an overall compliance score of 94.56 (± 4.72 per cent) during the study period and no practical significant difference was found between the compliance scores achieved by pharmacies that employed three pharmacists and those that employed more than three.

The same could be said for the twelve sections of Good Pharmacy Practice as the scores remained relatively stable (*refer to tables 5.18 and 5.19*) from scenario 3 (three pharmacists) to 4 (more than three pharmacists).

Table 5.19 Good Pharmacy Practice compliance scores for community pharmacies that employed more than three pharmacists.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	168	91.95	11.27	52.38	100.0
Premises and layout	168	96.28	4.88	68.42	100.0
Equipment	168	99.06	2.56	83.33	100.0
Storage	168	97.22	4.26	74.60	100.0
Control of medicines	168	94.78	7.00	56.67	100.0
Thermolabile medicines	168	94.37	8.90	45.83	100.0
Dispensing of prescriptions	168	99.21	4.43	60.00	100.0
Pharmaceutical care	168	91.87	8.84	60.00	100.0
SOPs	168	81.71	23.80	0.00	100.0
References	168	88.99	11.03	53.33	100.0
General	168	99.23	3.94	58.33	100.0
Promotion of public health	168	99.52	2.01	86.67	100.0
TOTAL GPP	**168**	**94.56**	**4.72**	**76.06**	**100.0**

5.5.2.4 Registered pharmacist's assistants and other support personnel

Gray stated in 1998 (1998:19) that a large number of persons handling medicines are employed in South African pharmacies. The use of unregistered pharmacy support personnel was of great concern, especially in the public sector. The analysis of the inspection results revealed that 1180 unregistered persons in community pharmacies would require training in order to register as pharmacist's assistants with the South African Pharmacy Council. Of these, 392 and

197 were recorded in Gauteng and the Western Cape respectively (*refer to Appendix C, table 12C*).

Registered pharmacist's assistants and other support personnel perform functions within the pharmacy to assist the pharmacist in the provision of pharmaceutical services. This cadre of personnel is of great importance in the pharmacy profession and can be divided into those that register with the South African Pharmacy Council, namely registered pharmacist's assistants and those who do not, namely other personnel (Interim Pharmacy Council of South Africa, 1998:17).

Inspectors indicated that 108 (9.17%) of the inspected community pharmacies (N=1178) employed basic pharmacist's assistants; an average of 1.51 (± 0.99) were employed per community pharmacy (*refer to Appendix C, table 8C*). Two hundred and thirty-six inspected community pharmacies (N=1178) employed post-basic pharmacist's assistants, an average of 1.65 (± 1.61) per community pharmacy (*refer to Appendix C, table 9C*). Furthermore, inspectors indicated that 151 and 131 of inspected community pharmacies (N=1178) respectively employed learner basic and learner post-basic pharmacist's assistants during the study period. An average of 1.80 (± 2.28) and 1.54 ± (1.05) learner basic and post-basic assistants were employed per community pharmacy respectively (*refer to Appendix C, tables 10C and 11C*).

The highest average number of pharmacist's assistants (basic) for community pharmacies was found for the North West (1.67 ± 0.58), whilst the lowest average was revealed for the Western Cape (1.07 ± 0.27). A practical significant difference was found between the average number of basic pharmacist's assistants for these two provinces (*refer to Appendix C, table 8C*).

The highest average number of pharmacist's assistants (post-basic) was once again found for the North West (2.28 ± 1.07), followed by Gauteng, Northern Cape, Kwazulu-Natal, Free State, Western Cape, Eastern Cape, Mpumalanga and Limpopo. A practical significant difference ($d>0.8$) was found between the average number of post-basic pharmacist's assistants per community pharmacy for the North West and Limpopo, Mpumalanga, Eastern Cape, Western Cape and the Free Sate (*refer to Appendix C, table 9C*).

The highest average number of pharmacist's assistants (learner basic) per community pharmacy was found for Kwazulu-Natal (4.11 ± 7.51), whilst the lowest average was revealed for the Northern Cape (1.00 ± 0.00). No practical significant difference ($d<0.8$) was found between the average number of basic pharmacist's assistants per community pharmacy for these two provinces (*refer to Appendix C, table 10C*).

The highest average number of pharmacist's assistants (learner post-basic) per community pharmacy was found for Mpumalanga (2.50 ± 2.12), followed by Gauteng, Limpopo, Kwazulu-Natal, North West, Eastern Cape and the Northern Cape. No practical significant difference

(d<0.8) was found between the average number of basic pharmacist's assistants per community pharmacy for these two provinces (*refer to Appendix C, table 11C*).

Table 5.20 Ratio of pharmacist's assistants (qualified and learner) to pharmacists according to province for community pharmacies.

PROVINCE	RATIO OF PHARMACIST'S ASSISTANTS TO PHARMACISTS	
	Qualified assistants : Pharmacists	Learner assistants : Pharmacists
Eastern Cape	1 : 4.60	1 : 10.62
Free Sate	1 : 2.47	1 : 3.26
Gauteng	1 : 3.91	1 : 4.48
Kwazulu-Natal	1 : 5.10	1 : 4.09
Limpopo	1 : 2.64	1 : 6.40
Mpumalanga	1 : 4.64	1 : 2.68
North West	1 : 3.54	1 : 4.23
Northern Cape	1 : 3.58	1 : 8.60
Western Cape	1 : 6.66	1 : 7.20
TOTAL	**1 : 4.31**	**1 : 5.02**

Table 5.20 illustrates the ratio of pharmacist's assistants (qualified and learner) to pharmacist (full-time and part-time) ratio for the nine provinces of South Africa.

The total number of pharmacist's assistants was recorded according to the four different categories. The total number of pharmacist's assistants recorded in the inspected community pharmacies was 1026. Of these, 552 were qualified pharmacist's assistants (basic and post-basic), with 474 learner pharmacist's assistants (learner basic and post-basic). The assistant to pharmacist (full-time and part-time) ratios for community pharmacies inspected were:

- Qualified assistant : pharmacists 1 : 4.31
- Learner assistant : pharmacists 1 : 5.02

The ratio of the learner assistants to qualified assistants (1 : 1.2) is not encouraging as this implies that increases in the number of qualified assistants can not be expected in future. According to the inspection results there was only one qualified pharmacist assistant per every 4.31 community pharmacists, where, according to the Interim Pharmacy Council of South Africa (1998:19) the ideal would be one assistant for every pharmacist.

According to the inspection results there was only one learner assistant per every 10.62 community pharmacists during the study period, whilst there was 1 qualified pharmacist assistant for every 4.60 community pharmacists (*refer to table 5.20*). In this instance, the ratio of the learner assistants to qualified assistants (1 : 2.31) was more encouraging than for the entire country. For the Western Cape, there was only one qualified pharmacist assistant for every 6.66 community pharmacists and only one learner assistant for every 7.20 pharmacists (*refer to table 5.20*). The ratio of learner assistants to qualified assistants (1 : 1.08) was less encouraging than for the Eastern Cape.

The Free State showed more promising figures as the qualified assistant to pharmacists ratio were 1 : 2.47, whilst the learner assistant to pharmacists ratio was 1 : 3.26 (*refer to table 5.20*). The ratio of learner assistants to qualified assistants, however was not encouraging (1 : 1.32) for the Free State.

5.5.2.5 Possible effect of the number of pharmacist's assistants on Good Pharmacy Practice compliance

Table 5.21 illustrates the influence that pharmacist's assistants had on Good Pharmacy Practice compliance during the study period. Thirty-nine per cent (n=459) of inspected community pharmacies (N=1178) did not have any pharmacist's assistants (including basic and post-basic pharmacist's assistants as well as learner basic and learner post-basic pharmacist's assistants) employed in the pharmacy and 53% (n=624) had one or more pharmacist's assistants employed in the pharmacy with 8% of inspectors not answering this question. Inspected community pharmacies that did not employ any registered pharmacist's assistants obtained an overall percentage compliance of 90.53 (± 7.23 per cent). Community pharmacies that did employ one or more pharmacist's assistants achieved an overall percentage compliance of 94.63 (± 4.87 per cent). A *d-value* of 0.6 was calculated, which indicated a medium effect between the compliance scores with pharmacist's assistants and without. This may reflect on a trend of differences between these compliance scores.

The colours below indicate the Good Pharmacy Practice compliance with and without pharmacist's assistants for the different sections of Good Pharmacy Practice.


Without any pharmacist's assistants.


With one or more pharmacist's assistants.

Table 5.21 illustrates that there are differences with regard to Good Pharmacy Practice compliance with and without pharmacist's assistants. For instance, when comparing the difference between the average percentage compliance with regard to standard operating procedures and availability of reference sources, a difference is noted although a practical significant difference was not found between the compliance scores achieved by community pharmacies with pharmacist's assistants and without.

Table 5.21 Possible effect of the availability of pharmacist's assistants on Good Pharmacy Practice compliance in community pharmacies.

GPP section	N	AVERAGE PERCENTAGE	STANDARD DEVIATION	MINIMUM	MAXIMUM
Registration details	624	92.19	11.34	14.29	100.0
	459	92.84	10.48	33.33	100.0
Premises and layout	623	94.09	6.97	45.61	100.0
	459	96.73	4.63	64.91	100.0
Equipment	623	96.62	8.51	0.00	100.0
	459	98.87	3.09	75.00	100.0
Storage	622	95.38	6.79	31.75	100.0
	459	97.26	3.93	71.43	100.0
Control of medicines	623	91.99	8.67	26.67	100.0
	458	95.09	7.46	5.00	100.0
Thermolabile medicines	624	89.54	12.46	0.00	100.0
	459	95.19	7.15	58.33	100.0
Dispensing of prescriptions	624	97.39	9.63	0.00	100.0
	459	99.27	5.38	0.00	100.0
Pharmaceutical care	624	87.40	14.09	0.00	100.0
	459	91.86	9.56	10.00	100.0
SOPs	622	68.20	28.10	0.00	100.0
	459	80.31	25.04	0.00	100.0
References	624	75.98	20.48	0.00	100.0
	459	89.84	11.16	40.00	100.0
General	624	96.69	6.98	0.00	100.0
	459	98.81	3.67	58.33	100.0
Promotion of public health	624	98.89	6.88	0.00	100.0
	459	99.19	5.42	30.00	100.0
TOTAL GPP	**617**	**90.53**	**7.23**	**32.39**	**100.00**
	458	**94.63**	**4.87**	**51.17**	**100.00**

5.5.2.6 Availability of pharmacists according to the average number of hours a community pharmacy is open

On average, community pharmacies were open for about 10 hours per day from, Mondays to Fridays. On average, pharmacies in Gauteng were open 10.38 ± 1.77 hours per day from Mondays to Thursdays, whilst pharmacies in Kwazulu-Natal were open 9.41 ± 1.82 hours per day from Mondays to Thursdays. A *d-value* of 0.5 was calculated indicating a medium effect which could reflect upon a significant difference between the average number of hours community pharmacies were open in these two provinces (*refer to Appendix C, table 130C*). A similar pattern was seen for the average number of hours community pharmacies were open on Fridays as once again, pharmacies in Gauteng averaged the most hours; whilst pharmacies in Kwazulu-Natal averaged the lowest as far as available hours are concerned (*refer to Appendix C, table 131C*). Furthermore, inspectors indicated that there were pharmacies in Gauteng and the Western Cape that were open 24 hours a day from Mondays to Fridays, whilst none of the

community pharmacies in the remaining provinces were open 24 hours a day (*refer to Appendix C, tables 130C and 131C*).

The number of hours open per day decreased on weekends and public holidays. On average, community pharmacies were open 6.5 hours per day on Saturdays and 3 hours on Sundays and public holidays (*refer to Appendix C, tables 130C to 134C*). Community pharmacies in the Western Cape (n=238) were open the most on Saturdays (6.95 ± 3.46 hours), Sundays (3.54 ± 4.30 hours) and Public holidays (3.95 ± 4.20 hours) during the study period, whilst pharmacies in the Northern Cape were open the least on Saturdays (5.46 ± 1.99 hours) and pharmacies in Mpumalanga were open the least on Sundays (1.65 ± 2.04 hours) and Public holidays (1.57 ± 2.09 hours). Inspectors indicated that there were community pharmacies in Gauteng and the Western Cape that were open 24 hours a day on Saturdays, Sundays and Public Holidays (*refer to Appendix C, tables 132C to 134C*).

Furthermore, the inspection results indicated that a pharmacist could not be contacted 24 hours a day in the case of 16.81% (n=198) of community pharmacies (N=1178). In Gauteng, the Northern Cape and North West, pharmacists could not be contacted 24 hours a day in 32.66% (n=146), 23.08% (n=6) and 21.95% (n=18) of the cases (*refer to Appendix C, table 129C*).

Lastly, it was found that on average community pharmacies were open 8.29 ± 2.19 hours per day during the study period.

5.5.2.7 Picking and handling of medicines

Inspectors indicated that 88.79% (n=1046) of community pharmacists and pharmacists interns did the actual picking of medicines prior to dispensing, whilst the rest was done by 22.75% (n=268) of registered pharmacist's assistants and 3.31% (n=39) of other personnel (*refer to Appendix C, table 15C*). Furthermore, inspectors found that 88.46% (n=1042) of community pharmacists and/or pharmacist interns handed the medicine to the patient or care-giver, leaving 19.1% (n=225) to be done by registered pharmacist's assistants, 4.24% (n=50) by other personnel and 12.22% (n=144) by drivers/couriers (*refer to Appendix C, table 16C*).

5.5.2.8 Items dispensed per day on average

In the following sections the number of prescribed and Pharmacist Initiated Therapy items dispensed on average per day will be discussed. Comparisons will be made between the average number of items dispensed per province during the study period.

5.5.2.8.1 Prescribed items

It is necessary to mention that these results could be based on estimated figures given by the pharmacist on duty during the inspection, rather than actual statistics.

It was found that an average number of 197.07 ± 592.40 items (prescribed by an authorised prescriber) were dispensed per day in the inspected community pharmacies (N=1178). The

average number of dispensed items prescribed by an authorised prescriber per day, varied across the nine different provinces. Gauteng revealed an average of 275.27 ± 898.63 dispensed items, Northern Cape 173.08 ± 291.05 items, Mpumalanga 171.08 ± 218.63 items, Free State 165.67 ± 150.15 items and Eastern Cape 157.93 ± 125.33 items (*refer to Appendix C, table 17C*). The remaining five provinces showed an average of fewer than 150 dispensed items per day (*refer to Appendix C, table 17C*). The *d-value* for Gauteng and the province with the lowest average namely, Limpopo (115.91 ± 101.48) was found to be less than 0.5, which illustrated that there was not a practical significant difference between the two at the time of the study.

According to these results it became apparent that the workload in Gauteng and the other three provinces mentioned was considerably higher than that of the other provinces. However, when comparing the number of pharmacy personnel in Gauteng to that of the number of pharmacy personnel in the Northern Cape, which also indicated a relatively high workload, staff in those regions, appeared to be significantly lower. When, for example, looking at the average number of registered full-time community pharmacists in Gauteng (2.01 ± 2.08) versus the Northern Cape (1.58 ± 0.99) a marked difference between these two provinces could be noted (*refer to Appendix C, table 5C*).

5.5.2.8.1.1 Possible effect of the average number of items dispensed per day in community pharmacies on Good Pharmacy Practice compliance.

Good Pharmacy Practice compliance scores were calculated for the following scenarios:

Scenario 1 For inspected community pharmacies that dispensed below 50 items per day.

Scenario 2 For inspected community pharmacies that dispensed between 50 and 100 items per day.

Scenario 3 For inspected community pharmacies that dispensed between 101 and 200 items per day.

Scenario 4 For inspected community pharmacies that dispensed more than 200 items per day.

5.5.2.8.1.1.1 Scenario 1: below 50 items per day

Community pharmacies (N=298) that dispensed fewer than 50 prescribed items per day during the study period obtained an overall compliance score of 89.83 (± 7.55 per cent). Furthermore, as seen in table 1E in Appendix E, the lowest scores were obtained for availability of written standard operating procedures (66.80 ± 26.89 per cent) as well as for availability of reference sources (72.78 ± 21.20 per cent). The highest score was obtained for the promotion of public health (98.74 ± 7.04 per cent). A practical significant difference (d>0.8) was found between the compliance scores obtained for the above-mentioned sections.

5.5.2.8.1.1.2 Scenario 2: between 50 items and 100 items per day

Community pharmacies that dispensed between 50 and 100 prescribed items per day during the study period obtained an overall compliance score of 91.58 (± 7.33 per cent) (*refer to Appendix E, table 2E*). No practical significant difference (d<0.8) was found between the compliance scores achieved by community pharmacies of scenario 1 and scenario 2. With regard to compliance scores for the different sections of Good Pharmacy Practice; a slight increase in the scores obtained was observed for scenario 1 and scenario 2 (*refer to tables 1 and 2E, Appendix E*). It can thus be said that Good Pharmacy Practice compliance increased together with the number of items that was dispensed, possibly because with the increase in workload more personnel were employed.

Furthermore, community pharmacies in this scenario obtained a compliance score of 69.93 (± 29.23 per cent) for availability of written standard operating procedures and 81.02 (± 19.21 per cent) for availability of reference sources. The highest score was once again obtained for the promotion of public health, 98.94 (± 7.51 per cent). A practical significant difference (d>0.8) was found between the compliance scores obtained for standard operating procedures, reference sources and promotion of public health. Even though a difference was noted between the compliance scores obtained for these sections of scenarios 1 and 2; the difference was not of practical significance.

5.5.2.8.1.1.3 Scenario 3: between 101 items and 200 items per day

Once again an increase in the overall Good Pharmacy Practice compliance score (93.61 ± 4.94 per cent) was observed for community pharmacies that dispensed between 101 and 200 prescribed items per day. No practical significant difference (d<0.8) was found between the compliance scores of community pharmacies of scenarios 2 and 3. A *d-value* of 0.5 was, however, found for the compliance scores achieved by pharmacies of scenarios 1 and 3 which could possibly indicate a trend difference between the two (*refer to Appendix E, table 3E*).

An increase in the compliance scores of the different sections of the Good Pharmacy Practice was once again observed. Community pharmacies of scenario 1 and scenario 2 obtained compliance scores of 98% for the promotion of public health, whilst those in scenario 3 obtained a score of 88.17 ± 5.37, i.e. a 10% decrease (no practical significant difference was found between these compliance scores). The highest score for this scenario was obtained for dispensing of prescriptions (99.33 ± 2.76). An increase in compliance scores obtained for standard operating procedures and reference sources was once again observed; but no practical significant difference was found between the compliance scores obtained for scenarios 1, 2 and 3.

Furthermore, community pharmacies of scenario 1 revealed minimum percentage scores of zero for five of the twelve GPP sections, followed by 7 of the 12 sections of community

pharmacies in scenario 2 and then only three sections for community pharmacies that dispensed more than 100 items and 200 items and below.

5.5.2.8.1.1.4 Scenario 4: more than 200 items per day

The overall compliance score achieved by pharmacies that dispensed more than 200 prescribed items per day during the study period was (94.80 ± 4.80 per cent) (*refer to Appendix E, table 4E*), a *d-value* of 0.7 was found between the overall compliance scores achieved by pharmacies in scenario 1 and this scenario, which could reflect upon a significant difference. Furthermore a *d-value* of 0.6 was found between the compliance score achieved for the availability of standard operating procedures and that obtained for scenario 1. A practical significant difference (d>0.8) was found between the compliance score achieved by pharmacies in scenario 1 for availability of reference sources and that of scenario 4.

5.5.2.8.1.2 Possible effect of the average number of items dispensed by pharmacists per day in community pharmacies on Good Pharmacy Practice compliance

Good Pharmacy Practice compliance scores were calculated for the following scenarios:

Scenario 5 Where pharmacists dispensed below 35 items per day per pharmacist.

Scenario 6 Where pharmacists dispensed between 35 items and 59 items per day per pharmacist.

Scenario 7 Where pharmacists dispensed between 60 items and 99 items per day per pharmacist.

Scenario 8 Where pharmacists dispensed 100 and more items per day per pharmacist.

5.5.2.8.1.2.1 Scenario 5: below 35 items per day per pharmacist

Community pharmacies, where the average number of items dispensed per pharmacist was below 35 per day, obtained an overall compliance score of 90.60 (± 7.69 per cent). The lowest compliance score was obtained for the availability of standard operating procedures (68.68 ± 26.86 per cent), and the availability of reference sources (76.00 ± 20.70 per cent) whilst the highest compliance score was obtained for the promotion of public health (99.00 ± 6.35 per cent). A practical significant difference (d>0.8) was found between these compliance scores (*refer to Appendix E, table 5E*).

5.5.2.8.1.2.2 Scenario 6: between 35 and 59 items per day per pharmacist

Community pharmacies, where a pharmacist dispensed between 35 and 59 items per day during the study period, obtained an overall compliance score of 91.93 (± 6.31 per cent) (*refer to Appendix E, table 6E*). No practical significant difference (d<0.8) was found between the compliance scores achieved by community pharmacies of scenario 5 and 6. With regard to compliance scores for the different sections of Good Pharmacy Practice; a slight increase in the

scores obtained was observed from scenarios 5 to 6 (*refer to tables 5 and 6E, Appendix E*). It can thus be said that Good Pharmacy Practice compliance increased together with the number of items dispensed, possibly because with the increase in workload more personnel were employed.

The highest score was once again obtained for the promotion of public health, whilst the lowest score was obtained for the availability of standard operating procedures (71.58 ± 28.34 per cent). A practical significant difference (d>0.8) was found between the compliance scores obtained for the above-mentioned sections of Good Pharmacy Practice. No practical significant difference was found between the compliance scores obtained for these sections of scenarios 5 and 6; however an increase was noted.

5.5.2.8.1.2.3 Scenario 7: between 60 and 99 items per day per pharmacist

Community pharmacies, where a pharmacist dispensed between 60 and 99 items per day during the study period obtained an overall compliance score of 93.19 (± 5.65 per cent) (*refer to Appendix E, table 7E*). No practical significant difference was found between the overall compliance scores achieved for scenarios 5, 6 and 7.

An increase in the compliance scores, achieved for standard operating procedures was observed from scenario 5 to this scenario. No practical significant difference was found between the compliance scores obtained for standard operating procedures of scenarios 5, 6 and 7. Compliance scores obtained for the promotion of public health remained relatively stable throughout the three aforementioned scenarios.

5.5.2.8.1.2.4 Scenario 8: more than 100 items per day per pharmacist

The overall compliance score achieved by pharmacies that dispensed more than 100 prescribed items per day per pharmacist during the study period was 93.29 (± 6.42 per cent) (*refer to Appendix E, table 8E*); no practical significant difference (d<0.8) was found between the overall compliance scores achieved by pharmacies in scenario 5 and this scenario. No practical significant difference (d<0.8) was found between the compliance scores obtained for the availability of standard operating procedures from scenarios 5 to 8.

5.5.2.8.1.3 Possible effect of the average number of items dispensed by total pharmacy personnel per day in community pharmacies on Good Pharmacy Practice compliance

Total pharmacy personnel refer to all registered categories of pharmacy personnel namely: pharmacists, pharmacist interns and pharmacist's assistants. Good Pharmacy Practice compliance scores were calculated for the following scenarios:

Scenario 9 Where pharmacy personnel dispensed below 18 items per day per pharmacy personnel member.

Scenario 10 Where pharmacy personnel dispensed between 18 and 32 items per day per pharmacy personnel member.

Scenario 11 Where pharmacy personnel dispensed between 33 and 52 items per day per pharmacy personnel member.

Scenario 12 Where pharmacy personnel dispensed more than 53 items per day per pharmacy personnel member.

5.5.2.8.1.3.1 Scenario 9: below 18 items per day per pharmacy personnel member

Community pharmacies, where the average number of items dispensed per pharmacy personnel member was below 18 obtained an overall compliance score of 90.19 (± 7.84 per cent). The lowest compliance score was obtained for the availability of standard operating procedures (67.98 ± 26.90 per cent), whilst the highest compliance score was obtained for the promotion of public health (98.79 ± 6.62 per cent). A practical significant difference (d>0.8) was found between these two compliance scores (*refer to Appendix E, table 9E*).

5.5.2.8.1.3.2 Scenario 10: between 18 and 32 items per day per pharmacy personnel member

Community pharmacies, where pharmacy personnel dispensed between 18 and 32 items per day per personnel member during the study period obtained an overall compliance score of 92.77 (± 5.70 per cent) (*refer to Appendix E, table 10E*). No practical significant difference (d<0.8) was found between the compliance scores achieved by community pharmacies of scenario 9 and 10. With regard to compliance scores for the different sections of Good Pharmacy Practice; a slight increase in the scores obtained was observed for scenarios 9 and 10 (*refer to tables 9 and 10E, Appendix E*). It can thus be said that Good Pharmacy Practice compliance increased together with the number of items dispensed, possibly because with the increase in workload more personnel were employed.

The highest score was once again obtained for the promotion of public health, 99.70 (± 1.75 per cent), whilst the lowest score was obtained for the availability of standard operating procedures (74.69 ± 27.52 per cent). A practical significant difference was found between the compliance scores obtained for the above-mentioned sections of Good Pharmacy Practice. No practical significant difference was found between the compliance scores obtained for these sections of scenarios 9 and 10; however an increase was noted.

5.5.2.8.1.3.3 Scenario 11: between 33 and 52 items per day per pharmacy personnel member

Community pharmacies, where pharmacy personnel dispensed between 33 and 52 items per day per personnel member, obtained an overall compliance score of 92.87 (± 5.98 per cent)

(*refer to Appendix E, table 11E*). No practical significant difference was found between the overall compliance scores achieved for scenarios 9, 10 and 11.

An increase in the compliance scores, achieved for standard operating procedures was observed from scenario 9 to this scenario. No practical significant difference was found between the compliance scores obtained for standard operating procedures of scenarios 9, 10 and 11. Compliance scores obtained for the promotion of public health remained relatively stable throughout the three scenarios.

Furthermore, community pharmacies of scenario 9 revealed minimum percentage scores of zero for five of the twelve GPP sections, followed by 1 of the 12 sections of pharmacies in scenario 10 and then 3 sections for pharmacies that dispensed between 33 and 52 items.

5.5.2.8.1.3.4 Scenario 12: more than 53 items per day per pharmacy personnel member

The overall compliance score achieved by pharmacies that dispensed more than 53 prescribed items per day per pharmacy personnel member was 93.29 (± 6.42 per cent) (*refer to Appendix E, table 12E*); no practical significant difference (d<0.8) was found between the overall compliance score achieved by pharmacies in scenario 9 and this scenario. No practical significant difference (d<0.8) was found between the compliance scores obtained for the availability of standard operating procedures from scenarios 9 to 12.

5.5.2.8.2 Pharmacist Initiated Therapy items

It was found that an average number of 54.94 ± 97.89 Pharmacist Initiated Therapy items was dispensed per day in the inspected community pharmacies during the study period. The average number of Pharmacist Initiated Therapy items dispensed per day for community pharmacies, did not vary much over the nine different provinces. The Free State, however, had the lowest average of 32.17 ± 28.12, considerably lower than the other eight provinces that revealed an average of more than 40 items (*refer to Appendix C, table 18C*). These figures once again could have been estimated by the pharmacist on duty rather than being actual statistics.

5.5.3 REGISTRATOIN DETAILS

According to the South African Pharmacy Council (1999:9) questions relating to the availability of registration certificates for pharmacists and pharmacies are of great importance, as a pharmacy may not be operated and a pharmacist may not practice without being registered. The following registration certificates must be available (*refer to Appendix to A, questions 37 to 40*):

- A currently valid annual registration card(s) for the pharmacist(s).

- A currently valid annual registration card(s) for the pharmacist's assistant(s) (basic/post-basic).
- A currently valid annual registration card(s) for the pharmacist's assistant(s) (learner basic/learner post-basic).
- A currently valid certificate for the recording of the pharmacy.

The availability of annual registration certificates for the pharmacy, pharmacists and all four categories of pharmacist's assistants was investigated. Table 5.22 illustrates the compliance to Good Pharmacy Practice guidelines for questions 34 to 40 of Section D of the community pharmacy inspection questionnaires. As seen in the table the North West province had the lowest average percentage compliance of 87.12 (± 13.40 per cent) together with a relatively low minimum percentage, indicating that there were pharmacies in this province that showed compliance of only 33.33%. A further point of concern was the minimum percentage shown for Gauteng, which indicated that Gauteng had pharmacies which only complied with 14.29% regarding registration details. Kwazulu-Natal and Limpopo also obtained minimum percentages of 33.33% respectively, demonstrating that certain pharmacies in these provinces needed to improve compliance with registration details. A *d-value* of more than 0.5 was observed for the Free State and the North West which may reflect on a significant difference between these two provinces.

Table 5.22 Average percentage compliance with registration details of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	93.54	8.24	71.43	100.0
Free State	60	95.48	8.01	47.62	100.0
Gauteng	446	92.39	11.37	14.29	100.0
Kwazulu-Natal	101	92.03	11.07	33.33	100.0
Limpopo	45	93.86	9.50	52.38	100.0
Mpumalanga	25	90.10	13.88	33.33	100.0
North West	82	87.12	13.40	33.33	100.0
Northern Cape	26	94.32	6.32	80.95	100.0
Western Cape	239	93.39	10.32	52.38	100.0
TOTAL	**1083**	**92.46**	**10.98**	**14.29**	**100.0**

Inspectors indicated that annual registration cards for pharmacist's assistants (all four categories) were available in less than 40% of inspected pharmacies (*refer to Appendix C, tables 23C and 24C*). This figure was based on the total number of inspections conducted, whether pharmacies employed pharmacist's assistants or not. A further analysis was done to determine how many community pharmacies employed pharmacist's assistants (including basic, post-basic, learner basic and learner post-basic assistants) during the study period and how many complied with registration requirements. It was found that 312 (26.49%, N=1178) of community pharmacies employed one or more basic and post-basic pharmacist's assistants. It was found that 81.08% (n=253) of these community pharmacies had annual registration cards

available for the pharmacist's assistants (basic and post-basic). Thirty-six (11.54%) did not comply in this regard.

Furthermore it was found that 250 (21.22%, N=1178) of community pharmacies employed one or more learner basic and post-basic pharmacist's assistants. It was found that 84.40% (n=211) of these community pharmacies complied with the requirement of having an annual registration card available for the learner pharmacist's assistants employed in the pharmacy.

Furthermore, it was found that 63% (n=737) of community pharmacies did not comply with the requirement that the pharmacist's name on duty must be displayed conspicuously in the pharmacy (*refer to Appendix C, table 20C*).

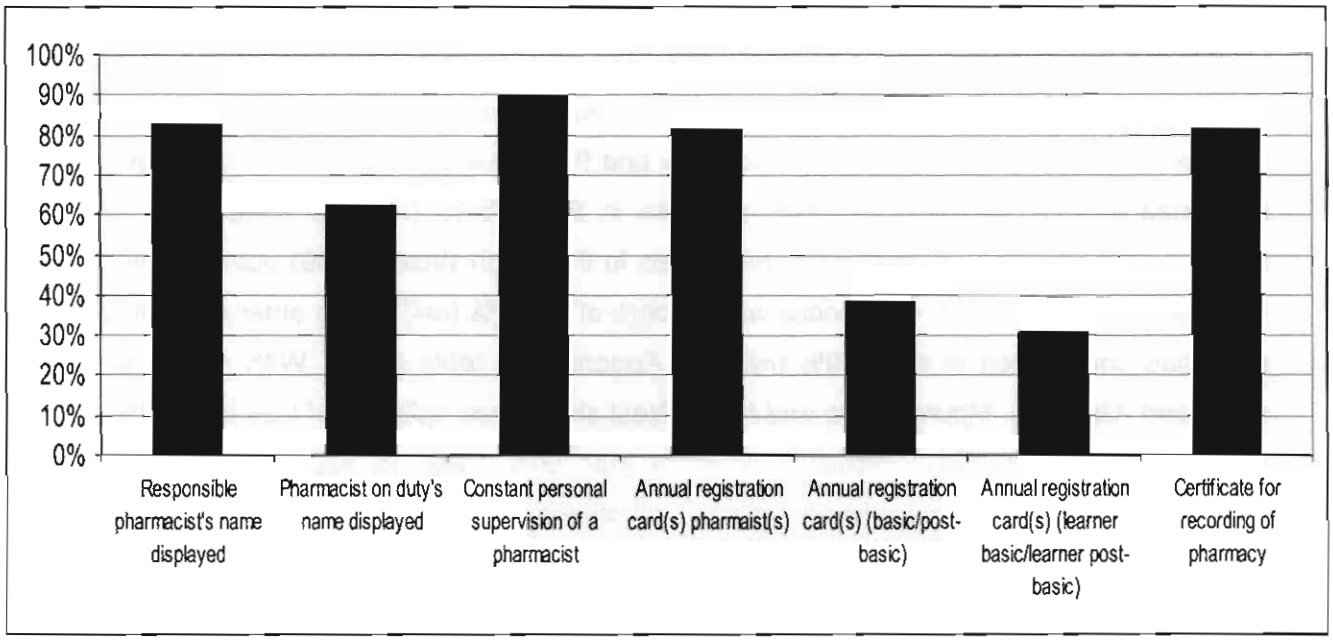


Figure 5.14 Percentage compliance with registration details.

5.5.4 PREMISES AND LAYOUT

The average percentage compliance with regard to premises and layout of all community pharmacies demonstrated acceptable standards as seen in table 5.23, which illustrates that the nine provinces had an average Good Pharmacy Practice percentage compliance of above 90%. No practical significant differences ($d<0.8$) were found between the compliance scores obtained for premises and layout requirements by community pharmacies of the different provinces.

Table 5.23 Average percentage compliance with premises and layout requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	94.35	6.64	66.67	100.0
Free State	60	95.79	4.79	78.94	100.0
Gauteng	445	95.52	5.69	54.39	100.0
Kwazulu-Natal	101	95.07	5.69	70.18	100.0
Limpopo	45	95.40	6.87	63.16	100.0
Mpumalanga	25	94.39	7.76	64.91	100.0
North West	82	93.92	8.00	56.14	100.0
Northern Cape	26	95.61	3.11	91.23	100.0
Western Cape	239	95.21	6.84	45.61	100.0
TOTAL	**1082**	**95.21**	**6.22**	**45.61**	**100.0**

During the study period January 2004 until May 2005, community pharmacies in all nine provinces had relatively high compliance with requirements relating to cleanliness, being organised, sufficient lighting, efficient workflow and the different surface areas being of smooth impermeable and washable material, as seen in figure 5.15 (*refer to Chapter 2, sections 2.11.2.1 and 2.11.2.2*). Community pharmacies in the North West (N=89) obtained the lowest compliance with regard to cleanliness with a score of 84.27% (n=75), the other eight provinces, each had compliance of over 90% (*refer to Appendix C, table 26C*). With regard to being organised, Gauteng, Mpumalanga and North West showed compliance of less than 90%, whilst the other provinces had compliance of more than 90% (*refer to Appendix C, table 27C*). Compliance with regard to sufficient lighting and efficient workflow was relatively high for each of the nine provinces (*refer to Appendix C, tables 32C and 38C*).

Compliance relating to the dispensing floor surface area being of smooth, impermeable and washable material was less than that of the other surface areas, as the percentage compliance was only 79.28% (n=934). Gauteng (N=513) and the Western Cape (N=249) showed compliance of only 76.61% (n=393) and 77.91% (n=194), respectively, whilst the highest compliance scores were obtained by the Northern Cape (92.59%, n=25) (*refer to Appendix C, table 28C*). Compliance with regard to the other working surface areas (working surfaces, cupboards and shelves) being of smooth, impermeable and washable material revealed that Gauteng (86.74%, n=445) and the North West (89.89%, n=80) obtained the lowest compliance scores in this regard, whilst the remaining seven provinces revealed high standards, as these provinces obtained percentage compliance scores of more than 90% (*refer to Appendix C, tables 29C and 30C*).

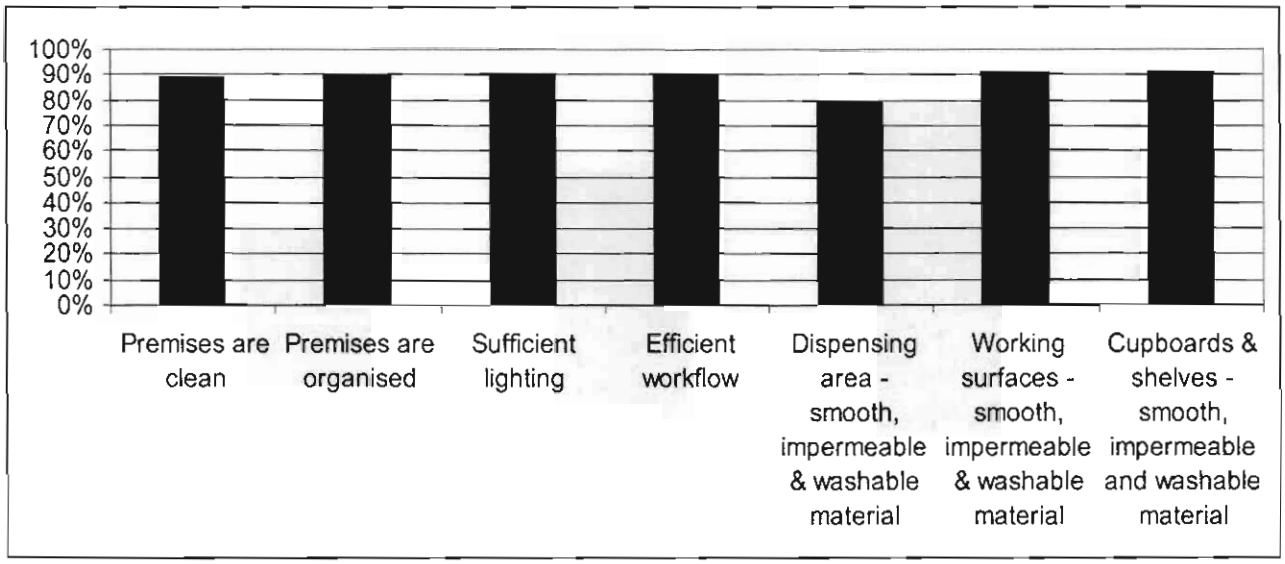


Figure 5.15 Compliance with requirements for premises and layout.

Question 46 referred to approval being obtained for another business or practice to be conducted within the pharmacy (*refer to Chapter 2, section 2.11.2.4*). Of the 1178 inspections carried out, 83.53% (n=984) marked Question 46 of the community inspection questionnaire "Not applicable". According to these responses it was quite apparent that the majority of community pharmacies needed no such approval as no other businesses or practices were run simultaneously with the chore business/practice (*refer to Appendix C, table 31C*).

The temperature was below 25°C in the case of 85.14% (n=1003) of the community pharmacies. The temperature was, however, not adequately controlled 24 hours a day, with only 67.56% (n=796) compliance. Out of the 47 pharmacies inspected in Limpopo, 40 (85.11%) complied with the requirements for controlling the temperature within these pharmacies. The other eight pharmacies revealed a percentage compliance of less than 70% (*refer to Appendix C, table 34C*). Furthermore, in 52% (n=611) of cases, temperature was not adequately controlled and recorded on a daily basis. Eastern Cape, Kwazulu-Natal and North West displayed the lowest percentage compliance with 46.67% (n=28), 46.15% (n=48) and 44.94% (n=40) respectively (*refer to Chapter 2, sections 2.11.3.1 and 2.12.1.4.3, for requirements with regard to temperature control*).

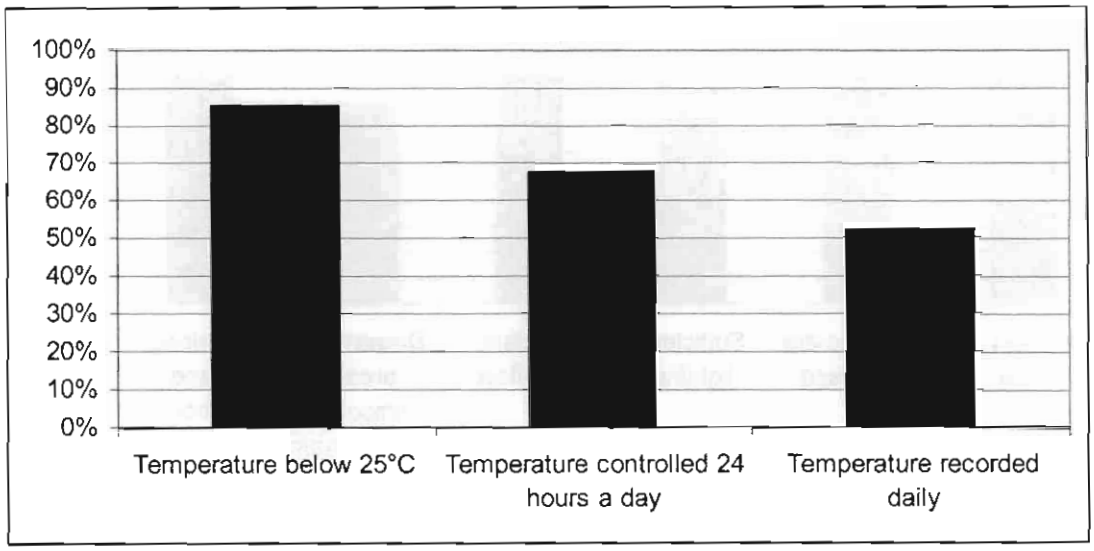


Figure 5.16 Percentage compliance with respect to temperature control.

Compliance pertaining to the size of the dispensing area (*refer to Chapter 2, section 2.11.3.1*) for the volume of prescriptions dispensed as well as the total floor area for efficient operations, revealed a percentage of 89.30% (n=1052) and 89.98% (n=1060) for each of the questions respectively (*refer to Appendix C, tables 36C and 37C*).

Careful consideration must be given to the overall security of a pharmacy. It is a legal requirement that only the pharmacist may have keys to the pharmacy (*refer to Chapter 2, section 2.11.2.3*). In this regard, community pharmacies complied with a percentage of 88.71% (n=1045). Inspectors in the North West and Eastern Cape found that persons other than pharmacists had keys to the pharmacy in 6.71% (n=6) and 8.33% (n=5) of cases, respectively. The other provinces showed that less than 2.5% of persons other than pharmacists had access to the keys of the pharmacy (*refer to Appendix C, table 43C*). It was furthermore found that 89.73% (n=1057) of the inspected premises had sufficient security to prevent unauthorised access to medicines (*refer to Appendix C, table 44C*).

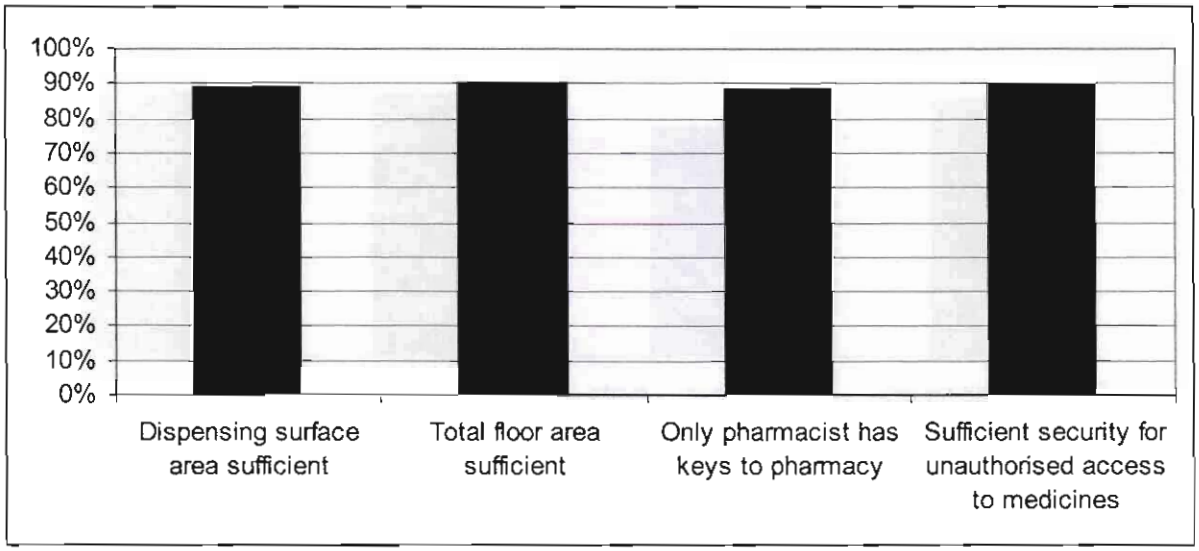


Figure 5.17 Percentage compliance with regard to surface areas and security requirements.

The inspectorate found that 82.68% (n=974) of community pharmacies had a suitable waiting area which complied with Good Pharmacy Practice guidelines (*refer to Chapter 2, section 2.11.5, for discussion on suitable waiting and consultation areas*). Shortcomings were identified in Limpopo and Mpumalanga. These provinces showed compliance of 76.60% (n=36) and 62.96% (n=17) respectively, whilst the Eastern Cape and Free State obtained the highest compliance scores of 93.33% (n=56) and 62.96% (n-56) respectively (*refer to Appendix C, table 39C*). It has been established that a lack of privacy leads to a breakdown in communication between pharmacist and patient and could be deemed to be unprofessional. An appropriate area for the provision of counselling must therefore be part of the layout of the pharmacy (South African Pharmacy Council, 2000:13). Inspectors indicated that a mere 73.95% (n=871) of community pharmacies inspected had a suitable semi-private area for the provision of information and advice. Gauteng, Limpopo, Mpumalanga and Northern Cape revealed compliance of less than 70% (*refer to Appendix C, table 40C*). This is an aspect which could be improved in all community pharmacies. Furthermore the percentage compliance concerning the professional image of the pharmacy was not affected by the display of commercial products in the case of 84.55% (n=966) of community pharmacies inspected (*refer to Appendix C, table 41C*). A point of concern was that of the 62 pharmacies inspected in the Free State, 44 (70.97%) did not comply with this standard. Medicinal and non-medicinal products were displayed separately in 85.14% (n=1003) of pharmacies (*refer to Appendix C, table 42C*).

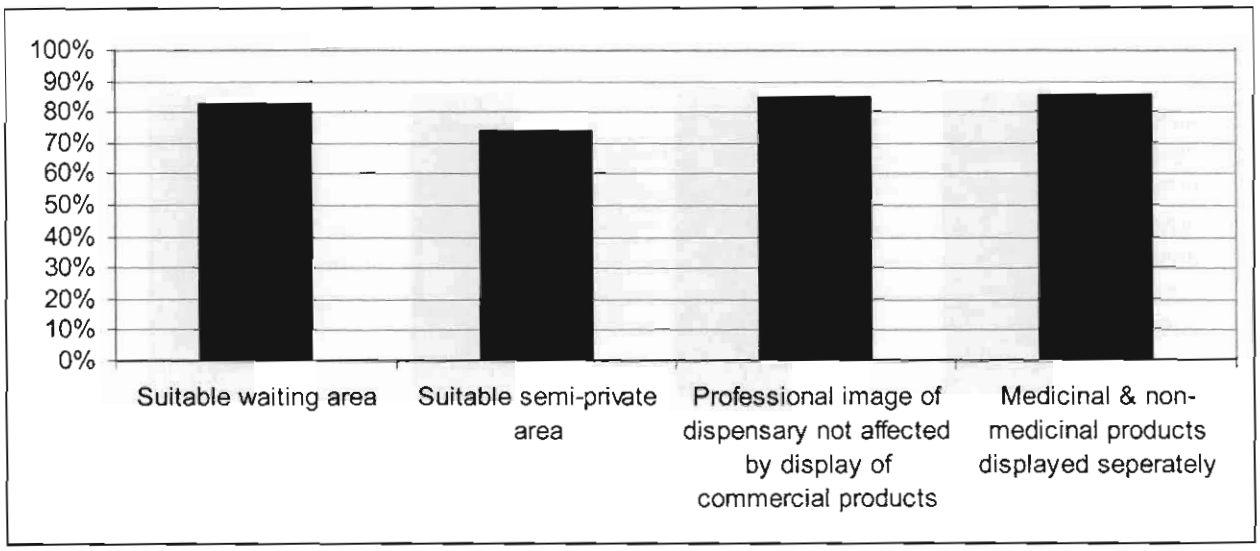


Figure 5.18 Percentage compliance with regard to questions 39C to 42C.

5.5.5 EQUIPMENT

The overall impression relating to equipment was commendable, in that a high percentage of the community pharmacies in all nine provinces had the required equipment, which in turn were clean and in good working order as seen in table 5.24. The two provinces with the lowest average percentage compliance were Gauteng with 92.39 (± 11.37 per cent) and Limpopo with 95.12 (± 13.52 per cent). Gauteng and Limpopo, furthermore each revealed a relatively low minimum percentage compliance of 14.29% and 16.67% respectively. It was a point of great concern that the minimum percentage compliance of Western Cape was zero, as one of the pharmacies situated in this province did not comply to equipment requirements at all. The highest average percentage compliance was witnessed for the Eastern Cape, Free State, Northern Cape and Western Cape; all of these provinces having a percentage of more than 98%. A *d-value* of 0.6 was observed for the Eastern Cape and Gauteng which may reflect on a significant difference between these two provinces.

Table 5.24 Average percentage compliance with equipment requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	98.87	3.79	77.78	100.0
Free State	60	98.80	2.58	88.89	100.0
Gauteng	446	92.39	11.37	14.29	100.0
Kwazulu-Natal	101	97.03	5.11	69.44	100.0
Limpopo	45	95.12	13.52	16.67	100.0
Mpumalanga	25	97.56	5.09	80.56	100.0
North West	82	96.00	8.23	38.89	100.0
Northern Cape	26	98.82	3.16	86.11	100.0
Western Cape	239	98.08	7.56	0.00	100.0
TOTAL	**1082**	**97.57**	**6.85**	**0.00**	**100.0**

A number of pharmacies did not have a suitable mass meter for dispensing, as seen with the percentage compliance of Limpopo 68.09% (n=32) and the North West 66.29% (n=59), respectively (*refer to Appendix C, table 49C*). Inspectors also indicated that only 77.58% (n=398) of pharmacies in Gauteng, 68.27% (n=71) in Kwazulu-Natal and 66.67% (n=18) in Mpumalanga had clearly noticeable warning indicators on the labels (*refer to Appendix C, table 52C*) (*refer to Chapter 2, section 2.11.3.3 for dispensing equipment requirements*).

5.5.6 STORAGE

Table 5.25 illustrates that storage requirements were generally met in all nine provinces, with the lowest percentage compliance shown in Mpumalanga (94.98 ± 4.22 per cent) and the North West (94.60 ± 8.00 per cent) and the highest average percentage compliance shown in the Free State (97.33 ± 2.69 per cent) and the Northern Cape (97.74 ± 1.69 per cent). Gauteng revealed a minimum compliance percentage of 1.75%, which is of concern, as the correct storage of pharmaceutical products is of essence. No practical significant differences ($d<0.8$) were found between the compliance scores obtained for storage requirements by community pharmacies of the different provinces.

Table 5.25 Average percentage compliance with storage requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	95.45	6.43	66.67	100.0
Free State	60	97.33	2.69	90.48	100.0
Gauteng	445	96.00	5.82	1.75	100.0
Kwazulu-Natal	101	96.42	4.94	76.19	100.0
Limpopo	45	95.77	6.29	60.32	100.0
Mpumalanga	25	94.98	4.22	85.71	100.0
North West	82	94.60	8.00	47.62	100.0
Northern Cape	26	97.74	1.69	95.24	100.0
Western Cape	238	96.89	5.93	52.38	100.0
TOTAL	**1081**	**96.18**	**5.82**	**31.75**	**100.0**

Inspectors found that raw materials known to be at risk for cross-contamination were stored separately in 37.27% (n=439) of inspected community pharmacies (N=1178), however 54% (n=636) of inspectors indicated that this question was not applicable to the community pharmacies which were inspected (*refer to Appendix C, table 60C*). With regard to the proper care and control over hazardous and flammable substances, the inspectorate indicated that 29% (n=1178) and 38% of pharmacies complied to these standards respectively, however 62% (n=1178) and 52% in that order indicated these questions were not applicable (*refer to Appendix C, tables 61C and 62C*) (*refer to Chapter 2, section 2.12.1.4 for storage requirements*).

A list of products requiring special storage was not available and/or consulted in 35.48% (n=418) of the inspected pharmacies (N=1178). This was especially of concern in the following provinces; Limpopo, Mpumalanga, North West, and the Northern Cape as product lists were not available and/or consulted in more than 50% of cases in each of the four provinces (*refer to Appendix C, table 71C*).

It was indicated that 25.81% (n=304) of the inspected pharmacies did pre-packing on the premises, and of these, a relatively low 55% (n=167) did pre-packing in accordance with regulation 33 of Act 101 of 1965 (*refer to Appendix C, tables 73C and 74C*). This is of concern as pharmacies are compelled by law to pre-pack medicines in accordance with the Medicines Act (101/1965) (*refer to Chapter 2, section 2.14.2.4*).

Twenty-two community pharmacies were supplying unregistered medicines and only one pharmacy purchased medicines from unauthorised suppliers (*refer to Appendix C, tables 77C and 78C*) (*refer to Chapter 2, section 2.12.1.2*).

5.5.7 CONTROL OF MEDICINES AND RECORD KEEPING

Overall the compliance pertaining to the control and record keeping of medicines was satisfactory as seen in table 5.26. The province with the lowest average percentage compliance was the North West province with 91.57 (± 10.80 per cent) compliance. A point of concern was the minimum percentage compliance for Gauteng and North West as each on these provinces had community pharmacies that only complied with a percentage of 5% and 26.67% respectively. No practical significant differences (d<0.8) were found between the compliance scores obtained for control of medicines and record keeping requirements by community pharmacies of the different provinces.

Table 5.26 Average percentage compliance with control of medicines and record keeping requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	93.91	7.78	61.67	100.0
Free State	60	94.44	5.31	80.00	100.0
Gauteng	445	93.17	8.99	5.00	100.0
Kwazulu-Natal	101	93.40	6.62	65.00	100.0
Limpopo	45	95.59	9.00	43.33	100.0
Mpumalanga	25	95.67	3.88	86.67	100.0
North West	82	91.57	10.80	26.67	100.0
Northern Cape	26	94.67	4.71	80.00	100.0
Western Cape	238	92.85	7.84	63.33	100.0
TOTAL	**1081**	**93.30**	**8.32**	**5.00**	**100.0**

Inspectors indicated that 90.66% (n=1068) of community pharmacies inspected used a computerised programme for dispensing (*refer to Appendix C, table 80C*) whilst only 54.24% (n=639) of pharmacies used a computerised programme for stock control (*refer to Appendix C, table 82C*). However, inspectors indicated that in 87.18% (n=1027) of community pharmacies (N=1178) an effective stock control system was in place (*refer to Appendix C, table 81C*) despite the fact that 37.09% (n=437) of pharmacies did not use a computerised programme for stock control (*refer to Appendix C, table 82C*).

According to Regulation 11 (1) of the General Regulations published in terms of the Medicines Act (101 of 1965) of South Africa a prescription book or permanent record for Schedule 2 to 6 medicines must be kept in the pharmacy. All schedule 1 and 2 sales must be recorded in a prescription book or permanent record as required in Regulation 11 (1) and (2). Regulation 30 of the Medicines Act (101/1965) specifies that an up-to-date register of all specified Schedule 5 and 6 sales as well as purchases must be available. This regulation furthermore specifies that the schedule 5 and 6 register must be balanced on the last day of March, June, September and December of each year or within 14 days. Figure 5.19 illustrates the percentage compliance of community pharmacies with regard to record keeping required by law.

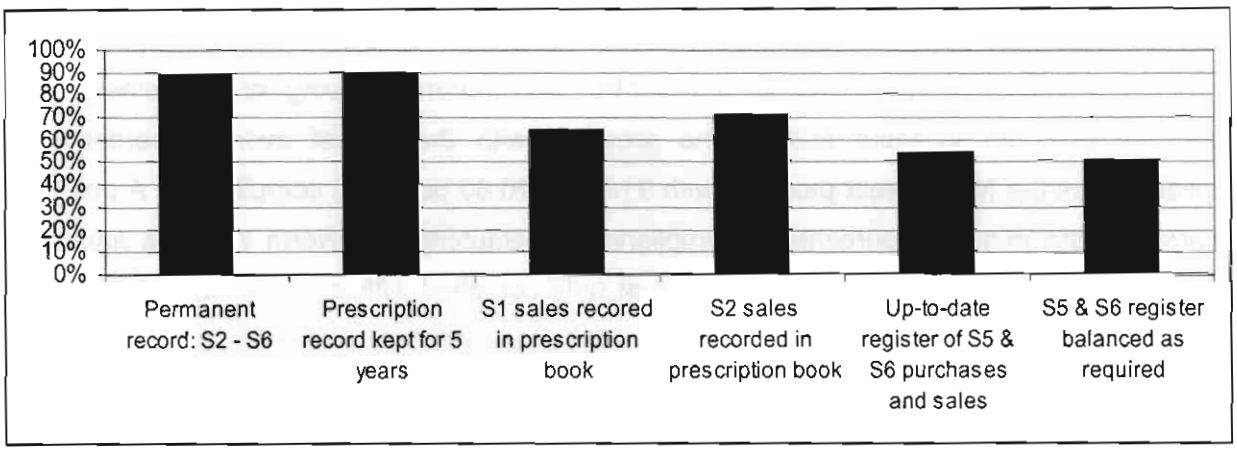


Figure 5.19 Percentage compliance with regard to record keeping required by law.

Eighteen community pharmacies in Gauteng and 5 in North West did not comply or only partially complied with the requirement of keeping a prescription book correctly (*refer to Appendix C, table 83C*). It was found that 4 pharmacies in Gauteng did not comply with the requirement of keeping a prescription record for 5 years (*refer to Appendix C, table 84C*). A relatively high percentage (90.75%, n=1069) of community pharmacies (N=1178) kept their prescription records in a safe place where they could be retrieved easily (*refer to Appendix C, table 85C*). A relatively low 63.92% (n=753) and 71.22% (n=839) of pharmacies did not keep record of all Schedule 1 and Schedule 2 sales respectively (*refer to Appendix C, tables 89C and 90C*). The Northern Cape showed the highest compliance of 92.6% (n=25) and 96.30% (n=26) respectively for questions 103 and 104 (*refer to Appendix C, tables 89C and 90C*). The North West showed the lowest compliance of 57.30% (n=51) and 61.80% (n=55) respectively with regard to keeping record of all Schedule 1 and 2 medicine sales (*refer to Appendix C, tables 89C and 90C*) (*refer to Chapter 2, section 2.14.2.7 for control of substances and record keeping requirements*).

A point of concern, was that only 53.57% (n=631) of inspected community pharmacies (n=1178) had an up-to-date register of all Schedule 5 and 6 purchases and sales, with the Free State, Gauteng, Kwazulu-Natal, North West and the Northern Cape achieving compliance scores of less than 50% (*refer to Appendix C, table 95C*). Furthermore, only 50.06% (n=625) of community pharmacies (N=1178) complied with the requirement of balancing the specified Schedule 5 and 6 register as required by law. The Northern Cape obtained the lowest adherence with this requirement, achieving a percentage compliance of only 33.33% (n=9), whilst Mpumalanga obtained the highest score; a relatively low 77.78% (n=21) (*refer to Appendix C, table 96C*).

It was indicated that 89.73% (n=1057) and 86.08% (n=1014) of inspected community pharmacies respectively kept a patient profile detailing prescriptions and Pharmacist Initiated Therapy items dispensed for two years (*refer to Appendix C, table 86C and 87C*).

Pharmacies are furthermore compelled by law to display and/or store Schedule 1 to 5 medicines in areas inaccessible to the public. Seventy-eight per cent (n=924) of community pharmacies complied with this requirement. The Western Cape achieved the lowest compliance of 69.48% (n=173), whilst the Northern Cape obtained the highest compliance of 96.30% (n=26) in this respect (*refer to Appendix C, table 88C*).

Eighty-one per cent (n=954) of community pharmacies (N=1178) indicated that Schedule 6 medicines were ordered, stored and supplied within the pharmacy (*refer to Appendix C, table 91C*). Inspectors indicated that in 17.65% (n=) of cases pharmacies did not have a proper system in place for the correct handling of Schedule 5 and 6 medicines, with the Free State achieving the lowest compliance of 56.45% (n=62) with this requirement (*refer to Appendix C, table 92C*). It was also found that Schedule 6 medicines were locked away (with the key under the control of the pharmacist) in 80.48% of the community pharmacies (*refer to Appendix C, table 93C*).

With regard to question 111 to 115, inspectors indicated that the majority of community pharmacies did not deliver medicines by mail, courier or other means for example per train. However, 66.02% (n=707) of inspectors indicated that community pharmacies did deliver medicines by delivery person (*refer to Appendix C, tables 97C to 100C*). Figure 5.20 illustrates the percentage compliance for questions 116 to 119 for delivery of medicines by mail, courier, delivery person and other means. As most of the pharmacies indicated that medicines are not delivered by these means (except delivery person) this is not an indication of compliance for these questions, as all of the questionnaires were taken into account when analysing questions 116 to 119.

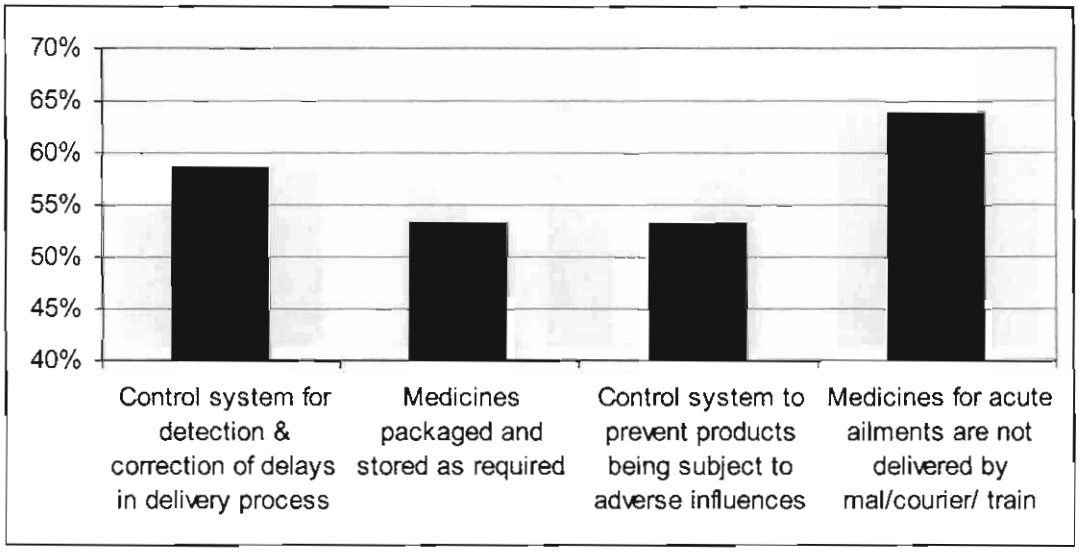


Figure 5.20 Percentage compliance in respect of questions 116 to 119.

5.5.8 THERMOLABILE MEDICINES

The majority of community pharmacies in the different provinces complied with requirements pertaining to thermolabile medicines. Eastern Cape and Northern Cape showed the lowest average percentage compliance of 87.99 (± 14.94 per cent) and 89.26 (± 8.01 per cent) respectively. A point of concern was the minimum percentage compliance of Eastern Cape, North West and Western Cape, which illustrates that there were community pharmacies within these provinces which did not comply with requirements relating to thermolabile medicines at all. A *d-value* of 0.5 was observed for Limpopo and the Eastern Cape which may reflect on a significant difference between these two provinces. Table 5.27 illustrates the compliance scores achieved by the nine provinces with regard to thermolabile medicines requirements.

Table 5.27 Average percentage compliance with thermolabile medicine requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	87.99	14.94	0.00	100.0
Free State	60	92.22	7.30	75.00	100.0
Gauteng	446	92.76	9.68	54.17	100.0
Kwazulu-Natal	101	90.55	9.82	45.83	100.0
Limpopo	45	95.46	6.08	83.33	100.0
Mpumalanga	25	94.67	6.64	75.00	100.0
North West	82	90.14	15.05	0.00	100.0
Northern Cape	26	89.26	8.01	75.00	100.0
Western Cape	239	91.84	12.27	0.00	100.0
TOTAL	**1083**	**91.94**	**10.90**	**0.00**	**100.0**

Figure 5.21 illustrates the percentage compliance with regard to thermolabile medicines.

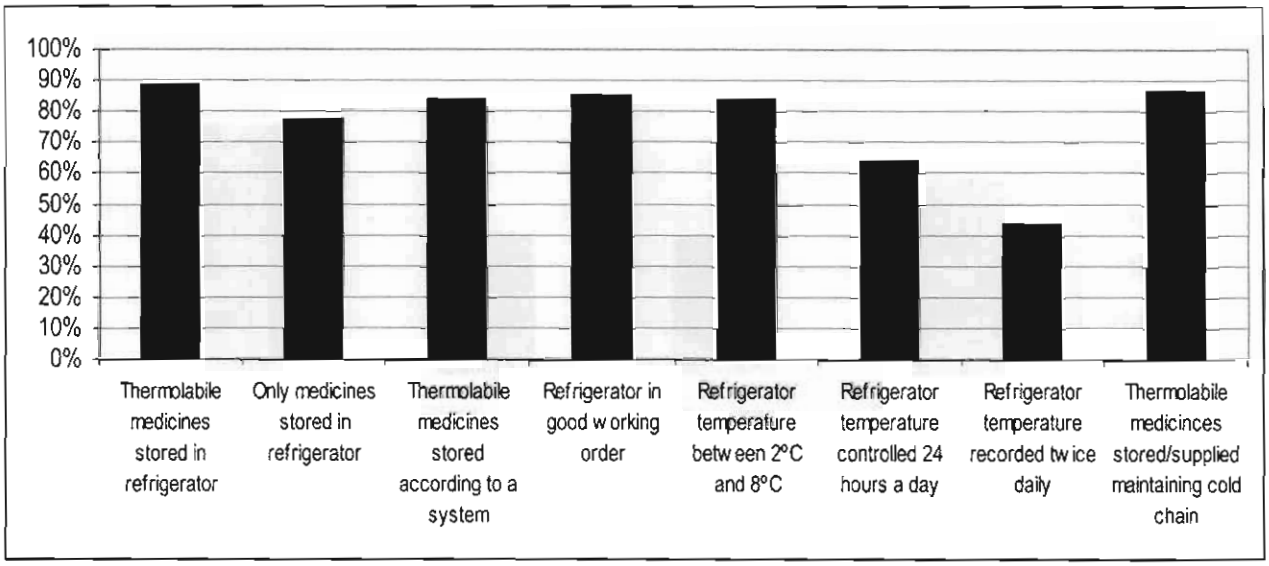


Figure 5.21 Percentage compliance with regard to thermolabile medicine requirements.

Inspectors indicated that 88.46% (n=1042) of community pharmacies purchased stored or supplied thermolabile medicines within the pharmacy, 31 pharmacies did not supply

thermolabile medicines (*refer to Appendix C, table 105C*). It was indicated that 88.79% (n=1046) of thermolabile medicines were stored in the refrigerator. The province with the lowest percentage compliance was the North West with a percentage of 84.27% (n=75). This percentage could include pharmacies that did not keep thermolabile medicines, however it is of the utmost importance to keep thermolabile medicines in a refrigerator as it is essential for maintaining the potency of the medicines (*refer to Appendix C, table 106C*). It was found that 12% (n=140) of pharmacies did not only store medicines in their refrigerators. Gauteng (71.93%) and the North West (64.04%) showed the lowest compliance with this standard (*refer to Appendix C, table 107C*). Eighty-four percent of inspectors indicated that thermolabile medicines were stored according to a system. The Eastern Cape showed the lowest compliance of 78.33% (n=47) together with the North West with a percentage of 78.65% (n=70) (*refer to Appendix C, table 108C*) (*refer to Chapter 2, section 2.12.1.4.1*).

With regard to the refrigerator, inspectors indicated that refrigerators were in good working order in the case of 85.14% (n=1003) of community pharmacies (N=1178) (*refer to Appendix C, table 109C*). As mentioned in section 2.12.1.4.4 vaccines lose their potency faster when exposed to higher temperatures or temperatures below 0°C, which means that the temperature of refrigerators must be maintained and controlled appropriately. Pharmacists are trained in the stability of medicines and therefore know the implications of not maintaining the correct refrigerator temperatures. It was found that refrigerator temperatures were maintained between 2°C and 8°C in 83.79% (n=987) of the inspected pharmacies, with Limpopo obtaining a percentage compliance of 74.47% (n=35) which is of concern (*refer to Appendix C, table 110C*).

A point of concern was that inspectors indicated that 25% (n=292) of community pharmacies (N=1178) did not comply or only partially comply with the standard of controlling the temperature of the refrigerator 24 hours a day (*refer to Appendix C, table 111C*). Furthermore, inspectors indicated that the temperature of refrigerators were only recorded twice daily in 43.97% (n=518) of cases. All nine provinces obtained relatively low percentage compliance scores for this specific standard (*refer to Appendix C, table 112C*) (*refer to Chapter 2, section 2.12.1.4.3*).

Another consideration is that of maintaining the cold chain at all times, especially when supplying these medicines to patients, when cleaning the refrigerator and during power failures. It was found that 86.59% (n=1020) of community pharmacies (N=1178) maintained the cold chain during storage and supply of thermolabile medicines.

5.5.9 DISPENSING OF PRESCRIPTIONS

Table 5.28 illustrates that the average percentage compliance with regard to dispensing of prescriptions was relatively high for all nine provinces. It is however, significant to note that, Eastern Cape (20%), Gauteng (0%), Limpopo (40%) and North West (0%) showed minimum percentages of this nature, which means that there were pharmacies in these provinces which had disturbingly low compliance percentages. No practical significant differences (d<0.8) were found between the compliance scores obtained for dispensing requirements by community pharmacies of the different provinces.

Table 5.28 Average percentage compliance with dispensing requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	97.29	11.29	20.00	100.0
Free State	60	99.89	0.86	93.33	100.0
Gauteng	446	97.82	9.20	0.00	100.0
Kwazulu-Natal	101	98.22	4.31	86.67	100.0
Limpopo	45	98.67	8.94	40.00	100.0
Mpumalanga	25	99.47	2.67	86.67	100.0
North West	82	96.18	13.50	0.00	100.0
Northern Cape	26	96.67	9.84	53.33	100.0
Western Cape	239	99.30	3.63	73.33	100.0
TOTAL	**1083**	**98.19**	**8.16**	**0.00**	**100.0**

Section 22(F) of the Medicines Act (101/1965) states the pharmacists must inform patients of the benefits of generic substitution and that a multi-source medicine may be dispensed with the permission of the patient. If a pharmacist is forbidden to dispense a multi-source medicine, this must be indicated on the prescription.

Inspectors indicated that generic substitution was carried out in accordance with this section in 90.32% (n=1064) of community pharmacies (*refer to Chapter 2, section 2.14.2.2*). Gauteng showed the lowest percentage compliance with this requirement of 84.21% (n=432) (*refer to Appendix C, table 114C*).

Pharmacists are required by law to label medicines according to Regulation 8 (4) of the Medicines Act (*refer to Chapter 2, section 2.14.2.6*). Inspectors indicated that 90.32% (n=1064) of community pharmacies (N=1178) complied with this requirement. Gauteng once again showed the lowest compliance of 85.38% (n=438) with this requirement (*refer to Appendix C, table 115C*).

In the majority of community pharmacies (90.58%, n=1067) a pharmacist checked the dispensed medicine after it had been labelled (*refer to Appendix C, table 116C*). According to legislation, the original prescription must state the name of the person who dispensed that specific prescription. This requirement was not adhered to in 5.09% (n=60) of community pharmacies (N=1178) (*refer to Appendix C, table 117C*). The final price that the patient paid

was indicated on the copy for the payer in 89.56% (n=1055) of community pharmacies (*refer to Appendix C, table 118C*) (*refer to Chapter 2, section 2.14.1*).

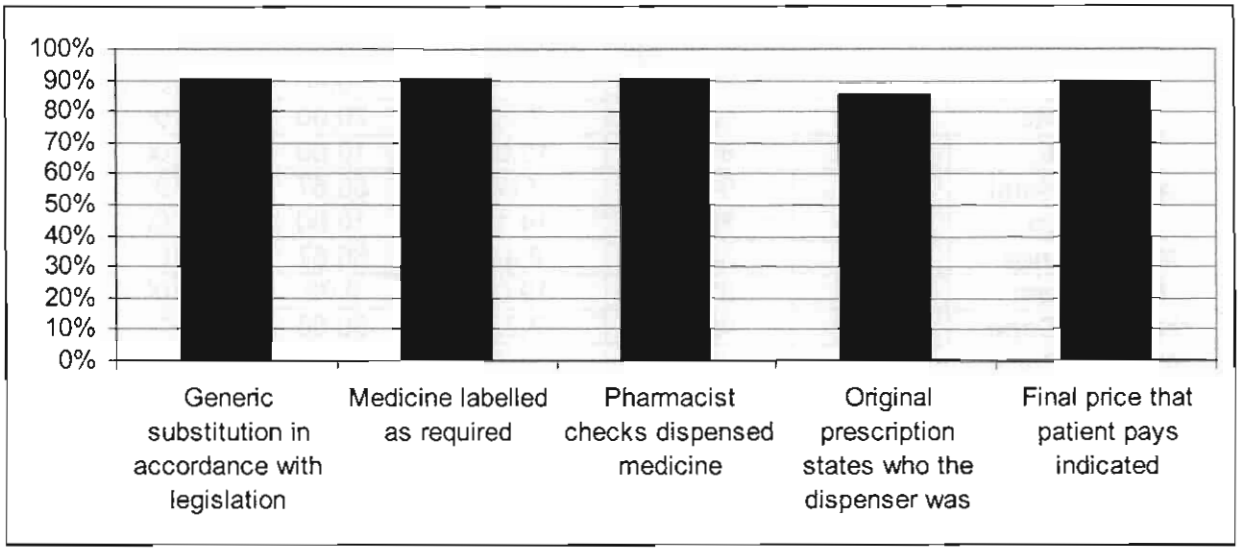


Figure 5.22 Percentage compliance with regard to dispensing of prescriptions.

Figure 5.22 illustrates the percentage compliance with regard to dispensing of prescription requirements as discussed above.

5.5.10 PROVISION OF PHARMACEUTICAL CARE

It was found that in general there was good compliance with the overall requirements for the provision of pharmaceutical care, with a compliance percentage of 89.29 (± 1083 per cent). The two provinces with the lowest compliance percentages were North West and Mpumalanga with percentages of 81.87 (± 19.00 per cent) and 83.73 (± 9.44 per cent) respectively.

A cause for concern, however, was the minimum percentage compliance for Gauteng, Limpopo, North West and Western Cape as seen in table 5.29. A *d-value* of more than 0.5 was observed for Kwazulu-Natal, North West, Limpopo and Gauteng which may reflect on a significant difference between these provinces.

Table 5.29 Average percentage compliance with provision of pharmaceutical care requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	89.38	10.05	50.00	100.0
Free State	60	93.17	7.60	70.00	100.0
Gauteng	446	87.43	12.90	10.00	100.0
Kwazulu-Natal	101	94.88	7.08	66.67	100.0
Limpopo	45	89.04	14.19	10.00	100.0
Mpumalanga	25	83.73	9.44	66.67	100.0
North West	82	81.87	19.00	0.00	100.0
Northern Cape	26	92.31	7.23	80.00	100.0
Western Cape	239	92.25	10.79	0.00	100.0
TOTAL	**1083**	**89.29**	**12.57**	**0.00**	**100.0**

Pharmacists providing a service directly to patients (community and institutional pharmacists) should provide pharmaceutical care in order to add value to the health care of the patient (South African Pharmacy Council, 1999:17). According to the South African Pharmacy Council (1999:17) it must be noted that questions pertaining to the provision of pharmaceutical care are particularly subjective and could be difficult to verify through observation during an inspection.

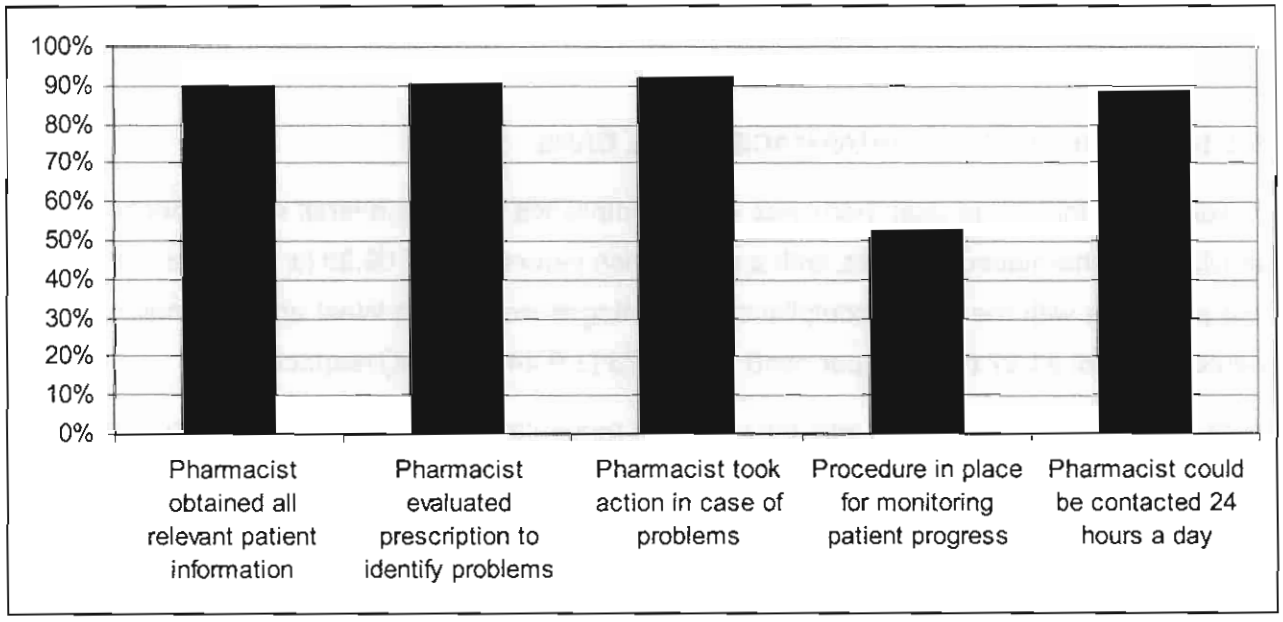


Figure 5.23 Percentage compliance with regard to provision of pharmaceutical care.

Figure 5.23 illustrates that high ratings were received with regard to obtaining relevant patient information; evaluating a prescription and taking the necessary action if any problems arose (*refer to Chapter 2, sections 2.14.1.2, 2.14.3 and 2.14.4*). It was however established that a procedure for monitoring a patient's progress was not available in 31.07% (n=366) of community pharmacies. In Free State, Gauteng, Limpopo, Mpumalanga and North West there was room for improvement as pharmacies in these provinces achieved compliance percentages

of not more than 40% (*refer to Appendix C, table 128C*). Inspectors indicated that 17% of community pharmacists could not be contacted after hours (*refer to Appendix C, table 129C*).

Figure 5.24 illustrates the percentage compliance with requirements pertaining to the provision of information and advice within a pharmacy.

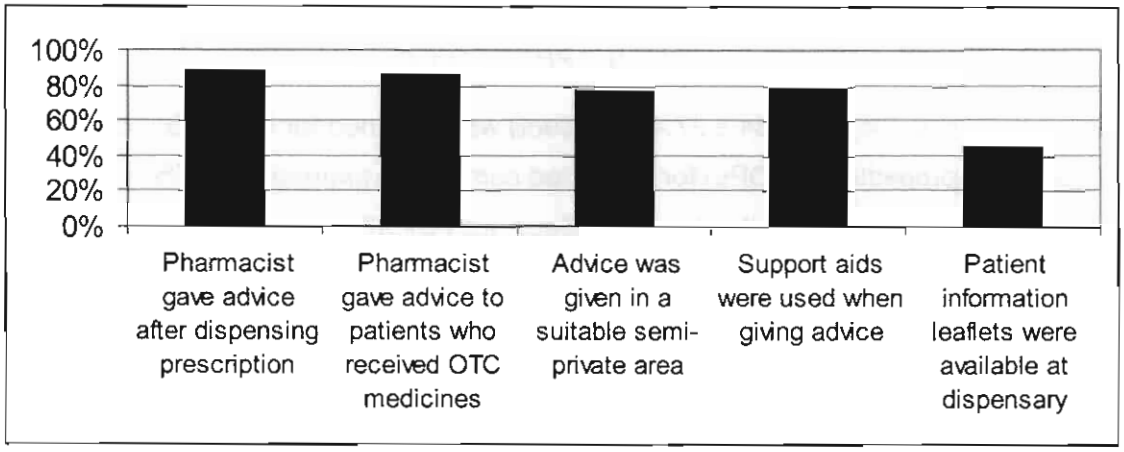


Figure 5.24 Percentage compliance with requirements pertaining to the provision of information and advice.

The questions relating to whether the pharmacist advises the patient or care-giver after a prescription or over the counter medicines have been dispensed (*refer to Chapter 2, section 2.14.3*) indicated that pharmacists in 89.05% (n=1049) and 86.42% (n=1018) community pharmacies respectively were performing these functions. Of concern, however, was the percentage of community pharmacists in North West, whom performed the function of advising patients on the use of over the counter medicines in only 79.78% (n=71) of cases (*refer to Appendix C, tables 122C and 123C*).

The question relating to whether the pharmacist advises patients in a suitable semi-private area indicated that only 77.52% (n=910) of pharmacies complied with this requirement (*refer to Chapter 2, section 2.11.5 for requirements related to waiting and consultation areas*). The Free State obtained the highest compliance in this regard with 91.94% (n=57), whilst Mpumalanga and the North West obtained the lowest percentage compliance of 66.67% (n=18) and 69.66% (n=62) respectively (*refer to Appendix C, table 124C*).

It was found that 78.52% (n=925) of community pharmacists used support aids when supplying advice, once again revealing that Mpumalanga and North West had the lowest percentage compliance of 66.67% (n=18) and 56.18% (n=50) respectively, indicating that there is room for improvement in this respect (*refer to Appendix C, table 125C*).

It was established that only 45.42% (n=535) of the inspected community pharmacies had patient information leaflets in the dispensary. Pharmacists are compelled by law to have patient information leaflets available within the dispensary (*refer to Chapter 2, section 2.14.3*); there is

thus ample room for improvement in this regard. The highest percentage compliance was obtained by Kwazulu-Natal with 72.12% (n=75) and the lowest percentage compliance by the Eastern Cape with only eight of sixty (13.33%) inspected pharmacies complying with this requirement (*refer to Appendix C, table 127C*).

5.5.11 WRITTEN STANDARD OPERATING PROCEDURES

The lowest compliance score (73.34 ± 27.49 per cent) was obtained for the availability of written standard operating procedures (SOPs) for inspected community pharmacies. The province with the lowest compliance score was the Northern Cape with 57.37 (± 30.05 per cent), whilst the province with the highest score was the Eastern Cape with 81.26 (± 26.53 per cent). A practical significant difference (d =0.8) was found between the compliance scores of these two provinces.

As seen in table 5.30 the other provinces did not achieve relatively high compliance scores, none of them obtaining scores above 80%.

Table 5.30 Average percentage compliance with written standard operating procedure requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	81.26	26.53	33.33	100.0
Free State	60	64.26	28.17	33.33	100.0
Gauteng	445	73.51	27.57	0.00	100.0
Kwazulu-Natal	101	74.70	26.23	33.33	100.0
Limpopo	45	70.19	29.42	33.33	100.0
Mpumalanga	25	66.89	29.98	33.33	100.0
North West	81	72.60	27.67	33.33	100.0
Northern Cape	26	57.37	30.05	33.33	100.0
Western Cape	239	76.05	25.94	0.00	100.0
TOTAL	**1081**	**73.34**	**27.49**	**0.00**	**100.0**

Figure 5.25 illustrates the required written standard operating procedures (*refer to Chapter 2, section 2.18 for discussion on SOPs*) which must be available and implemented, together with the compliance scores achieved by the community pharmacies.

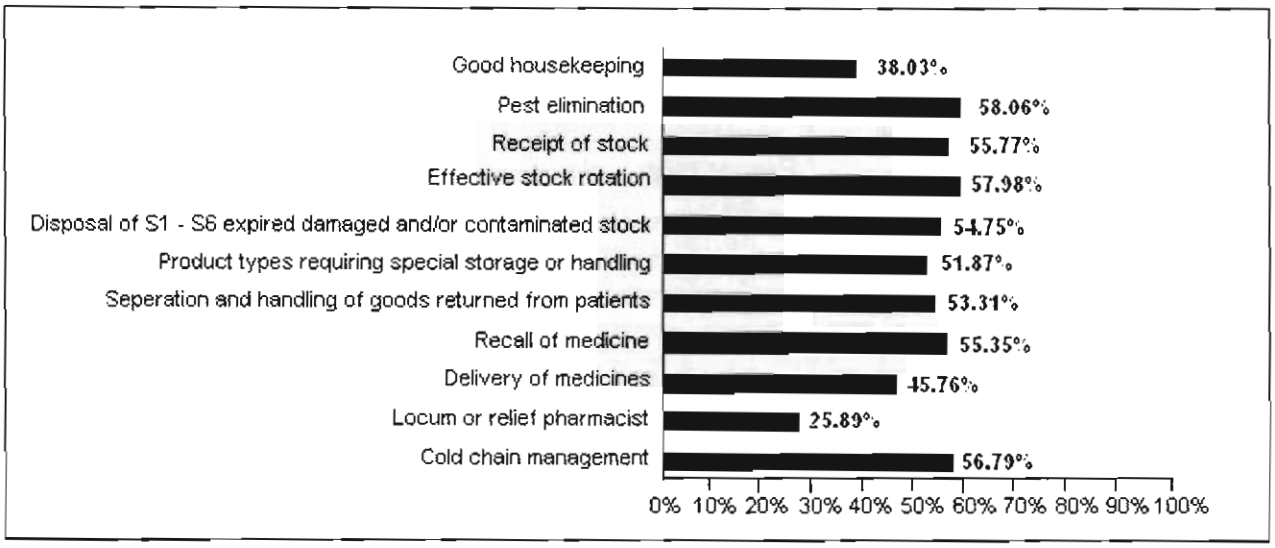


Figure 5.25 Percentage compliance with regard to written standard operating procedures.

Inspectors found that the Eastern Cape had the highest compliance with regard to the availability of the above-mentioned standard operating procedures, except for that of a locum/relief pharmacist, where Eastern Cape obtained a percentage of 35% (n=21). However, 41.67% (n=25) of inspectors indicated that a standard operating procedure for a *locum*/relief pharmacist was not applicable (*refer to Appendix C, table 144C*). Compliance rates for the other provinces are of concern and there is much room for improvement in this regard.

With regard to standard operating procedures being reviewed or updated on a regular basis, 33.19% (n=391) of community pharmacies did not comply. The Eastern Cape achieved a compliance score of 61.67% (n=37) for this requirement, the highest of the nine provinces. The province with the lowest compliance score was the Northern Cape with a percentage of 33.33% (n=9) (*refer to Appendix C, table 146C*).

5.5.12 REFERENCES

Table 5.31 illustrates the compliance scores achieved by the inspected community pharmacies with regard to the required references which the pharmacy must have access to. The overall findings with regard to reference material in community pharmacies were poor. The highest compliance score was obtained by Northern Cape (89.10 ± 9.87 per cent) followed by the Free State, Limpopo, Eastern Cape, Western Cape, Mpumalanga, Gauteng, Kwazulu-Natal and the North West. The compliance score for the North West was considerably lower than that of the Northern Cape with a percentage of (72.97 ± 21.68 per cent). A *d-value* of 0.7 was calculated for the Northern Cape and the North West which may reflect on a significant difference between these two provinces.

Table 5.31 Average percentage compliance with reference requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	84.41	14.89	40.00	100.0
Free State	60	88.78	14.92	33.33	100.0
Gauteng	446	81.06	18.78	33.33	100.0
Kwazulu-Natal	101	79.60	18.03	0.00	100.0
Limpopo	45	87.33	18.49	0.00	100.0
Mpumalanga	25	82.13	17.16	43.33	100.0
North West	81	72.97	21.68	33.33	100.0
Northern Cape	26	89.10	9.87	66.67	100.0
Western Cape	239	83.12	18.05	0.00	100.0
TOTAL	**1083**	**81.86**	**18.47**	**0.00**	**100.0**

Figure 5.26 illustrates the required references that a pharmacy must have access to (*refer to Chapter 2, section 2.11.3.4*), together with the compliance scores achieved for every reference. The reference source most available in pharmacies was a medical dictionary (74.96%), followed by a Daily Drug Use, MDR or SAMF, MIMS, Pharmacology textbook, list of non-substitutable drugs, Good Pharmacy Practice Manual, the Pharmacy and Medicines Act, Martindale and complementary medicine textbook (*refer to Appendix C, table 147C to 156C*).

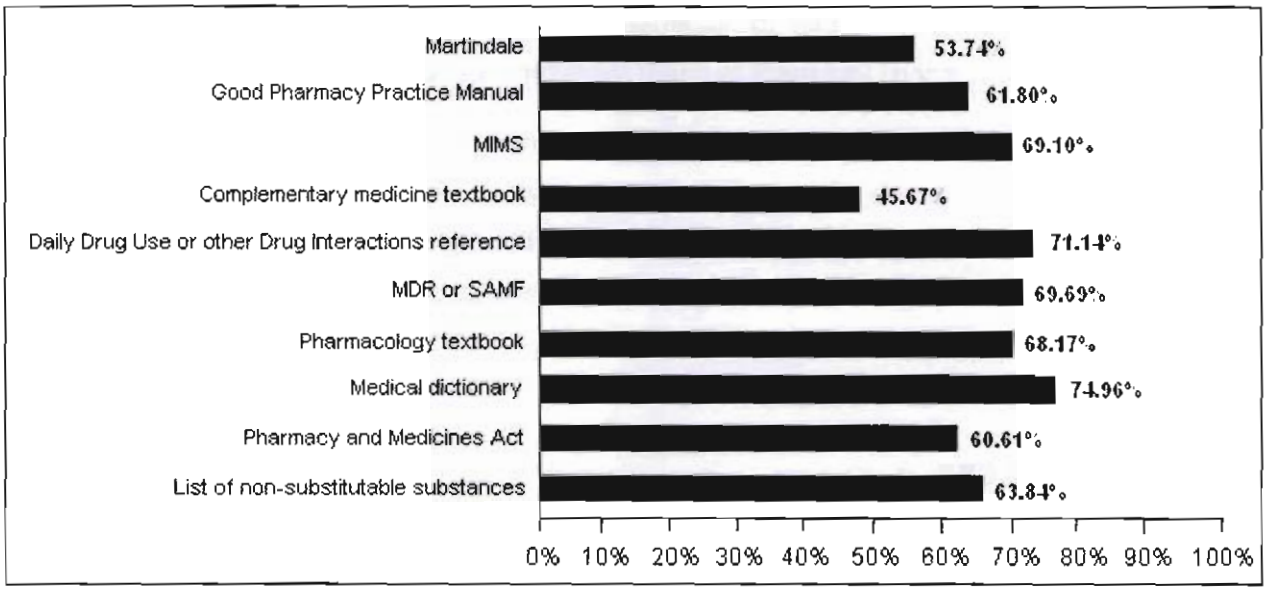


Figure 5.26 Percentage compliance with regard to access to reference sources.

Question 163, pertaining to the availability of the latest edition of the Good Pharmacy Practice Manual, revealed that only 61.80% (n=728) of community pharmacies had a copy of the Good Pharmacy Practice Manual (*refer to Appendix C, table 148C*). The Good Pharmacy Practice Manual is the cornerstone for the practice of pharmacy. The highest percentage compliance was obtained by the Northern Cape and Free State with 77.78% (n=21) and 77.42% (n=48) respectively, whilst the lowest percentage compliance was obtained by the North West 42.70%

(n=38). The remaining provinces had compliance scores of between 50 and 75 per cent (*refer to Appendix C, table 148C*).

5.5.13 GENERAL

Community pharmacies obtained a percentage compliance score of 97.59 (± 5.91 per cent) for general requirements. Table 5.32 illustrates the compliance scores achieved by the inspected community pharmacies with regard to general requirements according to province. The highest compliance score was obtained by Kwazulu-Natal (98.84 ± 4.68) followed by the Eastern Cape, Western Cape, Free State, Gauteng, Northern Cape, North West, Mpumalanga, and Limpopo. A practical significant difference (d>0.8) was found between the compliance scores obtained by community pharmacies in Kwazulu-Natal and community pharmacies in Limpopo.

Table 5.32 Average percentage compliance with general requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	98.31	5.74	58.33	100.0
Free State	60	98.06	3.87	83.33	100.0
Gauteng	446	97.75	5.27	41.67	100.0
Kwazulu-Natal	101	98.84	4.68	58.33	100.0
Limpopo	45	93.24	5.28	83.33	100.0
Mpumalanga	25	95.67	9.04	58.33	100.0
North West	82	95.93	5.32	79.17	100.0
Northern Cape	26	97.44	5.01	83.33	100.0
Western Cape	239	98.08	7.34	0.00	100.0
TOTAL	**1083**	**97.59**	**5.91**	**0.00**	**100.0**

Inspectors indicated that 6.54% (n=77) of community pharmacies were not designated as non-smoking areas (*refer to Chapter 2, section 2.11.2.2*), 28 of these were pharmacies situated in the Gauteng (*refer to Appendix C, table 157C*). The answers to questions relating to products that may not be sold in community pharmacies: arms/ammunition, fireworks, alcohol (other than for medical purposes), tobacco related substances and lotto tickets, showed relatively high compliance in this regard (*refer to Appendix C, tables 160C to 164C*).

Figure 5.27 illustrates the percentage compliance of community pharmacies with regard to general requirements, specifically the selling of certain products.

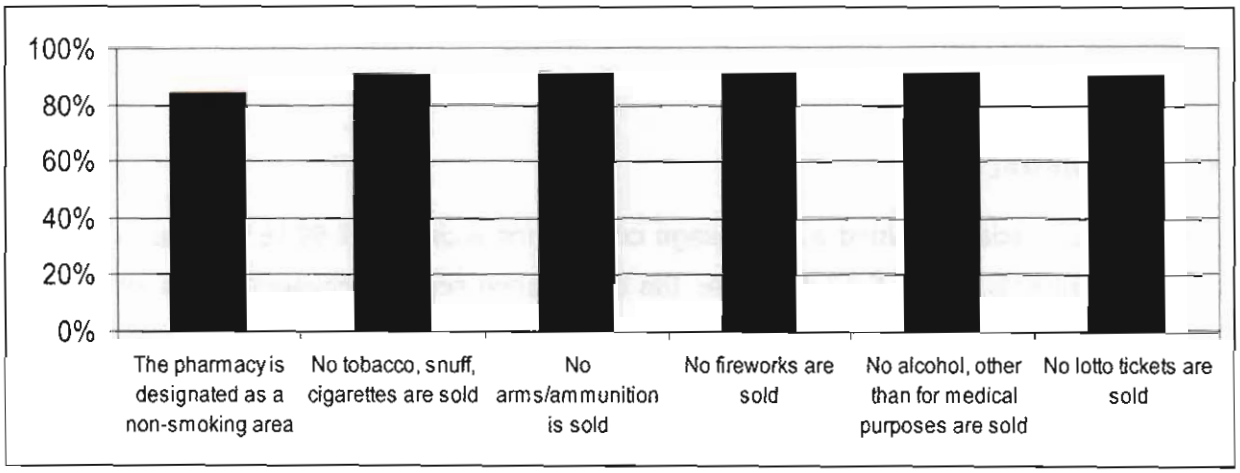


Figure 5.27 Percentage compliance with regard to general requirements.

Furthermore, 6 community pharmacies advertised medicines or professional services in ways contrary to the advertising guidelines discussed in section 2.19 of Chapter 2 (*refer to Appendix C, table 158C*). Compliance with requirements relating to continued professional development (*refer to Chapter 2, section 2.20*) was relatively poor. Fourteen percent (n=165) of community pharmacy inspectors indicated that pharmacists had not undergone any type of formal or informal training within the last two years. Thirty-nine per cent (n=462) and 24% (n=284) indicated that pharmacists had undergone some type of informal and formal training respectively (*refer to Appendix C, table 159C*).

5.5.14 PROMOTION OF PUBLIC HEALTH

This section achieved the highest compliance score (99.02 ± 6.30 per cent) for inspected community pharmacies during the study period. The province with the highest compliance score was the Free State with a perfect score of 100%. As seen in table 5.33 all of the provinces had relatively high compliance scores, with the exception of Gauteng (73.51 ± 27.57 per cent). A practical significant difference (d>0.8) was found between the compliance score obtained by community pharmacies in Gauteng and community pharmacies in the Free State.

Table 5.33 Average percentage compliance with promotion of public health requirements of inspected community pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	59	96.50	13.42	40.00	100.0
Free State	60	100.0	0.00	100.0	100.0
Gauteng	445	73.51	27.57	0.00	100.0
Kwazulu-Natal	101	99.12	2.58	90.00	100.0
Limpopo	45	99.56	1.68	93.33	100.0
Mpumalanga	25	99.73	1.33	93.33	100.0
North West	82	97.32	12.89	0.00	100.0
Northern Cape	26	99.62	1.96	90.00	100.0
Western Cape	239	98.80	6.85	0.00	100.0
TOTAL	**1083**	**99.02**	**6.30**	**0.00**	**100.0**

Inspectors found that 73.09% (n=861) of community pharmacies did not render Family Planning services and 84.21% (n=992) of community pharmacies did not render Primary Care Drug Therapy services at the inspected pharmacies (*refer to Appendix C, tables 165C and 168C*) (*refer to Chapter 2, section 2.17*).

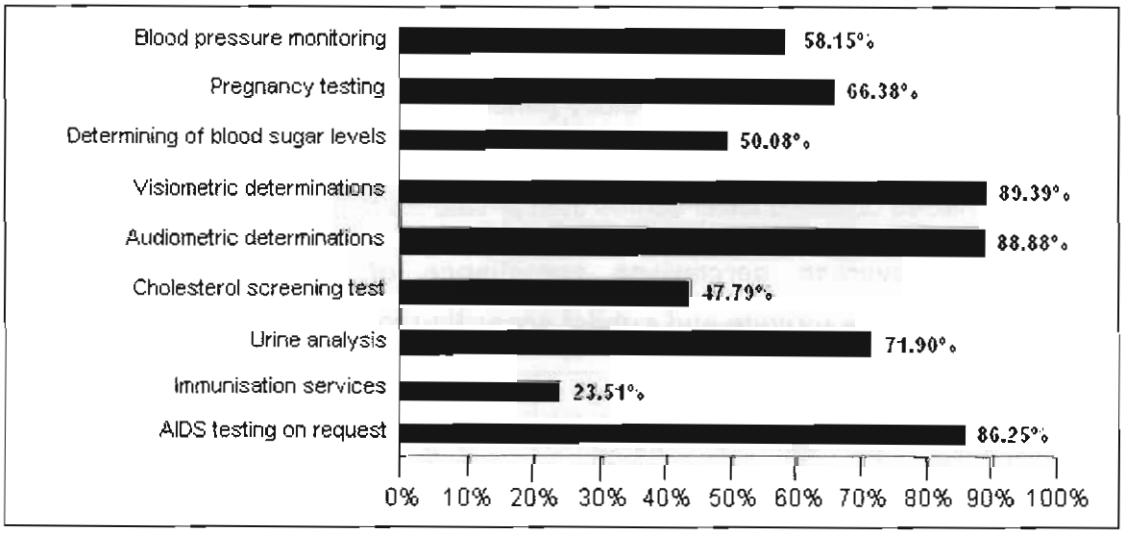


Figure 5.28 Percentage compliance with regard to services rendered in community pharmacies.

5.6 DISCUSSION OF THE INSTITUTIONAL INSPECTION QUESTIONNAIRE

In the following sections the results of the institutional inspection questionnaire will be discussed.

5.6.1 TOTAL GOOD PHARMACY PRACTICE COMPLIANCE IN INSTITUTIONAL PHARMACIES

Nationally all institutional pharmacies (both private and public) achieved a score of 92.49 (± 8.33 per cent) for compliance with Good Pharmacy Practice guidelines for all applicable sections. Community pharmacies obtained an overall compliance score of 92.28 (± 6.65 per cent) (*refer to section 5.5.1, table 5.15*). No practical significant difference (d<0.8) was found between the overall compliance score of institutional pharmacies compared to community pharmacies.

Kwazulu-Natal obtained the highest compliance score of 95.02 (± 4.73 per cent), whilst the Northern Cape obtained the lowest score of 84.42 (± 8.60 per cent). A practical significant difference (d>0.8) was found between the overall compliance scores obtained by Kwazulu-Natal and the Northern Cape.

More public and state subsidised institutional pharmacies (n=245) were inspected than private institutional pharmacies (n=90) during the study period and this may have had an influence on the national Good Pharmacy Practice compliance percentages as public and state subsidised institutional pharmacies obtained lower scores than private institutional pharmacies.

Table 5.34 Total average percentage compliance of all inspected institutional pharmacies (private and public) according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	93.08	5.30	80.00	99.35
Free State	25	92.31	16.41	14.81	99.13
Gauteng	84	94.95	4.81	77.34	100.0
Kwazulu-Natal	34	95.02	4.73	81.05	99.13
Limpopo	21	93.62	5.90	71.24	98.47
Mpumalanga	15	91.20	7.02	75.60	98.91
North West	37	88.29	9.62	51.63	98.26
Northern Cape	14	84.42	8.60	72.33	97.60
Western Cape	74	91.91	8.59	66.01	99.78
TOTAL	**340**	**92.49**	**8.33**	**14.81**	**100.0**

Table 5.35 illustrates the overall compliance scores of the private institutional pharmacies according to the nine different provinces of South Africa. Nationally public and state subsidised institutional pharmacies obtained a lower compliance score (91.02 ± 9.08 per cent) than private institutional pharmacies (96.39 ± 3.91 per cent). The provision of pharmaceutical care obtained the lowest compliance score in private institutional pharmacies (*refer to section 5.6.10*).

The highest compliance score for the private sector was obtained by the private institutional pharmacies in the Eastern Cape (98.42 ± 0.91 per cent), followed by the Free State, Northern Cape, Western Cape, Kwazulu-Natal, Gauteng, Limpopo, North West and Mpumalanga. A major practical significant difference (d>0.8) was found between the overall compliance scores of the Eastern Cape and Mpumalanga. Furthermore, a practical significant difference was found between the overall compliance scores obtained by the Eastern Cape and Limpopo, North West and the Northern Cape.

Table 5.35 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	98.42	0.91	97.17	99.34
Free State	4	97.93	0.65	97.39	98.69
Gauteng	45	96.40	3.54	80.83	100.0
Kwazulu-Natal	11	96.47	2.63	89.32	99.13
Limpopo	1	95.20	0.00	95.21	95.21
Mpumalanga	2	83.66	11.40	75.60	91.72
North West	5	95.08	4.23	88.02	98.26
Northern Cape	1	97.60	0.00	97.60	97.60
Western Cape	17	97.37	3.09	89.98	99.78
TOTAL	**90**	**96.40**	**3.91**	**75.60**	**100.0**

Table 5.36 illustrates the overall compliance scores of the public institutional pharmacies for the various provinces of South Africa. The highest compliance score for the public sector was obtained by the public institutional pharmacies in Kwazulu-Natal (94.33 ± 5.37 per cent), followed by Limpopo, Gauteng, Eastern Cape, Mpumalanga, Free State, Western Cape, North West and the Northern Cape. A practical significant difference (d=0.8) was found between the overall compliance scores of Kwazulu-Natal and the North West. The most important problems identified in public institutional pharmacies were registration details, the availability of references, the provision of pharmaceutical care and the availability of written standard operating procedures (compliance score < 90%).

Table 5.36 Total average percentage compliance of inspected PUBLIC INSTITUTIONAL pharmacies according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	92.41	5.24	78.00	98.91
Free State	20	91.03	18.20	14.81	99.13
Gauteng	38	93.13	5.53	77.34	99.56
Kwazulu-Natal	23	94.33	5.37	81.05	98.91
Limpopo	20	93.54	6.04	71.24	98.47
Mpumalanga	13	92.36	5.98	82.35	98.91
North West	30	86.79	10.01	51.63	98.26
Northern Cape	13	83.41	8.03	72.33	96.08
Western Cape	57	90.29	9.04	66.01	99.13
TOTAL	**246**	**91.02**	**9.09**	**14.81**	**99.56**

5.6.2 PHARMACY PERSONNEL

In the following sections the availability of pharmacy personnel in institutional pharmacies of South Africa, according to province, will be discussed.

5.6.2.1 Pharmacists

Two hundred and eighty-four (82.80%) inspected institutional pharmacies (including private and public institutional pharmacies) (N=343) employed one or more full-time pharmacists during the study period. On average there were 2.83 ± 2.56 full-time pharmacists employed per institutional pharmacy (n=284), during the study period (*refer to Appendix D, table 8D*). According to the study results, it was found that the majority of institutional pharmacists worked in Gauteng (321 of 813), Western Cape (148 of 813) and Kwazulu-Natal (100 of 813) respectively. The highest average number of full-time pharmacists employed in institutional pharmacies was revealed for Gauteng (4.34 ± 3.53), followed by Kwazulu-Natal, Eastern Cape, Free State, Western Cape, Limpopo, Mpumalanga, North West and the Northern Cape (*refer to Appendix D, table 8D*). No practical significant difference was found between the average number of institutional full-time pharmacists per institutional pharmacy for the different provinces. All of the other provinces had fewer than 100 full-time institutional pharmacists in their pharmacies, with the Northern Cape with only 9 full-time pharmacists employed in these pharmacies (*refer to Appendix D, table 8D*). Furthermore, the maximum number of full-time institutional pharmacists recorded in a single institutional pharmacy was 15, this pharmacy was situated in Gauteng (*refer to Appendix D, table 8D*).

Inspectors indicated that 138 (40.23%) of inspected institutional pharmacies (N=343) employed community service pharmacists, an average of 1.57 ± 1.03 community service pharmacists. It was found that the majority of community service pharmacists were employed in Gauteng (69 of 216) and the Western Cape (30 of 216) (*refer to Appendix D, table 7D*). It was found that the highest average number of community service pharmacists were employed in Gauteng (2.09 ±

1.40), followed by Limpopo, North West, Mpumalanga, Northern Cape, Western Cape, Free State, Eastern Cape and Kwazulu-Natal (*refer to Appendix D, table 7D*). No practical significant difference was found between the average number of community service pharmacists per pharmacy for the different provinces.

Inspectors indicated that 67 (19.53%) of the inspected institutional pharmacies (N=343) employed part-time pharmacists; an average of 1.87 ± 1.81 part-time pharmacists were employed in these institutional pharmacies. According to the study results, it was found that the majority of part-time institutional pharmacists worked in the Western Cape (39 of 125) and Gauteng (33 of 125) (*refer to Appendix D, table 9D*). In this instance, the Eastern Cape reported the highest average number of part-time institutional pharmacists (2.38 ± 2.20), whilst Limpopo and the Northern Cape did not employ any part-time pharmacists during the study period. Lastly, the maximum number of part-time pharmacists recorded in a single institutional pharmacy was 11, this pharmacy was situated in the Western Cape (*refer to Appendix D, table 9D*).

5.6.2.2 Pharmacist interns

The results show that of the 343 institutional inspections carried out; 73 institutional pharmacies (21.29%) employed pharmacist interns during the study period; an average of 1.86 ± 1.34 pharmacist interns were employed per inspected institutional pharmacy (including private and public institutional pharmacies). The majority (49 of 136) of pharmacist interns were recorded in Gauteng.

The highest average number of pharmacist interns was recorded for Limpopo (3.00 ± 2.00). Fourteen institutional pharmacy inspections were carried out in the Northern Cape, whilst a total of 3 pharmacist interns were recorded, in Mpumalanga a number of 15 inspections were carried out and only 4 pharmacist interns were recorded (*refer to Appendix D, table 10D*). A practical significant difference was found between the provinces that revealed the lowest average number of pharmacist interns namely: Western Cape (1.08 ± 0.29), Mpumalanga (1.33 ± 0.58) and North West (1.67 ± 0.82 and the province that revealed the highest average number of pharmacist interns namely: Limpopo.

5.6.2.3 Possible effect of the number of pharmacists on Good Pharmacy Practice compliance in institutional pharmacies.

The Good Pharmacy Practice compliance scores were calculated for the following scenarios:

- For inspected institutional pharmacies (including private and public institutional pharmacies) that employed zero pharmacists (In these scenarios pharmacists refer to full-time and part-time pharmacists, pharmacist interns as well as community service pharmacists).
- For inspected institutional pharmacies that employed one pharmacist.

- For inspected institutional pharmacies that employed two pharmacists.
- For inspected institutional pharmacies that employed three pharmacists.
- For inspected institutional pharmacies that employed more than three pharmacists during the study period.

5.6.2.3.1 Inspected institutional pharmacies that did not employ any institutional pharmacists

Institutional pharmacies that employed no pharmacists during the study period obtained an overall compliance score of 79.70 (± 9.43 per cent). These institutional pharmacies were public institutional pharmacies as private institutional pharmacies are compelled by law to employ a responsible pharmacist. Regulation 12 of the Pharmacy Act (53/1974) makes provision for a post-basic pharmacist assistant to provide services or acts that fall under Regulation 11(5): distribution and control over Schedule 1 to 6 medicines, 11(6): order of medicines up to Schedule 6, 11(8): provide information for the correct use of medicines and 11(10): provision of information in order to promote public health. This must be under the indirect supervision of a pharmacist in a clinic or other facility approved by the South African Pharmacy Council. The compliance scores achieved for the different sections of Good Pharmacy Practice by these pharmacies were relatively low as seen in table 5.37, especially the scores obtained for registration details (52.38 ± 12.37 per cent), availability of reference sources (48.44 ± 20.14 per cent), provision of pharmaceutical care (76.11 ± 20.25 per cent) and availability of standard operating procedures (63.93 ± 19.19 per cent).

Table 5.37 Good Pharmacy Practice compliance scores for institutional pharmacies that employed zero pharmacists.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	25	52.38	12.37	33.33	85.71
Premises and layout	25	81.73	15.67	40.00	100.0
Equipment	25	85.52	12.76	61.90	100.0
Storage	25	84.86	19.53	5.88	100.0
Control of medicines	25	90.99	5.61	77.33	100.0
Thermolabile medicines	25	86.83	22.20	0.00	100.0
Dispensing of prescriptions	25	89.07	14.89	40.00	100.0
Pharmaceutical care	25	76.11	20.25	38.89	100.0
SOPs	25	63.93	19.19	31.48	100.0
References	25	48.44	20.14	0.00	100.0
General	25	85.50	18.98	0.00	100.0
Promotion of public health	25	95.47	19.99	0.00	100.0
TOTAL GPP	**25**	**79.70**	**9.43**	**51.63**	**96.08**

5.6.2.3.2 One pharmacist employed in inspected institutional pharmacies

Institutional pharmacies that employed one pharmacist during the study period obtained an overall compliance score of 89.84 (± 11.34 per cent). A practical significant difference was found (d>0.8) between the overall compliance scores obtained by institutional pharmacies that did not employ any pharmacists and those that employed one pharmacist.

As seen in table 5.38, institutional pharmacies that employed one pharmacist obtained compliance scores of 89.52 (± 12.15 per cent) for registration details, 80.29 (± 20.68 per cent) for availability of reference sources, 79.70 (± 20.94 per cent) for provision of pharmaceutical care and 83.80 (± 20.91 per cent) for availability of written standard operating procedures. No practical significant difference (d<0.8) was found between the compliance scores obtained for the provision of pharmaceutical care of institutional pharmacies without any pharmacists and those with one pharmacist. A practical significant difference (d>0.8) was found between the compliance scores obtained for registration details and the availability of reference sources and standard operating procedures for pharmacies that employed zero pharmacists and those that employed one pharmacist.

Table 5.38 Good Pharmacy Practice compliance scores for institutional pharmacies that employed one pharmacist.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	75	89.52	12.15	52.38	100.0
Premises and layout	75	91.20	13.66	0.00	100.0
Equipment	75	92.25	16.99	0.00	100.0
Storage	75	92.18	12.94	0.00	100.0
Control of medicines	75	91.69	9.39	62.67	100.0
Thermolabile medicines	75	91.44	15.68	0.00	100.0
Dispensing of prescriptions	75	93.78	16.49	0.00	100.0
Pharmaceutical care	75	79.70	20.94	0.00	100.0
SOPs	75	83.80	20.91	0.00	100.0
References	75	80.29	20.68	0.00	100.0
General	75	96.44	11.98	0.00	100.0
Promotion of public health	75	98.40	11.63	0.00	100.0
TOTAL GPP	**75**	**89.84**	**11.34**	**14.81**	**99.56**

5.6.2.3.3 Two pharmacists employed in inspected institutional pharmacies

Institutional pharmacies that employed two pharmacists during the study period obtained an overall compliance score of 93.08 (± 6.16 per cent). No practical significant difference ($d<0.8$) was found between the compliance scores achieved by institutional pharmacies that employed one pharmacist and those that employed two; however, one can see that there was a slight increase in the compliance score achieved with two pharmacists.

Furthermore, institutional pharmacies that employed two pharmacists obtained a compliance score of 88.38 (± 8.24 per cent) for provision of pharmaceutical care, an 8.68% increase from the previous scenario. With regard to the availability of reference sources, pharmacies that employed two pharmacists obtained a score of 88.15 (± 13.52 per cent), an increase of 7.85% from the previous scenario. No practical significant difference ($d<0.8$) was found between the compliance scores achieved for the provision of pharmaceutical care and availability of reference sources of institutional pharmacies that employed one pharmacist and those that employed two pharmacists. With regard to the compliance scores obtained by institutional pharmacies that employed one pharmacist and those that employed two pharmacists; a slight

increase in the scores obtained for the different Good Pharmacy Practice sections was observed as seen in tables 5.38 and 5.39. It can thus be said that Good Pharmacy Practice compliance increases together with the number of pharmacists.

Table 5.39 Good Pharmacy Practice compliance scores for institutional pharmacies that employed two pharmacists.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	65	88.57	15.97	0.00	100.0
Premises and layout	65	93.15	8.03	63.33	100.0
Equipment	65	97.25	5.84	71.43	100.0
Storage	65	93.60	11.16	29.41	100.0
Control of medicines	65	93.23	7.33	60.00	100.0
Thermolabile medicines	65	94.81	9.69	50.00	100.0
Dispensing of prescriptions	65	98.67	5.03	66.67	100.0
Pharmaceutical care	65	88.38	8.24	55.56	100.0
SOPs	65	88.29	15.82	44.44	100.0
References	65	88.15	13.52	48.15	100.0
General	65	97.88	6.08	58.33	100.0
Promotion of public health	65	99.69	1.74	90.00	100.0
TOTAL GPP	**65**	**93.08**	**6.16**	**66.01**	**100.0**

5.6.2.3.4 Three pharmacists employed in inspected institutional pharmacies

Once again an increase in the overall Good Pharmacy Practice compliance score (94.99 ± 4.12 per cent) was observed for institutional pharmacies that employed three pharmacists. No practical significant difference (d=0.3) was found between the compliance scores of institutional pharmacies that employed two pharmacists and those that employed three, however a *d-value* of 0.5 was found for the compliance scores achieved by pharmacies that employed one pharmacist and those that employed three pharmacists.

A slight increase in the compliance scores obtained for the different sections of Good Pharmacy Practice was observed for institutional pharmacies that employed three pharmacists. The compliance score obtained for the provision of pharmaceutical care remained relatively stable in this scenario. No practical significant differences (d<0.8) was found between the compliance

scores achieved for the different sections of Good Pharmacy Practice of institutional pharmacies that employed two and three pharmacists.

Table 5.40 Good Pharmacy Practice compliance scores for institutional pharmacies that employed three pharmacists.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	55	90.65	11.59	57.14	100.0
Premises and layout	55	94.85	6.51	71.67	100.0
Equipment	55	97.58	5.35	76.19	100.0
Storage	55	96.19	5.45	74.51	100.0
Control of medicines	55	95.52	5.15	76.00	100.0
Thermolabile medicines	55	95.83	7.04	66.67	100.0
Dispensing of prescriptions	55	96.97	6.26	80.00	100.0
Pharmaceutical care	55	88.84	7.61	75.00	100.0
SOPs	55	93.19	10.34	55.56	100.0
References	55	92.12	11.67	33.33	100.0
General	55	99.09	2.74	87.50	100.0
Promotion of public health	55	99.64	1.89	90.00	100.0
TOTAL GPP	**55**	**94.99**	**4.12**	**80.61**	**99.78**

5.6.2.3.5 More than three pharmacists employed in inspected institutional pharmacies

The overall compliance score achieved by pharmacies that employed more than three pharmacists (95.36 ± 4.65) during the study period remained relatively stable, as no practical significant difference was found between the compliance scores achieved by institutional pharmacies that employed three pharmacists and those that employed more than three.

The same could be said for the twelve sections of Good Pharmacy Practice as the scores remained relatively stable (*refer to tables 5.40 and 5.41*) from scenario 4 (three pharmacists) to 5 (more than three pharmacists).

Table 5.41 Good Pharmacy Practice compliance scores for institutional pharmacies that employed more than three pharmacists.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	120	92.94	11.69	42.86	100.0
Premises and layout	120	95.33	6.83	71.67	100.0
Equipment	120	98.95	2.58	85.71	100.0
Storage	120	96.18	5.65	74.51	100.0
Control of medicines	120	95.51	5.39	73.33	100.0
Thermolabile medicines	120	96.97	6.29	62.50	100.0
Dispensing of prescriptions	120	98.50	7.70	20.00	100.0
Pharmaceutical care	120	88.38	9.86	33.33	100.0
SOPs	120	91.81	14.55	22.22	100.0
References	120	94.81	9.61	48.15	100.0
General	120	99.03	6.03	37.50	100.0
Promotion of public health	120	99.86	1.09	90.00	100.0
TOTAL GPP	**120**	**95.36**	**4.65**	**75.59**	**99.78**

5.6.2.4 Registered pharmacist's assistants and other support personnel

The analysis of the inspection results revealed that 460 unregistered persons in the institutional pharmacies would require training in order to register as pharmacist's assistants with the South African Pharmacy Council. Of these, 136 and 68 were recorded in Gauteng and the Western Cape respectively (*refer to Appendix D, table 15D*).

Inspectors indicated that 91 (26.53%) of the inspected institutional pharmacies (N=343) employed basic pharmacist's assistants; an average of 2.21 ± 1.83 basic pharmacist's assistants were employed per institutional pharmacy (*refer to Appendix D, table 11D*). Inspectors indicated that 104 (30.32%) of inspected institutional pharmacies (N=343) employed post-basic pharmacist's assistants, an average of 1.87 ± 1.25 per pharmacy (*refer to Appendix D, table 12D*). Furthermore, inspectors indicated that 88 (25.66%) and 72 (21%) of inspected institutional pharmacies (N=343) respectively employed learner basic and learner post-basic pharmacist's assistants during the study period. An average of 2.27 ± 2.44 and 1.78 ± 1.38 learner basic and post-basic assistants were employed per institutional pharmacy respectively (*refer to Appendix D, tables 13D and 14D*).

The highest average number of pharmacist's assistants (basic) was found for the Northern Cape (5.00 ± 5.66), whilst the lowest average was revealed for the Western Cape (1.31 ± 0.63). No practical significant difference (d<0.8) was found between the average number of basic pharmacist's assistants for these two provinces (*refer to Appendix D, table 11D*).

The highest average number of pharmacist's assistants (post-basic) was found for Gauteng (2.19 ± 1.56), whilst the lowest average was reported for Limpopo (1.11 ± 0.33). No practical significant difference was found between the average number of pharmacist's assistants (post-basic) for these two provinces (*refer to Appendix D, table 12D*).

The highest average number of pharmacist's assistants (learner basic) was found for Limpopo (4.17 ± 2.32), whilst the Eastern and Northern Cape employed only one learner basic pharmacist assistant each. A practical significant difference (d>0.8) was found between the average number of learner basic pharmacist's assistants for these provinces (*refer to Appendix D, table 13D*).

The highest average number of pharmacist's assistants (learner post-basic) was found for the Northern Cape (5.00 ± 5.66), followed by Mpumalanga, Kwazulu-Natal, Free State, Gauteng, Western Cape, North West, Eastern Cape and Limopo (Limpopo employed zero learner post-basic pharmacist's assistants during the study period) (*refer to Appendix D, table 14D*). No practical significant difference (d<0.8) was found between the average number of pharmacist's assistants (post-basic) of the nine different provinces.

Table 5.42 illustrates the ratio of pharmacist's assistants (qualified and learner) to pharmacist (full-time, part-time and community service) ratio for the nine provinces of South Africa.

Table 5.42 Ratio of pharmacist's assistants (qualified and learner) to pharmacists (full-time, part-time and community service) according to province.

PROVINCE	RATIO OF PHARMACIST'S ASSISTANTS TO PHARMACISTS	
	Qualified assistants : Pharmacists	Learner assistants : Pharmacists
Eastern Cape	1 : 3.03	1 : 9.91
Free Sate	1 : 2.12	1 :1.56
Gauteng	1 : 4.03	1 : 4.23
Kwazulu-Natal	1 : 2.46	1 : 3.80
Limpopo	1 : 1.51	1 : 2.24
Mpumalanga	1 : 1.30	1 : 2.18
North West	1 : 1.62	1 : 3.17
Northern Cape	1 : 1.50	1 : 1.36
Western Cape	1 : 6.03	1 : 3.95
TOTAL	**1 : 2.92**	**1 : 3.52**

The total number of pharmacist's assistants recorded in the institutional pharmacies inspected were 723. Of these, 395 were qualified pharmacist's assistants (basic and post-basic), with 328 learner pharmacist's assistants (learner basic and learner post-basic) (*refer to Appendix D, tables 11D to 14D*). According to the inspection results, the assistant to pharmacists (full-time,

part-time and community service pharmacists) ratios for institutional pharmacies inspected were:

- ❖ Qualified assistant's : pharmacists 1 : 2.92
- ❖ Learner assistant's : pharmacists 1 : 3.52

The ratio of the learner assistants to qualified assistants (1 : 1.2) is not encouraging as this implies that increases in the number of qualified assistants cannot be expected in future. According to the inspection results there is one qualified pharmacist assistant per every 2.92 institutional pharmacists, where the "ideal" would be one assistant for every pharmacist (Interim Pharmacy Council of South Africa, 1998:9).

According to the inspection results there was only one learner assistant per every 9.91 institutional pharmacists in the Eastern Cape during the study period, whilst there was 1 qualified pharmacist assistant for every 3.03 institutional pharmacists (*refer to table 5.42*). In this instance, the ratio of the learner assistants to qualified assistants (1 : 3.27) was more encouraging. For the Western Cape, there was only one qualified pharmacist assistant for every 6.66 institutional pharmacists as well as only one learner assistant for every 7.20 institutional pharmacists (*refer to table 5.42*). The ratio of learner assistants to qualified assistants (1 : 1.08) was less encouraging in this instance.

The Free State showed more promising figures as the qualified assistant to institutional pharmacists ratio was 1 : 2.47, whilst the learner assistant to institutional pharmacists ratio was 1 : 3.26 (*refer to table 5.42*). The ratio of learner assistants to qualified assistants, however was not encouraging (1 : 1.32) for the Free State.

5.6.2.5 Possible effect of the number of pharmacist's assistants on Good Pharmacy Practice compliance

Tables 5.43 and 5.44 illustrate the possible effect that pharmacist's assistants may have had on Good Pharmacy Practice compliance during the study period. Thirty-eight percent (n=93) of inspected public institutional pharmacies (N=246) did not employ any pharmacist's assistants, whilst 62% (n=153) employed one or more pharmacist's assistants. Twenty-three percent (n=21) of inspected private institutional pharmacies (N=90) did not employ any pharmacist's assistants, whilst 77% (n=69) employed one or more pharmacist's assistants.

Inspected public institutional pharmacies that did not employ any registered pharmacist's assistants in the pharmacy obtained an overall GPP percentage compliance of 87.67 (± 11.17 per cent). Public institutional pharmacies that employed one or more pharmacist's assistants achieved an overall percentage compliance of 93.07 (± 6.82 per cent).

Inspected private institutional pharmacies that did not employ any registered pharmacist's assistants obtained an overall percentage compliance of 95.70 (± 3.35 per cent), whilst those

that employed one or more pharmacist's assistants achieved an overall percentage compliance of 96.61 (± 4.06 per cent).

Table 5.43 indicates the trend difference in Good Pharmacy Practice compliance of public institutional pharmacies with and without pharmacist's assistants. For instance, when comparing the difference between the average percentage compliance with regard to the availability of reference sources, public institutional pharmacies that employed pharmacist's assistants obtained a compliance of 89.52 ± 16.34, whilst those that did not employ pharmacist assistant's during the study period obtained a score of 73.95 (± 23.15 per cent). With regard to Standard Operating Procedures, public institutional pharmacies that employed pharmacist's assistants obtained a score of 89.71 ± 16.34, whilst those that did not, obtained a score of 79.17 (± 21.16 per cent). A difference is noted although a practical significant difference was not found between the compliance scores achieved by public institutional pharmacies with pharmacist's assistants and without ($d<0.8$).

Without any pharmacist's assistants.

With one or more pharmacist's assistants.

Table 5.43 Possible effect of the number of pharmacist's assistants on Good Pharmacy Practice compliance in public institutional pharmacies.

GPP section	N	AVERAGE PERCENTAGE	STANDARD DEVIATION	MINIMUM	MAXIMUM
Registration details	93	82.49	17.37	42.85	100.00
	153	86.37	17.63	0.00	100.00
Premises and layout	93	88.06	14.82	0.00	100.00
	153	93.41	7.95	65.00	100.00
Equipment	93	90.63	16.52	0.00	100.00
	153	97.07	6.02	61.90	100.00
Storage	93	90.58	12.81	0.00	100.00
	153	93.80	11.27	5.88	100.00
Control of medicines	93	89.99	8.73	60.00	100.00
	153	93.84	5.84	70.67	100.00
Thermolabile medicines	93	90.55	15.60	0.00	100.00
	153	95.42	10.90	0.00	100.00
Dispensing of prescriptions	93	93.76	15.09	0.00	100.00
	153	96.82	9.71	20.00	100.00
Pharmaceutical care	93	82.56	16.35	0.00	100.00
	153	85.26	12.80	5.56	100.00
SOPs	93	79.17	21.16	0.00	100.00
	153	89.71	16.34	22.22	100.00
References	93	73.95	23.15	0.00	100.00
	153	89.52	16.34	0.00	100.00
General	93	94.40	15.14	0.00	100.00
	153	97.96	6.29	37.50	100.00
Promotion of public health	93	98.57	10.49	0.00	100.00
	153	99.22	8.15	0.00	100.00
TOTAL GPP	93	87.67	11.17	14.81	98.91
	153	93.07	6.82	51.63	99.56

Table 5.44 illustrates the trend difference in Good Pharmacy Practice compliance in private institutional pharmacies with and without pharmacist's assistants. When comparing the difference between the average percentage compliance with regard to the provision of pharmaceutical care, private institutional pharmacies that employed pharmacist's assistants achieved a score of 91.30 (± 7.55 per cent), whilst private institutional pharmacies that did not employ any pharmacist's assistants achieved a percentage compliance score of 82.01 (± 23.53 per cent). A trend difference is noted although a practical significant difference was not found between the compliance scores achieved by private institutional pharmacies with pharmacist's assistants and without ($d<0.8$).

Table 5.44 Possible effect of the number of pharmacist's assistants on Good Pharmacy Practice compliance in private institutional pharmacies.

GPP section	N	AVERAGE PERCENTAGE	STANDARD DEVIATION	MINIMUM	MAXIMUM
Registration details	21	96.60	6.23	80.95	100.00
	69	96.55	6.88	71.43	100.00
Premises and layout	21	97.22	2.85	90.00	100.00
	69	96.74	5.63	73.33	100.00
Equipment	21	98.98	2.56	90.48	100.00
	69	99.45	1.64	90.48	100.00
Storage	21	98.04	3.16	90.20	100.00
	69	97.58	4.09	74.51	100.00
Control of medicines	21	98.67	2.23	92.00	100.00
	69	97.74	4.56	73.33	100.00
Thermolabile medicines	21	97.02	5.91	79.17	100.00
	69	96.50	6.84	62.50	100.00
Dispensing of prescriptions	21	98.10	8.73	60.00	100.00
	69	99.42	2.97	80.00	100.00
Pharmaceutical care	21	82.01	23.53	0.00	100.00
	69	91.30	7.55	66.67	100.00
SOPs	21	88.98	15.77	50.00	100.00
	69	93.34	12.49	44.44	100.00
References	21	95.41	5.84	81.48	100.00
	69	93.88	10.31	48.15	100.00
General	21	99.60	1.82	91.67	100.00
	69	98.67	5.65	58.33	100.00
Promotion of public health	21	99.52	2.18	90.00	100.00
	69	99.61	1.86	90.00	100.00
TOTAL GPP	21	95.70	3.35	89.32	99.78
	69	96.61	4.06	75.60	100.00

5.6.2.6 Availability of pharmacists according to the average number of hours an institutional pharmacy was open

On average, institutional pharmacies were open 10 hours per day, Mondays to Thursdays (*refer to Appendix D, table 139D*). Pharmacies in the North West were open 11.72 ± 6.09 hours per day form Mondays to Thursdays, whilst pharmacies in the Eastern Cape were open 8.39 ± 1.65 hours per day form Mondays to Thursdays. A *d-value* of 0.5 was calculated indicating a medium effect which could reflect upon a practical significant difference between the average number of hours institutional pharmacies were open in these two provinces (*refer to Appendix D, table 139D*). On average, institutional pharmacies were open 9 hours per day on Fridays. Once again, pharmacies in the North West (11.64 ± 6.16 hours) were open the highest number of hours; whilst pharmacies in the Eastern Cape (8.13 ± 2.15 hours) were open the least (*refer to Appendix D, table 140D*).

Furthermore, inspectors indicated that there were pharmacies in Gauteng, the North West and the Eastern Cape that were open 24 hours a day from Mondays to Fridays, whilst none of the institutional pharmacies in the remaining provinces were open 24 hours a day (*refer to Appendix D, tables 139D and 140D*).

The number of hours institutional pharmacies were open per day decreased during weekends and on public holidays. On average, institutional pharmacies were open 3 hours per day on Saturdays and 2 hours on Sundays and public holidays (*refer to Appendix D, table 141D to 143D*). Institutional pharmacies in the North West were open for the longest hours on Saturdays (5.55 ± 9.26 hours), Sundays (5.19 ± 9.39 hours) and public holidays (5.55 ± 9.39 hours) during the study period, whilst pharmacies in Mpumalanga were open the least on Saturdays (0.93 ± 2.04 hours), Sundays (0.57 ± 1.50 hours) and public holidays (0.57 ± 1.50 hours). Once again inspectors indicated that there were institutional pharmacies in Gauteng the North West and the Eastern Cape that were open 24 hours a day on Saturdays, Sundays and Public Holidays (*refer to Appendix C, tables 141D to 143D*).

Inspectors furthermore indicated that 8.75% of institutional pharmacists could not be contacted 24 hours a day (*refer to Appendix D, table 129D*). In the Northern Cape and North West, pharmacists could not be contacted 24 hours a day in 21.43% (n=3) and 13.51% (n=3) of cases (*refer to Appendix D, table 138D*).

Lastly, it was found that on average institutional pharmacies were open 7.35 (± 4.09 hours) per day, public and state subsidised pharmacies were open 6.53 (± 3.62 hours) per day, private institutional pharmacies were open 9.62 (± 4.54 hours) and mine hospitals were open 6.45 (± 1.07 hours) daily.

5.6.2.7 Picking and handling of medicines

Inspectors indicated that 89.41% (n=304) of institutional pharmacists and pharmacists interns did the actual picking of medicines prior to dispensing, 48.38% (n=164) of registered pharmacist's assistants and 16.03% (n=55) of other personnel (*refer to Appendix D, table 16D*). Furthermore, inspectors found that 89.12% (n=303) of institutional pharmacists and/or pharmacist interns handed the medicine to the patient or care-giver, 32.35% (n=110) of registered pharmacist's assistants, 12.35% (n=42) of other personnel and 9.91% (n=34) of drivers/couriers (*refer to Appendix D, table 17D*).

5.6.2.8 Items dispensed per day on average

In the following sections discuss the number of prescribed and Pharmacist Initiated Therapy items dispensed on average per day will be discussed. Comparisons will be made between the average number of items dispensed per province during the study period.

It is important to mention that these results could be based on estimated figures given by the pharmacist on duty during the inspection, instead of actual statistics.

Inspectors indicated that the inspected institutional pharmacies rendered services to in-patients (14.87%, n=51), out-patients (20.41%, n=70), clinics or other hospitals (2.04%, n=7) and other institutions (59.19%, n=203) (*refer to Appendix D, table 4D*).

5.6.2.8.1 Prescribed items

The average number of dispensed items prescribed by an authorised prescriber per day, varied across the nine different provinces. Gauteng revealed an average of 903.39 ± 1265.98 dispensed items, 460.38 being in-patient items and 470.29 being out-patient items. Western Cape revealed an average of 669.04 ± 911.58 dispensed items, 186.43 of these being in-patient items and 447.86 being out-patient items. The average number of items dispensed per day in Mpumalanga (7221.62 ± 13271.05) and Kwazulu-Natal (1337.18 ± 2083.76) were considerably higher than that of Gauteng and the Western Cape. This illustrates that the workload in Mpumalanga and Kwazulu-Natal are considerably higher than that of Gauteng and the Western Cape (*refer to Appendix D, table 18D*).

When comparing the number of pharmacy personnel in Gauteng and the Western Cape to that of the number of pharmacy personnel in Mpumalanga and Kwazulu-Natal, that have a relatively high workload, staff members in those regions are significantly lower. For instance when looking at the average number of registered full-time institutional pharmacists in Gauteng (3.82 ± 3.60) versus Mpumalanga (2.07 ± 1.03) there is a marked difference between these two provinces (*refer to Appendix D, table 8D*).

5.6.2.8.1.1 Possible effect of the average number of items dispensed per day in institutional pharmacies on Good Pharmacy Practice compliance.

Good Pharmacy Practice compliance scores were calculated for the following scenarios:

Scenario 1 For inspected institutional pharmacies that dispensed below 169 items per day.

Scenario 2 For inspected institutional pharmacies that dispensed between 170 and 391 items per day.

Scenario 3 For inspected institutional pharmacies that dispensed between 392 and 800 items per day.

Scenario 4 For inspected institutional pharmacies that dispensed more than 800 items per day.

5.6.2.8.1.1.1 Scenario 1: below 169 items per day

Institutional pharmacies (N=94) that dispensed fewer than 169 prescribed items to in- and outpatients per day during the study period obtained an overall compliance score of 89.57 (± 11.13 per cent). Furthermore, as seen in table 13E in Appendix E, the lowest scores were obtained for registration details (82.67 ± 19.26 per cent), availability of written standard operating procedures (81.21 ± 21.74 per cent) as well as for availability of reference sources (79.51 ± 24.00 per cent). The highest score was obtained for the promotion of public health (98.58 ± 10.43 per cent). A practical significant difference (d=0.8) was found between the compliance scores obtained for the above-mentioned sections.

5.6.2.8.1.1.2 Scenario 2: between 170 and 391 items per day

Institutional pharmacies that dispensed between 170 and 391 prescribed items to in- and outpatients per day during the study period obtained an overall compliance score of 93.94 (± 5.26 per cent) (*refer to Appendix E, table 14E*). No practical significant difference (d<0.8) was found between the compliance scores achieved by institutional pharmacies of scenarios 1 and 2. With regard to compliance scores for the different sections of Good Pharmacy Practice; a slight increase in the scores obtained for scenario 1 to scenario 2 was observed (*refer tables 13 and 14E, Appendix E*). It can thus be said that Good Pharmacy Practice compliance increases together with the number of items dispensed, possibly because more personnel were employed with the increase in workload.

Furthermore, institutional pharmacies in this scenario obtained a compliance score of 89.46 (± 17.04 per cent) for registration details, 89.51 (± 15.59 per cent) for availability of written standard operating procedures and 88.94 (± 14.25 per cent) for availability of reference sources. The highest score was once again obtained for the promotion of public health, 99.67 (± 1.73 per cent). *D-values* of 0.7 (between promotion of public health and SOPs and references) and 0.6 (between promotion of public health and registration details) were found between the

compliance scores obtained for the above-mentioned sections of Good Pharmacy Practice. No practical significant difference was found between the compliance scores obtained for these sections of scenarios 1 and 2; however, a slight increase in the overall compliance score was observed in scenario 1.

5.6.2.8.1.1.3 Scenario 3: between 392 and 800 items per day

A slight decrease in the overall Good Pharmacy Practice compliance score (92.99 ± 7.76 per cent) was observed for institutional pharmacies that dispensed between 392 and 800 prescribed items per day. No practical significant difference ($d<0.8$) was found between the compliance scores of institutional pharmacies of scenarios 1, 2 and 3 (*refer to Appendix E, tables 13, 14 and 15E*). This could indicate that because of the increase in workload, the number of pharmacy personnel did not increase resulting in a lower compliance score.

An increase in the compliance scores of the different sections of Good Pharmacy Practice was once again observed. Institutional pharmacies of scenario 1 and 2 obtained compliance scores of 98.58% and 99.67% respectively for the promotion of public health, whilst those in scenario 3 obtained a score of 98.76 (± 3.47 per cent). The highest score for this scenario was obtained for general requirements (98.76 ± 3.47 per cent). An increase in compliance scores obtained for standard operating procedures and reference sources was once again observed; but no practical significant difference was found between these compliance scores obtained for scenarios 1, 2 and 3.

Furthermore, institutional pharmacies of scenario 1 revealed minimum percentage scores of zero for 10 of the twelve Good Pharmacy Practice sections, followed by 1 of the 12 sections of pharmacies in scenario 2 and then three of the 12 sections for pharmacies that dispensed between 391 and 800 prescribed items per day.

5.6.2.8.1.1.4 Scenario 4: more than 800 items per day

The overall compliance score achieved by pharmacies that dispensed more than 800 prescribed items per day during the study period was (93.95 ± 6.73 per cent, a slight increase from scenario 3) (*refer to Appendix E, table 16E*). No practical significant difference was found between the overall compliance scores of the 4 scenarios. Furthermore, a practical significant difference ($d>0.8$) was found between the compliance scores achieved for SOPs for scenarios 1 and 4. No practical significant difference was found between the compliance scores achieved for registration details and reference sources for scenarios 1 and 4. Furthermore, there were no sections that showed minimum compliance scores of zero in this scenario.

5.6.2.8.1.2 Possible effect of the average number of items dispensed per pharmacist per day in institutional pharmacies on Good Pharmacy Practice compliance

Good Pharmacy Practice compliance scores were calculated for the following scenarios:

Scenario 5 Where a pharmacist dispensed below 77 items per day.

Scenario 6 Where a pharmacist dispensed between 77 and 149 items per day.

Scenario 7 Where a pharmacist dispensed between 150 and 269 items per day.

Scenario 8 Where a pharmacist dispensed 270 items and more per day.

5.6.2.8.1.2.1 Scenario 5: below 77 items per day per pharmacist

Institutional pharmacies, where the average number of items dispensed per pharmacist amounted to fewer than 77 per day, obtained an overall compliance score of 90.39 (± 9.10 per cent). The lowest compliance score was obtained for the availability of reference sources (80.16 ± 20.76 per cent) whilst the highest compliance score was obtained for the promotion of public health (98.72 ± 9.71 per cent). A practical significant difference (d>0.8) was found between these compliance scores (*refer to Appendix E, table 17E*).

5.6.2.8.1.2.2 Scenario 6: between 77 and 149 items per day per pharmacist

Institutional pharmacies, where pharmacists dispensed between 77 and 149 items per day during the study period, obtained an overall compliance score of 94.42 (± 9.90 per cent) (*refer to Appendix E, table 18E*). No practical significant difference (d<0.8) was found between the compliance scores achieved by institutional pharmacies of scenarios 5 and 6. With regard to compliance scores for the different sections of Good Pharmacy Practice; a slight increase in the scores obtained was observed from scenario 5 to scenario 6 (*refer to tables 17 and 18E, Appendix E*). It can thus be said that Good Pharmacy Practice compliance increases together with the number of items dispensed, possibly because with the increase in workload more personnel are employed.

The highest score was once again obtained for the promotion of public health, whilst the lowest score was obtained for the availability of standard operating procedures (71.58 ± 28.34 per cent). A practical significant difference (d<0.8) was found between the compliance scores obtained for the above-mentioned sections of Good Pharmacy Practice. No practical significant difference was found between the compliance scores obtained for these sections of scenarios 5 and 6; however an increase was noted (*refer to tables 17 and 18E, Appendix E*).

5.6.2.8.1.2.3 Scenario 7: between 150 and 269 items per day per pharmacist

Institutional pharmacies, where a pharmacist dispensed between 149 and 270 items per day during the study period obtained an overall compliance score of 94.60 (± 4.36 per cent) (*refer to*

Appendix E, table 19E). No practical significant difference was found between the overall compliance scores achieved for scenarios 5, 6 and 7.

A slight decrease in the compliance scores, achieved for the different sections of Good Pharmacy Practice was observed from scenario 6 to scenario 7. No practical significant difference was found between the compliance scores obtained for scenarios 5, 6 and 7.

5.6.2.8.1.2.4 Scenario 8: 270 items and more per day per pharmacist

The overall compliance score achieved by pharmacies that dispensed 270 and more prescribed items per day during the study period was 91.46 (± 7.71 per cent) (a decrease from scenario 7) (*refer to Appendix E, table 20E*); no practical significant difference (d<0.8) was found between the overall compliance score achieved by pharmacies in scenarios 5 to 8. No practical significant difference (d<0.8) was found between the compliance scores obtained for the different sections of Good Pharmacy Practice from scenarios 5 to 8.

Furthermore, the minimum compliance scores achieved for the different scenarios were 51.63% for scenario 5, 14.81% for scenario 6, 80.83% for scenario 7 and 66.01% for scenario 8. The following can thus be said, with an increase in the number of items the workload increases (poorer Good Pharmacy Practice), then together with the workload increase, the pharmacists increases (better Good Pharmacy Practice), then once again the workload increases resulting in poorer Good Pharmacy Practice compliance than for the previous scenario.

5.6.2.8.1.3 Possible effect of the average number of items dispensed by total pharmacy personnel per day in institutional pharmacies on Good Pharmacy Practice compliance

Pharmacy personnel member refers to any category of pharmacy personnel registered with the South African Pharmacy Council. Good Pharmacy Practice compliance scores were calculated for the following scenarios:

Scenario 9 Where a pharmacy personnel member dispensed 41 items and below per day.

Scenario 10 Where a pharmacy personnel member dispensed between 42 and 80 items per day.

Scenario 11 Where a pharmacy personnel member dispensed between 80 and 140 items per day.

Scenario 12 Where a pharmacy personnel member dispensed 140 items and more per day.

5.6.2.8.1.3.1 Scenario 9: 41 items and below per day per pharmacy personnel member

Institutional pharmacies, where the average number of items dispensed per pharmacy personnel member was 41 items and below, obtained an overall compliance score of 90.99 (± 8.12 per cent). The lowest compliance scores were obtained for the availability of standard

operating procedures (82.03 ± 20.28 per cent), availability of reference sources (82.58 ± 21.58 per cent), registration details (83.47 ± 19.58 per cent) and pharmaceutical care (83.33 ± 17.08 per cent), whilst the highest compliance score was obtained for the promotion of public health (99.54 ± 2.01 per cent). A practical significant difference (d>0.8) was found between the lowest compliance scores and the highest compliance score (*refer to Appendix E, table 21E*).

5.6.2.8.1.3.2 Scenario 10: between 42 and 80 items per day per pharmacy personnel member

Institutional pharmacies, where a pharmacy personnel member dispensed between 42 and 80 items per day during the study period obtained an overall compliance score of 94.79 (± 4.68 per cent) (*refer to Appendix E, table 22E*). A *d-value* of 0.5 was found between the compliance scores achieved by institutional pharmacies of scenarios 9 and 10 and this could reflect upon a trend of difference. With regard to compliance scores for the different sections of Good Pharmacy Practice; a slight increase in the scores obtained was observed from scenario 9 to scenario 10 (*refer to tables 21 and 22E, Appendix E*). It can thus once again be said that Good Pharmacy Practice compliance increases together with the number of items dispensed, possibly because with the increase in workload more personnel are employed.

The highest average score was once again obtained for the promotion of public health, 99.87 (± 1.15 per cent), whilst the lowest average score was obtained for the availability of reference sources (91.28 ± 14.69 per cent). A practical significant difference (d>0.8) was found between the compliance scores obtained for the above-mentioned sections of Good Pharmacy Practice. No practical significant difference was found between the compliance scores obtained for the Good Pharmacy Practice sections of scenario 9 and 10; however an increase was observed.

5.6.2.8.1.3.3 Scenario 11: between 80 and 140 items per day per pharmacy personnel member

Institutional pharmacies, where a pharmacy personnel member dispensed between 80 and 140 items per day during the study period obtained an overall compliance score of 94.07 (± 9.96 per cent) (*refer to Appendix E, table 23E*). No practical significant difference was found between the overall compliance scores achieved for scenario 9, 10 and 11.

A decrease in the compliance scores, achieved for pharmaceutical care, reference sources and promotion of public health, from scenario 9 to this scenario was observed. However, no practical significant differences (d<0.8) were found between these categories of Good Pharmacy Practice.

Furthermore, institutional pharmacies of scenario 9 and 10 revealed minimum percentage scores of zero for only one of the twelve Good Pharmacy Practice sections. In comparison, those pharmacies that dispensed between 80 and 140 items per day showed minimum compliance scores of zero for 10 of the 12 Good Pharmacy Practice sections. One can thus

say that the workload in scenario 11 was too high and was not compensated for with pharmacy personnel, thus the decrease in Good Pharmacy Practice percentages.

5.6.2.8.1.3.4 Scenario 12: 140 items and more per day per pharmacy personnel member

The overall compliance score achieved by pharmacies that dispensed 140 items and more prescribed items per day per pharmacy personnel member during the study period was 90.78 (± 8.92 per cent) (a decrease from scenario 11) (*refer to Appendix E, table 24E*). No practical significant difference (d<0.8) was found between the overall compliance scores achieved by pharmacies in scenario 9 and this scenario. Furthermore, a decrease was observed from scenario 11 to 12 for the following categories: pharmaceutical care, standard operating procedures and reference sources.

5.6.2.8.2 Pharmacist Initiated Therapy items

The province with the highest average daily number of dispensed Pharmacist Initiated Therapy items was the North West with 67.64 ± 194.26 items, the remaining eight provinces revealed an average of fewer than 15 items, with zero items for Limpopo (*refer to Appendix D, table 19D*). No practical significant differences were found between the average numbers of Pharmacist Initiated Therapy Items between the different provinces. The number of Pharmacist Initiated Therapy items was considerably lower for institutional pharmacies as Pharmacist Initiated Therapy is mostly provided by community pharmacies and private institutional pharmacies.

5.6.2.8.3 Surgical items

The province with the highest average daily number of dispensed surgical items was Mpumalanga with 313.36 ± 803.47 items. The province with the lowest average number of dispensed surgical items was the Northern Cape with 13.15 ± 29.58. No practical significant differences were found between the average number of surgical items between the different provinces (*refer to Appendix D, table 20D*).

5.6.2.8.4 Ethical stock items

The province with the highest average number of dispensed ethical stock items was Gauteng with 799.35 ± 4672.55 items, whilst the province with the lowest average number of ethical stock items was Limpopo with 157.25 ± 359.79 items. No practical significant differences were found between the average number of ethical stock items between the different provinces (*refer to Appendix D, table 21D*).

5.6.3 REGISTRATOIN DETAILS

The availability of annual registration certificates for institutional pharmacies, pharmacists and all four categories of pharmacist's assistants was investigated during an inspection. Table 5.45 illustrates the compliance to Good Pharmacy Practice guidelines with regard to registration details for the private institutional pharmacies inspected during the time period January 2004 until May 2005.

Nationally, private institutional pharmacies obtained a relatively high compliance score of 96.56 (± 6.70 per cent). As seen in the table, 3 provinces had compliance scores of 100% namely, Eastern Cape, Limpopo and Northern Cape. However, it is necessary to note that only 4 private institutional pharmacies were inspected in the Eastern Cape and 1 in each of the other two provinces, thus all five of these pharmacies had perfect scores.

When looking at Gauteng, this province obtained a compliance score of 95.66 (± 8.17 per cent), but 45 private institutional pharmacies were inspected in Gauteng during the study period. Gauteng showed a minimum compliance score of 71.34%, which is relatively low compared to the other provinces. The province with the lowest compliance score was Mpumalanga with 88.10 (± 10.10 per cent) and only two private institutional pharmacies were inspected in this province. A practical significant difference (d>0.8) was calculated between the compliance score of the private institutional pharmacies in Mpumalanga and the other eight provinces. Only two private institutional pharmacies were inspected in this province.

Table 5.45 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to registration details according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	100.0	0.00	100.0	100.0
Free State	4	97.62	4.76	90.48	100.0
Gauteng	45	95.66	8.17	71.43	100.0
Kwazulu-Natal	11	96.10	5.14	85.71	100.0
Limpopo	1	100.0	0.00	100.0	100.0
Mpumalanga	2	88.10	10.10	80.95	95.24
North West	5	97.14	6.39	85.71	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	98.60	2.80	90.48	100.0
TOTAL	**90**	**96.56**	**6.70**	**71.43**	**100.0**

Table 5.46 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies relating to registration requirements. Compared to the compliance scores of the private institutional pharmacies, public and state subsidised pharmacies complied with 84.90 (± 17.60 per cent). A *d-value* of 0.7 may reflect on significant differences between these categories of institutional pharmacies.

Public and state subsidised institutional pharmacies in the Free State obtained the highest compliance score (91.67 ± 7.86 per cent) for required registration details. The North West and Northern Cape obtained the lowest compliance scores with 66.67 (± 21.33 per cent) and 66.67 (± 17.50 per cent) respectively. There is thus room for improvement in these provinces with regard to complying with required registration details. Gauteng revealed a minimum compliance score of 0%, indicating that there were certain public and state subsidised pharmacies in this province that did not comply to requirements at all.

Practical significant differences (d>0.8) were found between the overall compliance scores of the Free State and the North West and Northern Cape. This emphasises that public and state subsidised pharmacies in the North West and Northern Cape must improve their registration detail standards.

Table 5.46 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to registration details according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	90.18	14.36	42.86	100.0
Free State	20	91.67	7.86	71.43	100.0
Gauteng	38	86.47	19.16	0.00	100.0
Kwazulu-Natal	23	85.09	15.07	52.38	100.0
Limpopo	20	87.62	17.02	42.86	100.0
Mpumalanga	13	90.48	12.14	66.67	100.0
North West	30	66.67	21.33	33.33	100.0
Northern Cape	13	66.67	17.50	47.62	100.0
Western Cape	57	89.97	11.48	52.38	100.0
TOTAL	**246**	**84.90**	**17.60**	**0.00**	**100.0**

Table 5.47 illustrates the overall compliance scores of institutional pharmacies (private and public) with regard to registration details.

Nationally, institutional pharmacies achieved a score of 88.00 (± 16.26 per cent) for compliance with Good Pharmacy Practice guidelines for registration details. Community pharmacies obtained a score of 92.46 ± 10.98 for requirements with regard to registration details (*refer to section 5.5.3, table 5.22*). No practical significant difference was found between the overall compliance scores of community and institutional pharmacies with regard to registration details.

The province with the highest compliance score was the Free State with 92.57 (± 7.54 per cent), whilst the lowest scores were obtained by institutional pharmacies in the Northern Cape (69.07 ± 19.02 per cent) and the North West (71.30 ± 22.24 per cent). As discussed above, public and state subsidised pharmacies in the Northern Cape and North West obtained the lowest scores for registration details, resulting in the relatively low overall compliance scores of these provinces.

A practical significant difference (d>0.8) was found between the compliance scores of the Free State and those of the Northern Cape and North West.

Table 5.47 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to registration details according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	91.27	13.87	42.86	100.0
Free State	25	92.57	7.54	71.43	100.0
Gauteng	84	91.55	14.86	0.00	100.0
Kwazulu-Natal	34	88.66	13.67	52.38	100.0
Limpopo	21	88.21	16.81	42.86	100.0
Mpumalanga	15	90.16	11.59	66.67	100.0
North West	37	71.30	22.24	33.33	100.0
Northern Cape	14	69.07	19.02	47.62	100.0
Western Cape	74	91.96	10.78	52.38	100.0
TOTAL	**340**	**88.00**	**16.26**	**0.00**	**100.0**

Figure 5.29 illustrates the percentage compliance of institutional pharmacies (private and public) relating to registration requirements.

Inspectors indicated that 19.83% (n=68) of institutional pharmacies did not display the name of the responsible pharmacist over the main entrance of the pharmacy, which is currently a legal requirement (*refer to Appendix D, table 22D*). Furthermore, the name of the pharmacist on duty was not displayed conspicuously in the pharmacy in 32.07% (n=110) of institutional pharmacies (*refer to Appendix D, table 23D*).

Institutional pharmacies generally had valid registration cards available for pharmacists in 81.05% (n=278) (*refer to Appendix D, table 25D*). A relatively low 56.76% (n=21) and 50.00% (n=7) of institutional pharmacies in the North West and Northern Cape respectively complied with this standard. Inspectors found that annual registration cards for pharmacist's assistants (basic and post-basic) were available in 42.27% (n=145) of institutional pharmacies, however, 44.61% (n=153) of inspectors indicated that this standard was not applicable (*refer to Appendix D, table 26D*). A relatively low 35.86% (n=123) of inspectors indicated that institutional pharmacies had annual registration cards available for learner basic and learner post-basic pharmacist's assistants, however 52.19% (n=179) indicated this question to be not applicable, meaning that pharmacists assistants were not employed in the pharmacy at the time of inspection (*refer to Appendix D, table 27D*). These figures were based on the total number of inspections conducted, whether pharmacies employed pharmacist's assistants or not. A further analysis was done to determine how many institutional pharmacies employed pharmacist's assistants (including basic, post-basic, learner basic and learner post-basic assistants) during the study period and how many complied with the requirement of having an annual registration card available for the different categories of assistants. It was found that 309 (90.09%)

institutional pharmacies (N=343) employed one or more basic and post-basic pharmacist's assistants and 117 (34.11%) employed one or more learner basic and learner post-basic pharmacist assistants during the study period A total of 204 (66.02%) institutional pharmacies (N=309) complied with the requirement of having an annual registration card available for basic and post-basic pharmacist's assistants, whilst 88 (28.48%) of the inspected institutional pharmacies did not comply with this requirement.

Furthermore, it was found that the majority of institutional pharmacies complied with the requirement of having an annual registration card available for learner basic and post-basic pharmacist's assistants.

Finally, a valid certificate for the recording of an institutional pharmacy was available in only 41.69% (n=143) of pharmacies. Forty-five per cent (45%, n=145) of inspectors indicated this question to be not applicable, however, all pharmacies are required to register with the South African Pharmacy Council (*refer to Appendix D, table 28D*).

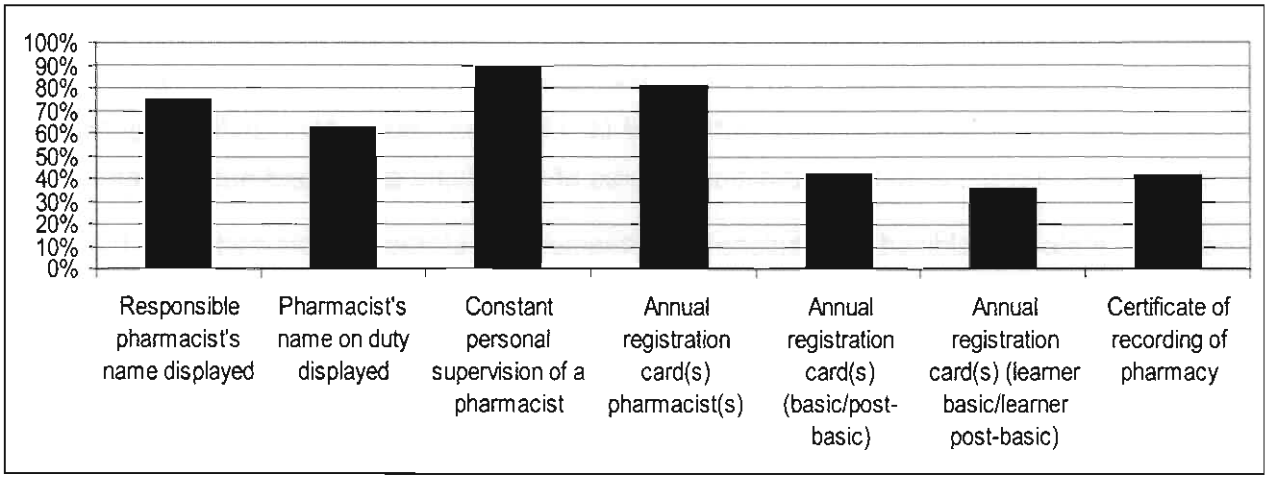


Figure 5.29 Percentage compliance with registration requirements.

5.6.4 PREMISES AND LAYOUT

Table 5.48 illustrates the compliance with premises and layout requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005.

Nationally, private institutional pharmacies obtained a relatively high compliance score of 96.85 (± 5.10 per cent). As seen in the table, the Free State and Limpopo had compliance scores of 100% however, it is necessary to mention that only 4 private institutional pharmacies were inspected in the Free State and 1 in Limpopo, which could lead to high compliance scores because of the small number of pharmacies inspected.

The province with the lowest compliance score was once again Mpumalanga with 87.50 (± 15.32 per cent). Only two private institutional pharmacies were inspected in this province. A

practical significant difference was calculated between the compliance score of the private institutional pharmacies in Mpumalanga and the following provinces: Eastern Cape, Free State, Kwazulu-Natal, Limpopo and Western Cape.

Table 5.48 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to premises and layout requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	99.58	0.83	98.33	100.0
Free State	4	100.0	0.00	100.0	100.0
Gauteng	45	95.93	5.76	73.33	100.0
Kwazulu-Natal	11	99.13	2.20	92.86	100.0
Limpopo	1	100.0	0.00	100.0	100.0
Mpumalanga	2	87.50	15.32	76.67	98.33
North West	5	97.33	3.84	91.67	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	99.12	1.46	96.67	100.0
TOTAL	**90**	**96.85**	**5.10**	**73.33**	**100.0**

Table 5.49 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies pertaining to premises and layout requirements. Nationally, public and state subsidised pharmacies complied with 91.39 (± 11.33 per cent). No practical significant difference was found between the compliance scores of the private sector and public sector.

Public and state subsidised institutional pharmacies in Limpopo obtained the highest compliance score (96.83 ± 5.49 per cent) for premises and layout requirements. The Northern Cape obtained the lowest compliance score of 81.03 (± 12.96 per cent). A practical significant difference (d>0.8) was found between the compliance scores of these two provinces. The Free State revealed a minimum compliance score of 0%, indicating that there were certain public and state subsidised pharmacies in this province that did not comply to requirements at all.

Table 5.49 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to premises and layout requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	89.95	8.98	66.67	100.0
Free State	20	88.08	21.53	0.00	100.0
Gauteng	38	94.04	6.55	75.00	100.0
Kwazulu-Natal	23	95.51	6.88	76.67	100.0
Limpopo	20	96.83	5.49	81.67	100.0
Mpumalanga	13	89.74	12.64	71.67	100.0
North West	30	88.11	13.42	61.90	100.0
Northern Cape	13	81.03	12.96	56.67	96.67
Western Cape	57	92.49	8.91	63.33	100.0
TOTAL	**246**	**91.39**	**11.33**	**0.00**	**100.0**

Table 5.50 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to premises and layout requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	91.02	8.99	66.67	100.0
Free State	25	90.47	19.76	0.00	100.0
Gauteng	84	95.11	6.15	73.33	100.0
Kwazulu-Natal	34	95.64	5.96	76.67	100.0
Limpopo	21	96.98	5.39	81.67	100.0
Mpumalanga	15	89.44	12.42	71.67	100.0
North West	37	89.91	12.70	40.00	100.0
Northern Cape	14	82.38	13.44	56.67	100.0
Western Cape	74	94.01	8.33	63.33	100.0
TOTAL	**340**	**92.93**	**10.29**	**0.00**	**100.0**

Table 5.50 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005.

Nationally, institutional pharmacies (private and public) achieved a score of 92.93 (± 10.29 per cent) for compliance with premises and layout requirements. Community pharmacies obtained a score of 95.21 ± 6.22 for requirements with regard to premises and layout (*refer to section 5.5.4, table 5.23*). A *d-value* of 0.6 was calculated, which may reflect on significant differences between the compliance scores of community and institutional pharmacies (private and public).

The province with the highest compliance score was Limpopo with 96.98 (± 5.39 per cent), whilst the lowest score was obtained by institutional pharmacies in the Northern Cape with 82.38 (± 13.44 per cent). A *d-value* of 1.1 was calculated for these two provinces, thus indicating a practical significant difference between the compliance scores of these two provinces.

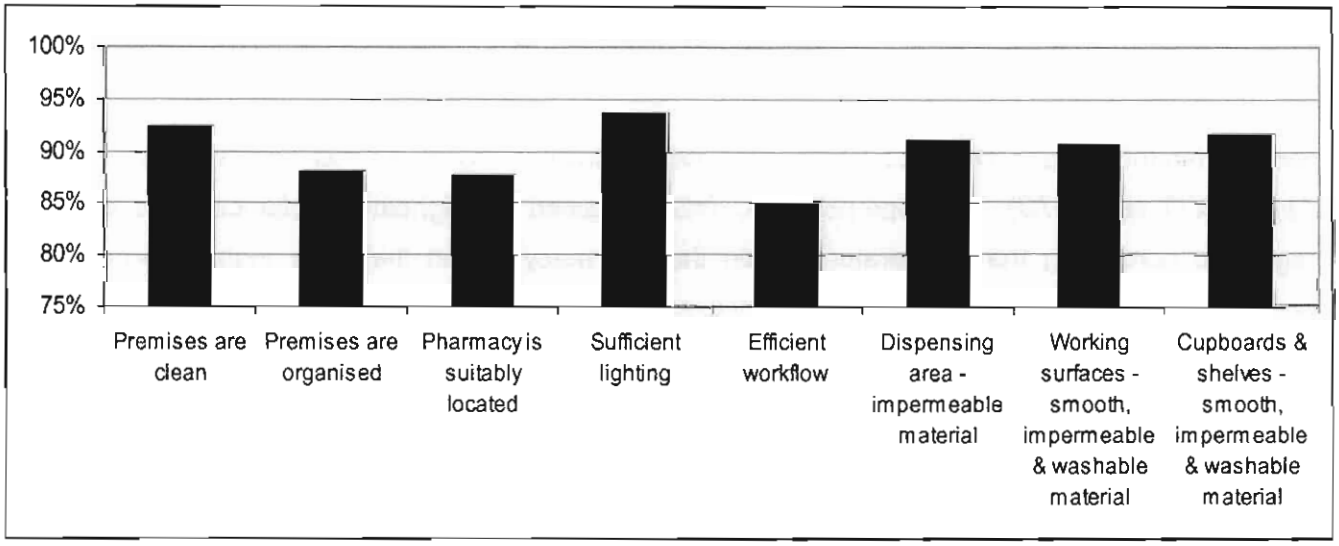


Figure 5.30 Percentage compliance with regard to premises and layout requirements.

During the study period January 2004 until May 2005, institutional pharmacies in all nine provinces had relatively high compliance with requirements relating to cleanliness, being organised, sufficient lighting, efficient workflow, the pharmacy being suitably located in the facility and the different surface areas being of smooth impermeable and washable material (*refer to Chapter 2, sections 2.11.2.1, 2.11.2.1.1 and 2.11.2.2*), as seen in figure 5.30. The province with the lowest compliance with regard to cleanliness was Mpumalanga with compliance of 62.50% (n=10), the other eight provinces, each had compliance scores of 90% and higher (*refer to Appendix D, table 29D*). With regard to being organised, Mpumalanga and the Northern Cape obtained relatively low compliance scores of 62.50% (n=10) and 42.86% (n=6) respectively. (*refer to Appendix D, table 30D*).

Institutional pharmacies (N=343) obtained a compliance score of 87.76% (n=301) for the pharmacy being suitably located within the facility. Compliance with regard to sufficient lighting and efficient workflow was relatively high for each of the nine provinces (*refer to Appendix D, tables 36D and 42D*). Compliance relating to the different surface areas being of smooth, impermeable and washable material was relatively high as seen in figure 5.30. Of concern was the compliance score achieved by the Northern Cape (35.71%, n=5) for working surface areas being of smooth, impermeable and washable material (*refer to Appendix D, table 33D*).

Once again, Question 51, which referred to approval being obtained for another business or practice to be conducted within the pharmacy (*refer to Chapter 2, section 2.11.2.4*) was mostly indicated to be not applicable with a percentage of 99.42% (n=341). This question can thus be interpreted as not applicable (*refer to Appendix D, table 35D*).

The temperature was below 25°C in 86.30% (n=296) of institutional pharmacies, however, the temperature was adequately controlled 24 hours a day in only 71.72% (n=246) of institutional pharmacies and temperature was furthermore recoded daily in only 64.14% (n=220) of cases (*refer to Chapter 2, sections 2.11.3.1 and 2.12.1.4.3, for requirements with regard to temperature control*). The Free State (n=23) and Western Cape (n=69) each had compliance scores of 92% for the temperature being below 25°C, whilst the Eastern Cape (77.78%, n=28) and the Northern Cape (71.43%, n=10) obtained the lowest scores for this standard (*refer to Appendix D, table 37D*). Limpopo (95.24%, n=20) obtained the highest compliance score with regard to controlling the temperature within the pharmacy, whilst the other eight provinces obtained relatively low scores for this specific standard. The Eastern Cape (52.78%, n=19), Free State (48.00%, n=12) and Northern Cape (57.14%, n=8) obtained the lowest scores in this regard (*refer to Appendix D, table 38D*). The Northern Cape obtained the lowest compliance score of 28.57% (n=4) for recording the temperature in the pharmacy, while, Limpopo once again achieved the highest score of 80.95% (n=17) in this regard (*refer to Appendix D, table 39D*).

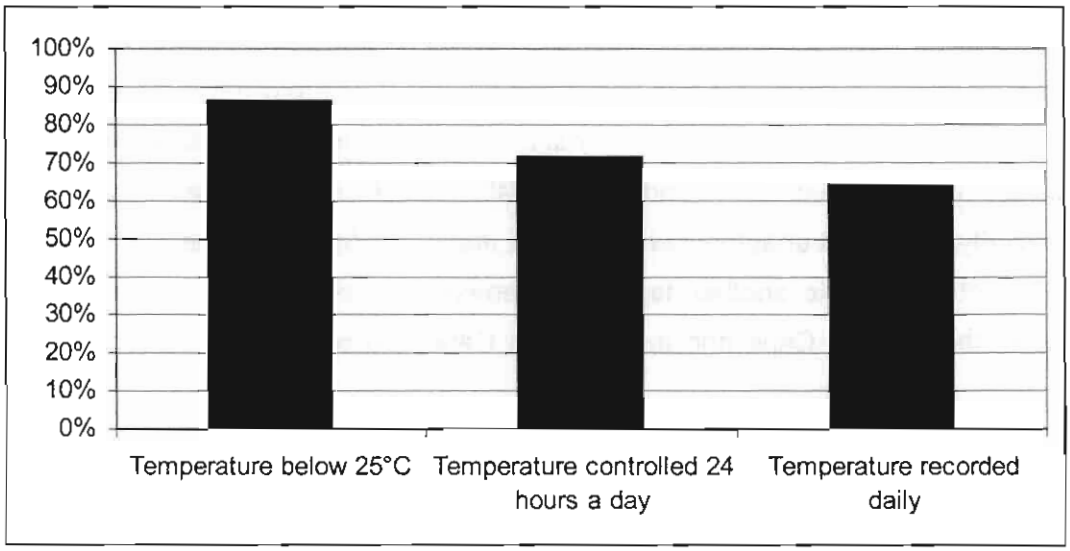


Figure 5.31 Percentage compliance with regard to temperature control.

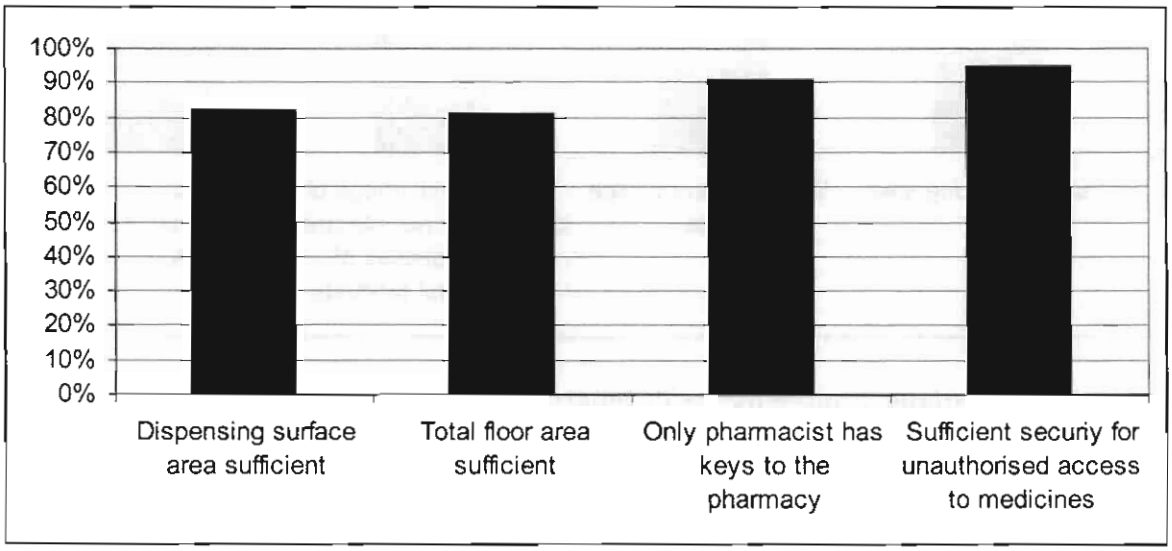


Figure 5.32 Percentage compliance with regard to premises and layout requirements (continued).

Compliance pertaining to the size of the dispensing area for the volume of prescriptions dispensed as well as the total floor area for efficient operations (*refer to Chapter 2, section 2.11.3.1*), revealed a percentage of 81.92% (n=281) and 80.76% (n=277) for each of the questions (*refer to Appendix D, tables 40D and 41D*). Limpopo achieved the highest compliance percentage for the aforementioned standards with 100% (n=21) for the dispensing surface area and 95.25% (n=20) for the total surface area. Furthermore, the Northern Cape obtained the lowest percentage compliance for these two standards, 42.86% (n=6) and 28.57% (n=4) respectively.

As mentioned in section 5.5.4 it is a legal requirement that only the pharmacist have keys to the pharmacy (*refer to Chapter 2, section 2.11.2.3*). Inspectors found that persons other than pharmacists had keys to the pharmacy in 5.83% (n=20) of the institutional pharmacies. A percentage of 13.51% (n=5) of persons in the North West and 11.11% (n=4) of persons in the

Eastern Cape other than pharmacists had keys to the pharmacy. Twenty-four out of 25 institutional pharmacies in the Free State complied with this standard (*refer to Appendix D, table 47D*). Compared to community pharmacies, institutional pharmacies showed lower compliance in this regard. It was furthermore found that 95.04% (n=326) of the inspected premises had sufficient security to prevent unauthorised access to medicines (*refer to Appendix D, table 48D*). Having sufficient security is another legal requirement that pharmacies must comply with. Pharmacies in the Eastern Cape and the Western Cape had compliance scores of less than 90%.

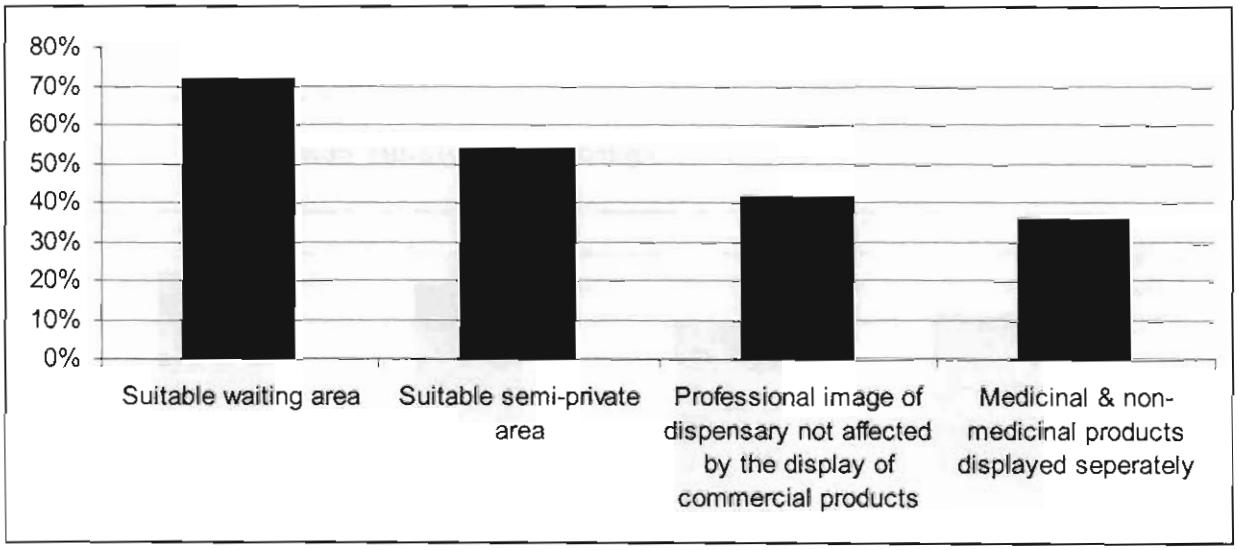


Figure 5.33 Percentage compliance with regard to questions 59 to 62.

The inspectorate found that 72.01% (n=247) of institutional pharmacies had a suitable waiting area which complied with Good Pharmacy Practice guidelines (*refer to section 2.11.5, for discussion on suitable waiting and consultation areas*). None of the nine provinces obtained a compliance score of 90% and more (*refer to Appendix D, table 43D*). An appropriate area for the provision of counselling is essential for maintaining confidentiality and proper communication between pharmacist and patient. A relatively low compliance score of 53.94% (n=185) was achieved by institutional pharmacies for having a suitable semi-private area. Serious shortcomings were identified for all nine provinces in this regard as none of the provinces achieved a score of higher than 70% (*refer to Appendix D, table 44D*). Inspectors marked this question as not applicable in 14.87% (n=51) of cases, as it could be possible that in-patients are counselled in wards (South African Pharmacy Council, 1999:11). Furthermore, the percentage compliance concerning the professional image of the pharmacy was not affected by the display of commercial products in 41.69% (n=143) of institutional pharmacies inspected, however 56.56% (n=194) of inspectors indicated that this specific question was not applicable (*refer to Appendix D, table 45D*). Medicinal and non-medicinal products were displayed separately in 36.15% (n=124) of pharmacies, whilst 62.10% (n=213) of inspectors

also indicated this specific question to be irrelevant with regard to institutional pharmacies (*refer to Appendix D, table 46D*).

5.6.5 EQUIPMENT

The overall impression relating to equipment in private institutional pharmacies was good in that a high percentage of these pharmacies (99.33 ± 1.89 per cent) had the required equipment. Table 5.51 illustrates the compliance with equipment requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005 for the nine provinces.

As seen in the table, the Eastern Cape, Free State, Limpopo, North West and Northern Cape, all achieved compliance scores of 100% in this regard; all of these provinces had relatively low numbers of inspected private institutional pharmacies. The province with the lowest compliance score was once again Mpumalanga with 97.62 (± 3.37 per cent), which is still a relatively high compliance score. A *d-value* of 0.7 was found between the compliance score of the private institutional pharmacies in Mpumalanga and the aforementioned provinces, which could reflect upon a significant difference between these provinces. Table 5.51 also illustrates that even the minimum compliance scores of the nine provinces were higher than 90%.

Table 5.51 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to equipment requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	100.0	0.00	100.0	100.0
Free State	4	100.0	0.00	100.0	100.0
Gauteng	45	99.05	2.29	90.48	100.0
Kwazulu-Natal	11	99.13	2.20	92.86	100.0
Limpopo	1	100.0	0.00	100.0	100.0
Mpumalanga	2	97.62	3.37	95.24	100.0
North West	5	100.0	0.00	100.0	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	99.86	0.58	97.62	100.0
TOTAL	**90**	**99.33**	**1.89**	**90.48**	**100.0**

Table 5.52 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies relating to equipment requirements. Nationally, public and state subsidised pharmacies complied with 94.64 (± 11.61 per cent). No practical significant difference ($d<0.8$) was found between the compliance scores of the private and public sectors.

Public and state subsidised institutional pharmacies in Gauteng obtained the highest compliance score (98.12 ± 2.72 per cent) for equipment requirements. The Northern Cape obtained the lowest compliance score of 85.90 (± 14.76 per cent). A practical significant

difference (d>0.8) was found between the compliance scores of these two provinces. Minimum percentage compliance scores of 0% were recorded for the Free State and Limpopo, indicating that there were public institutional pharmacies in these provinces in need of improvement in this regard.

Table 5.52 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to equipment requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	95.46	6.15	80.95	100.0
Free State	20	92.74	22.33	0.00	100.0
Gauteng	38	98.12	2.72	90.48	100.0
Kwazulu-Natal	23	97.52	5.94	76.19	100.0
Limpopo	20	89.76	22.60	0.00	100.0
Mpumalanga	13	97.99	3.62	90.48	100.0
North West	30	93.17	9.90	61.90	100.0
Northern Cape	13	85.90	14.76	61.90	100.0
Western Cape	57	95.07	8.01	71.43	100.0
TOTAL	**246**	**94.64**	**11.61**	**0.00**	**100.0**

Table 5.53 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005.

Table 5.53 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to premises and layout requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	95.97	5.96	80.95	100.0
Free State	25	94.10	20.06	0.00	100.0
Gauteng	84	98.64	2.51	90.48	100.0
Kwazulu-Natal	34	98.04	5.06	76.19	100.0
Limpopo	21	90.25	22.14	0.00	100.0
Mpumalanga	15	97.94	3.47	90.48	100.0
North West	37	94.47	9.29	61.90	100.0
Northern Cape	14	86.90	14.67	61.90	100.0
Western Cape	74	96.17	7.31	71.43	100.0
TOTAL	**340**	**95.94**	**10.14**	**0.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 95.94 (± 10.14 per cent) for compliance relating to equipment requirements. Community pharmacies obtained a score of 97.57 ± 6.85 for requirements with regard to equipment requirements (*refer to section 5.5.5, table 5.24*). No practical significant difference (d<0.8) was found between the compliance scores of community and institutional pharmacies (private and public).

The province with the highest compliance score was Gauteng with 98.64 (± 2.51 per cent), whilst the lowest score was obtained by institutional pharmacies in the Northern Cape with

86.90 (± 14.67 per cent). A practical significant difference (d=0.8) was found between the compliance scores of these two provinces.

Inspectors in the Northern Cape, Eastern Cape and Free State indicated that a facility for washing hands was not available in 21% (n=3), 14% (n=5) and 12% (n=3) of institutional pharmacies in these three provinces respectively (*refer to Appendix D, table 49D*). As seen in this table the remaining provinces had relatively high compliance scores in this regard (*refer to Chapter 2, section 2.11.3.3 for discussion on equipment requirements*).

Only institutional pharmacies in Gauteng (92.49%, n=79) and Mpumalanga (93.75%, n=15) had adequate pestles and mortars available, whilst the remaining seven provinces could improve on this standard (*refer to Appendix D, table 51D*). The same could be said for the availability of adequate spatulas as Gauteng and Mpumalanga once again obtained the highest compliance (*refer to Appendix D, table 52D*).

As with community pharmacies, a number of institutional pharmacies did not have a suitable mass meter for dispensing, as seen with the percentage compliance of the Northern Cape, 28.57% (n=4), North West, 59.46% (n=22), Western Cape, 60% (n=45), Eastern Cape, 75% (n=27) and the Free State, 76% (n=19), respectively (*refer to Appendix D, table 53D*). With regard to the availability of adequate graduated measures, the Northern Cape (57.14%, n=8) and Limpopo (76.19%, n=16) could improve on this specific standard (*refer to Appendix D, table 54D*). Inspectors also indicated that only 75% (n=12) of institutional pharmacies in Mpumalanga and 78.57% (n=11) in the Northern Cape had clearly noticeable warning indicators on the labels (*refer to Appendix D, table 56D*).

The majority of inspectors indicated that questions 73 and 74, relating to the availability of suitable laminar flow cabinets for the preparation of parenteral fluids or bio hazardous preparations, were not applicable, thus not of importance with regard to percentage compliance (*refer to Appendix D, table 57D and 58D*).

The inspectors in the Northern Cape indicated that these pharmacies needed to improve the availability of adequate counting apparatus for tablets and capsules as well as the cleaning of this apparatus (*refer to Appendix D, tables 59D and 60D*).

Lastly, institutional pharmacies obtained relatively high scores for equipment being clean and in good working order (95.92% and 92.42% respectively) (*refer to Appendix D, tables 61D and 62D*).

5.6.6 STORAGE

The overall impression pertaining to storage requirements in private institutional pharmacies was good in that a high percentage of these pharmacies (97.69 ± 3.88 per cent) complied with this requirement. Table 5.54 illustrates the compliance with storage requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005 according to province.

Table 5.54 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to storage requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	100.0	0.00	100.0	100.0
Free State	4	100.0	0.00	100.0	100.0
Gauteng	45	99.05	2.92	90.47	100.0
Kwazulu-Natal	11	97.15	3.44	92.16	100.0
Limpopo	1	96.08	0.00	100.0	100.0
Mpumalanga	2	85.29	15.25	74.51	96.08
North West	5	96.86	3.28	92.16	100.0
Northern Cape	1	94.12	0.00	94.12	94.12
Western Cape	17	98.39	3.19	88.24	100.0
TOTAL	**90**	**97.69**	**3.88**	**74.51**	**100.0**

As seen in the table, the Eastern Cape and the Free State achieved compliance scores of 100% in this regard. Each of these provinces had 4 inspected private institutional pharmacies. The province with the lowest compliance score was Mpumalanga with 85.29 (± 15.25 per cent) (n=2). This province also obtained a minimum compliance score of 74.51%. A practical significant difference was found between the compliance scores of Mpumalanga and the Eastern Cape and Free State.

Table 5.55 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to storage requirements. Nationally, public and state subsidised pharmacies complied with 95.58 (± 11.95 per cent). No practical significant difference ($d<0.8$) was found between the compliance scores pertaining to storage requirements of the private sector and the public sector.

Public and state subsidised institutional pharmacies in Kwazulu-Natal obtained the highest compliance score (96.16 ± 5.07 per cent) with regard to storage requirements. The North West obtained the lowest compliance score of 87.97 (± 17.92 per cent). No practical significant difference ($d<0.8$) was found between the compliance scores of these two provinces. A minimum percentage compliance score of 0% was recorded for the Free State, together with 29.41% for Gauteng and 5.88% for the North West, which could indicate that there is room for improvement in these provinces.

Table 5.55 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to storage requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	94.61	4.98	80.39	100.0
Free State	20	92.75	21.96	0.00	100.0
Gauteng	38	93.70	11.70	29.41	100.0
Kwazulu-Natal	23	96.16	5.07	82.35	100.0
Limpopo	20	94.71	5.55	78.43	100.0
Mpumalanga	13	91.70	9.58	74.51	100.0
North West	30	87.97	17.92	5.88	100.0
Northern Cape	13	88.39	8.38	76.47	100.0
Western Cape	57	92.02	10.45	56.86	100.0
TOTAL	**246**	**95.58**	**11.95**	**0.00**	**100.0**

Table 5.56 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005.

Table 5.56 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to storage requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	95.21	4.99	80.39	100.0
Free State	25	93.65	19.66	0.00	100.0
Gauteng	84	96.13	8.41	29.41	100.0
Kwazulu-Natal	34	96.48	4.57	82.35	100.0
Limpopo	21	94.77	5.42	78.43	100.0
Mpumalanga	15	90.85	10.02	74.51	100.0
North West	37	89.56	16.47	5.88	100.0
Northern Cape	14	88.80	8.19	76.47	100.0
Western Cape	74	93.48	9.66	56.86	100.0
TOTAL	**340**	**93.97**	**10.60**	**0.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 93.97 (± 10.60 per cent) for compliance with storage requirements. Community pharmacies obtained a score of 96.18 ± 5.82 for requirements with regard to storage requirements (*refer to section 5.5.6, table 5.25*). No practical significant difference ($d<0.8$) was found between the compliance scores of these two categories of pharmacies.

The province with the highest compliance score was Kwazulu-Natal with 96.48 (± 4.57 per cent), whilst the lowest score was obtained by institutional pharmacies in the Northern Cape with 88.80 (± 8.19 per cent). A practical significant difference ($d>0.8$) was found between the compliance scores of Kwazulu-Natal and the Northern Cape.

The storage of medicines (*refer to Chapter 2, section 2.12.1.4 for discussion on storage of pharmaceuticals*) to protect them from harmful influences require attention in the Northern Cape

and Mpumalanga as the compliance scores achieved by these provinces were the lowest with 64.29% (n=9) and 81.25% (n=13) respectively (*refer to Appendix D, table 64D*). With regard to goods being stored off the floor, the Free State (96%, n=24) and Gauteng (90.59%, n=77) obtained the highest compliance scores whilst this standard requires attention in the remaining provinces (*refer to Appendix D, table 65D*).

Inspectors found that raw materials known to be at risk for cross-contamination were stored separately in 30.90% (n=106) of cases, however 66.47% (n=228) of inspectors indicated that this question was not applicable to the inspected institutional pharmacies (*refer to Appendix D, table 66D*). With regard to the proper care and control over hazardous and flammable substances, the inspectorate indicated that 7.29% (n=25) and 42.86% (n=147) of pharmacies complied to these standards respectively, however 90.09% (n=309) and 51.02% (n=175) in that order indicated these questions to be irrelevant (*refer to Appendix D, tables 67D and 68D*).

Seventy-six percent of institutional pharmacies in the Western Cape had a system in place to ensure effective stock rotation, whilst the remaining provinces obtained relatively high compliance scores in this regard (*refer to Appendix D, table 69D*). Furthermore, 16 of the 75 inspected institutional pharmacies in the Western Cape did not destroy expired, damaged and/or contaminated stock in a safe manner (*refer to Appendix D, table 72D*). The majority of institutional pharmacies inspected in this province were public and state subsidised pharmacies.

Suitable refuse receptacles were not available in 71.43% (n=10) and 21.62% (n=8) of institutional pharmacies in the Northern Cape and North West respectively (*refer to Appendix D, table 73D*).

A list of products requiring special storage was not available and/or consulted in 32.94% (n=113) of the inspected pharmacies. This was of concern in all nine provinces as none of the provinces obtained a compliance score of higher than 80% (*refer to Appendix D, table 77D*).

It was indicated that 50.73% (n=173) of the inspected pharmacies did pre-packing on the premises. Of the 174 institutional pharmacies inspected, 50% (n=87) did pre-packing in accordance with regulation 33 of Act 101 of 1965 (*refer to Chapter 2, section 2.14.2.4*).

5.6.7 CONTROL OF MEDICINES AND RECORD KEEPING

General requirements with regard to control of medicines and record keeping were met in most private institutional pharmacies (97.96 ± 4.15). Table 5.57 illustrates the compliance with control of medicines and record keeping in private institutional pharmacies inspected during the time period January 2004 until May 2005 for each of the nine provinces.

Table 5.57 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to control of medicines and record keeping requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	100.0	0.00	100.0	100.0
Free State	4	98.67	1.54	97.33	100.0
Gauteng	45	98.22	3.07	88.00	100.0
Kwazulu-Natal	11	98.42	1.44	96.00	100.0
Limpopo	1	100.0	0.00	100.0	100.0
Mpumalanga	2	83.33	14.14	73.33	93.33
North West	5	98.40	3.58	92.00	100.0
Northern Cape	1	94.67	0.00	94.67	94.67
Western Cape	17	97.96	4.79	81.33	100.0
TOTAL	**90**	**97.96**	**4.15**	**73.33**	**100.0**

Table 5.57 illustrates that the Eastern Cape and Limpopo achieved compliance scores of 100% in this regard. The province that obtained the lowest compliance score was Mpumalanga with 83.33 (± 14.14 per cent). This province also obtained a minimum compliance score of 73.33%. A practical significant difference (d>0.8) was found between the compliance score obtained by Mpumalanga for control of medicines and record keeping and the remaining eight provinces.

Table 5.58 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to control of medicines and record keeping requirements. Nationally, public and state subsidised institutional pharmacies complied with 92.38 (± 7.30 per cent). A practical significant difference (d=0.8) was found between the compliance scores obtained by the private sector and the public sector. Public and state subsidised institutional pharmacies in Limpopo obtained the highest compliance score (96.40 ± 3.60 per cent) with regard to the control of medicines and record keeping requirements. The Western Cape obtained the lowest compliance score of 87.95 (± 10.59 per cent). A practical significant difference (d=0.8) was found between the compliance scores of these two provinces.

Table 5.58 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to control of medicines and record keeping requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	93.25	5.06	81.33	100.0
Free State	20	93.00	5.83	70.67	100.0
Gauteng	38	93.65	5.97	73.33	100.0
Kwazulu-Natal	23	94.55	5.22	77.33	100.0
Limpopo	20	96.40	3.60	86.67	100.0
Mpumalanga	13	94.26	5.95	80.00	100.0
North West	30	92.44	5.35	77.33	100.0
Northern Cape	13	93.03	4.33	84.00	100.0
Western Cape	57	87.95	10.59	60.00	100.0
TOTAL	**246**	**92.38**	**7.30**	**60.00**	**100.0**

Table 5.59 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005 according to province.

Table 5.59 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to control of medicines and record keeping requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	94.00	5.22	81.33	100.0
Free State	25	94.08	5.67	70.67	100.0
Gauteng	84	96.17	5.12	73.33	100.0
Kwazulu-Natal	34	95.80	4.71	77.33	100.0
Limpopo	21	96.57	3.59	86.67	100.0
Mpumalanga	15	92.80	7.71	73.33	100.0
North West	37	93.30	5.37	77.33	100.0
Northern Cape	14	93.14	4.18	84.00	100.0
Western Cape	74	90.25	10.44	60.00	100.0
TOTAL	**340**	**93.90**	**7.01**	**60.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 93.90 (± 7.01 per cent) for compliance pertaining to control of medicines and record keeping requirements. Community pharmacies obtained a score of 93.30 ± 8.32 for requirements with regard to storage requirements (*refer to section 5.5.7, table 5.26*). No practical significant difference was found between the compliance scores of these two categories of pharmacies.

The province with the highest overall compliance score was Limpopo with 96.57 (± 3.59 per cent), whilst the lowest score was obtained by institutional pharmacies in the Western Cape with 90.25 (± 10.44 per cent). A *d-value* of 0.6 was calculated, which may reflect on a significant difference between the compliance scores of these two provinces.

It is a legal requirement that medicines sold for human use must comply with Regulation 8 of the Medicines Act (101/1965) Limpopo, Mpumalanga and the Northern Cape fully complied with this requirement, whilst the remaining provinces did not (*refer to Appendix D, table 81D*).

Five institutional pharmacies were supplying unregistered medicines and zero institutional pharmacies purchased medicines from unauthorised suppliers (*refer to Appendix D, table 82D*).

Inspectors indicated that a relatively low percentage of institutional pharmacies inspected used a computerised programme for dispensing (39.95%, n=137) and 65.01% (n=223) of pharmacies used a computerised programme for stock control. However, inspectors indicated that in 90.38% (n=310) of cases an effective stock control system was in place despite the fact that 33.82% (n=116) of pharmacies did not use a computerised programme for stock control. The 2000 Inspection Report of the South African Pharmacy Council indicated that the majority of public institutional pharmacies did not have computerised programmes for dispensing (South African Pharmacy Council, 1999:19), which could be the reason for the relatively low percentage of institutional pharmacies which had such a programme.

Inspectors indicated that 78.72% (n=270) of institutional pharmacies had controls in place for issuing ward stock Limpopo obtained the highest compliance score of 95.24% (n=20), followed by Kwazulu-Natal, Eastern Cape, Free State, Gauteng, Northern Cape, North West, Mpumalanga and the Western Cape with a compliance score of 64% (n=48) (*refer to Appendix D, table 87D*). Furthermore, 67.35% (n=231) of institutional pharmacies had controls in place for issuing of medicines per patient to the different wards. The highest compliance score was achieved by the Free State (84%, n=21), whilst the lowest compliance score was achieved by Limpopo (42.86%, n=9). Limpopo achieved the highest score for the previous question, whilst obtaining the lowest compliance for this question, however 57.14% (n=12) of inspectors indicated this question to be not applicable in Limpopo (*refer to Appendix D, table 88D*).

The pharmacist exercised control over medicines kept in places other than the pharmacy, for example wards and theatres, in 73.47% (n=252) of institutional pharmacies. Mpumalanga obtained the lowest percentage compliance (50%, n=8) in this regard (*refer to Appendix D, table 89D*).

The questions illustrated in figure 5.34 are all legal requirements (*refer to Chapter 2 section 2.14.2.7*) in terms of the Medicines Act (101/1965), thus one would expect 100% compliance in this regard.

Seventeen institutional pharmacies in the Western Cape, eight in Kwazulu-Natal and seven in the Eastern Cape and North West respectively, did not comply or only partially complied with the requirement of keeping a permanent record of Schedule 2 to 6 medicines correctly (*refer to Appendix D, table 90D*). It was found that 9 pharmacies in the North West and 8 in the Eastern and Western Cape respectively did not comply with the requirement of keeping a prescription

record for 5 years (*refer to Appendix D, table 91D*). A relatively high percentage (90.96%, n=312) of institutional pharmacies kept original prescriptions in a safe place where they could be retrieved easily (*refer to Appendix D, table 92D*). A relatively low percentage (36.15% and 36.44% respectively) of institutional pharmacies did not keep record of all Schedule 1 and Schedule 2 sales as required by law (*refer to Appendix D, table 96D and 97D*). All nine provinces had relatively low compliance scores with regard to keeping record of all Schedule 1 and 2 sales (*refer to Appendix D, tables 96D and 97D*).

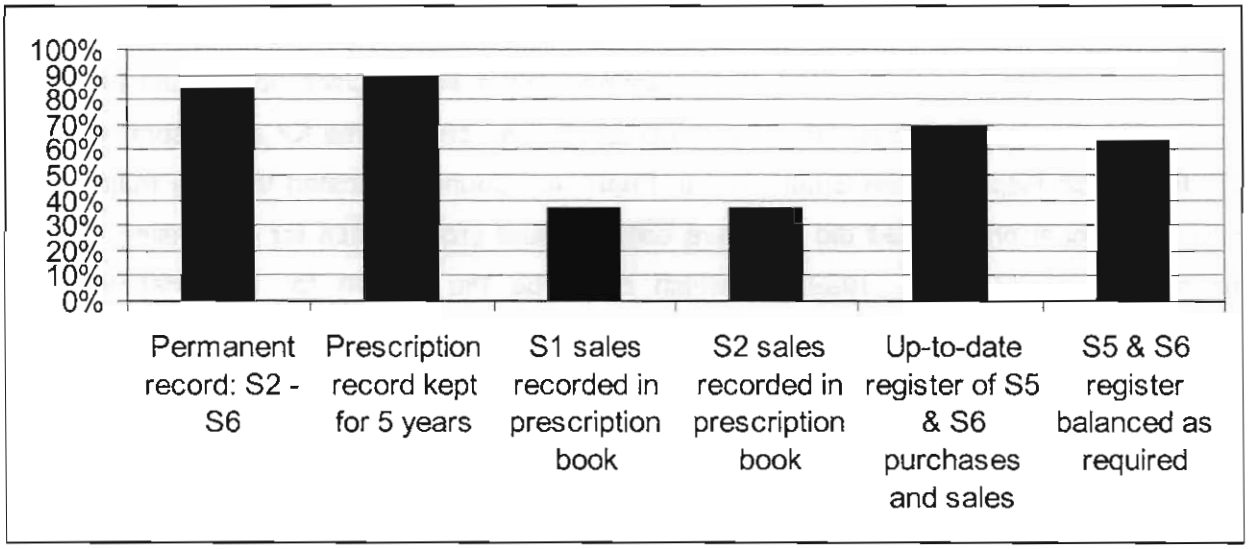


Figure 5.34 Percentage compliance with regard to record keeping requirements.

Of concern, was that a relatively low percentage (69.10%, n=237) of inspected pharmacies had an up-to-date register of all Schedule 5 and 6 purchases and sales. The North West obtained the lowest compliance score of 56.76% (n=21). None of the provinces complied fully with this legal requirement (*refer to Appendix D, table 101D*). Furthermore, 63.85% (n=219) of institutional pharmacies complied with the requirement of balancing the specified Schedule 5 and 6 register as required by law. The North West once again showed the lowest adherence with this requirement, achieving a percentage compliance of 48.65% (n=18) (*refer to Appendix D, table 102D*).

Inspectors found that 90.09% (n=309) of inspected institutional pharmacies kept a patient profile detailing prescriptions dispensed to the patient for two years. The Northern Cape achieved a compliance score of 100% (n=14) in this regard, whilst the Eastern Cape obtained the lowest score of 72.22% (n=26) (*refer to Appendix D, table 93D*). It was also indicated that patient profiles, detailing all Pharmacist Initiated Therapy items (P.I.T.) dispensed to patients were kept in 86 institutional pharmacies (*refer to Appendix D, table 94D*).

Furthermore, pharmacies are compelled by law to display and/or store Schedule 1 to 5 medicines in areas inaccessible to the public. Inspectors indicated that 97.96% (n=336) of these pharmacies complied with this legal requirement. The Eastern Cape, Free State,

Kwazulu-Natal, Limpopo and the Northern Cape adhered completely to this legal requirement. Mpumalanga achieved the lowest compliance of 87.50% (n=14) in this respect (*refer to Appendix D, table 95D*). Compared to the compliance scores of the community pharmacies, compliance in this regard was higher for institutional pharmacies.

Eighty-nine percent of inspectors indicated that Schedule 6 medicines were ordered, stored and supplied within inspected institutional pharmacies (*refer to Appendix D, table 98D*). Inspectors found that 76.38% (n=262) of institutional pharmacies had a proper system in place for the correct handling of Schedule 5 and 6 medicines. Kwazulu-Natal achieved the highest compliance of 91.18% (n=31), whilst the Western Cape obtained the lowest compliance score of 61.33% (n=46) (*refer to Appendix D, table 99D*). Furthermore inspectors found that Schedule 6 medicines were locked away (with the key under the control of the pharmacist) in 88.63% (n=304) of institutional pharmacies, with the highest compliance score once again obtained by Kwazulu-Natal (97.06%, n=33) and the lowest by the Northern Cape (71.43%, n=10) (*refer to Appendix D, table 100D*).

The majority of inspectors indicated that medicines were not delivered by mail; courier or other means (e.g. train) (*refer to Appendix D, tables 103D, 104D, and 106D*). However, thirty-four percent (n=117) of inspectors indicated that medicines were delivered by delivery person.

Figure 5.35 illustrates the percentage compliance for questions 124 to 127 for delivery of medicines by mail, courier, delivery person and other means. As most of the pharmacies indicated that medicines were not delivered by these means except delivery person, this is not an indication of compliance for these questions, as all of the questionnaires were taken into account when analysing questions 124 to 127 (*refer to Appendix D, tables 107D to 110D*).

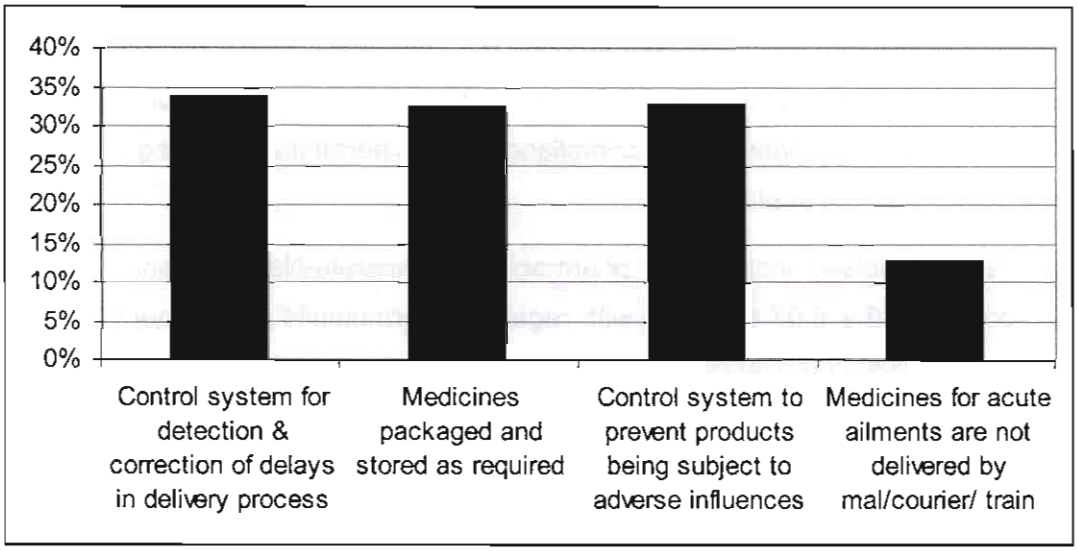


Figure 5.35 Percentage compliance with regard to questions 124 to 127 (distribution and control aspects).

5.6.8 THERMOLABILE MEDICINES

General requirements for thermolabile medicines were met in most private institutional pharmacies (96.62 ± 6.61 per cent). Table 5.60 illustrates the compliance scores with regard to thermolabile medicine requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005 for each of the nine provinces.

Table 5.60 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to thermolabile medicine requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	97.92	2.41	95.83	100.0
Free State	4	96.88	3.99	91.67	100.0
Gauteng	45	96.57	6.11	75.00	100.0
Kwazulu-Natal	11	96.21	6.02	79.17	0.00
Limpopo	1	100.0	0.00	100.0	100.0
Mpumalanga	2	81.25	26.52	62.50	100.0
North West	5	96.67	7.45	83.33	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	98.04	4.69	83.33	100.0
TOTAL	**90**	**96.62**	**6.61**	**62.50**	**100.0**

Table 5.60 illustrates that Limpopo and the Northern Cape achieved compliance scores of 100% (n=1) in this regard. The province that obtained the lowest compliance score was Mpumalanga with 81.25 (± 26.52 per cent). This province also obtained a minimum compliance score of 62.50%. An observable effect (d>0.5) was found between the compliance score of Mpumalanga and the remaining eight provinces which could reflect on significant differences.

Table 5.61 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to thermolabile requirements. Nationally, public and state subsidised pharmacies complied with 95.58 (± 11.95 per cent). No practical significant difference (d<0.8) was found between the compliance scores pertaining to storage requirements of the private sector and the public sector.

Public and state subsidised institutional pharmacies in Kwazulu-Natal obtained the highest compliance score (96.16 ± 5.07 per cent) with regard to thermolabile requirements. The North West obtained the lowest compliance score of 87.97 (± 17.92 per cent). No practical significant difference (d<0.8) was found between the compliance scores of these two provinces. A minimum percentage compliance score of 0% was recorded for the Free State, together with 29.41% for Gauteng and 5.88% for the North West, which could indicate that there is room for improvement in these provinces.

Table 5.61 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to thermolabile medicine requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	95.44	6.64	75.00	100.0
Free State	20	91.25	21.63	0.00	100.0
Gauteng	38	94.52	7.88	66.67	100.0
Kwazulu-Natal	23	96.20	4.85	83.33	100.0
Limpopo	20	96.46	9.49	58.33	100.0
Mpumalanga	13	98.08	3.65	87.50	100.0
North West	30	95.14	18.41	0.00	100.0
Northern Cape	13	87.18	12.32	66.67	100.0
Western Cape	57	90.28	15.34	33.33	100.0
TOTAL	**246**	**93.58**	**13.07**	**0.00**	**100.0**

Table 5.62 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005.

Table 5.62 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to thermolabile medicine requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	95.72	6.34	75.00	100.0
Free State	25	92.50	19.47	0.00	100.0
Gauteng	84	95.68	6.98	66.67	100.0
Kwazulu-Natal	34	96.20	5.17	79.17	100.0
Limpopo	21	96.63	9.28	58.33	100.0
Mpumalanga	15	95.83	9.83	62.50	100.0
North West	37	95.16	16.77	0.00	100.0
Northern Cape	14	88.10	12.32	66.67	100.0
Western Cape	74	92.06	14.00	33.33	100.0
TOTAL	**340**	**94.41**	**11.70**	**0.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 94.41 (± 11.70 per cent) for compliance with regard to thermolabile medicine requirements. Community pharmacies obtained a score of 91.94 ± 10.90 for requirements with regard to thermolabile medicine requirements (*refer to section 5.5.8, table 5.27*). No practical significant difference was found between the compliance scores of these two categories of pharmacies.

The province with the highest compliance score was Limpopo with 96.63 (± 9.28 per cent), whilst the lowest score was obtained by institutional pharmacies in the Northern Cape with 88.10 (± 12.32 per cent). A *d-value* of more than 0.5 and less than 0.8 may reflect on a significant difference between the Northern Cape and the following provinces: Eastern Cape, Gauteng, Kwazulu-Natal, Limpopo and Mpumalanga.

Inspectors indicated that 97.08% (n=333) of institutional pharmacies (private and public) purchased stored or supplied thermolabile medicines within the pharmacy (*refer to Appendix D, table 111D*). Compliance with regard to these medicines being stored in the refrigerator was relatively high, with a score of 97.67% (n=335). All nine provinces obtained compliance scores of more than 90% (*refer to Appendix D, table 112D*). It was found that 4.08% (n=14) of institutional pharmacies stored products other than medicine in the refrigerator (*refer to Appendix D, table 113D).* Ninety-four percent of inspectors indicated that thermolabile medicines were stored according to a system (*refer to Chapter 2, sections 2.12.1.4.1 to 2.12.1.4.4 for discussion on requirements with regard to thermolabile medicines*). Mpumalanga and the Western Cape achieved the lowest compliance in this regard with 87.50% (n=14) and 86.67% (n=65) respectively (*refer to Appendix D, table 114D*).

With regard to the refrigerator, inspectors indicated that refrigerators were suitable and in good working order in 93.59% (n=321) of institutional pharmacies, with the Eastern and Western Cape obtaining the lowest percentage compliance scores of 88.89% (n=32) and 86.67% (n=65) respectively (*refer to Appendix D, table 115D*).

Inspectors found that refrigerator temperatures were maintained between 2°C and 8°C in 93.29% (n=320) of the inspected institutional pharmacies, with the Northern Cape obtaining the lowest percentage compliance of 78.57% (n=11) and the Free State achieving the highest compliance score of 96% (n=24) (*refer to Appendix D, table 116D*).

Of concern was that inspectors indicated that 23% of institutional pharmacies did not comply or only partially complied with the standard of controlling the temperature of the refrigerator 24 hours a day. Gauteng and Limpopo achieved compliance scores of more than 90%, whilst the remaining seven provinces obtained relatively low scores (*refer to Appendix D, table 117D*). Furthermore, it was found that the temperature of refrigerators was recorded twice daily in 68.22% (n=234) of institutional pharmacies. All nine provinces had relatively low percentage compliance with this specific standard (*refer to Appendix C, table 112C*).

In order to maintain the potency of thermolabile medicines, these medicines must be supplied or stored whilst maintaining the cold chain at all times (*refer to Chapter 2, section 2.12.1.4.3*). Inspectors indicated that 93.88% (n=322) of institutional pharmacies maintained the cold chain during storage and supply of thermolabile medicines. The Eastern Cape and Kwazulu-Natal obtained perfect scores in this regard, whilst Mpumalanga (87.50%, n=14) and the Western Cape (89.33%, n=67) obtained the lowest scores in this regard.

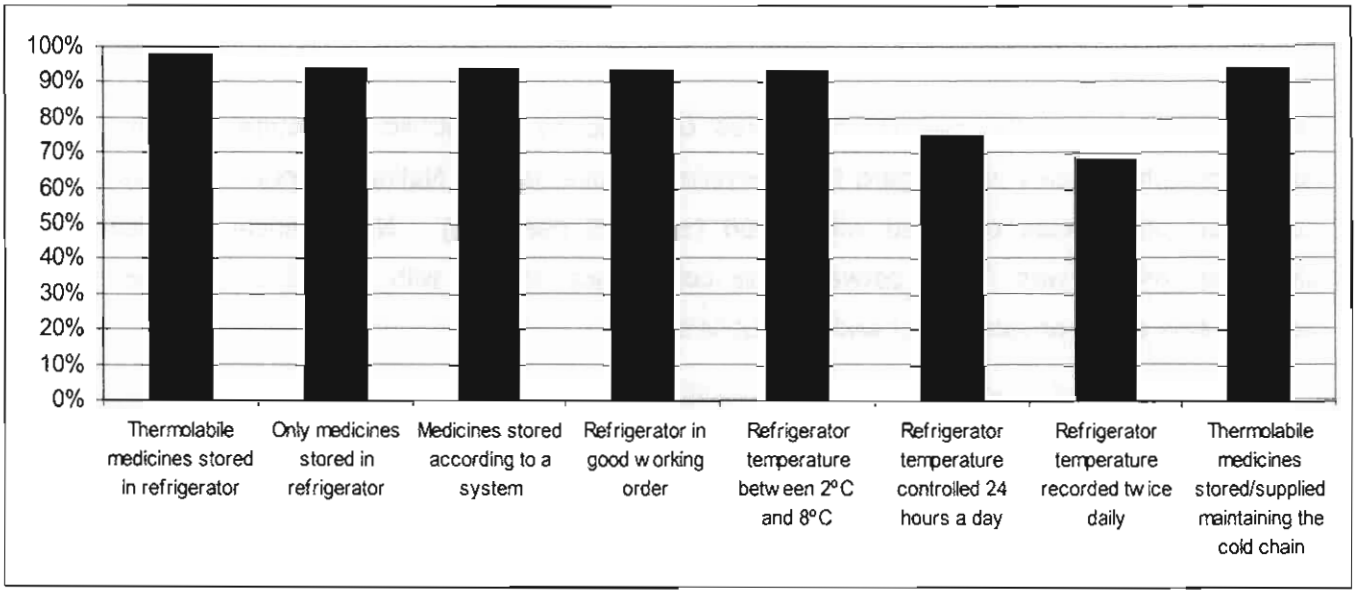


Figure 5.36 Percentage compliance with regard to thermolabile medicine requirements.

5.6.9 DISPENSING OF PRESCRIPTIONS

The overall impression pertaining to dispensing of prescription requirements in private institutional pharmacies was relatively high (99.11 ± 4.92 per cent). Table 5.63 illustrates the compliance with requirements with regard to dispensing of prescriptions of the private institutional pharmacies inspected during the time period January 2004 until May 2005 for each of the nine provinces.

Table 5.63 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to dispensing requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	100.0	0.00	100.0	100.0
Free State	4	100.0	0.00	100.0	100.0
Gauteng	45	99.11	5.96	60.00	100.0
Kwazulu-Natal	11	98.18	6.03	80.00	100.0
Limpopo	1	100.0	0.00	100.0	100.0
Mpumalanga	2	93.33	9.42	86.67	100.0
North West	5	100.0	0.00	100.0	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	99.61	1.62	93.33	100.0
TOTAL	**90**	**99.11**	**4.92**	**60.0**	**100.0**

As seen in the table, the Eastern Cape, Free State, Limpopo, North West and the Northern Cape obtained perfect scores in this regard. The province with the lowest compliance score was Mpumalanga with 93.33 (± 9.42 per cent). A *d-value* of 0.7 was calculated between the

compliance scores of Mpumalanga and the provinces that obtained perfect scores; this could be interpreted as observable.

Table 5.64 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to dispensing requirements. Nationally, public and state subsidised pharmacies complied with 95.66 (± 12.09 per cent). No practical significant difference (d<0.8) was found between the compliance scores with regard to dispensing requirements of the private sector and the public sector.

In this instance, public and state subsidised institutional pharmacies in Mpumalanga obtained a perfect score with regard to dispensing requirements. The North West obtained the lowest compliance score of 94.44 (± 13.34 per cent). No practical significant difference (d<0.8) was found between the compliance scores of these two provinces. A minimum percentage compliance score of 0% was recorded for the Free State, together with 20% for Gauteng and the Western Cape as well as 40% for the North West, which could indicate that there is room for improvement in certain pharmacies situated in these provinces.

Table 5.64 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to dispensing requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	96.46	7.94	73.33	100.0
Free State	20	95.00	22.36	0.00	100.0
Gauteng	38	94.91	14.66	20.00	100.0
Kwazulu-Natal	23	96.23	8.00	73.33	100.0
Limpopo	20	97.67	4.47	86.67	100.0
Mpumalanga	13	100.0	0.00	100.0	100.0
North West	30	94.44	13.34	40.00	100.0
Northern Cape	13	94.87	6.75	86.67	100.0
Western Cape	57	94.85	12.28	20.00	100.0
TOTAL	**246**	**95.66**	**12.09**	**0.00**	**100.0**

Table 5.65 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005. Nationally, institutional pharmacies (private and public) achieved a score of 96.55 (± 10.72 per cent) for compliance with dispensing requirements. Community pharmacies obtained a score of 98.19 ± 8.16 for dispensing requirements (*refer to section 5.5.9, table 5.28*). No practical significant difference was found between the compliance scores of these two categories of pharmacies.

The province with the highest compliance score was Mpumalanga with 99.11 (± 3.44 per cent), whilst the lowest score was obtained by institutional pharmacies in the Northern Cape with 85.24 (± 6.63 per cent). A practical significant difference (d>0.8) was found between the compliance score of the Northern Cape and the following provinces: Eastern Cape, Gauteng, Kwazulu-Natal, Limpopo, Mpumalanga, North West, Northern Cape and the Western Cape.

Table 5.65 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to dispensing requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	96.85	7.56	73.33	100.0
Free State	25	96.00	20.00	0.00	100.0
Gauteng	84	97.22	10.91	20.00	100.0
Kwazulu-Natal	34	96.86	7.38	73.33	100.0
Limpopo	21	97.78	4.39	86.67	100.0
Mpumalanga	15	99.11	3.44	86.67	100.0
North West	37	94.77	12.29	40.00	100.0
Northern Cape	14	85.24	6.63	86.67	100.0
Western Cape	74	95.95	10.97	20.00	100.0
TOTAL	**340**	**96.55**	**10.72**	**0.00**	**100.0**

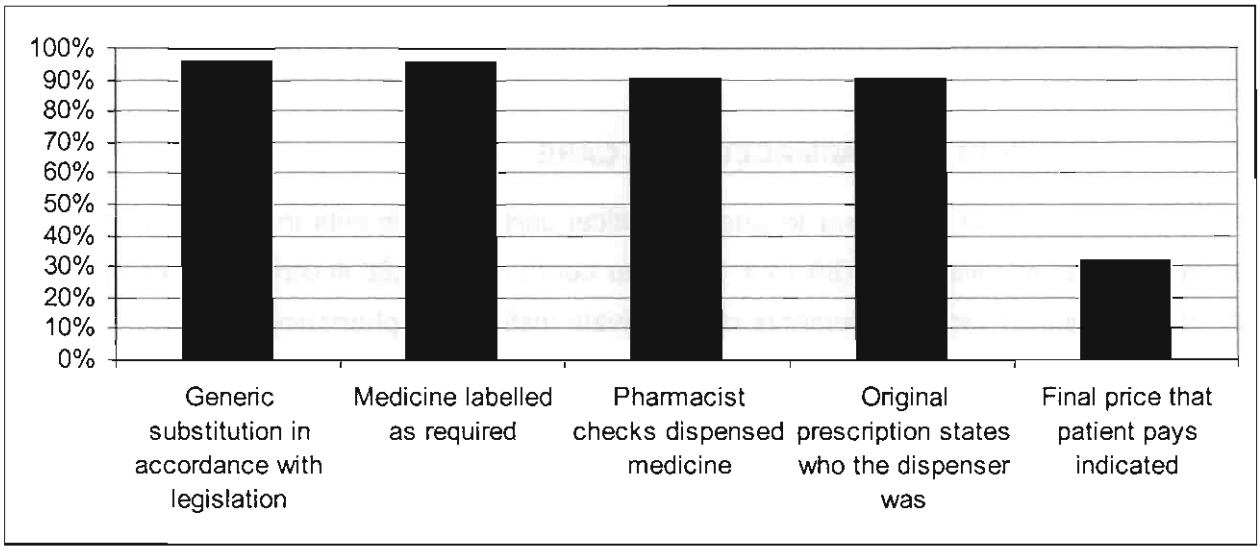


Figure 5.37 Percentage compliance with regard to dispensing of prescriptions.

Figure 5.37 illustrates the percentage compliance pertaining to dispensing of prescriptions as required. Section 22(F) of the Medicines Act (101/1965) describes the requirements with regard to generic substitution (*refer to Chapter 2, section 2.14.2.2*). Inspectors indicated that 96.21% (n=330) of institutional pharmacies obeyed the law in this regard. The Northern Cape and Limpopo applied generic substitution in accordance with Section 22(F) of the Medicines Act completely. Mpumalanga obtained the lowest score of 87.50% (n=14) in this regard (*refer to Appendix D, table 120D*). The labelling of medicine is of great importance; pharmacists are compelled by law to label medicines as required in Regulation 8(4) of the Medicines Act (101/1965) (*refer to Chapter 2, section 2.14.2.6*). Inspectors found that 95.63% (n=24) of institutional pharmacies complied with this requirement. The Northern Cape, North West and Limpopo, obtained perfect scores with regard to labelling of medicines. Kwazulu-Natal obtained the lowest score of 91.18% (n=31) (*refer to Appendix D, table 121D*).

Section 22(F) of the Medicines Act (101/1965) states that pharmacists must inform patients of the benefits of generic substitution and that a multi-source medicine may be dispensed with the permission of the patient. If a pharmacist is forbidden to dispense a multi-source medicine, this must be indicated on the prescription.

A pharmacist checked the dispensed medicine after it had been labelled in 90.67% (n=311) of cases Limpopo (76.19%, n=16) obtained the lowest compliance in this regard, whilst the Free State (96%, n=24) obtained the highest compliance score (*refer to Appendix D, table 122D*). An original prescription must state the name of the person who dispensed that specific prescription. This requirement was not adhered to in 5.25% (n=18) of institutional pharmacies (*refer to Appendix D, table 123D*). Furthermore, the final price that the patient paid was indicated on the copy for the payer in a relatively low 32.07% (n=110) of institutional pharmacies, however 65% (n=223) of inspectors indicated that this question was irrelevant (*refer to Appendix D, table 124D*).

5.6.10 PROVISION OF PHARMACEUTICAL CARE

The overall impression pertaining to pharmaceutical care requirements in private institutional pharmacies was relatively high (89.14 ± 13.55 per cent). Table 5.66 illustrates the compliance with pharmaceutical care requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005 for each of the nine provinces.

Table 5.66 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to pharmaceutical care requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	99.07	1.85	96.30	100.0
Free State	4	93.06	8.33	83.33	100.0
Gauteng	45	87.41	17.49	0.00	100.0
Kwazulu-Natal	11	92.42	6.22	83.33	100.0
Limpopo	1	91.67	0.00	91.67	91.67
Mpumalanga	2	72.22	0.00	72.22	72.22
North West	5	88.89	3.40	86.11	94.44
Northern Cape	1	88.89	0.00	88.89	88.89
Western Cape	17	93.46	5.55	75.00	100.0
TOTAL	**90**	**89.14**	**13.55**	**0.00**	**100.0**

The province with the lowest compliance score was Mpumalanga with 72.22 (± 0.00 per cent), whilst the province with the highest compliance score was the Eastern Cape with 99.07 (± 1.85 per cent). A practical significant difference (d>0.8) was found between the compliance scores obtained by these two provinces.

Table 5.67 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to pharmaceutical care requirements. Nationally, public and state subsidised pharmacies complied with 84.24 (± 14.27 per cent). No practical significant difference (d<0.8) was found between the compliance scores with regard to pharmaceutical care requirements of the private sector and the public sector.

In this instance, public and state subsidised institutional pharmacies in Kwazulu-Natal (90.10 ± 10.15 per cent) obtained the highest compliance score with regard to pharmaceutical care requirements. The North West and Gauteng obtained the lowest compliance scores of 80.09 ± 16.20 and 80.26 (± 17.91 per cent), respectively. No practical significant difference (d<0.8) was found between the compliance scores of these provinces. The minimum compliance scores obtained by the different provinces are of concern as these percentages are relatively low, indicating that there is room for improvement in certain pharmacies throughout the whole of South Africa.

Table 5.67 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to pharmaceutical care requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	84.29	9.48	58.33	97.22
Free State	20	87.08	21.50	0.00	100.0
Gauteng	38	80.26	17.91	5.56	100.0
Kwazulu-Natal	23	90.10	10.15	61.11	100.0
Limpopo	20	84.72	11.35	44.44	94.44
Mpumalanga	13	83.76	5.05	77.78	91.67
North West	30	80.09	16.20	38.89	100.0
Northern Cape	13	85.04	7.65	72.22	100.0
Western Cape	57	85.43	14.00	33.33	97.22
TOTAL	**246**	**84.24**	**14.27**	**0.00**	**100.0**

Table 5.68 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005.

Table 5.68 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to pharmaceutical care requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	84.41	9.65	58.33	97.22
Free State	25	87.89	19.51	0.00	100.0
Gauteng	84	84.26	17.86	0.00	100.0
Kwazulu-Natal	34	90.85	9.03	61.11	100.0
Limpopo	21	85.05	11.16	44.44	94.44
Mpumalanga	15	82.22	6.19	72.22	91.67
North West	37	82.21	15.33	38.89	100.0
Northern Cape	14	85.32	7.42	72.22	100.0
Western Cape	74	87.27	13.00	33.33	100.0
TOTAL	**340**	**85.64**	**14.18**	**0.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 85.64 (± 14.18 per cent) for compliance with regard to provision of pharmaceutical care requirements. Community pharmacies obtained a score of 89.29 (± 12.57 per cent) in this regard (*refer to section 5.5.10, table 5.29*). No practical significant difference was found between the compliance scores of these two categories of pharmacies.

The province with the highest compliance score was Kwazulu-Natal with 90.85 (± 9.03 per cent), whilst the lowest scores were obtained by institutional pharmacies in the North West (82.21 ± 15.33 per cent) and Mpumalanga (82.22 ± 6.19 per cent). A practical significant difference (d>0.8) was found between the compliance score of Kwazulu-Natal and Mpumalanga, together with a medium effect (d>0.5) between Kwazulu-Natal and the North West.

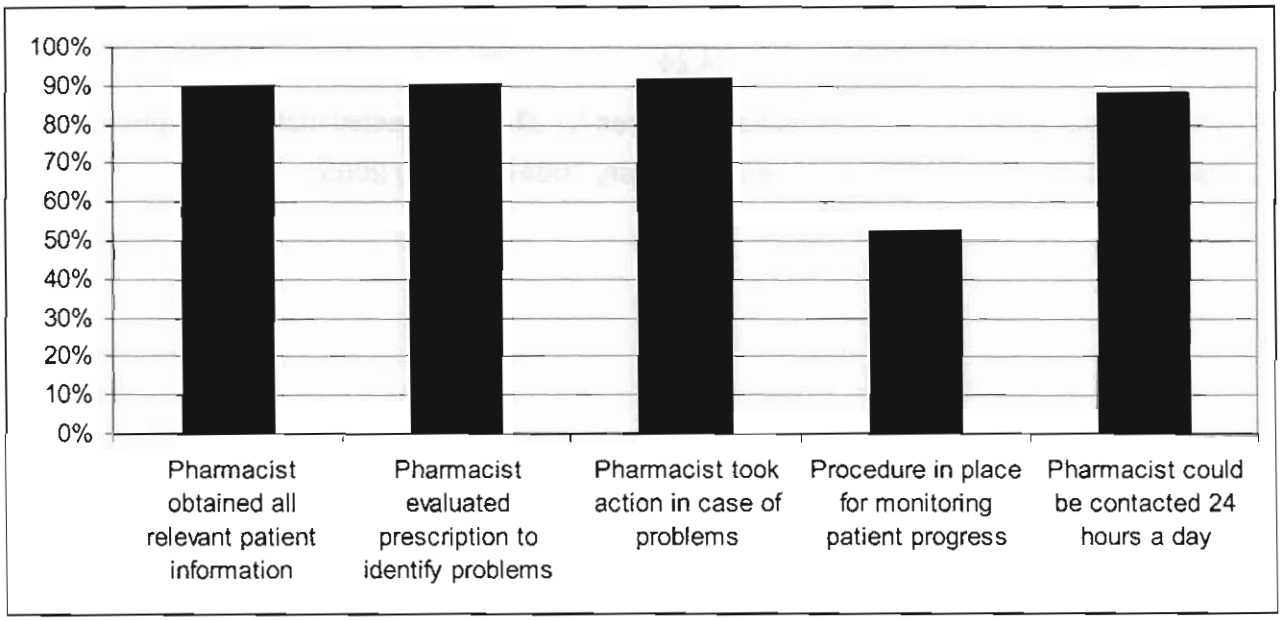


Figure 5.38 Percentage compliance with regard to provision of pharmaceutical care.

Figure 5.38 illustrates that relatively high ratings were received with regard to obtaining relevant patient information (90.09%, n=309), evaluating a prescription (90.38%, n=310) and taking the necessary action if any problems arose (92.13%, n=316) (*refer to Chapter 2, sections 2.14.1.2, 2.14.3, 2.14.4 for pharmaceutical care requirements*). It was, however, established that a procedure for monitoring a patient's progress was not available in 32.36% (n=111) of institutional pharmacies. The highest compliance score was obtained by the Northern Cape (92.86%, n=13), whilst institutional pharmacies in Limpopo did not comply with this requirement at all (*refer to Appendix D, table 137D*).

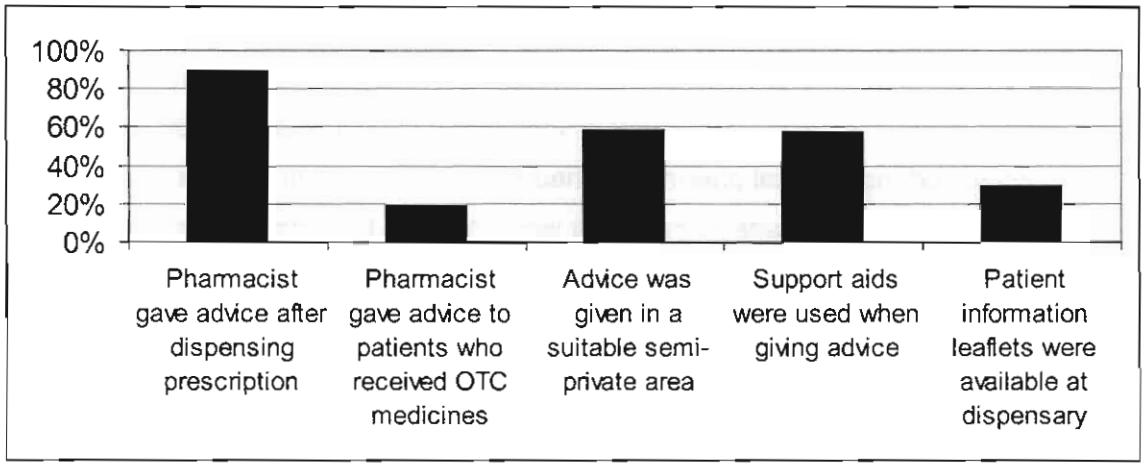


Figure 5.39 Percentage compliance with regard to provision of information and advice requirements.

The question relating to whether the pharmacist advises the patient or care-giver after a prescription has been dispensed indicated that pharmacists in 89.21% (n=306) of institutional pharmacies complied with this requirement (*refer to Appendix D, table 128D*). The question pertaining to whether the pharmacist advises the patient or care-giver after over the counter medicines have been dispensed indicated that pharmacists in 18.95% (n=65) of institutional pharmacies complied with this requirement. However, 78.15% of inspectors indicated this question to be not applicable. Institutional pharmacies do not always have over the counter medicines especially public institutional pharmacies (*refer to Appendix D, table 129D*) (*refer to Chapter 2, section 2.14.3*).

The question relating to whether the pharmacist advises patients in a suitable semi-private area (*refer to Chapter 2, section 2.11.5 for discussion on requirements related to waiting and consultation areas*) indicated that 20.12% (n=201) of institutional pharmacies did not comply with this requirement. Institutional pharmacies in Limpopo (N=21) obtained the highest compliance score (80.95%, n=17), whilst the Eastern Cape (N=36) and Northern Cape (N=14) obtained the lowest compliance scores of 50% each (*refer to Appendix D, table 130D*).

It was found that 52.19% (n=179) of institutional pharmacies used a hatch when providing patient counselling. The Northern Cape (92.86%, n=13) most frequently made use of a hatch

for providing patient counselling (*refer to Appendix D, table 131D*). Inspectors furthermore indicated that eye contact was possible between patient and pharmacist in 96.65% (n=173) of institutional pharmacies (N=179) and easy communication was facilitated in 86.03% (n=154) of institutional pharmacies (N=179) using a hatch during patient counselling (*refer to Appendix D, tables 132D and 133D*).

Inspectors indicated that 56.85% (n=195) of institutional pharmacists used support aids when supplying advice. Not one of the nine provinces achieved compliance scores of more than 90% for this requirement, indicating that there is room for improvement in this respect (*refer to Appendix D, table 134D*).

Pharmacists are required by law to have patient information leaflets available at the dispensary (*refer to Chapter 2, section 2.14.3*). It was established that a relatively low percentage (29.45%, n=101) of the inspected institutional pharmacies had patient information leaflets available at the dispensary. The highest percentage compliance was obtained by Kwazulu-Natal with 58.82% (n=20) and the lowest percentage compliance by the Western Cape with 4% (n=3) of inspected institutional pharmacies complying with this requirement (*refer to Appendix D, table 136D*).

5.6.11 COMPOUNDING

Figure 5.40 illustrates the relatively low percentage of institutional pharmacies that performed the compounding procedures as seen below. Thirty-eight per cent (n=130) of institutional pharmacies performed bulk compounding (e.g. dilution of antiseptic solutions, creams, mixtures, etc.) (*refer to Appendix D, table 144D*). Three pharmacies prepared large volume parenterals and IV additives, respectively (*refer to Appendix D, tables 145D and 147D*). Furthermore, cytotoxic parenterals were prepared in 5.83% (n=20) of institutional pharmacies.

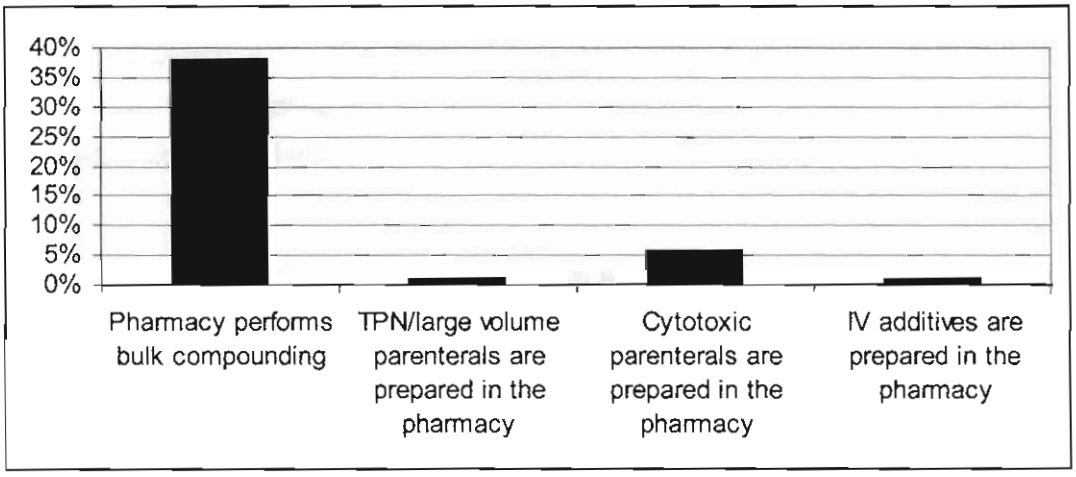


Figure 5.40 Percentage of institutional pharmacies that performed compounding procedures.

5.6.12 WRITTEN STANDARD OPERATING PROCEDURES

General requirements with regard to written standard operating procedure requirements were met in most private institutional pharmacies (92.33 ± 13.36 per cent).

Table 5.69 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to written standard operating procedure requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	98.15	2.62	94.44	100.0
Free State	4	95.37	1.85	92.59	96.30
Gauteng	45	93.37	12.15	48.15	100.0
Kwazulu-Natal	11	91.75	14.78	51.85	100.0
Limpopo	1	100.0	0.00	100.0	100.0
Mpumalanga	2	61.11	23.57	44.44	77.78
North West	5	86.30	21.50	48.15	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	92.37	12.00	62.96	100.0
TOTAL	**90**	**92.33**	**13.36**	**44.44**	**100.0**

Table 5.69 illustrates the compliance with written standard operating procedure requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005 for each of the nine provinces.

Table 5.69 illustrates that Limpopo and the Northern Cape achieved compliance scores of 100% in this regard. The province that obtained the lowest compliance score was Mpumalanga with a relatively low 61.11 (± 23.57 per cent). Mpumalanga also obtained a minimum compliance score of 44.44%. Furthermore, Gauteng and the North West province obtained minimum compliance scores of 48.15% respectively. A practical significant difference (d>0.8) was found between the compliance score obtained by Mpumalanga for written standard operating procedure requirements and the Free State, Gauteng, Kwazulu-Natal, Limpopo, North West and the Western Cape.

Table 5.70 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to written standard operating procedure requirements. Nationally, public and state subsidised pharmacies complied with 91.02 (± 9.09 per cent). No practical significant difference (d<0.8) was found between the compliance scores obtained by the private sector and the public sector. Public and state subsidised institutional pharmacies in the Eastern Cape obtained the highest compliance score (92.82 ± 14.41 per cent). The North West (79.51 ± 21.30 per cent) and Northern Cape (66.38 ± 20.00 per cent) obtained the lowest compliance scores. Overall, minimum compliance scores were relatively low, indicating that there was room for improvement in all nine provinces in this regard. A practical significant difference (d>0.8) was found between the compliance scores of the Eastern Cape and the Northern Cape.

Table 5.70 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to written standard operating procedure requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	92.82	14.41	53.70	100.0
Free State	20	85.93	25.85	0.00	100.0
Gauteng	38	91.08	12.97	51.85	100.0
Kwazulu-Natal	23	91.63	10.81	70.37	100.0
Limpopo	20	88.61	18.45	33.33	100.0
Mpumalanga	13	86.04	18.95	44.44	100.0
North West	30	79.51	21.30	22.22	100.0
Northern Cape	13	66.38	20.00	48.15	100.0
Western Cape	57	82.33	19.46	31.48	100.0
TOTAL	**246**	**91.02**	**9.09**	**14.81**	**100.0**

Table 5.71 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005 according to province.

Table 5.71 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to written standard operating procedure requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	93.42	13.69	53.70	100.0
Free State	25	87.41	23.28	0.00	100.0
Gauteng	84	92.37	12.44	48.15	100.0
Kwazulu-Natal	34	91.67	12.00	51.85	100.0
Limpopo	21	89.15	18.16	33.33	100.0
Mpumalanga	15	82.72	20.61	44.44	100.0
North West	37	81.13	20.76	22.22	100.0
Northern Cape	14	68.78	21.13	48.15	100.0
Western Cape	74	84.63	18.44	31.48	100.0
TOTAL	**340**	**87.54**	**17.78**	**0.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 87.54 (± 17.78 per cent) for compliance pertaining to written standard operating procedure requirements. Community pharmacies obtained a score of 73.34 (± 27.49 per cent) for requirements with regard to written standard operating procedures (*refer to section 5.5.11, table 5.30*). A *d-value* of 0.5 may reflect on a significant difference between these two categories of pharmacies.

The province with the highest overall compliance score was the Eastern Cape with 93.42 (± 13.69 per cent), whilst the lowest score was obtained by institutional pharmacies in the Northern Cape with 68.78 (± 21.13 per cent). A practical significant difference (d>0.8) was found between the overall compliance score of the Eastern Cape and the Northern Cape.

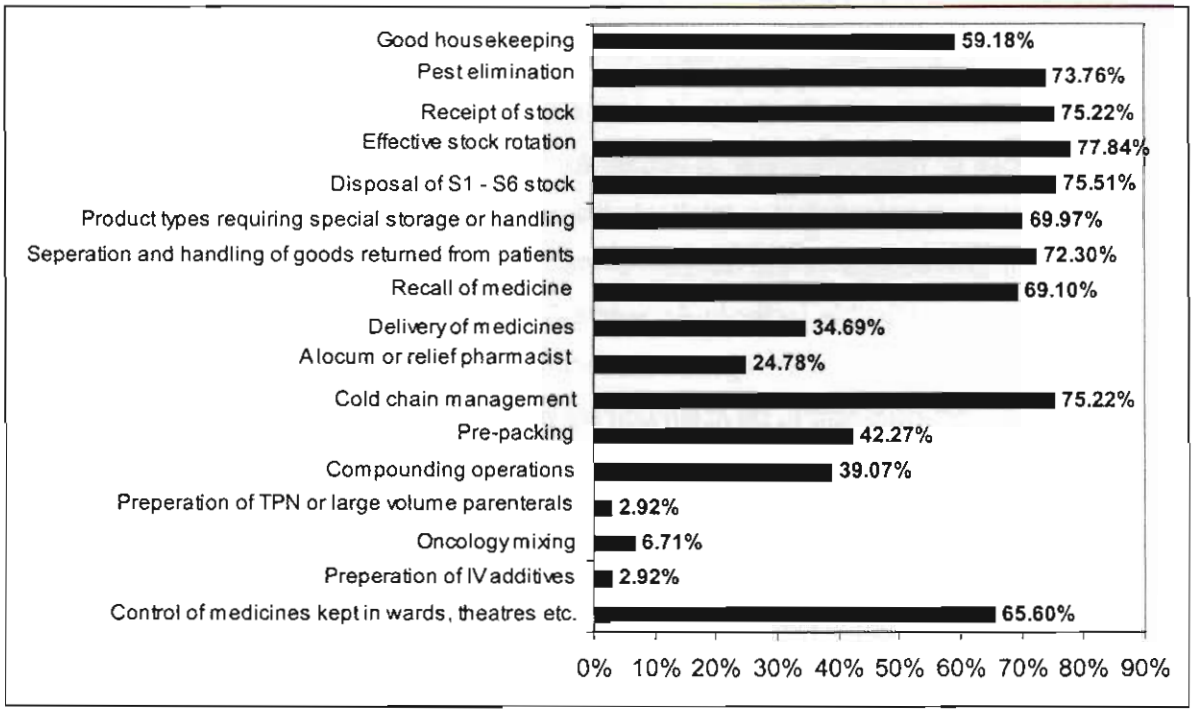


Figure 5.41 Percentage compliance with regard tot the availability of Standard Operating Procedures (SOPs).

A simple definition for a standard operating procedure is a procedure, which specifies in writing what should be done, when, where and by whom (*refer to Chapter 2, section 2.18 for discussion on SOPs*). Inspectors found that the Eastern Cape had the highest compliance score (75.00%, n=27) with regard to the availability of good housekeeping standard operating procedures (SOPs), whilst the Northern Cape obtained the lowest compliance score (35.71%, n=5) (*refer to Appendix D, table 148D*). Gauteng obtained the highest compliance with regard to pest elimination (87.06%, n=74) and receipt of stock (88.24%, n=75) standard operating procedures being available. The Northern Cape achieved the lowest compliance scores (28.57%, n=4, respectively) for the availability of the aforementioned standard operating procedures (*refer to Appendix D, tables 149D and 150 D*).

Inspectors indicated that 95.24% (n=20) of institutional pharmacies in Limpopo and a relatively low 42.86% (n=6) in the Northern Cape had effective stock rotation SOPs available during the study period (*refer to Appendix D, table 151D*).

Seventy-six per cent (n=259) of institutional pharmacies had a standard operating procedure for disposal or removal of damaged and/or contaminated stock as required by law. The Eastern Cape obtained the highest compliance score (88.89%, n=32), whilst the Northern Cape

obtained the lowest score (28.75%, n=4) (*refer to Appendix D, table 152D*). Inspectors indicated that standard operating procedures with regard to product types requiring special storage or handling as well as for the separation and handling of goods returned from patients were performed in 69.97% (n=240) and 72.30% (n=248) of institutional pharmacies. In both instances the Northern Cape obtained the lowest percentage compliance score of 42.86% (n=6) and 28.75% (n=4) respectively (*refer to Appendix D, tables 153D and 154D*).

Inspectors found that 69.10% (n=237) of institutional pharmacies had standard operating procedures for recall of medicine (*refer to Appendix D, table 155D*). With regard to delivery of medicines, inspectors indicated that a relatively low percentage of institutional pharmacies had standard operating procedures for the delivery of medicines, however 54.23% (n=186) indicated that this SOP was not applicable (*refer to Appendix D, table 156D*). This was also prevalent for standard operating procedures with regard to a locum or relief pharmacist, 42.57% (n=146) of inspectors indicated this question to be irrelevant (*refer to Appendix D, table 157D*).

Standard operating procedures for cold chain management were in place in 75.22% (n=258) of institutional pharmacies. The highest percentage compliance score was obtained by Gauteng (84.71%, n=72), whilst the lowest was achieved by once again the Northern Cape (28.75%, n=4) (*refer to Appendix D, table 158D*).

Availability of pre-packing procedures was of great concern as a relatively low percentage (42.27%, n=145) of institutional pharmacies adhered to this standard, however 41.69% (n=143) of inspectors indicated this standard to be irrelevant (*refer to Appendix D, table 159D*). With regard to standard operating procedures for compounding operations, 49.85% (n=171) of inspectors indicated that this standard was not applicable, whilst 39.07% (n=134) indicated that institutional pharmacies complied with this requirement.

The majority of inspectors indicated that standard operating procedures for preparation of TPN or large volume parenterals, oncology mixing and preparation of IV additives were not applicable to the institutional pharmacies inspected by them (*refer to Appendix D, tables 161D, 162D and 163D*).

Lastly, standard operating procedures for control over medicines kept in places other than the pharmacy (e.g. wards, theatres, etc.) were in place in 65.60% (n=225) of institutional pharmacies. Institutional pharmacies in the Free State obtained the highest compliance in this regard with 84% (n=21), whilst the Northern Cape once again obtained the lowest score of 28.75% (n=4) (*refer to Appendix D, table 164D*).

With regard to standard operating procedures being reviewed or updated on a regular basis, 22.16% (n=76) of institutional pharmacies did not comply with this requirement. The Eastern Cape achieved a compliance score of 80.56% (n=29) for this requirement, the highest of the

nine provinces. The province with the lowest compliance score was the Northern Cape with a percentage of 28.75% (n=4) (*refer to Appendix D, table 165D*).

It is clear that out of the above-mentioned discussion that there is need for improvement in institutional pharmacies in the Northern Cape with regard tot the availability of standard operating procedures.

5.6.13 REFERENCES

General requirements for reference sources were met in most private institutional pharmacies (94.24 ± 9.46 per cent). Table 5.72 illustrates the compliance scores with regard to reference requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005 for each of the nine provinces.

Table 5.72 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to reference requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	99.07	1.85	96.30	100.0
Free State	4	98.15	3.70	92.59	100.0
Gauteng	45	95.47	9.31	48.15	100.0
Kwazulu-Natal	11	94.28	6.70	81.48	00.0
Limpopo	1	62.96	0.00	62.96	62.96
Mpumalanga	2	72.22	13.09	62.96	81.48
North West	5	90.37	6.20	85.19	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	94.12	8.08	70.37	100.0
TOTAL	**90**	**94.24**	**9.46**	**48.15**	**100.0**

Table 5.72 illustrates that Limpopo (62.96 ± 0.00 per cent) and Mpumalanga (72.22 ± 13.09 per cent) achieved the lowest compliance scores in this regard. Gauteng obtained a minimum compliance score of 48.15%. The two provinces that obtained the highest compliance scores were the Northern Cape with a perfect score and the Eastern Cape with 99.07 (± 1.85 per cent). A practical significant difference (d>0.8) was found between the compliance scores of Mpumalanga and Limpopo and the Eastern Cape.

Table 5.73 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to reference requirements. Nationally, public and state subsidised pharmacies complied with 86.63 (± 20.60 per cent). No practical significant difference (d<0.8) was found between the compliance scores pertaining to reference sources of the private sector and the public sector. Public and state subsidised institutional pharmacies in Gauteng obtained the highest compliance score (93.96 ± 11.91 per cent) with regard to reference requirements. The Northern Cape and North West provinces obtained the lowest

compliance scores of 59.54 ± 24.68 and 69.83 (± 26.71 per cent), respectively. A practical significant difference (d>0.8) was found between the compliance scores obtained by Gauteng and the Northern Cape and North West. The minimum percentage compliance scores obtained by the nine provinces were of concern, which indicated that there is room for improvement throughout South Africa in this regard.

Table 5.73 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to reference requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	79.75	17.01	40.74	100.0
Free State	20	93.15	22.30	0.00	100.0
Gauteng	38	93.96	11.91	51.85	100.0
Kwazulu-Natal	23	87.44	15.50	33.33	100.0
Limpopo	20	92.96	11.64	55.56	100.0
Mpumalanga	13	87.46	15.83	51.85	100.0
North West	30	69.83	26.71	0.00	100.0
Northern Cape	13	59.54	24.68	33.33	100.0
Western Cape	57	82.91	18.48	40.74	100.0
TOTAL	**246**	**86.63**	**20.60**	**0.00**	**100.0**

Table 5.74 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005.

Table 5.74 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to reference requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	81.89	17.16	40.74	100.0
Free State	25	94.22	20.00	0.00	100.0
Gauteng	84	94.80	10.48	48.15	100.0
Kwazulu-Natal	34	89.65	13.58	33.33	100.0
Limpopo	21	91.53	13.10	55.56	100.0
Mpumalanga	15	85.43	15.99	51.85	100.0
North West	37	72.67	25.69	0.00	100.0
Northern Cape	14	62.43	26.06	33.33	100.0
Western Cape	74	85.49	17.28	40.74	100.0
TOTAL	**340**	**86.49**	**18.87**	**0.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 86.49 (± 18.87 per cent) for compliance with regard to reference requirements. Community pharmacies obtained a score of 81.49 (± 18.47 per cent) for requirements with regard to reference requirements (*refer to section 5.5.12, table 5.31*). No practical significant difference was found between the compliance scores of these two categories of pharmacies.

The provinces with the highest compliance scores were Gauteng (96.63 ± 9.28 per cent) and the Free State (94.22 ± 20.00 per cent) whilst the lowest scores were obtained by institutional pharmacies in the Northern Cape (62.43 ± 16.06 per cent) and the North West (72.67 ± 25.69 per cent). A practical significant difference was found between the compliance scores of the two provinces with the highest compliance scores and that of the two provinces with the lowest scores.

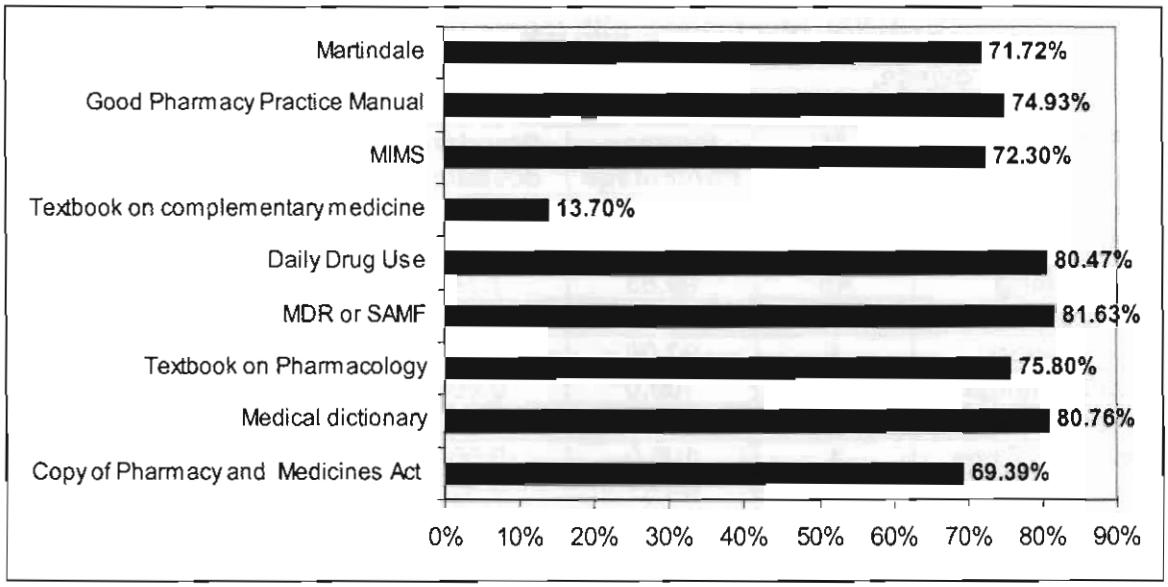


Figure 5.42 Percentage compliance with regard to availability of reference sources.

Figure 5.42 illustrates the required references (*refer to Chapter 2, section 2.11.3.4*) that a pharmacy must have access to, together with the compliance scores achieved for the availability of every reference. The reference source most available in institutional pharmacies was a MDR or SAMF (81.63%, n=280), followed by a medical dictionary, Daily Drug Use, textbook on Pharmacology, Good Pharmacy Practice Manual, MIMS, Martindale, Pharmacy Act (53/1974) and Medicines Act (101/1965) and complementary medicine textbook (*refer to Appendix D, tables 166D to 174D*).

The Good Pharmacy Practice Manual is the cornerstone for the correct and efficient practice of pharmacy in South Africa. Inspectors indicated that 74.93% (n=257) of institutional pharmacies had a copy of the latest edition of the Good Pharmacy Practice Manual. The highest percentage compliance was obtained by the Free State with 96% (n=24), whilst the lowest percentage compliance was obtained by the North West 40.54% (n=15) (*refer to Appendix D, table 167D*).

5.6.14 GENERAL

The majority (98.89 ± 5.03 per cent) of private institutional pharmacies complied with general requirements. Table 5.75 illustrates the compliance with general requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005 for each of the nine provinces.

Table 5.75 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to general requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	100.0	0.00	100.0	100.0
Free State	4	100.0	0.00	100.0	100.0
Gauteng	45	99.63	1.74	91.67	100.0
Kwazulu-Natal	11	100.0	0.00	100.0	100.0
Limpopo	1	92.96	0.00	62.96	62.96
Mpumalanga	2	100.0	0.00	100.0	100.0
North West	5	88.33	17.28	58.33	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	99.51	2.02	91.67	100.0
TOTAL	**90**	**98.89**	**5.03**	**58.33**	**100.0**

Table 5.75 illustrates that the Eastern Cape, Free State, Kwazulu-Natal, Mpumalanga and the Northern Cape obtained perfect compliance scores. The province that obtained the lowest compliance score was the North West province with 88.33 (± 17.28 per cent). The North West province also obtained a minimum compliance score of 58.33%. A *d-value* of 0.7 was found between the compliance scores of those provinces that obtained perfect scores and that of the North West, which may reflect on a trend of significant differences between these provinces.

Table 5.76 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to general requirements. Nationally, public and state subsidised pharmacies complied with 96.61 (± 10.66 per cent). No practical significant difference (d<0.8) was found between the compliance scores obtained by the private sector and the public sector. Public and state subsidised institutional pharmacies in Kwazulu-Natal obtained the highest compliance score (99.82 ± 0.87 per cent) in this regard. The North West (91.53 ± 18.49 per cent) and Northern Cape (91.35 ± 8.06 per cent) obtained the lowest compliance scores. The Free State and North West provinces obtained zero minimum percentage compliance scores, whilst Gauteng obtained a minimum score of 37.50%, thus signifying that there is room for improvement in certain pharmacies within these provinces. A practical significant difference (d>0.8) was found between the compliance scores of Kwazulu-Natal and the Northern Cape, whilst no practical significant difference was found between Kwazulu-Natal and the North West.

Table 5.76 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to general requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	98.31	3.32	91.67	100.0
Free State	20	92.50	22.11	0.00	100.0
Gauteng	38	96.93	10.60	37.50	100.0
Kwazulu-Natal	23	99.82	0.87	95.83	100.0
Limpopo	20	97.08	5.59	83.33	100.0
Mpumalanga	13	98.72	3.13	91.67	100.0
North West	30	91.53	18.49	0.00	100.0
Northern Cape	13	91.35	8.06	83.33	100.0
Western Cape	57	98.83	2.92	91.67	100.0
TOTAL	**246**	**96.61**	**10.66**	**0.00**	**100.0**

Table 5.77 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005 according to province.

Table 5.77 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to general requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	98.50	3.17	91.67	100.0
Free State	25	94.22	20.00	0.00	100.0
Gauteng	84	98.41	7.31	37.50	100.0
Kwazulu-Natal	34	99.88	0.71	95.83	100.0
Limpopo	21	96.43	6.22	83.33	100.0
Mpumalanga	15	98.89	2.93	91.67	100.0
North West	37	91.55	17.72	0.00	100.0
Northern Cape	14	91.86	8.08	83.33	100.0
Western Cape	74	98.99	2.74	91.67	100.0
TOTAL	**340**	**97.25**	**9.48**	**0.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 97.25 (± 9.48 per cent) for compliance pertaining to general requirements. Community pharmacies obtained a score of 92.28 (± 6.65 per cent) for general requirements (*refer to section 5.5.13, table 5.32*). A *d-value* of 0.5 was calculated for the difference between compliance scores obtained by community pharmacies and institutional pharmacies; this may reflect on a trend of significant differences between these categories of pharmacies.

The province with the highest overall compliance score was Kwazulu-Natal with 99.88 (± 0.71 per cent), whilst the lowest score was obtained by institutional pharmacies in the North West with 91.55 (± 17.72 per cent). No practical significant difference was found between the compliance scores of these two provinces.

Figure 5.43 illustrates compliance percentages obtained by institutional pharmacies regarding general requirements with respect to selling certain products. Inspectors found that 6.71% (n=23) of institutional pharmacies were not designated as non-smoking areas (*refer to Appendix D, table 175D*) (*refer to Chapter 2, section 2.11.2.2*). The answers to the questions relating to products that may not be sold in institutional pharmacies: arms/ammunition, fireworks, alcohol (other than for medical purposes), tobacco related substances and lotto tickets, showed high compliance in this regard (*refer to Appendix D, tables 178 to 182D*).

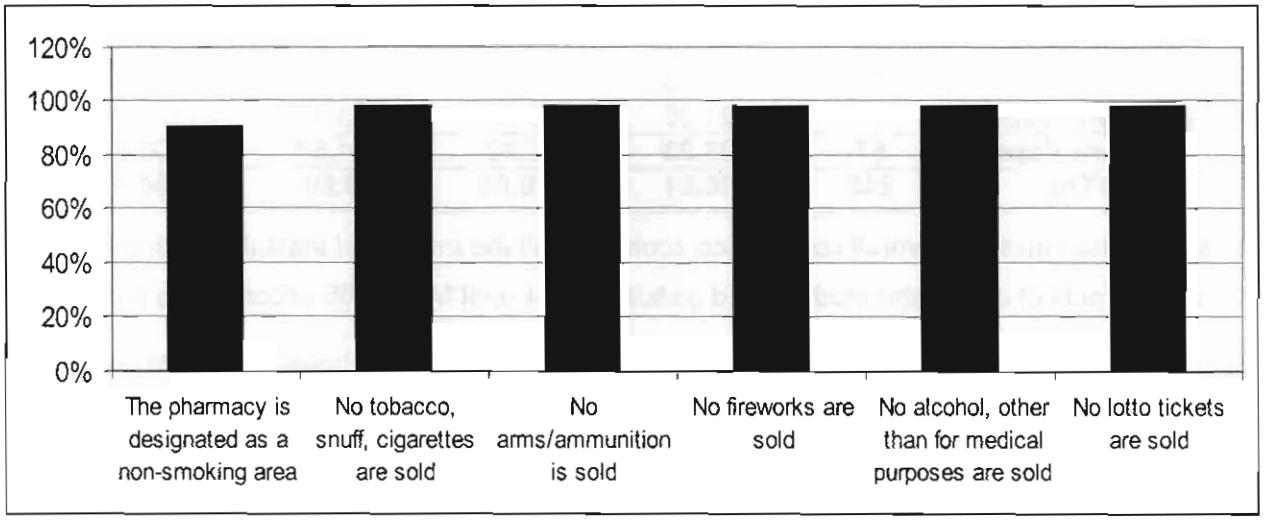


Figure 5.43 Percentage compliance with regard to general requirements.

One institutional pharmacy in the North West advertised medicines or professional services in ways contrary to the advertising guidelines discussed in section 2.18.2 of Chapter 2 (*refer to Appendix D, table 176D*). Compliance with requirements relating to continued professional development was relatively poor. Thirty-five per cent (n=119) of inspectors indicated that a pharmacist had undergone some form of informal training within the last two years, inspectors furthermore indicated that 30.32% (n=104) of institutional pharmacists had undergone a type of formal training within the last two years. Eleven per cent (n=39) of inspectors indicated that no pharmacist had undergone any type of informal or formal training within a two-year period (*refer to Appendix D, table 177D*).

5.6.15 PROMOTION OF PUBLIC HEALTH

General requirements for promotion of public health were met in most private institutional pharmacies (99.59 ± 1.92 per cent). Table 5.78 illustrates the compliance scores with regard to promotion of public health requirements of the private institutional pharmacies inspected during the time period January 2004 until May 2005 for each of the nine provinces.

Table 5.78 Total average percentage compliance of inspected PRIVATE INSTITUTIONAL pharmacies with regard to promotion of public health requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	4	85.42	12.50	66.67	91.67
Free State	4	97.50	5.00	90.00	100.0
Gauteng	45	99.78	1.49	90.00	100.0
Kwazulu-Natal	11	92.42	6.22	83.33	100.0
Limpopo	1	90.00	0.00	90.00	90.00
Mpumalanga	2	100.0	0.00	100.0	100.0
North West	5	100.0	0.00	100.0	100.0
Northern Cape	1	100.0	0.00	100.0	100.0
Western Cape	17	99.61	1.62	93.33	100.0
TOTAL	**90**	**99.59**	**1.92**	**90.00**	**100.0**

Table 5.78 illustrates that the private institutional pharmacy in the Limpopo province (90.00 ± 0.00 per cent) obtained the lowest compliance score in this regard. The Eastern Cape obtained a minimum compliance score of 66.67%. The Northern Cape, North West and Limpopo obtained compliance scores of 100% in this regard.

Table 5.79 illustrates the compliance scores obtained by the public and state subsidised institutional pharmacies with regard to reference requirements. Nationally, public and state subsidised pharmacies complied with 98.97 (± 9.09 per cent). No practical significant difference ($d<0.8$) was found between the compliance scores pertaining to reference sources of the private sector and the public sector.

Public and state subsidised institutional pharmacies in the Eastern Cape, Gauteng, Limpopo, Mpumalanga and the Western Cape obtained the highest compliance scores of 100% each. The Free State and North West provinces obtained the lowest compliance scores of 95.00 (± 22.36 per cent) and 95.67 (± 18.32 per cent), respectively. No practical significant differences were found between the compliance scores of these provinces. The minimum percentage compliance scores obtained by the nine provinces were relatively high, which indicated that public and state subsidised pharmacies faired well in this regard.

Table 5.79 Total average percentage compliance of inspected PUBLIC and STATE SUBSIDISED INSTITUTIONAL pharmacies with regard to promotion of public health requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	32	100.0	0.00	100.0	100.0
Free State	20	95.00	22.36	0.00	100.0
Gauteng	38	100.0	0.00	100.0	100.0
Kwazulu-Natal	23	99.57	2.09	90.00	100.0
Limpopo	20	100.0	0.00	100.0	100.0
Mpumalanga	13	100.0	0.00	100.0	100.0
North West	30	95.67	18.32	0.00	100.0
Northern Cape	13	98.97	2.85	90.00	100.0
Western Cape	57	100.0	0.00	100.0	100.0
TOTAL	**246**	**98.97**	**9.09**	**0.00**	**100.0**

Table 5.80 illustrates the overall compliance scores for all the inspected institutional pharmacies (private and public) during the study period January 2004 until May 2005.

Table 5.80 Total average percentage compliance of all inspected institutional pharmacies (private and public) with regard to promotion of public health requirements according to province.

PROVINCE	N	Average Percentage	Standard deviation	Minimum	Maximum
Eastern Cape	36	100.0	0.00	100.0	100.0
Free State	25	95.60	20.02	0.00	100.0
Gauteng	84	99.88	1.09	90.00	100.0
Kwazulu-Natal	34	99.71	1.71	90.00	100.0
Limpopo	21	99.52	2.18	90.00	100.0
Mpumalanga	15	100.0	0.00	100.0	100.0
North West	37	96.49	16.54	0.00	100.0
Northern Cape	14	99.05	2.75	90.00	100.0
Western Cape	74	99.91	0.77	93.33	100.0
TOTAL	**340**	**99.15**	**7.80**	**0.00**	**100.0**

Nationally, institutional pharmacies (private and public) achieved a score of 99.15 (± 7.80 per cent) for compliance with regard to promotion of public health requirements. Community pharmacies obtained a score of 99.02 (± 6.30 per cent) for requirements with regard to promotion of public health (*refer to section 5.5.14, table 5.33*). No practical significant difference was found between the compliance scores of these two categories of pharmacies.

The provinces with the highest compliance scores were the Eastern Cape, and Mpumalanga with 100% compliance, whilst the lowest scores were obtained by institutional pharmacies in the Free State (95.60 ± 20.02 per cent). No practical significant differences were found between the compliance scores of these provinces.

Seventy per cent (n=240) of inspectors indicated that family planning services were not rendered in the institutional pharmacies inspected during the study period. Furthermore 89%

(n=304) of inspectors indicated that Primary Care Drug Therapy services were not rendered at the inspected institutional pharmacies (*refer to Chapter 2, section 2.17 for discussion on promotion of public health*).

The majority of inspectors indicated that performing screening tests such as urine analysis and blood pressure monitoring services were not applicable to institutional pharmacies. This could be so, because these tests are performed by nurses and doctors within the hospital.

5.7 POSSIBLE GRADING SYSTEM FOR PHARMACIES

Based on the inspection results, a grading system for pharmacies can be developed to quantify the standard of Good Pharmacy Practice provided by pharmacies in South Africa.

Pharmacies that achieved scores of 100%, will be given an A^+ average, those that achieved scores of 95% to 99.9% will receive an A average and those that obtained scores of 90% to 95% will receive a B average. Furthermore, those pharmacies that obtained scores lower than 90% would not be graded.

5.7.1 Grading of inspected community pharmacies

Fourteen (1.30%) inspected community pharmacies (N=1075) obtained scores of 100%, resulting in an A^+ rating. Furthermore, 42.60% (n=458) of community pharmacies obtained an A rating, whilst 26.42% (n=284) obtained a B rating. The remaining 319 (29.67%) pharmacies obtained scores of lower than 90%, thus these pharmacies do not qualify to be graded. It can thus be said that 30% of the inspected community pharmacies need to improve the standard of Good Pharmacy Practice.

5.7.2 Grading of inspected institutional pharmacies

None of the public or state subsidised pharmacies obtained a score of 100%. One hundred and ten (44.72%) of pharmacies (N=246) obtained an A rating, 56 (22.76%) obtained a B rating, whilst 80 (32.52%) obtained scores of lower than 90%.

Of the 90 private institutional pharmacies inspected, one obtained an A^+ rating, 68 (75.56%) obtained an A rating, 15 (16.67%) obtained a B rating, whilst 6 obtained scores lower than 90%.

Four mine hospital pharmacies were inspected, 3 obtained an A average, with the remaining pharmacy obtaining a B rating.

5.8 SUMMARY OF PRACTICAL SIGNIFICANT DIFFERENCES IDENTIFIED IN THIS STUDY

Table 5.81 Summary of practical significant differences identified in this study.

Category	Community pharmacy	Institutional pharmacy	Private Sector	Public sector
Registration details		*Province	*Province	*Province
Premises and layout		*Province	*Province	*Province
Equipment		*Province		*Province
Storage		*Province	*Province	
Control of medicines		*Province	*Province **Public sector	*Province **Private sector
Thermolabile medicines				
Dispensing of prescriptions		*Province		
Pharmaceutical care		*Province	*Province	
SOPs	*Province	*Province	*Province	*Province
References		*Province	*Province	*Province
General	*Province		*Province	
Promotion of public health	*Province			
TOTAL GPP		*Province	*Province	*Province

*Between different provinces.
**Between public and private institutional pharmacies.

The table above illustrates the different areas where practical significant differences were calculated as well as where the differences were found, for example when looking at the control of medicines, practical significant differences were found between different provinces for institutional pharmacies as well as between public and private institutional.

From the table one can see that the majority of practical significant differences were found between provinces where institutional pharmacies were inspected. Practical significant differences were found between provinces for written standard operating procedures, general requirements and promotion of public health.

5.9 CHAPTER SUMMARY

In this chapter the results of the empirical investigation were outlined. The focus mainly fell on the distribution of pharmacies throughout South Africa for August 2003 to 2005 and the distribution of inspected pharmacies together with the standard of services provided by these pharmacies during the period 1 January 2004 to 31 May 2005. In Chapter 6, the conclusions, limitations and recommendations of the study will be discussed.

Chapter 6

Conclusion and recommendations

The conclusions of the study, based on the results of the literature review and the empirical investigation as well as recommendations derived from this study regarding the quality, availability and accessibility of services will be discussed.

6.1 CONCLUSIONS

The following conclusions can be formulated with regard to the literature review:

*The **first research objective** was to investigate the evolution of pharmacy and conceptualise pharmacy services, clinical pharmacy and pharmaceutical care as well as to examine the reasons for the changes pharmacy practice has undergone.*

This was done through a thorough review of the literature (*refer to Chapter 2*). Research was done with regard to the history of pharmacy, reasons for the shift in the practice of pharmacy such as the high incidence of drug-related morbidity and mortality, the need for rational cost-effective medicine, the emergence of an informed patient, an increase in the frequency of self-care, the problem of non-compliance and the incidence of adverse drug-reactions. According to Holland and Nimmo (1999:1758-1759) the orientation of the profession shifted from manufacturing, to compounding, to distribution, to a more clinical role, and finally to pharmaceutical care (*refer to section 2.1*). Definitions for pharmacy services, clinical pharmacy and pharmaceutical care were discussed. The reasons for the shift in the practice of pharmacy were discussed (*refer sections 2.2.1 to 2.2.6*).

*The **second research objective** was to investigate the role of the pharmacist in the health care system.*

The scope of practice and role of pharmacists were examined using the National Drug Policy (*refer to paragraph 2.6.1*) and the Pharmacy Act (53/1974). Acts and services specially pertaining to the pharmacy profession were identified (*refer to paragraphs 2.6.2 and 2.6.3*).

*The **third research objective** was to investigate the concept of Good Pharmacy Practice from available literature.*

The requirements of Good Pharmacy Practice, applying Good Pharmacy Practice guidelines, the groups of activities associated with GPP and the Good Pharmacy Practice document of South Africa document were discussed. The International Pharmaceutical Federation (1997:1) believed that standards based on these guidelines should be used by national pharmaceutical organisations for nationally accepted standards of Good Pharmacy Practice. The Pharmacy Amendment Act (88/1997) made legislative provision for the development of Good Pharmacy Practice Guidelines (*refer to section 2.7*). Good Pharmacy Practice involves four main groups of activities and for each of the four main elements of good pharmacy practice; national standards should be established in relation to processes and facilities (*refer to paragraph 2.7.1*).

*The **fourth research objective** was to investigate the standards that pharmacies in South Africa must maintain to comply with Good Pharmacy Practice Guidelines in conjunction with international perspectives and views.*

This was done through an extensive literature review. *Section 2.11* provided an overview of the standards related to premises, facility and equipment requirements. Standards related to registration details, appearance, environment, hygiene, security and supervision, layout of the dispensary, waste disposal, equipment, reference sources as well as waiting and consultation area requirements. *Figure 2.3* illustrates the different aspects that were discussed regarding the aforementioned. Requirements regarding services provided in pharmacies were discussed in *section 2.12*. An overview of the standards pertaining to procurement, storage and distribution, the dispensing process, pharmaceutical care and promotion of public health was given. *Figure 2.7* illustrates the process followed for the discussion. All of the aforementioned aspects were discussed in conjunction with international views and perspectives. Furthermore, general requirements with regard to continuing professional development and advertising were discussed. Lastly, and overview regarding inspections in South Africa was given.

*The **fifth research objective** was to investigate the geographical distribution of pharmacies by looking at certain aspects of the South African health care system, which in turn would exercise an influence on the distribution of pharmacies.*

This was done through an extensive literature review (*refer to Chapter 3*). Firstly, a discussion with regard to achieving optimum health outcomes was done (*refer to section 3.1*). According to Li (2003:193) the goals of health care are divided into three categories namely: access, cost and quality. Optimum health outcomes can be achieved by maintaining a right balance between the trio goals (Li, 2003:192). This discussion was followed by a conceptualisation of

equity in health (*refer to section 3.2*). The main focus of this chapter was on access to health care and section 3.3 provided a brief discussion on this concept. Factors influencing the distribution of health services can be differentiated according to the following categories:

- Demographics of the South African population (*refer to section 3.5*).
- Socio-economic aspects (*refer to section 3.6*).
- Mortality and morbidity of the South African population (*refer to section 3.7*).
- Public and private health care sectors (*refer to section 3.8*).
- Human resources (*refer to section 3.9*).
- Legislation and regulation (*refer to section 3.10*).

The following conclusions can be formulated with regard to the empirical investigation:

*The **sixth research objective** was to investigate the availability of private vs. public pharmaceutical services in different geographical areas in South Africa from August 2003 to August 2005 as well as the location of pharmacies throughout South Africa.*

It was found that the total number of pharmacies in both the public and private sectors increased with 2.1% (n=68) from August 2003 to August 2005. Public and private pharmacies that provided services directly to patients increased with 6.3% (n=33) and 1.3% (n=35) from August 2003 to 2005. It was furthermore revealed that a relatively low number of community health centres (n=141) were registered during this period, a fact that has to be investigated further as many more clinics may be eligible for registration. It was found that the Gauteng province was the best provided with registered pharmacies in South Africa, as only 0.06% (n=5 783) of the population did not have any registered pharmacy on municipality level (*refer to table 5.3*). Furthermore, the highest percentage of people per province (15%) who did not have any registered pharmacy on municipality level was in Kwazulu-Natal, followed by the Eastern Cape (11.7%) and Limpopo (11%). Although an increase in the total number of pharmacies was observed, a need for comprehensive pharmaceutical services is still prevalent especially in areas such as Kwazulu-Natal, Eastern Cape, and Limpopo.

*The **seventh research objective** was to determine the geographic distribution of the inspected community and institutional pharmacies within South Africa.*

The location of inspected community and institutional pharmacies was determined according to province, district or metropolitan municipality as well as local municipality. It was found that the majority of inspections were carried out in Gauteng. This province was also best provided with pharmaceutical services according to municipality as all of the municipalities had at least one

registered pharmacy (*refer to paragraph 5.4.3*). This could be because Gauteng is a more industrialised province, pharmacy owners locate themselves where the pharmacy could flourish financially. Furthermore, of the 272 local municipalities of South Africa, 126 did not have a registered pharmacy, which indicates that there is a great need for comprehensive pharmaceutical services still. A shortage with regard to rural areas was also identified as the majority of inspections were carried out in urban areas (*refer to figures 5.12 and 5.13*).

One can thus see that not only is there a need for pharmaceutical services in certain provinces, but also in areas that are considered to be rural (population below 40 000) in nature (*refer to section 5.4.10*).

*The **eighth research objective** was to determine the availability of pharmacy personnel to provide services to patients.*

Community pharmacy personnel

The highest average number of full-time pharmacists employed per community pharmacy was found in Gauteng and Mpumalanga and the majority of part-time pharmacists were employed in Mpumalanga and the Eastern Cape, whilst the lowest average numbers of these categories of pharmacists were recorded in Limpopo respectively (*refer to paragraph 5.5.2.1*).

It was furthermore observed that the majority of pharmacist interns were employed in Gauteng and the Western Cape, whilst zero pharmacist interns were employed in the Northern Cape (*refer to paragraph 5.5.2.2*).

The highest average number of pharmacist's assistants (basic and post-basic) employed per community pharmacy were recorded in the North West, whilst the highest average number of learner pharmacist's assistants (basic and post-basic) were employed in Kwazulu-Natal and Mpumalanga respectively (*refer to paragraph 5.5.2.4*). The ratio of pharmacist's assistants to pharmacists was also discussed (*refer to paragraph 5.5.2.4*). It was found that the ratio learner assistants to qualified assistants (1 : 1.2) was not encouraging as this implied that increases in the number of qualified assistants could not be expected in future.

Institutional pharmacy personnel

The majority of institutional full-time pharmacists were employed in Gauteng (4.34 ± 3.53 per pharmacy) followed by Kwazulu-Natal, Eastern Cape, Free State, Western Cape, Limpopo, Mpumalanga, North West and the Northern Cape (1.80 ± 1.30 per pharmacy). The majority of community service (2.09 ± 1.40 per pharmacy) and part-time pharmacists (2.38 ± 2.20 per pharmacy) were employed in Gauteng and the Western Cape respectively (*refer to paragraph 5.6.2.1*).

The highest average number of pharmacist interns employed per institutional pharmacy were recorded in Limpopo and the Northern Cape, with the lowest average number of interns employed in Mpumalanga (*refer to paragraph 5.6.2.2*).

The majority of basic and post-basic pharmacist's assistants were employed in the Northern Cape (5.00 ± 5.66 per pharmacy) and Gauteng (2.19 ± 1.56 per pharmacy) respectively, whilst the lowest numbers of these two categories of assistants were recorded in the Western Cape (1.31 ± 0.63 per pharmacy) and Limpopo (5.00 ± 5.66 per pharmacy) respectively. The highest average number of learner basic and learner post-basic pharmacist's assistants per institutional pharmacy were recorded in Limpopo and the Northern Cape respectively; whilst the lowest average number of learner basic pharmacist's assistants was recorded in the Free State. Furthermore, no learner post-basic pharmacists' assistants were employed in Limpopo. A practical significant difference (d>0.8) was found between the average number of learner basic pharmacist's assistants per institutional pharmacy for Limpopo, the Eastern and Northern Cape (*refer to paragraph 5.6.2.3*). The ratio of learner assistants to qualified assistants was found to be the same for institutional pharmacies as for community pharmacies.

The abovementioned results enforce Gray's statement (1998:106) that pharmacists are unequally distributed across the different provinces of South Africa.

Availability according to hours

On average community pharmacies were open 8.29 ± 2.19 hours per day during the study period. Institutional pharmacies were open 7.35 ± 4.09 hours per day, on average, public and state subsidised pharmacies were open 6.53 ± 3.62 hours per day, private institutional pharmacies were open 9.62 ± 4.54 hours and mine hospitals pharmacies were open 6.45 ± 1.07 hours daily. Inspectors furthermore indicated that only Gauteng and the Western Cape had pharmacies (community and institutional) that were open 24 hours a day. Thus, pharmacists in Gauteng and the Western Cape were available to the public for more hours per day than in any of the other provinces.

Lastly, it was found that 1180 and 460 unregistered personnel were employed in community and institutional pharmacies respectively. These employees would require training in order to register with the South African Pharmacy Council. By training and registering personnel high standards of services can be expected.

*The **ninth research objective** was to assess the extent to which community and institutional pharmacies in South Africa conform to Good Pharmacy Practice guidelines according to the results of the inspection questionnaire data.*

Table 5.81 illustrates the practical significant differences found for the different categories of Good Pharmacy Practice compliance for community as well as institutional pharmacies.

As indicated in *table 5.81*, practical significant differences were found across provinces for written standard operating procedures, general requirements and promotion of public health. With regard to institutional pharmacies, practical significant differences were found across provinces for the greater part of the Good Pharmacy Practice sections, with the exception of thermolabile medicine and promotion of public health requirements.

The display of the pharmacist's name over the main entrance of the pharmacy is currently a legal requirement. It was found that 27% (n=318) of community pharmacies and 32% (n=68) of institutional pharmacies did not comply with this requirement (*refer to section 5.5.3 and 5.6.3*). A valid certificate for the recording of an institutional pharmacy was available in 41.69% (n=143) of pharmacies (*refer to section 5.6.3*). The majority of community pharmacies complied with this requirement (*refer to figure 5.13*).

The majority of community and institutional pharmacies demonstrated acceptable compliance with respect to standards relating to facilities and equipment. The availability of suitable waiting areas, semi-private counseling areas and consultation areas is an aspect that can be improved in all pharmacies, as pharmaceutical care cannot be provided without appropriate areas to do so.

Records were in general kept in a safe, easily retrievable place in the majority of inspected pharmacies. Record keeping of Schedule 1 to 6 medicines was however, a matter of concern in community and institutional pharmacies (*refer to sections 5.5.7 and 5.6.7*). A practical significant difference was found between the compliance achieved by private and public institutional pharmacies for control of medicines and record keeping requirements. Public institutional pharmacies could improve on these requirements.

Temperature control was found to be a matter of concern, as the temperature within pharmacies was not recorded daily in 36.25% (n=427) of community pharmacies and 31.20% (n=107) of institutional pharmacies (*refer to sections 5.5.4 and 5.6.4*). The same could be said for monitoring the temperature of the refrigerator as the temperature was recorded twice daily in 43.97% (n=518) of community pharmacies and 68.22% (n=234) of institutional pharmacies (*refer to sections 5.5.8 and 5.6.8*).

With regard to the provision of pharmaceutical care, community pharmacies maintained relatively high compliance scores (*refer to section 5.5.10*), whilst institutional pharmacies obtained relatively low scores with regard to the provision of information and advice to patients (*refer to section 5.6.10, figure 5.39*). This could be due to the fact that this could possibly fall outside the scope of practice of certain institutional pharmacists as certain hospitals deliver services to only in-patients where doctors and nurses are responsible for furnishing information and advice. The same could be said for provision of supplementary services such as blood pressure monitoring and HIV/AIDS testing as this is done by doctors and nurses in hospitals.

Both community and institutional pharmacies could improve on the availability of reference sources, such as the Good Pharmacy Practice manual, complementary medicines textbooks and the Martindale (*explained in section 5.5.12 and 5.6.13*) that were not readily available.

A general lack of standard operating procedures was revealed in community pharmacies (*refer to figure 5.25*). Institutional pharmacies showed higher compliance in this regard, however, room for improvement is noted for institutional pharmacies as well (*refer to figure 5.41*).

It was disappointing to find that compliance with regard to continuing professional development was relatively poor for community and institutional pharmacies. The members of staff of the majority of pharmacies had not participated in any form of continuing education during the last two years (*refer to sections 5.6.13 and 5.6.14*).

The most important problems identified in public institutional pharmacies were registration details, the availability of references, the provision of pharmaceutical care and the availability of written standard operating procedures (compliance score<90%).

*The **tenth research objective** was to determine the possible effect of the availability of pharmacists on Good Pharmacy Practice compliance in community and institutional pharmacies.*

It was found that together with an increase in the number of community (full-time, part-time and pharmacist interns) and institutional (full-time, part-time, community service and pharmacist interns) pharmacists Good Pharmacy Practice compliance increased.

For community pharmacies total Good Pharmacy Practice compliance increased from 90.64 (± 7.43 per cent) with one pharmacist to 94.65 (± 4.72 per cent) with more than three pharmacists employed in community pharmacies. Although practical significant differences were not found between these increases, it is noted that Good Pharmacy Practice compliance scores did elevate (*refer paragraph 5.5.2.3.1 to 5.5.2.3.4*).

For institutional pharmacies, the total Good Pharmacy Practice compliance scores increased from 79.70 ± 9.43 with zero pharmacists to 95.36 ± 4.65 per cent with more than three pharmacists employed in institutional pharmacies and a practical significant difference was noted (*refer to paragraphs 5.6.2.3.1 to 5.6.2.3.5*).

*The **eleventh research objective** was to determine the possible effect of the availability of pharmacists' assistants on Good Pharmacy Practice compliance in community and institutional pharmacies.*

A similar trend was found for the availability of pharmacist's assistants and the abovementioned scenario. The majority of pharmacies that did not employ pharmacist's assistants achieved

lower scores for the Good Pharmacy Practice sections (*refer to table 5.21*). The same trend was found for those public institutional pharmacies (*refer to table 5.43*) and private institutional pharmacies (*refer to table 5.44*) that employed pharmacist's assistants and those that did not. Although practical significant differences were not found between the sections of Good Pharmacy Practice for those pharmacies that employed pharmacist's assistants and those who did not, increases from no assistant to more than one assistant were observed.

*The **twelfth research objective** was to determine the possible effect of the average number of prescribed items dispensed per day in community and institutional pharmacies on Good Pharmacy Practice compliance.*

This was done by analysing 9 different scenarios for community and institutional pharmacies.

Scenarios 1 to 4 involved the average number of prescribed items dispensed per community pharmacy (*refer to paragraph 5.5.2.8.1.1*) and per institutional pharmacy (*refer to paragraph 5.6.2.9.1.1*) for the study period.

Scenarios 1 to 4 for community pharmacies were as follow:

Scenario 1 For inspected community pharmacies that dispensed below 50 items per day.

Scenario 2 For inspected community pharmacies that dispensed between 50 and 100 items per day.

Scenario 3 For inspected community pharmacies that dispensed between 101 and 200 items per day.

Scenario 4 For inspected community pharmacies that dispensed more than 200 items per day.

Scenarios 1 to 4 for institutional pharmacies were as follow:

Scenario 1 For inspected institutional pharmacies that dispensed below 169 items per day.

Scenario 2 For inspected institutional pharmacies that dispensed between 170 and 391 items per day.

Scenario 3 For inspected institutional pharmacies that dispensed between 392 and 800 items per day.

Scenario 4 For inspected institutional pharmacies that dispensed more than 800 items per day.

For community pharmacies, it was found that together with an increase in the average number of items dispensed per day for these scenarios, total Good Pharmacy Practice compliance

scores increased. This could indicate that together with an increase in the number of items dispensed pharmacies employed more personnel, thus compliance increased.

For institutional pharmacies, it was found that total Good Pharmacy Practice compliance scores increased from *scenario 1 to scenario 2* then decreased for *scenario 3* followed by another increase in *scenario 4*. It could be said that the scores increased from *1 to 2* because more personnel were employed, then for *scenario 3* the workload was once again too high, resulting in an increase in personnel to lead to the resulting increase in *scenario 4*.

Scenarios 5 to 8 involved the average number of prescribed items dispensed by a pharmacist per day in community pharmacies (*refer to paragraph 5.5.2.8.1.2*) and institutional pharmacies (*refer to paragraph 5.6.2.9.1.2*).

Scenarios 5 to 8 for community pharmacies were as follow:

Scenario 5 Where pharmacists dispensed below 35 items per day per pharmacist.

Scenario 6 Where pharmacists dispensed between 35 items and 59 items per day per pharmacist.

Scenario 7 Where pharmacists dispensed between 60 items and 99 items per day per pharmacist.

Scenario 8 Where pharmacists dispensed 100 and more items per day per pharmacist.

Scenarios 5 to 8 for institutional pharmacies were as follow:

Scenario 5 Where a pharmacist dispensed below 77 items per day.

Scenario 6 Where a pharmacist dispensed between 77 and 149 items per day.

Scenario 7 Where a pharmacist dispensed between 150 and 269 items per day.

Scenario 8 Where a pharmacist dispensed 270 items and more per day.

As for *scenarios 1 to 4*, increases in the number of items dispensed by pharmacists in community pharmacies led to increases in the number of employed personnel, evidenced by elevating Good Pharmacy Practice compliance scores.

For institutional pharmacies, an increase was observed from *scenario 5 to scenario 6*, followed by a decrease from *scenario 6 to scenario 8*. Thus, institutional pharmacies did not compensate for the increase in workload by employing more personnel.

Scenarios 9 to 12 involved the average number of prescribed items dispensed by pharmacists per day in community pharmacies (*refer to paragraph 5.5.2.8.1.3*) and institutional pharmacies (*refer to paragraph 5.6.2.9.1.3*).

Scenarios 9 to 12 for community pharmacies were as follow:

Scenario 9 Where pharmacy personnel dispensed below 18 items per day per pharmacy personnel member.

Scenario 10 Where pharmacy personnel dispensed between 18 and 32 items per day per pharmacy personnel member.

Scenario 11 Where pharmacy personnel dispensed between 33 and 52 items per day per pharmacy personnel member.

Scenario 12 Where pharmacy personnel dispensed more than 53 items per day per pharmacy personnel member.

Scenarios 9 to 12 for institutional pharmacies were as follow:

Scenario 9 Where a pharmacy personnel member dispensed 41 items and below per day.

Scenario 10 Where a pharmacy personnel member dispensed between 42 and 80 items per day.

Scenario 11 Where a pharmacy personnel member dispensed between 80 and 140 items per day.

Scenario 12 Where a pharmacy personnel member dispensed 140 items and more per day.

As for *scenarios 1 to 4 and scenarios 5 to 8*, increases in the number of items dispensed by a specific pharmacy personnel member in community pharmacies led to increases in the number of employed personnel, evidenced by elevating Good Pharmacy Practice compliance scores.

For institutional pharmacies, an increase was observed from *scenario 9 to scenario 10,* followed by a decrease from *scenario 11 to scenario 12*. Thus, institutional pharmacies did not compensate for the increase in workload by employing more personnel.

*The **thirteenth research** objective was to develop a possible grading system for pharmacies.*

In *section 5.7* it was proposed that a grading system be developed for inspected community and institutional pharmacies. Pharmacies that obtained 100% would be graded with an A^+, those that obtained scores of 95 to 99.9% would be graded with an A and those that obtained scores of 90 to 95% would be graded with a B.

Fourteen community pharmacies, zero public and state subsidised institutional pharmacies and one private institutional pharmacy obtained A^+ ratings. Forty-three percent of community pharmacies, 45% of public and state subsidised institutional pharmacies and 76% of private institutional pharmacies obtained A ratings. Furthermore, 26%, 23% and 17% of community, state and public subsidised institutional and private institutional pharmacies obtained B ratings.

6.2 LIMITATIONS AND SHORTCOMINGS OF THIS STUDY

The following limitations and shortcomings should be taken into account when evaluating the results and conclusions of this study:

- The correctness of the inspection questionnaires was presumed to be accurate; the researcher did not give any input into the development of the questionnaires (*refer to section 4.5*).
- As the questionnaires used for community and institutional pharmacy inspections changed during May 2005, the results of the remaining 7 months could not be taken into account.
- Certain services provided by community pharmacies and institutional pharmacies differ.
- The inspection questionnaires were subjective in nature. Although a training session is held annually for inspectors, no two inspectors conduct an inspection in the same manner and view standards in the same way, thus resulting in inconsistency with regard to subjectivity and application of standards.
- No comparisons were made between the findings of the different types of inspections i.e. monitoring inspection results compared to training inspection results.

6.3 RECOMMENDATIONS

It is recommended that the following aspects be furthermore investigated for implementation to ensure a high level of Good Pharmacy Practice in the Republic of South Africa:

- In order to ensure that a high level of competence and an even level of standards are maintained by inspectors, the inspectors of the South African Pharmacy Council could be exchanged across borders or regions to validate inspection results.
- A manual, specifically for the conducting of inspections can be developed to ensure objectivity of inspectors.
- A more in-depth study of standards of services provided by pharmacies that are registered for training of pharmacy personnel, and other inspections to determine whether pharmacies that provide training and those that do not, maintain the same quality of services as it could be possible that training pharmacies have higher compliance than other pharmacies, for example, training pharmacies may have the correct reference sources available, leaving other pharmacies wanting.

- By developing a grading system for pharmacies, with the stakeholders' knowledge, quantified reports could be given to pharmacists, to ensure that pharmacists maintain high standards of practice.
- The grading system could be developed in such a way that the subsections of the questionnaires are also addressed.
- It is recommended that before a service is provided, an inspector should visit the pharmacy in question to evaluate the nature of services that will be provided, the equipment that will be used as well as the products that will be sold to the public to ensure quality of services, equipment and products.
- It is recommended that inspection data be analysed annually to ensure that both the South African Pharmacy Council and South African pharmacists have an idea of the standard of Good Pharmacy Practice to be delivered by registered pharmacies in South Africa.
- Although not a direct part of the study, Good Pharmacy Practice reports should be used as additional information for the granting of licenses in specific areas.

6.4 CHAPTER SUMMARY

In this chapter, the conclusions of the study were drawn and discussed. The recommendations derived from this study as well as the limitations and shortcomings that were encountered during the course of the study have been discussed.

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APPENDIX A

Community pharmacy inspection questionnaire

January 2004

CONFIDENTIAL INSPECTION QUESTIONNAIRE
TO ESTABLISH THE NATURE, EXTENT AND STANDARD OF PHARMACEUTICAL SERVICES IN

COMMUNITY PHARMACIES

PLEASE NOTE:
The confidentiality of this document may be withdrawn should the information furnished lead to further investigation(s)

Please refer this questionnaire for special attention: | *Yes* | *No* |

THE SOUTH AFRICAN PHARMACY COUNCIL, JANUARY 2004
591 Belvedere Street, Arcadia, Pretoria, 0083; ✉ 40040, Arcadia, 0007; ☎ (012).319-8500; Fax.(012) 321-1492; email : fourie@pharmcouncil.co.za

Encircle or mark applicable number/block with an 'X'

(A) INSPECTION DETAILS

NOTE: Throughout this questionnaire legislative requirements are indicated with an *

1.	Language preference for inspection report	1 English / 2 Afrikaans	2.	Date of inspection	D D / M M / Y Y Y Y	
3.	Name of inspector *(in block capitals)*			Inspector Code		Inspection start time
4.	Type of inspection	1 Monitoring / 2 Training Assistants / 3 Training Interns / 4 New Premises / 5 Disciplinary / 6 Follow-up				

(B) PHARMACY DETAILS

5.	Name of pharmacy *(in block capitals)*		
6.	Pharmacy registration number	Y	OFFICE USE ONLY: Pharmacy details confirmed / Inspection cycle
7.	Licence number *(if applicable)*		
8.	Telephone number(s)	( ) - ( ) -	
9.	Fax number	( ) -	
10.	E-mail address		

11. Postal address	12. Physical address
Postal code	Street code

13.	What is the nature of the pharmacy?	1 Community	2 Mail/courier	3 Virtual Care / 4 Please specify other:
14.	In which province is the pharmacy situated?	1 Eastern Cape	2 Free State	3 Gauteng
		4 Kwazulu-Natal	5 Mpumalanga	6 Northern Cape
		7 Limpopo	8 North West	9 Western Cape
15.	Where is the pharmacy situated?	1 City centre	2 City suburb	3 Small town / 4 Rural #

< 40,000

Encircle or mark applicable number/block with an 'X'

(C) PHARMACY STAFFING

16. Name of pharmacy owner

	Name	Registration Number	
17.* Name of responsible pharmacist as registered			Office use
18. Name of pharmacist in charge during inspection			Office use
19. Name of (prospective) tutor(s) if applicable			Office use
			Office use
			Office use

20. How many full-time pharmacists are in the permanent employ of the pharmacy? *(at least 5 hours per day) (fill in name and number under comments)*

21. How many part-time pharmacists are in the permanent employ of the pharmacy? *(less than 5 hours per day) (fill in name and number under comments)*

22. How many pharmacist interns are undergoing practical training in the pharmacy?

23. How many registered pharmacist's assistants (basic) work in the pharmacy?

24. How many registered pharmacist's assistants (post-basic) work in the pharmacy?

25. How many registered pharmacist's assistants (learner basic) are undergoing practical training in the pharmacy?

26. How many registered pharmacist's assistants (learner post-basic) are undergoing practical training in the pharmacy?

27. How many unregistered persons performing acts falling within the scope of practice of pharmacists and/or pharmacist's assistants would require training in order to register as pharmacist's assistants with the Council?

28. Are other health care professionals employed in the pharmacy? (*e.g. nurses, homoeopaths, dieticians etc.*)

1 No	2 Yes

29. If yes, please specify which:
Proof of health care professional(s) Registration

Proof of Registration

1 No	2 Yes

30. Who does the actual picking of medicines prior to dispensing?

1 Other personnel	2 Registered pharmacist's assistant	3 Pharmacist and/or pharmacist intern

31. Who hands the medicine to the patient or care-giver?

1 Driver/courier	2 Other personnel	3 Registered pharmacist's assistant	4 Pharmacist and/or pharmacist intern

32. How many items prescribed by an authorised prescriber are dispensed per day on average?

33. How many P.I.T. items are dispensed per day on average?

Comments and/or corrective action

(D) REGISTRATION DETAILS

Encircle or mark applicable number/block with an 'X'

		N/A	Does not comply	Partially complies	Complies
34.*	The name of the responsible pharmacist is displayed conspicuously over the main entrance of the pharmacy.		1	2	3
35.*	The name of the pharmacist(s) on duty is displayed conspicuously in the pharmacy.		1	2	3
36.*	The pharmacy is conducted under the constant personal supervision of a pharmacist.		1	2	3
37.	A currently valid **annual registration card(s)** is available for the pharmacist(s) *(refer questions 17, 18, 20 and 21).*		1	2	3
38.	A currently valid **annual registration card(s)** is available for the pharmacist's assistant(s) (basic/post-basic) *(refer questions 23 and 24).*	N/A	1	2	3
39.	A currently valid **annual registration card(s)** is available for the pharmacist's assistant(s) (learner basic/learner post-basic) *(refer questions 25 and 26).*	N/A	1	2	3
40.	A currently valid certificate for the recording of the pharmacy is available.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(E) PREMISES AND LAYOUT

		N/A	Does not comply	Partially complies	Complies
41.	The premises are clean.		1	2	3
42.	The premises are organised.		1	2	3
43.	The floor surface in the dispensing area is of impermeable material.		1	2	3
44.	All working surfaces are finished with a smooth, impermeable and washable material.		1	2	3
45.	All cupboards and shelves are finished with a smooth, impermeable and washable material.		1	2	3
46.*	Approval has been obtained from Council in the event that a person who is not registered with Council conducts another practice/business within the pharmacy (*Ethical Rule 13(a)*).	N/A	1 No		3 Yes

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

PREMISES AND LAYOUT (Continued)

		N/A	Does not comply	Partially complies	Complies
47.	There is sufficient lighting.		1	2	3
48.	The temperature in the pharmacy is below 25°C *(as checked with a thermometer).*		1	2	3
49.	The temperature in the pharmacy is controlled 24 hours a day as demonstrated by a maximum/minimum thermometer.		1	2	3
50.	The temperature in the pharmacy is recorded daily.		1	2	3
51.	The dispensing surface area is sufficient for the volume of prescriptions dispensed.		1	2	3
52.	The total floor area is sufficient for the efficient operation of dispensary staff.		1	2	3
53.	The workflow in the pharmacy is efficient.		1	2	3
54.	There is a suitable waiting area, in accordance with GPP guidelines.		1	2	3
55.	There is a suitable semi-private area for the provision of information and advice, in accordance with GPP guidelines.	N/A	1	2	3
56.	The professional image of the dispensing area is not affected by the display of commercial material not directly linked with health.	N/A	1	2	3
57.	Medicinal and non-medicinal products are displayed separately in the pharmacy.	N/A	1	2	3
58.*	Only the pharmacist(s) has keys to the pharmacy.		1	2	3
59.*	There is sufficient security to prevent unauthorised access to medicines.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(F) EQUIPMENT

		N/A	Does not comply	Partially complies	Complies
60.	There is a facility for washing hands.	N/A	1	2	3
61.	There is a facility for cleaning of equipment.	N/A	1	2	3
	The pharmacy has:				
62.	- adequate pestles and mortars.	N/A	1	2	3
63.	- adequate spatulas.	N/A	1	2	3
64.	- a suitable mass meter for dispensing.	N/A	1	2	3
65.	- adequate graduated measures.		1	2	3
66.	- adequate medicine containers for the dispensing of medicines.		1	2	3
67.	- adequate warning labels or **clearly noticeable** warning indications on the label.		1	2	3
68.	- sufficient counting apparatus for tablets and capsules.		1	2	3
69.	Counting trays are cleaned in order to prevent cross-contamination.		1	2	3
70.	All the equipment in the pharmacy is clean.		1	2	3
71.	All the equipment in the pharmacy is in good working order.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

(G) STORAGE

		N/A	Does not comply	Partially complies	Complies
72.	Medicines are stored according to a system.		1	2	3
73.	Storage areas are situated so that products are protected from potentially harmful influences.		1	2	3
74.	All goods are stored off the floor.		1	2	3
75.	Raw materials known to be at risk for cross-contamination are stored separately.	No stock	1	2	3
76.	Proper care and control is exercised over hazardous substances *(e.g. caustic soda, insecticides etc.)* which are stored separately.	No stock	1	2	3
77.	Proper care and control is exercised over flammable substances *(e.g. ether, methylated spirits etc.)* which are stored separately.	No stock	1	2	3
78.	A system is in place to ensure effective stock rotation *(refer also SOP section)*.		1	2	3
79.	There are no expired medicines on the shelves *(as observed)*.		1	2	3
80.	Expired, damaged and/or contaminated stock is clearly separated.		1	2	3
81.*	Expired, damaged and/or contaminated stock is destroyed in a safe manner *(e.g. returned to supplier or waste disposal company) (refer also SOP section and Regulation 21 of Act 101 of 1965)*.		1	2	3
82.	The pharmacy has suitable refuse receptacles (*with closing lids where applicable*).		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

STORAGE (Continued)

		N/A	Does not comply	Partially complies	Complies
83.	The receiving area is under impermeable cover.		1	2	3
84.	The receiving area is effectively separated.		1	2	3
85.	Stock is checked on receipt for quantity, quality, damaged containers, type, storage conditions and expiry dates.		1	2	3
86.	A list of product types requiring special storage or handling instructions is available and consulted on receipt of stock *(refer also SOP section)*.		1	2	3
87.	There is a system for the correct handling of the various types of goods returned from patients *(refer also SOP section)*.		1	2	3
88.	Is any pre-packing performed on the premises?.		Yes		No
89.*	Is pre-packing done in accordance with Regulation 33 of Act 101 of 1965 with regard to temperature, humidity, area and GMP requirements (*refer also SOP section*).	N/A	1	2	3
90.*	All medicines sold for human use, comply with Regulation 8 of Act 101 of 1965 i.e. labelling requirements for human medicine.		1	2	3
91.*	All veterinary medicines sold, comply with Regulation 48 of Act 101 of 1965 i.e. labelling requirements for veterinary medicines.	Do not supply	1	2	3
92.*	Medicines are purchased only through legally authorised entities/suppliers *(as confirmed by pharmacist in charge during inspection)*.		1	2	3
93.*	There are no unregistered medicines on the premises *(as observed)*.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(H) CONTROL OF MEDICINES/RECORD KEEPING

		N/A	Does not comply	Partially complies	Complies
94.	A computerised programme is used for dispensing.		1 No		3 Yes
95.	An effective stock control system is in place.		1	2	3
96.	A computerised programme is used for stock control.		1 No		3 Yes
97.*	A prescription book/permanent record for S2-S6 medicines is kept as required in Regulation 11 (1) of Act 101 of 1965.		1	2	3
98.*	A prescription record is kept for 5 years as required in Regulation 11(3) of Act 101 of 1965.		1	2	3
99.	Original prescriptions are kept in a safe place and are easily retrievable.		1	2	3
100.	A patient profile detailing all prescriptions dispensed to the patient is kept for 2 years.		1	2	3
101.	A patient profile detailing all P.I.T. dispensed to the patient is kept for 2 years.	N/A	1	2	3
102.*	S1-S5 medicines are stored/displayed in areas inaccessible to the public.	Not sold	1	2	3
103.*	All S1 medicine sales are recorded in a prescription book or other permanent record as required in Regulation 11(2) of Act 101 of 1965.	Not sold	1	2	3
104.*	All S2 medicines sales are recorded in a prescription book or other permanent record as required in Regulation 11 (1) of Act 101 of 1965.	Not sold	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

CONTROL OF MEDICINE/RECORD KEEPING (continued)

Encircle or mark applicable number/block with an 'X'

	N/A	Does not comply	Partially complies	Complies
105. Are S6 medicines ordered, stored or supplied at any time?		No		Yes
106. There is a system in place for the correct handling by the pharmacist of specified S5 and S6 medicines *(refer also SOP section)*.	Not stocked	1	2	3
107. S6 medicines are locked away and the key is under the control of the pharmacist.	Not stocked	1	2	3
108. Record is kept of all S5 medicines purchases.	Not stocked	1	2	3
109.* There is an up-to-date register of all **specified S5 & S6 purchases and sales** as required in Regulation 30 of Act 101 of 1965.	Not stocked	1	2	3
110.* The specified S5 & S6 substances register was balanced on the last day of March, June, September and December of each year or within 14 days as required in Regulation 30(2) of Act 101 of 1965.	Not stocked	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

CONTROL OF MEDICINE/RECORD KEEPING (continued)

111.	Does the pharmacy deliver medicines by mail?	1 Yes / 2 No
112.	Does the pharmacy deliver medicines by courier?	1 Yes / 2 No
113.	Does the pharmacy deliver medicines by delivery person?	1 Yes / 2 No
114.	Does the pharmacy deliver medicines by any other means *(e.g. train etc.)*?	1 Yes / 2 No
115.	If question 114 was answered 'yes', PLEASE SPECIFY by which means:	

Such indirect supplies (refer questions 112 to 119) comply with all GPP requirements i.r.o. the following:	N/A	Does not comply	Partially complies	Complies
116. A control system is implemented that enables detection and correction of a delay in the delivery process.	N/A	1	2	3
117. Medicines are packaged and stored in accordance with registration requirements throughout the delivery process.	N/A	1	2	3
118. Control is exercised so that products are not subjected to unacceptable degrees of heat, cold, sunlight or any other adverse influences during the transportation process..	N/A	1	2	3
119. Medicines prescribed for acute ailments or conditions are not delivered by mail/courier/train.	N/A	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(I) THERMOLABILE MEDICINES

		N/A	Does not comply	Partially complies	Complies
120.	Are thermolabile medicines purchased, stored or supplied at any time?		No		Yes
121.	All thermolabile medicines are stored in a refrigerator.	Not stocked	1	2	3
122.	Only medicines are stored in the refrigerator.	Not stocked	1	2	3
123.	Medicines are stored in the refrigerator according to a system.	Not stocked	1	2	3
124.	The refrigerator is suitable and in good working order.	N/A	1	2	3
125.	The temperature of the refrigerator is between 2°C and 8°C *(as checked with a thermometer)*.	N/A	1	2	3
126.	The temperature of the refrigerator is controlled 24 hours a day as demonstrated by a maximum/minimum thermometer.	N/A	1	2	3
127.	The temperature of the refrigerator is recorded twice daily in accordance with GPP guidelines.	N/A	1	2	3
128.	Thermolabile medicines are stored/supplied maintaining the cold chain.	Not stocked	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

(J) DISPENSING OF PRESCRIPTIONS

Encircle or mark applicable number/block with an 'X'

	N/A	Does not comply	Partially complies	Complies
129.* Generic substitution is applied in accordance with Section 22(F) of Act 101 of 1965.		1	2	3
130.* Dispensed medicine is labelled as required in Regulation 8(4) of Act 101 of 1965.		1	2	3
131. The **pharmacist** checks the dispensed medicine after it has been labelled and before it is handed or delivered to the patient.		1	2	3
132. The original prescription states who the dispenser was.		1	2	3
133. The final price that the patient pays is indicated on the copy for the payer (*as applicable*).	N/A	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(K) PROVISION OF PHARMACEUTICAL CARE

	N/A	Does not comply	Partially complies	Complies
134. The pharmacist obtains all the relevant patient information before dispensing the prescription.		1	2	3
135. The pharmacist evaluates the prescription to identify any possible problems before dispensing the prescription.		1	2	3
136. The pharmacist takes the necessary action if there are any problems with the prescription and/or medicine prescribed.		1	2	3
137.* The **pharmacist** gives advice to the patient or care-giver after the prescription has been dispensed.		1	2	3
138. The **pharmacist** gives advice to patients who receive OTC medicines.	N/A	1	2	3
139. Advice is given to the patient in a suitable semi-private area.		1	2	3
140. Support aids are used when supplying advice *(as observed)*.		1	2	3

141. *Form(s) of support aids used:*

0 N/A Not used	1 Pamphlets/information leaflets	2 Manufacturers package inserts	3 Computer printouts	4 Visual aids e.g. diagrams/posters	5 Please specify other:

142.* Patient information leaflets are available at the dispensary.				1	2	3
143. A procedure is in place for monitoring the patients progress.				1	2	3
144. A pharmacist can be contacted 24 hours a day.				1 No		3 Yes

The pharmacy is open	From	To	*And again:* From	To	Total hours open/day
145. Mondays to Thursdays:					
146. Fridays:					
147. Saturdays:					
148. Sundays:					
149. Public holidays:					

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(L) WRITTEN STANDARD OPERATING PROCEDURES

There are written standard operating procedures for:	N/A	Does not comply	Partially complies	Complies
150. good housekeeping (*cleaning procedures etc.*)		1	2	3
151. pest (*insects, rodents etc.*) elimination.		1	2	3
152. receipt of stock.		1	2	3
153. effective stock rotation (*FEEFO – First entry, expiry, first out*).		1	2	3
154.* disposal or removal of S1 – S6 expired, damaged and/or contaminated stock as required in Regulation 27 of Act 101 of 1965.		1	2	3
155. product types requiring special storage or handling instructions.		1	2	3
156. separation and handling of goods returned from patients.		1	2	3
157. recall of medicine.		1	2	3
158. delivery of medicines.	N/A	1	2	3
159. a *locum*/relief pharmacist to be followed regarding the handling of keys, money, etc.	N/A	1	2	3
160. cold chain management (*including procedures to be followed in the event of a power failure*).	N/A	1	2	3
161. SOPs are reviewed/updated on a regular basis.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

(M) REFERENCES

The pharmacy has copies of, or electronic access to:	Does not comply	Partially complies	Complies
162. - one of the last 3 editions of the Martindale.	1	2	3
163. - the latest edition of the Good Pharmacy Practice (GPP) Manual.	1	2	3
164. - the latest edition of MIMS.	1	2	3
165. - a comprehensive textbook on complementary medicine.	1	2	3
166. - the latest edition of Daily Drug Use (Tincture Press Publications) or other Drug Interactions reference source.	1	2	3
167. - the latest edition of either MDR or SAMF.	1	2	3
168. - a recent and comprehensive textbook on Pharmacology (*not older than 10 years*).	1	2	3
169. - a medical dictionary.	1	2	3
170. - a copy of the Pharmacy Act, 1974 (Act 53 of 1974) as amended and the Medicines and Related Substances Control Act, 1965 (Act 101 of 1965) as amended.	1	2	3
171. - a list of non-substitutable substances.	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(N) GENERAL

	Does not comply	Partially complies	Complies
172. The pharmacy is designated as a non-smoking area.	1	2	3
173.* No medicines are advertised in any way that is contrary to GPP guidelines and Regulation 45 of Act 101 of 1965.	1	2	3
174. A pharmacist has undergone a form of continued education/professional development within the last 2 years.	No	In-formal	Formal
175. No arms/ammunition are sold in the pharmacy.	1	2	3
176. No fireworks are sold in the pharmacy.	1	2	3
177. No alcohol, other than for medicinal purposes, is sold in the pharmacy.	1	2	3
178. No tobacco, snuff, cigarettes and tobacco related substances are sold in the pharmacy (*this excludes medicinal snuff and anti-smoking aides*).	1	2	3
179. Lotto tickets are not sold in the pharmacy.	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

(O) PROMOTION OF PUBLIC HEALTH

180.	Are Family Planning services rendered at the pharmacy?	1 No	2 Yes
181.	Has the pharmacist(s) registered his/her Family Planning qualification with Council?	N/A	1 No	2 Yes
182.*	Is the necessary Section 22(A)(15) permit from the Department of Health available for purposes of providing family planning? (*previously Section 22(A)(12)*)	N/A	1 No	2 Yes
183.	Are Primary Care Drug Therapy (PCDT) services rendered at the pharmacy?	1 No	2 Yes
184.	Has the pharmacist registered his/her Primary Care Drug Therapy (PCDT) qualification with Council?	N/A	1 No	2 Yes
185.*	If medicines in higher schedules are provided during the provision of PCDT, is the necessary Section 22(A)(15) permit from the Department of Health available? (*previously Section 22(A)(12)*)	N/A	1 No	2 Yes

The following services are rendered in accordance with GPP guidelines:	N/A	Does not comply	Partially complies	Complies
186. Blood pressure monitoring.	N/A	1	2	3
187. Pregnancy testing.	N/A	1	2	3
188. Determining of blood sugar levels.	N/A	1	2	3
189. Visiometric determinations.	N/A	1	2	3
190. Audiometric determinations.	N/A	1	2	3
191. Cholesterol screening tests.	N/A	1	2	3
192. Urine analysis (*screening tests*).	N/A	1	2	3
193. Immunisation services (*in accordance with National guidelines*).	N/A	1	2	3
194. AIDS testing on request from patient (*in accordance with National guidelines.*)	N/A	1	2	3
195. Please specify other:				
196. The above-mentioned services are rendered in a suitable private area.	N/A	1	2	3

197. Who renders the above services?

N/A No services rendered 0	Other health care professional 1	Registered pharmacist's assistant 2	Pharmacist and/or pharmacist intern 3
Please specify other:			4

Encircle or mark applicable number/block with an 'X'

(P) RECOMMENDATIONS IN RESPECT OF TRAINING

NB: RECOMMENDATIONS MUST ALSO BE MADE IN THE CASE OF MONITORING INSPECTIONS.

The inspector must, through his/her observations, take notice of all aspects of pharmacy practice, to give an objective evaluation of the training facilities in the pharmacy and the ability of a prospective tutor to train a pharmacist intern and/or pharmacist's assistant effectively.

198.	A pharmacist intern was trained within the last 3 years.	No	See Comments	Yes
199.	A pharmacist's assistant was trained within the last 3 years.	No	See Comments	Yes
200.	**Pharmacy:** recommended for training?	No	See Comments	Yes
201.	Would the pharmacist accept responsibility as a tutor for the training of a pharmacist intern or pharmacist's assistant?	No	See Comments	Yes
202.	Is there evidence that the prospective tutor participates in continuing education/professional development?	No	See Comments	Yes
203.	Is there disciplinary action pending against the prospective tutor?	No	See Comments	Yes
204.	Is there evidence that the prospective tutor/pharmacist upholds the principles of pharmaceutical care/GPP?	No	See Comments	Yes
205.	**Tutor:** recommended for training?	No	See Comments	Yes

NOTE: ***Recommendations made by the inspector with respect to training do not necessarily constitute approval for training by the Council. Final approval of the pharmacy premises and tutor is made by the Council.***

Comments and/or corrective action required for all items marked 'no' or 'see comments'

(Q) SIGNATURES

I, THE UNDERSIGNED, AM FAMILIAR WITH THE CONTENTS OF THIS INSPECTION REPORT. THE RECOMMENDED CORRECTIVE ACTION TO BE TAKEN IN INSTANCES WHERE A QUESTION WAS ANSWERED AS EITHER 'DOES NOT COMPLY' OR 'PARTIALLY COMPLIES' HAS BEEN EXPLAINED AND WRITTEN IN THIS REPORT, IN EVERY SUCH INSTANCE.

206. Recommended re-inspection

1 Follow-up 3 months	2 Follow-up 6 months	3 Routine

207. Signature of **pharmacist in charge during inspection:**

208. Name of above **pharmacist in charge during inspection** *(in block capitals) (refer question 18)*:

209. Signature of **inspector:**

210. Duration of inspection: *(refer inspection start time on page 2)*

Inspection end time:		Duration (no. of hours)

FURTHER COMMENTS

APPENDIX B

Institutional pharmacy inspection questionnaire

January 2004

CONFIDENTIAL INSPECTION QUESTIONNAIRE
TO ESTABLISH THE NATURE, EXTENT AND STANDARD OF PHARMACEUTICAL SERVICES IN

INSTITUTIONAL (HOSPITAL) PHARMACIES

PLEASE NOTE:
The confidentiality of this document may be withdrawn should the information furnished lead to further investigation(s)

Please refer this questionnaire for special attention: | *Yes* | | *No* |

THE SOUTH AFRICAN PHARMACY COUNCIL, JANUARY 2004
591 Belvedere Street, Arcadia, Pretoria, 0083; ✉ 40040, Arcadia, 0007; ☎ (012) 319-8500; Fax (012) 321-1492; email : fourie@pharmcouncil.co.za

Encircle or mark applicable number/block with an 'X'

(A) INSPECTION DETAILS

NOTE: Throughout this questionnaire legislative requirements are indicated with an *

1.	Language preference for inspection report	1 English	2 Afrikaans	2.	Date of inspection	D D	M M	Y Y Y Y					
3.	Name of inspector *(in block capitals)*				Inspector Code		Inspection start time						
4.	Type of inspection	1 Monitoring	2 Training Assistants	3 Training Interns	4 New Premises	5 Disciplinary	6 Follow-up						

(B) PHARMACY DETAILS

5.	Name of hospital *(in block capitals)*												
6.	Name of pharmacy *(if different)* *(in block capitals)*												
7.	Pharmacy registration number	Y						OFFICE USE ONLY	Pharmacy details confirmed	Inspection cycle			
8.	Licence number *(if applicable)*												
9.	Telephone number(s)	( )		-		( )		-					
10.	Fax number			-									
11.	E-mail address												

12. Postal address	13. Physical address
Postal Code	Street Code

14.	What is the nature of the pharmacy?	1 Public/state hospital	2 State subsidised	3 Private hospital	4 Mine hospital								
15.	How is the hospital classified?	N/A	1 Tertiary/academic	2 Regional hospital	3 District hospital	4 Community Health Centre or PHC Clinic							
			5 Psychiatric/ Long-term facility	Private:		6 Please specify other:							
16.	To whom are services rendered?	1 In-patients	2 Out-patients/Passing trade	3 Clinics/Other hospitals									
17.	In which province is the pharmacy situated?	1 Eastern Cape	2 Free State	3 Gauteng									
		4 Kwazulu- Natal	5 Mpumalanga	6 Northern Cape									
		7 Limpopo	8 North West	9 Western Cape									
18.	Where is the pharmacy situated?	1 City centre	2 City suburb	3 Small town	4 Rural #								

#< 40,000

Encircle or mark applicable number/block with an 'X'

(C) PHARMACY STAFFING

		Name	Registration Number	
19.	Name of pharmacy owner as registered			
20.*	Name of responsible pharmacist as registered			Office use
21.	Name of pharmacist in charge during inspection			Office use
22.	Name of (prospective) tutor(s) if applicable			Office use
				Office use
				Office use

23. How many community service pharmacists are in the employ of the pharmacy? *(public health facilities only) (fill in name and number under comments).*

24. How many full-time pharmacists are in the permanent employ of the pharmacy? *(at least 5 hours per day) (fill in name and number under comments).*

25. How many part-time pharmacists are in the permanent employ of the pharmacy? *(less than 5 hours per day) (fill in name and number under comments).*

26. How many pharmacist interns are undergoing practical training in the pharmacy?

27. How many registered pharmacist's assistants (basic) work in the pharmacy?

28. How many registered pharmacist's assistants (post-basic) work in the pharmacy?

29. How many registered pharmacist's assistants (learner basic) are undergoing practical training in the pharmacy?

30. How many registered pharmacist's assistants (learner post-basic) are undergoing practical training in the pharmacy?

31. How many unregistered persons performing acts falling within the scope of practice of pharmacists and/or pharmacist's assistants would require training in order to register as pharmacist's assistants with the Council?

32. Who does the actual picking of medicines prior to dispensing?

1	2	3
Other personnel	Registered pharmacist's assistant	Pharmacist and/or pharmacist intern

33. Who hands the medicine to the patient or care-giver?

1	2	3	4
Porter/driver/ courier	Other personnel	Registered pharmacist's assistant	Pharmacist and/or pharmacist intern

34. How many **items** prescribed by an authorised prescriber are dispensed per day on average?

		Total
In-patients:		
Out-patients/ passing trade:		

35. How many P.I.T. **items** are dispensed per day on average? N/A

36. How many surgical **items** are dispensed/issued per day on average? N/A

37. How many ethical stock **items** are dispensed/issued per day on average?

HOSPITAL

Encircle or mark applicable number/block with an 'X'

(D) REGISTRATION DETAILS

		N/A	Does not comply	Partially complies	Complies
38.*	The name of the responsible pharmacist is displayed conspicuously over the main entrance of the pharmacy.		1	2	3
39.*	The name of the pharmacist on duty is displayed conspicuously in the pharmacy.		1	2	3
40.*	The pharmacy is conducted under the constant personal supervision of a pharmacist.		1	2	3
41.	A currently valid **annual registration card(s)** is available for the pharmacist(s) *(refer questions 20, 21, 23,24 and 25).*		1	2	3
42.	A currently valid **annual registration card(s)** is available for the pharmacist's assistant(s) (basic/post-basic) *(refer questions 27 and 28).*	N/A	1	2	3
43.	A currently valid **annual registration card(s)** is available for the pharmacist's assistant(s) (learner basic/learner post-basic) *(refer questions 29 and 30).*	N/A	1	2	3
44.	A currently valid **certificate** for the recording of the pharmacy is available.	N/A	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(E) PREMISES AND LAYOUT

		N/A	Does not comply	Partially complies	Complies
45.	The premises are clean.		1	2	3
46.	The premises are organised.		1	2	3
47.	The pharmacy is suitably located in the facility.		1	2	3
48.	The floor surface in the dispensing area is of impermeable material.		1	2	3
49.	All working surfaces are finished with a smooth, impermeable and washable material.		1	2	3
50.	All cupboards and shelves are finished with a smooth, impermeable and washable material.		1	2	3
51.*	Approval has been obtained from Council in the event that a person who is not registered with Council conducts a separate practice/business within the pharmacy (*Ethical Rule 13(a)*).	N/A	1 No		3 Yes

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

PREMISES AND LAYOUT (Continued)

		N/A	Does not comply	Partially complies	Complies
52.	There is sufficient lighting.		1	2	3
53.	The temperature in the pharmacy is below 25°C *(as checked with a thermometer)*.		1	2	3
54.	The temperature in the pharmacy is controlled 24 hours a day as demonstrated by a maximum/minimum thermometer.		1	2	3
55.	The temperature in the pharmacy is recorded daily.		1	2	3
56.	The dispensing surface area is sufficient for the volume of prescriptions dispensed.		1	2	3
57.	The total floor area is sufficient for the efficient operation of dispensary staff.		1	2	3
58.	The workflow in the pharmacy is efficient.		1	2	3
59.	There is a suitable waiting area, in accordance with GPP guidelines.	No out-patients	1	2	3
60.	There is a suitable semi-private area for the provision of information and advice, in accordance with GPP guidelines.	N/A	1	2	3
61.	The professional image of the dispensing area is not affected by the display of commercial material not directly linked with health.	N/A	1	2	3
62.	Medicinal and non-medicinal products are displayed separately in the pharmacy.	N/A	1	2	3
63.*	Only the pharmacist(s) has keys to the pharmacy.		1	2	3
64.*	There is sufficient security to prevent unauthorised access to medicines.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(F) EQUIPMENT

		N/A	Does not comply	Partially complies	Complies
65.	There is a facility for washing hands.	N/A	1	2	3
66.	There is a facility for cleaning of equipment.	N/A	1	2	3

The pharmacy has:

67.	- adequate pestles and mortars.	N/A	1	2	3
68.	- adequate spatulas.	N/A	1	2	3
69.	- a suitable mass meter for dispensing.	N/A	1	2	3
70.	- adequate graduated measures.		1	2	3
71.	- adequate medicine containers for the dispensing of medicines.		1	2	3
72.	- adequate warning labels or **clearly noticeable** warning indications on the label.		1	2	3
73.	- suitable laminar flow cabinet(s) for preparation of parenteral fluids/TPN *(e.g. antibiotics)* which is validated.	N/A	1	2	3
74.	- suitable laminar flow cabinet(s) (vertical) for preparation of biohazardous preparations (e.g. *cytotoxics)* which is validated.	N/A	1	2	3
75.	- sufficient counting apparatus for tablets and capsules.		1	2	3
76.	Counting trays are cleaned in order to prevent cross-contamination.		1	2	3
77.	All the equipment in the pharmacy is clean.		1	2	3
78.	All the equipment in the pharmacy is in good working order.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(G) STORAGE

		N/A	Does not comply	Partially complies	Complies
79.	Medicines are stored according to a system.		1	2	3
80.	Storage areas are situated so that products are protected from potentially harmful influences.		1	2	3
81.	All goods are stored off the floor.		1	2	3
82.	Raw materials known to be at risk for cross-contamination are stored separately.	No stock	1	2	3
83.	Proper care and control is exercised over hazardous substances *(e.g. caustic soda, insecticides etc.)* which are stored separately.	No stock	1	2	3
84.	Proper care and control is exercised over flammable substances *(e.g. ether, methylated spirits etc.)* which are stored separately.	No stock	1	2	3
85.	A system is in place to ensure effective stock rotation *(refer also SOP section)*.		1	2	3
86.	There are no expired medicines on the shelves *(as observed)*.		1	2	3
87.	Expired, damaged and/or contaminated stock is clearly separated.		1	2	3
88.*	Expired, damaged and/or contaminated stock is destroyed in a safe manner *(e.g. returned to supplier or waste disposal company) (refer also SOP sectionand Regulation 27 of Act 101 of 1965)*.		1	2	3
89.	The pharmacy has suitable refuse receptacles (*with closing lids where applicable*).		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

STORAGE (Continued)

		N/A	Does not comply	Partially complies	Complies
90.	The receiving area is under impermeable cover.		1	2	3
91.	The receiving area is effectively separated.		1	2	3
92.	Stock is checked on receipt for quantity, quality, damaged containers, type, storage conditions and expiry dates.		1	2	3
93.	A list of product types requiring special storage or handling instructions is available and consulted on receipt of stock *(refer also SOP section)*.		1	2	3
94.	There is a system for the correct handling of the various types of goods returned from patients, wards, clinics etc. *(refer also SOP section)*.		1	2	3
95.	Is any pre-packing performed on the premises? *(refer also SOP section)*.		No		Yes
96.*	Is pre-packing done in accordance with Regulation 33 of Act 101 of 1965 with regard to temperature, humidity area and GMP requirements *(refer also SOP section)*.	N/A	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(H) CONTROL OF MEDICINES/RECORD KEEPING

	N/A	Does not comply	Partially complies	Complies
97.* All medicines sold for human use, comply with Regulation 8 of Act 101 of 1965 i.e. labelling requirements.		1	2	3
98.* Medicines are purchased only through legally authorised entities/suppliers *(as confirmed by pharmacist in charge during inspection).*		1	2	3
99.* There are no unregistered medicines on the premises *(as observed).*		1	2	3
100. A computerised programme is used for dispensing.		1 No		3 Yes
101. An effective stock control system is in place.		1	2	3
102. A computerised programme is used for stock control.		1 No		3 Yes
103. Controls are in place for issuing ward stock *(refer also SOP section).*	N/A	1	2	3
104. Controls are in place for issuing of medicines per patient to the wards *(refer also SOP section).*	N/A	1	2	3
105. The pharmacist exercises control over medicines kept in places other than the pharmacy *(e.g. wards, theatres etc). (refer also SOP section).*	N/A	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

CONTROL OF MEDICINES/RECORD KEEPING (Continued)

	N/A	Does not comply	Partially complies	Complies
106.* A prescription book/permanent record for S2-S6 medicines is kept as required in Regulation 11(1) of Act 101 of 1965.		1	2	3
107.* A prescription record is kept for 5 years as required in Regulation 11(3) of Act 101 of 1965.		1	2	3
108. Original prescriptions are kept in a safe place and are easily retrievable.		1	2	3
109. A patient profile detailing all prescriptions dispensed to the patient is kept for 2 years.		1	2	3
110. A patient profile detailing all P.I.T. dispensed to the patient is kept for 2 years.	N/A	1	2	3
111.* S1-S5 medicine are stored/displayed in areas inaccessible to the public.		1	2	3
112.* All S1 medicines sales are recorded in a prescription book or other permanent record as required in Regulation 11(2) of Act 101 of 1965.	Not sold	1	2	3
113.* All S2 medicine sales are recorded in a prescription book or other permanent record as required in Regulation 11(1) of Act 101 of 1965.	Not sold	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

CONTROL OF MEDICINES/RECORD KEEPING (CONTINUED)

	N/A	Does not comply	Partially complies	Complies
114. Are S6 medicines ordered, stored or supplied at any time?		No		Yes
115. There is a system in place for the correct handling by the pharmacist of specified S5 and S6 medicines *(refer also SOP section)*.	Not stocked	1	2	3
116. S6 medicines are locked away and the key is under the control of the pharmacist.	Not stocked	1	2	3
117.* There is an up-to-date register of all **specified S5 & S6 purchases and sales** as required in Regulation 30 of Act 101 of 1965.	Not stocked	1	2	3
118.* The specified S5 and S6 substances register was balanced on the last day of March, June, September and December of each year or within 14 days as required in Regulation 30(2) of Act 101 of 1965.	Not stocked	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

CONTROL OF MEDICINES/RECORD KEEPING (Continued)

119.	Does the pharmacy deliver medicines by mail?	1 Yes / 2 No
120.	Does the pharmacy deliver medicines by courier?	1 Yes / 2 No
121.	Does the pharmacy deliver medicines by delivery person/porter?	1 Yes / 2 No
122.	Does the pharmacy deliver medicines by any other means *(e.g. train etc.)*?	1 Yes / 2 No
123.	*If question 123 was answered 'yes'*, PLEASE SPECIFY by which means:	

Such indirect supplies (see questions 120 to 124) comply with all GPP requirements i.r.o. the following:	N/A	Does not comply	Partially complies	Complies
124. A control system is implemented that enables detection and correction of a delay in the delivery process.	N/A	1	2	3
125. Medicines are packaged and stored in accordance with registration requirements throughout the delivery process.	N/A	1	2	3
126. Control is exercised so that products are not subjected to unacceptable degrees of heat, cold, sunlight or any other adverse influences during the transportation process.	N/A	1	2	3
127. Medicines prescribed for acute ailments or conditions are not delivered by mail/courier/train.	N/A	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(I) THERMOLABILE MEDICINES

		N/A	Does not comply	Partially complies	Complies
128.	Are thermolabile medicines purchased, stored or supplied at any time?	No.	2 Yes		
129.	All thermolabile medicines are stored in a refrigerator.	Not stocked	1	2	3
130.	Only medicines are stored in the refrigerator.	Not stocked	1	2	3
131.	Medicines are stored in the refrigerator according to a system.	Not stocked	1	2	3
132.	The refrigerator is suitable and in good working order.	N/A	1	2	3
133.	The temperature of the refrigerator is between 2°C and 8°C *(as checked with a thermometer).*	N/A	1	2	3
134.	The temperature of the refrigerator(s) is controlled 24 hours a day as demonstrated by a maximum/minimum thermometer.	N/A	1	2	3
135.	The temperature of the refrigerator is recorded twice daily in accordance with GPP guidelines.	N/A	1	2	3
136.	Thermolabile medicines are stored/supplied maintaining the cold chain.	Not stocked	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(J) DISPENSING OF PRESCRIPTIONS

	N/A	Does not comply	Partially complies	Complies
137.* Generic substitution is applied in accordance with Section 22(F) of Act 101 of 1965.		1	2	3
138.* Dispensed medicine is labelled as required in Regulation 8(4) of Act 101 of 1965.		1	2	3
139. The **pharmacist** checks the dispensed medicine after it has been labelled and before it is handed or delivered to the patient.		1	2	3
140. The original prescription states who the dispenser was.		1	2	3
141. The final price that the patient pays is indicated on the copy for the payer.	N/A	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(K) PROVISION OF PHARMACEUTICAL CARE

	N/A	Does not comply	Partially complies	Complies
142. The pharmacist obtains all the relevant patient information before dispensing the prescription.		1	2	3
143. The pharmacist evaluates the prescription to identify any possible problems before dispensing the prescription.		1	2	3
144. The pharmacist takes the necessary action if there are any problems with the prescription and/or medicine prescribed.		1	2	3
145.* The **pharmacist** gives advice to the patient or care-giver after the prescription has been dispensed.		1	2	3
146. The **pharmacist** gives advice to patients who receive OTC medicines.	N/A	1	2	3
147. Advice is given to the patient in a suitable semi-private area.		1	2	3
148. Is a hatch used when providing patient counselling?		No		Yes
149. If a hatch is used, eye contact is possible between the pharmacist and the patient.	N/A	1	2	3
150. If a hatch is used, easy communication is facilitated.	N/A	1	2	3
151. Support aids are used when supplying advice *(as observed)*.		1	2	3

152. Form(s) of support aids used:

0 N/A Not used	1 Pamphlets/information leaflets	2 Manufacturers package inserts	3 Computer printouts	4 Visual aids e.g. diagrams/posters	5 Please specify other:

153.* Patient information leaflets are available at the dispensary.	1	2	3		
154. A procedure is in place for monitoring the patients progress.	1	2	3		
155. A pharmacist can be contacted 24 hours a day.	1 No		3 Yes		

The pharmacy is open	From	To	And again: From	To	Total hours open/day
156. Mondays to Thursdays:					
157. Fridays:					
158. Saturdays:					
159. Sundays:					
160. Public holidays:					

Encircle or mark applicable number/block with an 'X'

(L) COMPOUNDING

		N/A	Does not comply	Partially complies	Complies
161.	The pharmacy performs bulk compounding *(e.g. dilution of antiseptic solutions, creams, mixtures etc.) (refer also SOP section).*	No			2 Yes
162.	TPN/large volume parenterals are prepared in the pharmacy *(refer also SOP section).*	No			2 Yes
163.	Cytotoxic admixtures are prepared in the pharmacy *(refer also SOP section).*	No			2 Yes
164.	IV additives are prepared in the pharmacy *(refer also SOP section).*	No			2 Yes

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(M) WRITTEN STANDARD OPERATING PROCEDURES

There are written standard operating procedures for:	N/A	Does not comply	Partially complies	Complies
165. good housekeeping *(cleaning procedures etc.)*		1	2	3
166. pest *(insects, rodents etc.)* elimination.		1	2	3
167. receipt of stock.		1	2	3
168. effective stock rotation (FEEFO – *First entry, expiry, first out*).		1	2	3
169.* disposal or removal of S1 – S6 expired, damaged and/or contaminated stock as required in Regulation 27 of Act 101 of 1965.		1	2	3
170. product types requiring special storage or handling instructions.		1	2	3
171. separation and handling of goods returned from patients, wards, clinics etc.		1	2	3
172. recall of medicine.		1	2	3
173. delivery of medicines.	N/A	1	2	3
174. a *locum*/relief pharmacist to be followed regarding the handling of keys, money, etc.	N/A	1	2	3
175. cold chain management *(including procedures to be followed in the event of a power failure)*.	N/A	1	2	3
176. pre-packing *(including quality assurance procedures)*.	N/A	1	2	3
177. compounding operations *(including quality assurance procedures)*.	N/A	1	2	3
178. preparation of TPN/large volume parenterals *(including quality assurance procedures)*.	N/A	1	2	3
179. oncology mixing *(including quality assurance procedures)*.	N/A	1	2	3
180. preparation of IV additives *(including quality assurance procedures)*.	N/A	1	2	3
181. control over medicines kept in places other than the pharmacy *(e.g. wards, theatres etc.) (including controls for issuing ward stock and medicine per patient to the wards)*	N/A	1	2	3
182. SOPs are reviewed/updated on a regular basis.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

(N) REFERENCES

The pharmacy has copies of, or electronic access to:		Does not comply	Partially complies	Complies
183. - one of the last 3 editions of the Martindale.		1	2	3
184. - the latest edition of the Good Pharmacy Practice (GPP) Manual.		1	2	3
185. - the latest edition of MIMS.		1	2	3
186. - a comprehensive textbook on complementary medicine *(private sector)*.	Not Sold	1	2	3
187. - the latest edition of Daily Drug Use (Tincture Press Publications) or other Drug Interactions reference source.		1	2	3
188. - the latest edition of either MDR or SAMF.		1	2	3
189. - a recent and comprehensive textbook on Pharmacology *(not older than 10 years.)*		1	2	3
190. - a medical dictionary.		1	2	3
191. - a copy of the Pharmacy Act, 1974 (Act 53 of 1974) as amended and the Medicines and Related Substances Control Act, 1965 (Act 101 of 1965) as amended.		1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(O) GENERAL

	Does not comply	Partially complies	Complies
192. The pharmacy is designated as a non-smoking area.	1	2	3
193.* No medicines are advertised in any way that is contrary to GPP guidelines and Regulation 45 of Act 101 of 1965.	1	2	3
194. A pharmacist has undergone a form of continued education/professional development **the last 2 years.**	No	In-formal	Formal
195. No arms/ammunition are sold in the pharmacy.	1	2	3
196. No fireworks are sold in the pharmacy.	1	2	3
197. No alcohol, other than for medicinal purposes, is sold in the pharmacy.	1	2	3
198. No tobacco, snuff, cigarettes and tobacco related substances are sold in the pharmacy *(this excludes medicinal snuff and anti-smoking aides)*.	1	2	3
199. Lotto tickets are not sold in the pharmacy.	1	2	3

Comments and/or corrective action required for all items marked 'does not comply' or only 'partially complies'

Encircle or mark applicable number/block with an 'X'

(P) PROMOTION OF PUBLIC HEALTH

200.	Are Family Planning services rendered at the pharmacy?	No 1 / Yes 2
201.	Has the pharmacist(s) registered his/her Family Planning qualification with Council?	N/A / 1 No / 2 Yes
202.*	Is the necessary Section 22A(15) permit from the Department of Health available for purposes of providing family planning? *(previously Section 22A(12))*	N/A / 1 No / 2 Yes
203.	Are Primary Care Drug Therapy (PCDT) services rendered at the pharmacy?	No 1 / Yes 2
204.	Has the pharmacist(s) registered his/her Primary Care Drug Therapy (PCDT) qualification with Council?	N/A / 1 No / 2 Yes
205.*	If medicines in higher schedules are provided during the provision of PCDT, is the necessary Section 22A(15) permit from the Department of Health available? *(previously Section 22A(12))*	N/A / 1 No / 2 Yes

The following services are rendered in accordance with GPP guidelines:	N/A	Does not comply 1	Partially complies 2	Complies 3
206. Blood pressure monitoring.	N/A	1	2	3
207. Pregnancy testing.	N/A	1	2	3
208. Determining of blood sugar levels.	N/A	1	2	3
209. Visiometric determinations.	N/A	1	2	3
210. Audiometric determinations.	N/A	1	2	3
211. Cholesterol screening tests.	N/A	1	2	3
212. Urine analysis screening tests.	N/A	1	2	3
213. Immunisation services (*in accordance with National guidelines*).	N/A	1	2	3
214. AIDS testing on request from patient (*in accordance with National* guidelines).	N/A	1	2	3

215. Please specify other:

216.	The above-mentioned services are rendered in a suitable private area.	N/A / 1 / 2 / 3

217. Who renders the above services?

N/A No services rendered 0	Other health care professional 1	Registered Pharmacist's assistant 2	Pharmacist and/or pharmacist intern 3
Please specify other: 4			

(Q) RECOMMENDATIONS IN RESPECT OF TRAINING

NB: RECOMMENDATIONS MUST ALSO BE MADE IN THE CASE OF MONITORING INSPECTIONS.

The inspector must, through his/her observations, take notice of all aspects of pharmacy practice, to give an objective evaluation of the training facilities in the pharmacy and the ability of a prospective tutor to train a pharmacist intern and/or pharmacist's assistant effectively.

218.	A pharmacist intern was trained within the last 3 years.	No	See Comments	Yes
219.	A pharmacist's assistant was trained within the last 3 years.	No	See Comments	Yes
220.	Pharmacy: recommended for training?	No	See Comments	Yes
221.	Would the pharmacist accept responsibility as a tutor for the training of a pharmacist intern or pharmacist's assistant?	No	See Comments	Yes
222.	Is there evidence that the prospective tutor participates in continuing education/professional development?	No	See Comments	Yes
223.	Is there disciplinary action pending against the prospective tutor?	Yes	See Comments	No
224.	Is there evidence that the prospective tutor/pharmacist upholds the principles of pharmaceutical care/GPP?	No	See Comments	Yes
225.	Tutor: recommended for training?	No	See Comments	Yes

NOTE: *Recommendations made by the inspector with respect to training do not necessarily constitute approval for training by the Council. Final approval of the pharmacy premises and tutor is made by the Council.*

Comments and/or corrective action required for all items marked 'no' or 'see comments'

APPENDIX C

Community pharmacy inspection questionnaire

RESULTS

(A) INSPECTION DETAILS

(B) PHARMACY DETAILS

(C) PHARMACY STAFFING

(D) REGISTRATION DETAILS

(E) PREMISES AND LAYOUT

(F) EQUIPMENT

(G) STORAGE

(H) CONTROL OF MEDICINES AND RECORDKEEPING

(I) THERMOLABILE MEDICINES

(J) DISPENSING OF PRESCRIPTIONS

(K) PROVISION OF PHARMACEUTICAL CARE

(L) WRITTEN STANDARD OPERATING PROCEDURES

(M) REFERENCES

(N) GENERAL

(O) PROMOTION OF PUBLIC HEALTH

(Q) SIGNATURE

(A) INSPECTION DETAILS

Table 1C *Question 4: Type of inspection.*

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Monitoring	35	58.33	31	50.00	293	57.17	47	45.19	26	55.32	8	29.63	52	58.43	20	74.07	187	75.10	699	59.34
Training assistants	8	13.33	7	11.29	39	7.60	23	22.12	6	12.77	8	29.63	4	4.49	3	11.11	26	10.44	124	10.53
Training interns	6	10.00	6	9.68	26	5.07	6	5.77	0	0.00	2	7.41	14	15.37	0	0.00	9	3.61	69	5.86
New premises	6	10.00	5	8.06	48	9.36	15	14.42	10	21.28	4	14.81	8	8.99	1	3.70	9	3.61	106	9.00
Disciplinary	4	6.67	5	8.06	51	9.94	9	8.65	2	4.26	1	3.70	4	4.49	0	0.00	5	2.01	81	6.88
Follow-up	0	0.00	0	0.00	12	2.34	0	0.00	1	2.13	0	0.00	0	0.00	0	0.00	1	0.40	14	1.19
Not answered	1	1.67	8	12.90	44	8.58	4	3.85	2	4.26	4	14.81	7	7.87	3	11.11	12	4.82	85	7.22
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(B) PHARMACY DETAILS

Table 2C ***Question 13: What is the nature of the pharmacy?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Community	54	90.00	60	96.77	455	88.69	98	94.23	46	97.87	25	92.59	84	94.38	27	100.00	230	92.37	1079	91.60
Mail/courier	0	0.00	0	0.00	6	1.17	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	0.51
Virtual care	5	8.33	2	3.23	21	4.09	4	3.85	0	0.00	0	0.00	0	0.00	0	0.00	11	4.42	43	3.65
Other	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	0	0.00	31	6.04	2	1.92	1	2.13	2	7.41	4	4.49	0	0.00	8	3.21	49	4.16
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 3C ***Question 14: In which province is the pharmacy situated?***

Province	Number of pharmacies located in each province	
	N	%
Eastern Cape	60	5.09
Free State	62	5.26
Gauteng	513	43.55
Kwazulu-Natal	104	8.83
Limpopo	47	3.99
Mpumalanga	27	2.29
North West	89	7.56
Northern Cape	27	2.29
Western cape	249	21.14
TOTAL	1178	100.0

Table 4C *Question 15: Where is the pharmacy situated?*

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
City centre	11	18.33	9	14.52	76	14.81	20	19.23	5	10.64	7	25.93	17	19.10	10	37.04	20	8.03	175	14.86
City suburb	36	60.00	22	35.48	339	66.08	42	40.38	1	2.13	3	11.11	20	22.47	5	18.52	144	57.83	612	51.95
Small town	9	15.00	23	37.10	56	10.92	34	32.69	26	55.32	14	51.85	36	40.45	12	44.44	62	24.90	272	23.09
Rural	3	5.00	8	12.90	5	0.97	6	5.77	14	29.79	1	3.7	7	7.87	0	0.00	12	4.82	56	4.75
Not answered	1	1.67	0	0.00	37	7.21	2	1.92	1	2.13	2	7.41	9	10.11	0	0.00	11	4.42	63	5.35
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(C) PHARMACY STAFFING

Table 5C *Question 20: How many full-time pharmacists are permanently employed in the pharmacy?*

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	60	1.84	1.08	1	5	105
Free State	62	1.65	0.84	1	4	99
Gauteng	513	2.01	2.08	1	19	888
Kwazulu-Natal	104	1.50	1.22	1	9	150
Limpopo	47	1.23	0.48	1	3	54
Mpumalanga	27	1.92	1.63	1	9	48
North West	89	1.53	0.84	1	5	121
Northern Cape	27	1.58	0.99	1	5	41
Western Cape	249	1.82	1.28	1	10	433
TOTAL	1178	1.81	1.61	1	19	1939

Table 6C ***Question 21: How many part-time pharmacists are in the permanent employ of the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	15	2.20	1.66	1	6	33
Free State	10	1.20	0.42	1	2	12
Gauteng	102	1.45	1.02	1	7	148
Kwazulu-Natal	19	1.79	1.03	1	4	34
Limpopo	4	1.00	0.00	1	1	4
Mpumalanga	1	3.00	0.00	3	3	3
North West	8	1.25	0.46	1	2	10
Northern Cape	2	1.00	0.00	1	1	2
Western Cape	100	1.93	1.98	1	17	193
TOTAL	261	1.68	1.49	1	17	439

Table 7C ***Question 22: How many pharmacist interns are undergoing practical training in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	7	1.00	0.00	1	1	7
Free State	5	1.00	0.00	1	1	5
Gauteng	32	1.44	0.88	1	5	46
Kwazulu-Natal	1	1.00	0.00	1	1	1
Limpopo	2	1.00	0.00	1	1	2
Mpumalanga	2	1.00	0.00	1	1	2
North West	10	1.20	0.42	1	2	12
Northern Cape	0	0.00	0.00	1	0	0
Western Cape	22	1.36	0.47	0	3	25
TOTAL	81	1.23	1.23	1	5	100

Table 8C ***Question 23: How many registered pharmacist's assistants (basic) work in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	5	1.60	0.89	1	3	8
Free State	14	1.43	0.85	1	4	20
Gauteng	47	1.66	1.31	1	7	78
Kwazulu-Natal	9	1.44	0.73	1	3	13
Limpopo	10	1.50	0.53	1	2	15
Mpumalanga	4	1.50	0.58	1	2	6
North West	3	1.67	0.58	1	2	5
Northern Cape	2	1.50	0.71	1	2	3
Western Cape	14	1.07	0.27	1	2	15
TOTAL	108	1.51	0.99	1	7	163

Table 9C ***Question 24: How many registered pharmacist's assistants (post-basic) work in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	18	1.29	0.99	1	5	22
Free State	20	1.47	1.01	1	5	25
Gauteng	172	1.85	2.26	1	15	187
Kwazulu-Natal	17	1.64	0.93	1	4	23
Limpopo	9	1.00	0.00	1	1	7
Mpumalanga	7	1.25	0.50	1	2	5
North West	22	2.28	1.07	1	4	32
Northern Cape	6	1.80	0.84	1	3	9
Western Cape	67	1.39	0.62	1	3	79
TOTAL	236	1.65	1.61	1	15	389

Table 10C ***Question 25: How many registered pharmacist's assistants (learner basic) are undergoing practical training in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	5	1.40	0.89	1	3	7
Free State	12	1.75	0.75	1	3	21
Gauteng	66	1.76	1.56	1	9	116
Kwazulu-Natal	9	4.11	7.51	1	24	37
Limpopo	4	1.50	1.00	1	3	6
Mpumalanga	5	2.80	2.49	1	7	14
North West	14	1.36	0.63	1	3	19
Northern Cape	3	1.00	0.00	1	1	3
Western Cape	33	1.48	1.42	1	9	49
TOTAL	151	1.80	2.28	1	24	272

Table 11C ***Question 26: How many registered pharmacist's assistants (learner post-basic) are undergoing practical training in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	5	1.20	0.45	1	2	6
Free State	9	1.44	1.01	1	4	13
Gauteng	67	1.72	1.28	1	7	115
Kwazulu-Natal	6	1.33	0.82	1	3	8
Limpopo	2	1.50	0.71	1	2	3
Mpumalanga	2	2.50	2.12	1	4	5
North West	9	1.33	0.50	1	2	12
Northern Cape	2	1.00	0.00	1	1	2
Western Cape	29	1.31	0.60	1	3	38
SOUTH AFRICA	131	1.54	1.05	1	7	202

Table 12C ***Question 27: How many unregistered persons performing acts falling within the scope of practice of pharmacists and/or pharmacist's assistants would require training in order to register as pharmacist's assistants with the Council?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	18	1.61	0.78	1	3	29
Free State	22	3.05	1.73	1	7	67
Gauteng	197	1.99	1.79	1	20	392
Kwazulu-Natal	66	2.33	2.12	1	16	154
Limpopo	18	1.94	1.26	1	6	35
Mpumalanga	20	9.75	17.80	1	84	195
North West	44	2.27	1.11	1	5	100
Northern Cape	4	2.75	0.50	2	3	11
Western Cape	91	2.16	1.67	1	9	197
SOUTH AFRICA	480	2.46	4.21	1	84	1180

Table13C ***Question 28: Are other health care professionals employed in the pharmacy?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	17	28.33	9	14.52	109	21.25	21	20.19	6	12.77	8	29.63	10	11.24	0	0.00	86	34.54	266	22.58
No	42	70.00	50	80.65	312	60.82	79	75.96	39	82.98	16	59.62	67	75.28	26	96.30	152	61.04	783	66.46
Not answered	1	1.67	3	4.84	92	17.93	4	3.85	2	4.26	3	11.11	12	13.48	1	3.70	0	0.00	129	10.95
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 14C Question 29: Is there proof of the health care professional's registration?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	12	20.00	9	14.52	76	14.81	14	13.46	4	8.51	6	22.22	7	7.87	0	0.00	67	26.91	195	16.55
No	3	5.00	0	0.00	22	4.29	2	1.92	2	4.26	2	7.41	0	0.00	0	0.00	8	3.21	39	3.31
Not applicable	41	68.33	50	80.65	310	60.43	82	78.85	39	82.98	15	55.56	68	76.40	25	92.59	153	61.45	783	66.47
Not answered	4	6.67	3	4.84	105	20.47	6	5.77	2	4.26	4	14.81	14	15.73	2	7.41	21	8.43	161	13.67
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 15C Question 30: Who does the actual picking of medicines prior to dispensing?

Frequency	Eastern cape		Free state		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Other personnel	5	8.33	1	1.61	4	0.78	13	12.50	1	2.13	2	7.41	7	7.87	0	0.00	6	2.41	39	3.31
Registered pharmacist's assistant	26	43.33	23	37.10	119	23.20	20	19.23	6	12.77	6	22.22	20	22.47	2	7.41	46	18.47	268	22.75
Pharmacist and/or intern	58	96.67	60	96.77	423	82.46	99	95.19	42	89.36	23	85.19	78	87.64	26	96.30	237	95.18	1046	88.79

Table 16C Question 31: Who hands the medicine to the patient or care-giver?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Driver/courier	0	0.00	0	0.00	44	8.58	4	3.85	0	0.00	0	0.00	13	14.61	0	0.00	83	33.33	144	12.22
Other personnel	3	5.00	0	0.00	28	5.46	3	2.88	1	2.13	0	0.00	10	11.24	0	0.00	5	2.01	50	4.24
Registered pharmacist's assistants	21	35.00	23	37.10	111	21.64	11	10.58	3	6.38	4	14.81	20	22.47	2	7.41	30	12.05	225	19.1
Pharmacist and/or pharmacist intern	58	96.67	60	96.77	418	81.48	101	97.12	43	91.49	23	85.19	77	86.52	36	96.30	236	94.78	1042	88.46

Table 17C Question 32: How many items prescribed by an authorised prescriber are dispensed per day on average?

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	60	157.93	125.33	0	550	9318
Free State	62	165.67	150.15	10	800	9940
Gauteng	513	275.29	898.63	0	12500	116997
Kwazulu-Natal	104	131.83	228.31	5	2000	13183
Limpopo	47	115.91	101.48	1	600	5100
Mpumalanga	27	171.08	218.63	12	1000	4277
North West	89	136.95	127.13	0	550	10682
Northern Cape	27	173.08	291.05	0	1500	4500
Western Cape	249	141.79	202.50	0	2554	33320
TOTAL	1178	197.07	592.40	0	12500	207317

Table 18C Question 33: How many P.I.T. items are dispensed per day on average?

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	60	65.86	60.53	2	300	3886
Free State	62	32.17	28.12	0	120	1930
Gauteng	513	55.58	127.19	0	1700	23623
Kwazulu-Natal	104	53.50	75.85	0	500	5350
Limpopo	47	45.68	42.26	0	200	2010
Mpumalanga	27	47.40	39.11	0	150	1185
North West	89	55.64	58.87	0	300	4284
Northern Cape	27	58.27	56.94	0	300	1515
Western Cape	249	59.38	89.43	0	1083	14072
TOTAL	1178	54.94	97.89	0	1700	57855

(D) REGISTRATION DETAILS

Table 19C Question 34: The name of the responsible pharmacist is displayed conspicuously in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-Langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	3.33	3	4.84	49	9.55	12	11.54	4	8.51	2	7.41	10	11.24	2	7.41	14	5.62	98	8.32
Partially complies	0	0.00	0	0.00	8	1.56	2	1.92	1	2.13	0	0.00	3	3.37	0	0.00	1	0.40	15	1.27
Complies	57	95.00	57	91.94	390	76.02	86	82.69	40	85.11	23	85.19	70	78.65	24	88.89	224	89.96	971	82.42
Not applicable	0	0.00	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	66	12.87	3	2.88	2	4.26	2	7.41	6	6.74	1	3.70	10	4.02	93	7.89
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 20C Question 35: The name of the pharmacist(s) on duty is displayed conspicuously in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	19	31.67	22	35.48	134	26.12	21	20.19	12	25.53	10	37.04	43	48.31	13	48.15	44	17.67	318	27.00
Partially complies	1	1.67	0	0.00	6	1.17	4	3.85	0	0.00	0	0.00	4	4.49	0	0.00	4	1.61	19	1.61
Complies	34	56.67	38	61.29	303	59.06	75	72.12	33	70.21	15	55.56	36	40.45	13	48.15	190	76.31	737	62.56
Not applicable	5	8.33	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	0.51
Not answered	1	1.67	2	3.23	70	13.64	3	2.88	2	4.26	2	7.41	6	6.74	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 21C Question 36: The pharmacy is conducted under the constant personal supervision of a pharmacist.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	11	2.14	1	0.96	1	2.13	0	0.00	9	10.11	0	0.00	2	0.80	24	2.03
Partially complies	1	1.67	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Complies	58	96.67	60	96.77	433	84.41	98	93.62	44	93.62	25	92.59	74	83.15	26	96.30	237	95.18	1055	89.56
Not applicable	0	0.00	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	69	13.45	3	2.88	2	4.26	2	7.41	6	6.74	1	3.70	10	4.02	96	8.15
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 22C Question 37: A currently valid annual registration card(s) is available for the pharmacist(s).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	23	4.48	4	3.85	2	4.26	0	0.00	6	6.74	0	0.00	29	11.65	65	5.52
Partially complies	0	0.00	0	0.00	28	5.46	14	13.46	0	0.00	0	0.00	0	0.00	0	0.00	6	2.41	48	4.07
Complies	58	96.67	60	96.77	395	77.00	78	75.00	42	89.36	24	88.89	75	84.27	26	96.30	202	81.12	960	81.49
Not answered	1	1.67	2	3.23	67	13.06	8	7.69	3	6.38	3	11.11	8	8.99	1	3.70	12	4.82	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 23C Question 38: A currently valid annual registration card(s) is available for the pharmacist's assistant(s) (basic/post-basic).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	1	1.61	18	3.51	1	0.96	4	8.51	1	3.70	4	4.49	0	0.00	17	6.83	47	3.99
Partially complies	1	1.67	0	0.00	13	2.53	5	4.81	0	0.00	0	0.00	1	1.12	0	0.00	3	1.20	23	1.95
Complies	21	35.00	40	64.52	248	48.34	17	16.35	18	38.30	16	59.26	37	41.57	8	29.63	44	17.67	449	38.11
Not applicable	36	60.00	19	30.65	163	31.77	78	75.00	23	48.93	7	25.93	37	41.57	18	66.67	172	69.08	553	46.94
Not answered	1	1.67	2	3.23	71	13.84	3	2.88	2	4.26	3	11.11	10	11.24	1	3.70	13	5.22	106	9.00
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 24C ***Question 39: A currently valid annual registration card(s) is available for the pharmacist's assistant(s) (learner basic/learner post-basic).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	1	1.61	12	2.34	2	1.92	3	6.38	0	0.00	2	2.25	0	0.00	9	3.61	29	2.46
Partially complies	0	0.00	0	0.00	10	1.95	1	0.96	0	0.00	0	0.00	0	0.00	1	3.70	1	0.40	13	1.10
Complies	12	20.00	27	43.55	215	41.91	8	7.69	13	27.66	12	44.44	32	35.96	5	18.52	37	14.86	361	30.65
Not applicable	47	78.33	32	51.61	205	39.96	90	86.54	29	61.70	11	40.74	43	48.31	20	74.07	190	76.31	667	56.62
Not answered	1	1.67	2	3.23	71	13.84	3	2.88	2	4.26	4	14.81	12	13.48	1	3.70	12	4.82	108	9.17
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 25C ***Question 40: A currently valid certificate for the recording of the pharmacy is available.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	0	0.00	26	5.07	7	6.73	1	2.13	1	3.70	7	7.87	0	0.00	19	7.63	64	5.43
Partially complies	1	1.67	0	0.00	15	2.92	10	9.62	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	27	2.29
Complies	52	86.67	59	95.16	399	77.78	80	76.92	44	93.62	20	74.07	66	74.16	26	96.30	211	84.74	957	81.24
Not applicable	0	0.00	0	0.00	2	0.39	2	1.92	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.34
Not answered	4	6.67	3	4.84	71	13.84	5	4.81	2	4.26	6	22.22	16	17.98	1	3.70	18	7.23	126	10.70
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(E) PREMISES AND LAYOUT

Table 26C Question 41: The premises are clean.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	9	1.75	1	0.96	0	0.00	0	0.00	3	3.37	0	0.00	2	0.80	15	1.27
Partially complies	1	1.67	0	0.00	10	1.95	1	0.96	1	2.13	0	0.00	4	4.49	0	0.00	10	4.02	27	2.29
Complies	57	95.00	60	96.77	430	83.82	99	95.19	44	93.62	25	92.59	75	84.27	26	96.30	227	91.16	1043	88.54
Not answered	2	3.33	3	3.23	64	12.48	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	10	4.02	93	7.89
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 27C Question 42: The premises are organised.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	7	1.36	1	0.96	1	2.13	0	0.00	2	2.25	0	0.00	2	0.80	14	1.19
Partially complies	0	0.00	0	0.00	8	1.56	3	2.88	0	0.00	1	3.70	1	1.12	1	3.70	4	1.61	18	1.53
Complies	57	95.00	60	96.77	432	84.21	97	93.27	44	93.42	24	88.89	79	88.76	25	92.59	233	93.57	1051	89.22
Not answered	2	3.33	2	3.23	66	12.87	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	10	4.02	95	8.06
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 28C Question 43: The floor surface in the dispensing area is of impermeable material.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	6.67	9	14.52	34	6.63	12	11.54	5	10.64	3	11.11	8	8.99	1	3.70	36	14.46	112	9.51
Partially complies	1	1.67	1	1.61	18	3.51	5	4.81	0	0.00	0	0.00	1	1.12	0	0.00	9	3.61	35	2.97
Complies	53	88.33	50	80.65	393	76.61	84	80.77	40	85.11	22	81.48	73	82.02	25	92.59	194	77.91	934	79.28
Not answered	2	3.33	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	10	4.02	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 29C Question 44: All working surfaces are finished with a smooth, impermeable and washable material.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	1	1.61	1	0.19	0	0.00	0	0.00	0	0.00	2	2.25	0	0.00	1	0.40	6	0.51
Partially complies	0	0.00	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	57	95.00	59	95.16	445	86.74	100	96.15	45	95.74	25	92.59	80	89.89	26	96.30	237	95.18	1074	91.17
Not answered	2	3.33	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 30C ***Question 45: All cupboards and shelves are finished with a smooth, impermeable and washable material.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.25	0	0.00	1	0.40	3	0.25
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	1	2.13	0	0.00	0	0.00	1	3.70	0	0.00	2	0.17
Complies	58	96.67	60	96.77	445	86.74	101	97.12	44	93.62	25	92.59	80	89.89	25	92.59	237	95.18	1075	91.26
Not applicable	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	2	3.33	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 31C ***Question 46: Approval has been obtained from Council in the event that a person who is not registered with Council conducts another practice/business within the pharmacy (Ethical Rule 13 (a))***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	14	2.73	4	3.85	0	0.00	0	0.00	1	1.12	0	0.00	13	5.22	32	2.72
Partially complies	0	0.00	0	0.00	5	0.97	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	0.42
Complies	1	1.67	3	4.84	29	5.65	2	1.92	3	6.38	2	7.41	6	6.74	0	0.00	6	2.41	52	4.41
Not applicable	57	95.00	57	91.94	392	76.41	94	90.38	42	89.36	23	85.19	74	83.15	25	92.59	220	88.35	984	83.53
Not answered	2	3.33	2	3.23	73	14.23	4	3.85	2	4.26	2	7.41	8	8.99	2	7.41	10	4.02	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 32C Question 47: There is sufficient lighting.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	1	1.61	5	0.97	0	0.00	0	0.00	0	0.00	2	2.25	0	0.00	1	0.40	9	0.76
Partially complies	0	0.00	0	0.00	6	1.17	1	0.96	0	0.00	0	0.00	0	0.00	1	3.70	2	0.80	10	0.85
Complies	59	98.33	59	95.16	436	84.99	100	96.15	45	95.74	25	92.59	81	91.01	25	92.59	235	94.38	1065	90.41
Not answered	1	1.67	2	3.23	66	12.87	3	2.88	2	4.26	2	7.41	6	6.74	1	3.70	11	4.42	94	7.98
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 33C Question 48: The temperature in the pharmacy is below 25°C (as checked with a thermometer).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	5	8.06	20	3.90	4	3.85	3	6.38	2	7.41	6	5.62	0	0.00	8	3.21	48	4.07
Partially complies	1	1.67	1	1.61	5	0.97	5	4.81	0	0.00	0	0.00	2	2,25	0	0.00	3	1.20	17	1.44
Complies	55	91.67	54	87.10	412	80.31	90	86.54	42	89.36	23	85.19	75	84.27	26	96.30	226	90.76	1003	85.14
Not answered	3	5.00	2	3.23	76	14.81	5	4.81	2	4.26	2	7.41	7	7.87	1	3.70	12	4.82	110	9.34
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 34C ***Question 49: The temperature in the pharmacy is controlled 24 hours a day with a maximum, minimum thermometer.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	18	30.00	11	17.74	67	13.06	17	16.35	5	10.64	6	22.22	17	19.10	9	33.33	40	16.06	190	16.13
Partially complies	8	13.33	9	14.52	26	5.07	12	11.54	0	0.00	3	11.11	3	3.37	0	0.00	30	12.05	91	7.72
Complies	33	55.00	40	64.52	348	67.84	72	69.23	40	85.11	16	59.26	62	69.66	17	62.96	168	67.47	796	67.56
Not answered	1	1.67	2	3.23	72	14.04	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 35C ***Question 50: The temperature in the pharmacy is recorded daily.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	26	43.33	29	46.77	163	31.77	43	41.35	21	44.68	9	33.33	37	41.57	11	40.74	88	35.34	427	36.25
Partially complies	5	8.33	0	0.00	11	2.14	10	9.62	0	0.00	1	3.70	6	6.74	1	3.70	7	2.81	41	3.48
Complies	28	46.67	31	50.00	268	52.24	48	46.15	24	51.06	15	55.56	40	44.94	14	51.85	143	57.43	611	51.87
Not answered	1	1.67	2	3.23	71	13.84	3	2.88	2	4.26	2	7.41	6	6.74	1	3.70	11	4.42	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 36C Question 51: The dispensing surface area is sufficient for the volume of prescriptions dispensed.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	4	1.61	8	0.68
Partially complies	2	3.33	0	0.00	9	1.75	3	2.88	1	2.13	0	0.00	1	1.12	1	3.70	1	0.40	18	1.53
Complies	56	93.33	60	96.77	433	84.41	98	94.23	44	93.62	24	88.89	79	88.76	25	92.59	233	93.57	1052	89.30
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	2	4.26	3	11.11	8	8.99	1	3.70	11	4.42	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 37C Question 52: The total floor area is sufficient for the efficient operation of dispensing staff.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	1	3.70	1	1.12	0	0.00	3	1.20	6	0.51
Partially complies	1	1.67	0	0.00	7	1.36	2	1.92	0	0.00	0	0.00	1	1.12	1	3.70	0	0.00	12	1.02
Complies	57	95.00	60	96.77	437	85.19	99	95.19	44	93.62	24	88.89	79	88.76	25	92.59	235	94.38	1060	89.98
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	68	13.68	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 38C Question 53: The workflow in the pharmacy is efficient.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	3	0.58	0	0.00	0	0.00	1	3.70	1	1.12	0	0.00	2	0.80	7	0.59
Partially complies	0	0.00	0	0.00	3	0.58	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	5	0.42
Complies	59	98.33	60	96.77	438	85.38	99	95.19	44	93.62	24	88.89	79	88.76	26	96.30	236	94.78	1065	90.41
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	69	13.45	4	3.85	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 39C Question 54: There is a suitable waiting area, in accordance with GPP guidelines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	3	4.84	23	4.48	8	7.69	6	12.77	2	7.41	6	6.74	0	0.00	17	6.83	68	5.77
Partially complies	0	0.00	1	1.61	9	1.75	8	7.69	3	6.38	5	18.52	3	3.37	2	7.41	5	2.01	36	3.06
Complies	56	93.33	56	90.32	410	79.92	85	81.73	36	76.60	17	62.96	74	83.15	24	88.89	216	86.75	974	82.68
Not applicable	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Not answered	1	1.67	2	3.23	69	13.45	3	2.88	2	4.26	3	11.11	6	6.74	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 40C ***Question 55: There is a suitable semi-private area for the provision of information and advice, in accordance with GPP guidelines.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	6.67	6	9.68	56	10.92	6	5.77	7	14.89	6	22.22	14	15.73	5	18.52	29	11.65	133	11.29
Partially complies	3	5.00	0	0.00	24	4.68	6	5.77	4	8.51	1	3.70	4	4.49	2	7.41	17	6.83	61	5.18
Complies	52	86.67	52	83.87	357	69.59	89	85.58	32	68.09	18	66.67	63	70.79	18	66.67	190	76.31	871	73.95
Not applicable	0	0.00	2	3.23	9	1.75	0	0.00	2	4.26	0	0.00	1	1.12	1	3.70	0	0.00	15	1.27
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	13	5.22	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 41C ***Question 56: The professional image of the dispensing area is not affected by the display of commercial material not directly linked with health.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	7	1.36	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8	0.68
Partially complies	2	3.33	0	0.00	4	0.78	4	3.85	1	2.13	0	0.00	1	1.12	0	0.00	0	0.00	12	1.02
Complies	55	91.67	44	70.97	412	80.31	94	90.38	42	89.36	24	88.89	78	87.64	23	85.19	224	89.96	996	84.55
Not applicable	1	1.67	16	25.81	19	3.70	2	1.92	2	4.26	1	3.70	4	4.49	3	11.11	14	5.62	62	5.26
Not answered	2	3.33	2	3.23	71	13.84	3	2.88	2	4.26	2	7.41	6	6.74	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 42C Question 57: Medicinal and non-medicinal products are displayed separately in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	4	0.78	0	0.00	1	2.13	0	0.00	0	0.00	0	0.00	0	0.00	6	0.51
Partially complies	2	3.33	0	0.00	0	0.00	4	3.85	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	0.51
Complies	53	88.33	52	83.87	413	80.51	91	87.50	42	89.36	24	88.89	81	91.01	25	92.59	222	89.16	1003	85.14
Not applicable	3	5.00	8	12.90	24	4.68	6	5.77	2	4.26	1	3.70	2	2.25	1	3.70	14	5.64	61	5.18
Not answered	1	1.67	2	3.23	72	14.04	3	2.88	2	4.26	2	7.41	6	6.74	1	3.70	13	5.22	102	8.66
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 43C Question 58: Only the pharmacist(s) has keys to the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	8.33	1	1.61	11	2.14	2	1.92	1	2.13	0	0.00	6	6.74	0	0.00	2	0.80	28	2.38
Partially complies	0	0.00	0	0.00	2	0.39	2	1.92	0	0.00	0	0.00	0	0.00	0	0.00	2	0.80	6	0.51
Complies	53	88.33	59	59.16	432	84.21	97	93.27	44	93.62	25	92.59	75	84.27	26	96.30	234	93.98	1045	88.71
Not answered	2	3.33	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 44C Question 59: There is sufficient security to prevent unauthorised access to medicines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	4	0.78	2	1.92	0	0.00	1	3.70	5	5.62	0	0.00	4	1.61	16	1.36
Partially complies	0	0.00	0	0.00	3	0.58	2	1.92	1	2.13	1	3.70	3	3.37	0	0.00	0	0.00	10	0.85
Complies	59	98.33	60	96.77	439	85.58	97	93.27	44	93.62	23	85.19	74	83.15	26	96.30	235	94.38	1057	89.73
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	10	4.02	95	8.06
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(F) EQUIPMENT

Table 45C Question 60: There is a facility for washing hands.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	1	1.61	17	3.31	2	1.92	1	2.13	1	3.70	3	3.37	0	0.00	6	2.41	32	2.72
Partially complies	1	1.67	0	0.00	3	0.58	6	5.77	0	0.00	0	0.00	0	0.00	0	0.00	12	4.82	22	1.87
Complies	57	95.00	59	95.16	425	82.85	93	89.42	44	93.62	24	88.89	79	88.76	26	96.30	220	88.35	1027	87.18
Not applicable	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.80
Not answered	1	0.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	96	8.15
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 46C Question 61: There is a facility for cleaning of equipment.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	13	2.53	3	2.88	3	6.38	0	0.00	3	3.37	2	7.41	5	2.01	29	2.46
Partially complies	1	1.67	0	0.00	1	0.19	4	3.85	0	0.00	0	0.00	0	0.00	0	0.00	12	4.82	18	1.53
Complies	58	96.67	60	96.77	430	83.82	92	88.46	42	89.36	25	92.59	79	88.76	24	88.89	221	88.76	1031	87.52
Not applicable	0	0.00	0	0.00	1	0.19	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Not answered	1	1.67	2	3.23	68	13.26	4	3.85	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 47C Question 62: The pharmacy has adequate pestles and mortars

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	12	2.34	2	1.92	3	6.38	1	3.70	3	3.37	0	0.00	4	1.61	26	2.21
Partially complies	0	0.00	0	0.00	3	0.58	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	5	0.42
Complies	58	96.67	60	96.77	426	83.04	97	93.27	41	87.23	24	88.89	78	87.64	26	96.30	233	93.57	1043	88.54
Not applicable	0	0.00	0	0.00	5	0.97	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	7	0.59
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 48C Question 63: The pharmacy has adequate spatulas.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	13	2.53	2	1.92	3	6.38	1	3.70	4	4.49	0	0.00	3	1.20	27	2.29
Partially complies	0	0.00	0	0.00	0	0.00	1	0.96	1	2.13	0	0.00	0	0.00	1	3.70	0	0.00	3	0.25
Complies	57	95.00	60	96.77	428	83.43	97	93.27	40	85.11	24	88.89	78	87.64	25	92.59	235	94.38	1044	88.62
Not applicable	1	1.67	0	0.00	5	0.97	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	0.59
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 49C Question 64: The pharmacy has a suitable mass meter for dispensing.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	4	6.45	43	8.38	11	10.58	12	25.53	2	7.41	18	20.22	1	3.70	14	5.62	108	9.17
Partially complies	0	0.00	0	0.00	0	0.00	3	2.88	0	0.00	0	0.00	4	4.49	1	3.70	2	0.80	10	0.85
Complies	54	90.00	55	88.71	396	77.19	86	82.69	32	68.09	23	85.19	59	66.29	22	81.48	221	88.76	948	80.48
Not applicable	2	3.33	1	1.61	7	1.36	1	0.96	0	0.00	0	0.00	1	1.12	2	7.41	1	0.40	15	1.27
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 50C Question 65: The pharmacy has adequate graduated measures

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	3	0.58	0	0.00	2	4.26	0	0.00	1	1.12	0	0.00	3	1.20	9	0.76
Partially complies	0	0.00	0	0.00	3	0.58	3	2.88	0	0.00	1	3.70	0	0.00	0	0.00	0	0.00	7	0.59
Complies	59	98.33	60	96.77	436	84.99	98	94.23	42	89.36	24	88.89	81	91.01	26	96.30	235	94.38	1061	90.07
Not applicable	0	0.00	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.25
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 51C Question 66: The pharmacy has adequate medicine containers for the dispensing of medicines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	4	0.34
Partially complies	0	0.00	0	0.00	4	0.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.34
Complies	58	96.67	60	96.77	435	84.80	101	97.12	44	93.62	25	92.59	81	91.01	26	96.30	238	95.58	1068	90.66
Not applicable	1	1.67	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.34
Not answered	1	1.67	3	3.23	68	13.26	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 52C Question 67: The pharmacy has adequate warning labels or clearly noticeable warning indicators on the label.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	6.67	7	11.29	25	4.87	2	1.92	0	0.00	4	14.81	8	8.99	0	0.00	10	4.02	60	5.09
Partially complies	1	1.67	2	3.23	19	3.70	26	25.00	0	0.00	3	11.11	0	0.00	0	0.00	1	0.40	52	4.41
Complies	53	88.33	51	82.26	398	77.58	71	68.27	44	93.62	18	66.67	72	80.90	26	96.30	227	91.16	960	81.49
Not applicable	1	1.67	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.34
Not answered	1	1.67	2	3.23	68	13.26	5	4.81	3	6.38	2	7.41	9	10.11	1	3.70	11	4.42	102	8.66
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 53C Question 68: The pharmacy has sufficient counting apparatus for tablets and capsules.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	3	0.25
Partially complies	0	0.00	0	0.00	0	0.00	2	1.92	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Complies	59	98.33	60	96.77	439	85.58	99	95.19	44	93.62	25	92.59	81	91.01	26	96.30	238	95.58	1071	90.92
Not applicable	0	0.00	0	0.00	4	0.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.34
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 54C Question 69: Counting trays are cleaned in order to prevent cross-contamination.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	29	5.65	1	0.96	0	0.00	0	0.00	8	8.99	1	3.70	1	0.40	40	3.40
Partially complies	0	0.00	0	0.00	15	2.92	4	3.85	0	0.00	0	0.00	0	0.00	1	3.70	1	0.40	21	1.78
Complies	59	98.33	60	96.77	397	77.39	96	92.31	44	93.62	25	92.59	74	83.15	24	88.89	236	94.78	1015	86.16
Not applicable	0	0.00	0	0.00	4	0.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.34
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 55C Question 70: All the equipment in the pharmacy is clean.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	6	1.17	0	0.00	0	0.00	0	0.00	2	2.25	0	0.00	0	0.00	8	0.68
Partially complies	1	1.67	0	0.00	4	0.78	2	1.92	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	8	0.68
Complies	58	96.67	60	96.77	434	84.60	99	95.19	44	93.62	25	92.59	79	88.76	26	96.30	238	95.58	1063	90.24
Not applicable	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 56C Question 71: All the equipment in the pharmacy is in good working order.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	3	1.20	7	0.59
Partially complies	0	0.00	0	0.00	2	0.39	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.25
Complies	59	98.33	60	96.77	438	85.38	99	95.19	44	93.62	25	92.59	81	91.01	26	96.30	234	93.98	1066	93.89
Not applicable	0	0.00	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	3	1.20	7	0.59
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	12	4.82	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(G) STORAGE

Table 57C Question 72: Medicines are stored according to a system.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	2	0.80	5	0.42
Partially complies	0	0.00	0	0.00	0	0.00	1	0.96	1	2.13	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Complies	58	96.67	60	96.77	445	86.74	100	96.15	44	93.62	25	92.59	81	91.01	26	96.30	236	94.78	1075	91.25
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	60.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	66	12.87	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	95	8.06
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 58C ***Question 73: Storage areas are situated so that products are protected from potentially harmful influences.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	3	0.25
Partially complies	1	1.67	0	0.00	2	0.39	2	1.92	1	2.13	0	0.00	0	0.00	0	0.00	4	1.61	10	0.85
Complies	58	96.67	60	96.77	441	85.96	99	95.19	44	93.62	25	92.59	82	92.13	26	96.30	232	93.17	1067	90.58
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	12	4.82	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 59C ***Question 74: All goods are stored off the floor.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	2	3.23	23	4.48	3	2.88	4	8.51	0	0.00	4	4.49	0	0.00	12	4.82	49	4.16
Partially complies	8	13.33	0	0.00	3	0.58	2	1.92	2	4.26	0	0.00	1	1.12	1	3.70	17	6.83	34	2.89
Complies	50	83.33	58	93.55	419	81.68	96	92.31	39	82.98	25	92.59	77	86.52	25	92.59	208	93.53	997	84.63
Not applicable	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	12	4.82	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 60C ***Question 75: Raw materials known to be at risk for cross-contamination are stored separately.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Partially complies	0	0.00	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	45	75.00	4	6.45	152	29.63	83	79.81	5	10.64	12	44.44	18	20.22	10	37.04	110	44.18	439	37.27
Not applicable	13	21.67	55	88.71	292	56.92	17	16.35	40	85.11	12	44.44	64	71.91	16	59.26	127	51.00	636	53.99
Not answered	2	3.33	3	4.84	68	13.26	3	2.88	2	4.26	3	11.11	7	7.87	1	3.70	12	4.82	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 61C ***Question 76: Proper care and control is exercised over hazardous substances which are stored separately.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Partially complies	1	1.67	0	0.00	3	0.58	2	1.92	0	0.00	0	0.00	0	0.00	0	0.00	3	1.20	9	0.76
Complies	18	30.00	24	38.71	85	16.57	57	54.81	15	31.91	9	33.33	9	10.11	9	33.33	115	46.18	341	28.95
Not applicable	39	65.00	36	58.06	358	69.79	41	39.42	30	63.83	16	59.26	73	82.02	17	62.96	119	47.79	729	61.88
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	12	4.82	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 62C Question 77: Proper care and control is exercised over flammable substances which are stored separately.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	11	2.14	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	1.02
Partially complies	2	3.33	0	0.00	2	0.39	2	1.92	0	0.00	0	0.00	0	0.00	1	3.70	1	0.40	8	0.68
Complies	10	16.67	28	45.16	167	32.55	55	52.88	20	42.55	10	37.04	14	15.73	8	29.63	135	54.22	447	37.95
Not applicable	47	78.33	32	51.61	265	51.66	43	41.35	25	53.19	15	55.56	68	76.40	17	62.96	101	40.56	613	52.04
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	12	4.82	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 63C Question 78: A system is in place to ensure effective stock rotation (refer also SOP section).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	4	0.78	2	1.92	0	0.00	3	11.11	1	1.12	0	0.00	9	3.61	19	1.61
Partially complies	0	0.00	0	0.00	1	0.19	4	3.85	0	0.00	3	11.11	1	1.12	0	0.00	21	8.43	30	2.55
Complies	59	98.33	60	96.77	440	85.77	95	91.35	44	93.62	19	70.37	79	88.76	26	96.30	207	83.13	1029	87.35
Not applicable	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	12	4.82	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 64C ***Question 79: There are no expired medicines on the shelves (as observed).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	0	0.00	44	8.58	8	7.69	1	2.13	1	3.70	12	13.48	0	0.00	4	1.61	73	6.20
Partially complies	1	1.67	0	0.00	6	1.17	4	3.85	0	0.00	0	0.00	0	0.00	0	0.00	6	2.41	17	1.44
Complies	55	91.67	60	96.77	395	77.00	89	85.58	44	93.62	24	88.89	70	78.65	26	96.30	227	91.16	990	84.04
Not applicable	1	1.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	12	4.82	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table65C ***Question 80: Expired, damaged and/or contaminated stock is clearly separated.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	3.33	0	0.00	5	0.97	2	1.92	1	2.13	0	0.00	3	3.37	0	0.00	3	1.20	16	1.36
Partially complies	0	0.00	0	0.00	3	0.58	4	3.85	0	0.00	0	0.00	0	0.00	0	0.00	2	0.80	9	0.76
Complies	57	95.00	60	96.77	435	84.80	94	90.38	44	93.62	25	92.59	78	87.64	26	96.30	232	93.17	1051	89.22
Not applicable	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	69	13.45	4	3.85	2	4.26	2	7.41	8	8.99	1	3.70	12	4.82	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 66C Question 81: Expired, damaged and/or contaminated stock is destroyed in a safe manner.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	6.67	1	1.61	12	2.34	4	3.85	0	0.00	1	3.70	3	3.37	0	0.00	14	5.62	39	3.31
Partially complies	0	0.00	2	3.23	4	0.78	13	12.50	0	0.00	3	11.11	2	2.25	1	3.70	20	8.03	45	3.82
Complies	55	91.67	57	91.94	427	83.24	83	79.81	44	93.62	21	77.78	76	85.39	25	92.59	203	81.53	991	84.13
Not answered	1	1.67	2	3.23	70	13.65	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	12	4.82	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 67C Question 82: The pharmacy has suitable refuse receptacles (with closing lids where applicable).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	5	0.97	1	0.96	0	0.00	0	0.00	3	3.37	0	0.00	2	0.80	12	1.02
Partially complies	0	0.00	2	3.23	2	0.39	3	2.88	1	2.13	0	0.00	2	2.25	1	3.70	1	0.40	12	1.02
Complies	58	96.67	58	93.55	440	85.77	97	93.27	44	93.62	25	92.59	77	86.52	25	92.59	232	93.17	1056	89.64
Not answered	1	1.67	2	3.23	66	12.87	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	14	5.62	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 68C Question 83: The receiving area is under impermeable cover.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	2	0.39	0	0.00	0	0.00	1	3.70	1	1.12	0	0.00	0	0.00	5	0.42
Partially complies	0	0.00	0	0.00	2	0.39	2	1.92	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	5	0.42
Complies	58	96.67	60	96.77	443	86.35	99	95.19	45	95.74	24	88.89	81	91.01	26	96.30	238	95.58	1074	91.17
Not answered	1	1.67	2	3.23	66	12.87	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	10	4.02	94	7.98
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 69C Question 84: The receiving area is effectively separated.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	6.67	0	0.00	12	2.34	2	1.92	10	21.28	2	7.41	1	1.12	0	0.00	5	2.01	36	3.06
Partially complies	1	1.67	0	0.00	5	0.97	8	7.69	0	0.00	0	0.00	1	1.12	0	0.00	1	0.40	16	1.36
Complies	54	90.00	60	96.77	429	83.63	91	87.50	34	72.34	22	81.48	80	89.89	26	96.30	233	93.57	1029	87.35
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	3	6.38	3	11.11	7	7.87	1	3.70	10	4.02	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 70C ***Question 85: Stock is checked on receipt for quantity, quality, damaged containers, type, storage conditions and expiry dates.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	1	1.61	5	0.97	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	0.51
Partially complies	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Complies	59	98.33	59	95.16	438	85.38	101	97.12	44	93.62	25	92.59	80	89.89	26	96.30	239	95.98	1071	90.92
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	10	4.02	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 71C ***Question 86: A list of product types requiring special storage or handling instructions is available and consulted on receipt of stock (refer also SOP section).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	17	28.33	31	50.00	202	39.38	31	29.81	24	51.06	16	59.26	48	53.93	15	55.56	34	13.65	418	35.48
Partially complies	1	1.67	0	0.00	16	3.12	11	10.58	0	0.00	1	3.70	5	5.62	2	7.41	31	12.45	67	5.69
Complies	41	68.33	29	46.77	218	42.50	58	55.77	20	42.55	7	25.93	26	29.21	9	33.33	171	68.67	579	49.15
Not applicable	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Not answered	1	1.67	2	3.23	75	14.62	4	3.85	3	6.38	3	11.11	10	11.24	1	3.70	13	5.22	112	9.51
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 72C ***Question 87: There is a system for the correct handling of the various types of goods returned from patients (refer also SOP section).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	8	12.90	12	2.34	2	1.92	0	0.00	3	11.11	3	3.37	0	0.00	13	5.22	44	3.74
Partially complies	2	3.33	0	0.00	6	1.17	2	1.92	0	0.00	3	11.11	6	6.74	1	3.70	22	8.84	42	3.57
Complies	54	90.00	52	83.87	422	82.26	97	93.27	43	91.49	19	70.37	70	78.65	25	92.59	204	81.93	986	83.70
Not applicable	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	2	0.17
Not answered	1	1.67	2	3.23	72	14.04	3	2.88	4	8.51	2	7.41	9	10.11	1	3.70	10	4.02	104	8.83
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 73C ***Question 88: Is any pre-packing performed on the premises?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	29	48.33	7	11.29	80	15.59	45	43.27	15	31.91	6	22.22	23	25.84	7	25.93	92	36.95	304	25.81
No	30	50.00	53	85.48	362	70.57	55	52.88	30	63.83	19	70.37	58	65.17	19	70.37	147	59.04	773	65.62
Not applicable	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Not answered	1	1.67	2	3.23	69	13.45	4	3.85	2	4.26	2	7.41	8	8.99	1	3.70	10	4.02	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 74C Question 89: Is pre-packing done in accordance with Regulation 33 Act 101 of 1965 (refer also SOP section).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	25.00	4	6.45	67	13.06	6	5.77	2	4.26	1	3.70	18	20.22	0	0.00	25	10.04	138	11.71
Partially complies	9	15.00	0	0.00	4	0.78	8	7.69	1	2.13	1	3.70	4	4.49	0	0.00	24	9.64	51	4.33
Complies	5	8.33	6	99.68	43	8.38	31	29.81	15	31.91	7	25.93	7	7.87	7	25.93	46	18.47	167	14.18
Not applicable	30	50.00	50	80.65	328	63.94	56	53.85	27	57.45	15	55.56	52	58.43	19	70.37	142	57.03	719	61.04
Not answered	1	1.67	2	3.23	71	13.84	3	2.88	2	4.26	3	11.11	8	8.99	1	3.70	12	4.82	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 75C Question 90: All medicine sold for human use, comply with Regulation 8 Act 101 of 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	11	18.33	0	0.00	15	2.92	5	4.81	0	0.00	0	0.00	2	2.25	0	0.00	2	0.80	35	2.97
Partially complies	1	1.67	0	0.00	2	0.39	9	8.65	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	1.02
Complies	47	78.33	60	96.77	423	82.46	87	83.65	43	91.49	25	92.59	79	88.76	26	96.30	237	95.18	1027	87.18
Not applicable	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	72	14.04	3	2.88	4	8.51	2	7.41	8	8.99	1	3.70	10	4.02	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 76C ***Question 91: All veterinary medicine sold; comply with Regulation 48 Act 101 of 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	3.33	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.34
Partially complies	1	1.67	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Complies	21	35.00	6	9.68	67	13.06	24	23.08	17	36.17	11	40.74	12	13.48	4	14.81	23	9.24	185	15.70
Not applicable	35	58.33	54	87.10	373	72.71	76	73.08	28	59.57	14	51.85	68	76.40	22	81.48	216	86.75	886	75.21
Not answered	1	1.67	2	3.23	71	13.84	3	2.88	2	4.26	2	7.41	9	10.11	1	3.70	10	4.02	101	8.58
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 77C ***Question 92: Medicines are purchased only through legally authorised entities/suppliers (as confirmed by pharmacist in charge during inspection).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Partially complies	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	57	95.00	60	96.77	439	85.58	101	97.12	44	93.62	25	92.59	80	89.89	26	96.30	239	95.98	1071	90.92
Not answered	2	3.33	2	3.23	73	14.23	3	2.88	3	6.38	2	7.41	9	10.11	1	3.70	10	4.02	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 78C Question 93: There are no unregistered medicines on the premises (as observed).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	15	2.92	2	1.92	0	0.00	0	0.00	1	1.12	0	0.00	4	1.61	22	1.87
Partially complies	1	1.67	0	0.00	5	0.97	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	1.20	9	0.76
Complies	56	93.33	59	95.16	442	86.16	100	96.15	45	95.74	25	92.59	80	89.89	25	92.59	236	94.78	1068	90.66
Not answered	1	1.67	2	3.23	70	13.65	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	10	4.02	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(H) CONTROL OF MEDICINES/RECORD KEEPING

Table 80C Question 94: A computerised programme is used for dispensing.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	56	93.33	59	95.16	442	86.16	100	96.15	45	95.74	25	92.59	80	89.89	25	92.59	236	94.78	1068	90.66
No	1	1.67	1	1.61	3	0.58	1	0.96	0	0.00	0	0.00	2	2.25	1	3.70	3	1.20	12	1.02
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	2	3.33	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	10	4.02	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 81C Question 95: An effective stock control system is in place.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	3.33	10	16.13	18	3.51	2	1.92	0	0.00	0	0.00	2	2.25	1	3.70	4	1.61	39	3.31
Partially complies	2	3.33	0	0.00	1	0.19	3	2.88	0	0.00	0	0.00	3	3.37	2	7.41	2	0.80	13	1.10
Complies	55	91.67	50	80.65	425	82.85	96	92.31	44	93.62	25	92.59	77	86.52	22	81.48	233	93.57	1027	87.18
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	3.70	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	69	13.45	3	2.88	3	6.38	2	7.41	7	7.87	1	3.70	10	4.02	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 82C Question 96: A computerised programme is used for stock control.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	34	56.67	37	59.68	260	50.68	59	56.73	23	48.94	11	40.74	44	49.44	12	44.44	159	63.86	639	54.24
No	24	40.00	22	35.48	183	35.67	42	40.38	21	44.68	13	48.15	38	42.70	14	51.85	80	32.13	437	37.09
Not answered	2	3.33	3	4.84	70	13.65	3	2.88	3	6.38	3	11.11	7	7.87	1	3.70	10	4.02	102	8.66
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 83C ***Question 97: A prescription book/permanent record for S2-S6 medicines is kept as required in Regulation 11(1) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	11	2.14	1	0.96	0	0.00	1	3.70	4	4.49	0	0.00	3	1.20	20	1.70
Partially complies	2	3.33	0	0.00	7	1.36	3	2.88	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	13	1.10
Complies	57	95.00	60	96.77	426	83.04	96	92.31	44	93.62	24	88.89	75	84.27	26	96.30	236	94.78	1044	88.62
Not answered	1	1.67	2	3.23	69	13.45	4	3.85	3	6.38	2	7.41	9	10.11	1	3.70	10	4.02	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 84C ***Question 98: A prescription record is kept for 5 years as required in Regulation 11(3) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	4	0.78	0	0.00	0	0.00	1	3.70	0	0.00	0	0.00	1	0.40	6	0.51
Partially complies	1	1.67	0	0.00	2	0.39	1	0.96	0	0.00	1	3.70	0	0.00	0	0.00	1	0.40	6	0.51
Complies	57	95.00	60	96.77	436	84.99	99	95.19	44	93.62	23	85.19	80	89.89	26	96.30	237	95.18	1062	90.15
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	71	13.84	4	3.85	3	6.38	2	7.41	9	10.11	1	3.70	10	4.02	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 85C ***Question 99: Original prescriptions are kept in a safe place and are easily retrievable.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.69	0	0.00	3	0.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.42	5	0.42
Partially complies	0	0.00	0	0.00	0	0.00	1	0.99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	57	96.61	60	100.0	440	98.88	100	99.01	44	97.78	25	100.0	80	97.56	26	100.0	237	99.16	1069	90.75
Not applicable	1	1.69	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.42	2	0.17
Not answered	0	0.00	0	0.00	2	0.45	0	0.00	1	2.22	0	0.00	2	2.44	0	0.00	0	0.00	5	0.42
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 86C ***Question 100: A patient profile detailing all prescriptions dispensed to the patient is kept for 2 years.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	6	1.17	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	6	2.41	15	1.27
Partially complies	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	2	0.17
Complies	57	95.00	60	96.77	434	84.60	99	95.19	44	93.62	25	92.59	79	88.76	26	96.30	233	93.57	1057	89.73
Not applicable	1	1.69	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.25
Not answered	1	1.67	2	3.23	70	13.65	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	10	4.02	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 87C ***Question 101: A patient profile detailing all P.I.T. dispensed to the patient is kept for 2 years.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	0	0.00	6	1.17	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	9	3.61	20	1.69
Partially complies	0	0.00	0	0.00	3	0.58	3	2.88	1	2.13	0	0.00	2	2.25	1	3.70	7	2.81	17	1.44
Complies	55	91.67	58	93.55	421	82.07	95	91.35	41	87.23	24	88.89	76	85.39	23	85.19	221	88.76	1014	86.08
Not applicable	1	1.67	2	3.23	11	2.14	1	0.96	2	4.26	1	3.70	2	2.25	2	7.41	2	0.80	24	2.04
Not answered	1	1.67	2	3.23	72	14.04	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	10	4.02	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 88C ***Question 102: S1-S5 medicines are stored/displayed in areas inaccessible to the public.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	6.67	0	0.00	32	6.24	9	8.65	1	2.13	0	0.00	8	8.99	0	0.00	10	4.02	64	5.43
Partially complies	8	13.33	2	3.23	4	0.78	15	14.42	0	0.00	2	7.41	4	4.49	0	0.00	56	22.49	91	7.72
Complies	47	78.33	58	93.55	407	79.34	77	74.04	43	91.49	23	85.19	70	78.65	26	96.30	173	69.48	924	78.44
Not applicable	0	0.00	0	0.00	1	0.19	0	0.00	1	2.13	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Not answered	1	1.67	2	3.23	69	13.45	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	10	4.02	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 89C ***Question 103: All S1 medicine sales are recorded in a prescription book/permanent record as required in Regulation 11(2) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	25.00	5	8.06	84	16.37	25	24.04	3	6.38	2	7.41	22	24.72	1	3.70	62	24.90	219	18.59
Partially complies	3	5.00	3	4.84	38	7.41	11	10.58	1	2.13	0	0.00	7	7.87	0	0.00	30	12.05	93	7.89
Complies	39	65.00	50	80.65	316	61.60	64	61.54	39	82.98	23	85.19	51	57.30	25	92.59	146	58.63	753	63.92
Not applicable	1	1.67	2	3.23	6	1.17	1	0.96	2	4.26	0	0.00	1	1.12	0	0.00	1	0.40	14	1.19
Not answered	2	3.33	2	3.23	69	13.45	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	10	4.02	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 90C ***Question 104: All S2 medicine sales are recorded in a prescription book/permanent record as required in Regulation 11(1) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	11	18.33	5	8.06	78	15.20	9	8.65	2	4.26	3	11.11	18	20.22	0	0.00	17	6.83	143	12.14
Partially complies	4	6.67	3	4.84	37	7.21	12	11.54	1	2.13	0	0.00	7	7.87	0	0.00	19	7.63	83	7.05
Complies	43	71.67	50	80.65	322	62.77	79	75.96	40	85.11	22	81.48	55	61.80	26	96.30	202	81.12	839	71.22
Not applicable	0	0.00	2	3.23	6	1.17	1	0.96	2	4.26	0	0.00	1	1.12	0	0.00	1	0.40	13	1.10
Not answered	2	3.33	2	3.23	70	13.65	3	2.88	2	4.26	2	7.41	8	80.99	1	3.70	10	4.02	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 91C ***Question 105: Are S6 medicines ordered, stored or supplied at any time?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	51	85.00	56	90.32	393	76.61	87	83.65	31	65.96	23	85.19	66	74.16	23	85.19	224	89.96	954	80.98
No	6	10.00	4	6.45	48	9.36	13	12.50	13	27.66	2	7.41	15	16.85	3	11.11	14	5.62	118	10.02
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	3	5.00	2	3.23	72	14.04	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	10	4.02	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 92C ***Question 106: There is a system in place for the correct handling by the pharmacist of specified S5 and S6 medicines (refer also SOP section).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	1	1.61	43	8.38	4	3.85	0	0.00	2	7.41	11	12.36	0	0.00	49	19.68	111	9.42
Partially complies	4	6.67	22	35.48	44	8.58	4	3.85	1	2.13	4	14.81	3	3.37	1	3.70	14	5.62	97	8.23
Complies	48	80.00	35	56.45	319	62.18	86	82.69	34	72.34	18	66.67	53	59.55	24	88.89	165	66.27	782	66.38
Not applicable	6	10.00	2	3.23	37	7.21	6	5.77	9	19.15	1	3.70	14	15.73	1	3.70	11	4.42	87	7.39
Not answered	1	1.67	2	3.23	70	13.65	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	10	4.02	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 93C Question 107: S6 medicines are locked away and the key is under the control of the pharmacist.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	5	0.97	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	2	0.80	10	0.85
Partially complies	0	0.00	0	0.00	0	0.00	2	1.92	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	3	0.25
Complies	50	83.33	56	90.32	392	76.41	85	81.73	33	70.21	23	85.19	65	73.03	22	81.48	222	89.16	948	80.48
Not applicable	7	11.67	4	6.45	47	9.16	13	12.50	12	25.53	2	7.41	14	15.73	4	14.81	15	6.02	118	10.02
Not answered	2	3.33	2	3.23	69	13.45	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	10	4.02	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 94C Question 108: Record is kept of all S5 medicines purchases.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	5	8.06	30	5.85	7	6.73	2	4.26	1	3.70	6	6.74	6	22.22	29	11.65	86	7.30
Partially complies	2	3.33	0	0.00	11	2.14	11	10.58	2	4.26	1	3.70	4	4.49	0	0.00	17	6.83	48	4.07
Complies	52	86.67	54	87.10	371	72.32	79	75.96	36	76.60	22	81.48	58	65.17	18	66.67	185	74.30	875	74.28
Not applicable	4	6.67	1	1.61	31	6.04	4	3.85	4	8.51	1	3.70	13	14.61	2	7.41	7	2.81	67	5.69
Not answered	2	3.33	2	3.23	70	13.65	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	102	8.66
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 95C ***Question 109: There is a up-to-date register of all specified S5 & S6 purchases and sales as required in Regulation 30 of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	3	4.84	94	18.32	10	9.62	2	4.26	1	3.70	22	24.72	1	3.70	51	20.48	187	15.87
Partially complies	5	8.33	27	43.55	70	13.65	35	33.65	7	14.89	0	0.00	10	11.24	12	44.44	16	6.43	182	15.45
Complies	47	78.33	29	46.77	244	47.56	51	49.04	29	61.70	23	85.19	36	40.45	11	40.74	161	64.66	631	53.57
Not applicable	3	5.00	1	1.61	36	7.02	5	4.81	6	12.77	1	3.70	13	14.61	2	7.41	11	4.42	78	6.62
Not answered	2	3.33	2	3.23	69	13.45	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	10	4.02	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 96C ***Question 110: The specified S5 & S6 substances register was balanced on the last day of March, June, September and December of each year within 14 days as required in Regulation 30(2) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	4	6.45	79	15.40	11	10.58	2	4.26	2	7.41	21	23.60	1	3.70	52	20.88	175	14.86
Partially complies	9	15.00	28	45.16	71	13.84	33	31.73	6	12.77	0	0.00	11	12.36	14	51.85	20	8.03	192	13.30
Complies	42	70.00	27	43.55	254	49.51	50	48.08	30	63.83	21	77.78	36	40.45	9	33.33	156	62.65	625	50.06
Not applicable	4	6.67	1	1.61	38	7.41	6	5.77	6	12.77	2	7.41	13	14.61	2	7.41	11	4.42	83	7.05
Not answered	2	3.33	2	3.23	71	13.48	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	10	4.02	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 97C Question 111: Does the pharmacy deliver medicines by mail?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	4	6.67	0	0.00	12	2.34	0	0.00	1	2.13	0	0.00	1	1.12	1	3.70	4	1.61	23	1.95
No	55	91.67	60	96.77	435	84.80	98	94.23	44	93.62	25	92.59	81	91.01	25	92.59	234	93.98	1057	89.73
Not answered	1	1.67	2	3.23	66	12.87	6	5.77	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 98C Question 112: Does the pharmacy deliver medicines by courier?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	8	13.33	0	0.00	39	7.60	3	2.88	1	2.13	1	3.70	0	0.00	4	14.81	16	6.43	72	6.11
No	51	85.00	59	95.16	407	79.34	95	91.35	44	93.62	24	88.89	82	92.13	22	81.48	222	89.16	1006	85.40
Not answered	1	1.67	3	4.84	67	13.06	6	5.77	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 99C Question 113: Does the pharmacy deliver medicines by delivery person?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	41	68.33	45	72.58	283	55.17	63	60.58	28	59.57	17	62.96	57	64.04	18	66.67	155	62.25	707	60.02
No	18	30.00	15	24.19	163	31.77	37	35.58	17	36.17	8	29.63	25	28.09	8	29.63	83	33.33	374	31.75
Not answered	1	1.67	2	3.23	67	13.06	4	3.85	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 100C Question 114: Does the pharmacy deliver medicines by any other means (e.g. train etc.)?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	0	0.00	1	0.19	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	3	0.25
No	59	98.33	59	95.16	445	86.74	97	93.27	45	95.74	25	92.59	82	92.13	26	96.30	237	95.18	1075	91.26
Not answered	1	1.67	3	4.84	67	13.06	6	5.77	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Such indirect supplies (refer question 111-114) comply with all GPP requirements i.r.o. the following :

Table 101C Question 116: A control system is implemented that enables detection and correction of a delay in the delivery process.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	1	3.70	0	0.00	0	0.00	24	9.64	26	2.21
Partially complies	1	1.67	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14	5.62	17	1.44
Complies	44	73.33	44	70.97	311	60.62	62	59.62	29	61.70	16	59.26	52	58.43	9	33.33	123	49.40	690	58.57
Not applicable	14	23.33	16	25.81	131	25.54	39	37.50	16	34.04	8	29.63	30	33.71	17	62.96	77	30.92	348	29.54
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 102C Question 117: Medicines are packaged and stored in accordance with registration requirements throughout the delivery process.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	2	0.17
Complies	45	75.00	44	70.97	225	43.86	63	60.58	29	61.70	17	62.96	37	41.57	10	37.04	157	63.05	627	53.23
Not applicable	14	23.33	16	25.81	216	42.11	38	36.54	16	34.04	8	29.63	45	50.56	16	59.26	80	32.13	449	38.12
Not answered	1	1.67	2	3.23	71	13.84	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 103C ***Question 118: Control is exercised so that products are not subjected to unacceptable degrees of any adverse influences during the transportation process.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	2	0.17
Partially complies	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	45	75.00	44	70.97	223	43.47	64	61.54	29	61.70	16	59.26	37	41.57	11	40.74	158	63.45	627	53.23
Not applicable	14	23.33	16	25.81	216	42.11	37	35.58	16	34.04	9	33.33	45	50.56	15	55.56	79	31.73	447	37.95
Not answered	1	1.67	2	3.23	72	14.04	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 104C ***Question 119: Medicines prescribed for acute ailments or conditions are not delivered by mail/courier/train.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	3	0.25
Complies	8	13.33	22	35.48	153	29.82	28	26.92	29	61.70	16	59.26	18	20.22	7	25.93	44	17.67	325	27.59
Not applicable	51	85.00	38	61.29	289	56.34	73	70.19	16	34.04	9	33.33	64	71.91	19	70.37	193	77.51	752	63.84
Not answered	1	1.67	2	3.23	69	13.45	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(I) THERMOLABILE MEDICINES

Table 105C Question 120: Are thermolabile medicines purchased, stored or supplied at any time?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	57	95.00	58	93.55	432	84.21	97	93.27	38	80.85	23	85.19	76	85.39	26	96.30	235	94.38	1042	88.46
No	1	1.67	2	3.23	10	1.95	2	1.92	6	12.77	2	7.41	5	5.62	0	0.00	3	1.20	31	2.63
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	71	13.84	5	4.81	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	104	8.83
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 106C Question 121: All thermolabile medicines are stored in a refrigerator.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	1	0.40	3	0.25
Partially complies	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	56	93.33	58	93.55	437	85.19	98	94.23	38	80.85	24	88.89	75	84.27	26	96.30	234	93.98	1046	88.79
Not applicable	2	3.33	2	3.23	8	1.56	2	1.92	7	14.89	1	3.70	5	5.62	0	0.00	3	1.20	30	2.55
Not answered	2	3.33	2	3.23	66	12.87	4	3.85	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 107C Question 122: Only medicines are stored in the refrigerator.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	7	11.67	4	6.45	67	13.06	7	6.73	0	0.00	1	3.70	16	17.98	1	3.70	16	6.43	119	10.10
Partially complies	0	0.00	0	0.00	3	0.58	5	4.81	0	0.00	1	3.70	3	3.37	0	0.00	9	3.61	21	1.78
Complies	49	81.67	54	87.10	369	71.93	86	82.69	38	80.85	22	81.48	57	64.04	25	92.59	210	84.34	910	77.25
Not applicable	2	3.33	2	3.23	8	1.56	2	1.92	6	12.77	1	3.70	5	5.62	0	0.00	3	1.20	29	2.46
Not answered	2	3.33	2	3.23	66	12.87	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 108C Question 123: Medicines are stored in the refrigerator according to a system.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	17	3.31	3	2.88	0	0.00	1	3.70	1	1.12	0	0.00	10	4.02	32	2.72
Partially complies	9	15.00	0	0.00	8	1.56	7	6.73	0	0.00	0	0.00	3	3.37	0	0.00	0	0.00	27	2.29
Complies	47	78.33	58	93.55	413	80.51	88	84.62	38	80.85	23	85.19	70	78.65	26	96.30	224	89.96	987	83.79
Not applicable	2	3.33	2	3.23	9	1.75	2	1.92	7	14.89	1	3.70	5	5.62	0	0.00	4	1.61	32	2.72
Not answered	2	3.33	2	3.23	66	12.87	4	3.85	2	4.26	2	7.41	10	11.24	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 109C Question 124: The refrigerator is suitable and in good working order.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	3	0.58	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	16	6.43	21	1.78
Partially complies	1	1.67	1	1.61	9	1.75	2	1.92	0	0.00	0	0.00	1	1.12	1	3.70	15	6.02	30	2.55
Complies	56	93.33	57	91.94	428	83.43	96	92.31	38	80.85	25	92.59	74	83.15	25	92.59	204	81.93	1003	85.14
Not applicable	1	1.67	2	3.23	7	1.36	2	1.92	7	14.89	0	0.00	5	5.62	0	0.00	3	1.20	27	2.29
Not answered	2	3.33	2	3.23	66	12.87	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 110C Question 125: The temperature of the refrigerator is between 2°C and 8°C (as checked with a thermometer).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	6.67	1	1.61	21	4.09	4	3.85	3	6.38	0	0.00	2	2.25	2	7.41	6	2.41	43	3.65
Partially complies	6	10.00	0	0.00	4	0.78	3	2.88	0	0.00	0	0.00	0	0.00	1	3.70	7	2.81	21	1.78
Complies	47	78.33	57	91.94	412	80.31	92	88.46	35	74.47	25	92.59	74	83.15	23	85.19	222	89.16	987	83.79
Not applicable	1	1.67	2	3.23	7	1.36	2	1.92	7	14.89	0	0.00	5	5.62	0	0.00	3	1.20	27	2.29
Not answered	2	3.33	2	3.23	69	13.45	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 111C Question 126: The temperature of the refrigerator is controlled 24 hours a day as demonstrated by a maximum/minimum thermometer.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	25.00	10	16.13	54	10.53	21	20.19	3	6.38	2	7.41	17	19.10	13	48.15	44	17.67	179	15.20
Partially complies	10	16.67	14	22.58	21	4.09	18	17.31	2	4.26	5	18.52	3	3.37	1	3.70	39	15.66	113	9.59
Complies	32	53.33	34	54.84	361	70.37	60	57.69	33	70.21	18	66.67	56	62.92	12	44.44	152	61.04	758	64.35
Not applicable	1	1.67	2	3.23	7	1.36	2	1.92	7	14.89	0	0.00	5	5.62	0	0.00	3	1.20	27	2.29
Not answered	2	3.33	2	3.23	70	13.65	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 112C Question 127: The temperature of the refrigerator is recorded twice daily in accordance with GPP guidelines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	21	35.00	30	48.39	147	28.65	44	42.31	16	34.04	9	33.33	34	38.20	14	51.85	81	32.53	396	33.62
Partially complies	24	40.00	7	11.29	59	11.50	18	17.31	0	0.00	0	0.00	4	4.49	4	14.81	20	8.03	136	11.54
Complies	12	20.00	21	33.87	231	45.03	37	35.58	22	46.81	15	55.56	38	42.70	8	29.63	134	53.82	51-8	43.97
Not applicable	1	1.67	2	3.23	8	1.56	2	1.92	7	14.89	1	3.70	5	5.62	0	0.00	3	1.20	29	2.46
Not answered	2	3.33	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 113C Question 128: Thermolabile medicines are stored/supplied maintaining the cold chain.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	7	1.36	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	3	1.20	12	1.02
Partially complies	0	0.00	0	0.00	15	2.92	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	17	1.44
Complies	56	93.33	57	91.94	417	81.29	96	92.31	38	80.85	24	88.89	73	82.02	26	96.30	233	93.57	1020	86.59
Not applicable	1	1.67	3	4.84	8	1.56	2	1.92	7	14.89	1	3.70	5	5.62	0	0.00	2	0.80	29	2.46
Not answered	2	3.33	2	3.23	66	12.87	5	4.81	2	4.26	2	7.41	9	10.11	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(J) DISPENSING OF PRESCRIPTIONS

Table 114C Question 129: Generic substitution is applied in accordance with Section 22(F) of Act 101 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	4	0.34
Partially complies	0	0.00	0	0.00	5	0.97	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	0.42
Complies	58	96.67	60	96.77	432	84.21	101	97.12	44	93.62	25	92.59	80	89.89	25	92.59	239	95.98	1064	90.32
Not applicable	1	1.67	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.34
Not answered	1	1.67	2	3.23	70	13.65	3	2.88	3	6.38	2	7.41	8	8.99	2	7.41	10	4.02	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 115C Question 130: Dispensed medicine is labelled as required in Regulation 8(4) of Act 101 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	3.33	0	0.00	4	0.78	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	2	0.80	9	0.76
Partially complies	0	0.00	0	0.00	1	0.19	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	3	0.25
Complies	56	93.33	60	96.77	438	85.38	100	96.15	44	93.62	25	92.59	79	88.76	26	96.30	236	94.78	1064	90.32
Not applicable	1	1.67	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.17
Not answered	1	1.67	2	3.23	69	13.45	3	2.88	3	6.38	2	7.41	9	10.11	1	3.70	10	4.02	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 116C Question 131: The pharmacists checks the dispensed medicine after it has been labelled and before it is handed or delivered to the patient.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	5	0.97	0	0.00	0	0.00	0	0.00	4	4.49	0	0.00	2	0.80	11	0.39
Partially complies	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	58	96.67	60	96.77	439	85.58	101	97.12	44	93.62	25	92.59	77	86.52	26	96.30	237	95.18	1067	90.58
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	10	4.02	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 117C Question 132: The original prescription states who the dispenser was.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	0	0.00	29	5.65	11	10.58	0	0.00	1	3.70	8	8.99	4	14.81	4	1.61	60	5.09
Partially complies	0	0.00	1	1.61	6	1.17	4	3.85	0	0.00	0	0.00	1	1.12	0	0.00	3	1.20	15	1.27
Complies	55	91.67	59	95.16	410	79.92	86	82.69	45	95.74	24	88.89	72	80.90	22	81.48	231	92.77	1004	85.23
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 118C Question 133: The final price that the patient pays is indicated on the copy for the payer (as applicable).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	4	0.78	0	0.00	0	0.00	0	0.00	0	0.00	1	3.70	1	0.40	7	0.59
Partially complies	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	57	95.00	59	95.16	436	84.99	101	97.12	44	93.62	17	62.96	78	87.64	25	92.59	238	95.58	1055	89.56
Not applicable	1	1.67	1	1.61	4	0.78	0	0.00	1	2.13	8	29.63	3	3.37	0	0.00	0	0.00	18	1.53
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	10	4.02	97	8.23
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(K) PROVISION OF PHARMACEUTICAL CARE

Table 119C Question 134: The pharmacist obtains all the relevant patient information before dispensing the prescription.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	5	0.97	1	0.96	0	0.00	0	0.00	5	5.62	0	0.00	2	0.80	13	1.10
Partially complies	0	0.00	0	0.00	2	0.39	1	0.96	1	2.13	0	0.00	1	1.12	0	0.00	0	0.00	5	0.42
Complies	58	96.67	60	96.77	437	85.19	99	95.19	43	91.49	25	92.59	75	84.27	25	92.59	235	94.38	1057	89.73
Not applicable	1	1.67	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	3	0.25
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	8	8.99	2	7.41	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 120C Question 135: The pharmacist evaluates the prescription to identify any possible problems before dispensing the prescription.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	6	1.17	0	0.00	0	0.00	0	0.00	4	4.49	0	0.00	2	0.80	12	1.02
Partially complies	0	0.00	0	0.00	2	0.39	1	0.96	1	2.13	0	0.00	1	1.12	0	0.00	0	0.00	5	0.42
Complies	58	96.67	60	96.77	437	85.19	100	96.15	43	91.49	25	92.59	75	84.27	26	96.30	235	94.38	1059	89.90
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	1	0.40	3	0.25
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	99	8.40
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 121C Question 136: The pharmacist takes the necessary action if there are any problems with the prescription and/or medicines prescribed.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	5	0.97	0	0.00	0	0.00	0	0.00	4	4.49	0	0.00	2	0.80	11	0.93
Partially complies	0	0.00	0	0.00	2	0.39	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	4	0.34
Complies	58	96.67	60	96.77	437	85.19	100	96.15	44	93.62	25	92.59	75	84.27	26	96.30	235	94.38	1060	89.98
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	1	0.40	3	0.25
Not answered	1	1.67	2	3.23	69	13.45	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 122C Question 137: The pharmacist gives advice tot the patient or care-giver after the prescription has been dispensed.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	7	1.36	0	0.00	0	0.00	0	0.00	4	4.49	0	0.00	5	2.01	16	1.36
Partially complies	0	0.00	0	0.00	3	0.58	2	1.92	0	0.00	1	3.70	1	1.12	0	0.00	1	0.40	8	0.68
Complies	58	96.67	60	96.77	432	84.21	99	95.19	44	93.62	24	88.89	75	84.27	26	96.30	231	92.77	1049	89.05
Not applicable	1	1.67	0	0.00	2	0.39	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	1	0.40	5	0.42
Not answered	1	1.67	2	3.23	69	13.45	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 123 C Question 138: The pharmacist gives advice to the patient who receives OTC medicines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	0	0.00	7	1.36	1	0.96	0	0.00	0	0.00	4	4.49	0	0.00	7	2.81	22	1.87
Partially complies	0	0.00	0	0.00	3	0.58	3	2.88	0	0.00	1	3.70	3	3.37	0	0.00	1	0.40	11	0.93
Complies	56	93.33	58	93.55	421	82.07	96	92.31	42	89.36	23	85.19	71	79.78	24	88.89	227	91.16	1018	86.42
Not applicable	0	0.00	2	3.23	11	2.14	1	0.96	2	4.26	1	3.70	3	3.37	2	7.41	2	0.80	24	2.04
Not answered	1	1.67	2	3.23	71	13.84	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	12	4.82	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 124C Question 139: Adice is given to the patient in a suitable semi-private area.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	8.33	2	3.23	35	6.82	6	5.77	6	12.77	4	14.81	15	16.85	2	7.41	22	8.84	97	8.23
Partially complies	3	5.00	1	1.61	20	3.90	4	3.85	5	10.64	3	11.11	3	3.37	2	7.41	17	6.83	58	4.92
Complies	51	85.00	57	91.94	382	74.46	91	87.50	33	70.21	18	66.67	62	69.66	22	81.48	194	77.91	910	77.25
Not applicable	0	0.00	0	0.00	5	0.97	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	1	0.40	7	0.59
Not answered	1	1.67	2	3.23	71	13.84	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	15	6.02	106	9.00
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 125C Question 140: Support aids are used when supplying advice (as observed).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	14	23.33	1	1.61	40	7.80	7	6.73	7	14.38	6	22.22	16	17.98	2	7.41	13	5.22	106	9.00
Partially complies	1	1.67	0	0.00	1	0.19	2	1.92	0	0.00	0	0.00	10	11.24	1	3.70	2	0.80	17	1.44
Complies	44	73.33	57	91.94	387	75.44	90	86.54	37	78.72	18	66.67	50	56.18	22	81.48	220	88.35	925	78.52
Not applicable	0	0.00	0	0.00	5	0.97	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	1	0.40	7	0.59
Not answered	1	1.67	4	6.45	80	15.59	5	4.81	3	6.38	3	11.11	12	13.48	2	7.41	13	5.22	123	10.44
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 126C Question 141: Form(s) of support aids used:

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Not applicable Not used	59	100.0	59	98.33	438	98.21	101	100.0	43	95.56	25	100.0	79	96.34	26	100.0	238	99.58	1068	90.66
Pamphlets/ information leaflets	43	72.88	11	18.33	230	51.57	83	82.18	27	60.00	9	36.00	36	43.90	11	42.31	188	78.66	638	54.16
Manufacturers package inserts	38	64.41	39	65.00	220	49.33	71	70.30	8	17.78	3	12.00	34	41.46	13	50.00	173	72.38	599	50.85
Computer printouts	21	35.59	2	3.33	41	9.19	5	4.95	2	4.44	3	12.00	11	13.41	6	23.08	39	16.32	130	11.04
Visual aids e.g. posters	17	28.81	0	0.00	60	13.45	18	17.82	2	4.44	1	4.00	13	15.85	2	7.69	17	7.11	130	11.04

Table 127C Question 142: Patient information leaflets are available at the dispensary.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	34	56.67	16	25.81	158	30.80	17	16.35	11	23.40	11	40.74	45	50.56	8	29.63	98	39.36	398	33.79
Partially complies	16	26.67	1	1.61	11	2.14	9	8.65	1	2.13	1	3.70	10	11.24	2	7.41	68	27.31	119	10.10
Complies	8	13.33	42	67.74	261	50.88	75	72.12	31	65.96	9	33.33	23	25.84	16	59.26	70	28.11	535	45.42
Not applicable	1	1.67	1	1.61	4	0.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	7	0.59
Not answered	1	1.67	2	3.23	79	15.40	3	2.88	4	8.51	6	22.22	11	12.36	1	3.70	12	4.82	119	10.10
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 128C Question 143: A procedure is in place for monitoring the patient's progress.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	12	20.00	30	48.39	202	39.38	9	8.65	24	51.06	16	59.26	43	48.31	6	22.22	24	9.64	366	31.07
Partially complies	7	11.67	6	9.68	10	1.95	28	26.92	3	6.38	0	0.00	16	17.98	1	3.70	15	6.02	86	7.30
Complies	40	66.67	24	38.71	184	35.87	64	61.54	16	34.04	4	14.81	19	21.35	19	70.37	196	78.71	566	48.05
Not applicable	0	0.00	0	0.00	27	5.26	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	1.20	30	2.55
Not answered	1	1.67	2	3.23	90	17.54	3	2.88	4	8.51	7	25.93	11	12.36	1	3.70	11	4.42	130	11.04
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 129C Question 144: A pharmacist can be contacted 24 hours a day.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	54	91.53	56	93.33	280	62.64	93	92.08	42	93.33	20	80.00	61	74.39	20	76.92	231	96.65	857	72.75
No	5	8.47	4	6.67	146	32.66	8	7.92	2	4.44	4	16.00	18	21.95	6	23.08	5	2.09	198	16.81
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.42	1	0.08
Not answered	0	0.00	0	0.00	21	4.70	0	0.00	1	2.22	1	4.00	3	3.66	0	0.00	2	0.84	28	2.38
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

The number of hours the pharmacies is open.

Table 130C Question 145: Mondays to Thursdays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum	TOTAL
Eastern Cape	59	10.13	1.61	7.5	14.75	597.75	60
Free State	60	10.10	1.67	7	15	606	62
Gauteng	446	10.38	1.77	3	24	4630.75	513
Kwazulu-Natal	101	9.41	1.82	1	16	950.25	104
Limpopo	45	9.60	1.57	3	14	432	47
Mpumalanga	25	9.79	1.11	7.5	12	244.75	27
North West	81	9.99	1.41	6.5	13	809	89
Northern Cape	26	9.94	1.54	7	13.5	258.5	27
Western Cape	238	10.20	10.20	0	24	2427.05	27
TOTAL	1081	10.14	1.82	0	24	10956.05	1178

Table 131C Question 146: Fridays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum	TOTAL
Eastern Cape	59	10.14	1.60	7.5	14.75	598.25	60
Free State	60	10.08	1.67	7	15	605	62
Gauteng	446	10.31	1.97	0	24	4596.25	513
Kwazulu-Natal	101	9.18	2.16	0	16	926.90	104
Limpopo	45	9.62	1.55	3	14	433	47
Mpumalanga	25	9.64	1.36	6	12	241	27
North West	81	9.75	1.92	0	13	789	89
Northern Cape	26	9.81	1.66	7	13.5	255	27
Western Cape	238	10.09	2.24	0	24	2401.30	27
TOTAL	1081	10.03	2.00	0	24	10846.20	1178

Table 132C Question 147: Saturdays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum	TOTAL
Eastern Cape	59	6.78	3.12	3.5	14.75	400.25	60
Free State	60	6.11	2.61	2	15	366.75	62
uteng	446	6.61	3.31	0	24	2948.75	513
Kwazulu-Natal	101	5.88	2.83	0	16	593.95	104
Limpopo	45	5.68	2.20	0	14	255.50	47
Mpumalanga	25	5.65	1.37	4	10	141.25	27
North West	81	6.06	1.93	0	14	490.50	89
Northern Cape	26	5.46	1.99	3	12	142	27
Western Cape	238	6.95	3.46	0	24	1654.75	27
TOTAL	1081	6.47	2.00	0	24	6993.70	1178

Table 133C Question 148: Sundays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum	TOTAL
Eastern Cape	59	2.79	4.30	0	14.75	164.75	60
Free State	60	2.49	3.18	0	15	149.25	62
Gauteng	446	3.13	3.64	0	24	1394.25	513
Kwazulu-Natal	101	2.47	3.87	0	16	249	104
Limpopo	45	1.69	2.63	0	14	76	47
Mpumalanga	25	1.65	2.04	0	6	41.25	27
North West	81	2.53	2.46	0	12	205.25	89
Northern Cape	26	1.88	3.13	0	11	49	27
Western Cape	238	3.54	4.30	0	24	842	27
TOTAL	1081	2.93	3.71	0	24	3170.75	1178

Table 134C Question 148: Public holidays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum	TOTAL
Eastern Cape	59	3.11	4.25	0	14.75	13.75	60
Free State	60	2.54	3.30	0	15	152.25	62
Gauteng	446	3.18	3.69	0	24	1418.75	513
Kwazulu-Natal	101	2.56	3.85	0	16	258.5	104
Limpopo	45	1.61	2.65	0	14	72.5	47
Mpumalanga	25	1.57	2.09	0	6	39.25	27
North West	81	2.40	2.51	0	12	194	89
Northern Cape	26	1.96	3.23	0	11	51	27
Western Cape	238	3.95	4.20	0	24	940	27
TOTAL	1081	3.06	3.73	0	24	3310	1178

(L) WRITTEN STANDARD OPERATING PROCEDURES

There are written standard operating procedures for:

Table 135C Question 150: Good housekeeping (cleaning procedures etc.).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	17	28.33	48	77.42	261	50.88	42	40.38	23	48.94	18	66.67	44	49.44	18	66.67	100	40.16	571	48.47
Partially complies	2	3.33	0	0.00	7	1.36	18	17.31	0	0.00	0	0.00	5	5.62	1	3.70	17	6.83	50	4.24
Complies	40	66.67	12	19.35	167	32.55	41	39.42	22	46.81	7	25.93	32	35.96	7	25.93	120	48.19	448	38.03
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	78	15.20	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	108	9.17
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 136C Question 151: Pest (insects, rodents etc.) elimination.

Frequency	Eastern cape		Free state		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	25.00	29	46.77	126	24.56	29	27.88	20	42.55	11	40.74	27	30.34	16	59.26	62	24.90	335	28.44
Partially complies	2	3.33	0	0.00	13	2.53	11	10.58	2	4.26	0	0.00	5	5.62	1	3.70	20	8.03	54	4.58
Complies	42	70.00	31	50.00	300	58.48	61	58.65	23	48.94	14	51.85	49	55.06	9	33.33	155	62.25	684	58.06
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	74	14.42	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	104	8.83
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 137C Question 152: Receipt of stock.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	25.00	28	45.16	133	25.93	31	29.81	18	38.30	11	40.47	25	28.09	16	59.26	87	34.94	364	30.90
Partially complies	2	3.33	0	0.00	16	3.12	12	11.54	0	0.00	0	0.00	6	6.74	1	3.70	14	5.62	51	4.33
Complies	42	70.00	32	51.61	289	56.34	58	55.77	27	57.45	14	51.85	50	56.18	9	33.33	136	54.62	657	55.77
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	75	14.62	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 138C Question 153: Effective stock rotation (FEFO – First entry, expiry, first out).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	25.00	28	45.16	130	25.34	30	28.85	18	38.30	12	44.44	26	29.21	16	59.26	68	27.31	343	29.12
Partially complies	2	3.33	0	0.00	13	2.53	11	10.58	0	0.00	0	0.00	6	6.74	1	3.70	13	5.22	46	3.90
Complies	42	70.00	32	51.61	295	57.50	60	57.69	27	57.45	13	48.15	49	55.06	9	33.33	156	62.65	683	57.98
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	75	14.62	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 139C Question 154: Disposal or removal of S1 – S6 expired, damaged and/or contaminated stock as required in Regulation 27 of Act 101 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	25.00	30	48.39	142	27.68	30	28.85	16	34.04	12	44.44	32	35.96	16	59.26	65	26.10	358	30.39
Partially complies	2	3.33	1	1.61	21	4.09	12	11.54	1	2.13	0	0.00	6	6.74	1	3.70	22	8.84	66	5.60
Complies	41	68.33	29	46.77	273	53.22	59	56.73	28	59.57	13	48.15	43	48.31	9	33.33	150	60.24	645	54.75
Not applicable	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	2	0.17
Not answered	1	1.67	2	3.23	77	15.01	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	107	9.08
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 140C Question 155: Product types requiring special storage or handling instructions.

uency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	18	30.00	36	58.06	155	30.21	36	34.62	21	44.68	13	48.15	31	34.83	16	59.26	69	27.71	395	33.53
Partially complies	2	3.33	0	0.00	26	5.07	15	14.42	0	0.00	0	0.00	6	6.74	1	3.70	12	4.82	62	5.26
Complies	39	65.00	24	38.71	255	49.71	50	48.08	23	48.94	12	44.44	43	48.31	9	33.33	156	62.65	611	51.87
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	77	15.01	3	2.88	3	6.38	2	7.41	9	10.11	1	3.70	11	4.42	109	9.25
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 141C Question 156: Seperation and handling of goods returned from patients.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	18	30.00	33	53.23	145	28.27	32	30.77	18	38.30	12	44.44	28	31.46	15	55.56	90	36.14	391	33.19
Partially complies	1	1.67	0	0.00	12	2.34	14	13.46	0	0.00	0	0.00	5	5.62	1	3.70	16	6.43	49	4.16
Complies	40	66.67	27	43.55	279	54.39	55	52.88	26	55.32	13	48.15	48	53.93	9	33.33	131	52.61	628	53.31
Not applicable	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	1	3.70	1	0.40	3	0.25
Not answered	1	1.67	2	3.23	76	14.81	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	107	9.08
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 142C Question 157: Recall of medicine.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	18	30.00	30	48.39	137	26.71	32	30.77	20	42.55	12	44.44	28	31.46	16	59.26	66	26.51	359	30.48
Partially complies	1	1.67	0	0.00	16	3.12	12	11.54	0	0.00	0	0.00	5	5.62	1	3.70	24	9.64	59	5.01
Complies	40	66.67	30	48.39	284	55.36	56	53.85	25	53.19	13	48.15	48	53.93	9	33.33	147	59.04	652	55.35
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	76	14.81	4	3.85	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	107	9.08
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 143C Question 158: Delivery of medicines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	9	15.00	22	35.48	117	22.81	17	16.35	15	31.91	8	29.63	23	25.84	14	51.85	70	28.11	295	25.04
Partially complies	2	3.33	0	0.00	9	1.75	10	9.62	0	0.00	0	0.00	5	5.62	1	3.70	13	5.22	40	3.40
Complies	39	65.00	24	38.71	247	48.15	40	38.46	24	51.06	14	51.85	43	48.31	8	29.63	100	40.16	539	45.76
Not applicable	9	15.00	14	22.58	66	12.87	34	32.69	5	10.64	3	11.11	10	11.24	3	11.11	55	22.09	199	16.89
Not answered	1	1.67	2	3.23	74	14.42	3	2.88	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 144C Question 159: A locum/relief pharmacist to be followed regarding the handling of keys, money, etc.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	11	18.33	44	70.97	269	52.44	40	38.46	26	55.32	17	62.96	39	43.82	17	62.96	70	28.11	533	45.25
Partially complies	2	3.33	0	0.00	13	2.53	8	7.69	0	0.00	0	0.00	7	7.87	1	3.70	10	4.02	41	3.48
Complies	21	35.00	11	17.74	109	21.25	30	28.85	15	31.91	7	25.93	23	25.84	7	25.93	82	32.93	305	25.89
Not applicable	25	41.67	5	8.06	48	9.36	23	22.12	4	8.51	1	3.70	11	12.36	1	3.70	75	30.12	193	16.38
Not answered	1	1.67	2	3.23	74	14.42	3	2.88	2	4.26	2	7.41	9	10.11	1	3.70	12	4.82	106	9.00
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 145C Question 160: Cold chain management (including procedures to be followed in the event of a power failure).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	16	26.67	26	41.94	121	23.59	29	27.88	20	42.55	11	40.74	25	28.09	16	59.26	61	24.50	325	27.59
Partially complies	2	3.33	0	0.00	18	3.51	14	13.46	0	0.00	0	0.00	6	6.74	1	3.70	22	8.84	63	5.35
Complies	40	66.67	32	51.61	294	57.13	56	53.85	24	51.06	14	51.85	48	53.93	9	33.33	152	61.04	669	56.79
Not applicable	1	1.67	2	3.23	5	0.97	2	1.92	1	2.13	0	0.00	2	2.25	0	0.00	3	1.20	16	1.36
Not answered	1	1.67	2	3.23	75	14.62	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 146C Question 161: SOPs are reviewed/updated on a regular basis.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	19	31.67	31	50.00	145	28.27	36	34.62	19	40.43	12	44.44	33	37.08	16	59.26	80	32.13	391	33.19
Partially complies	3	5.00	1	1.61	36	7.02	9	8.65	0	0.00	0	0.00	6	6.74	1	3.70	33	13.25	89	7.56
Complies	37	61.67	28	45.16	257	50.10	55	52.88	25	53.19	13	48.15	41	46.07	9	33.33	123	49.40	588	49.92
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	75	14.62	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(M) REFERENCES

The pharmacy has copies of, or electronic access to:

Table 147C Question 162: One of the last 3 editions of the Martindale.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	8	13.33	3	4.84	124	24.17	16	15.38	8	17.02	4	14.81	34	38.20	3	11.11	33	13.25	233	19.78
Partially complies	21	35.00	6	9.68	60	11.70	26	25.00	2	4.26	8	29.63	10	11.24	12	44.44	68	27.31	213	18.08
Complies	30	50.00	51	82.26	262	51.07	58	55.77	34	72.34	13	48.15	38	42.70	11	40.74	136	54.62	633	53.74
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	67	13.06	4	3.85	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 148C Question 163: The latest edition of the Good Pharmacy Practice (GPP) Manual.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	25.00	11	17.74	129	25.15	35	33.65	12	25.53	7	25.93	36	40.45	5	18.52	62	24.90	312	27.25
Partially complies	1	1.67	1	1.61	12	2.34	6	5.77	0	0.00	1	3.70	6	6.74	0	0.00	4	1.61	31	2.63
Complies	43	71.67	48	77.42	302	58.87	58	55.77	32	68.09	17	62.96	38	42.70	21	77.78	169	67.87	728	61.80
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	70	13.65	5	4.81	3	6.38	2	7.41	9	10.11	1	3.70	13	5.22	106	9.00
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 149C Question 164: The latest edition of MIMS.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	6.67	2	3.23	66	12.87	5	4.81	1	2.13	3	11.11	15	16.85	0	0.00	36	14.46	132	11.21
Partially complies	15	25.00	3	4.84	36	7.02	20	19.23	3	6.38	2	7.41	9	10.11	5	18.52	40	16.06	133	11.29
Complies	40	66.67	55	88.71	345	67.25	75	72.12	40	85.11	20	74.07	57	64.04	21	77.78	161	64.66	814	69.10
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	66	12.87	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 150C Question 165: A comprehensive textbook on complementary medicine.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	18	30.00	32	51.61	220	42.88	46	44.23	7	14.89	14	51.85	54	60.67	8	29.63	71	28.51	470	39.90
Partially complies	0	0.00	0	0.00	6	1.17	10	9.62	0	0.00	0	0.00	4	4.49	0	0.00	12	4.82	32	2.72
Complies	37	61.67	28	45.16	202	39.38	42	40.38	37	78.72	11	40.74	23	25.84	17	62.96	141	56.63	538	45.67
Not applicable	4	6.67	0	0.00	10	1.95	0	0.00	0	0.00	0	0.00	1	1.12	1	3.70	13	5.22	29	2.46
Not answered	1	1.67	2	3.23	75	14.62	6	5.77	3	6.38	2	7.41	7	7.87	1	3.70	12	4.82	109	9.25
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 151C Question 166: The latest edition of Daily Drug Use (Tincture Press Publicatios) or other Drug Interactions reference source.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	6	10.00	7	11.29	74	14.42	16	15.38	8	17.02	4	14.81	19	21.35	1	3.70	32	12.85	167	14.18
Partially complies	4	6.67	1	1.61	13	2.53	14	13.46	1	2.13	4	14.81	3	3.37	0	0.00	29	11.65	69	5.86
Complies	49	81.67	51	82.26	356	69.40	69	66.35	35	74.47	17	62.96	60	67.42	25	92.59	176	70.68	838	71.14
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	70	13.65	5	4.81	3	6.38	2	7.41	7	7.87	1	3.70	11	4.42	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 152C Question 167: The latest edition of either MDR or SAMF.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	5.00	2	3.23	72	14.04	7	6.73	1	2.13	3	11.11	14	15.73	1	3.70	29	11.65	132	11.21
Partially complies	8	13.33	3	4.84	47	9.16	14	13.46	3	6.38	1	3.70	14	15.73	4	14.81	29	11.65	123	10.44
Complies	48	80.00	55	88.71	326	63.55	79	75.96	40	85.11	21	77.78	52	58.43	21	77.78	179	71.89	821	69.69
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	68	13.26	4	3.85	3	6.38	2	7.41	9	10.11	1	3.70	11	4.42	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 153C Question 168: A recent and comprehensive textbook on Pharmacology (not older than 10 years).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	11	18.33	6	9.68	95	18.52	14	13.46	5	10.64	2	7.41	19	21.35	1	3.70	38	15.26	191	16.21
Partially complies	9	15.00	0	0.00	6	1.17	27	25.96	0	0.00	1	3.70	3	3.37	0	0.00	37	14.86	83	7.05
Complies	39	65.00	54	87.10	345	67.25	58	55.77	39	82.98	22	81.48	59	66.29	25	92.59	162	65.06	803	68.17
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	67	13.06	5	4.81	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 154C Question 169: A medical dictionary.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	9	15.00	5	8.06	93	18.13	15	14.42	6	12.77	5	18.52	25	28.09	3	11.11	23	9.24	184	15.62
Partially complies	0	0.00	0	0.00	3	0.58	6	5.77	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	9	0.76
Complies	50	83.33	55	88.71	349	68.03	79	75.96	38	80.85	20	74.07	56	62.92	23	85.19	213	85.54	883	74.96
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	68	13.26	4	3.58	3	6.38	2	7.41	8	8.99	1	3.70	12	4.82	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 155C Question 170: A copy of the Pharmacy Act, 1974 as amended and the Medicines and Related Substances Control Act, 1965 as amended.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	12	20.00	7	11.29	101	19.69	23	22.12	2	4.26	5	18.52	25	28.09	3	11.11	54	21.69	232	19.69
Partially complies	6	10.00	1	1.61	31	6.04	30	28.85	0	0.00	1	3.70	12	13.48	1	3.70	49	19.68	131	11.12
Complies	41	68.33	52	83.67	313	61.01	47	45.19	42	89.36	19	70.37	44	49.44	22	81.48	134	53.82	714	60.61
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	1	0.08
Not answered	1	1.67	2	3.23	68	13.26	4	3.85	3	6.38	2	7.41	8	8.99	1	3.70	11	4.42	100	8.49
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 156C Question 171: A list of non-substitutable substances.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	111	18.33	17	27.42	132	25.73	28	26.92	16	34.04	11	40.74	43	48.31	5	18.52	36	14.46	299	25.38
Partially complies	0	0.00	0	0.00	6	1.17	7	6.73	0	0.00	0	0.00	3	3.37	0	0.00	3	1.20	19	1.61
Complies	46	76.67	43	69.35	305	59.45	64	61.54	28	5957	14	51.85	34	38.20	21	77.78	197	79.12	752	63.84
Not applicable	1	1.67	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	5	0.42
Not answered	2	3.33	2	3.23	67	13.06	5	4.81	3	6.38	2	7.41	9	10.11	1	3.70	12	4.82	103	8.74
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(N) GENERAL

Table 157C Question 172: The pharmacy is designated as a non-smoking area.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	8	1.90	28	5.46	2	1.92	15	31.91	2	7.41	14	15.73	3	11.11	4	1.61	77	6.54
Partially complies	7	11.67	0	0.00	2	0.39	2	1.92	0	0.00	0	0.00	0	0.00	2	7.41	0	0.00	13	1.10
Complies	51	85.00	52	83.87	417	81.29	97	93.27	30	63.83	23	85.19	68	76.40	21	77.78	234	93.98	993	84.30
Not answered	1	1.67	2	3.23	66	12.87	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	95	8.06
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 158C Question 173: No medicines are advertised in any way that is contrary to GPP guidelines and Regulation 45 of Act 101 of 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	3	0.58	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	2	0.80	6	0.51
Partially complies	1	1.67	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.80	4	0.34
Complies	58	96.67	60	96.77	442	86.16	101	97.12	45	95.74	25	92.59	81	91.01	26	96.30	234	93.98	1072	91.00
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	96	8.15
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 159C Question 174: A pharmacist has undergone a form of continued education/professional development within the last 2 years.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No	2	3.33	5	8.06	71	13.84	5	4.81	20	42.55	5	18.52	21	23.60	4	14.81	32	12.85	165	14.01
Informal	27	45.00	43	69.35	153	29.82	70	67.31	13	27.66	8	29.663	33	37.08	8	29.63	107	42.97	462	39.22
Formal	6	10.00	11	17.74	162	13.58	12	11.54	11	23.40	9	33.33	15	16.85	6	22.22	52	20.88	284	24.11
Not answered	1	1.67	2	3.23	70	13.65	3	2.88	3	6.38	2	7.41	9	10.11	1	3.70	11	4.42	102	8.66
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 160C Question 175: No arms/ammunition is sold in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	3	0.58	1	0.96	0	0.00	1	3.70	0	0.00	0	0.00	0	0.00	6	0.51
Complies	58	96.67	60	96.77	443	86.35	100	96.15	45	95.74	24	88.89	82	92.13	26	96.30	238	95.58	1076	91.34
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	96	8.15
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 161C Question 176: No fireworks are sold in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	2	0.39	1	0.96	0	0.00	1	3.70	0	0.00	0	0.00	0	0.00	5	0.42
Complies	58	96.67	60	96.77	444	86.55	100	96.15	45	95.74	24	88.89	82	92.13	26	96.30	238	95.58	1077	91.43
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	96	8.15
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 162C Question 177: No alcohol, other than for medical purposes, is sold in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	2	0.39	1	0.96	0	0.00	1	3.70	0	0.00	0	0.00	1	0.40	6	0.51
Complies	58	96.67	60	96.77	444	86.55	100	96.15	45	95.74	24	88.89	82	92.13	26	96.30	237	95.18	1076	91.34
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	96	8.15
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 163C Question 178: No tobacco, snuff, cigarettes and tobacco related substances are sold in the pharmacy (this excludes medical snuff and anti-smoking aids.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	1	1.61	3	0.58	1	0.96	0	0.00	2	7.41	0	0.00	0	0.00	1	0.40	9	0.76
Complies	58	96.67	59	95.16	443	86.35	100	96.15	45	95.74	23	85.19	82	92.13	26	96.30	237	95.18	1073	91.09
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	96	8.15
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 164C Question 179: Lotto tickets are not sold in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	3	0.58	2	1.92	0	0.00	1	3.70	1	1.12	0	0.00	2	0.80	10	0.85
Complies	58	96.67	60	96.77	443	86.35	99	95.19	45	95.74	24	88.89	81	91.01	26	96.30	236	94.78	1072	91.00
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	7	7.87	1	3.70	11	4.42	96	8.15
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

(O) PROMOTION OF PUBLIC HEALTH

Table 165C Question 180: Are Family Planning services rendered at the pharmacy?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	9	15.00	2	3.23	80	15.59	10	9.62	2	4.26	7	25.93	15	16.85	3	11.11	82	32.93	210	17.83
No	49	81.67	58	93.55	360	70.18	90	86.54	43	91.49	18	66.67	66	74.16	23	85.19	154	61.85	861	73.09
Not applicable	0	0.00	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	2	0.17
Not answered	2	3.33	2	3.23	73	14.23	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	12	4.82	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 166C Question 181: Has the pharmacist(s) registered his/her Family Planning qualification with Council?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	9	15.00	2	3.23	40	7.80	14	13.46	1	2.13	7	25.93	13	14.61	10	37.04	61	24.50	157	13.33
No	5	8.33	0	0.00	38	7.41	4	3.85	0	0.00	4	14.81	8	8.99	0	0.00	12	4.82	71	6.03
Not applicable	45	75.00	58	93.55	358	69.79	83	79.81	44	93.62	13	48.15	56	62.92	16	59.26	162	65.06	835	70.88
Not answered	1	1.67	2	3.23	77	15.01	3	2.88	2	4.26	3	11.11	12	13.48	1	3.70	14	5.62	115	9.76
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 167C ***Question 182: Is the necessary Section 22(A)(15) permit from the Department of Health available for the purpose of providing family planning?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	2	3.33	0	0.00	21	4.09	5	4.81	0	0.00	3	11.11	4	4.49	1	3.700	22	8.84	58	4.92
No	9	15.00	1	1.61	43	8.38	3	2.88	1	2.13	6	22.22	12	13.48	1	3.70	32	12.85	108	9.17
Not applicable	48	80.00	59	95.16	371	72.32	92	88.46	44	93.62	15	55.56	64	71.91	24	88.89	183	73.49	900	76.40
Not answered	1	1.67	2	3.23	78	15.20	4	3.85	2	4.26	3	11.11	9	10.11	1	3.70	12	4.82	112	9.51
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 168C ***Question 183: Are Primary Care Drug Therapy (PCDT) services rendered at the pharmacy?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	2	3.33	1	1.61	15	2.92	8	7.69	0	0.00	8	2.63	8	8.99	0	0.00	13	5.22	55	4.67
No	55	91.67	59	95.16	417	81.29	91	87.50	39	82.98	16	59.26	67	75.28	26	96.30	222	89.16	992	84.21
Not applicable	0	0.00	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	2	0.17
Not answered	3	5.00	2	3.23	81	15.79	4	3.85	8	17.02	3	11.11	14	15.73	1	3.70	13	5.22	129	10.95
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 169C ***Question 184: Has the pharmacist(s) registered his/her Primary Care Drug Therapy (PCDT qualification with Council?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	1	1.67	1	1.61	11	2.14	5	4.81	0	0.00	4	14.81	6	6.74	0	0.00	13	5.22	41	3.48
No	3	5.00	1	1.61	17	3.31	5	4.81	0	0.00	7	25.93	7	7.87	0	0.00	5	2.01	45	3.82
Not applicable	55	91.67	58	9.55	409	79.73	91	87.50	45	95.74	12	44.44	66	74.16	26	96.30	220	88.35	982	83.36
Not answered	1	1.67	2	3.23	76	14.81	3	2.88	2	4.26	4	14.81	10	11.24	1	3.70	11	4.42	110	9.34
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 170C ***Question 185: If medicines in higher schedules are provided during the provision of PCDT, is the necessary Section 22(A) (15) permit from the Department of Health available?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	0	0.00	3	0.58	1	0.96	0	0.00	1	3.70	3	3.37	0	0.00	8	3.21	16	1.36
No	2	3.33	2	3.23	15	2.92	2	1.92	0	0.00	5	18.52	8	8.99	0	0.00	3	1.20	37	3.14
Not applicable	52	86.67	58	3.55	408	79.53	97	93.27	45	95.74	18	66.67	69	77.53	26	96.30	227	91.16	1000	84.89
Not answered	6	10.00	2	3.23	87	16.96	4	3.85	2	4.26	3	11.11	9	10.11	1	3.70	11	4.42	125	10.61
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 171C Question 186: Blood pressure monitoring.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.40	2	0.17
Partially complies	1	1.67	0	0.00	0	0.00	2	1.92	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	4	0.34
Complies	46	76.67	41	66.13	262	51.07	68	65.38	18	38.30	14	51.85	40	44.94	20	74.07	176	70.68	685	58.15
Not applicable	12	20.00	19	30.65	183	35.67	31	29.81	27	57.45	11	40.74	40	44.94	6	22.22	60	24.10	389	33.02
Not answered	1	1.67	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	12	4.82	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 172C Question 187: Pregnancy testing.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	2	0.80	3	0.25
Complies	17	28.33	16	25.81	92	17.93	33	31.73	7	14.89	10	37.04	17	19.10	5	18.52	91	36.55	288	24.45
Not applicable	39	65.00	44	70.91	352	68.62	68	65.38	38	80.85	15	55.56	63	70.79	21	77.78	142	57.03	782	66.38
Not answered	4	6.67	2	3.23	69	13.45	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	14	5.62	105	8.91
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 173C Question 188: Determining of blood sugar levels.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	1	0.08
Partially complies	1	1.67	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	3	0.25
Complies	43	71.67	40	64.52	216	42.11	59	56.73	11	23.40	13	48.15	34	38.20	16	59.26	158	63.45	590	50.08
Not applicable	15	25.00	20	32.26	229	44.64	41	39.42	34	72.34	12	44.44	45	50.56	10	37.04	80	32.13	486	41.26
Not answered	1	1.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 174C Question 189: Visio metric determinations.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	2	2.25	0	0.00	0	0.00	3	0.25
Complies	2	3.33	1	1.61	7	1.36	5	4.81	1	2.13	4	14.81	0	0.00	0	0.00	1	0.40	21	1.78
Not applicable	54	90.00	59	95.16	437	85.19	96	92.31	44	93.62	21	77.78	79	88.76	26	96.30	237	95.18	1053	89.39
Not answered	4	6.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 175C Question 190: Audiometric determinations.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	2	2.25	0	0.00	0	0.00	3	0.25
Complies	2	3.33	1	1.61	7	1.36	8	7.69	4	8.5	2	7.41	1	1.12	0	0.00	2	0.80	27	2.29
Not applicable	55	91.67	59	95.16	437	85.19	93	89.42	41	87.23	23	85.19	77	86.52	26	96.30	236	94.78	1047	88.88
Not answered	3	5.00	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	9	10.11	1	3.70	11	4.42	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 176C Question 191: Cholesterol screening test.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	1	0.08
Partially complies	1	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	2	0.17
Complies	35	58.33	36	58.06	189	36.84	53	50.96	7	14.89	11	40.74	32	35.96	11	40.74	140	56.22	514	43.63
Not applicable	22	36.67	24	38.71	257	50.10	48	46.15	38	80.85	14	51.85	47	52.81	15	55.56	98	39.36	563	47.79
Not answered	2	3.33	2	3.23	67	13.06	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	98	8.32
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 177C Question 192: Urine analysis (screening test).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.25	0	0.00	1	0.40	3	0.25
Complies	10	16.67	12	19.35	91	17.74	13	12.50	3	6.38	8	29.63	19	21.35	3	11.11	68	27.31	227	19.27
Not applicable	46	76.67	48	77.42	354	69.01	88	84.62	42	89.36	17	62.96	60	67.42	23	85.19	169	67.87	847	71.90
Not answered	4	6.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 178C Question 193: Immunisation services (in accordance with National guidelines).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	1	0.40	2	0.17
Partially complies	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	14	23.33	10	16.13	121	23.59	26	25.00	7	14.89	10	37.04	18	20.22	6	22.22	65	26.10	277	23.51
Not applicable	42	70.00	50	80.65	323	62.96	75	72.12	38	80.85	15	55.56	62	69.66	20	74.07	172	69.08	797	67.66
Not answered	4	6.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	8	8.99	1	3.70	11	4.42	101	8.57
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 179C Question 194: AIDS testing on request from the patient (in accordance with National guidelines).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.12	0	0.00	0	0.00	1	0.08
Partially complies	0	0.00	0	0.00	0	0.00	1	0.96	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.08
Complies	1	1.67	2	3.23	26	5.07	6	5.77	1	2.13	4	4.81	8	8.99	0	0.00	10	4.02	58	4.92
Not applicable	55	91.67	58	93.55	419	81.68	94	90.38	44	93.62	21	77.78	71	79.78	26	96.30	228	91.57	1016	86.25
Not answered	4	6.67	2	3.23	68	13.26	3	2.88	2	4.26	2	7.41	9	10.11	1	3.70	11	4.42	102	8.66
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 180C Question 196: The above-mentioned services are rendered in a suitable private area.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	1.67	0	0.00	7	1.36	2	1.92	3	6.38	1	3.70	1	1.12	0	0.00	12	4.82	27	2.29
Partially complies	0	0.00	0	0.00	2	0.39	7	6.73	0	0.00	0	0.00	3	3.37	0	0.00	7	2.81	19	1.61
Complies	44	73.33	38	61.29	229	44.64	60	57.69	15	31.91	13	48.15	36	40.45	20	74.07	157	63.05	612	51.95
Not applicable	13	21.67	22	35.48	201	39.18	28	26.92	27	57.45	11	40.74	41	46.07	5	18.52	61	24.50	409	34.72
Not answered	2	3.33	2	3.23	74	14.42	7	6.73	2	4.26	2	7.41	8	8.99	2	7.41	12	4.82	111	9.42
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

Table 181C Question 197: Who renders the above services?

Frequency	Eastern cape		Free state		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
N/A No services rendered	58	96.67	60	96.77	442	86.16	101	97.12	45	95.74	25	92.59	79	88.76	26	96.30	237	95.18	1073	91.09
Other health care professional	16	26.67	7	11.29	65	12.67	22	21.15	4	8.51	7	25.93	12	13.48	0	0.00	85	34.14	218	18.51
Registered pharmacist's assistant	1	1.67	9	14.52	18	3.51	1	0.96	1	2.13	1	3.70	1	1.12	0	0.00	8	3.21	40	3.40
Pharmacist and/or pharmacist intern	43	71.67	37	59.68	197	38.40	59	56.73	15	31.91	5	18.52	35	39.33	20	74.07	114	45.78	525	44.57

(Q) SIGNATURES

Table 182C Question 206: Recommended re-inspection.

Frequency	Eastern cape		Free state		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Follow-up 3 months	1	1.69	6	10.00	50	11.14	11	10.89	7	15.56	1	4.00	12	14.29	0	0.00	4	1.67	92	7.81
Follow-up 6 months	2	3.39	1	1.67	12	2.67	5	4.95	0	0.00	1	4.00	7	8.33	1	3.85	9	3.77	38	3.23
Routine	55	93.22	50	83.33	373	83.07	81	80.20	38	84.44	23	92.00	61	72.62	25	96.15	223	93.31	929	78.86
Not answered	2	3.33	5	8.06	73	15.20	7	6.73	2	4.26	2	7.41	5	10.11	1	3.70	13	5.22	110	9.34
TOTAL	60	100.0	62	100.0	513	100.0	104	100.0	47	100.0	27	100.0	89	100.0	27	100.0	249	100.0	1178	100.0

APPENDIX D

Institutional pharmacy inspection questionnaire

RESULTS

(A) INSPECTION DETAILS

(B) PHARMACY DETAILS

(C) PHARMACY STAFFING

(D) REGISTRATION DETAILS

(E) PREMISES AND LAYOUT

(F) EQUIPMENT

(G) STORAGE

(H) CONTROL OF MEDICINES AND RECORDKEEPING

(I) THERMOLABILE MEDICINES

(J) DISPENSING OF PRESCRIPTIONS

(K) PROVISION OF PHARMACEUTICAL CARE

(L) COMPOUNDING

(M) WRITTEN STANDARD OPERATING PROCEDURES

(N) REFERENCES

(O) GENERAL

(P) PROMOTION OF PUBLIC HEALTH

(A) INSPECTION DETAILS

Table 1D *Question 4: Type of inspection.*

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Monitoring	15	41.67	10	40.00	57	67.06	6	17.65	8	38.10	3	18.75	22	59.64	12	85.71	35	46.67	168	48.98
Training assistants	20	55.56	10	40.00	11	12.94	15	44.12	6	28.57	5	31.25	9	24.32	0	0.00	30	40.00	106	30.90
Training interns	0	0.00	4	16.00	12	14.12	12	35.29	7	33.33	6	37.50	4	10.81	1	7.14	7	9.33	53	15.45
New premises	0	0.00	1	4.00	1	1.18	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	2	0.58
Disciplinary	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.58
Follow-up	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not answered	1	2.78	0	0.00	4	4.71	0	0.00	0	0.00	2	12.50	2	5.41	1	7.14	2	2.67	12	3.50
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(B) PHARMACY DETAILS

Table 2D Question 14: What is the nature of the pharmacy?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Public/state hospital	30	83.33	19	76.00	31	36.47	21	61.76	17	80.95	12	75.00	29	78.38	12	85.71	54	72.00	225	65.60
State subsidised	2	5.56	1	4.00	8	9.41	2	5.88	3	14.29	1	6.25	1	2.70	1	7.14	3	4.00	22	6.41
Private hospital	4	11.11	4	16.00	45	52.94	11	32.35	1	4.76	2	12.50	5	13.51	1	7.14	18	24.00	91	26.53
Mine hospital	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	0	0.00	5	1.46
Not answered	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 3D ***Question 15: How is the hospital classified?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Tertiary/academic	5	13.89	2	8.00	6	7.06	2	5.88	2	9.52	1	6.25	0	0.00	0	0.00	1	1.33	19	5.54
Regional hospital	4	11.11	2	8.00	5	5.88	3	8.82	2	9.52	2	12.50	4	10.81	2	14.29	5	6.67	29	8.45
District hospital	14	38.89	10	40.00	9	10.59	14	41.18	11	52.38	7	43.75	9	24.32	3	21.43	11	14.67	88	25.66
Community Health Centre or PHC Clinic	4	11.11	3	12.00	4	4.71	3	8.82	1	4.76	2	12.50	14	37.84	6	42.86	31	41.33	68	19.83
Psychiatric/ Long-term facility	4	11.11	1	4.00	3	3.53	1	2.94	1	4.76	0	0.00	1	2.70	0	0.00	1	1.33	12	3.50
Private	4	11.11	4	16.00	37	43.53	11	32.35	0	0.00	1	6.25	4	10.81	1	7.14	17	22.67	79	23.03
Maternity	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	1	0.29
Care & Rehabilitation centre	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00			2	0.58
Tropical disease hospital	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Correctional services	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.67	5	1.46
Military	1	2.78	1	4.00	1	1.18	0	0.00	1	4.76	0	0.00	1	2.70	1	7.41	3	4.00	9	2.62
Medical depot	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Not applicable	0	0.00	1	4.00	0	0.00	0	0.00	0	0.00	0	0.00	2	5.41	1	7.14	0	0.00	4	1.17
Not answered	0	0.00	0	0.00	14	16.47	0	0.00	3	14.29	3	18.75	2	5.41	0	0.00	3	4.00	25	7.29
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 4D *Question 16: To whom are services rendered?*

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
In-patients	8	22.22	2	8.00	25	29.41	3	8.82	3	14.29	3	18.75	1	2.70	1	7.14	5	6.67	51	14.87
Out-patients/Passing trade	5	13.89	3	12.00	13	15.29	3	8.82	2	9.52	2	12.50	12	32.43	2	14.29	28	37.33	70	20.41
Clinics/Other hospitals	0	0.00	0	0.00	4	4.71	0	0.00	1	4.76	0	0.00	0	0.00	1	7.14	1	1.33	7	2.04
Other institutions	33	63.90	20	76.00	40	47.06	28	82.35	15	71.42	10	62.50	21	56.76	9	64.29	36	48.01	203	59.19
Not answered	0	0.00	0	0.00	3	3.53	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	6.67	12	3.50
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table5D *Question 17: In which province is the pharmacy situated?*

Province	Number of pharmacies located in each province	
	N	%
Eastern Cape	36	10.50
Free State	25	7.29
Gauteng	85	24.78
Kwazulu-Natal	34	9.91
Limpopo	21	6.12
Mpumalanga	16	4.66
North west	37	10.79
Northern Cape	14	4.08
Western cape	75	21.87
TOTAL	343	100.0

Table 6D ***Question 18: Where is the pharmacy situated?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
City centre	1	2.87	3	12.00	12	14.12	4	11.76	1	4.76	1	6.25	2	5.41	2	14.29	3	4.00	29	8.45
City suburb	16	44.44	6	24.00	54	63.53	12	35.29	2	9.52	3	18.75	6	16.22	3	21.43	58	77.33	160	46.65
Small town	14	38.89	13	52.00	15	17.65	13	38.24	5	23.81	9	56.25	16	43.24	8	57.14	13	17.33	106	30.90
Rural	5	13.89	3	12.00	4	4.71	5	14.71	13	61.90	3	18.75	13	35.14	1	7.14	1	1.33	48	13.99
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(C) PHARMACY STAFFING

Table 7D ***Question 23: How many community service pharmacists are employed in the pharmacy? (public health facilities only).***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	15	1.27	0.59	1	3	19
Free State	16	1.25	0.58	1	3	20
Gauteng	33	2.09	1.40	1	7	69
Kwazulu-Natal	15	1.20	0.56	1	3	18
Limpopo	10	1.70	0.95	1	4	17
Mpumalanga	10	1.50	0.53	1	2	15
North West	14	1.57	0.65	1	3	22
Northern Cape	4	1.50	1.00	1	3	6
Western Cape	21	1.43	1.33	1	7	30
TOTAL	138	1.57	1.03	1	7	216

Table 8D ***Question 24: How many full-time pharmacists are permanently employed in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	28	2.54	2.94	1	13	71
Free State	20	2.25	1.92	1	8	45
Gauteng	74	4.34	3.53	1	15	321
Kwazulu-Natal	32	3.13	1.76	1	7	100
Limpopo	18	2.17	2.07	1	9	39
Mpumalanga	15	2.07	1.03	1	4	31
North West	24	2.04	1.23	1	5	49
Northern Cape	5	1.80	1.30	1	4	9
Western Cape	68	2.18	1.66	1	10	148
TOTAL	284	2.86	2.57	1	15	813

Table 9D ***Question 25: How many part-time pharmacists are in the permanent employ of the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	8	2.38	2.20	1	7	19
Free State	4	1.25	0.50	1	2	5
Gauteng	20	1.65	1.09	1	5	33
Kwazulu-Natal	10	2.20	2.44	1	9	22
Limpopo	0	0.00	0.00	0	0	0
Mpumalanga	2	1.00	0.00	1	1	2
North West	5	1.00	0.00	1	1	5
Northern Cape	0	0.00	0.00	0	0	0
Western Cape	18	2.17	2.33	1	11	39
TOTAL	67	1.87	1.81	1	11	125

Table 10D ***Question 26: How many pharmacist interns are undergoing practical training in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	4	2.00	0.00	2	2	8
Free State	7	1.71	1.50	1	5	12
Gauteng	25	1.96	1.57	1	8	49
Kwazulu-Natal	10	2.20	1.40	1	5	22
Limpopo	5	3.00	2.00	1	6	15
Mpumalanga	3	1.33	0.58	1	2	4
North West	6	1.67	0.82	1	3	10
Northern Cape	1	3.00	0.00	3	3	3
Western Cape	12	1.08	0.29	1	2	13
TOTAL	73	1.86	1.34	1	8	136

Table 11D ***Question 27: How many registered pharmacist's assistants (basic) work in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	10	1.60	0.84	1	3	16
Free State	7	1.71	1.11	1	4	12
Gauteng	20	1.85	1.93	1	9	37
Kwazulu-Natal	10	2.70	1.77	1	7	27
Limpopo	8	3.38	2.00	1	5	27
Mpumalanga	8	2.88	1.64	1	5	23
North West	13	2.46	2.15	1	7	32
Northern Cape	2	5.00	5.66	1	9	10
Western Cape	13	1.31	0.63	1	3	17
TOTAL	91	2.21	1.83	1	9	201

Table 12D ***Question 28: How many registered pharmacist's assistants (post-basic) work in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	10	2.00	1.63	1	5	20
Free State	12	1.75	0.62	1	3	21
Gauteng	31	2.19	1.56	1	8	68
Kwazulu-Natal	13	2.08	1.12	1	4	27
Limpopo	9	1.11	0.33	1	2	10
Mpumalanga	7	2.00	1.83	1	6	14
North West	9	1.67	0.87	1	3	15
Northern Cape	0	0.00	0.00	0	0	0
Western Cape	13	1.46	0.78	1	3	19
TOTAL	104	1.87	1.25	1	8	194

Table 13D ***Quesiton 29: How many registered pharmacist's assistants (learner basic) are undergoing practical training in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	5	1.00	0.00	1	1	5
Free State	12	2.67	1.92	1	8	32
Gauteng	23	2.61	3.97	1	20	60
Kwazulu-Natal	11	2.64	1.69	1	5	29
Limpopo	6	4.17	2.32	1	8	25
Mpumalanga	6	1.67	0.82	1	3	10
North West	11	1.27	0.65	1	3	14
Northern Cape	1	1.00	0.00	1	1	1
Western Cape	13	1.85	1.07	1	4	24
TOTAL	88	2.27	2.44	1	20	200

Table 14D ***Question 30: How many registered pharmacist's assistants (learner post-basic) are undergoing practical training in the pharmacy?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	4	1.50	1.00	1	3	6
Free State	7	1.86	1.21	1	4	13
Gauteng	22	1.82	1.22	1	5	40
Kwazulu-Natal	3	2.00	1.00	1	3	6
Limpopo	0	0.00	0.00	0	0	0
Mpumalanga	6	2.00	1.26	1	4	12
North West	7	1.43	0.79	1	3	10
Northern Cape	2	5.00	5.66	1	9	10
Western Cape	21	1.48	1.03	1	5	31
TOTAL	72	1.78	1.38	1	9	128

Table 15D ***Question 31: How many unregistered persons performing acts falling within the scope of practice of pharmacists and/or pharmacist's assistants would require training in order to register as pharmacist's assistants with the Council?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	36	2.11	2.31	0	8	76
Free State	25	0.32	1.60	0	8	8
Gauteng	81	1.68	4.88	0	30	136
Kwazulu-Natal	34	1.74	1.62	0	6	59
Limpopo	21	1.86	2.39	0	8	39
Mpumalanga	15	1.87	1.92	0	6	28
North West	36	1.14	2.14	0	11	41
Northern Cape	14	0.36	1.34	0	5	5
Western Cape	75	0.91	1.20	0	5	68
TOTAL	337	1.36	2.89	0	30	460

Table 16D Question 32: Who does the actual picking of medicines prior to dispensing?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Other personnel	14	38.89	0	0.00	2	2.35	0	0.00	0	0.00	1	6.25	10	27.03	8	57.14	10	13.33	55	16.03
Registered pharmacist's assistant	17	47.22	15	60.00	36	42.86	23	67.65	13	61.90	8	53.33	19	51.35	2	14.29	31	42.47	164	48.38
Pharmacist and/or pharmacist intern	32	88.89	25	100.0	81	96.43	31	91.18	17	80.95	15	100.0	23	62.16	7	50.00	73	98.65	304	89.41

Table 17D Question 33: Who hands the medicine to the patient or care-giver?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Porter/driver or courier	35	97.22	0	0.00	15	17.65	4	11.76	0	0.00	0	0.00	3	8.11	0	0.00	12	16.00	34	9.91
Other personnel	10	27.78	0	0.00	4	4.76	5	14.71	0	0.00	0	0.00	11	29.73	7	50.00	5	6.76	42	12.35
Registered pharmacist's assistants	13	36.11	15	60.00	33	39.29	11	32.35	12	57.14	3	20.00	15	40.54	0	0.00	8	10.81	110	32.35
Pharmacist and/or pharmacist intern	31	86.11	25	100.0	77	91.67	33	97.06	19	90.48	15	100.0	23	62.16	7	50.00	73	98.65	303	89.12

Table 18D Question 34: How many items prescribed by an authorised prescriber are dispensed per day on average?

Province	N		Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	In-patients	34	232.35	417.91	0	1900	7900
	Out-patients	34	572.06	808.19	0	2700	19450
	TOTAL	35	790	1027.07	25	4600	27650
Free State	In-patients	23	126.83	144.29	0	600	2917
	Out-patients	23	267.83	318.31	20	1200	6160
	TOTAL	25	388.68	390.96	80	1450	9717
Gauteng	In-patients	76	460.38	739.51	0	4700	34989
	Out-patients	77	470.29	843.82	0	4000	36212
	TOTAL	80	903.39	1265.98	0	6460	72271
Kwazulu-Natal	In-patients	33	558.70	1734.57	0	10000	18437
	Out-patients	33	778.48	763.82	0	3000	25690
	TOTAL	33	1337.18	2083.76	175	11700	44127
Limpopo	In-patients	20	69.10	58.54	0	200	1382
	Out-patients	20	372.95	367.90	0	1200	7459
	TOTAL	21	432.43	378.32	21	1330	9081
Mpumalanga	In-patients	13	5267.69	11464.31	0	40000	68480
	Out-patients	14	1814.36	4444.19	0	16820	25401
	TOTAL	13	7221.62	13271.05	160	41500	93881
North West	In-patients	33	86.55	122.69	0	600	2856
	Out-patients	30	252.43	265.00	2	1000	7573
	TOTAL	33	374.09	380.40	3	1600	12345
Northern Cape	In-patients	14	40.00	78.13	0	300	560
	Out-patients	14	291.57	416.69	0	1500	4082
	TOTAL	14	331.57	478.47	2	1800	4642
Western Cape	In-patients	72	186.43	607.39	0	5000	13423
	Out-patients	72	447.86	510.55	0	2190	32246
	TOTAL	74	669.04	911.58	0	7190	49509
TOTAL	In-patients	318	474.67	2554.19	0	40000	150944
	Out-patients	317	518.21	1138.77	0	16820	164273
	TOTAL	328	985.44	3050.17	0	41500	323223

Table 19D ***Question 35: How many P.I.T. items are dispensed per day on average?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	35	1.17	4.95	0	25	41
Free State	24	0	0	0	0	0
Gauteng	79	12.18	50.63	0	400	962
Kwazulu-Natal	34	8.24	22.36	0	100	280
Limpopo	21	0	0	0	0	0
Mpumalanga	13	0.77	2.77	0	10	10
North West	36	67.64	194.26	0	800	2435
Northern Cape	14	8.57	23.16	0	80	120
Western Cape	75	1.03	5.00	0	30	77
TOTAL	331	11.85	71.36	0	800	3925

Table 20D ***Question 36: How many surgical items are dispensed/issued per day on average?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	34	46.5	118.12	0	600	1581
Free State	23	25.30	70.07	0	300	582
Gauteng	76	177.41	351.60	0	2000	13484
Kwazulu-Natal	34	124.71	257.59	0	1200	4240
Limpopo	20	125.95	385.16	0	1732	2519
Mpumalanga	14	313.36	803.47	0	2905	4387
North West	32	51.86	123.12	0	500	1659
Northern Cape	13	13.15	29.58	0	100	171
Western Cape	75	126.21	439.67	0	3000	9466
TOTAL	321	118.66	351.29	0	3000	38088

Table 21D ***Question 37: How many ethical stock items are dispensed/issued per day on average?***

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	33	220.03	625.67	0	3000	7261
Free State	24	108.00	229.05	0	900	2592
Gauteng	70	799.35	4672.55	0	39000	55955
Kwazulu-Natal	33	529.91	970.07	0	4700	17487
Limpopo	20	157.25	359.79	0	1200	3145
Mpumalanga	8	384.00	936.53	0	2692	3072
North West	30	203.30	533.27	0	2100	6099
Northern Cape	13	173.46	495.30	0	1800	2255
Western Cape	75	261.05	839.33	0	6952	19579
TOTAL	306	383.81	2319.86	0	39000	117445

(D) REGISTRATION DETAILS

Table 22D ***Question 38: The name of the responsible pharmacist is displayed conspicuously over the main entrance of the pharmacy.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	6	16.67	5	20.00	11	12.94	4	11.76	3	14.29	4	25.00	13	35.14	8	57.14	14	18.67	68	19.83
Partially complies	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	3	8.11	2	14.29	2	2.67	8	2.33
Complies	30	83.33	20	80.00	70	82.35	30	88.24	17	80.95	11	68.75	17	45.95	4	28.57	58	77.33	257	74.93
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	8.11	0	0.00	14	18.67	3	0.87
Not answered	0	0.00	0	0.00	3	3.53	0	0.00	1	4.76	1	6.25	1	2.70	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	37	100.0	75	100.0	343	100.0

Table 23D ***Question 39: The name of the pharmacist(s) on duty is displayed conspicuously in the pharmacy.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	10	27.78	12	48.00	20	23.53	7	20.59	3	14.29	7	43.75	20	54.05	11	78.57	20	26.67	110	32.07
Partially complies	0	0.00	0	0.00	0	0.00	4	11.76	0	0.00	1	6.25	4	10.81	1	7.14	1	1.33	11	3.21
Complies	26	72.22	13	52.00	62	72.94	23	67.65	18	85.71	7	43.75	9	24.32	2	14.29	53	70.67	213	62.10
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	3	8.11	0	0.00	0	0.00	4	1.17
Not answered	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 24D ***Question 40: The pharmacy is conducted under the constant personal supervision of a pharmacist.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	1	1.18	0	0.00	3	14.29	0	0.00	8	21.62	7	50.00	1	1.33	22	6.41
Partially complies	2	5.56	1	4.00	0	0.00	1	2.94	0	0.00	1	6.25	1	2.70	0	0.00	0	0.00	6	1.75
Complies	32	88.89	24	96.00	82	96.47	33	97.06	18	85.71	14	87.50	23	62.16	7	50.00	73	97.33	306	89.21
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	8.11	0	0.00	0	0.00	3	0.87
Not answered	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 25D ***Question 41: A currently valid annual registration card(s) is available for the pharmacist(s).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	1	4.00	6	7.06	1	2.94	3	14.29	1	6.25	8	21.62	7	50.00	9	12.00	41	11.95
Partially complies	1	2.78	0	0.00	2	2.35	3	8.82	0	0.00	0	0.00	1	2.70	0	0.00	2	2.67	9	2.62
Complies	30	83.33	24	96.00	75	88.24	28	82.35	16	76.19	14	87.50	21	56.76	7	50.00	63	84.00	278	81.05
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	6	16.22	0	0.00	0	0.00	7	2.04
Not answered	0	0.00	0	0.00	2	2.35	2	5.88	1	4.76	1	6.25	1	2.70	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 26D ***Question 42: A currently valid annual registration card(s) is available for the pharmacist's assistant(s) (basic/post-basic).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	5	5.88	2	5.88	4	19.05	1	6.25	5	13.51	0	0.00	3	4.00	22	6.41
Partially complies	1	2.78	0	0.00	1	1.18	3	8.82	1	4.76	1	6.25	1	2.70	0	0.00	3	4.00	11	3.21
Complies	16	44.44	16	64.00	55	64.71	10	29.41	8	38.10	9	56.25	13	35.14	2	14.29	16	21.33	145	42.27
Not applicable	16	44.44	9	36.00	22	25.88	16	47.06	7	33.33	4	25.00	16	43.24	11	78.57	52	69.33	153	44.61
Not answered	1	2.78	0	0.00	2	2.35	3	8.82	1	4.76	1	6.25	2	5.41	1	7.14	1	1.33	12	3.50
TOTAL	36	100.0	25	100.0	85	100.0	85	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 27D ***Question 43: A currently valid annual registration card(s) is available for the pharmacist's assistant(s) (learner basic/learner post-basic).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	4	4.71	2	5.88	0	0.00	1	6.25	3	8.11	0	0.00	8	10.67	19	5.54
Partially complies	0	0.00	0	0.00	3	3.53	2	5.88	0	0.00	0	0.00	1	2.70	0	0.00	3	4.00	9	2.62
Complies	5	13.89	15	60.00	45	52.94	6	17.65	5	23.81	11	68.75	11	29.73	3	21.43	22	29.33	123	35.86
Not applicable	29	80.56	10	40.00	30	35.29	21	61.76	15	71.43	3	18.75	19	51.35	11	78.57	41	54.67	179	52.19
Not answered	1	2.78	0	0.00	3	3.53	3	8.82	1	4.76	1	6.25	3	8.11	0	0.00	1	1.33	13	3.79
TOTAL	36	100.0	25	100.0	85	100.0	85	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 28D ***Question 44: A currently valid certificate for the recording of the pharmacy is available.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	1	4.00	4	4.71	1	2.94	2	9.52	0	0.00	7	18.92	8	57.14	2	2.67	27	7.87
Partially complies	0	0.00	0	0.00	1	1.18	7	20.59	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8	2.33
Complies	9	25.00	16	64.00	47	55.29	15	44.12	12	57.14	10	62.50	11	29.73	5	35.71	18	24.00	143	41.69
Not applicable	25	69.44	8	32.00	28	32.94	10	29.41	7	33.33	5	31.25	16	43.24	0	0.00	54	72.00	153	44.61
Not answered	0	0.00	0	0.00	5	5.88	1	2.94	0	0.00	1	6.25	3	8.11	1	7.14	1	1.33	12	3.50
TOTAL	36	100.0	25	100.0	85	100.0	85	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(E) PREMISES AND LAYOUT

Table 29D Question 45: The premises are clean.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	3	18.75	1	2.70	0	0.00	3	4.00	9	2.62
Partially complies	1	2.78	0	0.00	2	2.35	0	0.00	2	9.52	2	12.50	2	5.41	0	0.00	4	5.33	13	3.79
Complies	35	97.22	24	96.00	80	94.12	34	100.0	19	90.48	10	62.50	34	91.89	14	100.0	67	89.33	317	92.42
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	254	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 30D Question 46: The premises are organised.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	2.35	0	0.00	1	4.76	3	18.75	3	8.11	5	35.71	6	8.00	20	5.83
Partially complies	4	11.11	1	4.00	4	4.71	0	0.00	1	4.76	2	12.50	1	2.70	3	21.43	1	1.33	17	4.96
Complies	32	88.89	23	92.00	78	91.76	34	100.0	19	90.48	10	62.50	33	89.19	6	42.86	67	89.33	302	88.05
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 31D ***Question 47: The pharmacy is suitably located in the facility.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	1	4.00	2	2.35	0	0.00	1	4.76	2	12.50	1	2.70	2	14.29	5	6.67	18	5.25
Partially complies	7	19.44	2	8.00	0	0.00	0	0.00	0	0.00	1	6.25	4	10.81	2	14.29	3	4.00	19	5.54
Complies	25	69.44	21	84.00	82	96.47	34	100.0	20	95.24	12	75.00	31	93.78	10	71.43	66	88.00	301	87.76
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 32D ***Question 48: The floor surface in the dispensing area is of impermeable material.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	1	4.00	5	5.88	0	0.00	0	0.00	3	18.75	0	0.00	3	21.43	3	4.00	17	4.96
Partially complies	1	2.78	0	0.00	4	4.71	1	2.94	0	0.00	0	0.00	1	2.70	1	7.14	1	1.33	9	2.62
Complies	33	91.67	23	92.00	75	88.24	33	97.06	21	100.0	12	75.00	35	94.59	10	71.43	70	93.33	312	90.96
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 33D ***Question 49: All working surfaces are finished with a smooth, impermeable and washable material.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	0	0.00	1	1.18	1	2.94	0	0.00	0	0.00	1	2.70	5	35.71	3	4.00	15	4.37
Partially complies	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	4	10.81	4	28.57	2	2.67	12	3.50
Complies	32	88.89	24	96.00	81	95.29	33	97.06	21	100.0	15	93.75	31	83.78	5	35.71	69	92.00	311	90.67
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.00	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 34D ***Question 50: All cupboards and shelves are finished with a smooth, impermeable and washable material.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	28.57	3	4.00	10	2.92
Partially complies	0	0.00	0	0.00	2	2.35	1	2.94	0	0.00	1	6.25	5	13.51	1	7.14	4	5.33	14	4.08
Complies	33	91.67	24	96.00	82	96.47	33	97.06	21	100.0	14	87.50	31	83.78	9	64.29	67	89.33	314	91.55
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	37	100.0	75	100.0	343	100.0

Table 35D ***Question 51: Approval has been obtained from Council in the event that a person who is not registered with Council conducts another practice/business within the pharmacy (Ethical Rule 13 (a)).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not applicable	36	100.0	25	100.00	85	100.0	34	100.0	21	100.0	16	100.0	35	94.59	14	100.0	75	100.0	341	99.42
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 36D ***Question 52: There is sufficient lighting.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Partially complies	2	5.56	0	0.00	3	3.53	2	5.88	0	0.00	1	6.25	2	5.41	3	21.43	3	4.00	16	4.66
Complies	34	94.44	24	96.00	80	94.12	32	94.12	21	100.0	14	87.50	34	91.89	11	78.57	71	94.67	321	93.59
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 37D ***Question 53: The temperature in the pharmacy is below 25°C (as checked with a thermometer).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	6	16.67	1	4.00	5	5.88	1	2.94	3	14.29	1	6.25	6	16.22	4	28.57	4	5.33	31	9.04
Partially complies	2	5.56	0	0.00	4	4.71	3	8.82	0	0.00	1	6.25	0	0.00	0	0.00	0	0.00	10	2.92
Complies	28	77.78	23	92.00	75	88.24	30	88.24	18	85.71	13	81.25	30	81.08	10	71.43	69	92.00	296	86.30
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	2	2.67	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 38D ***Question 54: The temperature in the pharmacy is controlled 24 hours a day with a maximum, minimum thermometer.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	14	38.89	2	8.00	12	14.12	0	0.00	1	4.76	3	18.75	8	21.62	6	42.86	11	14.67	63	18.37
Partially complies	3	8.33	10	40.00	4	4.71	6	17.65	0	0.00	2	12.50	1	2.70	0	0.00	3	4.00	27	7.87
Complies	19	52.78	12	48.00	67	78.82	24	70.59	20	95.24	10	62.50	26	70.27	8	57.14	60	80.00	246	71.72
Not answered	0	0.00	1	4.00	2	2.35	4	11.76	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 39D ***Question 55: The temperature in the pharmacy is recorded daily.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	15	41.67	10	40.00	21	24.71	9	26.47	3	14.29	5	31.25	14	37.84	9	64.29	21	28.00	107	31.20
Partially complies	1	2.78	0	0.00	1	1.18	5	14.71	1	4.76	0	0.00	1	2.70	1	7.14	0	0.00	10	2.92
Complies	20	55.56	14	56.00	61	71.76	20	58.82	17	80.95	10	62.50	21	56.76	4	28.57	53	70.67	220	64.14
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100	75	100.0	343	100.0

Table 40D ***Question 56: The dispensing surface area is sufficient for the volume of prescriptions dispensed.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	2	8.00	5	5.88	2	5.88	0	0.00	4	25.00	4	10.81	7	5.00	11	14.67	40	11.66
Partially complies	2	5.56	1	4.00	4	4.71	2	5.88	0	0.00	1	6.25	3	8.11	1	7.14	3	4.00	17	4.96
Complies	29	80.56	21	84.00	75	88.24	30	88.24	21	100.0	10	62.50	29	78.38	6	42.86	60	80.00	281	81.92
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 41D Question 57: The total floor area is sufficient for the efficient operation of dispensing staff.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	6	16.67	2	8.00	5	5.88	3	8.82	1	4.76	4	25.00	4	10.81	5	35.71	9	12.00	39	11.37
Partially complies	2	5.56	2	8.00	8	9.41	2	5.88	0	0.00	0	0.00	4	10.81	3	21.43	1	1.33	22	6.41
Complies	28	77.78	20	80.00	71	83.53	29	85.29	20	95.24	11	68.75	28	75.68	6	42.86	64	85.33	277	80.76
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	34	100.0	14	100.0	75	100.0	343	100.0

Table 42D Question 58: The workflow in the pharmacy is efficient.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	2	8.00	3	3.53	0	0.00	1	4.76	4	25.00	1	2.70	5	35.71	5	6.67	25	7.29
Partially complies	3	8.33	2	8.00	7	8.24	1	2.94	0	0.00	1	6.25	5	13.51	1	7.14	0	0.00	21	6.12
Complies	30	83.33	20	80.00	74	87.06	31	91.18	20	95.24	10	62.50	30	81.08	8	57.14	69	92.00	292	85.13
Not answered	0	0.00	1	4.00	1	1.18	2	5.88	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 43D ***Question 59: There is a suitable waiting area, in accordance with GPP guidelines.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	3	12.00	6	7.06	1	2.94	1	4.76	3	18.75	3	8.11	1	7.14	4	5.33	24	7.00
Partially complies	4	11.11	0	0.00	3	3.53	2	5.88	1	4.76	2	12.50	3	8.11	2	14.29	1	1.33	18	5.25
Complies	22	61.11	21	84.00	55	64.71	29	85.29	17	80.95	9	56.25	28	75.68	9	64.29	57	76.00	247	72.01
Not applicable	8	22.22	0	0.00	20	23.53	2	5.88	2	9.52	1	6.25	2	5.41	2	14.29	12	16.00	49	14.29
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 44D ***Question 60: There is a suitable semi-private area for the provision of information and advice, in accordance with GPP guidelines.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	7	19.44	7	28.00	19	22.35	4	11.76	3	14.29	4	25.00	9	24.32	5	35.71	15	20.00	73	21.28
Partially complies	3	8.33	3	12.00	5	5.88	5	14.71	0	0.00	0	0.00	5	13.51	0	0.00	9	12.00	30	8.75
Complies	18	50.00	13	52.00	39	45.88	23	67.65	13	61.90	10	62.50	20	54.05	7	50.00	42	56.00	185	53.94
Not applicable	8	22.22	1	4.00	21	24.71	2	5.88	5	23.81	1	6.25	3	8.11	2	14.29	8	10.67	51	14.87
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 45D ***Question 61: The professional image of the dispensing area is not affected by the display of commercial material not directly linked with health.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	9	25.00	2	8.00	50	58.82	21	61.76	7	33.33	4	25.00	9	24.32	1	7.14	40	53.33	143	41.69
Not applicable	27	75.00	22	88.00	32	37.65	13	38.24	14	66.67	11	68.75	28	75.68	13	92.86	34	45.33	194	56.56
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 46D ***Question 62: Medicinal and non-medicinal products are displayed separately in the pharmacy.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	6	16.67	2	8.00	43	50.59	19	55.88	3	14.29	8	50.00	9	24.32	1	7.14	33	44.00	124	36.15
Not applicable	30	83.33	22	88.00	41	48.24	15	44.12	18	85.71	7	43.75	27	72.97	12	85.71	41	54.67	213	62.10
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 47D ***Question 63: Only the pharmacist(s) has keys to the pharmacy.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	0	0.00	1	1.18	1	2.94	1	4.76	1	6.25	5	13.51	1	7.14	6	8.00	20	5.83
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	2	5.41	0	0.00	0	0.00	3	0.87
Complies	32	88.89	24	96.00	83	97.65	33	97.06	19	90.48	14	87.50	27	72.97	13	92.86	66	88.00	311	90.67
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	3	8.11	0	0.00	3	4.00	9	2.62
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 48D ***Question 64: There is sufficient security to prevent unauthorised access to medicines.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	0	0.00	1	1.18	1	2.94	0	0.00	0	0.00	1	2.70	0	0.00	2	2.67	9	2.62
Partially complies	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	0	0.00	3	0.87
Complies	31	86.11	24	96.00	83	97.65	33	97.06	21	100.0	14	87.50	34	91.89	14	100.0	72	96.00	326	95.04
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(F) EQUIPMENT

Table 49D Question 65: There is a facility for washing hands.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	3	12.00	3	3.53	1	2.94	1	4.76	0	0.00	3	8.11	3	21.43	1	1.33	20	5.83
Partially complies	3	8.33	1	4.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.67	6	1.75
Complies	28	77.78	20	80.00	81	95.29	33	97.06	19	90.48	15	93.75	33	89.19	11	78.57	71	94.67	311	90.67
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 50D Question 66: There is a facility for cleaning of equipment.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	1	1.18	1	2.94	0	0.00	2	12.50	6	16.22	5	35.71	6	8.00	22	6.41
Partially complies	2	5.56	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	0	0.00	3	0.87
Complies	32	88.89	24	96.00	83	97.65	32	94.12	19	90.48	13	81.25	29	78.38	9	64.29	68	90.67	309	90.09
Not applicable	1	2.78	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	2	5.41	0	0.00	0	0.00	4	1.17
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 51D Question 67: The pharmacy has adequate pestles and mortars

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	2	8.00	0	0.00	1	2.94	3	14.29	0	0.00	4	10.81	4	28.57	7	9.33	24	7.00
Partially complies	2	5.56	0	0.00	0	0.00	1	2.94	2	9.52	0	0.00	0	0.00	0	0.00	0	0.00	5	1.46
Complies	29	80.56	20	80.00	79	92.94	30	88.24	15	71.43	15	93.75	22	59.46	5	35.71	60	80.00	275	80.17
Not applicable	2	5.56	0	0.00	5	5.88	2	5.88	0	0.00	0	0.00	11	29.73	5	35.71	7	9.33	34	9.91
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 52D Question 68: The pharmacy has adequate spatulas.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	2	2.35	2	5.88	3	14.29	0	0.00	4	10.81	5	35.71	6	8.00	23	6.71
Partially complies	1	2.78	0	0.00	1	1.18	1	2.94	2	9.52	0	0.00	0	0.00	0	0.00	1	1.33	6	1.75
Complies	32	88.89	22	88.00	76	89.41	30	88.24	15	71.43	15	93.75	24	64.86	5	35.71	64	85.33	283	82.51
Not applicable	1	2.78	2	8.00	5	5.88	1	2.94	0	0.00	0	0.00	9	24.32	4	28.57	3	4.00	25	7.29
Not answered	1	2.78	1	4.00	1	1.18	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 53D Question 69: The pharmacy has a suitable mass meter for dispensing.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	6	16.67	3	12.00	1	1.18	0	0.00	2	9.52	0	0.00	2	5.41	5	35.71	14	18.67	33	9.62
Partially complies	0	0.00	0	0.00	1	1.18	1	2.94	1	4.76	0	0.00	0	0.00	0	0.00	0	0.00	3	0.87
Complies	27	75.00	19	76.00	76	89.41	32	94.12	17	80.95	14	87.50	22	59.46	4	28.57	45	60.00	256	74.64
Not applicable	3	8.33	2	8.00	6	7.06	1	2.94	0	0.00	1	6.25	13	35.14	5	35.71	15	20.00	46	13.41
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 54D Question 70: The pharmacy has adequate graduated measures.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	2.35	1	2.94	2	9.52	0	0.00	5	13.51	4	28.57	2	2.67	16	4.66
Partially complies	3	8.33	0	0.00	1	1.18	2	5.88	1	4.76	1	6.25	2	5.41	0	0.00	0	0.00	10	2.92
Complies	33	91.67	24	96.00	80	94.12	31	91.18	16	76.19	14	87.50	30	81.08	8	57.14	72	96.00	308	89.80
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	2	14.29	0	0.00	3	0.87
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	2	9.52	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 55D ***Question 71: The pharmacy has adequate medicine containers for the dispensing of medicines.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	2	2.67	3	0.87
Partially complies	1	2.78	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.58
Complies	35	97.22	24	96.00	83	97.65	33	97.06	20	95.24	15	93.75	36	97.30	14	100.0	72	96.00	332	96.79
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 56D ***Question 72: The pharmacy has adequate warning labels or clearly noticeable warning indicators on the label.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	1	4.00	6	7.06	1	2.94	0	0.00	1	6.25	3	8.11	2	14.29	2	2.67	17	4.96
Partially complies	2	5.56	1	4.00	0	0.00	2	5.88	0	0.00	2	12.50	0	0.00	1	7.14	3	4.00	11	3.21
Complies	33	91.67	22	88.00	77	90.59	31	91.18	20	95.24	12	75.00	33	89.19	11	78.57	68	90.67	307	89.50
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	2	2.67	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 57D ***Question 73: The pharmacy has suitable laminar flow cabinet(s) for preparation of parenteral fluids/TPN (e.g. antibiotics) which is validated.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	1	4.00	7	8.24	2	5.88	0	0.00	1	6.25	1	2.70	1	7.14	1	1.33	14	4.08
Not applicable	36	100.0	23	92.00	77	90.59	32	94.12	20	95.24	14	87.50	35	94.59	13	92.86	73	97.33	323	94.17
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 58D ***Question 74: The pharmacy has suitable laminar flow cabinet(s) (vertical) for preparation of biohazardous preparations (e.g.) cytotoxics) which is validated.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	1	2.78	4	16.00	10	11.76	2	5.88	1	4.76	1	6.25	1	2.70	0	0.00	7	9.33	27	7.87
Not applicable	35	97.22	20	80.00	74	87.06	32	94.12	19	90.48	14	87.50	0	0.00	14	100.0	67	89.33	310	90.38
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 59D Question 75: The pharmacy has sufficient counting apparatus for tablets and capsules.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	2	9.52	0	0.00	3	8.11	3	21.43	3	4.00	9	2.62
Partially complies	2	5.56	0	0.00	0	0.00	2	5.88	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	6	1.75
Complies	34	94.44	24	96.00	81	95.92	32	94.12	18	85.71	15	93.75	32	86.49	10	71.43	70	93.33	316	92.13
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	3	8.11	0	0.00	0	0.00	4	1.17
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	1	4.76	1	6.25	1	2.70	0	0.00	2	2.67	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 60D Question 76: Counting trays are cleaned in order to prevent cross-contamination.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	2.35	1	2.94	1	4.76	0	0.00	4	10.81	4	28.57	2	2.67	14	4.08
Partially complies	0	0.00	0	0.00	4	4.71	2	5.88	0	0.00	0	0.00	0	0.00	1	7.14	0	0.00	7	2.04
Complies	36	100.0	24	96.00	76	89.41	31	91.18	19	90.48	14	87.50	29	78.38	9	64.29	72	96.00	310	90.38
Not applicable	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	3	8.11	0	0.00	0	0.00	5	1.46
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	1	4.76	2	12.50	1	2.70	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 61D Question 77: All the equipment in the pharmacy is clean.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	2	2.67	3	0.87
Partially complies	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	4	1.17
Complies	36	100.0	24	96.00	82	96.47	34	100.0	19	95.24	15	93.75	34	91.89	13	92.86	72	96.00	329	95.92
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	2	9.52	1	6.25	1	2.70	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 62D Question 78: All the equipment in the pharmacy is in good working order.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	5.41	1	7.14	6	8.00	12	3.50
Partially complies	2	5.56	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	2	5.41	1	7.14	1	1.33	7	2.04
Complies	31	86.11	24	96.00	84	98.82	34	100.0	19	95.24	14	97.50	32	86.49	12	85.71	67	89.33	317	92.42
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	2	9.52	1	6.25	1	2.70	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(G) STORAGE

Table 63D Question 79: Medicines are stored according to a system.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	5	6.67	6	1.75
Partially complies	0	0.00	0	0.0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	1	1.33	2	0.58
Complies	36	100.0	24	96.00	83	97.65	34	100.0	20	95.24	15	93.75	37	100.0	13	92.86	68	90.67	330	96.21
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 64D Question 80: Storage areas are situated so that products are protected from potentially harmful influences.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	0	0.00	1	2.94	0	0.00	1	6.25	1	2.70	3	21.43	2	2.67	9	2.62
Partially complies	0	0.00	0	0.00	1	1.18	1	2.94	0	0.00	1	6.25	0	0.00	2	14.29	2	2.677	7	2.04
Complies	35	97.22	24	96.00	82	96.47	32	94.12	21	100.0	13	81.25	34	91.89	9	64.29	70	93.33	320	93.29
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 65D ***Question 81: All goods are stored off the floor.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	0	0.00	6	7.06	4	11.76	4	19.05	3	18.75	5	13.51	6	42.86	6	8.00	38	11.08
Partially complies	3	8.33	0	0.00	0	0.00	3	8.82	1	4.76	1	6.25	2	5.41	1	7.14	4	5.33	15	4.37
Complies	29	80.56	24	96.00	77	90.59	27	79.41	16	76.19	11	68.75	29	78.38	7	50.00	63	84.00	283	82.51
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	2	2.67	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 66D ***Question 82: Raw materials known to be at risk for cross-contamination are stored separately.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Complies	12	33.33	0	0.00	28	32.94	24	70.59	5	23.81	5	31.25	6	16.22	4	28.57	22	29.33	106	30.90
Not applicable	24	66.67	24	96.00	55	64.71	9	26.47	16	76.19	0	0.00	28	75.68	10	71.43	52	69.33	228	66.47
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 67D ***Question 83: Proper care and control is exercised over hazardous substances which are stored separately.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Complies	0	0.00	0	0.00	7	8.24	2	5.88	0	0.00	1	6.25	4	10.81	2	14.29	9	12.00	25	7.29
Not applicable	36	100.0	24	96.00	0	0.00	32	94.12	21	100.0	14	87.50	29	78.38	12	85.71	65	86.67	309	90.09
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	3	8.11	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 68D ***Question 84: Proper care and control is exercised over flammable substances which are stored separately.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	0	0.00	1	2.94	0	0.00	1	6.25	3	8.11	1	7.14	3	4.00	12	3.50
Partially complies	0	0.00	0	0.00	1	1.18	1	2.94	0	0.00	0	0.00	2	5.41	0	0.00	0	0.00	3	0.87
Complies	8	22.22	3	12.00	35	41.18	21	61.76	10	47.62	10	62.50	14	37.84	4	28.57	42	56.00	147	42.86
Not applicable	26	72.22	21	84.00	47	55.29	11	32.35	11	52.38	4	25.00	17	45.95	9	64.29	29	38.67	175	51.02
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 69D ***Question 85: A system is in place to ensure effective stock rotation (refer also SOP section).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	6	8.00	8	2.33
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	10	13.33	10	2.92
Complies	0	0.00	24	96.00	82	96.47	34	100.0	20	95.24	15	93.75	35	94.59	14	100.0	57	76.00	317	92.42
Not applicable	36	100.0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	5.41	0	0.00	0	0.00	0	0.00
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	2	2.67	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 70D ***Question 86: There are no expired medicines on the shelves (as observed).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.58
Partially complies	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Complies	35	97.22	24	96.00	82	96.47	32	94.12	21	100.0	15	93.75	36	97.30	14	100.0	73	97.33	332	96.79
Not answered	0	0.00	1	4.00	2	2.35	1	2.94	0	0.00	1	6.25	1	2.70	0	0.00	2	2.67	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 71D Question 87: Expired, damaged and/or contaminated stock is clearly separated.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	1	0.29
Complies	0	0.00	24	96.00	83	97.65	34	100.0	21	100.0	15	93.75	35	94.59	14	100.0	72	96.00	334	97.38
Not applicable	36	100.0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 72D Question 88: Expired, damaged and/or contaminated stock is destroyed in a safe manner.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	1	1.18	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	3	4.00	7	2.04
Partially complies	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	13	17.33	16	4.66
Complies	33	91.67	24	96.00	82	96.47	34	100.0	20	95.24	14	87.50	34	91.89	14	100.0	58	77.33	313	91.25
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 73D Question 89: The pharmacy has suitable refuse receptacles (with closing lids where applicable).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	0	0.00	0	0.00	1	2.94	1	4.76	0	0.00	5	13.51	6	42.86	7	9.33	24	7.00
Partially complies	2	5.56	5	20.00	1	1.18	0	0.00	0	0.00	0	0.00	3	8.11	4	28.57	1	1.33	16	4.66
Complies	30	83.33	19	76.00	82	96.47	33	97.06	20	95.24	15	93.75	27	72.97	4	28.57	66	88.00	296	86.30
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 74D Question 90: The receiving area is under impermeable cover.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	0	0.00	1	1.18	1	2.94	0	0.00	2	12.50	5	13.51	2	14.29	5	6.67	19	5.54
Partially complies	1	2.78	0	0.00	1	1.18	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.87
Complies	32	88.89	24	96.00	82	96.47	32	94.12	21	100.0	11	68.75	31	83.78	12	85.71	69	92.00	314	91.55
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	3	18.75	1	2.70	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 75D ***Question 91: The receiving area is effectively separated.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	7	19.44	1	4.00	3	3.53	2	5.88	2	9.52	5	31.25	5	13.51	7	50.00	7	9.33	39	11.37
Partially complies	2	5.56	0	0.00	0	0.00	5	14.71	0	0.00	1	6.25	0	0.00	0	0.00	0	0.00	8	2.33
Complies	27	75.00	23	92.00	81	95.29	27	79.41	19	90.48	9	56.25	30	81.08	7	50.0	67	89.33	290	84.55
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	6	1.75
TOTAL	36	1001.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 76D ***Question 92: Stock is checked on receipt for quantity, quality, damaged containers, type, storage conditions and expiry dates.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	1	0.29
Partially complies	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Complies	35	97.22	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	36	97.30	14	100.0	73	97.33	336	97.96
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 77D ***Question 93: A list of product types requiring special storage or handling instructions is available and consulted on receipt of stock (refer also SOP section).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	7	19.44	5	20.00	25	29.41	8	23.53	10	47.62	5	31.25	14	37.84	8	57.14	22	29.33	104	30.32
Partially complies	1	2.78	0	0.00	2	2.35	0	0.00	1	4.76	2	12.50	1	2.70	0	0.00	2	2.67	9	2.62
Complies	27	75.00	19	76.00	55	64.71	25	73.53	9	42.86	6	37.50	20	54.05	6	42.86	50	66.67	217	63.27
Not applicable	1	2.78	0	0.00	2	2.35	0	0.00	1	4.76	0	0.00	1	2.70	0	0.00	0	0.00	5	1.46
Not answered	0	0.00	1	4.00	1	1.18	1	2.94	0	0.00	3	18.75	1	2.70	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 78D ***Question 94: There is a system for the correct handling of the various types of goods returned from patients (refer also SOP section).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	1	1.18	0	0.00	1	4.76	2	12.50	0	0.00	1	7.14	10	13.33	17	4.96
Partially complies	0	0.00	0	0.00	1	1.18	0	0.00	2	9.52	2	12.50	0	0.00	0	0.00	10	13.33	16	4.88
Complies	34	94.44	24	96.00	79	92.94	34	100.0	18	85.71	10	62.50	34	91.89	13	92.86	52	69.33	298	86.88
Not applicable	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.67	4	1.17
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	2	12.50	2	5.41	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 79D ***Question 95: Is any pre-packing performed on the premises?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	20	55.56	14	56.00	33	38.82	21	61.76	18	85.71	9	56.25	22	59.46	5	35.71	36	48.00	174	50.73
No	16	44.44	10	40.00	51	60.00	13	38.24	3	14.29	6	37.50	14	37.84	9	64.29	38	50.67	164	47.81
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 80D ***Question 96: Is pre-packing done in accordance with Regulation 33 Act 101 of 1965 (refer also SOP section).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	5	20.00	13	15.29	0	0.00	1	4.76	4	25.00	12	32.43	2	14.29	14	18.67	52	15.16
Partially complies	7	19.44	0	0.00	6	7.06	4	11.76	5	23.81	1	6.25	4	10.81	0	0.00	3	4.00	30	8.75
Complies	8	22.22	8	32.00	11	12.94	17	50.00	12	57.14	3	18.75	7	18.92	3	21.43	18	24.00	87	25.36
Not applicable	20	55.56	10	40.00	54	63.53	13	38.24	3	14.29	7	43.75	13	35.14	9	64.29	39	52.00	168	48.98
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(H) CONTROL OF MEDICINES/RECORD KEEPING

Table 81D ***Question 97: All medicine sold for human use; comply with Regulation 8 Act 101 of 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	1	1.18	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.87
Partially complies	1	2.78	0	0.00	1	1.18	2	5.88	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	1.17
Complies	31	86.11	24	96.00	82	96.47	31	91.18	21	100.0	15	93.75	37	100.0	14	100.0	72	96.00	327	95.34
Not applicable	2	5.56	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	3	0.87
Not answered	1	2.78	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	2	2.67	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 82D ***Question 98: Medicines are purchased only through legally authorised entities/suppliers (as confirmed by pharmacist in charge during inspection).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	24	96.00	0	0.00	34	100.0	21	100.0	15	93.75	37	100.0	14	100.0	74	98.67	339	98.83
Not applicable	36	100.0	0	0.00	84	98.82	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 83D ***Question 99: There are no unregistered medicines on the premises (as observed).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	2	2.67	5	1.46
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	35	97.22	24	96.00	84	98.82	34	100.0	21	100.0	14	87.50	36	97.30	14	100.0	72	97.30	334	98.24
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 84D ***Question 100: A computerised program is used for dispensing.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	8	22.22	7	28.00	59	69.41	15	44.12	5	23.81	6	37.50	8	21.62	4	28.57	25	33.33	137	39.94
No	28	77.78	17	68.00	24	28.24	19	55.88	16	76.19	9	56.25	28	75.68	10	71.34	49	65.33	200	58.31
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 85D ***Question 101: An effective stock control system is in place.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	2	12.50	1	2.70	1	7.14	4	5.33	10	2.92
Partially complies	3	8.33	0	0.00	5	5.88	1	2.94	1	4.76	0	0.00	2	5.41	2	14.29	2	2.67	16	4.66
Complies	33	91.67	23	92.00	78	91.76	33	97.06	0	0.00	13	81.25	32	86.49	11	78.57	67	89.33	310	90.38
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	20	95.24	1	6.25	2	5.41	0	0.00	2	2.67	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 86D ***Question 102: A computerised program is used for stock control.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	25	69.44	9	36.00	68	80.00	32	94.12	20	95.24	12	75.00	25	67.57	4	28.57	28	37.33	223	65.01
No	11	30.56	15	60.00	16	18.82	2	5.88	1	4.76	3	18.75	12	32.43	10	71.43	46	61.33	116	33.82
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 87D Question 103: Controls are in place for issuing ward stock.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	2	12.50	0	0.00	0	0.00	5	6.67	8	2.33
Partially complies	0	0.00	0	0.00	1	1.18	2	5.88	0	0.00	1	6.25	0	0.00	0	0.00	10	13.33	14	4.08
Complies	31	86.11	21	84.00	71	83.53	30	88.24	20	95.24	11	68.75	27	72.97	11	78.57	48	64.00	270	78.72
Not applicable	5	13.89	3	12.00	11	12.94	2	5.88	1	4.76	1	6.25	10	27.03	3	21.43	11	14.67	47	13.70
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 88D Question 104: Controls are in place for issuing of medicines per patient to the wards.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	3	18.75	0	0.00	0	0.00	1	1.33	6	1.75
Partially complies	1	2.78	0	0.00	2	2.35	2	5.88	0	0.00	1	6.25	1	2.70	0	0.00	8	10.67	15	4.37
Complies	28	77.78	21	84.00	69	81.18	27	79.41	9	42.86	8	50.00	24	64.86	9	64.29	36	48.00	231	67.35
Not applicable	7	19.44	3	12.00	11	12.94	5	14.71	12	57.14	3	18.75	12	32.43	0	0.00	29	38.67	87	25.36
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 89D ***Question 105: The pharmacist exercises control over medicines kept in places other than the pharmacy (e.g. wards, theatres etc).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	3	3.53	1	2.94	1	4.76	3	18.75	2	5.41	4	28.57	10	13.33	25	7.29
Partially complies	3	8.33	0	0.00	2	2.35	4	11.76	0	0.00	3	18.75	0	0.00	0	0.00	6	8.00	18	5.25
Complies	30	83.33	21	84.00	68	80.00	25	73.53	19	90.48	8	50.00	25	67.57	8	57.14	48	64.00	252	73.47
Not applicable	2	5.56	3	12.00	10	11.76	4	11.76	1	4.76	1	6.25	10	27.03	2	14.29	10	13.33	43	12.54
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 90D ***Question 106: A prescription book/permanent record for S2-S6 medicines is kept as required in Regulation 11(1) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	0	0.00	3	3.53	3	8.82	0	0.00	3	18.75	2	5.41	1	7.14	14	18.67	29	8.45
Partially complies	4	11.11	0	0.00	0	0.00	5	14.71	2	9.52	0	0.00	5	13.51	0	0.00	3	4.00	19	5.54
Complies	29	80.56	25	100.0	81	95.29	25	73.53	19	90.48	12	75.00	29	78.38	13	92.86	55	73.33	288	83.97
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.67	2	0.58
Not answered	0	0.00	0	0.00	1	1.18	1	2.94	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 91D Question 107: A prescription record for is kept for 5 years as required in Regulation 11(3) of Act 101 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	0	0.00	3	3.53	1	2.94	0	0.00	0	0.00	3	8.11	0	0.00	8	10.67	18	5.25
Partially complies	5	13.89	0	0.00	1	1.18	0	0.00	2	9.52	1	6.25	6	16.22	0	0.00	0	0.00	15	4.37
Complies	28	77.78	25	100.0	80	94.12	33	97.06	19	90.48	14	87.50	28	75.68	14	100.0	64	85.33	305	88.92
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.67	2	0.58
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 92D Question 108: Original prescriptions are kept in a safe place and are easily retrievable.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	0	0.00	3	3.53	1	2.94	0	0.00	0	0.00	3	8.11	1	7.14	1	1.33	14	4.08
Partially complies	5	13.89	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	4	10.81	0	0.00	0	0.00	10	2.92
Complies	26	72.22	25	100.0	80	94.12	33	97.06	20	95.24	15	93.75	30	81.08	12	85.71	71	94.67	312	90.96
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	2	2.67	4	1.17
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 93D ***Question 109: A patient profile detailing all prescriptions dispensed to the patient is kept for 2 years.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	2	8.00	2	2.35	3	8.82	1	4.76	1	6.25	2	5.41	0	0.00	2	2.67	18	5.25
Partially complies	5	13.89	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	4	10.81	0	0.00	0	0.00	10	2.92
Complies	26	72.22	23	92.00	80	94.12	31	91.18	20	95.24	14	87.50	31	83.78	14	100.0	70	93.33	309	90.09
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.67	3	0.87
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 94D ***Question 110: A patient profile detailing all P.I.T. dispensed to the patient is kept for 2 years.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	4	11.11	3	12.00	45	52.94	8	23.53	3	14.29	4	25.00	9	24.32	3	21.43	7	9.33	86	25.07
Not applicable	32	88.89	22	88.00	39	45.88	26	76.47	18	85.71	11	68.75	27	72.97	11	78.57	67	89.33	253	73.76
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 95D ***Question 111: S1-S5 medicines are stored/displayed in areas inaccessible to the public.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	3	0.87
Complies	36	100.0	25	100.0	83	97.65	34	100.0	21	100.0	14	87.50	36	97.30	14	100.0	73	97.33	336	97.96
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 96D ***Question 112: All S1 medicine sales are recorded in a prescription book /permanent record as required in Regulation 11(2) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	4	1.17
Partially complies	0	0.00	0	0.00	1	1.18	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	3	0.87
Complies	2	5.56	3	12.00	51	60.00	11	32.35	1	4.76	3	18.75	7	18.92	1	7.14	45	60.00	124	36.15
Not applicable	34	94.44	22	88.00	31	36.47	22	64.71	20	95.24	11	68.75	29	78.38	13	92.86	27	36.00	209	60.93
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 97D ***Question 113: All S2 medicine sales are recorded in a prescription book/permanent record as required in Regulation 11(1) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	4	1.17
Partially complies	0	0.00	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	2	0.58
Complies	2	5.56	3	12.00	51	60.00	12	35.29	1	4.76	2	12.50	7	18.92	1	7.14	46	61.33	125	36.44
Not applicable	34	94.44	22	88.00	32	37.65	21	61.76	20	95.24	12	75.00	29	78.38	13	92.86	26	34.67	209	60.93
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 98D ***Question 114: Are S6 medicines ordered, stored or supplied at any time?***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	29	80.56	22	88.00	79	92.94	33	97.06	19	90.48	15	93.75	26	70.27	11	78.57	70	93.33	304	88.63
No	7	19.44	3	12.00	5	5.88	1	2.94	2	9.52	0	0.00	10	27.03	3	21.43	4	5.33	35	10.20
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 99D ***Question 115: There is a system in place for the correct handling by the pharmacist of specified S5 and S6 medicines (refer also SOP section).***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	7	8.24	1	2.94	0	0.00	2	12.50	1	2.70	1	7.14	22	29.33	33	9.62
Partially complies	1	2.78	6	24.00	8	9.41	2	5.88	0	0.00	0	0.00	1	2.70	0	0.00	4	5.33	22	6.41
Complies	30	83.33	16	64.00	66	77.65	31	91.18	19	90.48	13	81.25	29	78.38	12	85.71	46	61.33	262	76.38
Not applicable	5	13.89	3	12.00	3	3.53	1	2.94	2	9.52	0	0.00	6	16.22	1	7.14	2	2.67	23	6.71
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 100D ***Question 116: S6 medicines are locked away and the key is under the control of the pharmacist.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	2	2.67	4	1.17
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	1	0.29
Complies	29	80.56	22	88.00	80	94.12	33	97.06	19	90.48	14	87.50	29	78.38	10	71.43	68	90.67	304	88.63
Not applicable	7	19.44	3	12.00	4	4.71	1	2.94	2	9.52	0	0.00	7	18.92	4	28.57	3	4.00	31	9.04
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 101D ***Question 117: There is a up-to-date register of all specified S5 & S6 purchases and sales as required in Regulation 30 of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	8	9.41	1	2.94	0	0.00	1	6.25	3	8.11	1	7.14	23	30.67	38	11.08
Partially complies	1	2.78	5	20.00	16	18.82	8	23.53	3	14.29	0	0.00	6	16.22	1	7.14	3	4.00	43	12.54
Complies	30	83.33	18	72.00	57	67.06	25	73.53	16	76.19	14	87.50	21	56.76	12	85.71	45	60.00	237	69.10
Not applicable	4	11.11	2	8.00	3	3.53	0	0.00	2	9.52	0	0.00	6	16.22	1	7.14	3	4.00	21	6.12
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 102D ***Question 118: The specified S5 & S6 substances register was balanced on the last day of March, June, September and December of each year within 14 days as required in Regulation 30(2) of Act 101 1965.***

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	0	0.00	8	9.41	1	2.94	2	9.52	0	0.00	3	8.11	1	7.14	23	30.67	41	11.95
Partially complies	0	0.00	8	32.00	17	20.00	10	29.41	1	4.76	1	6.25	8	21.62	5	35.71	5	6.67	55	16.03
Complies	30	83.33	15	60.00	55	64.71	22	64.71	16	76.19	13	81.25	18	48.65	7	50.00	43	57.33	219	63.85
Not applicable	0	0.00	2	8.00	3	3.53	1	2.94	2	9.52	0	0.00	6	16.22	1	7.14	3	4.00	21	6.12
Not answered	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	2	12.50	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 103D Question 119: Does the pharmacy deliver medicines by mail?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	0	0.00	2	0.58
No	36	100.0	25	100.0	83	97.65	34	100.0	21	100.0	14	87.50	37	100.0	14	100.0	74	98.67	338	98.54
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 104D Question 120: Does the pharmacy deliver medicines by courier?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	2	5.56	0	0.00	7	8.24	0	0.00	0	0.00	3	18.75	2	5.41	2	14.29	5	6.67	21	6.12
No	34	94.44	25	100.0	77	90.59	34	100.0	21	100.0	12	75.00	34	91.89	12	85.71	69	92.00	318	92.71
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 105D Question 121: Does the pharmacy deliver medicines by delivery person/porter?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	9	25.00	3	12.00	23	27.06	16	47.06	6	28.57	11	68.75	13	35.14	1	7.14	33	44.00	117	34.11
No	27	75.00	22	88.00	61	71.76	17	50.00	15	71.43	4	25.00	23	62.16	13	92.86	41	54.67	221	64.43
Not answered	0	0.00	0	0.00	1	1.18	1	2.94	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 106D Question 122: Does the pharmacy deliver medicines by any other means (e.g. train etc.)?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	1	2.78	0	0.00	1	1.18	3	8.82	0	0.00	0	0.00	1	2.70	0	0.00	1	1.33	7	2.04
No	35	97.22	25	100.0	83	97.65	31	91.18	21	100.0	15	93.75	35	94.59	14	100.0	73	97.33	332	96.79
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Such indirect supplies (refer question 119-122) comply with all GPP requirements i.r.o. the following :

Table 107D Question 124: A control system is implemented that enables detection and correction of a delay in the delivery process.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	8	10.67	9	2.62
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	0	0.00	1	0.29
Complies	10	27.78	3	12.00	28	32.94	16	47.06	15	71.43	6	37.50	10	27.03	1	7.14	27	36.00	116	33.82
Not applicable	26	72.22	22	88.00	56	65.88	18	52.94	6	28.57	8	50.00	27	72.97	12	85.71	0	0.00	214	62.39
Not answered	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 108D Question 125: Medicines are packaged and stored in accordance with registration requirements throughout the delivery process.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	4.00	3	0.87
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	10	27.78	3	12.00	15	17.65	18	52.94	15	71.43	7	43.75	10	27.03	2	14.29	32	42.67	112	32.65
Not applicable	26	72.22	22	88.00	69	81.18	16	47.06	6	28.57	0	0.00	27	72.97	12	85.71	39	52.00	225	65.60
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 109D Question 126: Control is exercised so that products are not subjected to unacceptable degrees of any adverse influences during the transportation process.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	3	4.00	5	1.46
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	11	30.56	3	12.00	15	17.65	19	55.88	14	66.76	6	37.50	11	29.73	2	14.29	32	42.67	113	32.94
Not applicable	25	69.44	22	88.00	69	81.18	15	44.12	6	28.57	8	50.00	26	70.27	12	85.71	39	52.00	222	64.72
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 110D Question 127: Medicines prescribed for acute ailments or conditions are not delivered by mail/courier/train.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	6.67	5	1.46
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	4	11.11	2	8.00	7	8.24	6	17.65	11	52.38	5	31.25	2	5.41	0	0.00	7	9.33	44	12.83
Not applicable	32	88.89	23	92.00	77	90.59	28	82.35	10	47.62	10	62.50	35	94.59	14	100.0	62	82.67	291	84.84
Not answered	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(I) THERMOLABILE MEDICINES

Table 111D Question 128: Are thermolabile medicines purchased, stored or supplied at any time?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	32	86.49	13	92.86	74	98.67	333	97.08
No	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	10.81	1	7.14	0	0.00	5	1.46
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 112D Question 129: All thermolabile medicines are stored in a refrigerator.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	35	94.59	13	92.86	73	97.33	335	97.67
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 113D Question 130: Only medicines are stored in the refrigerator.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	2.35	1	2.94	1	4.76	1	6.25	1	2.70	3	21.43	5	6.67	14	4.08
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	36	100.0	24	96.00	82	96.47	33	97.06	20	95.24	14	87.50	34	91.89	10	71.43	69	92.00	322	93.88
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 114D Question 131: Medicines are stored in the refrigerator according to a system.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	1	4.76	1	6.25	0	0.00	0	0.00	9	12.00	12	3.50
Partially complies	0	0.00	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Complies	36	100.0	24	96.00	83	97.65	33	97.06	20	95.24	14	87.50	34	91.89	13	92.86	65	86.67	322	93.88
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 115D Question 132: The refrigerator is suitable and in good working order.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	9.33	9	2.62
Partially complies	3	8.33	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	0	0.00	1	7.14	2	2.67	7	2.04
Complies	32	88.89	24	96.00	83	97.65	33	97.06	21	100.0	15	93.75	35	94.59	13	92.86	65	86.67	321	93.59
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 116D Question 133: The temperature of the refrigerator is between 2°C and 8°C (as checked with a thermometer).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	0	0.00	2	14.29	4	5.33	9	2.62
Partially complies	0	0.00	0	0.00	3	3.53	2	5.88	0	0.00	1	6.25	0	0.00	0	0.00	0	0.00	6	1.75
Complies	34	94.44	24	96.00	81	95.29	32	94.12	20	95.24	14	87.50	34	91.89	11	78.57	70	93.33	320	93.29
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 117D Question 134: The temperature of the refrigerator is controlled 24 hours a day as demonstrated by a maximum/minimum thermometer.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	9	10.59	2	5.88	1	4.76	1	6.25	2	5.41	7	50.00	19	25.33	43	12.54
Partially complies	4	11.11	16	64.00	3	3.53	7	20.59	0	0.00	2	12.50	0	0.00	0	0.00	4	5.33	36	10.50
Complies	30	83.33	8	32.00	72	94.71	25	73.53	20	95.24	12	75.00	33	89.19	6	42.86	51	68.00	257	74.93
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 118D Question 135: The temperature of the refrigerator is recorded twice daily in accordance with GPP guidelines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	7	19.44	0	0.00	16	18.82	4	11.76	3	14.29	2	12.50	2	5.41	6	42.86	17	22.67	57	16.62
Partially complies	6	16.67	5	20.00	15	17.65	6	17.65	1	4.76	1	6.25	5	13.51	3	21.43	2	2.67	44	12.83
Complies	23	63.89	19	76.00	53	62.35	24	70.59	17	80.95	12	75.00	28	75.68	4	28.57	54	72.00	234	68.22
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	1	1.33	3	0.87
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 119D Question 136: Thermolabile medicines are stored/supplied maintaining the cold chain.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	3	4.00	5	1.46
Partially complies	0	0.00	0	0.00	3	3.53	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	3	4.00	7	2.04
Complies	36	100.0	24	96.00	79	92.94	34	100.0	20	95.24	14	87.50	35	94.59	13	92.86	67	89.33	322	93.88
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	1	1.33	3	0.87
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(J) DISPENSING OF PRESCRIPTIONS

Table 120D Question 137: Generic substitution is applied in accordance with Section 22(F) of Act 101 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	0	0.00	1	0.29
Partially complies	1	2.78	0	0.00	1	1.18	1	2.94	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.87
Complies	35	97.22	24	96.00	81	95.29	33	97.06	21	100.0	14	87.50	35	94.59	14	100.0	73	97.33	330	96.21
Not applicable	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	1	1.33	4	1.17
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 121D Question 138: Dispensed medicine is labelled as required in Regulation 8(4) of Act 101 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.58
Partially complies	2	5.56	0	0.00	1	1.18	3	8.82	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	1.75
Complies	33	91.67	24	96.00	80	94.12	31	91.18	21	100.0	15	93.75	37	100.0	14	100.0	73	97.33	328	95.63
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	2	0.58
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 122D Question 139: The pharmacist checks the dispensed medicine after it has been labeled and before it is handed or delivered to the patient.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	0	0.00	1	2.94	2	9.52	0	0.00	2	5.41	1	7.14	2	2.67	10	2.92
Partially complies	1	2.78	0	0.00	0	0.00	3	8.82	3	14.29	0	0.00	2	5.41	0	0.00	1	1.33	10	2.92
Complies	32	88.89	24	96.00	81	95.29	30	88.24	16	76.19	15	93.75	30	81.08	13	92.86	70	93.33	311	90.67
Not applicable	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	3	8.11	0	0.00	1	1.33	6	1.75
Not answered	1	2.78	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 123D Question 140: The original prescription states who the dispenser was.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	0	0.00	0	0.00	2	5.88	0	0.00	0	0.00	2	5.41	4	28.57	9	12.00	18	5.25
Partially complies	2	5.56	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	2	2.67	6	1.75
Complies	33	91.67	24	96.00	81	95.29	32	94.12	21	100.0	15	93.75	33	89.19	10	71.43	61	81.33	310	90.38
Not applicable	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	2	2.67	5	1.46
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 124D Question 141: The final price that the patient pays is indicated on the copy for the payer (as applicable).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	4.00	3	0.87
Complies	5	13.89	5	20.00	53	62.35	10	29.41	3	14.29	3	18.75	6	16.22	1	7.14	24	32.00	110	32.07
Not applicable	31	86.11	19	76.00	30	35.29	23	67.65	18	85.71	12	75.00	31	83.78	13	92.86	46	61.33	223	65.01
Not answered	0	0.00	1	4.00	2	2.35	1	2.94	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(K) PROVISION OF PHARMACEUTICAL CARE

Table 125D Question 142: The pharmacist obtains all the relevant patient information before dispensing the prescription.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	1	1.18	0	0.00	1	4.76	0	0.00	1	2.70	0	0.00	3	4.00	6	1.75
Partially complies	4	11.11	0	0.00	0	0.00	6	17.65	3	14.29	0	0.00	1	2.70	0	0.00	1	1.33	15	4.37
Complies	32	88.89	24	96.00	79	92.94	28	82.35	17	80.95	15	93.75	32	86.49	14	100.0	68	90.67	309	90.09
Not applicable	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	3	8.11	0	0.00	2	2.67	7	2.04
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 126D Question 143: The pharmacist evaluates the prescription to identify any possible problems before dispensing the prescription.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	2	5.88	1	4.76	0	0.00	1	2.70	0	0.00	4	5.33	8	2.33
Partially complies	3	8.33	0	0.00	0	0.00	3	8.82	3	14.29	0	0.00	1	2.70	0	0.00	1	1.33	11	3.21
Complies	33	91.67	24	96.00	80	94.12	29	85.29	17	80.95	15	93.75	31	83.78	14	100.0	67	89.33	310	90.38
Not applicable	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	4	10.81	0	0.00	2	2.67	8	2.33
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 127D Question 144: The pharmacist takes the necessary action if there are any problems with the prescription and/or medicines prescribed.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	1	2.70	0	0.00	4	5.33	6	1.75
Partially complies	2	5.56	0	0.00	0	0.00	1	2.94	1	4.76	0	0.00	1	2.70	0	0.00	1	1.33	6	1.75
Complies	34	94.44	24	96.00	80	94.12	0	0.00	19	90.48	15	93.75	30	81.08	14	100.0	67	89.33	316	92.13
Not applicable	0	0.00	0	0.00	2	2.35	33	97.06	0	0.00	0	0.00	5	13.51	0	0.00	2	2.67	9	2.62
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 128D Question 145: The pharmacist gives advice tot the patient or care-giver after the prescription has been dispensed.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	2.35	1	2.94	1	4.76	1	6.25	1	2.70	0	0.00	1	1.33	7	2.04
Partially complies	5	13.89	0	0.00	0	0.00	3	8.82	2	9.52	2	12.50	1	2.70	0	0.00	0	0.00	13	3.79
Complies	31	86.11	24	96.00	77	90.59	30	88.24	18	85.71	12	75.00	30	81.08	13	92.86	71	94.67	306	89.21
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	13.51	1	7.14	2	2.67	10	2.92
Not answered	0	0.00	1	4.00	4	4.71	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 129D Question 146: The pharmacist gives advice to the patient who receives OTC medicines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	0	0.00	1	0.29
Complies	4	11.11	2	8.00	31	36.47	8	23.53	1	4.76	4	25.00	5	13.51	1	7.14	9	12.00	65	18.95
Not applicable	31	86.11	22	88.00	51	60.00	26	76.47	19	90.48	10	62.50	31	83.78	13	92.86	65	86.67	268	78.13
Not answered	1	2.78	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 130D Question 147: Advice is given to the patient in a suitable semi-private area.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	6	16.67	6	24.00	20	23.53	2	5.88	3	14.29	5	31.25	7	18.92	4	28.57	16	21.33	69	20.12
Partially complies	4	11.11	2	8.00	7	8.24	7	20.59	1	4.76	0	0.00	7	18.92	1	7.14	12	16.00	41	11.95
Complies	18	50.00	16	64.00	47	55.29	24	70.59	17	80.95	10	62.50	22	59.46	7	50.00	40	53.33	201	58.60
Not applicable	8	22.22	0	0.00	8	9.41	1	2.94	0	0.00	0	0.00	0	0.00	2	14.29	6	8.00	25	7.29
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 131D Question 148: Is a hatch used when providing patient counseling?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	24	66.67	11	44.00	51	60.00	23	67.65	16	76.19	7	43.75	20	54.05	1	7.14	46	61.33	179	52.19
No	7	19.44	13	52.00	27	31.76	10	29.41	5	23.81	8	50.00	17	45.95	13	92.86	25	33.33	145	42.27
Not applicable	5	13.89	0	0.00	4	4.71	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	4.00	12	3.50
Not answered	0	0.00	1	4.00	3	3.53	1	2.94	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 132D Question 149: If a hatch is used, eye contact is possible between the pharmacist and the patient.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	2	2.67	3	0.87
Partially complies	0	0.00	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	2	5.41	0	0.00	0	0.00	3	0.87
Complies	23	63.89	12	48.00	27	31.76	22	64.71	15	71.43	7	43.75	17	45.95	4	28.57	46	61.33	173	50.44
Not applicable	13	36.11	12	48.00	55	64.71	11	32.35	6	28.57	8	50.00	18	48.65	9	64.29	26	34.67	158	46.06
Not answered	0	0.00	1	4.00	33	3.53	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 133D Question 150: If a hatch is used, easy communication is facilitated.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	1	2.94	0	0.00	7	0.00	0	0.00	1	7.14	3	4.00	5	1.46
Partially complies	0	0.00	0	0.00	3	3.53	2	5.88	0	0.00	0	0.00	7	18.92	2	14.29	7	9.33	21	6.12
Complies	23	63.89	12	48.00	24	28.24	21	61.76	15	71.43	7	43.75	12	32.43	2	14.29	38	50.67	154	44.90
Not applicable	13	36.11	12	48.00	55	64.71	10	29.41	6	28.57	8	50.00	18	48.65	9	64.29	26	34.67	157	45.77
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 134D Question 151: Support aids are used when supplying advice (as observed).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	10	27.78	8	32.00	20	23.53	6	17.65	8	38.10	7	43.75	9	24.32	8	57.14	17	22.67	93	27.11
Partially complies	4	11.11	0	0.00	2	2.35	2	5.88	1	4.76	0	0.00	5	13.51	2	14.29	0	0.00	16	4.66
Complies	18	50.00	16	64.00	48	56.47	23	67.65	7	33.33	7	43.75	20	54.05	3	21.43	53	70.67	195	56.85
Not applicable	3	8.33	0	0.00	6	7.06	0	0.00	5	23.81	0	0.00	1	2.70	0	0.00	3	4.00	13	3.79
Not answered	1	2.78	1	4.00	9	10.59	3	8.82	0	0.00	1	12.50	2	5.41	1	7.14	2	2.67	26	7.58
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 135D Question 152: Form(s) of support aids used:

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Not applicable Not used	36	100.0	24	96.00	82	96.47	32	94.12	19	90.48	14	87.50	35	94.59	13	92.86	74	98.67	329	95.92
Pamphlets/ information leaflets	18	50.00	1	4.00	30	35.29	25	73.53	5	23.81	6	37.50	16	43.24	3	21.43	34	45.33	138	40.23
Manufacturers package inserts	15	41.67	15	60.00	31	36.47	20	58.82	5	23.81	4	25.00	15	40.54	4	28.57	45	60.00	154	44.90
Computer printouts	6	16.67	0	0.00	4	4.71	6	17.65	0	0.00	14	87.50	6	16.22	0	0.00	2	2.67	24	7.00
Visual aids e.g. posters	13	36.11	0	0.00	12	14.12	8	23.53	3	14.29	3	18.75	11	29.73	1	7.14	7	9.33	58	16.91

Table 136D Question 153: Patient information leaflets are available at the dispensary.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	19	52.78	12	48.00	45	52.94	11	32.35	13	61.90	9	56.25	23	62.16	9	64.29	55	73.33	196	57.14
Partially complies	4	11.11	0	0.00	2	2.35	3	8.82	1	4.76	0	0.00	1	2.70	0	0.00	13	17.33	24	7.00
Complies	11	30.56	12	48.00	31	36.47	20	58.82	5	23.81	3	18.75	12	32.43	4	28.57	3	4.00	101	29.45
Not applicable	2	5.56	0	0.00	4	4.71	0	0.00	1	4.76	0	0.00	0	0.00	1	7.14	3	4.00	11	3.21
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	1	4.76	4	25.00	1	2.70	0	0.00	1	1.33	11	3.21
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 137D Question 154: A procedure is in place for monitoring the patient's progress.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	18	50.00	7	28.00	41	48.24	7	20.59	9	42.86	10	62.50	13	35.14	1	7.14	5	6.67	111	32.36
Partially complies	5	13.89	1	4.00	5	5.88	8	23.53	2	9.52	0	0.00	8	21.62	0	0.00	0	0.00	29	8.45
Complies	9	25.00	16	64.00	33	38.82	19	55.88	10	47.62	0	0.00	15	40.54	13	92.86	65	86.67	180	52.48
Not applicable	3	8.33	0	0.00	3	3.53	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	5.33	10	2.92
Not answered	1	2.78	1	4.00	3	3.53	0	0.00	0	0.00	6	37.50	1	2.70	0	0.00	1	1.33	13	3.79
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 138D Question 155: A pharmacist can be contacted 24 hours a day.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	32	88.89	22	88.00	73	85.88	32	94.12	20	95.24	14	87.50	29	78.38	11	78.57	70	93.33	303	88.34
No	4	11.11	2	8.00	9	10.59	2	5.88	1	4.76	1	6.25	5	13.51	3	21.43	3	4.00	30	8.75
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	2	2.67	9	2.62
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

The number of hours the pharmacy is open.

Table 139D Question 156: Mondays to Thursdays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	35	8.39	1.65	5	13.5	293.75
Free State	24	8.88	1.03	7.5	12	213
Gauteng	83	10.91	4.33	4	24	905.25
Kwazulu-Natal	34	9.26	1.15	7	11.5	314.85
Limpopo	21	8.75	0.84	7	11	183.75
Mpumalanga	15	8.98	1.16	7.75	12	134.75
North West	37	11.72	6.09	8	24	433.50
Northern Cape	13	9.85	6.78	0	24	128
Western Cape	74	8.58	1.81	0.50	13.50	635.25
TOTAL	336	9.65	3.59	0	24	3242.10

Table 140D Question 157: Fridays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	36	8.13	2.15	0	13.5	292.5
Free State	24	8.75	0.79	7.5	11.5	210.00
Gauteng	83	10.59	4.77	0	24	878.75
Kwazulu-Natal	34	9.25	1.14	7	11.5	314.55
Limpopo	21	8.75	0.84	7	11	183.75
Mpumalanga	15	8.98	1.16	7.75	12	134.75
North West	37	11.64	6.16	5	24	430.50
Northern Cape	14	9.36	6.77	0	24	131
Western Cape	74	8.45	1.93	0.50	13.50	625.25
TOTAL	338	9.47	3.77	0	24	3201

Table 141D Question 158: Saturdays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	36	1.77	3.58	0	13.5	63.75
Free State	24	1.31	2.06	0	8.5	31.5
Gauteng	83	4.61	6.64	0	24	382.25
Kwazulu-Natal	34	2.18	2.81	0	11	74
Limpopo	21	1.24	2.74	0	11	26
Mpumalanga	15	0.93	2.04	0	6.5	14
North West	37	5.55	9.26	0	24	205.50
Northern Cape	14	3.64	8.66	0	24	51
Western Cape	74	1.22	1.84	0	6	90.50
TOTAL	338	2.78	5.42	0	24	938.50

Table 142D Question 159: Sundays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	36	1.15	3.36	0	13.5	40.50
Free State	24	0.94	1.97	0	8.5	22.50
Gauteng	83	4.16	6.70	0	24	345.50
Kwazulu-Natal	34	1.06	1.86	0	6	36
Limpopo	21	1.05	2.67	0	11	22
Mpumalanga	15	0.57	1.50	0	4.5	8.5
North West	37	5.19	9.39	0	24	192
Northern Cape	14	3.43	8.72	0	24	48
Western Cape	74	0.74	1.54	0	6	54.50
TOTAL	338	2.28	5.39	0	24	769.50

Table 143D Question 160: Public holidays.

Province	N	Mean	Standard deviation	Minimum	Maximum	Sum
Eastern Cape	36	1.60	3.43	0	13.5	57.50
Free State	24	0.94	1.97	0	8.5	22.50
Gauteng	83	4.16	6.70	0	24	345.50
Kwazulu-Natal	34	1.82	2.50	0	8.5	62
Limpopo	21	1.00	2.61	0	11	21
Mpumalanga	15	0.57	1.50	0	4.5	8.5
North West	37	5.19	9.39	0	24	192
Northern Cape	14	3.43	8.72	0	24	48
Western Cape	74	0.93	1.65	0	6	69
TOTAL	338	2.44	5.40	0	24	826

(L) COMPOUNDING

Table 144D Question 161: The pharmacy performs bulk compounding (e.g. dilution of antiseptic solutions, creams, mixtures etc.).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	15	41.67	11	44.00	31	36.47	21	61.76	8	38.10	5	31.25	16	43.24	2	14.29	21	28.00	130	37.90
No	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not applicable	21	58.33	13	52.00	53	62.35	13	38.24	13	61.90	10	62.50	21	56.76	12	85.71	53	70.67	209	60.93
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 145D Question 162: TPN/large volume parenterals are prepared in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	1	4.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	1	1.33	3	0.87
No	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not applicable	36	100.0	23	92.00	84	98.82	34	100.0	21	100.0	15	93.75	37	100.0	13	92.86	73	97.33	336	97.96
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 146D Question 163: Cytotoxic admixtures are prepared in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	1	2.78	3	12.00	4	4.71	2	5.88	1	4.76	0	0.00	1	2.70	0	0.00	8	10.67	20	5.83
No	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not applicable	35	97.22	21	84.00	80	94.12	32	94.12	20	95.24	15	93.75	36	97.30	14	100.0	66	88.00	319	93.00
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 147D Question 164: IV additives are prepared in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	3	0.87
No	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not applicable	36	100.0	23	92.00	83	97.65	34	100.0	21	100.0	15	93.75	36	97.30	14	100.0	74	98.67	336	97.96
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(M) WRITTEN STANDARD OPERATING PROCEDURES

There are written standard operating procedures for:

Table 148D Question 165: Good housekeeping (cleaning procedures etc.).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	6	16.67	10	40.00	26	30.59	6	17.65	6	28.57	6	37.50	16	43.24	7	50.00	26	34.67	109	31.78
Partially complies	2	5.56	0	0.00	1	1.18	5	14.71	0	0.00	0	0.00	1	2.70	1	7.14	8	10.67	18	5.25
Complies	27	75.00	14	56.00	55	64.71	22	64.71	14	66.76	9	56.25	17	45.95	5	35.71	3	40.00	203	59.18
Not applicable	1	2.78	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	3	3.53	1	2.94	0	0.00	1	6.25	2	5.41	1	7.14	1	1.33	10	2.92
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 149D Question 166: Pest (insects, rodents etc.) elimination.

Frequency	Eastern cape		Free state		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North west		Northern Cape		Western cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	3	12.00	8	9.41	4	11.76	5	23.81	7	43.75	10	27.03	9	64.29	14	18.67	65	18.95
Partially complies	1	2.78	0	0.00	1	1.18	4	11.76	0	0.00	0	0.00	0	0.00	1	7.14	9	12.00	16	4.66
Complies	30	83.33	21	84.00	74	87.06	26	76.47	15	71.43	8	50.00	24	64.86	4	28.57	51	68.00	253	73.76
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	1	4.76	1	6.25	2	5.41	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 150D Question 167: Receipt of stock.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	4	16.00	7	8.24	3	8.82	2	9.52	3	18.75	10	27.03	9	64.29	19	25.33	61	17.78
Partially complies	1	2.78	0	0.00	1	1.18	4	11.76	0	0.00	0	0.00	0	0.00	1	7.14	8	10.67	15	4.37
Complies	31	86.11	20	80.00	75	88.24	27	79.41	19	90.48	12	75.00	24	64.86	4	28.57	46	61.33	258	75.22
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	2	2.67	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 151D Question 168: Effective stock rotation (FEFO – First entry, expiry, first out).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	2	8.00	7	8.24	3	8.82	1	4.76	3	18.75	10	27.03	7	50.00	16	21.33	53	15.45
Partially complies	1	2.78	0	0.00	1	1.18	5	14.71	0	0.00	0	0.00	0	0.00	1	7.14	7	9.33	15	4.37
Complies	31	86.11	22	88.00	75	88.24	26	76.47	20	95.24	12	75.00	24	64.86	6	42.86	51	68.00	267	77.84
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 152D Question 169: Disposal or removal of S1 – S6 expired, damaged and/or contaminated stock as required in Regulation 27 of Act 101 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	3	8.33	3	12.00	8	9.41	3	8.82	3	14.29	3	18.75	10	27.03	9	64.29	13	17.33	55	16.03
Partially complies	1	2.78	0	0.00	3	3.53	3	8.82	0	0.00	0	0.00	1	2.70	0	0.00	11	14.67	19	5.54
Complies	32	88.89	21	84.00	72	84.71	28	82.35	17	80.95	12	75.00	23	62.16	4	28.57	50	66.67	259	75.51
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	1	4.76	1	6.25	2	5.41	1	7.14	1	1.33	9	2.62
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 153D Question 170: Product types requiring special storage or handling instructions.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	7	28.00	12	14.12	4	11.76	5	23.81	6	37.50	13	32.43	7	50.00	20	26.67	78	22.74
Partially complies	1	2.78	0	0.00	1	1.18	6	17.65	0	0.00	0	0.00	0	0.00	1	7.14	8	10.67	17	4.96
Complies	30	83.33	17	68.00	70	82.35	24	70.59	16	76.19	9	56.25	22	59.46	6	42.86	46	61.33	240	69.97
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 154D Question 171: Seperation and handling of goods returned from patients.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	5	20.00	10	11.76	1	2.94	4	19.05	5	31.25	10	27.03	9	64.29	16	21.33	65	18.95
Partially complies	1	2.78	0	0.00	1	1.18	4	11.76	0	0.00	1	6.25	1	2.70	1	7.14	11	14.67	20	5.83
Complies	30	83.33	19	76.00	72	84.71	29	85.29	17	80.95	9	56.25	22	59.46	4	28.57	46	61.33	248	72.30
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	5.41	0	0.00	1	1.33	3	0.87
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 155D Question 172: Recall of medicine.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	5	13.89	5	20.00	9	10.59	2	5.88	5	23.81	8	50.00	13	35.14	9	64.29	21	28.00	77	22.45
Partially complies	1	2.78	0	0.00	1	1.18	6	17.65	0	0.00	0	0.00	1	2.70	1	7.14	10	13.33	20	5.83
Complies	30	83.33	19	76.00	73	85.88	26	76.47	16	76.19	7	43.75	20	54.05	4	28.57	42	56.00	237	69.10
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	2	2.67	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 156D Question 173: Delivery of medicines.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	2	5.88	5	23.81	2	12.50	1	2.70	0	0.00	10	13.33	20	5.83
Partially complies	0	0.00	0	0.00	1	1.18	4	11.76	0	0.00	0	0.00	1	2.70	1	7.14	3	4.00	10	2.92
Complies	12	33.33	4	16.00	35	41.18	13	38.24	11	52.38	7	43.75	10	27.03	4	28.57	23	30.67	119	34.69
Not applicable	0	0.00	20	80.00	46	54.12	15	44.12	5	23.81	6	37.50	23	62.16	0	0.00	38	50.67	186	54.23
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	2	5.41	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 157D Question 174: A locum/relief pharmacist to be followed regarding the handling of keys, money, etc.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	4	16.00	35	41.18	4	11.76	3	14.29	7	43.75	12	32.43	8	57.14	16	21.33	93	27.11
Partially complies	0	0.00	0	0.00	2	2.35	4	11.76	0	0.00	0	0.00	0	0.00	2	14.29	4	5.33	12	3.50
Complies	18	50.00	1	4.00	18	21.18	6	17.65	8	38.10	5	31.25	4	10.81	4	28.57	21	28.00	85	24.78
Not applicable	0	0.00	18	72.00	28	32.94	20	58.85	10	47.62	3	18.75	0	0.00	0	0.00	33	44.00	146	42.57
Not answered	1	2.78	2	8.00	2	2.35	0	0.00	0	0.00	1	6.25	21	56.76	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 158D Question 175: Cold chain management (including procedures to be followed in the event of a power failure).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	1	4.00	8	9.41	3	8.82	3	14.29	3	18.75	8	21.62	8	57.14	13	17.33	51	14.87
Partially complies	1	2.78	0	0.00	1	1.18	5	14.71	0	0.00	0	0.00	0	0.00	2	14.29	9	12.00	17	4.96
Complies	30	83.33	21	84.00	72	84.71	25	73.53	16	76.19	12	75.00	26	70.27	4	28.57	51	68.00	258	75.22
Not applicable	1	2.78	0	0.00	1	1.18	1	2.94	2	9.52	0	0.00	2	5.41	0	0.00	1	1.33	8	2.33
Not answered	0	0.00	3	12.00	3	3.53	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	9	2.62
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 159D Question 176: Pre-packing (including quality assurance procedures).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	1	4.00	5	5.88	0	0.00	1	4.76	3	18.75	7	18.92	5	35.71	11	14.67	34	9.91
Partially complies	1	2.78	0	0.00	1	1.18	3	8.82	1	4.76	0	0.00	0	0.00	1	7.14	6	8.00	13	3.79
Complies	15	41.67	9	36.00	30	35.29	17	50.00	17	80.95	5	31.25	14	37.84	1	7.14	37	49.33	145	42.27
Not applicable	19	52.78	12	48.00	47	55.29	14	41.18	2	9.52	7	43.75	15	40.54	7	50.00	20	26.67	143	41.69
Not answered	0	0.00	3	12.00	2	2.35	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 160D Question 177: Compounding operations (including quality assurance procedures).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	2	2.35	1	2.94	2	9.52	3	18.75	1	2.70	3	21.43	7	9.33	19	5.54
Partially complies	1	2.78	0	0.00	0	0.00	4	11.76	1	4.76	0	0.00	1	2.70	1	7.14	3	4.00	11	3.21
Complies	18	50.00	12	48.00	30	35.29	17	50.00	13	61.90	5	31.25	13	35.14	0	0.00	26	34.67	134	39.07
Not applicable	17	47.22	11	44.00	50	58.82	12	35.29	5	23.81	7	43.75	21	56.76	10	71.43	38	50.67	171	49.85
Not answered	0	0.00	2	8.00	3	3.53	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	8	2.33
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 161D Question 178: Preparation of TPN/large volume parenterals (including quality assurance procedures).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	1	1.33	2	0.58
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	0	0.00	1	0.29
Complies	0	0.00	0	0.00	2	2.35	34	100.0	5	23.81	0	0.00	37	100.0	0	0.00	3	4.00	10	2.92
Not applicable	36	100.0	24	96.00	81	95.29	0	0.00	15	71.43	15	93.75	0	0.00	13	92.86	70	93.33	325	94.75
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 162D Question 179: Oncology mixing (including quality assurance procedures).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	2	2.67	3	0.87
Partially complies	0	0.00	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	0	0.00	1	7.14	0	0.00	2	0.58
Complies	1	2.78	3	12.00	3	3.53	2	5.88	6	28.57	0	0.00	1	2.70	0	0.00	7	9.33	23	6.71
Not applicable	36	100.0	21	84.00	80	94.12	31	91.18	14	66.67	15	93.75	36	97.30	13	92.86	65	86.67	310	90.38
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 163D Question 180: Preperation of IV additives (including quality assurance procedures).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	1	4.76	0	0.00	0	0.00	0	0.00	1	1.33	2	0.58
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	0	0.00	1	0.29
Complies	0	0.00	1	4.00	1	1.18	34	100.0	5	23.81	0	0.00	1	2.70	0	0.00	2	2.67	10	2.92
Not applicable	36	100.0	23	92.00	82	96.47	0	0.00	15	71.43	15	93.75	36	97.30	13	92.86	71	94.67	325	94.75
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 164D Question 181: Control over medicines kept in place other than the pharmacy (e.g. wards, theatres etc.) (including controls for issuing ward stock and medicine per patient to the wards).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	0	0.00	7	8.24	3	8.82	4	19.05	5	31.25	4	10.81	8	57.14	14	18.67	47	13.70
Partially complies	0	0.00	0	0.00	2	2.35	3	8.82	0	0.00	0	0.00	0	0.00	1	7.14	6	8.00	12	3.50
Complies	28	77.78	21	84.00	55	64.71	25	73.53	16	76.19	7	43.75	21	56.76	4	28.57	48	64.00	225	65.60
Not applicable	6	16.67	3	12.00	19	22.35	3	8.82	1	4.76	3	18.75	11	29.73	1	7.14	5	6.67	52	15.16
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	2	2.67	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 165D Question 182. SOPs are reviewed/updated on a regular basis.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	7	19.44	4	16.00	9	10.59	4	11.76	3	14.29	5	31.25	9	24.32	10	71.43	25	33.33	76	22.16
Partially complies	0	0.00	0	0.00	8	9.41	3	8.82	2	9.52	1	6.25	3	8.11	0	0.00	12	16.00	29	8.45
Complies	29	80.56	20	80.00	65	76.47	27	79.41	16	76.19	9	56.25	19	51.35	4	28.57	37	49.33	226	65.89
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Not answered	0	0.00	1	4.00	3	3.53	0	0.00	0	0.00	1	6.25	5	13.51	0	0.00	1	1.33	11	3.21
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(N) REFERENCES

The pharmacy has copies of, or electronic access to:

Table 166D Question 183: One of the last 3 editions of the Martindale.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	12	33.33	0	0.00	2	2.35	0	0.00	3	14.29	0	0.00	13	35.14	9	64.29	22	29.33	61	17.78
Partially complies	6	16.67	0	0.00	6	7.06	1	2.94	0	0.00	5	31.25	0	0.00	1	7.14	10	13.33	29	8.45
Complies	18	50.00	24	96.00	76	89.41	31	91.18	18	85.71	10	62.50	23	62.16	4	28.57	42	56.00	246	71.72
Not answered	0	0.00	1	4.00	1	1.18	2	5.88	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 167D Question 184: The latest edition of the Good Pharmacy Practice (GPP) Manual.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	8	22.22	0	0.00	7	8.24	6	17.65	3	14.29	4	25.00	18	48.65	8	57.14	11	14.67	65	18.95
Partially complies	1	2.78	0	0.00	5	5.88	4	11.76	0	0.00	0	0.00	0	0.00	0	0.00	2	2.67	12	3.50
Complies	27	75.00	24	96.00	72	84.71	23	67.65	18	85.71	11	68.75	15	40.54	6	42.86	61	81.33	257	74.93
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Not answered	0	0.00	1	4.00	1	1.18	1	2.94	0	0.00	1	6.25	4	10.81	0	0.00	1	1.33	9	2.62
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 168D Question 185: The latest edition of MIMS.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	10	27.78	0	0.00	6	7.06	5	14.71	4	19.05	0	0.00	10	27.03	7	50.00	17	22.67	59	17.20
Partially complies	10	27.78	0	0.00	1	1.18	3	8.82	0	0.00	2	12.50	4	10.81	4	28.57	6	8.00	30	8.75
Complies	16	44.44	24	96.00	77	90.59	25	73.53	17	80.95	13	81.25	22	59.46	3	21.43	51	68.00	248	72.30
Not answered	0	0.00	1	4.00	1	1.18	1	2.94	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 169D Question 186: A comprehensive textbook on complementary medicine.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	1	2.78	1	4.00	6	7.06	1	2.94	4	19.05	3	18.75	6	16.22	2	14.29	4	5.33	27	7.87
Partially complies	0	0.00	0	0.00	1	1.18	1	2.94	4	19.05	0	0.00	0	0.00	0	0.00	0	0.00	3	0.87
Complies	2	5.56	2	8.00	27	31.76	3	8.82	13	61.90	3	18.75	2	5.41	0	0.00	4	5.33	47	13.70
Not applicable	33	91.67	21	84.00	49	57.65	29	85.29	0	0.00	4	25.00	28	75.68	12	85.71	66	88.00	255	74.34
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	6	37.50	1	2.70	0	0.00	1	1.33	11	3.21
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 170D Question 187: The latest edition of Daily Drug Use (Tincture Press Publications) or other Drug Interactions reference source.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	1	4.00	2	2.35	3	8.82	4	19.05	1	6.25	10	27.03	7	50.00	15	20.00	47	13.70
Partially complies	3	8.33	0	0.00	1	1.18	3	8.82	0	0.00	1	6.25	0	0.00	0	0.00	7	9.33	15	4.37
Complies	29	80.56	23	92.00	81	95.29	28	82.35	17	80.95	13	81.25	26	70.27	7	50.00	52	69.33	276	80.47
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 171D Question 188: The latest edition of either MDR or SAMF.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	6	16.67	0	0.00	7	8.24	2	5.88	2	9.52	1	6.25	9	24.32	8	57.14	7	9.33	42	12.24
Partially complies	1	2.78	0	0.00	0	0.00	1	2.94	0	0.00	3	18.75	2	5.41	1	7.14	6	8.00	14	4.08
Complies	29	80.56	24	96.00	77	90.59	29	85.29	19	90.48	11	68.75	25	67.57	5	35.71	61	81.33	280	81.63
Not answered	0	0.00	1	4.00	1	1.18	2	5.88	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	7	2.04
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 172D Question 189: A recent and comprehensive textbook on Pharmacology (not older than 10 years).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	10	27.78	1	4.00	4	4.71	4	11.76	2	9.52	2	12.50	13	35.14	9	64.29	22	29.33	67	19.53
Partially complies	4	11.11	0	0.00	2	2.35	0	0.00	0	0.00	2	12.50	0	0.00	0	0.00	2	2.67	10	2.92
Complies	22	61.11	23	92.00	78	91.76	29	85.29	19	90.48	11	68.75	23	62.16	5	35.71	50	66.67	260	75.80
Not answered	0	0.00	1	4.00	1	1.18	1	2.94	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 173D Question 190: A medical dictionary.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	4	11.11	3	12.00	7	8.24	3	8.82	2	9.52	1	6.25	15	40.54	9	64.29	8	10.67	52	15.16
Partially complies	3	8.33	0	0.00	1	1.18	3	8.82	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	8	2.33
Complies	29	80.56	21	84.00	76	89.41	27	79.41	19	90.48	14	87.50	20	54.05	5	35.71	66	88.00	277	80.76
Not answered	0	0.00	1	4.00	1	1.18	1	2.94	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 174D Question 191: A copy of the Pharmacy Act, 1974 as amended and the Medicines and Related Substances Control Act, 1965 as amended.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	18	50.00	0	0.00	6	7.06	2	5.88	0	0.00	2	12.50	19	51.35	9	64.29	18	24.00	74	21.57
Partially complies	3	8.33	0	0.00	4	4.71	3	8.82	0	0.00	3	18.75	4	10.81	0	0.00	9	12.00	26	7.58
Complies	15	41.67	24	96.00	74	87.06	29	85.29	21	100.0	10	62.50	13	35.14	5	35.71	47	62.67	238	69.39
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(O) GENERAL

Table 175D Question 192: The pharmacy is designated as a non-smoking area.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	2	5.56	5	20.00	0	0.00	0	0.00	3	14.29	0	0.00	6	16.22	7	50.00	0	0.00	23	6.71
Partially complies	1	2.78	0	0.00	0	0.00	1	2.94	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	4	1.17
Complies	33	91.67	19	76.00	84	98.82	33	97.06	18	85.71	15	93.75	29	78.38	6	42.86	74	98.67	311	90.67
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 176D Question 193: No medicines are advertised in any way that is contrary to GPP guidelines and Regulation 45 of Act 101 of 1965.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	36	100.0	24	96.00	82	96.47	34	100.0	21	100.0	15	93.75	33	89.19	14	100.0	74	98.67	333	97.08
Not applicable	0	0.00	0	0.00	2	2.35	0	0.00	0	0.00	0	0.00	3	8.11	0	0.00	0	0.00	5	1.46
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 177D Question 194: A pharmacist has undergone a form of continued education/professional development within the last 2 years.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No	4	11.11	1	4.00	4	4.71	0	0.00	6	28.57	2	12.50	7	18.92	6	42.86	9	12.00	39	11.37
Informal	8	22.22	12	48.00	29	34.12	18	52.94	5	23.81	4	25.00	7	18.92	2	14.29	34	45.33	119	34.69
Formal	19	52.78	11	44.00	30	35.29	6	17.65	7	33.33	3	18.75	13	35.14	4	28.57	11	14.67	104	30.32
Other	5	13.89	0	0.00	20	23.53	10	29.41	3	14.29	6	37.50	7	18.92	2	14.29	20	26.67	73	21.28
Not answered	0	0.00	1	4.00	2	2.35	0	0.00	0	0.00	1	6.25	3	8.11	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 178D Question 195: No arms/ammunition is sold in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	24	96.00	83	97.65	34	100.0	21	100.0	15	93.75	35	94.59	14	100.0	74	98.67	336	97.96
Not applicable	36	100.0	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 179D Question 196: No fireworks are sold in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	36	100.0	24	96.00	83	97.65	34	100.0	21	100.0	15	93.75	35	94.59	14	100.0	74	98.67	336	97.96
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 180D Question 197: No alcohol, other than for medical purposes, is sold in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	36	100.0	24	0.00	83	97.65	34	100.0	21	100.0	15	93.75	35	94.59	14	100.0	74	98.67	336	97.96
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 181D Question 198: No tobacco, snuff, cigarettes and tobacco related substances are sold in the pharmacy (this excludes medical snuff and anti-smoking aids.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	36	100.0	24	96.00	83	97.65	34	100.0	21	100.0	15	93.75	35	94.59	14	100.0	74	98.67	336	97.96
Not applicable	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 182C Question 199: Lotto tickets are not sold in the pharmacy.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	36	100.0	24	96.00	83	97.65	34	100.0	21	100.0	15	93.75	35	94.59	14	100.0	74	98.67	336	97.96
Not applicable	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	4	1.17
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

(P) PROMOTION OF PUBLIC HEALTH

Table 183D Question 200: Are Family Planning services rendered at the pharmacy?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	6	16.22	4	28.57	1	1.33	12	3.50
No	36	100.0	7	68.00	55	64.71	34	100.0	17	80.95	6	37.50	17	45.95	2	14.29	66	88.00	240	69.97
Not applicable	0	0.00	17	68.00	28	32.94	0	0.00	4	19.05	9	56.25	13	35.14	8	57.14	7	9.33	86	25.07
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 184D Question 201: Has the pharmacist(s) registered his/her Family Planning qualification with Council?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	12.50	6	16.22	5	35.71	1	1.33	14	4.08
No	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	12.50	1	2.70	1	7.14	1	1.33	5	1.46
Not applicable	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	11	68.75	29	78.38	8	57.14	72	96.00	319	93.00
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 185C Question 202: Is the necessary Section 22(A)(15) permit from the Department of Health available for the purpose of providing family planning?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	8.11	1	7.14	0	0.00	4	1.17
No	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	1	1.33	2	0.58
Not applicable	36	100.0	23	92.00	84	98.82	34	100.0	21	100.0	15	93.75	33	89.19	12	85.71	73	97.33	331	96.50
Not answered	0	0.00	2	8.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 186C Question 203: Are Primary Care Drug Therapy (PCDT) services rendered at the pharmacy?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	1	2.78	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	6	16.22	3	21.43	0	0.00	11	3.21
No	34	94.44	0	0.00	81	95.29	34	100.0	15	71.43	12	75.00	23	62.16	11	78.57	70	93.33	304	88.63
Not applicable	0	0.00	24	96.00	0	0.00	0	0.00	1	4.76	0	0.00	1	2.70	0	0.00	0	0.00	2	0.58
Not answered	1	2.78	1	4.00	3	3.53	0	0.00	5	23.81	4	25.00	7	18.92	0	0.00	5	6.67	26	7.58
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 187C Question 204: Has the pharmacist(s) registered his/her Primary Care Drug Therapy (PCDT qualification with Council?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	4	10.81	3	21.43	0	0.00	9	2.62
No	0	0.00	0	0.00	1	1.18	0	0.00	0	0.00	1	6.25	0	0.00	0	0.00	1	1.33	3	0.87
Not applicable	35	97.22	24	96.00	83	97.65	34	100.0	21	100.0	13	81.25	32	86.49	11	78.57	72	96.00	325	94.75
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	2	2.67	6	1.75
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 188C Question 205: If medicines in higher schedules are provided during the provision of PCDT, is the necessary Section 22(A) (15) permit from the Department of Health available?

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	1	7.14	0	0.00	2	0.58
No	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	1	1.33	2	0.58
Not applicable	35	97.22	24	96.00	82	96.47	34	100.0	21	100.0	14	87.50	34	91.89	12	85.71	72	96.00	328	95.63
Not answered	1	2.78	1	4.00	3	3.53	0	0.00	0	0.00	2	12.50	2	5.41	0	0.00	2	2.67	11	3.21
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

The following services are rendered in accordance with GPP guidelines:
Table 189C Question 206: Blood pressure monitoring.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	18.92	4	28.57	2	2.67	14	4.08
Not applicable	35	97.22	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	29	78.38	10	71.43	72	96.00	324	94.46
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 190D Question 207: Pregnancy testing.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	18.92	4	28.57	1	1.33	12	3.50
Not applicable	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	29	78.38	10	71.43	73	97.33	326	95.04
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 191D Question 208: Determining of blood sugar levels.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	18.92	4	28.57	2	2.67	14	4.08
Not applicable	35	97.22	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	29	78.38	10	71.43	72	96.00	324	94.46
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 192D Question 209: Visiometric determinations.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	0	0.00	0	0.00	0	0.00	21	100.0	0	0.00	3	8.11	3	21.43	0	0.00	6	1.75
Not applicable	36	100.0	24	96.00	84	98.82	34	100.0	0	0.00	15	93.75	33	89.19	11	78.57	74	98.67	332	96.79
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 193D Question 210: Audiometric determinations.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	7.14	0	0.00	1	0.29
Complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	10.81	2	14.29	0	0.00	6	1.75
Not applicable	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	32	86.49	11	78.57	74	98.67	331	96.50
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 194D Question 211: Cholesterol screening test.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	2.70	3	21.43	2	2.67	7	2.04
Not applicable	35	97.22	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	35	94.59	11	78.57	72	96.00	331	96.50
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 195D Question 212: Urine analysis (screening test).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	18.92	4	28.57	1	1.33	12	3.50
Not applicable	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	29	78.38	10	71.43	73	97.33	326	95.04
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 196D Question 213: Immunisation services (in accordance with National guidelines).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	18.92	4	28.57	0	0.00	11	3.21
Not applicable	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	29	78.38	10	71.43	74	98.67	327	95.34
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 197D Question 214: AIDS testing on request from the patient (in accordance with National guidelines).

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	000	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	18.92	4	28.57	1	1.33	12	3.50
Not applicable	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	29	78.38	10	71.43	73	97.33	326	95.04
Not answered	0	0.00	1	4.00	1	1.18	0	0.00	0	0.00	1	6.25	1	2.70	0	0.00	1	1.33	5	1.46
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 198D Question 216: The above-mentioned services are rendered in a suitable private area.

Frequency	Eastern Cape		Free State		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North-West		Northern Cape		Western Cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Does not comply	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.33	1	0.29
Partially complies	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Complies	1	2.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	16.22	4	28.57	1	1.33	12	3.50
Not applicable	35	97.22	23	92.00	83	97.65	33	97.06	20	95.24	15	93.75	27	72.97	9	64.29	72	96.00	317	92.42
Not answered	0	0.00	2	8.00	2	2.35	1	2.94	1	4.76	1	6.25	4	10.81	1	7.14	1	1.33	13	3.79
TOTAL	36	100.0	25	100.0	85	100.0	34	100.0	21	100.0	16	100.0	37	100.0	14	100.0	75	100.0	343	100.0

Table 199D Question 217: Who renders the above services?

Frequency	Eastern cape		Free state		Gauteng		Kwazulu-Natal		Limpopo		Mpuma-langa		North west		Northern Cape		Western cape		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
N/A No services rendered	36	100.0	24	96.00	84	98.82	34	100.0	21	100.0	15	93.75	36	97.30	14	100.0	74	98.67	338	98.54
Other health care professional	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	6.25	7	18.92	4	28.57	2	2.67	13	3.82
Registered pharmacist's assistant	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Pharmacist and/or pharmacist intern	1	2.78	0	0.00	1	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	2.67	4	1.18

APPENDIX E

Possible effect of average number of items dispensed per day on Good Pharmacy Practice Compliance

COMMUNITY PHARMACY

Possible effect of the average number of items dispensed per day in community pharmacies on Good Pharmacy Practice compliance.

Table 1E ***Good Pharmacy Practice compliance scores for community pharmacies that dispensed below 50 items per day.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	302	90.51	13.09	14.29	100.0
Premises and layout	302	93.82	7.14	54.38	100.0
Equipment	301	95.60	9.75	16.67	100.0
Storage	301	95.03	7.67	31.75	100.0
Control of medicines	302	91.57	9.52	26.67	100.0
Thermolabile medicines	302	89.57	11.81	0.00	100.0
Dispensing of prescriptions	302	96.31	12.05	0.00	100.0
Pharmaceutical care	302	86.72	15.24	10.00	100.0
SOPs	300	66.80	26.89	0.00	100.0
References	302	72.78	21.20	0.00	100.0
General	302	96.12	6.61	41.67	100.0
Promotion of public health	302	98.74	7.04	0.00	100.0
TOTAL GPP	**298**	**89.83**	**7.55**	**49.77**	**100.0**

Table 2E ***Good Pharmacy Practice compliance scores for community pharmacies that dispensed between 50 and 100 items per day.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	280	93.11	9.37	47.62	100.0
Premises and layout	280	94.99	6.30	45.61	100.0
Equipment	280	97.43	7.43	0.00	100.0
Storage	279	95.78	5.90	52.38	100.0
Control of medicines	280	92.63	9.11	5.00	100.0
Thermolabile medicines	277	93.31	8.45	58.33	100.0
Dispensing of prescriptions	280	98.29	8.54	0.00	100.0
Pharmaceutical care	280	88.71	13.12	0.00	100.0
SOPs	280	69.93	29.23	0.00	100.0
References	280	81.02	19.21	0.00	100.0
General	280	97.01	7.57	0.00	100.0
Promotion of public health	280	98.94	7.51	0.00	100.0
TOTAL GPP	**279**	**91.58**	**7.33**	**32.39**	**100.0**

Table 3E ***Good Pharmacy Practice compliance scores for community pharmacies that dispensed between 101 and 200 items per day.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	277	93.79	8.98	33.33	100.0
Premises and layout	277	95.81	5.35	64.91	100.0
Equipment	277	98.82	3.22	75.00	100.0
Storage	277	96.96	4.18	71.43	100.0
Control of medicines	276	94.41	6.52	66.67	100.0
Thermolabile medicines	280	90.59	13.28	0.00	100.0
Dispensing of prescriptions	277	99.33	2.76	86.67	100.0
Pharmaceutical care	277	90.81	10.03	10.00	100.0
SOPs	277	76.30	26.69	0.00	100.0
References	277	86.08	14.99	0.00	100.0
General	277	98.50	3.85	70.83	100.0
Promotion of public health	277	88.17	5.37	40.00	100.0
TOTAL GPP	**276**	**93.61**	**4.94**	**73.71**	**100.0**

Table 4E ***Good Pharmacy Practice compliance scores for community pharmacies that dispensed more than 200 items per day.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	224	92.64	11.67	33.33	100.0
Premises and layout	223	96.61	5.36	64.91	100.0
Equipment	224	98.87	2.96	80.56	100.0
Storage	224	97.26	4.01	74.60	100.0
Control of medicines	223	95.13	6.86	56.67	100.0
Thermolabile medicines	224	95.11	7.51	58.33	100.0
Dispensing of prescriptions	224	99.20	4.37	60.00	100.0
Pharmaceutical care	224	91.59	9.76	36.67	100.0
SOPs	224	82.71	23.86	0.00	100.0
References	224	89.91	10.44	43.33	100.0
General	224	99.18	3.65	58.33	100.0
Promotion of public health	224	99.29	4.42	40.00	100.0
TOTAL GPP	**222**	**94.80**	**4.80**	**73.71**	**100.0**

Possible effect of the average number of items dispensed by pharmacists per day in community pharmacies on Good Pharmacy Practice compliance.

Table 5E ***Good Pharmacy Practice compliance scores with pharmacists that dispensed below 35 items per day per pharmacist.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	284	90.98	13.13	14.29	100.0
Premises and layout	284	94.26	6.94	54.39	100.0
Equipment	284	96.18	9.67	16.67	100.0
Storage	284	95.27	7.72	31.74	100.0
Control of medicines	284	91.63	9.74	26.67	100.0
Thermolabile medicines	284	90.77	11.64	0.00	100.0
Dispensing of prescriptions	284	96.10	13.11	0.00	100.0
Pharmaceutical care	284	87.65	15.83	0.00	100.0
SOPs	282	68.68	26.86	0.00	100.0
References	284	76.00	20.70	0.00	100.0
General	284	96.58	6.90	41.67	100.0
Promotion of public health	284	99.00	6.35	0.00	100.0
TOTAL GPP	**282**	**90.60**	**7.69**	**49.77**	**100.0**

Table 6E ***Good Pharmacy Practice compliance scores with pharmacists that dispensed between 35 and 59 items per day per pharmacist.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	252	91.84	10.64	23.81	100.0
Premises and layout	252	95.08	5.63	64.91	100.0
Equipment	251	97.95	4.50	75.00	100.0
Storage	250	96.29	4.97	71.43	100.0
Control of medicines	252	93.19	8.73	5.00	100.0
Thermolabile medicines	252	90.39	12.27	0.00	100.0
Dispensing of prescriptions	252	98.78	6.99	0.00	100.0
Pharmaceutical care	252	90.08	11.24	10.00	100.0
SOPs	252	71.58	28.34	0.00	100.0
References	252	80.20	18.55	0.00	100.0
General	252	97.78	4.39	79.17	100.0
Promotion of public health	252	98.93	6.06	30.00	100.0
TOTAL GPP	**249**	**91.93**	**6.31**	**51.17**	**100.0**

Table 7E ***Good Pharmacy Practice compliance scores with pharmacists that dispensed between 60 and 99 items per day per pharmacist.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	263	93.34	9.27	52.38	100.0
Premises and layout	263	95.30	6.03	66.67	100.0
Equipment	263	98.17	4.07	69.44	100.0
Storage	263	96.35	5.09	66.67	100.0
Control of medicines	263	93.80	7.24	63.33	100.0
Thermolabile medicines	263	92.33	9.57	50.00	100.0
Dispensing of prescriptions	263	98.78	4.38	60.00	100.0
Pharmaceutical care	263	90.19	9.83	53.33	100.0
SOPs	263	77.97	26.41	33.33	100.0
References	263	84.78	16.26	33.33	100.0
General	263	97.92	4.26	70.83	100.0
Promotion of public health	263	99.04	5.59	40.00	100.0
TOTAL GPP	**263**	**93.19**	**5.65**	**72.07**	**100.0**

Table 8E ***Good Pharmacy Practice compliance scores with pharmacists that dispensed more than 100 items per day per pharmacist.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	284	93.70	10.20	33.33	100.0
Premises and layout	283	96.19	6.01	45.61	100.0
Equipment	284	98.08	7.06	0.00	100.0
Storage	284	96.85	4.77	52.38	100.0
Control of medicines	282	94.63	6.98	56.67	100.0
Thermolabile medicines	284	94.10	9.59	0.00	100.0
Dispensing of prescriptions	284	99.20	3.92	66.67	100.0
Pharmaceutical care	284	89.39	12.16	0.00	100.0
SOPs	284	75.25	27.62	0.00	100.0
References	284	86.48	16.11	0.00	100.0
General	284	98.12	7.10	0.00	100.0
Promotion of public health	284	99.08	7.08	0.00	100.0
TOTAL GPP	**281**	**93.42**	**6.32**	**32.39**	**100.0**

Possible effect of the average number of items dispensed by pharmacy personnel per day in community pharmacies on Good Pharmacy Practice compliance.

Table 9E ***Good Pharmacy Practice compliance scores with pharmacy personnel that dispensed below 18 items per day per pharmacy personnel member.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	272	89.81	13.43	14.29	100.0
Premises and layout	272	94.06	7.00	54.39	100.0
Equipment	272	95.92	9.79	16.67	100.0
Storage	272	95.00	7.96	31.75	100.0
Control of medicines	272	91.93	9.86	26.67	100.0
Thermolabile medicines	272	90.00	13.36	0.00	100.0
Dispensing of prescriptions	272	96.00	13.32	0.00	100.0
Pharmaceutical care	272	85.87	15.44	10.00	100.0
SOPs	270	67.98	26.90	0.00	100.0
References	272	75.29	20.97	0.00	100.0
General	272	96.34	7.06	41.67	100.0
Promotion of public health	272	98.79	6.62	0.00	100.0
TOTAL GPP	**270**	**90.19**	**7.84**	**49.77**	**100.0**

Table 10E ***Good Pharmacy Practice compliance scores with pharmacy personnel that dispensed between 18 and 32 items per day per pharmacy personnel member.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	263	93.28	9.28	57.14	100.0
Premises and layout	263	95.43	6.08	66.67	100.0
Equipment	262	98.01	4.90	61.11	100.0
Storage	262	96.84	4.22	71.43	100.0
Control of medicines	263	93.56	7.58	63.33	100.0
Thermolabile medicines	263	92.59	9.75	41.67	100.0
Dispensing of prescriptions	263	99.32	3.09	73.33	100.0
Pharmaceutical care	263	90.05	10.02	33.33	100.0
SOPs	263	74.43	27.07	0.00	100.0
References	263	81.67	18.65	33.33	100.0
General	263	97.83	3.97	83.33	100.0
Promotion of public health	263	99.70	1.75	86.67	100.0
TOTAL GPP	**261**	**92.77**	**5.70**	**73.24**	**100.0**

Table 11E ***Good Pharmacy Practice compliance scores with pharmacy personnel that dispensed between 33 and 52 items per day per pharmacy personnel member.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	273	93.39	9.57	52.38	100.0
Premises and layout	273	95.60	5.50	68.42	100.0
Equipment	273	98.54	3.64	77.78	100.0
Storage	272	96.22	5.44	66.67	100.0
Control of medicines	273	93.38	8.58	5.00	100.0
Thermolabile medicines	273	92.58	9.52	50.00	100.0
Dispensing of prescriptions	273	98.51	7.34	0.00	100.0
Pharmaceutical care	273	90.43	11.09	10.00	100.0
SOPs	273	74.69	27.52	0.00	100.0
References	273	83.98	16.90	0.00	100.0
General	273	98.15	4.44	70.83	100.0
Promotion of public health	273	99.18	5.65	30.00	100.0
TOTAL GPP	**272**	**92.87**	**5.98**	**51.17**	**100.0**

Table 12E ***Good Pharmacy Practice compliance scores with pharmacy personnel that dispensed more than 53 items per day per pharmacy personnel member.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	275	93.39	10.73	33.33	100.0
Premises and layout	274	95.75	6.09	45.61	100.0
Equipment	275	97.84	7.10	0.00	100.0
Storage	275	96.68	4.76	52.38	100.0
Control of medicines	273	94.35	6.78	63.33	100.0
Thermolabile medicines	275	92.59	10.33	0.00	100.0
Dispensing of prescriptions	275	98.96	4.27	66.67	100.0
Pharmaceutical care	275	90.81	12.40	0.00	100.0
SOPs	275	76.22	27.88	0.00	100.0
References	275	86.41	15.11	0.00	100.0
General	275	98.05	7.19	0.00	100.0
Promotion of public health	275	98.42	8.83	0.00	100.0
TOTAL GPP	**272**	**93.29**	**6.42**	**32.39**	**100.0**

INSTITUTIONAL PHARMACY

Possible effect of the average number of items dispensed per day in institutional pharmacies on Good Pharmacy Practice compliance.

Table 13E ***Good Pharmacy Practice compliance scores for institutional pharmacies that dispensed below 169 items per day.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	94	82.67	19.26	33.33	100.0
Premises and layout	94	91.40	14.40	0.00	100.0
Equipment	94	92.98	16.27	0.00	100.0
Storage	94	93.18	12.37	0.00	100.0
Control of medicines	94	93.02	7.52	62.67	100.0
Thermolabile medicines	94	92.91	13.29	0.00	100.0
Dispensing of prescriptions	94	94.04	17.03	0.00	100.0
Pharmaceutical care	94	79.96	21.56	0.00	100.0
SOPs	94	81.21	21.74	0.00	100.0
References	94	79.51	24.00	0.00	100.0
General	94	93.66	16.63	0.00	100.0
Promotion of public health	94	98.58	10.43	0.00	100.0
TOTAL GPP	**94**	**89.57**	**11.13**	**14.81**	**100.0**

Table 14E ***Good Pharmacy Practice compliance scores for institutional pharmacies that dispensed between 170 and 391 items per day.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	80	89.46	17.04	0.00	100.0
Premises and layout	80	94.77	6.84	70.00	100.0
Equipment	80	97.44	4.83	76.19	100.0
Storage	80	94.56	9.05	29.41	100.0
Control of medicines	80	94.97	5.84	76.00	100.0
Thermolabile medicines	80	95.99	6.87	66.67	100.0
Dispensing of prescriptions	80	97.92	5.57	80.00	100.0
Pharmaceutical care	80	87.81	9.36	61.11	100.0
SOPs	80	89.51	15.59	22.22	100.0
References	80	88.94	14.25	40.74	100.0
General	80	98.18	4.08	83.33	100.0
Promotion of public health	80	99.67	1.73	90.00	100.0
TOTAL GPP	**80**	**93.94**	**5.26**	**78.00**	**100.0**

Table 15E ***Good Pharmacy Practice compliance scores for institutional pharmacies that dispensed between 392 and 800 items per day.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	84	89.63	13.61	33.33	100.0
Premises and layout	84	92.96	8.06	70.00	100.0
Equipment	84	96.49	7.20	61.90	100.0
Storage	84	93.65	12.04	5.88	100.0
Control of medicines	84	94.19	6.79	65.33	100.0
Thermolabile medicines	84	93.75	14.70	0.00	100.0
Dispensing of prescriptions	84	96.90	8.81	40.00	100.0
Pharmaceutical care	84	87.93	8.59	65.33	100.0
SOPs	84	88.65	16.39	48.15	100.0
References	84	86.86	19.28	0.00	100.0
General	84	98.76	3.47	83.33	100.0
Promotion of public health	84	98.57	10.99	0.00	100.0
TOTAL GPP	**84**	**92.99**	**7.76**	**51.63**	**100.0**

Table 16E ***Good Pharmacy Practice compliance scores for institutional pharmacies that dispensed more than 800 items per day.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	82	91.00	12.70	42.86	100.0
Premises and layout	82	92.85	9.32	63.33	100.0
Equipment	82	97.30	6.01	71.43	100.0
Storage	82	94.64	8.05	56.86	100.0
Control of medicines	82	93.58	7.63	60.00	100.0
Thermolabile medicines	82	95.27	9.84	50.00	100.0
Dispensing of prescriptions	82	97.72	5.26	73.33	100.0
Pharmaceutical care	82	87.67	9.76	55.56	100.0
SOPs	82	97.76	14.06	44.44	100.0
References	82	91.73	12.63	48.15	100.0
General	82	98.93	2.99	87.50	100.0
Promotion of public health	82	99.88	1.10	90.00	100.0
TOTAL GPP	**82**	**93.95**	**6.73**	**66.01**	**100.0**

Possible effect of the average number of items dispensed per pharmacist per day in institutional pharmacies on Good Pharmacy Practice compliance.

Table 17E Good Pharmacy Practice compliance scores with pharmacists that dispensed below 77 items per day per pharmacist.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	109	81.96	20.63	33.33	100.0
Premises and layout	109	92.37	10.71	40.00	100.0
Equipment	109	95.11	9.00	61.90	100.0
Storage	109	93.13	11.40	5.88	100.0
Control of medicines	109	93.58	7.18	62.67	100.0
Thermolabile medicines	109	93.23	13.03	0.00	100.0
Dispensing of prescriptions	109	94.50	14.11	20.00	100.0
Pharmaceutical care	109	82.93	17.94	5.56	100.0
SOPs	109	81.69	20.76	22.22	100.0
References	109	80.16	24.00	0.00	100.0
General	109	95.26	12.29	0.00	100.0
Promotion of public health	109	98.72	9.71	0.00	100.0
TOTAL GPP	**109**	**90.39**	**9.10**	**51.63**	**100.0**

Table 18E ***Good Pharmacy Practice compliance scores for with pharmacists that dispensed between 77 and 149 items per day per pharmacist.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	77	93.01	13.24	0.00	100.0
Premises and layout	77	94.13	12.47	0.00	100.0
Equipment	77	95.76	16.21	0.00	100.0
Storage	77	94.50	14.26	0.00	100.0
Control of medicines	77	95.88	5.44	70.67	100.0
Thermolabile medicines	77	96.21	11.90	0.00	100.0
Dispensing of prescriptions	77	98.01	11.85	0.00	100.0
Pharmaceutical care	77	87.45	12.72	0.00	100.0
SOPs	77	92.30	14.94	0.00	100.0
References	77	93.07	14.02	0.00	100.0
General	77	97.13	12.49	0.00	100.0
Promotion of public health	77	98.31	11.52	0.00	100.0
TOTAL GPP	**77**	**94.42**	**9.90**	**14.81**	**100.0**

Table 19E Good Pharmacy Practice compliance scores with pharmacists that dispensed between 150 and 269 items per day per pharmacist.

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	77	89.61	13.44	42.86	100.0
Premises and layout	77	95.13	6.23	75.00	100.0
Equipment	77	98.11	4.17	76.19	100.0
Storage	77	96.18	4.41	82.35	100.0
Control of medicines	77	95.39	4.49	73.33	100.0
Thermolabile medicines	77	95.45	7.00	66.67	100.0
Dispensing of prescriptions	77	97.50	6.12	66.67	100.0
Pharmaceutical care	77	87.41	13.13	0.00	100.0
SOPs	77	90.86	13.98	48.15	100.0
References	77	91.15	13.82	33.33	100.0
General	77	99.40	2.21	87.50	100.0
Promotion of public health	77	99.87	1.14	90.00	100.0
TOTAL GPP	**77**	**94.60**	**4.36**	**80.83**	**100.0**

Table 20E ***Good Pharmacy Practice compliance scores with pharmacists that dispensed 270 items and more per day per pharmacist.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	77	89.92	11.64	61.90	100.0
Premises and layout	77	90.30	10.08	63.33	100.0
Equipment	77	95.11	7.56	71.43	100.0
Storage	77	92.44	9.23	56.86	100.0
Control of medicines	77	90.89	8.99	60.00	100.0
Thermolabile medicines	77	93.24	9.23	33.33	100.0
Dispensing of prescriptions	77	97.06	13.09	73.33	100.0
Pharmaceutical care	77	85.89	9.41	55.56	100.0
SOPs	77	87.76	17.18	44.44	100.0
References	77	84.22	6.53	48.15	100.0
General	77	98.05	15.92	83.33	100.0
Promotion of public health	77	99.87	3.80	90.00	100.0
TOTAL GPP	**77**	**91.46**	**7.71**	**66.01**	**100.0**

Possible effect of the average number of items dispensed by pharmacy personnel per day in institutional pharmacies on Good Pharmacy Practice compliance.

Table 21E ***Good Pharmacy Practice compliance scores with pharmacy personnel that dispensed 41 items and below per day per pharmacy personnel member.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	108	83.47	19.58	33.33	100.0
Premises and layout	108	92.50	10.64	40.00	100.0
Equipment	108	95.39	8.36	61.90	100.0
Storage	108	93.99	7.66	62.75	100.0
Control of medicines	108	93.69	7.01	62.67	100.0
Thermolabile medicines	108	94.60	9.23	58.33	100.0
Dispensing of prescriptions	108	95.00	13.12	20.00	100.0
Pharmaceutical care	108	83.33	17.08	5.56	100.0
SOPs	108	82.03	20.28	22.22	100.0
References	108	82.58	21.85	33.33	100.0
General	108	95.52	12.19	0.00	100.0
Promotion of public health	108	99.54	2.01	90.00	100.0
TOTAL GPP	**108**	**90.99**	**8.12**	**65.14**	**100.0**

Table 22E ***Good Pharmacy Practice compliance scores with pharmacy personnel that dispensed between 42 and 80 items per day per pharmacy personnel member.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	76	91.73	15.30	0.00	100.0
Premises and layout	76	95.07	6.46	71.67	100.0
Equipment	76	97.15	11.90	0.00	100.0
Storage	76	95.46	9.28	29.41	100.0
Control of medicines	76	95.75	4.48	76.00	100.0
Thermolabile medicines	76	96.44	5.92	70.83	100.0
Dispensing of prescriptions	76	98.33	5.67	66.67	100.0
Pharmaceutical care	76	89.00	8.94	38.89	100.0
SOPs	76	91.33	13.91	48.15	100.0
References	76	91.28	14.69	33.33	100.0
General	76	98.46	5.89	58.33	100.0
Promotion of public health	76	99.87	1.15	90.00	100.0
TOTAL GPP	**76**	**94.79**	**4.68**	**80.17**	**100.0**

Table 24E ***Good Pharmacy Practice compliance scores with pharmacy personnel that dispensed 140 and more items per day per pharmacy personnel member.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	78	88.58	13.69	33.33	100.0
Premises and layout	78	90.63	9.72	63.33	100.0
Equipment	78	95.12	7.68	71.43	100.0
Storage	78	91.38	13.37	5.88	100.0
Control of medicines	78	91.13	9.11	60.00	100.0
Thermolabile medicines	78	91.03	17.15	0.00	100.0
Dispensing of prescriptions	78	96.24	9.15	40.00	100.0
Pharmaceutical care	78	84.12	14.00	0.00	100.0
SOPs	78	85.71	18.89	44.44	100.0
References	78	84.43	18.26	0.00	100.0
General	78	98.34	3.45	87.50	100.0
Promotion of public health	78	98.46	11.40	0.00	100.0
TOTAL GPP	**78**	**90.78**	**8.92**	**51.63**	**100.0**

Table 23E ***Good Pharmacy Practice compliance scores with pharmacy personnel that dispensed between 80 and 140 items per day per pharmacy personnel member.***

GPP section	N	Average Percentage	Standard deviation	Minimum	Maximum
Registration details	78	90.05	13.01	33.33	100.0
Premises and layout	78	93.68	12.78	0.00	100.0
Equipment	78	96.34	12.49	0.00	100.0
Storage	78	95.10	11.84	0.00	100.0
Control of medicines	78	95.16	5.74	70.67	100.0
Thermolabile medicines	78	95.57	11.81	0.00	100.0
Dispensing of prescriptions	78	97.26	12.03	0.00	100.0
Pharmaceutical care	78	87.07	13.54	0.00	100.0
SOPs	78	93.33	13.42	0.00	100.0
References	78	89.32	17.44	0.00	100.0
General	78	97.38	11.69	0.00	100.0
Promotion of public health	78	98.59	11.36	0.00	100.0
TOTAL GPP	**78**	**94.07**	**9.96**	**14.81**	**100.0**