

Health Service Delivery in the Western Cape: A Measurement of Perceptions

by

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Declaration

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ABSTRACT

Satisfaction surveys are increasingly being suggested as a means to understand the service expectations and perceptions of patients in hospitals. The purpose of this study is to measure patient expectations and perceptions in public hospitals and establish if a service gap exists between what is expected and what is experienced. Literature suggests that service dimensions exist that can offer an explanation for the service gap. The survey conducted at district hospitals in the Western Cape, South Africa, provides useful information on the determinants of patient satisfaction across the five dimensions of service quality (SERVQUAL). The findings suggest that a service performance gap exists for subjective questions regarding (for example) treatment by nursing staff, as well as for relatively objective questions regarding (for example) hospital cleanliness or physical conditions. The results of the research led to the conclusion that service quality is measurable when a well-established tool is used and questions posed measure well-defined areas of service quality. The results can serve as the basis for service improvement plans.

OPSOMMING

Tevredenheidsopnames word toenemend aanbeveel as 'n manier om diensverskaffingsverwagtinge en perspesie van pasiente in hospitale te verstaan. Die doel van die studie is om die pasiënte in openbare hospitale se verwagtings en perspesies te meet en om te bepaal of 'n diensverskaffingsgaping tussen wat verwag word en wat ervaar word bestaan. Literatuur dui aan dat diensverskaffingsdimensies bestaan wat die dienswagtingsgaping kan verduidelik. Die opnames wat in distrikshospitale in die Wes-Kaap, Suid Afrika, gedoen is verskaf bruikbare inligting oor die determinante van pasiëntetevredenheid dwarsoor die vyf dimensies van diensverskaffingsgehalte (SERVQUAL). Die bevindinge dat die diensverskaffingsprestasiëgaping bestaan vir subjektiewe vrae aangaande, bv. behandeling deur verpleegpersoneel, sowel as relatiewe objektiewe aangaande bv. hospitaalsindelikheid of fisiese omgewing. Die resultaat van die navorsing lei tot die gevolgtrekking dat die diensverskaffingsgehalte meetbaar is wanneer 'n goed gevestigde instrument gebruik word en die vrae goed gedefinieerde areas van diensverskaffingsgehalte meet. Die resultate kan gebruik word as 'n basis vir diensverskaffingsplanne.

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LIST OF ABBREVIATIONS/ACRONYMS

AGSA	Auditor-General of South Africa
AIDS	Acquired immune deficiency syndrome
CDC	Community day centre
CEO	Chief executive officer
CHC	Community health centre
CSS	Client satisfaction survey
DHS	District Health Services
DPSA	Department of Public Service & Administration
GDP	Gross Domestic Product
HIS	Health Information Systems
HPCSA	Health Professions Council of South Africa
NDoH	National Department of Health
NCS	National Core Standards
NDP	National Development Plan
NHI	National Health Insurance
NHS	National Health Systems
OHSC	Office of Health Standards Compliance
PDE	Patient day equivalent
PFMA	Public Finance Management Act
PHC	Primary healthcare
SAIRR	South African Institute of Race Relations
SCM	Supply Chain Management
TB	Tuberculosis
WC	Western Cape
WCDoH	Western Cape Department of Health
WCG	Western Cape Government
WHO	World Health Organisation

LEGISLATION

1	Constitution of the Republic of South Africa, 1996 (Act 108 of 1996)
2	Health Professions Act, 1974 (Act 56 of 1974)
3	Medical Schemes Act, 2001 (Act 55 of 2001)
4	National Health Act, 2003 (Act 61 of 2003)
5	Nursing Act, 1978 (Act 50 of 1978)
6	Public Finance Management Act, 1999 (Act 1 of 1999)

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CHAPTER 1: INTRODUCTION

1.1. INTRODUCTION

This thesis explores the theme of patient satisfaction in the South African context. Patient satisfaction is the level of satisfaction that a patient experiences after using a health facility. It is important as a measure of quality of care, because it reflects the difference between the expected service and the perception or actual experience of the service. Expectations of the service are influenced by past experiences, external influences, personal needs and word of mouth. Actual experiences or perceptions of the service are influenced by the various dimensions of service quality: tangibles, reliability, responsiveness, assurance and empathy.

Although patients may experience poor service delivery in South Africa, they are often unaware of the mechanisms available to voice their concerns. The assessment of client satisfaction is a mechanism used by management and it forms part of the management function of a health facility.

The overwhelming majority of people in this country rely on public sector health services. The health service providers in the public sector face an increasing demand for their services. Since 1994, government has introduced policy and legislation periodically to regulate this environment with the aim of improving health outcomes in the face of increasing service demands.

1.2. BACKGROUND

Primary healthcare is important because it is the first line of defence against the quadruple burden of disease causing high rates of mortality and morbidity (Department of Health, 2013:3). Primary healthcare includes the most accessible of facilities offering the most essential services to communities. This includes clinics; community health centres and district hospitals, which are the gateway to more specialised levels of care. Together, they form the core of the South African public health system and remain a key focus of the national health department with the re-engineering of the primary healthcare programme (Department of Health, 2013:3).

Within a health system, regular patient feedback is a basic requirement of any quality assurance system. The Gauteng health department partnered with Health Systems Trust to develop a client satisfaction survey based on an earlier tool from 2000. The survey was conducted over a period of six months at hospitals in the province in 2007/8. The results from the respondents showed that most patients are not satisfied with the quality of care they received.

In this study, the phenomenon of the patient's expectations and perceptions of the following were determined and analysed:

- The physical appearance, the equipment, the personnel and in-house communications in the hospital (tangibles)
- The ability of the hospital to provide clinical and support services with certainty and to an expected standard to patients (reliability)

- The willingness of the staff to provide services and the promptness with which services were delivered to patients (responsiveness)
- The extent to which the knowledge and courtesy of staff convey trust and confidence in patients (assurance)
- The extent to which the staff provide individual and attention to patients (empathy)

1.3 MOTIVATION FOR THE RESEARCH

The motivation to conduct the research came from a project in which the researcher was involved at work. While gathering background information for an audit of health projects in the Northern Cape, the researcher found the Minister of Health's response to the National Council of Provinces (NCOP) Social Services Committee in March 2012 of interest. The Minister's response on findings of the Auditor-General on vacancies in the health sector pointed to a problem that was much wider than staff vacancies.

The Minister responded to departmental vacancy rates; however, he linked the vacancy rates to overworked staff, patient expectations, the cost of the Occupation Specific Dispensation (OSD) on the department and agency costs. It was evident that the problem outlined could have many causes.

To address the vacancy rate problem and its related causes the Minister had developed a strategy that included improving leadership, governance, accountability, creating health information to monitor results, reengineering the workforce, and measures to provide patients with professional quality of care. The range of activities to address the problem was quite comprehensive.

In his response to the National Council of Provinces (NCOP) Social Services Committee, the Minister explained that problems could not be addressed in isolation, but needed a holistic approach. The problems in the provisioning of public healthcare are to a certain extent historical and structural in nature.

A review of research articles showed that a patient-centred approach could shed some light on how to deal with patient expectations. In a patient-centred approach, the possible causes of patient dissatisfaction are studied. A similar approach is followed in marketing management studies. In marketing management, the concept "service quality" is used to determine the level of customer satisfaction. Service quality defines the dimensions of service and it is the subject of further academic study.

Current research

A search of the SAePublications database using the keywords "patient satisfaction" AND "survey" AND "public hospital" produced 389 results. From these results, 11 articles were directly related to the research topic. One of the articles highlighted the importance of quality improvement projects to improve the quality of care at facilities (van Deventer & Sondzaba, 2012).

Another search of the SAePublications database using different keywords “patient satisfaction” AND “information systems” yielded 15 results. Of these results, three articles had a direct relationship to the research topic.

A search of the EBSCOhost database using the keywords “patient perceptions” AND “healthcare quality” AND “health systems” revealed 23 results. Only two of the 23 results were related to the objectives of this study. One study showed that as little as six questionnaire items can deliver reliable statistics on patient experiences (Larsson, Larsson, Chantreau & Stael van Holstein, 2005), the other study showed when a hospital has a strong community orientation, it is more likely to provide high quality care (Kang & Hasnian-Wynia, 2013).

Lack of current research into the theme

Literature suggests that the way in which patient satisfaction is perceived in different countries, could be due to way patient satisfaction is defined and measured (Larsson, Larsson, Chantreau & Stael van Holstein, 2005). A number of studies have been conducted on the patient experience within the healthcare system (Bleich, Ozaltin & Murray, 2009), and underlying factors which influence the patient experience (Bleich, Ozaltin & Murray, 2009).

Contribution to the body of knowledge

The study should contribute to the body of knowledge on the factors that influence patient satisfaction in hospitals.

This study was designed to answer the research questions as presented below.

1.4. RESEARCH AIM AND OBJECTIVES

The aim of the research was to measure the satisfaction levels of patients in Western Cape district hospitals and to produce evidence-based results that hospital management could integrate into their service planning.

Research questions

This study will attempt to answer the following core research questions:

- a. Do patients expect *service quality* at public district hospitals?
- b. Do patients perceive *service quality* at the public district hospitals they visit?
- c. Which factors could give rise to the gap between patients’ expectations and perceptions of *service quality* at district hospitals?

Research objective

The primary research objective of the study was to describe the perceptions and experiences of patients admitted to district hospitals in the Western Cape in August 2015 and to recommend measures to improve *service quality*.

To achieve the research objective, literature dealing with the following was obtained:

- Patient satisfaction
- Service quality
- Provision of quality health services at national and provincial level
- Survey measuring instruments

- Health policy, legislation, strategies and challenges

1.5. STRUCTURE OF THE THESIS

This thesis is structured as follows.

Chapter 1: Introduction

The first chapter provides a background to the study, the motivation for the study and the research aim and objectives.

Chapter 2: Service Quality in Health Services: A Literature Study

The second chapter provides a literature review on the provisioning of health services within the local context using books, journals and the SAePublications and EBSCOhost databases. It includes definitions of the key concepts, models, theories, approaches and systems. It also provides the theoretical background on different ways to measure service quality.

Chapter 3: Health Services in South Africa: A Western Cape Perspective

The third chapter is a study of policy, legislation, strategy and health systems within the public health sector. The institutionalisation of health services and the current realities facing health services in the country have been dealt with. A perspective on the delivery of public health services in the Western Cape was offered to highlight what can be achieved with limited resources.

Chapter 4: Measuring Health Services in the Western Cape: A Perception-based Analysis

The fourth chapter is a discussion of the research methodology used to conduct the study. It deals with the manner in which data was collected, analysed and reported. It explains the basis for the sample selection.

Chapter 5: Findings, Summary, Conclusions and Recommendations

The final chapter consists of the presentation of the research findings, which was analysed and summarised. Conclusions were drawn on whether the study met the research objectives, and recommendations were made on how perceptions could be improved. The study limitations were discussed.

CHAPTER 2: SERVICE QUALITY IN HEALTH SERVICES – A LITERATURE STUDY

2.1. INTRODUCTION

Recognition of quality shortcomings in healthcare in developing countries has motivated new efforts to monitor and measure quality of health services. Among, the different tools used to measure service quality, surveys are intended to measure patient expectations and perceptions.

In the course of the research, literature on what constitutes health services, how it is delivered and what the challenges are in the country were obtained and reviewed. The research theme was explored using relevant books, journal articles and independent studies.

In order to be able to gather relevant research data, literature on different research instruments used to measure customer satisfaction was obtained and reviewed. The review examined the history, the nature and the advantages and disadvantages of instruments.

The seminal text, *Delivering quality service: balancing customer perceptions and expectations* by Zeithaml, Parasuraman and Berry (1990) was used extensively in the literature review and provides a theoretical background to the study.

2.2. THE NATURE OF HEALTH AND HEALTH SERVICES

In terms of section 27(2) of the Constitution (Republic of South Africa, 1996), the State must take reasonable legislative and other measures to achieve the progressive realisation of the right of people of SA to have access to health services, which includes reproductive health (Republic of South Africa, 2003:2).

A health service is a form of service. People express the need for a unique service when they are sick or injured – in fear of what is going to happen to them (Berry & Seltman, 2008:11). The health service a consumer receives should be tailored to meet the needs of the consumer and the provider should take the age, state of health, gender, financial means and mental state of the consumer into account when providing the service (Berry & Seltman, 2008:11). Although a health service is unique, in many ways it is not dissimilar to many other services. A health service is intangible, elapses over time, requires highly skilled labour and is delivered with the consumer present (Berry & Seltman, 2008:11). The quality of a health service can vary between providers, and socio-economic status of a consumer can be a barrier restricting access to the health service (Berry & Seltman, 2008:11).

According to Parasuraman, Zeithaml and Berry (1985:1-2) a service has unique qualities, it is unable to be touched (intangible), it is varied in content (heterogeneous) and it is difficult to separate into distinct parts (inseparable). The dispensing service of a pharmacist can illustrate these qualities. A consumer presenting a script to pharmacist to be filled would not be able to: identify each separate action the pharmacist takes; compare the pharmacist's present level of activity to a past level of activity; and neither touch the human input of the pharmacist to the process. The consumer would rely on intangible information, largely from the senses, to express an

opinion on the dispensing service of the pharmacist. The point that Parasuraman *et al* (1985) make is that services are not a predetermined set of actions that occur exactly the same way every time and that perceptions are created while the service is being performed.

This emphasis of this study is on how healthcare is perceived. According to the Oxford Dictionary, *perception is an intuition people use to gauge either the truth of an expression or the nature of a person or thing.*

2.3. SERVICE QUALITY IN HEALTH SERVICES

It has been argued that *service quality* exists in the provision of health services because a service is being offered. Gronroos (1990:97) stated that *service quality* is the result of a consumer's perception of the service they received. According to Parasuraman *et al* (1994), *service quality* is a consumer's assessment of what is expected compared to what is actually received. *Service quality* is also a standard a service that should be offered (Cadotte, Woodruff and Jenkins, 1987:307).

Parasuraman *et al* (1985:42) found that the expectation of a service is fundamental to the concept of service quality. An expectation is the consumers' belief or prediction of what the result of a service transaction will be (Oliver, 1980:462), an expectation could be what a service provider offers to a consumer (Parasuraman *et al*, 1985:42), an expectation is influenced by individual consumer characteristics (Oliver, 1980:464), word of mouth and past service experiences (O'Connor, Trinh & Shewchuk, 2000:8).

The extent of the need for health services implies that a dependency on the service could exist. This state of dependency could mean that *service quality* is needed to maintain the level of service offered. The majority of South Africans are dependent on the public health sector for their healthcare needs (Viljoen, Heunis, van Rensburg, van Rensburg, Engelbrecht, Fourie, Steyn & Matebesi, 2000).

According to Jost (1992:71), the traditional European viewpoint of what constitutes quality healthcare focused on the provider, namely the scientific/medical knowledge and the skill of the medical practitioner. The modern European viewpoint includes the effectiveness, adequacy, acceptability, accessibility, and equity of the health system. In certain American literature the viewpoint is narrower and focuses primarily on the technical competence of the medical practitioner. It has been suggested that South Africa follows the modern European viewpoint.

2.4. THE MEASUREMENT OF SERVICE QUALITY

Literature dealing with the measurement of the concept *service quality* was reviewed. A number of studies point to the preference for using a standardised measuring instrument to measure the concept (Gronroos, 1990) and Parasuraman *et al*, 1985).

The assessment of the quality of health services should acknowledge the complexity, heterogeneity and ambiguity of these services (Eiriz & Figueiredo, 2005:405). However, the assessment should take the patients point of view into account, and not only the provider's point of view (Eiriz & Figueiredo, 2005:405). A number of healthcare organisations use the principles of quality management used in industry in

their quality assessments (Eiriz & Figueiredo, 2005:405). It is debatable whether the use of these principles has increased the efficiency and effectiveness of the organisations (Eiriz & Figueiredo, 2005:405). The question of how to measure the quality of healthcare offered by healthcare providers has been a focal point of health service managers for a considerable period of time (Tateke, Woldie & Ololo, 2012: 11).

Rohini and Mahadevappa (2006) used the service quality model of Parasuraman *et al* (1985) to measure the delivery of service quality at Bangalore hospitals in India using the five dimensions of quality.

The SERVQUAL instrument developed by Parasuraman *et al* (1985) was initially used to measure service quality and bring their service quality model into reality. The instrument is in the form of a research questionnaire. Buttle (1994) found the SERVQUAL *instrument* to be suitable for research for the following reasons:

- The instrument is widely used for measuring service quality.
- The instrument produces results which have a scientific basis.
- The instrument has been shown to be reliable in a number of different service settings.
- The instrument's scales have a limited number of items, therefore it is easy to use.
- The instrument has a standardised procedure for analysis that makes the presentation of results less onerous.

The SERVQUAL instrument was the culmination of exploratory research by Zeithaml, Parasuraman and Berry (1990:23). This process of exploratory research was performed in great detail and validates the use of the instrument.

Firstly, Zeithaml *et al* (1990:23) defined *service quality* and developed 10 evaluative dimensions of service quality. After a quantitative study based on data gathered on five different service sectors, they developed their measuring instrument. The quantitative study is important – it adds statistical acceptability to the SERVQUAL instrument.

Secondly, Zeithaml *et al* (1990) recast the 97 constructs they had identified into a pair of statements. One statement measures the customer's expectation of firms in general within a service category. The second statement measures the customer's perceptions of the service quality of a specific firm. By using the pairing process the authors were able to identify non-discernible items and reduce the number of items to ten. The raw questionnaire data was converted into perception minus expectation scores ranging from +6 to -6.

Thirdly, Zeithaml *et al* (1990) further refined the conceptual dimensions of service quality. They confirmed the reliability and validity of their scale by using survey results. Before the survey, they used the analysis of difference scores to eliminate nearly two-thirds of the dimensional items and several overlapping dimensions.

Fourthly, after performing statistical analysis, Zeithaml *et al* (1990) found that the two broader dimensions of *assurance* and *empathy* have a strong correlation with other dimensions. From the 10 original dimensions, seven dimensions were consolidated into two, and the first three original dimensions (*tangibles*, *reliability* and

responsiveness) remained intact. The net result was the five dimensions described below (Zeithaml *et al*, 1990:25-26):

- **Tangibles** – the physical appearance of facilities, equipment, personnel and communications materials of the service provider, used by the consumer to evaluate services.
- **Reliability** – the ability of the service provider to perform the promised service in a dependable and accurate manner.
- **Responsiveness** – the willingness of employees to assist customers and provide prompt service.
- **Assurance** – the knowledge and courtesy of employees and their ability to convey trust and confidence.
- **Empathy** – the caring and individualised attention shown by employees to customers.

Fifthly, Zeithaml *et al* (1990:51) found that five *gaps* give rise to service quality:

Consumer expectation – management expectation gap (GAP 1):

In the *study* they found that managers who know what their customers expect avoid spending time and money on things that do not matter. The managers know what level of service is perceived as excellent and they strive to meet that higher expectation. The managers deliver what customers want, instead of what they think customers want. However, inadequate upward communication channels and too many management levels result in poor communication between management and employees.

“The gap between consumer expectations and management perceptions of those expectations will have an impact on the consumer’s evaluation of service quality”

Management perception – service quality specification gap (GAP 2):

In the *study* they found that when faced with constraints, such as a lack of resources or adverse market conditions some managers find it difficult to deliver a service against a formal standard. The *focus groups* agreed that the difficulties mean that matching or exceeding their customers’ expectations is inhibited. The question arises whether management’s perception of their customer’s expectations is realistic in view of available resources.

“The gap between management perceptions of consumer expectations and the firm’s service quality specifications will affect service quality for the consumer’s viewpoint”

Service quality specification – service delivery gap (GAP3):

Although organisations have formal standards and specifications, they find it difficult to maintain standardised quality. In the services industry where service delivery and consumption occur simultaneously, the extent of standardised quality is difficult to measure.

“The gap between service quality specifications and actual service delivery will affect service quality from the consumer’s standpoint”

Service delivery – external communications gap (GAP 4):

In the *study* they found that promising more in external communications than can be delivered can raise expectations but lower perceptions of quality when promises are not fulfilled. Behind-the-scenes efforts to serve the best interests of consumers are

often not communicated externally, consumers would perceive the delivered service in a more positive way if this was communicated to them. The proposition is:

The gap between actual service delivery and external communications about the service will affect service quality from the consumer's standpoint

Expected service – perceived service gap (GAP 5):

In the *study* the judgements of high and low service quality depend on how the consumers perceive the actual service performance in the context of what they expected. The *focus groups* supported the notion that the key to ensuring good quality service is meeting or exceeding the service that consumers expect from the service. One *respondent* had a cheque refused by the bank a day earlier than it was due. The *respondent* perceived the refusal as unwillingness to help as opposed to inability under the law. The proposition is:

“The quality that a consumer perceives in a service is a function of the magnitude and direction of the gap between expected service and perceived service

Sixthly, Zeithaml *et al* (1990) defined the perceived quality component:

The study found that service quality is measured by comparing expected service with perceived service. The study found that regardless of the type of service, focus groups used similar *criteria* to evaluate service quality. They grouped the *criteria* into ten categories called “service quality dimensions”, which overlap. The differences in how consumers evaluate the quality of consumer goods and services are determined by classifying the properties proposed by Nelson (1970). He distinguished two categories of properties (1) *search properties*, attributes a consumer can determine before a purchase (2) *experience properties*, attributes which can only be determined after purchase or during consumption. *Search properties* include colour, price, style, feel, while *experience properties* include wearability and dependability.

Darby and Karni (1973) added to Nelson’s classifications a third classification, *credence properties*, characteristics which are difficult to evaluate before, during and after consumption. *Credence properties* include medical procedures. Few consumers possess medical skills to evaluate whether these procedures are necessary or poorly performed when they are administered. Offerings high in *search properties* are the easiest to evaluate, those high in *experience properties* are more difficult to evaluate, those high in *credence properties* are the hardest to evaluate. Most services contain few *search properties* and are high in *experience* and *credence* properties, making their quality more difficult to evaluate than goods (Zeithaml *et al*, 1990). Most of the dimensions of service quality mentioned by the focus group were the *experience properties*: access, courtesy, reliability, responsiveness, understanding the customer and communication. Each of the dimensions can only become known while the customer is purchasing or consuming the service. While customers may possess some information based on their own experience or the experience of others, they are likely to re-evaluate these dimensions each time a purchase is made. Focus groups were not able to accurately evaluate the service quality of two of the dimensions that fall into the *credence property* category. They were competence (the possession of the required skills and knowledge to perform the service) and security (freedom from risk and danger). The proposition is:

“Consumers typically rely on experience properties when evaluating service quality”

Based on insights from the *study* it was found that when expectations are not met, consumers perceive the quality as less than satisfactory. When expectations are met,

quality is perceived as satisfactory. When expectations are exceeded, quality is perceived to be more than satisfactory (Parasuraman *et al*, 1985)

Other researchers have tested and used the SERVQUAL instrument in the healthcare environment and reported their findings. Some of these findings are discussed below.

Tangibles

The study by Tateke, Woldie & Ololo (2012:10-11) found the perceived cleanliness score of hospitals to be associated with the satisfaction score.

Responsiveness

In their study, Tateke, Woldie & Ololo (2012:10-11) came to the conclusion that patients need to be well heard during consultations with healthcare providers. When healthcare providers are responsive and allow for the adequate consultation duration, they will know more about the patients and their health problems. The study found the perceived adequacy of consultation duration was a determinant of patient satisfaction. This implies the importance of healthcare providers demonstrating their responsiveness by engaging in adequate patient satisfaction.

Assurance

In this study on the determinants of customer satisfaction with hospitals, it showed that perceived competence of the hospital staff had the greatest impact on patient satisfaction (Boureaux & O’Hea, 2004).

Empathy

In this study it was indicated that patients have a tendency to infer the level of technical quality based on non-technical aspects, such as the care providers’ compassion and empathy, responsiveness and service coordination amongst healthcare personnel (Syed, Nazlee, Shahjahan, 2007). In this study, it was found that perceived technical competence and perceived empathy had a positive association with patient satisfaction; this is similar to other findings (Boureaux & O’Hea, 2004).

The question which service quality factor is most important to customers appears in literature. It is evident that that all five factors are considered critical when evaluating service quality. It is evident also that customers rate reliability the highest and tangibles the lowest, regardless of the service being studied. The message from customers to service providers is to be *reliable* – do what you say you are going to do.

The advantages of measuring patient satisfaction, appears in literature. According to Buttle (1994) SERVQUAL has the following advantages above other measuring instruments:

- It is an accepted standard for assessing the different dimensions of service quality.
- It is known to be valid in a number of service situations.
- It is known to be reliable.
- The instrument has a limited number of items and it is quick and easy to complete.
- The analytical procedure to aid interpretation and results is based on research and it is standardised.

According to Anderson (1995) the results of her study at a public university clinic showed all five dimensions of SERVQUAL measured negatively, assurance being the most negative.

When Youssef, Nel and Bovaird (1995) measured service quality at an NHS hospital using the five dimensions of SERVQUAL, they found that patients' perception of service did not meet their expectations. The lack of the expected reliability was the biggest problem.

Zeithaml *et al* (1990) conducted further research into service quality and gained insight into the role of management in service quality. Their findings are discussed in more detail in the next section.

- a. Management should use organisational research to gain a better understanding of the expectations of their customers. Management should also strive to interact with their customers to gain more insight into the expectations of their customers. A failure to understand customer expectations, leads to a service quality gap (Zeithaml *et al*, 1990:60-1).
- b. Management should facilitate upward communication of service information from staff in contact with customers. Contact personnel gather valuable information when interacting with customers. This information should inform management on changes in customer perceptions and expectations. Research has revealed that this service information is seldom passed onto management (Zeithaml *et al*, 1990:63).
- c. Management should ensure that the organisational structure allows the flow of service information across the different levels of the organisation. Too many levels between contact personnel and management could result in managers not knowing what customers expect from the organisation. Multiple organisational levels place barriers between top management who set the standards for service quality, and contact personnel who deliver service quality to customers. The greater the number of organisational levels, the more likely information will be lost or misinterpreted in each translation from level to level (Zeithaml *et al*, 1990:64-5).
- d. Management should set service quality standards for the organisation. The setting of service quality standards should be a managed process and should be based on what customers expect from the organisation. Management should take account of organisational resource constraints and the unwillingness of staff to change their existing approach (Zeithaml *et al*, 1990:71)
- e. Management should be committed to achieving the ideal level of service quality. The pursuit of short-term accounting-driven measures of performance such as cost reduction, instead of service quality shows a commitment to a self-defined perspective instead of a customer perspective (Zeithaml *et al*, 1990:72-74).
- f. The middle management of an organisation should commit to operationalising service standards. Top management will not realise its goal of maintaining

service standards if middle management do not commit. Top management should avoid the “program-of-the-month” approach, which leads to middle management fatigue and to a lack of commitment because there is not enough time to build support for the program (Zeithaml *et al*, 1990:71-72).

- g. Management should overcome the perception of infeasibility when setting service standards to meet or exceed customers’ expectations. Infeasibility is a managerial mind-set that may or may not be related to actual constraints in the organisation. However, actual constraints should be recognised, for instance when customer expectations are too rigid and unrealistic (Zeithaml *et al*, 1990:76-77).
- h. Management should drive innovation and be receptive to better ways of providing service quality. This drive is a part of a mindset that counters infeasibility. Managers should believe anything the customer wants is feasible. Successful managers are willing to invest time, money and effort to meet customer expectations (Zeithaml *et al*, 1990:77-79).
- i. The degree to which management are able to standardise tasks should translate into service quality standards. Although it is perceived that standardising tasks leads to services that are impersonal, inadequate and not in the customer’s best interest, the use of hard and soft technology enables the organisation to break a task down and set a service standard such as the length of time a transaction takes and the accuracy with which operations are performed. The advantage of improving work methods is that staff are freed up to personalise and to improve services (Zeithaml *et al*, 1990: 79-80).
- j. Service quality goals set by management that cover the critical service dimensions should meet customer expectations, allow employees to understand what is required of them, and enable employees to respond to realistic standards. The way in which goals are defined should enable the providers to understand what they expected to deliver. High performance is achieved when goals are challenging but realistic. Unrealistic goals leave employees feeling dissatisfied and frustrated when not achieving the goal (Zeithaml *et al*, 1990:84-86).
- k. Management should ensure that employees have clearly defined organisational roles that they play. An organisational role is the set of behaviours and activities performed by a person occupying that position. The role is defined through the expectations, demands and pressures communicated to the employee by individuals who have a vested interest in how the employee performs the job. An employee with experience role ambiguity when the person is unsure what the manager expects from them and they not sure how to satisfy the expectation. A manager can provide role clarity by providing accurate information on the employees’ organisational role (Zeithaml *et al*, 1990: 90-94).
- l. Management should give attention to the hiring and selection of staff. Insufficient attention to this process leads to a mismatch of skills to the job and causes the service quality performance gap to widen (Zeithaml *et al*, 1990:99).

- m. Management should ensure that employees can access adequate tools and technology to be able to grow into their jobs. Employees that have the opportunity to grow into their jobs are more likely to be satisfied and loyal to the company. To build growth into lower-level jobs, if possible the organisation should offer employees the opportunity to cross-train for other positions (Zeithaml *et al*, 1990:99-101).
- n. In service situations where the manner in which the service is provided determines customer satisfaction, management could implement a behavioural observation system to monitor their staff. A behavioural observation system tied to a reward system which is timely, simple, fair, and accurate should make a positive contribution to staff morale (Zeithaml *et al*, 1990:102-4).
- o. “Employees’ reactions to stressful situations depend on whether they feel they can control those situations.” The perceived control of the employee is their ability to respond to threatening situations and being able to choose the outcome. Management should train staff how to control stressful situations and reap the benefit of suffering from less stress. When employees perceive that they can act flexibly rather than by rote, their perceived control increases and performance improves (Zeithaml *et al*, 1990:104- 5)
- p. Management should empower employees and help them to develop in their job. Empowerment in the organisational sense means pushing decision-making down to the lower levels of the organisation but still within the existing governance framework. Empowerment in this sense also means reassessing overly standardised and mechanistic approaches for dealing with customers and replacing these approaches with a structured approach that allows the employee to individualise their skills and methods (Zeithaml *et al*, 1990: 102-107).
- q. Management should encourage employees to recognise the value of working as a team and to strive to meet a common objective. Teamwork encourages personal involvement and a strong belief in the organisation and it should be at the core of management’s service-quality initiatives (Zeithaml *et al*, 1990:107-9).
- r. Management should manage service quality perceptions by ensuring that what the organisation promises about its service is what it actually delivers. Corporate communications should not overpromise or misrepresent what the organisation offers (Zeithaml *et al*, 1990:115-134).
- s. Management encourage corporate communication where employees explain the excellent service they offer. Employees communicating excellence become a standard for other employees to model their performance (Zeithaml *et al*, 1990:115-134).
- t. In an organisation with multiple operating unit offering services, management should develop a mechanism to drive uniformity in service quality (Zeithaml *et al*, 1990:115-134).

2.5. PATIENT SATISFACTION

Patient satisfaction can be described as a substantial gap between a patient's expectation and perception of the care he/she receives (Glick, 2009). The patient's expectation of a hospital's service could be influenced by a previous experience or based on information obtained from others (Tateke Woldie & Ololo, 2012). Tateke (2012) is of the opinion that the expectation of a patient at a public hospital is lower than the expectation of a patient at a private hospital.

The term 'patient-centredness' (PC) coined by Balint emphasises that patients are unique and it describes the manner in which physicians should interact and communicate with their patients (Setlhare, Couper & Wright, 2014:1). The term has grown to mean optimal patient-healthcare system interactions and described by McWhinney (as quoted in Setlhare, Couper & Wright, 2014) as 'seeing the illness through the patients eyes'. The need for the physician to provide an environment that is conducive to patients' full and free expression (Setlhare, Couper & Wright, 2014:1).

In South Africa, the authoritarian approach to patient care has been replaced with a patient-centred approach (Department of Health, 2000). The health department has detailed this approach in the Patient's Rights Charter to guide health workers (Department of Health, 2000). The charter allows patients the right to complain about the quality of health service they receive (Department of Health, 2000).

In the present day, patients assume a more active role in healthcare, instead of being passive recipients. Patients educate themselves, they are aware of their rights, demand better quality of service, and ask for more information if needed (Bediako, Nel & Hiemstra, 2006:12). Healthcare providers are beginning to understand the importance of the patient perspective using patient feedback methods (Phaswana-Mafuya, Peltzer & Davids, 2011). Patient feedback informs health providers whether the level of care offered is adequate (Peltzer, 2009). Feedback (by means of surveys) is often used to measure the quality of care as a health outcome (Fitzpatrick, 1991). Historically, healthcare providers adopted an authoritarian approach to healthcare and viewed patients as passive recipients of healthcare (Larrabee, 1995). Health authorities shared this view, and both concluded that patients lacked the technical knowledge to make fully informed decisions on their own (Phaswana-Mafuya *et al*, 2011). Patient satisfaction should be considered when quality of care is assessed (Bediako, Nel & Hiemstra, 2006).

2.6 THE MEASUREMENT OF PATIENT SATISFACTION

According to Andaleeb (2001) patient views collected using patient satisfaction surveys enable a better understanding of the drivers of quality health services. According to Glick (2009:368) patient satisfaction surveys highlight aspects of care that require improvement; simple and take little time administer; enable the development of strategic measures; aid education by identifying achievements and failures; promote the use of empirical knowledge instead of guesswork in decision-making. They should require uncomplicated protocols for sampling and interviews, and be simple and take little time to administer. They are mostly administered as an exit survey but challenges regarding this approach are discussed further below.

Although the advocacy for surveys has grown, there has been concern about the usefulness of surveys responses when trying to understand client satisfaction (Glick, 2009:368). The one reason user exit surveys typically show uniformly high satisfaction (Lindelov & Wagstaff, 2003) with services is ‘courtesy bias’ where the respondents are reluctant to express a negative opinion to a stranger, leading to an overestimation of satisfaction. This situation is most likely when respondents are interviewed at the health facility right after receiving care, they may associate the interviewer with the health facility and may want to avoid a ‘disappointing response’. A high level of satisfaction in surveys can reflect; the “Hawthorne effect” where healthcare practitioners perform better when they know they are being observed; and patients judge services against very low expectations (Glick, 2009:369). It is possible to obtain a more accurate measure of consumer perceptions by asking about specific aspects of health facility quality or areas of improvement instead of asking general questions about overall satisfaction (Bessinger & Bertrand, 2001). It has been suggested that courtesy bias could be higher for subjective questions, for instance, when a respondent rates their satisfaction when interacting with health facility staff, as opposed to rating the objective attributes of a health facility (Glick, 2009:369). There is a hypothesis that courtesy bias will more strongly affect estimates of highly subjective indicators (Glick, 2009:373).

The recognition of the shortcomings in healthcare in developing countries (World Bank Development Research Group, 2004) has motivated efforts to measure and monitor health service quality using surveys of healthcare workers and their patients (Lindelov & Wagstaff, 2003). Surveys are used to measure user satisfaction with, or perception of overall service quality or specific aspects of quality. In addition to measuring client satisfaction surveys identify health facility attributes or practices that increase satisfaction (Glick, 2009:368).

2.7 OTHER MEASURES OF SERVICE QUALITY

2.7.1 The Gronroos model

Gronroos (1990) developed a model for use in marketing and healthcare. The model that Gronroos (1990:97) offers of service quality distinguishes between functional and technical quality, six criteria relating to functional quality are defined in the table below.

Table 2.1: Gronroos’ dimensions of perceived service quality

Dimension	Definition
Professionalism and skills	Employees have the knowledge and skills to solve the customers’ problems?
Attitudes and behaviours	Employees show interest in solving problems?
Accessibility and flexibility	Is the set-up designed to enable easy access?
Reliability and trustworthiness	Rely on employees and systems to keep promises and to act in best interests?
Recovery	Rely on organisation to react to unpredictable situations and to solve problems?
Reputation and credibility	Trust the operations to deliver?

Source: Gronroos, C. Service quality: Research perspectives (1990)

The typology of service quality above is from the customer's point of view. The typology serves as a framework for people measuring service quality and is designed to be modified to serve specific needs (Schneider & White, 2004:38).

The dimensions in the Gronroos model are similar to the SERVQUAL dimensions of Parasuraman *et al* (1985) used in marketing. Trust in the organisation and the knowledge of its people is common to both models. Gronroos places more emphasis on ease of accessing services and on the ability of the organisation to respond to customer complaints. Other authors found that customers remembered failed services favourably if they felt the organisation recovered well – offering a replacement service. The other authors also found that a complaining customer can become a committed customer if the customer could be persuaded to stay after a failed service (Schneider & White, 2004:34-35).

Technical quality in healthcare is the accuracy of diagnosis and procedures and functional quality refers to the manner of delivery of healthcare (Gronroos, 1990:97).

2.7.2 The Naumann and Giel model

The customer satisfaction measurement model proposed by Naumann and Giel (1995:12) is a mechanism to determine the extent to which customer value is being created and delivered. Customer-driven input to the organisation's learning process is acquired, analysed and utilised. The programme solicits customers' ideas for improvement and innovation. The *programme* removes the guesswork of determining customers' *expectations* and enables the organisation to gauge the level of customer value and the extent to which expectations are met or exceeded. The *programme* is valuable to the organisation if it is embedded in the organisational culture. The *programme* captures inputs and ideas seldom found in traditional market research and it generates empirical data on customer's expectations and perceptions of performance.

Naumann and Giel (1995:13) argue that usually the most profitable firms have the highest customer *satisfaction* levels. Profitable firms usually have the lowest employee and customer turnover rates. Profitable firms correlate customer satisfaction, customer retention, and employee satisfaction.

Naumann and Giel (1995:13) see the design, implementation and utilisation of the *model* as a sequential and iterative process. Although the *model* exists in a changing environment, the model follows a clearly defined process.

According to Naumann and Giel (1995:5) customer value consists of product quality, service quality and a price based on those elements. The environmental responsibility, corporate citizenship and overall integrity of the organisation, correlate with product and service quality. Customer expectations of value correlate with customer satisfaction.

According to Naumann and Giel (1995:12), the true measure of customer-driven performance is customer satisfaction measurement. The movement amongst organisations to be more customer-driven is a trend in management practice across the

world. To be customer-driven, the organisation must focus on its core competence – areas of distinct competence in creating value.

Perceived quality directly influences customer loyalty and *customer satisfaction*. Therefore, *customer satisfaction* partially mediates the quality (Ball, Coelho & Vilares, 2006; Boshoff and Gray, 2004). A study used perceived quality to assess patient satisfaction and found a strong correlation between the variables (Choi, Lee, Kim, Lee and Choi, 2004). Studies show that patient satisfaction is the key determinant in the relationship between perceived healthcare quality and patient loyalty intention (Donabedian, 1996).

2.8 CONCLUSION

The following conclusions were reached from the review of literature pertaining to health service delivery and the measurement of the quality of the provisioning of these services.

Services are intangible performances, heterogeneous in nature and most often production and consumption of the service occur at the same time making it difficult to measure service quality.

The occurrence of the concept *service quality* has been the subject of a number of studies in different industries.

Based on the review of literature the researcher is of the view that variables and criteria can be established to measure intangibles such as human expectation and perception within a specific context. The observation of human behaviour offers insights into the characteristics of the concept called patient satisfaction. There is a strong correlation between the defined variables of patient satisfaction expressed as service quality namely tangibles, reliability, responsiveness, assurance and empathy. The satisfaction of a patient with the service they received is indicative of the capacity of a hospital to meet patient needs. The extent of correlation between the variables of patient satisfaction indicate that standards of service are valid and the researcher disagrees with the view of weak correlation.

Having conceptualised patient satisfaction in this chapter, the incidence of patient satisfaction will be examined within the context of South Africa and the Western Cape.

CHAPTER 3: HEALTH SERVICES IN SOUTH AFRICA: A WESTERN CAPE PERSPECTIVE

3.1 INTRODUCTION

This chapter places the study of health service delivery within the African context, with emphasis on South Africa. The building blocks of health systems, policies, legislation, institutions and the current reality are considered, and the package of health services in the Western Cape is also discussed.

3.2 THE AFRICAN CONTEXT

To achieve patient satisfaction in Africa, the local health departments need to remain in touch with the local context in which health services are delivered. A feature of this continent is the cultural, religious and ethnic diversity of the population. It is also a continent with income and social inequalities.

The participants at the 2nd African Regional WONCA (World Organisation of Family Doctors) Conference held in Rustenburg, South Africa in 2009 placed the delivery of health services in Africa into context when they stated that the continent is a vast area with its own unique cultural, religious and ethnic diversity. This diversity gives rise to unique perceptions and beliefs around the delivery of healthcare. Although healthcare is delivered in an environment marked by gross inequalities and disparities, the continent shows its strength through extended family values and communal accountability.

The participants at the conference were of the view that African medical practitioners should operate in health systems where patients receive person-centred care with a family and community orientation. The reality is that person-centred care is often offered with limited human, financial and material resources. It was also noted that health practitioners should acquire cultural competencies. This includes knowledge of local languages, traditions and religious beliefs. It was also noted that African health practitioners are expected to advocate for the poor and marginalised in society.

3.3 HEALTH GOVERNANCE AND LEADERSHIP

The government should oversee leadership and governance in the private and public health sector to achieve patient satisfaction.

According to the World Health Organisation (World Health Organisation, 2007:23) the leadership and *governance* of health systems, called stewardship, is a critical building block within the health system, it's about the role of government in healthcare. This involves overseeing and guiding the private and the public health sectors to protect the public interest (World Health Organisation, 2007:23). It is the experience of the World Health Organisation (WHO) that some of the leadership and *governance* functions (World Health Organisation, 2007:23) listed below are common to all health systems.

- Policy guidance. Formulating sector strategies and technical policies; defining goals and spending priorities across services; identifying roles for public and private actors and the role for civil society.

- Regulation. Designing regulations and ensuring they fairly enforced.
- Accountability. Ensuring all private and public health sector actors are held publicly accountable and promoting transparency to achieve greater accountability.

A range of instruments and institutions exist to carry out the functions of effective leadership and *governance* (World Health Organisation, 2007:24). These instruments include sector policies, medium term expenditure frameworks, resource allocation formulae, Patient's Charters, government commitments and performance-based contracts. The institutions performing these functions may include other government departments and ministries, parliament and portfolio committees, statutory and professional bodies, auditors and the news media.

Governance is a challenge in many countries, not only in SA. In their article on the evolution of primary healthcare in Australia, Nicholson, Jackson, Marley & Wells (2012:23) point out that leading the health system in a manner that all the stakeholders understand the vision, and the need to accept mutual accountability to achieve a higher performing health system, is a challenge.

The Constitution (Republic of South Africa, 1996) spells out the right of the citizens of this country to healthcare that is accessible, equitable and affordable. This right is dealt with under separate sections of the Act: section 27(2) grants this right to all citizens; section 27(3) states that no one may be refused medical treatment when in need and section 24(a) states that every child has the right to basic healthcare services.

Since 1994, the democratic government made strides by instilling an equitable governance model to address gross inequalities in health infrastructure and health services since (SADHS, 2003:4). The National Health Act 61 of 2003, published in the Government Gazette on 23 July 2004 has the following objects: to regulate private and public providers of health services; ensure that health services are delivered in an equitable manner to all citizens using available resources; establish the rights and duties of healthcare providers, health workers, health establishments and users; and enforce the rights afforded by the Constitution. The Act provides the framework for a structured health system in the South Africa. It replaced the Health Act, 1977, Act 63 of 1977 with the National Health Act 61 of 2003. The government reviewed several Acts that complement the Health Act and amendments were passed such as: Medical Schemes Amendment Act, 2002; the Health Professions Amendment Act, 2004; and the Nursing Amendment Act, 2004. The purpose of reviewing legislation was to ensure that the legislation promotes the right of people to healthcare (SADHS, 2003:5).

“The major policy focus remains the planned introduction of National Health Insurance, for which a green paper was released for comment in August 2011. Although missing many critical details, the draft policy document lays out the pathway to implement universal coverage by 2025.” (SAHR, 2011)

The government's decision taken to introduce a national health insurance by 2025 has changed the health policy landscape fundamentally. The *Green Paper* on the NHI in August 2011 (Republic of South Africa, 2011) followed on from the *Discussion*

Document on the NHI released after the 2010 National General Council of the African National Congress in September 2010 (ANC National General Council, 2010).

In essence, the objective of the NHI, spelt out in the Green Paper, is to grant both employed and unemployed people access to a health services procured on their behalf through the use of a single pool of funds (SAHR, 2011:4-6). The *Green Paper* links the provisioning of quality services to the securing of adequate funding. The funding of the NHI will be significant and it was estimated at R255 billion in 2011 at current allocations at the time. Yet, beside the intention to provide health services at an affordable cost; the *Green Paper* does not deal with cost containment in any detail that allows the reader to foresee the benefits of public provisioning as opposed to private provisioning. The *Green Paper* spells out government's intention to control key financial resources to gain purchasing power to arrest spiralling costs.

The fact that the Health Department released a Green Paper on the NHI as opposed to a more refined White Paper shows an element of caution. The department retained the guiding principles that the NHI should: ensure the right to access healthcare as stated in the Bills of Rights in the Constitution; ensure sufficient cross-subsidisation between rich and poor, and the sick and healthy; provide care with strong management and healthcare systems; promote equitable care which is affordable; and minimise administrative structures across national, provincial and local structures. The NHI will pool funds and use these funds to purchase health services on behalf of the entire population from contracted public and private healthcare providers. Funding for NHI would come from mandatory contributions by those employed and the allocation of general tax revenue by the Treasury. There are few details on how the NHI would be governed. The NHI policy acknowledges that existing structures and systems are weak, that the quality of interventions needed to be improved, that more staff and training are needed, and that procurement processes need to become more robust.

3.4 HEALTH INSTITUTIONS

Institutions involved in the public health sector should institute measures to achieve health outcomes and patient satisfaction.

National Department of Health

The National Department of Health is the custodian of the public health system. The department decided to adopt the national outcome of “a long and healthy life for all South Africans” (Department of Health, 2012). This outcome is one of twelve national outcomes aimed at improving service delivery within the public sector. The 12 outcomes are defined within the Medium Term Strategic Framework (MTSF). To give effect to the outcomes, the health minister concluded a Negotiated Service Delivery Agreement (NSDA) with the President. In turn, the health minister concluded agreements with the Health MEC's of the nine provinces (Department of Health, 2012). The four outputs (Department of Health, 2012) below are linked to the outcome:

- to increase the life expectancy of its citizens
- to decrease maternal and child mortality
- to combat HIV, AIDS and TB
- to improve public health systems

The Health Department also has a mission to improve the health status of people by preventing illness, promoting a healthy lifestyle, and improving the healthcare delivery system (Department of Health, 2012). The achievements against target for the four outcomes appear in the Annual Performance Report (APR).

The following statutory health councils exist

- Health Professions Council of South Africa (HPCSA)
- South African Pharmacy Council (SAPC)

The following is an overview of recent developments initiated by these institutions to maintain and improve the competencies of their professionals.

Health Professions Council

The Health Professions Council of South Africa (HPCSA) is the statutory health council for the health professions. The steady stream of regulations and board notices have included rules relating to additional qualifications for oral hygienists and draft rules for speech therapists, audiologists, biokineticists, medical and dental practitioners, and medical technologists (SAHR, 2011:8). Although the HPCSA has continued to fulfil its mandate of regulating the professions by instituting continuing professional development (CPD) to ensure the competency of health professionals is maintained, the focus on continuing to transform governing structures to represent the ethnic majority of the population has gained momentum.

Pharmacy Council

The South African Pharmacy Council (SAPC) is the statutory health council for the pharmacist profession. It instituted continuing professional development (CPD) to maintain and improve competencies amongst pharmacists and it issued the regulations in May 2011 (SAHR, 2011:8). Since then, pharmacists have to maintain a portfolio of evidence of CPD, a move which has been welcomed within the profession (SAHR, 2011:8). It is unlike the points-based system of the HPCSA and mandatory for all registered pharmacists and pharmacist's assistants (SAHR, 2011:8).

3.5 HEALTH STRATEGY

Patient satisfaction should be part of the strategy of the National Health Department.

The health services provided by health facilities form part of a health system (World Health Organisation, 2007:2). Therefore, any strategy to strengthen health services should not be considered in isolation, but placed within the context of “strengthening health systems” (World Health Organisation, 2007:2). To implement a strategy, there needs to be a shared perception of what a health system is, what the system is striving to achieve, and to tell if the system is moving in the right direction (World Health Organisation, 2007:2). A health system consists of all organisations, people and actions whose primary intent is to strive to promote, restore and maintain health (World Health Organisation, 2007:2). Health systems have multiple goals. The World health report defined the overall health system goals as: improving health and health equity in ways that are responsive, financially fair, and make the most efficient use of resources and in the intermediate achieve greater access to and coverage for health

interventions without compromising provider quality (World Health Organisation, 2007:2).

The National Health Department has put a strategy in place to improve healthcare in South Africa. The strategy follows an outcomes-based approach. The strategy relies on a vision “a long and healthy life for all South Africans” to conceptualise this *approach* in a manner that is understandable to everyone. The following are the four key outputs of the *approach*: to increase the life expectancy of its citizens; to decrease maternal and child mortality; to combat HIV, AIDS and TB and to improve public health systems were defined in the NSDA, to be able to show measurable results against the vision (SAHR, 2011:30).

Since 1994, the SA health system faced *challenges* and it progressed as well (Barron, 2008; Chopra, Lawn, Sanders, Barron *et al*, 2009).

Challenges

The accomplishment of greater parity in district health expenditure, of more clinics and hospitals, of more immunisations and better malaria control, is being overshadowed by poor quality of care, a lack of delegation of authority and operational efficiency, poor health leadership and low worker morale (Harrison, 2009:2).

Harrison (2009:2) links improvements in service efficiency and quality of care to a new funding formulas found in the proposed national health insurance system. One of the biggest post-1994 accomplishments, the district health system, should make health management more responsive to local conditions and distribute resources more equitably, yet the implementation of the district-based system suffers from inefficiencies due to poor leadership. Harrison (2009:5) suggests a ‘breakthrough strategy’ in the form of a diagram below, to improve the state of the health system.

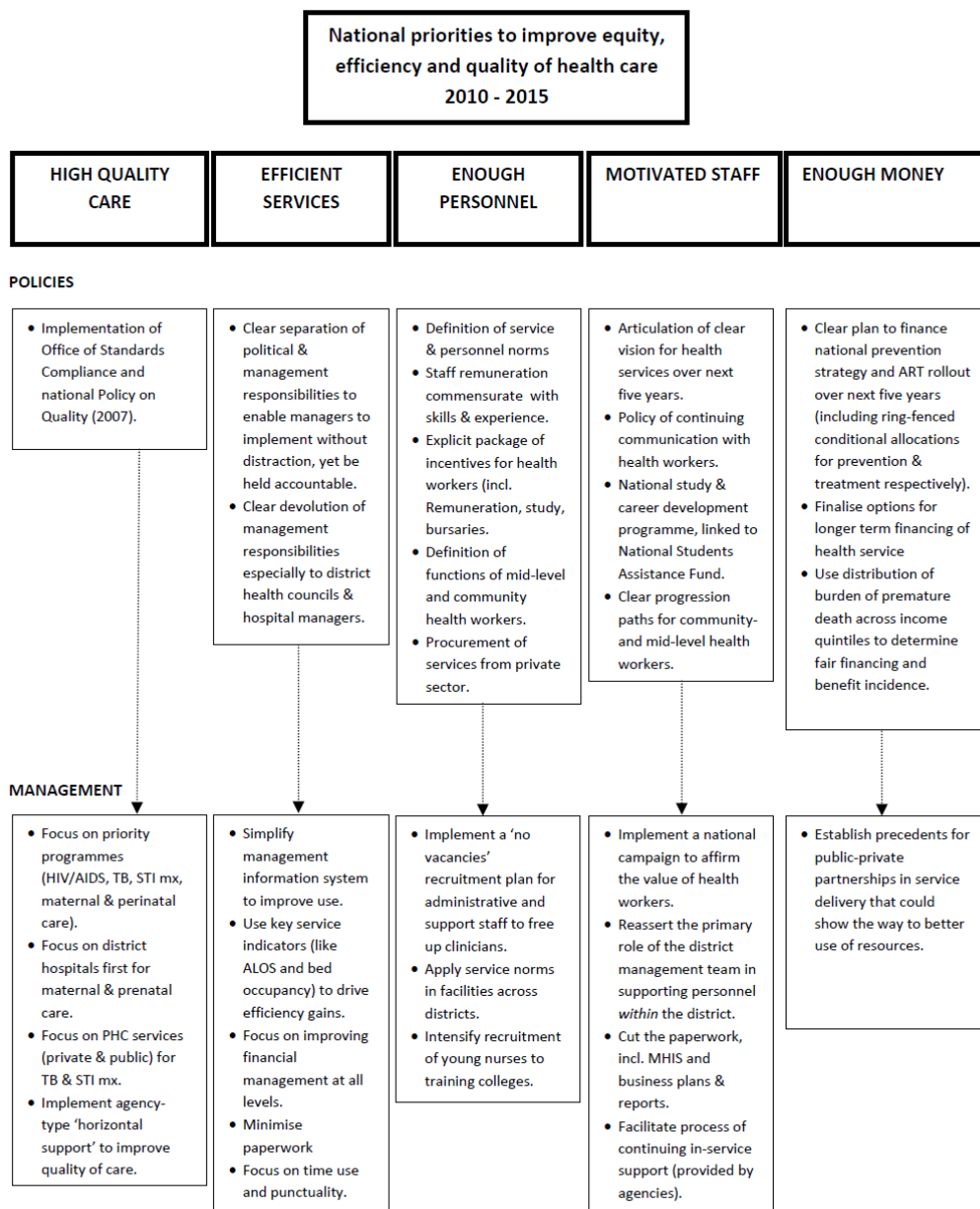


Figure 3.1: Health system improvement strategy, 2009

Source: Harrison, 2009

Health outputs

The National Health Department made a commitment to achieve specific *health outputs* between 2010 and 2014. In October 2010, the Minister of Health, Dr A Motsoaledi, signed a Negotiated Service Delivery Agreement (NSDA) with the President. The agreement formalised the department's commitment to National Health *Outcomes* from 2010 to 2014. Furthermore, the health minister signed agreements with other cabinet ministers and with the Members of Executive Council (MEC's) in the nine provinces. The minister passed on the responsibility of implementing the NSDA to the National Health Council (Department of Health, 2012).

The progress in achieving the national health *outputs* is detailed in the Annual Performance Plan (APP). Actual results for the four *outputs* are measured against targets.

According to Harrison (2009:13), the five strategic instruments adopted by national government after 1994: free primary healthcare; the essential drugs programme; the choice on the termination of pregnancy; the anti-tobacco legislation; and the imposition of community service for graduating health professionals, led to significant gains in healthcare provisioning. Two of these strategies are dealt with in more detail as they touch on themes with in this study.

1. *Free primary healthcare for all.* A theme in this study is the accessibility of healthcare for the general population. On 24 May 1994, the President Mr Nelson Mandela announced that pregnant women and children under the age of 6 would receive free care at public health facilities. The free care policy was extended to all users in April 2006. A survey conducted in 1996 on health inequalities found that a proportion of people delayed seeking medical attention due to cost. By 1999, after the introduction of free services, 86% of people using PHC facilities reported that no fee was incurred for the services received. The increased burden on health workers resulted in a widespread nursing strike in late 1995. The dramatic change in PHC usage pre and post the change in strategy is shown in the figure below (Harrison, 2009:14).

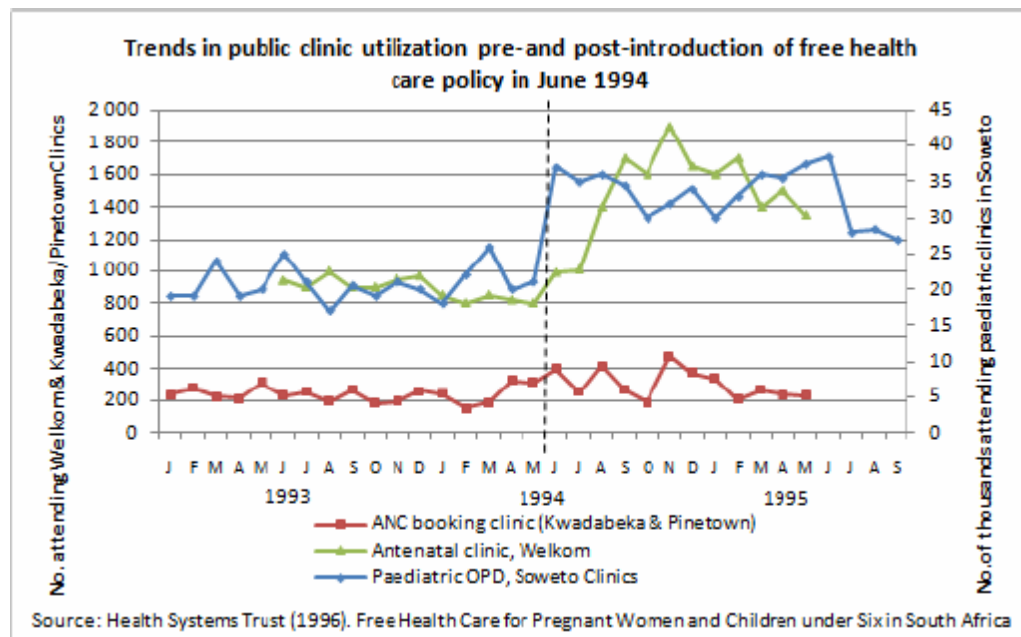


Figure 3.2: Public clinic utilisation, 1993-5

2. *Community service for graduating professionals.* Increasing the number of health professionals leads to more patient satisfaction. The one-year community service (CS) for health professions significantly improved the availability of public sector resources. The first intake of doctors, dentists and pharmacists began in 2001. The intake of other professions began in 2004. The role of community service in increasing human resources is illustrated in the figure on doctor posts below:

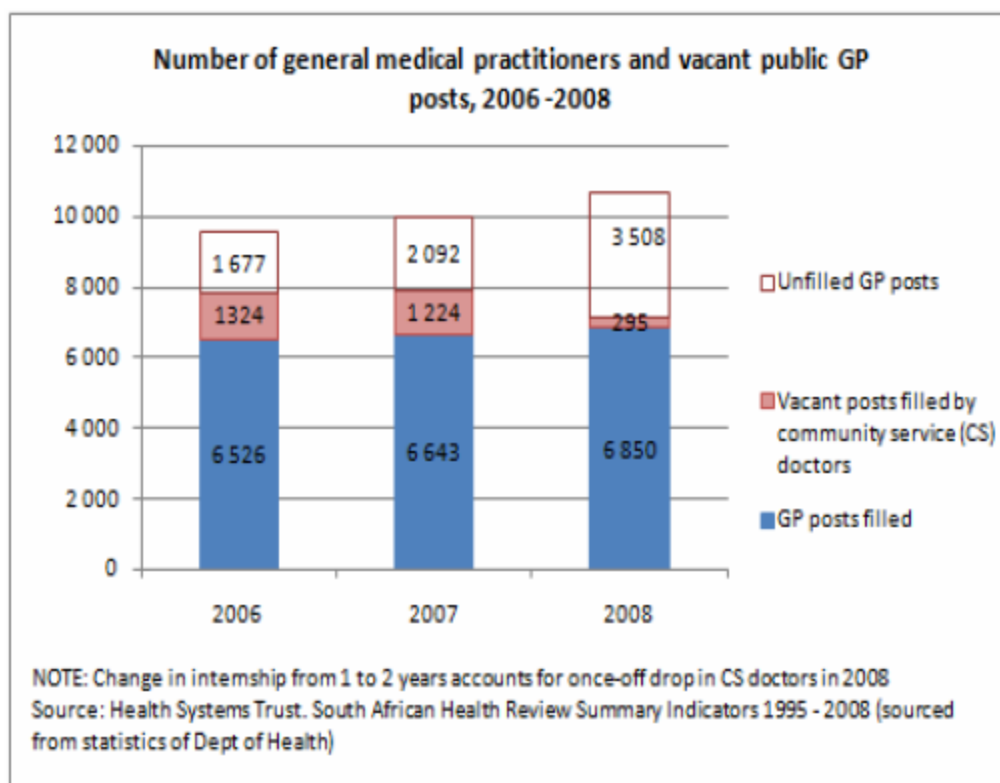


Figure 3.3: Number of general practitioner posts, 2006-8

Community service posts filled 14% of general practitioner posts in 2006 and 12% in 2007. The small percentage of filled community service posts in 2008 is due to the increase in CS for doctors from one to two years (Harrison, 2009:15).

3.6 HEALTH STANDARDS

Health service providers need to adhere to prescribed standards to improve their quality of care and achieve patient satisfaction. The government should put measures in place to enforce standards.

The national department of health continues to focus on strengthening health systems to improve the quality of the health services (SAHR 2014: 26). The strengthening of health systems will be achieved through, amongst others, standardising quality of care by certifying health establishments (SAHR 2014: 26).

The legislative provisions to amend the National Health Act to establish the Office of Standards Compliance (OSC) as a Schedule 3A Public Entity were finalised over a three-year period. The mandate of the Office is to protect and promote the health and safety of users of health services through monitoring, enforcing compliance with prescribed standards and ensuring the investigation and closure of complaints (SAHR 2014:28).

To ensure that quality of care becomes the norm throughout the country, the national health department created the OHSC within its departmental structure. To ensure the legitimacy of its work, the OHSC based its work on the provisions set out in the

National Health Act. To develop the National Core Standards (NCS) appropriate to the local context, the OHSC followed a participatory process over a five-year period, followed by a dissemination and training initiative. The OHSC has offered facilities support to apply the standards (SAHR 2014:26).

The NCS is divided into seven domains (SAHR 2014:27) reflecting a systems approach. The first three domains relate to the core business of a health system and the last four domains refer to the support system that ensures the core business is delivered. The domains, subdivided into sub-domains, are as follows:

Table 3.1: NCS dimensions

Domain	Explanation
Domain 1: Patient Rights	How to ensure patient rights are respected and upheld?
Domain 2: Patient Safety	How to ensure quality care reduces unintended harm to patients?
Domain 3: Clinical Support Services	How to provide specific services that support clinical care, such as health technology?
Domain 4: Public Health	How should health facilities work within a community to promote health?
Domain 5: Leadership and Corporate Governance	How should senior management provide strategic direction to departments and facilities?
Domain 6: Operational Management	How to engage in daily activities such as patient care and manage human resources and finances.
Domain 7: Facilities and Infrastructure	How to provide physical infrastructure, hotel services and waste disposal.

Six areas covering a subset of the standards have been identified as non-negotiable (SAHR 2014:26), as follows:

- Values and attitudes of staff, so that patients are treated in a respectful manner.
- Reducing waiting times and queues for administration, assessment, diagnosis, pharmacy.
- Cleanliness of hospitals and clinics.
- Keeping patients safe and providing reliable care by reducing adverse events resulting from care.
- Preventing infections from being passed on in hospitals and clinics, specifically hospital-acquired infections.
- Ensuring medication, supplies and equipment are available and that patients get their medicine as prescribed.

The National Health Department with the assistance of its public sector partners compiled and published the National Core Standards (NCS) for Health Establishments in South Africa in 2011. The Standards provide detailed definitions of concepts used in medical services and provide a framework to certify health establishments. Compliance with the standards is measured using an audit tool setup in the District Health Information System (DHIS) (Department of Health. Core standards, 2011:2). The management of hospitals and clinics are expected to use the audit tool to assess their compliance with the NCS. Management has to appoint quality champions to lead quality improvement initiatives and close any gaps in service. In future, the

Inspectorate of the OHSC will do inspections to determine the degree of compliance and issue a certificate's of compliance with health establishment (Department of Health. Core standards, 2011:2-3).

The NCS are in seven interdependent domains where service quality can be at risk. A hospital that respects patients and upholds their rights, gives access to dignified attention in an acceptable environment respects patient rights. In the second domain, a hospital that is able to reduce unintended harm when faced with clinical risk is able to offer patient safety, clinical governance and clinical care. Clinical support services fall in the third domain.

The National Development Plan is a framework for the future. The National Development Plan (NDP) 2030 is the first long-term plan for South Africa that was developed by The Presidency. The National Treasury has stated that its budgets and institutional planning would be better aligned to the NDP in future. The NDP deals extensively with public healthcare (National Planning Commission, 2013).

The Outcomes Approach of the Presidency is a key framework. The National Department of Health made a strong commitment to four key outcomes when the minister signed the Negotiated Service Delivery Agreement (NSDA). The following targets are linked to the four outcomes below

Table 3.2: Health NSDA targets till 2014

	Output	Target for 2014
1	Increase life expectancy	Males (53.9 to 58 yrs); Females (57.2 to 60 yrs)
2	Decrease maternal and child mortality	Maternal mortality (less than 100 per 1000); Under five (less than 20 per 1000); Infant (less than 18 per 1000)
3	Combat HIV and AIDS, TB	HIV infections (reduce by 50%); HAART therapy (80% access); TB cure rate (over 85%)
4	Strengthen health system effectiveness	Primary Healthcare (re-engineer); NHI system (implement)

Source: National Department of Health, 2010

3.7 NATIONAL HEALTH SERVICE REALITY

The National Health Department adopted a broad-based approach to improve the quality of care in the public sector. It implemented a number of initiatives in this approach. However, not all the initiatives yielded the anticipated results.

Recently, the National Department of Health decided to adopt a broad-based approach to improve the quality of care and to increase access to public health services in the future. It made a commitment, increased access would not compromise the quality of care provided at state health facilities.

According to results published in the South African Demographic and Health Survey (SADHS, 2003), the major reasons for dissatisfaction in the public sector hospitals and community health centres were long waiting times, staff attitudes, prescription

medication being not available and staff shortages (SADHS, 2003:1). At the time of the survey, South Africa had enjoyed 10 years of democracy following the countries break from the past of racial discrimination and social disruption (SADHS, 2003:1). The first decade of democracy resulted in pervasive institutional transformation. Efforts to deal with the legacy of Apartheid had been instituted in all sectors in all sectors of society. The survey noted that government had introduced programmes to redress the imbalances between the rich and the poor including free access to free basic health services to pregnant women and children under six, education, shelter and clean water. Although much had been achieved in the first ten years of democracy service delivery was lacking in many areas.

3.7.1 Health facilities in SA

Patients are satisfied when there is strong evidence that their provincial health department is taking steps to capacitate facilities under its control.

The number of public health facilities in the country? The national baseline audit (HST Audit, 2012:11) of public sector facilities commissioned by the NDoH, determined the actual number of public health facilities in 2012, see Table 1 below. The facilities are listed according to their classification status not their functional status, which could differ. Although the District Health Information System (DHIS) of NDoH reflected 4300 public health facilities, the audit found 3880 facilities. The twenty-one PHCs in the City of Cape Town which were not audited are not included in the figures in Table 3.3 below (HST Audit, 2012:11). This is a 10% count error against the DHIS.

Reasons for an audit count difference? The DHIS figures included; a number of private health facilities; services as facilities; closed facilities; and duplicate counts, in addition the DHIS excluded a number of new and existing facilities (HST Audit, 2012:11).

Table 3.3: Number of facilities by classification 2011

Health facility classification	Number of facilities
<i>Clinics</i>	
Clinic	3074
Satellite clinic	125
Specialised clinic	4
<i>Hospitals</i>	
Children's hospital	1
Chronic hospital	4
District hospital	253
National central hospital	6
Orthopaedic hospital	1
Private hospital	1
Psychiatric hospital	23
Regional hospital	55
Rehabilitation hospital	3
Tertiary hospital	10
Tuberculosis (TB) hospital	35
TB and psychiatric hospital	2

<i>Other</i>	
Community day centre	44
Community health centre	238
Maternal obstetrics unit	1
	3088

Source: Health Systems Trust, 2011.

3.7.2 Performance information in SA

To improve patient satisfaction, health department's health facilities should have information systems in place to gather management, staff and patient data. Data enables the management of a health facility to monitor patient condition and health outcomes.

Internationally, the public reporting of patient satisfaction data has been found to be useful. A review of international literature offered insight into the use of patient satisfaction information found in public reports. In their article on the impact of public reporting of hospital patient satisfaction on hospital quality improvement, Barr *et al* concluded that public reporting of comparative data on patient views can enhance and reinforce quality improvement efforts in hospitals. They found that data from the patient satisfaction surveys was used by hospitals to identify new quality improvement initiatives. The intent of public reporting is, not only to provide information for consumers, but also to stimulate quality improvement efforts at hospitals.

In the US, several evaluations of public reports on hospital clinical measures suggest that facilities do make changes in response to these reports. Hospitals in Pennsylvania and New Jersey (Bentley & Nash, 1998) used public reports of performance to develop new approaches to improve clinical indicators.

In 1998, the state of Rhode Island enacted legislation requiring public reporting of clinical performance and patient satisfaction by all licensed healthcare facilities in the state, with two major goals: public accountability and quality improvement. The state wide external environment provided the context for the hospitals' involvement in the public reporting process. The external environment was viewed as a facilitator for the adoption of a standardised approach to quality measurement.

Locally, provinces include the results of patient satisfaction survey in their public reports. The Western Cape Department of Health reports the results of patient satisfaction surveys for each of its three levels of hospitals.

The culture of reporting on performance should be entrenched in SA. The reporting of performance information should be linked to the funding of health facilities, and the performance data should be available for scrutiny (Van As & Blecher, 2003:592). To maximise the use of performance information, the need exists for health information to inform policies, priority setting and resources allocation (Garrib, Herbst, Dlamini, McKenzie, Stoops, Govender, & Rohde, 2008:549). Health information systems (HIS) should use health information appropriately to ensure resources are allocated efficiently and effectively to improve health service performance (Garrib *et al*,

2008:549). HIS should convert reliable, accurate and timely data into information that supports decision-making (Garrib *et al*, 2008:549-50).

The collection and reporting of health data has its own challenges in SA. Garrib *et al* (2008) evaluated the implementation of the DHIS in 10 primary healthcare clinics in northern KwaZulu-Natal. The evaluation designed around the steps in the information cycle (Figure 3.4) assessed how well each step worked. The results of the evaluation showed: data was duplicated at all clinics; the format of the paper-based registers differed from one clinic to another, the registers were poorly designed; duplicate data elements appeared on the monthly data collation forms; clinic staff rarely checked their collated data; none of the clinic staff could calculate the indicators shown in graphs on reports; reported data of the clinics was not discussed in staff meetings; the clinic staff had little understanding on the usefulness of the data; and no feedback on the data took place between the district office and the clinic supervisors.

A reliable health system should be in place to assist decision-making in SA. “A well-functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status” (World Health Organisation, 2007:3). To support decentralised decision-making, the District Health information System (DHIS) was introduced in 1996 and extended by 2001 to collect data from all public health facilities (Garrib *et al*, 2008:550). To be able to predict performance against targets to be assessed, the DHIS allows different levels of service to be analysed (Garrib *et al*, 2008:550). To enable reporting of health data at district, provincial and national level, DHIS data is collected using paper-based registers, tally sheets and monthly data collation forms and sent to the district or sub-district office to be captured (Garrib *et al*, 2008:550).

Patient feedback should be part of a HIS. Van As & Blecher (2003:591) suggest the Stafford Beer system as a model for the South African healthcare system. The model shows systems are far more complex than assumed. It stresses close coordination between the three levels of care and coordination between the higher echelons and the levels of care. Patient feedback to meet needs is prominent in the model. The authors are of the view that information on *patient satisfaction* using feedback is as important as information on outputs, quality and outcomes.

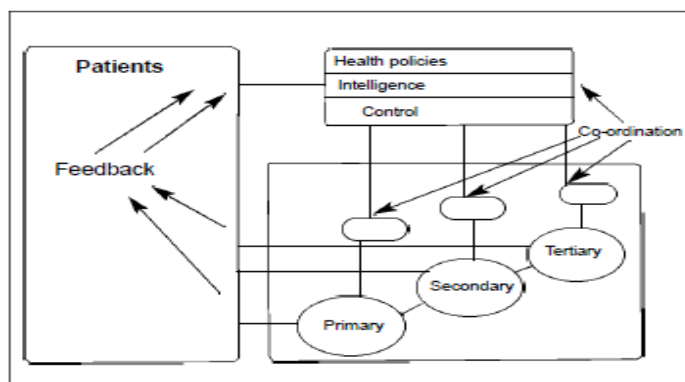


Figure 3.4: A value-adding model of the SA healthcare system
Source: Van As & Blecher, 2003

3.7.3 The health workforce in SA

Patients are satisfied when they are admitted to a hospital that is well staffed with professionals that have knowledge, skills, and empathy. It is government's responsibility to ensure public hospitals receive sufficient funding to appoint professionals that can deliver excellent health services. To ensure professionals are retained, government should offer a package of benefits to its employees to compete with the private health sector.

By ascertaining the level of satisfaction of its employees, the public health sector is better able to face the complex issue of employee retention (De Jager & Swanepoel, 2008). The level of staff satisfaction at a hospital provides management with insight into the existing culture at the health facility (De Jager & Swanepoel, 2008). De Jager and Swanepoel (2008) observed that job satisfaction among healthcare providers affected quality of service and organisational commitment. Low job satisfaction contributes to the shortage of healthcare workers (De Jager & Swanepoel, 2008). It is a major cause for the high turnover in healthcare providers (De Nobile & McCormick, 2008). Increased organisational commitment by staff leads to increased job satisfaction, increased job performance and lower staff turnover. Job satisfaction is an attitude. It generally develops over a period of time, as the employee gathers more and more information about the organisation. It is dynamic and it can increase or decrease rapidly. It is something managers need to pay attention to on a daily, weekly, monthly and annual basis (Gounaris, 2006).

According to Czaplewski, Furguson and Milliman (2001) the lack of commitment and skills in frontline employees who interact with customers contributes to the *gap* between customer expectations and perceptions. According to Kotler and Andreasen (1996) to ensure service encounters are not tainted, management should be vigilant to unresponsive actions by frontline employees and ensure employees do not place their and the organisation's needs above the needs of the customer. To manage service encounters well, management should ensure frontline staff is conversant with the organisation's mission, goals, strategies and organisational processes. To instil pride, management should instil the belief of a superior organisation amongst frontline staff. Customers sense a lack of belief amongst frontline staff in an organisation, this sense affects their perception of the organisation.

According to Harrison (2009:27) the differential in human resources between the public and private *sector* will remain until a uniform national health system is in place. It is argued that although the levels of provisioning between the public and private sector indicate disparities in access between rich and poor, it is better to assess provisioning against service norms for planning purposes. The provisioning in the private sector is based on the number of registrations with the Health Professions Council of SA and provisioning in the public sector is based on the number of posts on PERSAL. The estimated number of uninsured population using private general practitioners is often not accounted for when calculating service provisioning.

Provisioning strategies

Harrison (2009:27-28) points out that some public sector provisioning strategies have emerged over the last fifteen years:

- The adoption of occupation-specific dispensation created greater parity of remuneration for health professionals compared to other professions.

- Offering study leave, admission to specialisation, greater professional autonomy as incentives to remain in-service.
- Using full study bursaries to increase the supply of health professionals doing the community service programme.
- Qualifying more clinical associates to strengthen the health system and to work at primary care level.
- Improving patient adherence to TB and AIDS treatment, using a cadre of community health workers.
- Procurement of health services from professionals by the uninsured.

Nurses at hospitals face a number of challenges at public hospitals. Although nurses may at times appear uncaring to patients, who don't want to hear their test results, nurses do care about their patients (Huber 2014:120). Sometimes conflict arises when patients don't understand the medical instructions they given (Huber 2014:120).

The number of registered student nurses has been increasing steadily since 2002 (Harrison 2009:28). The increased number of nursing enrolments should rejuvenate the age profile of registered nurses, at present two thirds of registered nurses are over the age of fifty (Harrison, 2009:28).

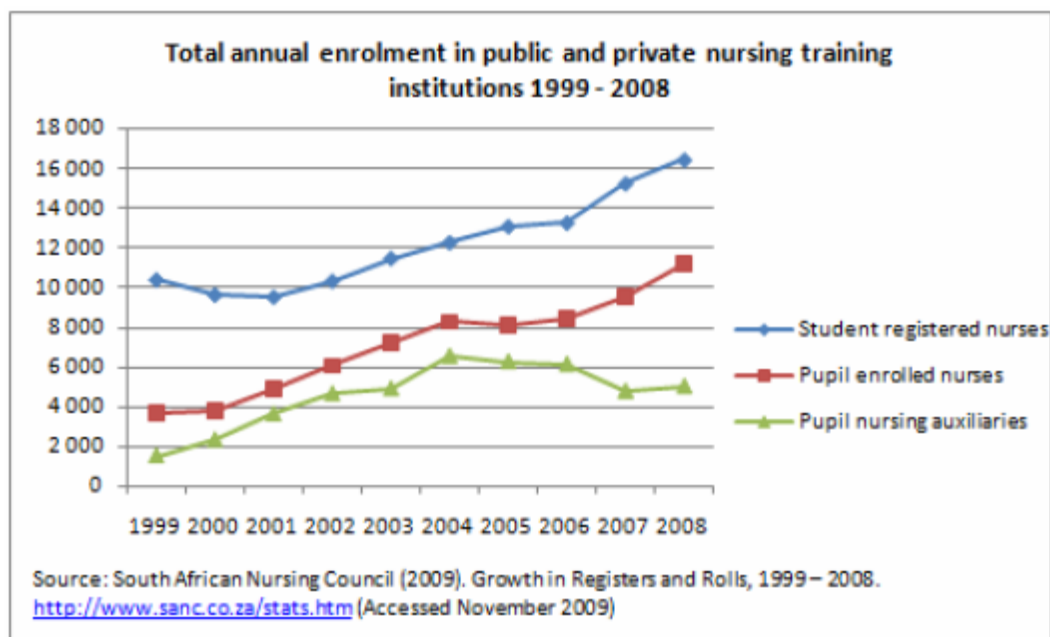


Figure 3.5: Annual nursing enrolment, 1999-2008

Source: Harrison, 2009

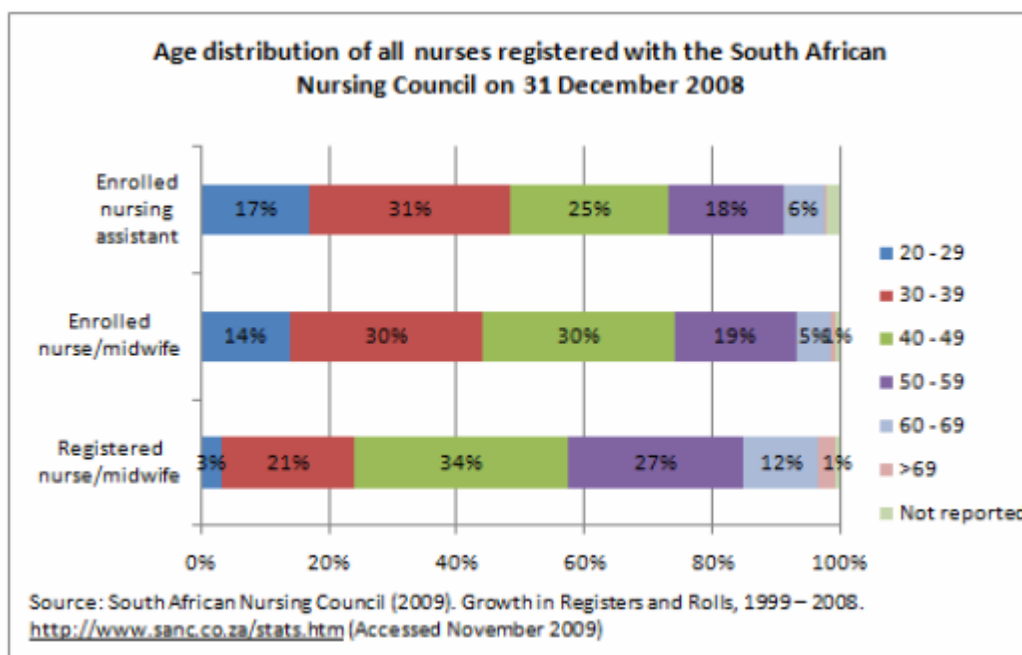


Figure 3.6: Age distribution of nurses registered with SANC, 2009
Source: Harrison, 2009

3.7.4 Healthcare cost in SA

Patients are satisfied if they can access healthcare that is affordable. To enable access to public health services, government must ensure these services are affordable to the public. To meet the increasing demand for public health services, government should invest in health resources, systems and infrastructure in a strategic manner. To deliver on its public health strategy, the government needs to manage the economy diligently.

The link between the cost of a health service and the patient's willingness to pay for the service is termed 'affordability' (McLaughlin & Wysewianski, cited in Plaks & Butler, 2012:130). Affordability is one of the 'areas of congruence' between the patient and the healthcare provider (Penchansky & Thomas, cited in Plaks & Butler, 2012:130). Affordability is not a barrier preventing access to public healthcare (Plaks & Butler, 2012:132). The cost of travelling to a public health facility is a factor of affordability that limits access to healthcare (Plaks & Butler, 2012:133). In South Africa, travelling costs pose a greater challenge to affordability than the cost of treatment (Plaks & Butler, 2012:133).

The General Household Survey (GHS) data cited in Plaks & Butler (2012:149) also suggests affordability does not act as a barrier to access healthcare for a large portion of the population. This finding makes sense as pregnant women and children under the age of six can access free healthcare in public facilities, and charges are means-tested. Race has been used as a proxy for the ability to afford healthcare (Plaks & Butler, 2012:149). The results shown in the table below, indicate that the percentage of each race that has medical cover is skewed towards the white population, an average of 65% of that group have medical aid coverage (Plaks & Butler, 2012:149). The African or black population has the lowest proportion of medical aid coverage (7.5%). Over all the groups, medical aid coverage was relatively constant in the period 2002 – 2009. In the 2009 survey, 90.4% of the respondents that did not have

medical aid cover answered they could not afford the membership fees, of these respondents 88.2% were African or black.

Domestic health expenditure compares well. It is estimated that public and private expenditure exceeded R250 billion or about 8.6% of GDP in 2009-10. The level of domestic health expenditure is comparable to spending by countries such as Brazil, Spain, Italy and England (SAIRR, 2013).

Locally both the private and public sectors provide health services to the public. Whereas, the public sector relies on funds from the state, the private sector relies on funds from private investors seeking a return on investment, to provide health services. The private sector competes with the public sector for patients and it draws patients who have medical aid cover to its providers and facilities.

The value of private and public health expenditure was almost in equal proportion. According to the Council of Medical Schemes, private health expenditure by eight and half million people with medical aid cover, accounted for 52% of the total health expenditure, public health expenditure by government on 80% of the population, accounted for 48% of total health expenditure. Government spent R137.7 billion on Health in that period (SAIRR, 2013). The table below shows total health expenditure as a percentage of GDP.

Table 3.4: Total health expenditure as a proportion of GDP 1995-2011

Year	%
1995	7%
1996	8%
1997	8%
1998	9%
1999	9%
2000	8%
2001	9%
2002	9%
2003	9%
2004	9%
2005	9%
2006	9%
2007	8%
2008	8%
2009	9%
2010	9%
2011	9%

Source: SAIRR, 2013

Table 3.5: Public and private health expenditure as a proportion of total health expenditure 1995-2011

Year	Public	Private
1995	40%	60%
1996	36%	64%
1997	39%	61%

1998	39%	61%
1999	40%	60%
2000	41%	59%
2001	40%	60%
2002	40%	60%
2003	40%	60%
2004	37%	60%
2005	38%	62%
2006	40%	60%
2007	44%	56%
2008	46%	54%
2009	47%	53%
2010	47%	53%
2011	48%	52%

Source: SAIRR, 2013

Public hospital expenditure increased annually by 15% over the last five years from R38.9 billion in 2007-08 to R73.1 billion in 2013-14. The increase is partially attributable to the adoption of the Occupation Specific Dispensation (OSD) enforced by National Health and to increased staffing in hospitals (SAHR, 2011:41). The increased hospital expenditure is also partly attributable to changes in the number of hospital admissions. Between 2007/08 and 2009/10, hospital admissions increased from 3.5 million to 4 million (SAHR, 2011:41). The cost of daily patient care in hospitals is increasing steadily. In 2009/10, the patient day equivalent (PDE) cost for a district hospital was R1 349, a regional hospital was R1 665, and a tertiary/central hospital was R3 207.

The National Treasury appropriates funding from the national purse to the three tiers of government using legislation and regulations. Legislation and regulations aim to enforce good administrative practice in government and to achieve better outcomes for society. An economical, efficient and effective government should be able to provide service delivery that meets the needs of the citizens (SAIRR, 2013).

The government showed its intention to change to health-financing arrangements when it released the Green Paper on NHI. The NHI will offer a predefined package of services on a universal basis. In its proposal, government will implement NHI in phases over a 14-year period. The following financing proposals were made:

- Provide funding when piloting of the new system begins in 2012
- Provide funding when pilot sites begin contracting with general practitioner and pharmacy groups
- Use funding to create the NHI Fund as a public entity
- Allocate funds when the contracting mechanisms between the NHI Fund and service providers come into operation
- Secure funding using different tax mechanisms (payroll tax, VAT, personal income tax).

In NHI the solidarity principle has the best chance of prevailing over market principles. The principle of social solidarity means that healthcare should be financed by individuals on the basis of their ability to pay, but should be available to all who

need it on roughly equal terms. It is therefore a form of shared responsibility (Amollo, 2009:15-16). Amollo (2009:16) argues that whereas the medical schemes turn healthcare into a commodity, the NHI offers citizens protection against the vagaries of demand and supply found in schemes. The NHI can be funded in two ways: general taxation or compulsory health insurance (Amollo, 2009:16).

3.7.5 Access to healthcare in SA

According to the Constitution Act 108 of 1996 (Republic of South Africa, 1996:13), “Everyone has the right to have access to healthcare services.” The Constitution places the burden on the state to take reasonable legislative and other measures within its available resources to achieve the progressive realisation of this right (Republic of South Africa, 1996:13).

The post-1994 SA public health system has made recognisable gains by providing greater access to significantly more people than before (Harrison, 2009:2). However, he noted that these gains are being eroded by an increased burden of disease, weak health systems management and low staff morale. In their study Plaks & Butler (2012:146) identified general barriers to access healthcare. Their analysis of the general barriers using the General Household Survey data of Statistics South Africa is represented in the Figure 3.7 below. The figure below shows nearly half of the respondents were unhappy about the time it took to consult with a healthcare provider (Plaks & Butler 2012: 148).

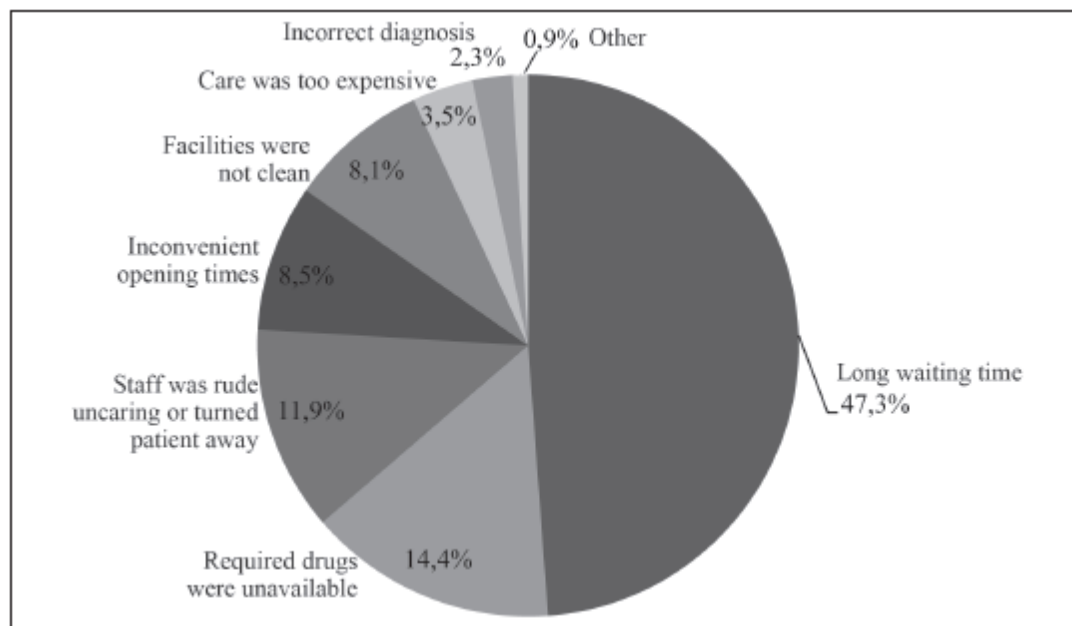


Figure 3.7: Proportional patient problems at public health facilities, 2012

Source: SA Actuarial Journal, Vol:12, 2012

Access to healthcare can be defined in terms of areas of congruence between patient and provider (Penchansky & Thomas, 1981:128). The five areas of congruence, *affordability*, *accessibility*, *accommodation*, *availability* and *acceptability* require providers to accommodate patient preferences to achieve patient satisfaction, hence requires further discussion.

Plaks & Butler (2012) studied *affordability* factors that influence access to healthcare. Literature showed that demographic factors such as race and education level could have a greater influence on the choice of a physician than family income in the USA (Plaks & Butler, 2012:133) and that the cost associated with travelling to a health facility is a significant barrier to access (Plaks & Butler, 2012:133). The connection between the cost of services and the patient's willingness to pay for these services either through medical insurance or personal savings is termed 'affordability' (McLaughlin & Wyszewianski, 2002:1441). General Household Survey (GHS) data suggests affordability does not act as barrier to access healthcare for a large portion of the population (Plaks & Butler 2012: 149). Affordability is not considered as barrier to healthcare in SA is understandable because healthcare is free to pregnant women and young children and means-tested on patient income (Plaks & Butler 2012: 149). However, the goal of the proposed national health system is to protect people from excessive financial cost by reducing out-of-pocket expenses when incurred by using a universal coverage scheme (Shisana, Rehele, Louw, Zungu-Dirwayi, Dana and Rispel, 2006: 814). The proposed scheme faces its own challenges, the majority of doctors, dentists and specialists work in the private sector servicing less than 20% of the population who don't have private health insurance coverage, due to the low remuneration and the adverse working conditions in the public health sector (Shisana et al, 2006:815). Table 3.6 shows the proportion of people covered by a medical aid and those that aren't covered.

Table 3.6: Medical aid coverage of the population 2014

	2005	2008	2011	2014
Covered (000s)	6 880	8 157	8 450	9 625
Not covered (000s)	40 673	41 253	42 887	43 572
South Africa (000s)	47 533	49 410	51 337	53 197
Percent covered	14.5%	16.5%	16.5%	18.1%

Source: Statistics SA, General Household Survey 2014, 27 May 2015.

The challenge for health services is to maintain a satisfactory level of patient satisfaction as the population increases. The increase of 15.9% in the local population across the nine provinces from 46,586,607 to 54,002,000, in the table below, represents a significant increase in the potential health population.

Table 3.7: Changes in national population between 2004 and 2014

PROVINCE	2004	2014	CHANGE	% CHANGE
Eastern Cape	7,081,164	6,786,900	-294,264	-4.2%
Free State	2,934,956	2,786,800	-148,156	-5.0%
Gauteng	8,851,455	12,914,800	4,063,345	45.9%
Kwazulu-Natal	9,643,428	10,694,400	1,050,972	10.9%
Limpopo	5,543,806	5,630,500	86,694	1.6%
Mpumalanga	3,261,062	4,229,300	968,238	29.7%
North West	3,820,102	3,676,300	-143,802	3.8%
Northern Cape	885,146	1,166,700	281,554	31.8%
Western Cape	4,565,487	6,116,300	1,550,813	33.9%
Total	46,586,606	54,002,000	7,415,394	15.9%

(Source: Statistics South Africa, mid-year population estimates, July 2009 & July 2014)

At a national level, the increase in local population has caused the demand for health services to outstrip supply (NDoH). At district level, the estimated persons per clinic of 13,718, exceeds the WHO norm of 10,000 people per clinic.

Geographic proximity has been shown to improve *accessibility* to specialist healthcare in Israel for persons over 65 (Iecovich & Carmel, 2009) and result in a shorter travel times to clinics which results in improved access in rural and semi-rural parts in the USA (Bice, Eichhorn & Fox, 1972). In South Africa it was also been found that the distance travelled to a health facility for a patient has a significant effect on health outcomes (Plaks & Butler 2012: 134). Overall, when patients travel of an hour or less, the usage of those clinics are seldom affected, however travelling time of more than an hour affects the usage of those clinics (Tanser, Gijsbertsen & Herbst, 2006).

Studies in the USA conclude that when *accommodation* becomes a barrier at the primary healthcare level this can result in overcrowding at higher-level hospitals (Guttman, Zimmerman & Nelson, 2003). Overcrowding at health facilities leads to shortages in healthcare resources, such as radiology (Guttman *et al*, 2003). Research in the USA and Europe conducted pointed to long waiting times for appointments to see health providers, long waiting times in health facilities and inconvenient opening times as the three most important accommodation problems (Guttman *et al*, 2003). Although shorter appointment times result in shorter waiting times, studies in the USA show that consultations shorter than 15 minutes lead to more patient dissatisfaction, an increase in medical prescriptions, more malpractice claims, and a greater number of referrals to specialists and higher-level hospitals (Dugdale, Epstein & Pantilat, 1999). It has been suggested that telephone-based consultations may reduce waiting times for chronic patients waiting to see their doctor (Dugdale *et al*, 1999). It was noted that telephone consultations are appropriate when a physical examination is not required and when there is an existing relationship between the physician and the patient (Berry, Seiders & Wilder, 2003). In South Africa most patients are not content with the long waiting times to see doctors at public health facilities (Plaks & Butler 2012: 153). This could be due to the demand for healthcare being greater than the supply (Plaks & Butler 2012: 153). To address this problem, the adoption of a flexible appointment system could spread the demand more evenly over the working day and week.

In the USA, Penchansky & Thomas (1981) found a positive correlation between *patient satisfaction* and *availability* and the number of years with the physician. The supply of medical facilities and healthcare providers can be termed *availability* (Penchansky & Thomas, 1981). It can further be defined as a measurement of the degree to which the healthcare provider can meet the patient's needs using *available* resources, such as personnel and technology (McLaughlin & Wyszewianski, 2002: 1441). To measure the *availability* of healthcare services, traditional indicators such as hospital beds and doctors per capita are often used (Gulliford, Figueroa-Munoz, Morgan, Hughes, Gibson, Beech & Hudson, 2002).

Acceptability describes whether the patient is satisfied with certain features of the healthcare provider (McLaughlin & Wyszewianski, 2002). Such features include the

provider's race, culture, age and gender (Penchansky & Thomas, 1981). It also describes whether the provider is comfortable with such characteristics of the patient (Penchansky & Thomas, 1981). Lurie & Dubowitz (2007) view language as part of *acceptability*, the patient should be able to communicate with the provider in his or her own tongue and vice versa. *Acceptability* is also the decision by a patient to visit a particular medical practitioner or hospital having taken social, political and economic dimensions into account (Pol & Thomas, 2001).

3.8 HEALTH SERVICES IN THE WESTERN CAPE

3.8.1 Introduction

The decision to use the Western Cape as the context for the study was based on a number of factors, including the increased health expenditure and population. The province has the second highest health expenditure in the country. According to the SAIRR (2013:216), education and health expenditure accounts for 73% of total provincial expenditure. The Western Cape spent R14.59 billion, 36.5% of total of total expenditure, on healthcare in 2012/13, the second highest by only .1% from Gauteng 36.6%.

3.8.2 Health governance in the WC

The Western Cape Department of Health has a two prong approach to health governance. Financial governance is the measures put in place to control spending and clinical governance are the measures taken to provide assurance for the quality of care.

The strategic objective for programme 1 (Administration) is to promote sound financial governance to ensure the under/over spending of the annual equitable share is within one per cent of the budget allocation (Western Cape Government Health, 2012:72).

Western Cape appointed family physicians to revitalise primary health care and to take responsibility for clinical governance in the DHS (Western Cape Government Health, 2012:24).

The Code of Conduct promotes ethical and acceptable behaviour by public servants (Western Cape Government Health, 2013:283). During compulsory training, the employees were trained in standards of acceptable and unacceptable behaviour as described in the Public Sector Code of Conduct in 2012. It is the goal of the Directorate: Labour Relations to distribute the code of conduct pocketbook at all employees.

3.8.3 Health programme in the WC

The management of the department is highly decentralised. The high level of decentralisation has the benefit of increased responsiveness to institutional needs but adhering to prescripts is a challenge to decentralisation (Western Cape Government Health, 2011:60). The core function and responsibility of the Western Cape Department of Health is to deliver a comprehensive package of health service to the people of the province (Western Cape Government Health, 2011:9).

The administrative functions of the department are structured into the following budget programmes: (Western Cape Government Health, 2013:55).

1. Programme 1: Administration
2. Programme 2: District Health Services
3. Programme 3: Emergency Medical Services
4. Programme 4: Provincial Hospital Services
5. Programme 5: Central Hospital Services
6. Programme 6: Health Sciences and Training
7. Programme 7: Health Support Services
8. Programme 8: Health Facilities management

The administrative functions of the department provide strategic leadership, including overall departmental strategy development, monitoring and evaluation and organisational administration and governance using allocated resources (Western Cape Government Health, 2011:57). One of the goals of the administrative program is to provide the department with sufficient staff with the appropriate skills within each occupational group (Western Cape Government Health, 2011:57).

3.8.4 Health strategy in the WC

The strategic goal statement “Improve the quality of health services and the patient experience.”

It is the responsibility of the Western Cape Health Department to administer public health services in the province. To be able to execute its mandate the department created the vision a “quality health for all”. It linked the lengthy mission “we undertake to provide equitable access to quality health services in partnership with the relevant stakeholders within a balanced and well managed health system to the people of the Western Cape and beyond” to this vision. The strategic framework Healthcare 2030 provides direction to health administration in the province for the next two decades. The framework approved by the provincial cabinet in 2012/13 is a flexible planning tool, matching service delivery targets to local community needs (Western Cape Government Health, 2013:18).

The department uses a transversal approach to tackle health issues (Western Cape Government Health, 2013:18). In the South African context a transversal approach means a government department engages in inter-departmental cooperation with another government department to achieve service delivery. The aim of this approach is to achieve exemplary regional government (Western Cape Government Health, 2013:18).

Six focus areas are linked to the strategic objective “Increasing Wellness”. The six focus areas are HIV/TB; healthy lifestyles; Injuries; mental health; women’s health and children’s health (Western Cape Government Health, 2013:22). The department linked strategic goals to their efforts. Improving the quality of health services and the patient experience is a priority of both WCG: Health and NDoH (Western Cape Government Health, 2013:46). The department developed and piloted a new incident monitoring and response tool to address the challenge of infection control, which impacts on the quality of care (Western Cape Government Health, 2013:51). The department developed several strategies to improve the patient experience across all areas of service. Patient-centric interventions were incorporated into reception areas,

clinical governance and plans for continuity of care using the involvement of family and friends to aid patient recovery (Western Cape Government Health, 2013:52).

The department's strategic objective is "increasing wellness" (Western Cape Government Health, 2013:18). Like most other provinces, the strategic approach of WC seeks to promote inter-departmental co-operation to achieve positive health outcomes. WC attributed movement in the health indicators for life expectancy at birth, TB cure rate and HIV mother to child transmission rate to adopting a strategic focus.

Patient-centred care plays a role in the Western Cape Department of Health's values-driven vision and is a principle in the Healthcare 2030 strategic framework (Western Cape Government Health, 2013:18).

The 2014/15 strategic objectives of the WCDoH for district hospital services (Western Cape Government Health, 2013:77) are:

- Achieve a 92% client satisfaction rate.
- Achieve a district hospital expenditure of R1405 PDE.
- Establish 2705 acute district hospital beds.

To provide focused health services, the district hospital service is in a separate program. To demonstrate a commitment to quality of care, the objective of programme 2 is to achieve a 70% client satisfaction rate by 2014/15. To cater for the wide spectrum of patient needs, tiered levels of health services are offered to the population at district-level. To achieve better coordination of services the district health service is structured into a rural and metro component. To ensure well-resourced management, each component has four district managers based at district offices reporting to a chief director. To ensure adequate staffing, ninety-seven per cent of the posts in the district hospital service were filled in the year.

The department developed Healthcare 2030 to plot a direction for healthcare in the province until 2030. The planning timeframe is aligned to the national planning time frame. The framework includes planning tools consisting of five domains:

- Reception services
- Clinical governance
- Continuity of care
- Community participation
- Staff wellness.

The principles of Healthcare 2030 (Western Cape Government Health, 2013:44) are:

- Patient-centred quality of care. To treat patients with respect and dignity within a clean and safe environment.
- Outcomes-based approach. To meet targets that achieve the millennium development goals will be a priority.
- Primary Healthcare philosophy. To provide a comprehensive service at community level.
- District Health Services model.
- Equity.
- Efficiency.

- Strategic partnerships.

3.8.5 Health standards in the WC

The Western Cape Department of Health made great strides by ensuring the quality of public healthcare in the province meets national standards. The results of the compliance (six ministerial priority areas) findings (Department of Health. Fast track, 2011) are illustrated in Figure 3.8 below.

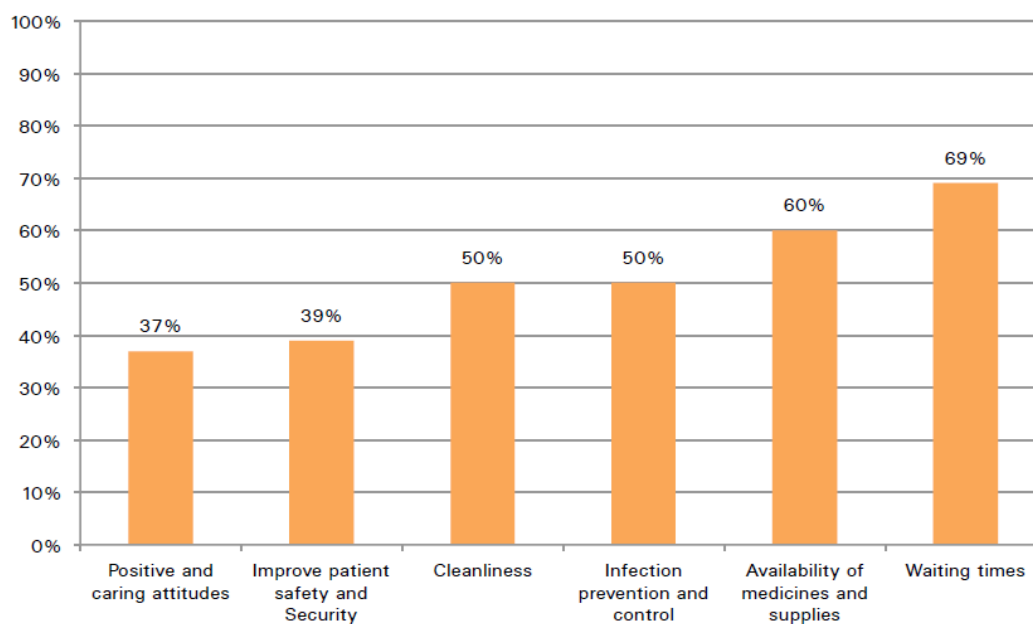


Figure 3.8: Western Cape: Compliance score on vital measures for the six ministerial priority areas, 2011

3.8.6 Health facilities in the WC

The purpose of Programme 8: Health Facilities Management of WCDoH is to construct new facilities and upgrade and maintain existing facilities. The strategic objectives of the programme (Western Cape Government Health, 2011:216-7) show a great many projects across all types of hospitals and facilities.

They are as follows:

- Allocate sufficient funding to reduce the infrastructure backlog in the MTEF period.
- Complete the 10 PHC projects as planned by 2014/15.
- Complete 9 ambulance station projects by 2014/15.
- Complete the 14 district hospital projects by 2014/15.
- Complete the 9 provincial hospital projects by 2014/15,
- Complete the 8 central hospital projects by 2014/15.
- Complete the 6 forensic mortuary and other projects by 2014/15.

The WCDoH reported in its Annual Report 10.5% of the Revitalisation Grant was not spent mainly due to poor contractor performance in 2012/13 which is of great concern (Western Cape Government Health, 2013:224).

3.8.7 Performance information in the WC

The Western Cape Department of Health reported the following patient satisfaction results for hospitals under its three hospital programmes (District, Provincial and Central) in 2013/14.

Table 3.8: WC patient satisfaction rates 2013/14

Programme	Hospitals	Planned target	Actual	Deviation
District	District Level Hospitals	86.0%	90.0%	4.7%
Provincial	Regional Level Hospitals	80.0%	89.2%	11.5%
Provincial	TB Hospitals	85.6%	89.6%	4.7%
Provincial	Psychiatric Hospitals	85.0%	84.5%	(0.6%)
Provincial	Rehabilitation Hospitals	92.8%	93.1%	0.3%
Central	Central Level Hospitals	90.0%	89.3%	(0.8%)
Central	Groote Schuur Hospital	90.0%	88.2%	(2.0%)
Central	Tygerberg Hospital	90.0%	92.6%	2.9%
Central	Red Cross WMC Hospital	90.0%	93.1%	3.5%

(Source: WCGH Annual Report 2013/14)

3.8.8 The health workforce in the WC

The department recognises that the shared vision and values of its competent, well-trained and caring staff achieves superior patient experiences (Western Cape Government Health, 2013:291). It is the responsibility of the capacitated and values-driven workforce of the Department, to manage the burden of disease and ensure quality of care and improve the *patient experience* (WCGH 2013/14:56). A gap analysis was conducted by the Department to determine changes in the environment that could impact the workforce (WCGH 2013/14:56).

The department strengthened its human resources, by increasing the headcount by 3.8% in 2012 and by 2.2% in 2013.

Table 3.9: Extract of number of public health personnel by category, 2011-3

Categories	March 2013	March 2012	March 2011
Medical officers	1 956	1 899	1 881
Medical specialists	619	606	570
Dentists	87	70	66
Professional nurses	5 803	5 720	5 479
Total	30 502	29 842	28 723

Source: Western Cape Government Health Annual Reports

The shortage of professional nurses, mostly those with post basic qualifications in intensive care, paediatrics, midwifery impacted on the Departments capacity to provide specialised services (Western Cape Government Health, 2014:36). To deliver these services, the Department incurred additional agency staff expenditure (Western Cape Government Health, 2014:36). The insufficient number of nurses countered efforts to reduce theatre waiting lists for certain procedures (Western Cape Government Health, 2014:36). To improve the skills of key staff, the Department provided training programmes (Western Cape Government Health, 2014:36).

The number of professional nurses on the payroll has increased by a small per cent in the last three years, 1.45% in 2013 and 3.01% in 2014. The average annual cost per post dropped by 5.6% in 2014. See the Table 3.10 below.

Table 3.10: WC professional nurse positions 2011-14

Financial Year	Number employed	Vacancy rate	Average annual cost
2013/14	5978	4.5%	319 805
2012/13	5803	3.7%	338 877
2011/12	5720	4.6%	313 753

(Source: Western Cape Government Health Annual Reports 2013/14, 2012/13, 2011/12)

The Department has implemented a number of strategies to impact the recruitment and retention of scarce skills (Western Cape Government Health, 2014:254). The implementation of Occupational Specific Dispensations (OSDs) is a strategy aimed at offering higher salaries to the workforce; however, it has its challenges (Western Cape Government Health, 2013:299). The Department has found that the salary structure on the OSD of certain professional occupational categories is not competitive enough compared to the private sector, this limits the recruitment and retention of staff (Western Cape Government Health, 2014:63). The personnel expenditure over the 3 years 2010 – 2013 (Table 3.11 below) shows the department is spending an increasing amount of its budget on its increasing workforce.

Table 3.11: WC personnel expenditure analysis 2010-13

	2010/11	2011/12	2012/13
Total expenditure (TE) (R'000)	12 344 628	13 387 763	14 600 857
Personnel expenditure (PE) (R'000)	6 808 175	7 665 447	8 436 689
PE as % of TE	55%	57%	58%
Average PE per employee (R'000)	241	263	280
Number of employees	28 261	29 158	30 172

(Source: Western Cape Government Health Annual Reports 2012/13, 2011/12, 2010/11)

3.8.9 Health funding in the WC

Budgets are allocated to achieve expected outcomes and optimal *service* at an appropriate cost per patient (Western Cape Government Health, 2014:63). The budget management instrument (BMI) and the approved post list (APL) are tools used to gain financial efficiency and effectiveness (Western Cape Government Health, 2014:74). The District Health Expenditure Review (DHER) tool is used to monitor equity of a district and sub-district level (Western Cape Government Health, 2014:74). Table 3.12 below shows district health services programme receives the largest portion of the budget.

Table 3.12: WC actual expenditure by programme

	2012/13		2011/12		2010/11	
	R'000	%	R'000	%	R'000	%
Administration	445 048	3%	410 028	3%	321 481	3%
District health services	5 509 868	38%	4 875 956	36%	4 367 380	35%
Emergency health services	675 514	5%	637 208	5%	596 110	5%
Provincial hospital services	2 299 618	16%	2 149 535	16%	2 935 241	24%
Central hospital services	4 427 459	29%	4 011 137	30%	2 681 739	22%
Health sciences & training	276 551	2%	231 451	2%	241 374	2%
Healthcare support services	324 720	2%	272 962	2%	282 869	2%
Health facility management	822 079	6%	799 486	6%	918 434	7%
	14 600 857	100%	13 387 763	100%	12 344 628	100%

Source: Annual Report: 2012/13:357; 2011/12:211; 2010/11:247-8

Table 3.13 below shows that employee compensation is the largest expenditure item in the budget.

Table 3.13: WC actual expenditure by economic classification 2010-13

	2012/13		2011/12		2010/11	
	R'000	%	R'000	%	R'000	%
Compensation: Employees	8 436 689	58%	7 665 447	57%	6 808 175	56%
Goods & services	4 499 855	31%	4 132 882	31%	3 826 487	31%
Interest (financial leases)	-	0%	19	0%	16	0%
Financial transactions	4 670	0%	3 524	0%	12 046	0%
Transfers: Municipalities	322 613	2%	302 280	2%	263 107	2%
Transfers: Agencies	3 655	0%	15 651	0%	55 341	0%
Transfers: Ed. institutions	1 194	0%	6 025	0%	1 400	0%
Transfers: Non-profits	348 080	2%	313 931	3%	281 488	2%
Transfers: Households	108 440	1%	106 714	1%	118 599	1%
Gifts & donations	-	0%	9 853	0%	4 624	0%
Buildings	522 567	4%	551 486	4%	740 528	6%
Machinery & equip.	352 054	2%	279 790	2%	232 674	2%
Software & intangibles	1 040	0%	161	0%	143	0%
	14 600 857	100%	13 387 763	100%	12 344 628	100%

Source: Annual Report: 2012/13:357; 2011/12:211; 2010/11:247-8

3.8.10 Access to healthcare in WC

As stated earlier in this study, access to healthcare can be defined as the area of congruence between patient and provider (Penchansky & Thomas, 1981:128). Of the five areas of congruence, the WCDoH has shown great progress with *accessibility*. The department has acknowledged that long waiting times limit the public's access to health facilities.

The WCDoH completed a service delivery improvement plan. The plan was in response to areas of identified in the 2013 to 2016 SDIP (Western Cape Government Health, 2014:38). A mock audit by the OHSC found that no standardised process had been developed to measure waiting times at Khayelitsha District Hospital, as expected. In response, the department has added this finding to the service delivery improvement plan mentioned earlier in this paragraph (Western Cape Government Health, 2014:39).

3.9 CONCLUSION

The following conclusions were reached about the delivery of health services in the country and the Western Cape from a quality perspective.

- a. National government adopted a governance and leadership framework to oversee the provisioning of healthcare.
- b. The government had passed amendment Acts and drafted new policies to broaden access to healthcare. It has begun to lay the foundation for universal health insurance for all.
- c. The provincial health departments, in particular the Western Cape have demonstrated their commitment to patient satisfaction using annual surveys and achieving good satisfaction rates.
- d. The government is allocating significant funds to build and upgrade health infrastructure.
- e. The government has not been able to cap or reduce the cost of public health services.

These conclusions will provide the context for the empirical study that follows in the next chapter.

CHAPTER 4 – MEASURING HEALTH SERVICES IN THE WESTERN CAPE: A PERCEPTION-BASED ANALYSIS

4.1 INTRODUCTION

In this chapter, the research methodology, including the purpose of the study, the sample framework, the measuring instrument for this study will be discussed.

The purpose of the structured questionnaire was to obtain primary data from a sample of respondents at district hospitals. The study is set in the Western Cape, South Africa. It is estimated that around 80% of the population of 5.7 million people depend on public health services. The people have relatively good access to basic amenities; a little more than 90% of households are electrified. A pilot study confirmed variables of the theoretical construct measured in the main study are valid. A sample of 6 was drawn from the list of 34 district hospitals to achieve a representative sample of respondents. The application to access the sample of district hospitals lodged with Western Cape Department of Health which approved 3 of the sites. The data generated by the study was analysed using a statistical program. The statistical measures used to test the association of the survey items to the dimensions of service quality is discussed in the chapter.

4.2 STUDY DESIGN

The study adopted a quantitative approach using a cross-sectional descriptive design, where the data was collected in the form of researcher-administered questionnaires. A quantitative approach is best suited to measure the causality between the service quality variables tangibility, reliability, responsiveness, assurance and empathy. These measurements enable the extent of causality to be established and the measurements enable the results of this study to be compared to studies of other researchers.

District hospitals in the Western Cape within a 200 km radius of Cape Town were targeted.

4.3 STUDY SITES

The study was set in the Western Cape, which has six health districts: Cape Metropole, West Coast, Cape Winelands, Overberg, Eden and Central Karoo. The Cape Metropole, which represents the City of Cape Town, is further split into four substructures and each substructure is split into two sub-districts.

The study was conducted in three of the six health districts (Cape Metropole, Cape Winelands and Overberg) at three of the 34 district hospitals (Victoria, Stellenbosch and Hermanus).

4.4 STUDY POPULATION

The target population was research subjects over the age of 18 admitted to a district hospital within a 200 km radius from Cape Town in the Western Cape.

In 2011, the population of the Western Cape was estimated at 5 755 607. It was also estimated that 83% of the provincial population were dependent on public health services at that time. The Western Cape offers its residents good access to basic

amenities such as piped water, sanitation and electricity, where around 94% of households are electrified, this access is a benefit to public health.

4.5 SAMPLE AND PROCEDURE

The unit of analysis (Welman, Kruger & Mitchell, 2005:52) is in-patients admitted to a district hospital in the Western Cape. In-patients admitted to all the district hospitals in the Western Cape are the units of analysis of the population of the study (Welman *et al*, 2005:52). This collection of units of analysis (population) represents the full set of cases from which the sample was taken (Welman *et al*, 2005:53). The conclusions drawn in the study will be based on this population (Welman *et al*, 2005:52). The size of the population makes it highly impractical to select all in-patients as subjects. For that reason, the data obtained from a sample (Welman *et al*, 2005:55) of this target population was analysed and discussed in the study.

To determine whether the variables could measure the theoretical construct (Welman *et al*, 2005:115), a pilot study was conducted (Welman *et al*, 2005:148). However, the pilot study was inconclusive whether the defined variables measured the construct adequately.

Patients for the pilot study and the main study were selected using a convenience sample (Welman *et al*, 2005:69) – respondents that were available at the time of the study. A convenience sample is a non-probability research method where the probability that a member of the population will be included in the sample cannot be specified (Welman *et al*, 2005:56). The convenience sampling method is highly prone to sampling error – the lack of fit between the characteristics of the sample and the characteristics of the population (Welman *et al*, 2005:74).

Population

Population size is a factor when working with a relatively small and known group of people. The population of in-patients at the three hospitals was 273, excluding outpatients and the children's wards.

Confidence interval

The confidence interval also called the margin of error is the plus or minus figure added to the sample figure to determine the range of confidence.

Confidence level

The confidence level is expressed as a percentage. It is how often the true percentage of the population who would choose an answer that lies within the confidence interval. The 95% confidence level means the answer is 95% certain.

Percentage

The accuracy depends on the percentage of the sample that picks a particular answer. When determining the sample size for a given level of accuracy the worst-case scenario is chosen, in this case 50%.

Calculation of the sample size

- a. The Survey System software was used to calculate the sample size.
- b. Obtained the names of district hospitals listed in Table 1.
- c. Confirmed the three district hospitals selected (Tables 2 – 4) appear on Table 1.

- d. Calculated the total target number of respondents (273) based on the maximum occupancy, excluding children under 18.
- e. Set the confidence level at 95% and the confidence interval at 10.12 due to the small population. The percentage used is standard at 50%.
- f. Computed a sample size of 71 based on aforementioned population, confidence interval, and confidence level.

Table 4.1: Western Cape district hospitals 2015

	Name
1	Beaufort West Hospital
2	Booth Memorial Hospital
3	Caledon Hospital
4	Ceres Hospital
5	Citrusdal Hospital
6	Eerste River Hospital
7	False Bay Hospital
8	GF Jooste Hospital
9	Helderberg Hospital
10	Hermanus Hospital
11	Karl Bremer Hospital
12	Khayelitsha Hospital
13	Knysna Hospital
14	Ladismith Hospital
15	Laingsburg Hospital
16	Lapa Munnik Hospital
17	Mitchells Plain Hospital
18	Montagu Hospital
19	Mossel Bay Hospital
20	Murraysburg Hospital
21	Otto Du Plessis Hospital
22	Oudtshoorn Hospital
23	Prince Albert Hospital
24	Radie Kotze Hospital
25	Riversdale Hospital
26	Robertson Hospital
27	Stellenbosch Hospital
28	Swartland Hospital
29	Swellendam Hospital
30	Uniondale Hospital
31	Vredenburg Hospital
32	Vredendal Hospital
33	Victoria Hospital
34	Wesfleur Hospital

Source: Western Cape Government Health, 2014.

The researcher visited wards at the following hospitals.

Table 4.2: Wards at Hermanus Hospital 2015

Ward	Beds	Patients
Female medical ward	15	15
Male medical ward	15	14
Maternity ward	25	25
Children's ward	12	12
Outpatients & Emergency	4	4
	71	70

Source: Hermanus Hospital, 2015

Table 4.3: Wards at Stellenbosch Hospital 2015

Ward	Beds	Patients
Mixed general ward (A)	13	13
Mixed general ward (B)	19	15
Male general ward (C)	19	19
Maternity ward	16	3
Children's ward	18	4
	85	54

Source: Stellenbosch Hospital, 2015

Table 4.4: Wards at Victoria Hospital 2015

Ward	Beds	Patients
Male medical ward	35	35
Female medical ward	32	30
Male surgical ward	35	35
Female surgical ward	32	19
Mixed general ward	19	19
Children's ward	25	20
High Care ward	3	3
	181	161

Source: Victoria Hospital, 2015

The population estimates for the Western Cape are shown in Table 4.5 below. The actual demographic profile was compared to the profile below.

Table 4.5: Population estimates of the Western Cape, 2014

	Number	Percentage
Gender:		
Male	3 011 016	49.3%
Female	3 105 308	50.7%
Total	6 116 324	100.0%
Age:		
20 – 34 years	1 533 239	38.6%
35 – 44 years	867 118	21.8%

45 – 54 years	719 839	18.1%
55 – 64 years	475 768	12.0%
65 years and older	377 877	9.5%
Total	3 973 841	100.0%

(Statistics South Africa, Mid-year population estimates 2014)

To examine whether or not the sample was representative of typical in-patients, the profile of the respondents was compared to descriptions provided by the WCDoH. Overall, the profile in the study was a good match with the typical in-patient in the Western Cape.

4.6 MEASUREMENT

The measuring instrument (questionnaire) used in the study is based on the SERVQUAL instrument, developed by Zeithaml *et al* (1990). The instrument measures the gap between the quality of the service a customer expects and the customer's perception of the quality of the service delivered. Zeithaml *et al* (1990) named the gap between service expectation and perception – service quality. In the health sector, service quality has been labelled as *patient satisfaction* (De Souza, Luna, De-Souza Junior & Szwarcwald, 2005).

To create effective surveys the following were considered important by Morrel-Samuels (2002):

- a. Ask questions related the behaviour, activities or tangibles that have been observed, not thoughts or motives.
- b. A third of the questions asked should have a negative response.
- c. Questions that require ranking should be avoided.
- d. Ensure the questionnaire can be completed in 20 minutes.

4.7 DATA COLLECTION METHOD

A questionnaire was used as the measuring instrument for the study. It has five biographical items and 50 response items measured on a five point Lickert scale (-2 = strongly disagree, -1 = disagree, 0 = unsure, 1 = agree, 2 = strongly agree). The response items assess the five dimensions of service quality:

- a. Tangibles
- b. Reliability
- c. Responsiveness
- d. Assurance
- e. Empathy

The item wording for the variables in first category dealing with patient expectations was pre-fixed “At an excellent hospital...?”. The item wording in the second category dealing with patient perceptions was prefixed “At this hospital...” When responding to a question (variable), the patient chose one of the five options on offer: -2 = strongly disagree, -1 = disagree, 0 = unsure, 1 = agree, 2 = strongly agree. The questions were whether: the hospital was well-maintained; the wards were neat and tidy; the medical equipment worked; the nurses' uniforms were neat and tidy; the care received was more than expected; the toilets and basins worked regularly; the doctor did rounds regularly; medications was given at the correct times; the nursing staff

checked patients' condition regularly; administration was able to draw medical records, admit a patient and inform the patient on payment due, without delay; the provincial health department allocated sufficient resources to the hospital; it was well managed; the nursing staff were courteous and well trained; the staff respected the patients' privacy; the doctor was polite to the patients, and the nursing staff appeared too busy to assist, gave personal attention and listened to the medical problems of patients.

The initial questionnaire was pre-tested on three patients at the Stellenbosch district hospital in the town of Stellenbosch in August 2015. The patients were selected on a convenience basis described by Cooper and Schindler (2006). It was found that the home language of two of the subjects was Afrikaans. The subjects struggled to understand the questions posed in English. When the researcher rephrased the questions and explained their meaning in Afrikaans, the subjects were able to respond. As the pilot progressed, it became apparent that the items in the questionnaire were not answering the research questions. The researcher raised this issue with the Supervisor. After consideration, the researcher was allowed to rephrase the questions and develop an Afrikaans version of the questionnaire.

The following procedures were used to collect and capture the data:

- Respondents were selected for interviews on a convenience basis at each hospital.
- The researcher administered the instrument in face to face interviews at the patient's bedside.
- The researcher introduced the survey to each respondent, explained the nature and the purpose of the research, and captured the biographical details of the respondent on the form.
- Each respondent completed a separate informed consent form and signed it.
- The researcher posed the questions to the respondent and captured their responses on the questionnaire.
- After surveying the respondents, the researcher coded the questionnaire data on a MS Excel datasheet.
- The data analyst at the University copied the data into the statistical program for analysis and generated the statistical reports.

4.8 STATISTICAL ANALYSIS

The Centre for Statistical Consultation Unit at Stellenbosch University performed the statistical analysis for the researcher. The researcher coded the data from the questionnaires on a Microsoft Excel 2011 worksheet. The Unit used the statistical program Statistica version 10.1 to analyse the data on the worksheet.

4.8.1 Exploratory data analysis

The first stage of the analysis was a descriptive analysis of the extent of service quality based a set of variables that expressed the patient's extent of expectation and perception according to a five point scale. The mean and standard deviations were calculated for each of the variables. The demographic variables included six age groups (18-35; 36-45; 46-55; 56-65; 66 and older)", two gender groups (male and female), two medical coverage groups (insured and uninsured) and five educational groups (some primary; some high school, matriculation; diploma and degree). In addition, the mean, median and mode of each variable were calculated. The expected

score and the perceived score was calculated for each item and dimension. Gap 5 was calculated for each item and dimension and the results were tabulated.

The following gap scores by hospital were charted and discussed:

- a. Comparative gap score by hospital.
- b. Tangibility gap score by hospital
- c. Reliability gap score by hospital
- d. Responsiveness gap score by hospital
- e. Assurance gap score by hospital
- f. Empathy gap score by hospital

4.8.2 Factor analysis

Nomological validity is the validity of a construct. The degree to which a construct is valid is determined by the extent to which empirical and theoretical measures of the construct agree. Discriminant validity is the degree to which constructs that theoretically should not be related, are unrelated. When using a factor analysis to test the discriminant validity of constructs, each construct in a factor analysis should load against a different factor.

A factor analysis was performed in this study to account for associations between the variables and to better understand any relationships between them. The factors that are the product of the analysis are represented by eigen values. The sum of all the eigen values is equal to the total number of variables in the factor. Proportion indicates the relative weight of each factor in the total variance.

A factor loading was performed to determine the weights and associations between each variable and the factor and to determine uniqueness. Uniqueness is the variance that is unique to each variable and not shared with other variables in the overall factor model. The more unique a variable is the lower its relevance in the overall factor model will be. The higher the load of a factor, the better defined its dimensionality. The Kaiser criterion suggests that factors with eigen values equal to one and greater are retained.

After the factor loading, a varimax rotation (rotated factor loading) of the retained factors was performed. The rotation produced orthogonal factors (factors not related to each other) with new values. These factors still explain the same total variance observed before rotation. The pattern matrix of the variables offers a clearer view of the relevance of each variable.

4.8.3 Boxplots

A boxplot graph is useful to display the location, spread and location of variables. The median, quartiles and interquartile range, and outliers are shown in the graph. The box extends from the lower quartile to the upper quartile showing the mid-50% of the observations. The median is a thick line in the middle of the box. The whiskers extend to the largest and smallest observations, indicating the range of the data. The boxplots for the five dimensions allow for interpretation of the data.

4.8 ETHICAL CONSIDERATIONS

The researcher submitted the research proposal to the Departmental Ethics Screening Committee (DESC) of the School of Public Leadership at Stellenbosch University for approval. The DESC approved the proposal and submitted the following to the Research Ethics Committee: Humanities (REC) for approval on 17 November 2014:

- Informed consent form
- DESC application
- Research proposal
- Western Cape Department of Health request to perform research application
- Research questionnaire

The REC approved research proposal number DESC/Whitford/Nov2014/15, titled Health Service Delivery in the Western Cape: A measurement of perceptions (ADDENDUM 5), the approval period: 13 Nov 2014 – 12 Nov 2015. The REC attached the *Investigator responsibilities to protect human research participants* (ADDENDUM 6) to state the strict conditions under which the study is allowed. After submitting further information and updates, the researcher obtained REC approval to conduct the study on 1 December 2014.

The researcher submitted the following to the Western Cape Government: Health Impact Assessment Directorate and requested approval to conduct the study on 2 November 2014:

- Annexure 2: Proposal Summary
- Research proposal
- Stellenbosch University: REC approval
- Informed consent form

In the Proposal Summary, the researcher requested access to the following hospitals:

- Caledon Hospital
- Hermanus Hospital
- Montagu Hospital
- Robertson Hospital
- Stellenbosch Hospital
- Victoria Hospital

The WCDoH considered the research application and granted access to four of the six hospitals (Hermanus, Montagu, Robertson and Victoria) on 17 March 2015 (ADDENDUM 7) and granted access to Stellenbosch on 3 August 2015 (ADDENDUM 8). Access to Caledon was declined. The access to the hospitals is conditional. The researcher has to provide the department with an electronic copy of the final research report within six months of completion of the research. The department approved the study under research number: 2014RP141.

The researcher contacted the Coordinators at the District Offices to confirm access to the facilities. The researcher was informed that the hospitals at Robertson and Montagu had declined access to their facilities on 27 July 2015. The CEO of Victoria Hospital granted provisional access to the health facility on 13 August 2015, and later confirmed. The Medical Manager of Stellenbosch Hospital granted access on

17 August 2015 and the Medical Manager of Hermanus Hospital granted access on 26 August 2015 to the facilities.

During fieldwork each respondent wrote their name on the *Consent to participate in research* form on a Stellenbosch University letterhead, signed and dated it (ADDENDUM 4). The researcher explained the contents of the form to each respondent and asked each respondent if they understood the contents of the form. Each respondent was assured their identity and response were confidential. The researcher signed and dated each form agreeing to its terms.

The name and personal details of the patient was not recorded on the questionnaire in English (ADDENDUM 2) or the questionnaire in Afrikaans (ADDENDUM 3). The following biographical details: home language, age, gender, medical insurance status and highest qualification of the respondent were recorded on the questionnaire. The ward in which the questionnaire was administered was recorded on the form to track the progress of the study against the timeline.

The researcher administered the questionnaire at each patient's bedside to create as little disruption as possible. The interview was conducted in a low voice and the curtain was drawn if the respondent requested to maintain privacy. The researcher assured each respondent their response was confidential and that their privacy would be respected and no personal consequences would flow from the interview. The completed informed consent forms and questionnaires have been stored in a safe location.

To ensure the confidentiality of the data, only the researcher extracted data from the completed questionnaires and captured it on a spreadsheet. The data is safely stored in a folder on a laptop loaded with corporate level computer access and internet security programs. The statistical data and datasheets are also stored in the same folder and on secondary storage as a backup.

4.9 THE LIMITATIONS OF THE STUDY

Limitations to the study were anticipated. A review of the SA ePublications and the EBSCOhost databases, using "patient satisfaction" and "district hospitals" as keywords, revealed no other patient satisfaction surveys at public district hospitals, using the 22 SERVQUAL variables grouped in the five dimensions, had been conducted in this country. Therefore, it was not possible to compare the results of this study with other local studies.

The study was conducted at only three of the 25 district hospitals in only one of the nine provinces. For this reason, the result of this study could be seen as not being representative of the estimated result at all district hospitals in the country. A future study based on a selection of district hospitals in all nine provinces could yield more representative results.

The study measured the *service quality* of health services delivered to patients, not the *quality* of the health services delivered to patients. The measurement of service quality relies on patient expectations and perceptions, whereas the delivery of quality health services is governed by strict medical protocols and procedures.

The questionnaire was available in only two of the 11 official languages in SA. The respondents could either respond to the English or Afrikaans questionnaire.

A cross-sectional design was used in the study to determine the association between two or more variables at a point in time. The design did not seek to establish the causality of the relationships between variables. It also did not gather observational data on the variables over a period of time as in a longitudinal study.

The aim of the exclusion criteria was to limit occurrence of inaccurate and incomplete data. Patients were excluded if their home language was not English or Afrikaans, they were younger than 18, they were sleeping at the time of the visit, and they had an infectious illness. The exclusions resulted in non-response bias.

The measurement of the expectations and perceptions of patients at private hospitals in the Western Cape was not part of the study. A future study could determine patient satisfaction at these hospitals.

The literature review showed that more recent service quality models exist than the model of Parasuraman, Zeithaml and Berry which was developed in the 1980s. Instead of using a newer satisfaction model, this study is based on a well-documented model.

4.10 CONCLUSION

The various methods described above were all used to analyse the survey results. The following chapter (5) discusses and illustrates the survey results.

CHAPTER 5 – FINDINGS, SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter includes the analysis of the data originating from the structured questionnaire which will be presented in narrative, graphical and tabular form. The analytical results form the basis of findings which are summarised.

The conclusions drawn will be discussed, indicating how the research objectives have been met. Areas where expectations have not been met are identified, and recommendations are made how to address these areas.

5.2 FINDINGS

5.2.1 Exploratory analysis

The statistical program Stata 10 version 1.5 was used to analyse the data. The data results below indicate the associations measured.

Table 5.1: Statistical results for Hermanus Hospital

Variable	Valid N	Mean	Median	Min. Value	Max. Value	Lower Quartile	Upper Quartile	Std. Dev.
Tangibles	13	-0.55	-0.50	0.00	-1.50	-0.25	-0.75	0.45
Reliability	13	-0.60	-0.60	0.20	-2.00	-0.20	-0.80	0.58
Responsiveness	13	-1.00	-0.75	0.25	-2.75	-0.50	-1.50	0.94
Assurance	13	-0.73	-0.75	0.00	-1.50	-0.25	-1.25	0.53
Empathy	13	-0.40	-0.20	0.00	-1.40	-0.20	-0.60	0.43

Table 5.2: Statistical results for Stellenbosch Hospital

Variable	Valid N	Mean	Median	Min. Value	Max. Value	Lower Quartile	Upper Quartile	Std. Dev.
Tangibles	19	-0.46	-0.25	0.50	-1.75	0.00	-0.75	0.54
Reliability	19	-0.37	-0.20	0.00	-1.20	0.00	-0.60	0.37
Responsiveness	19	-0.38	-0.25	0.50	-3.00	0.00	-0.50	0.77
Assurance	19	-0.39	-0.25	0.50	-1.75	0.00	-0.75	0.60
Empathy	19	-0.36	-0.20	0.00	-1.20	0.00	-0.60	0.39

Table 5.3: Statistical results for Victoria Hospital

Variable	Valid N	Mean	Median	Min. Value	Max. Value	Lower Quartile	Upper Quartile	Std. Dev.
Tangibles	30	-0.63	-0.63	0.75	-1.75	-0.25	-1.00	0.56
Reliability	30	-0.58	-0.60	0.80	-1.80	-0.20	-0.80	0.56
Responsiveness	30	-0.62	-0.50	0.75	-3.00	-0.25	-1.00	0.64
Assurance	30	-0.65	-0.50	0.75	-2.50	-0.25	-1.00	0.65
Empathy	30	-0.39	-0.40	0.20	-2.20	0.00	-0.60	0.51

The predetermined model used in this study was tested extensively in other studies. The dimensions in this study are applied according to the original model. The integrity of the original model has been maintained, therefore, factor analysis is not required in this analysis.

In this study, the Cronbach alpha scores range between 0.50 and 0.80. These scores are acceptable in terms of previous research. The results show the alpha scores for patient expectations are higher than the alphas of the patient perceptions. This could be due to patients not fully understanding the questions before answering.

5.2.2 Survey response

The researcher collected 62 responses in the course of two weeks in August 2015. All the responses were subject to data analysis as no data errors were found amongst the responses. This high usability rate seemed to yield significant results. Figure 5.1 below compares the number of responses by hospital.

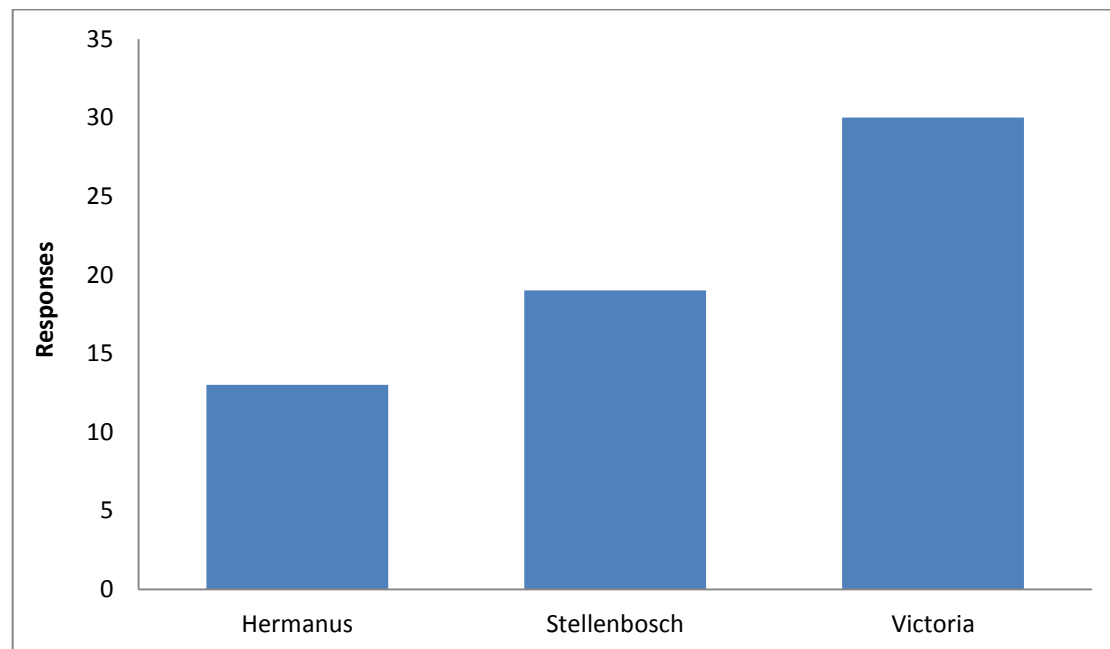


Figure 5.1: Number of survey responses by hospital

Table 5.4 shows the socio-demographic characteristics the respondents to the survey. The information was obtained from each respondent in the study. The aggregated information has a strong correlation with the socio-demographic profile determined before the study began.

Table 5.4: Socio-demographic characteristics of respondents

Characteristics	Frequency	Percentage
Home language (n=62)		
Afrikaans	29	47%
English	33	53%
Age (n=62)		
18 - 35	14	23%

36 - 45	11	18%
46 - 55	14	23%
56 - 65	13	20%
66 years and older	10	16%
Gender (n=62)		
Male	28	45%
Female	34	55%
Medical coverage (n=62)		
Insured	5	8%
Uninsured	57	92%
Highest educational qualifications (n=62)		
Some primary school	12	19%
Some high school	26	42%
Matriculation	12	19%
Diploma	9	15%
Degree	3	5%

5.2.3 Application of the SERVQUAL gap model

The researcher used the SERVQUAL method (Parasuraman *et al*, 1985) to calculate the expected score and the perceived score for each variable across the five dimensions and to calculate the gap between each of these scores. The gap between the expected and perceived score is defined as GAP 5 by the authors. This method is documented in detail in Chapter Two.

The figures for Table 5.5 below were compiled using the data from Statistica. The negative results for Gap 5 (Perceptions – Expectations = Service Quality) indicate the service quality at the three district hospitals did not meet or exceed patient expectations on any variable or dimension.

The expected service statements were prefixed ‘At an excellent hospital...’ and should be read using the text in italics but not enclosed in the bracket. The perceived service statements were prefixed ‘At this hospital ...’ and should read using the italic text enclosed in the bracket ().

Table 5.5: GAP 5 scores

	Expected	Perceived	GAP 5
	Score	Score	Score
Tangibles:	1.93	1.37	-0.56
The hospital <i>will be/(is)</i> well maintained	1.91	1.17	-0.74
The hospital and the wards will be kept clean and tidy	1.92	1.41	-0.51
The medical equipment in the ward will be working	1.94	1.30	-0.64
The uniforms of the nursing staff will be neat and tidy	1.94	1.60	-0.34

Reliability	1.87	1.35	-0.52
The care offered will be more than expected	1.83	1.46	-0.37
The toilets and basins will be working when they used	1.86	1.04	-0.82
The doctor will do regular rounds to check the condition of patients	1.84	1.30	-0.54
The patient will receive their medication at the correct times	1.92	1.54	-0.38
The nursing staff will check on patients condition regularly	1.89	1.42	-0.47
Responsiveness	1.82	1.19	-0.63
Administration will be able to draw the patients' medical records without delay	1.88	1.34	-0.54
The administrative process to admit the patient will not have delays	1.83	1.26	-0.57
On admission, administration will be able to tell the patient if any payment is due	1.76	0.89	-0.87
The doctor will be able to admit the patient to the hospital without delay	1.81	1.28	-0.53
Assurance	1.85	1.26	-0.59
The provincial health department will capacitate the hospital to provide high quality care	1.78	0.99	-0.79
The hospital will be well managed	1.83	1.07	-0.76
The nursing staff will be well trained	1.94	1.51	-0.43
The nursing staff will be courteous	1.86	1.49	-0.37
Empathy	1.83	1.45	-0.38
The hospital will respect my privacy	1.84	1.31	-0.53
The doctor who treats me will be polite	1.91	1.62	-0.29
The nursing staff will not be too busy to assist me when I ask	1.67	1.25	-0.42
The nursing staff will give me personal attention	1.83	1.57	-0.26
The nursing staff will listen to my problems	1.92	1.51	-0.41

The mean for each dimension was calculated by dividing the gap score for each item within the dimension by the number of items within the dimension. The following was observed from the resultant gap scores above.

Tangible dimension:

It was observed that patients have a very high expectation that equipment at a hospital works and nursing staff wear clean clothing and keep a neat appearance, to the extent that it is a given.

Most patients experienced two of the hospitals as old and in need of refurbishment. They expected the state to allocate funding to refurbish these hospitals while acknowledging the efforts of the hospital management to maintain the existing buildings and keep the wards clean and tidy.

Reliability dimension:

It was observed on this dimension that the variance between the patients' *overall* expectation that was experienced, was the smallest. The response of patients shows that the hospital management, the doctors, nurses and support staff are meeting the expectations of the patients, to a greater degree on this item than on other items.

Responsiveness dimension:

It was observed, that most patients do not have as high an expectation of administrative efficiency when compared to other dimensions. The fact that patients do expect to queue and to wait for services at a public hospital could explain the low score.

Ninety-two per cent of the respondents had no form of health insurance. These respondents rely on the state to provide free medical services. They had little expectation that any cost for medical services would be incurred and their experience confirmed this thinking.

Assurance dimension:

It was observed, that patients expect nursing staff to be highly competent, the inherent fear of illness and the high reliance on well trained nurses to recover from illness could explain the high score.

Empathy dimension:

It was observed, that patients do experience doctors and nurses who have empathy for them, they experienced doctors who are polite and with a good bedside manner. It was found that the staffing levels at the hospitals are under strain. The staffing level at the hospitals is directly affected by budget constraints. The patients expressed a level of tolerance that nursing staff could not give them immediate attention when requested; however, they were confident that nurses would assist them when they were able to. The patients' expectations took into account that staffing levels at a public hospital could be lower than at a private hospital.

5.2.4 Overall gap scores by hospital

The gap scores by hospital show none of the hospitals met their patient's expectations. The lowest result was in the responsiveness dimension at the Hermanus Hospital where expectations exceeded perceptions. The responsiveness dimension that showed the greatest variation and the empathy variation showed the least variation.

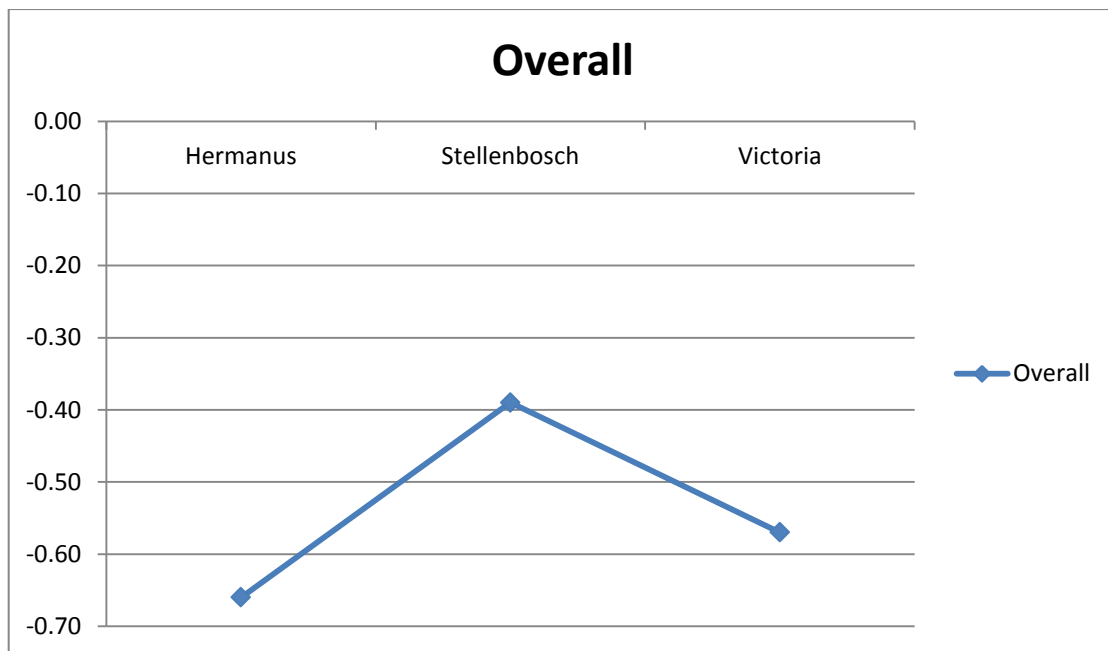


Figure 5.2: Overall GAP score by hospital

5.2.5 Tangibility score by hospital

The test of the tangibility dimension of service quality showed relative uniformity across the patient expectation and perception gaps.

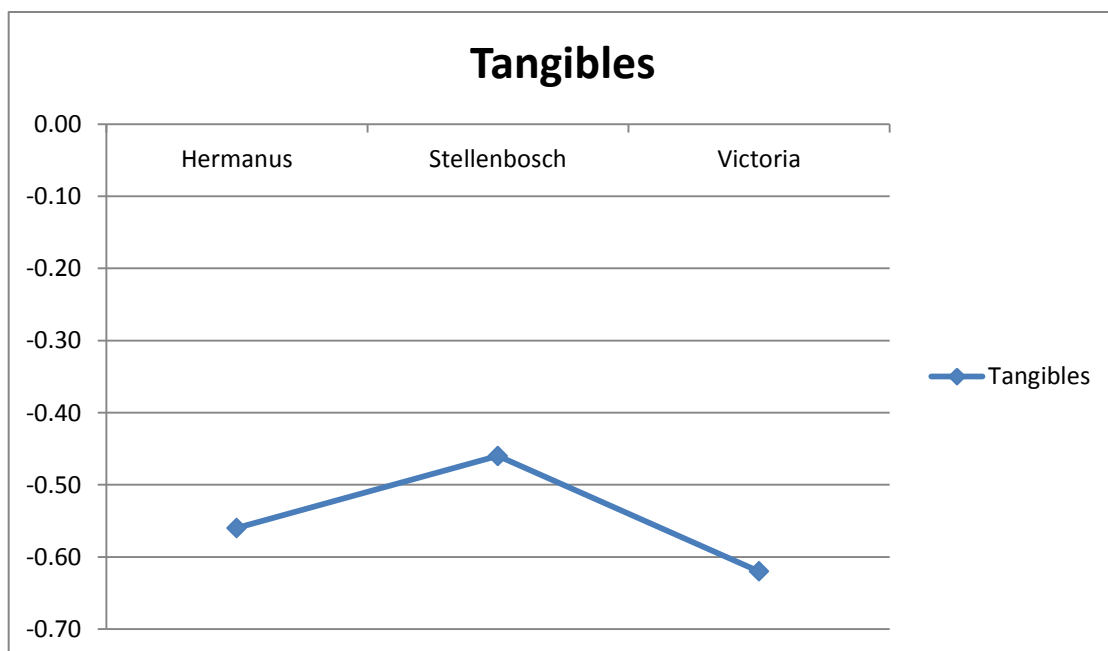


Figure 5.3: Tangibility score by hospital

5.2.6 Reliability score by hospital

The test of the reliability dimension of service quality showed uniform patient expectation and perception gaps.

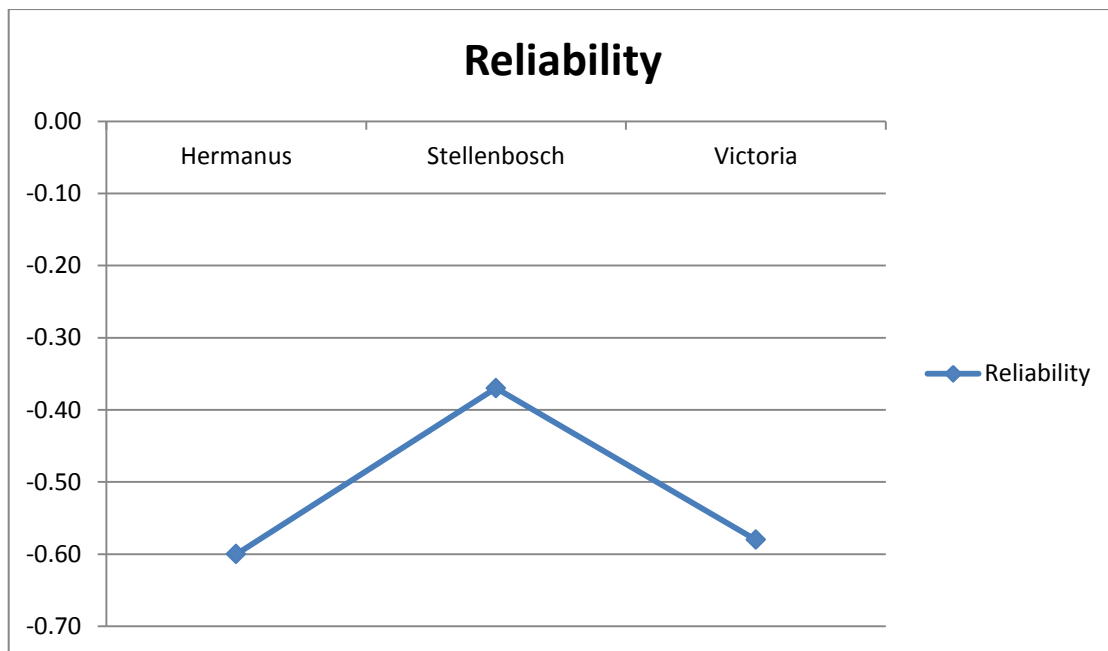


Figure 5.4: Reliability score by hospital

5.2.7 Responsiveness score by hospital

The responsiveness dimension gap was relatively uniform across the different hospitals.

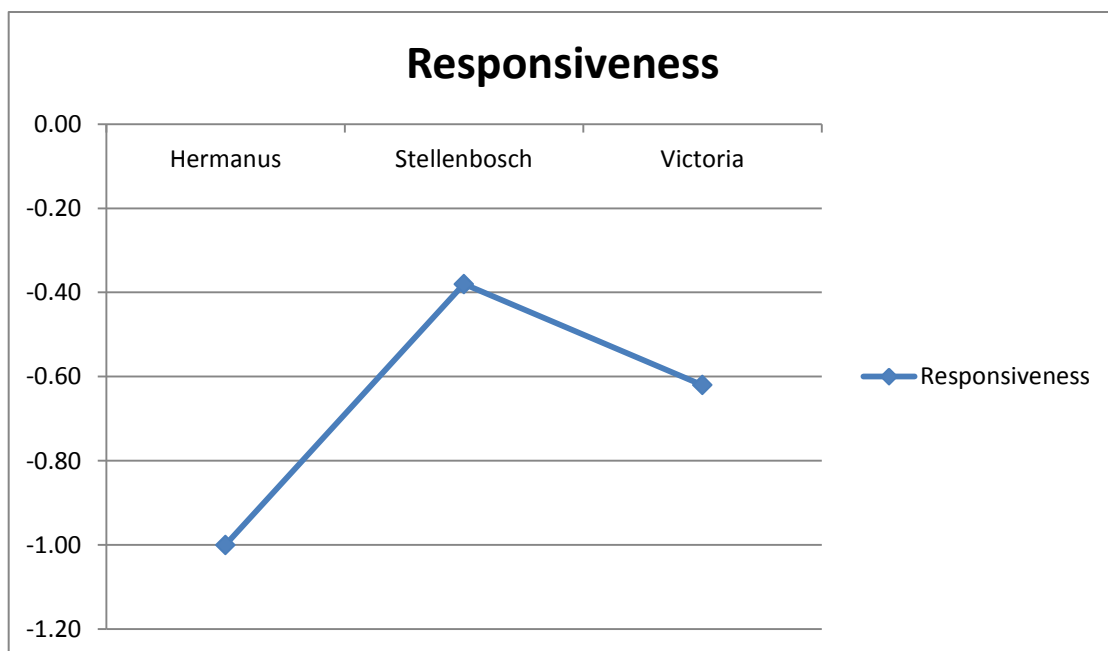


Figure 5.5: Responsiveness score by hospital

5.2.8 Assurance score by hospital

The test of the assurance gap yielded results ranging from 0.50 to 1.80. The results indicate areas for improvement. The expectation of space differed from the perception of space experienced when visited.

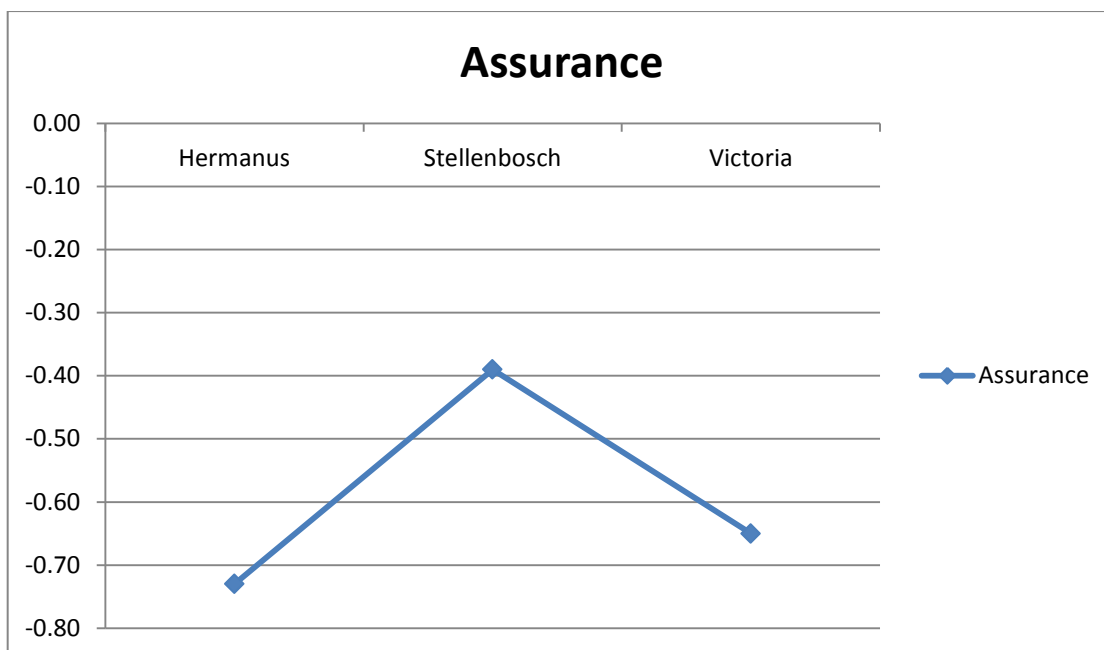


Figure 5.6: Assurance score by hospital

5.2.9 Empathy score by hospital

The average gap score for this dimension was higher than other dimensions. The empathy dimension is a focus of the Department of Health; it should score higher than other dimensions.

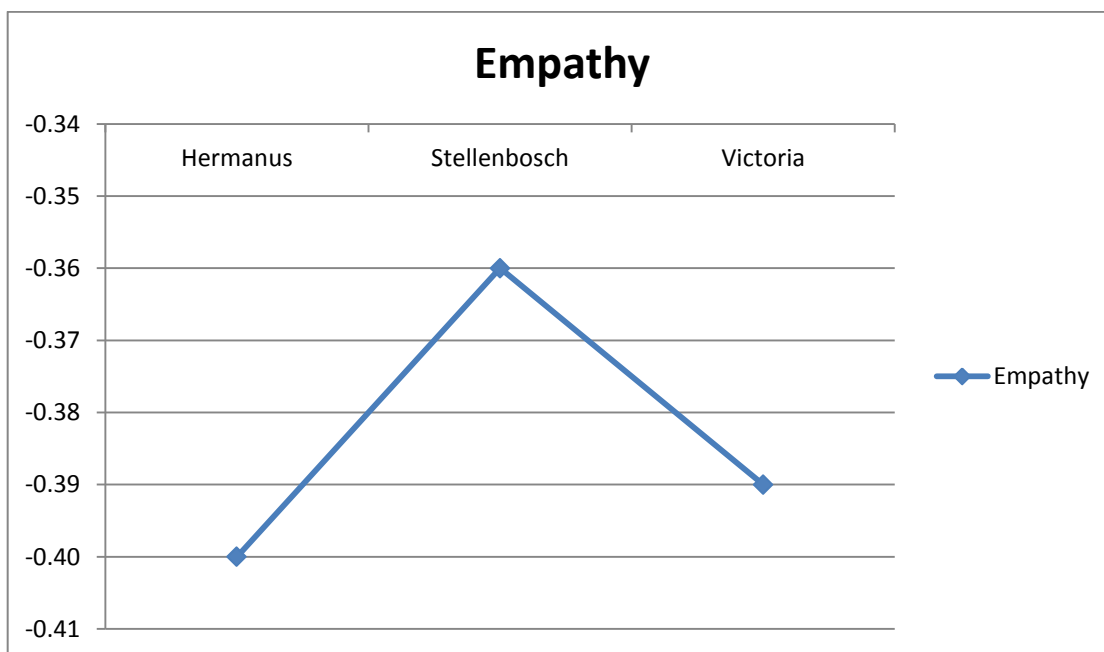


Figure 5.7: Empathy score by hospital

5.2.10 Reliability

The Cronbach alpha (Cronbach, 1951) is a coefficient of reliability. The Cronbach alpha was calculated to determine the reliability of each of the scales of the five dimensions before the factor analysis was performed. It is a function of the number of

items and the average inter-correlation (covariance) among the items, in a group. The coefficient will be 1 if all the items are interrelated and 0 if not. A value of 0.7 or higher for Cronbach's alpha is generally accepted as evidence of internal consistency.

The results of the reliability analysis in Table 5.6 indicate the overall consistency between the survey items and the five dimensions.

Table 5.6: Reliability analysis

Dimensions		Cronbach's alpha
Tangibles	Expectation	$\alpha = 0.706$
	Perception	$\alpha = 0.631$
Reliability	Expectation	$\alpha = 0.799$
	Perception	$\alpha = 0.699$
Responsiveness	Expectation	$\alpha = 0.870$
	Perception	$\alpha = 0.760$
Assurance	Expectation	$\alpha = 0.802$
	Perception	$\alpha = 0.642$
Empathy	Expectation	$\alpha = 0.739$
	Perception	$\alpha = 0.716$

5.2.11 Validity

The various factor analyses are provided in the tables below.

a. Tangibles

In this instance, factor 1 is mostly defined by the variables cleaning and equipment. The majority of patients expect wards to be clean and tidy and medical equipment to work.

Table 5.7: Tangibles factor analysis

Factor	Eigenvalue	Proportion
Factor 1	1.96450	0.4911
Factor 2	0.86729	0.2168
Factor 3	0.76259	0.1906
Factor 4	0.40563	0.1014

Table 5.8: Tangibles factor loadings

Variable	Factor 1	Uniqueness
Maintenance gap	0.5420	0.7063
Cleaning gap	0.8440	0.2877
Equipment gap	0.7931	0.3710
Uniform gap	0.5740	0.6706

Table 5.9: Tangibles rotated factor loadings

Variable	Factor 1	Uniqueness
Maintenance gap	0.5420	0.7063
Cleaning gap	0.8440	0.2877
Equipment gap	0.7931	0.3710
Uniform gap	0.5740	0.6706

b. Reliability

In this instance, factor 1 is mostly defined by the variables care, rounds and nursing. The majority of patients expect the care on offer to meet expectations, the doctors to make regular rounds and the nursing staff to check on their condition regularly.

Table 5.10: Reliability factor analysis

Factor	Eigenvalue	Proportion
Factor 1	2.06546	0.4131
Factor 2	0.97840	0.1957
Factor 3	0.85035	0.1701
Factor 4	0.74035	0.1481
Factor 5	0.36544	0.0731

Table 5.11: Reliability factor loadings

Variable	Factor 1	Uniqueness
Care gap	0.6565	0.5690
Toilet gap	0.3838	0.8527
Rounds gap	0.8190	0.3292
Meds gap	0.5762	0.6680
Nursing gap	0.6959	0.5157

Table 5.12: Reliability rotated factor loadings

Variable	Factor 1	Uniqueness
Care gap	0.6565	0.5690
Toilet gap	0.3838	0.8527
Rounds gap	0.8190	0.3292
Meds gap	0.5762	0.6680
Nursing gap	0.6959	0.5157

c. Responsiveness

In this instance, factor 1 is mostly defined by the variables file and admin. The majority of patients expect Administration to draw their medical records and execute the admission process with little delay.

Table 5.13: Responsiveness factor analysis

Factor	Eigenvalue	Proportion
Factor 1	1.91111	1.1303
Factor 2	-0.00697	-0.0041
Factor 3	-0.04174	-0.0247

Factor 4	-0.17159	-0.1015
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Table 5.14: Responsiveness factor loadings

Variable	Factor 1	Uniqueness
File gap	0.8579	0.2639
Admin gap	0.8160	0.3341
Fees gap	0.5235	0.7260
Delays gap	0.4849	0.7648

Table 5.15: Responsiveness rotated factor loadings

Variable	Factor 1	Uniqueness
File gap	0.8579	0.2639
Admin gap	0.8160	0.3341
Fees gap	0.5235	0.7260
Delays gap	0.4849	0.7648

d. Assurance

In this instance, factor 1 is mostly defined by the variables management, training and courtesy. The majority of patients expect the nursing staff to be well trained and courteous and hospital management to manage the resources at their disposal adequately.

Table 5.16: Assurance factor analysis

Factor	Eigenvalue	Proportion
Factor 1	2.08094	0.5202
Factor 2	0.94298	0.2357
Factor 3	0.58265	0.1457
Factor 4	0.39344	0.0984

Table 5.17: Assurance factor loadings

Variable	Factor 1	Uniqueness
Prov gap	0.5593	0.6871
Management gap	0.7558	0.4288
Training gap	0.8270	0.3160
Courtesy gap	0.7162	0.4871

Table 5.18: Assurance rotated factor loadings

Variable	Factor 1	Uniqueness
Prov gap	0.5593	0.6871
Management gap	0.7558	0.4288
Training gap	0.8270	0.3160
Courtesy gap	0.7162	0.4871

e. Empathy

In this instance factor 1 is mostly defined by the variables busy, personal and problems. The majority of patients expect nursing staff to give them personal

attention, to attend to them as soon as time allows it and to listen to their medical problems attentively.

Table 5.19: Empathy factor analysis

Factor	Eigenvalue	Proportion
Factor 1	2.11714	0.4234
Factor 2	0.98398	0.1968
Factor 3	0.91923	0.1838
Factor 4	0.64742	0.1295
Factor 5	0.33223	0.0664

Table 5.20: Empathy factor loadings

Variable	Factor 1	Uniqueness
Privacy gap	0.4915	0.7584
Doctor gap	0.4607	0.7877
Busy gap	0.6975	0.5135
Personal gap	0.6657	0.5569
Problems gap	0.8565	0.2664

Table 5.21: Empathy rotated factor loadings

Variable	Factor 1	Uniqueness
Privacy gap	0.4915	0.7584
Doctor gap	0.4607	0.7877
Busy gap	0.6975	0.5135
Personal gap	0.6657	0.5569
Problems gap	0.8565	0.2664

5.2.12 Boxplots

The boxplots below graphically illustrate the responses for each hospital on the five dimensions of service quality.

The interpretation of the boxplots below is as follows:

- Figure 5.8 – There is greater variation in the expectation and perceptions gaps on the physical appearance at Victoria hospital compared to the two other hospitals.
- Figure 5.9 – The reliability of services met the expectations of more patients at Stellenbosch Hospital than at the other hospitals.
- Figure 5.10 – There is less agreement on the responsiveness of administration and management amongst patients at Hermanus Hospital than at the other hospitals.
- Figure 5.11 – The number of in-patients could explain the greater lack of agreement on the assurance of good service at Victoria Hospital compared to others.
- Figure 5.12 – The medical staff at Stellenbosch Hospital are as empathetic as the staff at Victoria Hospital.

a. Tangibles

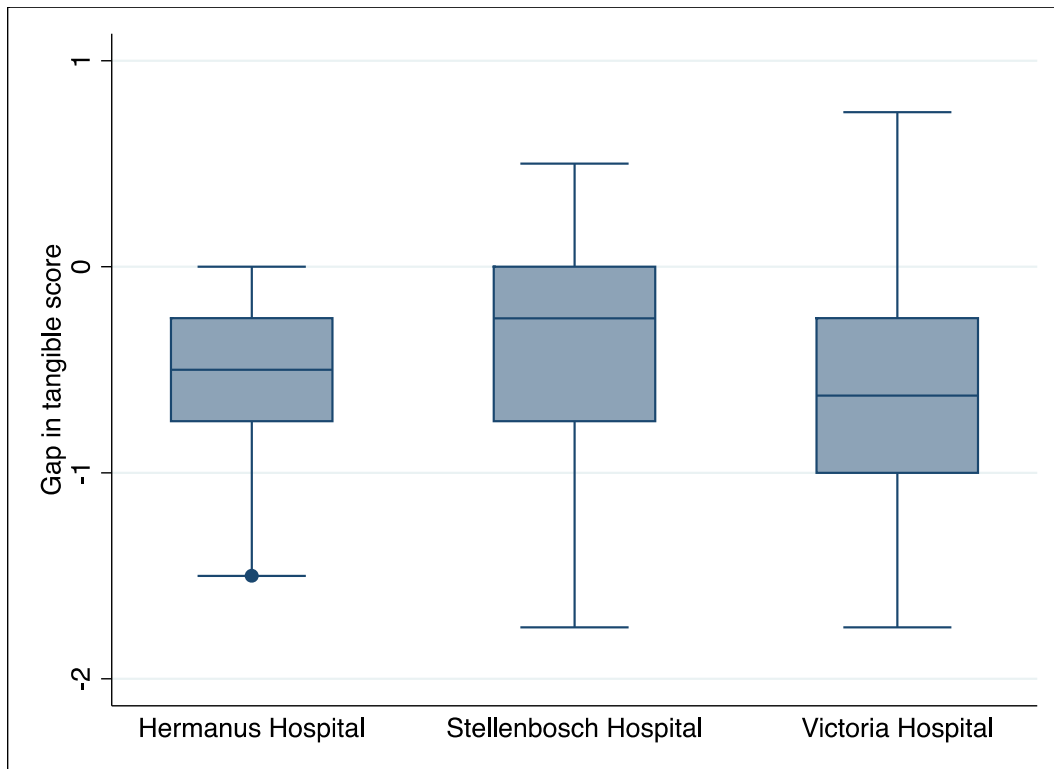


Figure 5.8: Tangibility boxplot by hospital

b. Reliability

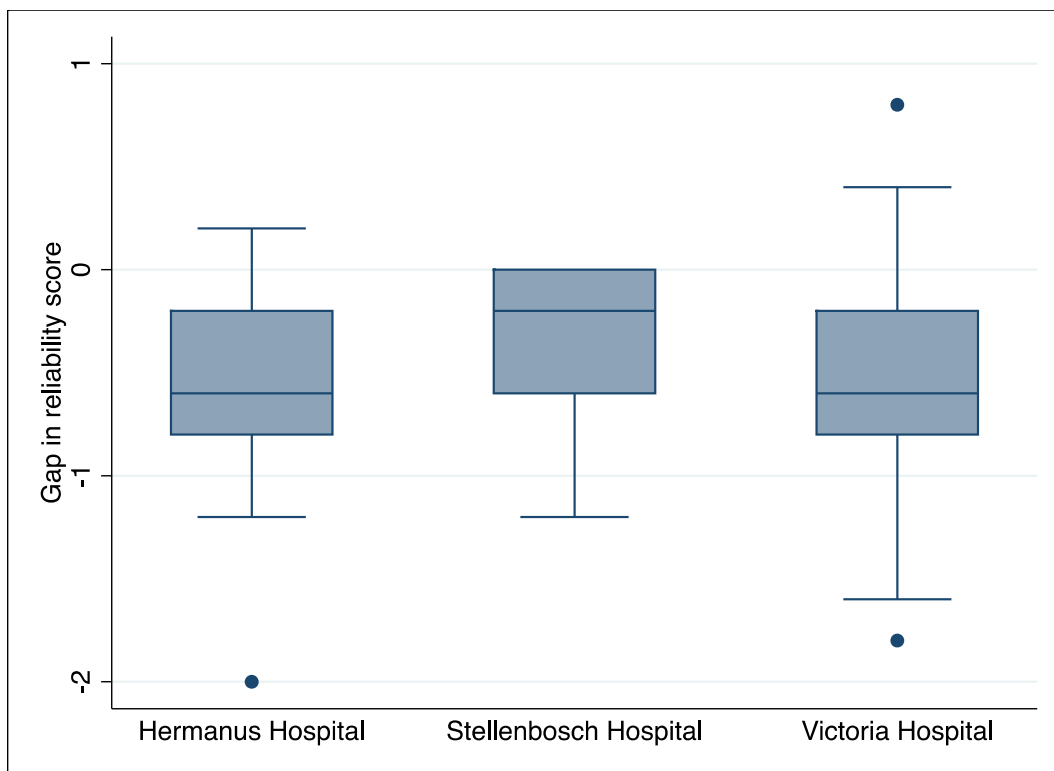
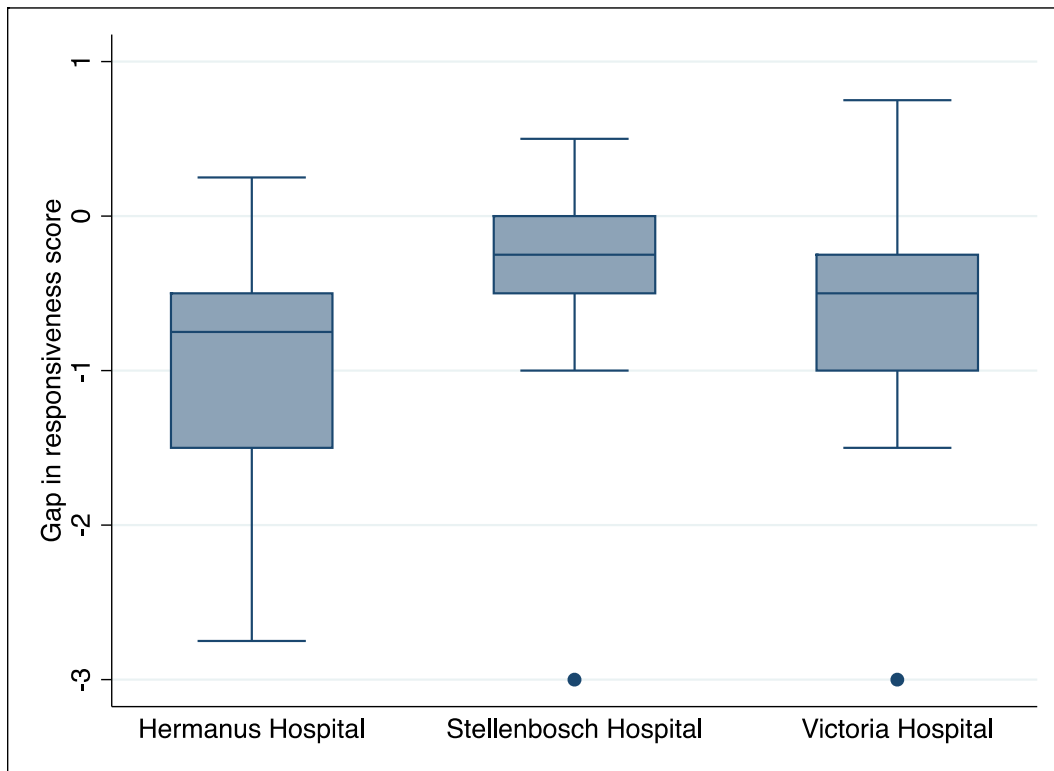


Figure 5.9: Reliability boxplot by hospital

c. Responsiveness

Figure 5.10: Responsiveness boxplot by hospital



d. Assurance

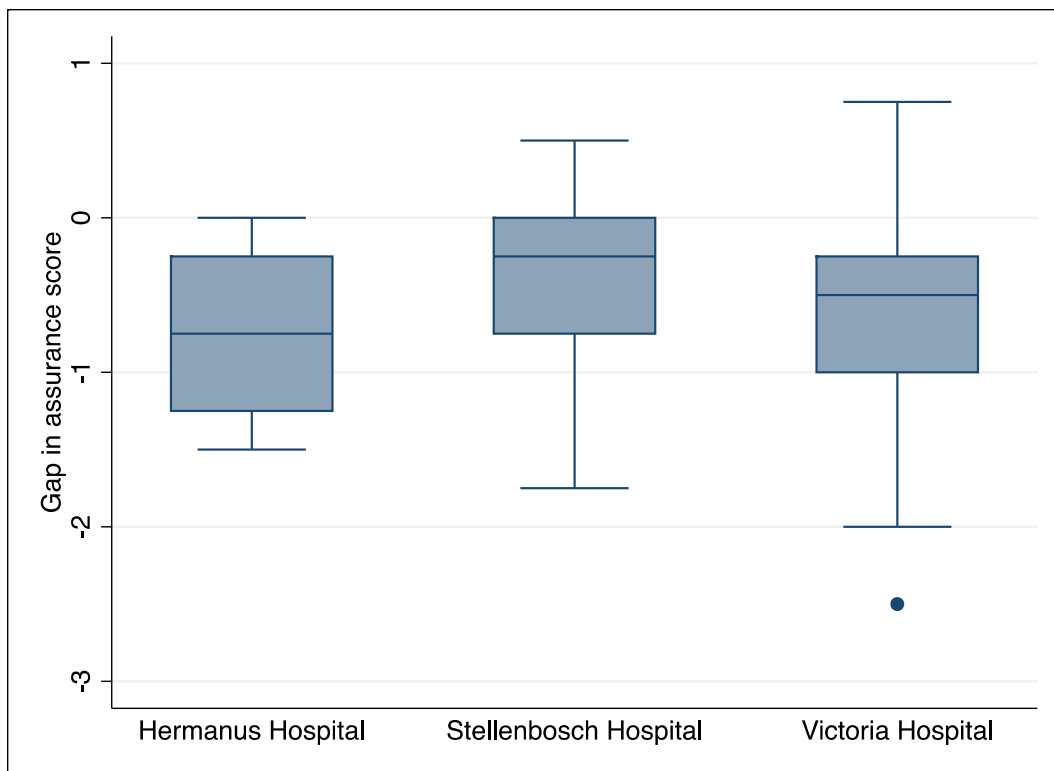


Figure 5.11: Assurance boxplot by hospital

e. Empathy

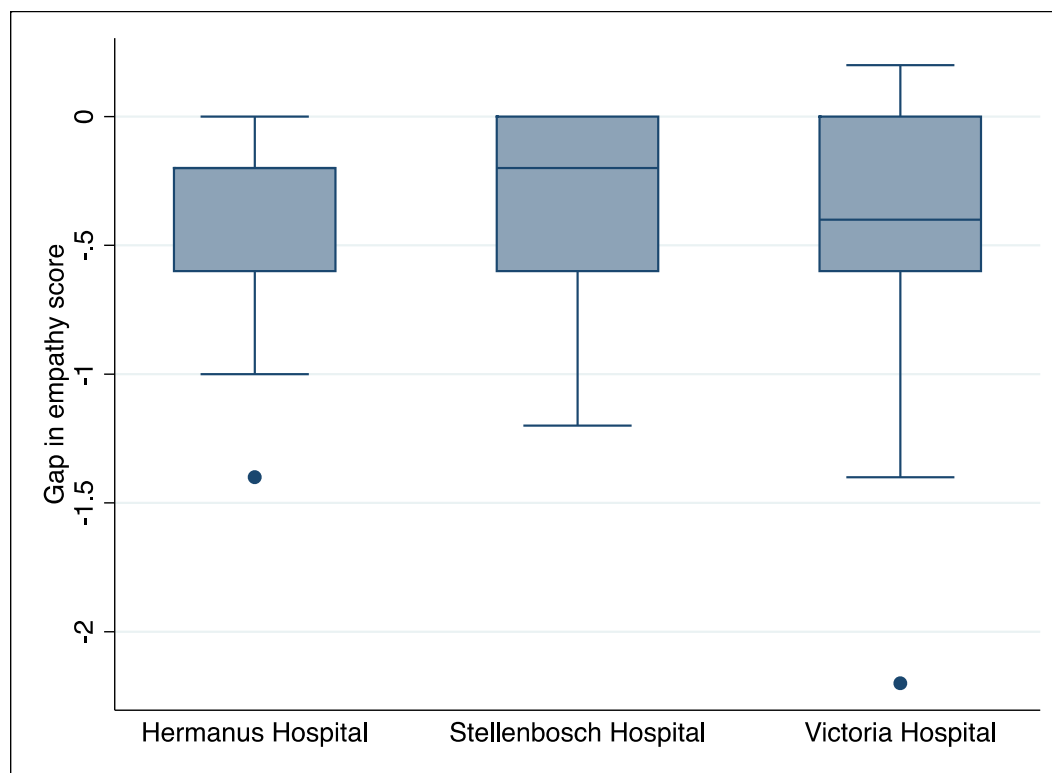


Figure 5.12: Empathy boxplot by hospital

5.3 SUMMARY OF FINDINGS

The following section deals with significant findings arising from the empirical study, and it draws on paragraphs in the literature study.

- a. In general, the results indicate that, although the role of management is not always apparent (par.5.2.3) due to the large proportion of the population that relies on public health services (par.3.7.4), cost containment by hospitals is important to keep services sustainable and patients satisfied (par.3.8.9).
- b. The results are less clear with respect to how the role of the provincial Health Department is viewed (par.5.2.3), the Department has to maintain its institutional structures (par.3.8.6) build new facilities to meet demand and upgrade existing facilities to prevent deterioration (par.3.8.5) increasing staffing in specialist roles (par.3.8.8) to ensure patient satisfaction.
- c. In general, the results indicate that the care offered at hospitals is not far from what patients expect (par.5.2.3). This tendency could indicate that hospitals monitor their patient satisfaction rates and adhere to the performance reporting culture (3.8.7).
- d. In the sample, the results indicate that patients have a sense of assurance that nursing staff are well trained (par.5.2.3) and courteous (par.5.3.3). It could indicate that hospitals and the department strive to meet the criteria set by the National Core Standards (par.3.6), which satisfies patients.

- e. Moreover, the results empirically validate that Stellenbosch Hospital, more than the other two hospitals, offers health services that are closely associated with what patients expect (par.5.2.4.).
- f. The results of the factor loading reveal a significant relationship between the tangible things person can see and touch such as clean toilets and medical equipment that does not work and their sense of disappointment when their expectation is not met (par.5.2.11).

5.4 DISCUSSION OF FINDINGS

Did the study measure satisfaction levels of patients at district hospitals and provide results useful for planning purposes? The empirical results measured satisfaction levels of patients and highlighted gaps between what is expected and experienced. In order to overcome the shortcomings indicated in the analysis, hospital management need to overcome:

- Physical maintenance is not performed regularly.
- Nurses are not able to attend to patients frequently.
- The cost of attendance is not discussed with patients.
- The provincial health department does not communicate its objectives and achievements to patients.
- Hospital management does not communicate its goals and achievements to patients.
- Not all nursing staff has empathy with patients.

To address the gaps above, hospital management should:

- adopt a new management approach that highlights the benefits of striving for service quality and communicating to its patients and staff.
- engage in research to identify leading trends that can close the gaps above.

The research questions are discussed in the next section.

Do patients expect service quality at public district hospitals? The data of this study suggests that patient expectations of service quality are upwardly biased, sometimes significantly so.

Do patients perceive service quality at the public district hospitals they visit? The data of this study suggests that patient perceptions of service quality are biased and that surveys should be confined to certain kinds of questions to obtain more clarity. However, the questions that seem to be answered with the least bias in the survey – perceptions of the quality of the hospital infrastructure – are still useful. The subjective perceptions of process of patients are unique – the behaviour of management, doctors and nurses, the attitude of the nurse, and their overall satisfaction with service quality. These subjective responses were unavoidable and their bias is strong.

Which factors could give rise to the gap between patients' expectations and perceptions of service quality at district hospitals? The patient satisfaction data is informative. The data suggests that satisfied patients can be differentiated from less satisfied patients and places the spotlight on service characteristics that increase patient satisfaction or perceptions of quality.

In chapter 1 the stated primary objective is to describe the expectations and perceptions of service quality of patients at district hospitals and to recommend measures to improve service quality.

The following conclusions were reached on each of the research objectives.

- a. Does hospital management have an approach at its disposal that could improve patient satisfaction? The literature study has shown this can be achieved by adopting a management approach that uses a well-established standardised tool to gather relevant patient information to inform health professionals, management, government and stakeholders on service quality to improve patient satisfaction.
- b. Does quantitative data show that patient experiences match their expectations? The empirical quantitative research has shown that patients at district hospitals have high service expectations and their experiences seldom meet those expectations

5.4 FUTURE RESEARCH

The confidence in the results could be strengthened with access to data on local patient satisfaction rates that is not in the public domain. It would then be possible to generate comparative studies that incorporate contextual information.

Also, future work could control for socio-demographic factors that might influence patient perceptions.

5.5 CONCLUSION

The aim of the research to measure patient satisfaction at district hospitals in the Western Cape was achieved.

The research process succeeded in answering the research questions. The gap scores indicate that intangibles such as services are measurable using quantitative methods.

The project met its objectives and evidence indicated that a large body of knowledge has been gathered on service quality in health services. However, there are specific contexts that can be explored in more detail.

The research indicates that the service quality approach will assist hospital management and health departments in becoming client-centred organisations. It is therefore recommended that these institutions investigate the opportunity of becoming service quality leaders.

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ADDENDUMS

ADDENDUM 1: STRUCTURED QUESTIONNAIRE

Each statement was accompanied by a seven point scale anchored at the ends by the labels Strongly Disagree (=1) and Strongly Agree (=7). The points in-between were not labelled.

Expectations Section

Directions:

- Indicate the extent to which excellent district hospitals have the features below.
- By circling the 1 you strongly disagree that excellent district hospitals have that feature.
- By circling the 7 you strongly agree that excellent district hospitals have that feature.
- By circling a number between 1 and 7 you show how strong your feelings are.
- There are now right or wrong answers, we interested in the number that best indicates your expectations of the service quality at excellent district hospitals.

Tangibles

At an excellent district hospital:

1. The physical facilities will look appealing.
2. The staff will look like professionals.
3. The medical equipment will look modern.
4. The communications material will look interesting and informative.

Reliability

At an excellent district hospital:

1. The staff will have the best interest of the patient at heart.
2. The staff will show an interest in solving the problems of patients.
3. The medical account of the patient will be error-free.
4. The staff will provide the service right the first time
5. The staff will keep the commitments they make to patients.

Responsiveness

At an excellent district hospital:

1. The staff will tell patients when services will be performed.
2. The staff will give patients prompt services as soon as they can.
3. The staff will always be willing to help patients.

4. The staff will not appear to be too busy to respond to patient requests.

Assurance

At an excellent district hospital:

1. The behaviour of staff will instil confidence in patients.
2. The patients will feel safe when transacting with the hospital.
3. The staff will be consistently courteous.
4. The staff will have the knowledge to answers patient's questions.

Empathy

At an excellent district hospital:

1. The operating hours will be convenient to you.
2. Patients will receive individual attention.
3. The staff will understand the need to give personal attention.
4. The need to take patient's best interests to heart is understood.
5. The staff will understand the specific needs of patients.

Perceptions Section

Directions:

- Indicate the extent to which XYZ district hospital has the features below.
- By circling the 1 you strongly disagree that XYZ hospital has that feature.
- By circling the 7 you strongly agree that XYZ hospital has that feature.
- By circling the number between 1 and 7 you show how strong your feelings are.
- There are now right or wrong answers, we interested in the number that best indicates your perceptions about the service quality of XYZ hospital.

Tangibles

At XYZ district hospital:

1. The physical facilities are appealing.
2. The staff members look professional.
3. The medical equipment is modern.
4. The communications material is interesting and informative.

Reliability

At XYZ district hospital:

1. The staff members have the best interest of the patients at heart.
2. The staff members are interested in solving the problems of patients.
3. The medical accounts of patients are error-free.
4. The staff members provide services right the first time.

5. The staff members keep the commitments they make to patients.

Responsiveness

At XYZ district hospital:

1. The staff members tell patients when services will be performed.
2. The staff members render services as soon as they can.
3. The staff members are always willing to help patients.
4. The staff members are not too busy to respond to patient requests.

Assurance

At XYZ district hospital:

1. The behaviour of staff members instils patient confidence.
2. The patients feel safe when transacting with the hospital.
3. The staff members are consistently courteous.
4. The staff members are knowledgeable and are able to answers patient's questions.

Empathy

At XYZ district hospital:

1. The operating hours are convenient.
2. Patients receive individual attention.
3. The staff members understand the need to give personal attention.
4. The need to take patient's best interests to heart is understood.
5. The staff members understand the specific needs of patients.

ADDENDUM 2: REDRAFTED QUESTIONNAIRE (ENGLISH)

CLIENT SATISFACTION SURVEY QUESTIONNAIRE

ENGLISH

Date (15-Aug-2015)	
Inpatient location (Men's medical ward)	
Person number (1,2,3...)	
Home language (English, Afrikaans, other)	

Question	Question	Variable	Coding
1	What is the name of this facility?	Stellenbosch Hospital	s
		Victoria Hospital	v
		Hermanus Hospital	a
2	What is your age?		Value
3	What is your gender?	Male	m
		Female	f
4	Do you have private medical coverage?	Insured	y
		Uninsured	n
5	What is your highest education qualification?	Some primary school	p
		Some high school	h
		Matriculation	m
		Diploma	d
		Degree	g

Each statement is measured on a five point Likert scale anchored at the ends by the labels Strongly Disagree (-2) and Strongly Agree (2). The points in-between are labelled Disagree (-1), Unsure (0), Agree (1).

Instructions:

The interviewer must indicate the response of the respondent to each question as follows:

- By circling the -2 the respondent indicates they strongly disagree with the statement.
- By circling the 2 the respondent indicate they strongly agree with the statement.
- By circling a number between -2 and 2 the respondent indicates the extent to which they disagree or agree with a statement.
- By circling the number 0 the respondent indicates they unsure and neither fully agree or disagree with the statement.
- The respondent cannot make a right or wrong answer.

Expectations section

At an excellent hospital...?

Question	Tangibles	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
6	The hospital will be well maintained	-2	-1	0	1	2
7	The hospital and the wards will be kept clean and tidy	-2	-1	0	1	2
8	The medical equipment in the ward will be working	-2	-1	0	1	2
9	The uniforms of the nursing staff will be neat and tidy	-2	-1	0	1	2

At an excellent hospital...?

Question	Reliability	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
10	The care offered will be more than expected	-2	-1	0	1	2
11	The toilets and basins will be working when they used	-2	-1	0	1	2

12	The doctor will do regular rounds to check the condition of patients	-2	-1	0	1	2
13	The patient will receive their medication at the correct times	-2	-1	0	1	2
14	The nursing staff will check on the patients condition regularly	-2	-1	0	1	2

At an excellent hospital ...?

Question	Responsiveness	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
15	Administration will be able to draw the patient's medical records without delay	-2	-1	0	1	2
16	The administrative process to admit a patient will not have delays	-2	-1	0	1	2
17	On admission, administration will be able to tell the patient if any payment is due	-2	-1	0	1	2
18	The doctor will be able to admit the patient to the hospital without delay	-2	-1	0	1	2

At an excellent hospital ...?

Question	Assurance	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
19	The provincial health department will capacitate the hospital to provide high quality care	-2	-1	0	1	2
20	The hospital will be well managed	-2	-1	0	1	2
21	The nursing staff will be well trained	-2	-1	0	1	2
22	The nursing staff will be courteous	-2	-1	0	1	2

At an excellent hospital ...?

Question	Empathy	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
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23	The hospital will respect my privacy	-2	-1	0	1	2
24	The doctor who treats me will be polite	-2	-1	0	1	2
25	The nursing staff will not be too busy to assist me when I ask	-2	-1	0	1	2
26	The nursing staff will give me personal attention	-2	-1	0	1	2
27	The nursing staff will listen to my problems	-2	-1	0	1	2

Perceptions section

At this hospital...?

Question	Tangibles	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
28	The hospital is well maintained	-2	-1	0	1	2
29	The hospital and the wards are kept clean and tidy	-2	-1	0	1	2
30	The medical equipment in the ward is working	-2	-1	0	1	2
31	The uniforms of the nursing staff is neat and tidy	-2	-1	0	1	2

At this hospital...?

Question	Reliability	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
32	The care I received was more than I expected	-2	-1	0	1	2
33	The toilets and basins were working when I used them	-2	-1	0	1	2
34	The doctor did regular rounds to check on my condition	-2	-1	0	1	2
35	I received my medication at the correct times	-2	-1	0	1	2
36	The nursing staff checked on my condition regularly	-2	-1	0	1	2

At this hospital...?

Question	Responsiveness	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
37	Administration was able to draw my medical records without delays	-2	-1	0	1	2
38	The administrative process to admit me had no delays	-2	-1	0	1	2
39	On admission, administration was able to tell me if I any payment was due	-2	-1	0	1	2
40	The doctor was able to admit me to the hospital without delay	-2	-1	0	1	2

At this hospital...?

Question	Assurance	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
41	The provincial health department has capacitated the hospital to provide high quality care	-2	-1	0	1	2
42	The hospital is well managed	-2	-1	0	1	2
43	The nursing staff are well trained	-2	-1	0	1	2
44	The nursing staff are courteous	-2	-1	0	1	2

At this hospital...?

Question	Empathy	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
45	The hospital respected my privacy	-2	-1	0	1	2
46	A doctor who treated me was polite	-2	-1	0	1	2
47	The nursing staff were not too busy to assist me when asked	-2	-1	0	1	2
48	The nursing staff gave me personal attention	-2	-1	0	1	2
49	The nursing staff listened to my problems	-2	-1	0	1	2

ADDENDUM 3: REDRAFTED QUESTIONNAIRE (AFRIKAANS)**CLIENT SATISFACTION SURVEY QUESTIONNAIRE****AFRIKAANS**

Datum (15-Aug-2015)	
Inpatient lokaal (Mans saal)	
Persoon nommer (1,2,3...)	
Taal (English, Afrikaans, other)	

Vraag	Vraag	Variable	Kode
1	Wat is die naam van die fasiliteit?	Stellenbosch Hospitaal	s
		Victoria Hospitaal	v
		Hermaus Hospitaal	a
2	Wat is jou ouderdom?		Value
3	Wat is jou geslag?	Manlik	m
		Vroulik	f
4	Het jy mediese dekking?	Versekering	y
		Onversekering	n
5	Wat is jou hoogste kwalifikasie?	Party primere skool	p
		Party hoeskool	h
		Matriek	m
		Diploma	d
		Graad	g

Elke verklaring is gemeet op n vyf put Likert skaal met die opskrif Sterk Nie Instem (-2) and Sterk Instem (2). TDie tussen punte se opskrif is Nie Instem (-1), Onseker (0), Instem (1)

Instruksies:

Die ondervraer moet aandui wat die antwoord op elke vraag is:

- Deur n sirkel te trek om die -2 om Sterk Nie Instem aan te dui.
- Deur n sirkel te trek om die 2 om Sterk Instem aan te dui.
- Deur n sirkel te trek tussen -2 en 2 om die tussen stem ann te dui.
- Deur n sirkel te trek om 0 om onsekerheid aan te dui.
- Die respondent kan nie n reg of verkeerd antwoord gee.

Verwagting afdeling

In n uitnemende hospitaal...?

Vraag	Tangibles	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
6	Die hospital sal goed instand wees	-2	-1	0	1	2
7	Die hospitaal en die sale sal skoon en netjies wees	-2	-1	0	1	2
8	The mediese toerusting in die saal sal werk	-2	-1	0	1	2
9	The univorms van die verpleegsters sal skoon en netjies wees	-2	-1	0	1	2

In n uitnemende hospitaal...?

Vraag	Reliability	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
10	Die sorg sal meer wees as wat n pasient verwag	-2	-1	0	1	2
11	Die toilet en wasbakke sal werk wanneer die pasient dit gebruik	-2	-1	0	1	2

12	Die dokter sal gereelde ronde doen om die pasiënt se kondisie te waarneem	-2	-1	0	1	2
13	Die pasiënt sal sy medikasie op die regte tye kry	-2	-1	0	1	2
14	Die verpleegsters sal die pasiënt se kondisie gereeld waarneem	-2	-1	0	1	2

In n uitnemende hospitaal...?

Vraag	Responsiveness	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
15	Administrasie sal die pasiënt se mediese rekords kan trek sonder enige vertraging	-2	-1	0	1	2
16	Daar sal geen vertraging in die Administratiewe proses met inname wees	-2	-1	0	1	2
17	Op inname, sal Administrasie die pasiënt kan inlig of enige fooie gehef word	-2	-1	0	1	2
18	Die dokter sal die pasiënt kan inneem in die hospitaal sonder enige vertraging	-2	-1	0	1	2

In n uitnemende hospitaal...?

Vraag	Assurance	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
19	Die provinsiale gesondheids afdeling sal die hospitaal in staat stel om hoe kwaliteit sorg te lewer	-2	-1	0	1	2
20	Die hospitaal sal onder goeie bestuur wees	-2	-1	0	1	2
21	Die verpleegsters sal goed opgelei wees	-2	-1	0	1	2
22	Die verpleegsters sal beskaafd wees	-2	-1	0	1	2

In n uitnemende hospitaal...?

Vraag	Empathy	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
23	Die hospitaal sal die privaatheid van die pasiënt respekteer	-2	-1	0	1	2
24	Die dokter wie die pasiënt behandel sal goed gesind wees	-2	-1	0	1	2
25	Die verpleegsters sal nie te besig wees om die pasiënt te help as gevra	-2	-1	0	1	2
26	Die verpleegsters sal die pasiënt persoonlike aandag gee	-2	-1	0	1	2
27	Die verpleegsters sal luister na die pasiënt se probleme	-2	-1	0	1	2

Persepsie afdeling*By die hospitaal...?*

Vraag	Tangibles	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
28	Die hospitaal is goed instand gehou	-2	-1	0	1	2
29	Die hospitaal en die sale is skoon en netjies	-2	-1	0	1	2
30	The mediese toerusting in die saal werk	-2	-1	0	1	2
31	The uniforms van die verpleegsters is skoon en netjies	-2	-1	0	1	2

By die hospitaal...?

Vraag	Nie Saamstem	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
32	Die sorg is meer as wat ek verwag het	-2	-1	0	1	2
33	Die toilet en wasbakke werk wanneer ek dit gebruik	-2	-1	0	1	2

34	Die dokter doen gereelde ronde on my kondisie te waarneem	-2	-1	0	1	2
35	Ek kry my medikasie op die regte tye	-2	-1	0	1	2
36	Die verpleegsters hou waarneming oor my my kondisie	-2	-1	0	1	2

By die hospitaal...?

Vraag	Responsiveness	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
37	Administrasie het my mediese rekords getrek sonder enige vertraging	-2	-1	0	1	2
38	Daar was geen vertraging in die Administratiewe proses met inname	-2	-1	0	1	2
39	Op inname, Administrasie kon my inlig of enige fooie gehef is	-2	-1	0	1	2
40	Die dokter kon my inneem in die hospital sonder enige vertraging	-2	-1	0	1	2

By die hospitaal...?

Vraag	Assurance	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
41	Die provinsiale gesondheids afdeling het die hospitaal in staat gestel om hoe kwaliteit sorg te lewer	-2	-1	0	1	2
42	Die hospital is onder goeie bestuur	-2	-1	0	1	2
43	Die verpleegsters is goed opgelei	-2	-1	0	1	2
44	Die verpleegsters is beskaafd	-2	-1	0	1	2

By die hospitaal...?

Vraag	Empathy	Sterk Nie Instem	Nie Instem	Onseker	Instem	Sterk Instem
45	Die hospital respekteer my privaatheid	-2	-1	0	1	2

46	Die dokter wie my behandel is goed gesind	-2	-1	0	1	2
47	Die verpleegsters is nie te besig om my te help as ek vra	-2	-1	0	1	2
48	Die verpleegsters gee my persoonlike aandag	-2	-1	0	1	2
49	Die verpleegsters luister na my probleme	-2	-1	0	1	2

ADDENDUM 4: CONSENT TO PARTICIPATE IN RESEARCH FORM



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STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

Health Service Delivery in the Western Cape: A Measurement of Perceptions

You are asked to participate in a research study conducted by F Whitford, HonsBPA, from the School of Public Leadership at Stellenbosch University. The results of the research will contribute to the completion of a thesis on patient perceptions at hospitals. You were selected as a possible participant in this study because you were admitted to this hospital and would have experienced what the facility has to offer and the manner in which the staff care for patients.

1. PURPOSE OF THE STUDY

To measure the service quality perceptions of hospital patients in the Western Cape

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

1. Provide the researcher with the following biographical details: age, gender, medical cover status, and education status.
2. Answer the questions posed by the researcher who will complete the research questionnaire in an open and honest manner.

3. Ask for an explanation if any questions are unclear or difficult to understand, before answering.
4. Feel free to terminate the interview if any questions are considered too personal or they compromise your privacy.
5. After the interview, feel free to offer your opinion of the interview process.

Your participation in the study is subject to the following:

1. You were randomly selected from all the patients admitted to the hospital.
2. The interview should not take more than ten minutes for your time.
3. Your interview is a once-off process and will not be repeated.
4. The hospital staff will indicate where you will be interviewed in the hospital.

3. POTENTIAL RISKS AND DISCOMFORTS

There will be no medical or emotional risk to you, if you take part in the survey. You are not required to discuss any matter other than your perceptions of service quality as outlined in the questionnaire. Your response will be confidential and will not prejudice you or the staff of the hospital.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

You will not receive any direct benefit by taking part in the study. However, the results of the study will enable recommendations to be made to the provincial health department on how to achieve a better patient experience.

5. CONFIDENTIALITY

Any information that is obtained in connection with this study will remain confidential as required by law. Confidentiality of research data will be maintained by means of secure storage on a database with reasonable network and folder security loaded. Data will be coded by the investigator using official forms from the University and data will be processed by the Statistical Unit at the university.

If at any time information is disclosed to a third party, the disclosure will be meet the requirements set by the university.

No activity related to the study will be audio- or videotaped.

The results of the study will be published in a report under the copyright of the University.

6. PARTICIPATION AND WITHDRAWAL

You are free to choose whether or not to participate in this study and to withdraw at any time without any consequences. Your participation is anonymous and you may also refuse to answer some questions and still remain in the study.

The investigator may exit the interview if circumstances arise which warrant doing so.

7. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the investigator or the study, please feel free to contact Prof. Erwin Schwella at the School of Public Leadership, Stellenbosch University, at (021) 918 4122.

8. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent to participate in the study at any time and without any penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE
--

The information above was described to me by F Whitford in English/Afrikaans and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

Name of Subject/Participant

Name of Legal Representative (if applicable)

Signature of Subject/Participant or Legal Representative

Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the subject/participant*] and/or [his/her] representative _____ [*name of the representative*]. [*He/she*] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/*English/*Xhosa/*Other*] and [*no translator was used/this conversation was translated into _____ by _____*].

Signature of Investigator

Date

ADDENDUM 5: STELLENBOSCH UNIVERISTY HUMANITIES ETHICS APPROVAL (1)

Approved with Stipulations

New Application

17-Nov-2014

WHITFORD, Frederick John

Proposal #: DESC/Whitford/Nov2014/15

Title: Health Service Delivery in the Western Cape: A measurement of perceptions

Dear Mr Frederick WHITFORD,

Your **New Application** received on **06-Nov-2014**, was reviewed

Please note the following information about your approved research proposal:

Proposal Approval Period: **13-Nov-2014 -12-Nov-2015**

The following stipulations are relevant to the approval of your project and must be adhered to:

Regarding the informed consent form:

The researcher should re-draft the consent form in the second person, addressing the prospective participants in simple, friendly language at a Grade 7 to 8 reading level. Please rephrase or avoid all technical terms throughout this document. Kindly submit the revised informed consent form to the DESC and REC for review and approval.

Please provide a letter of response to all the points raised IN ADDITION to HIGHLIGHTING or using the TRACK CHANGES function to indicate ALL the corrections/amendments of ALL DOCUMENTS clearly in order to allow rapid scrutiny and appraisal.

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number (DESC/Whitford/Nov2014/15)** on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number REC-050411-032.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at 218089183.

Included Documents:

Informed consent form

DESC application

Research proposal

WCDoh request for permission

Questionnaire

Sincerely,

Clarissa Graham
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities

Protection of Human Research Participants

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.
2. Participant Enrollment. You may not recruit or enroll participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.
3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.
4. Continuing Review. The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period**. Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur**. If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.
5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.
6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouch within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.
7. Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC
8. Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.
9. Final reports. When you have completed (no further participant enrollment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.
10. On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.

ADDENDUM 6: STELLENBOSCH UNIVERISTY HUMANITIES ETHICS APPROVAL (2)



UNIVERSITEIT-STELLENBOSCH-UNIVERSITY
Jou kennisvenoot - your knowledge partner

Approval Notice Stipulated documents/requirements

01-Dec-2014

WHITEFORD, Nicolaïk John

Proposal #: D/EC/Whiteford/Nov2014/15

Title: Health Service Delivery in the Western Cape: A measurement of perceptions

Dear Mr Nicolaïk WHITEFORD,

Your Stipulated documents/requirements received on 17-Nov-2014, was reviewed
Sincerely,

Christa Graham

REC Coordinator

Research Ethics Committee: Human Research (Research)

ADDENDUM 7: WC HEALTH APPROVAL TO ACCESS HOSPITALS (1)



STRATEGY & HEALTH SUPPORT
Health.Research@westerncape.gov.za
tel: +27 21 483 6857; fax: +27 21 483 9895
5th Floor, Norton Rose House, 8 Rebeek Street, Cape Town, 8001
www.westerncape.gov.za

REFERENCE: 2014RP141
ENQUIRIES: Ms Charlene Roderick

PO Box 12736
Queenswood
Pretoria

For attention: Mr F Whitford

Re: HEALTH SERVICE DELIVERY IN THE WESTERN CAPE: A MEASUREMENT OF PERCEPTIONS.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact the following people to assist you with any further enquiries in accessing the following sites:

Victoria Hospital	M Moodley	Contact No. 021 799 1234
Robertson Hospital	D Lunnon	Contact No. 023 626 8566
Hermanus Hospital	E Mostert	Contact No. 028 312 1166
Montagu Hospital	D Lunnon	Contact No. 023 626 8566

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final report within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
3. The reference number above should be quoted in all future correspondence.

Yours sincerely

DR A HAWKRIDGE
DIRECTOR: HEALTH IMPACT ASSESSMENT

DATE: 13/3/2015
CC K GRAMMER

DIRECTOR: SOUTHERN/ WESTERN

ADDENDUM 8: WC HEALTH APPROVAL TO ACCESS HOSPITALS (2)



STRATEGY & HEALTH SUPPORT

Health.Research@westerncape.gov.za
tel: +27 21 483 6857; fax: +27 21 483 9895
5th Floor, Norton Rose House, 8 Riebeeck Street, Cape Town, 8001
www.westerncape.gov.za

REFERENCE: 2014RP141
ENQUIRIES: Ms Charlene Roderick

PO Box 12736
Queenswood
Pretoria

For attention: Mr F Whitford

Re: HEALTH SERVICE DELIVERY IN THE WESTERN CAPE: A MEASUREMENT OF PERCEPTIONS.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact the following people to assist you with any further enquiries in accessing the following sites:

Stellenbosch S Neethling Contact No. 023 348 8120

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final report within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
3. The reference number above should be quoted in all future correspondence.

Yours sincerely

DR A HAWKRIDGE
DIRECTOR: HEALTH IMPACT ASSESSMENT
DATE: 31/7/2015.
CC L PHILLIPS

DIRECTOR: CAPE WINLANDS

ADDENDUM 9: CLASSIFICATION OF FACILITIES

1. **Clinic**
Is a permanent structure offering a range of Primary Healthcare (PHC) services, at least eight hours a day, four days a week.
2. **Satellite Clinic**
Is a permanent structure where one or more rooms are equipped to provide PHC services, at least eight hours a day, four days a week.
3. **Community Day Centre**
Is a permanent facility offering a broad range of PHC services, including accident and emergency services, but excluding midwifery and surgery under general anaesthesia. It is not a 24-hour facility.
4. **Community Health Centre**
Is a permanent facility offering a broad range of PHC services on a 24-hour basis, including accident and emergency and midwifery, but excluding surgery under general anaesthesia.
5. **Specialised Health Centre (SHC)**
Is a facility offering specialised care to a specific group of patients. A Maternal Obstetric Unit is a common SHC.
6. **District Hospital (Level 1 Hospital)**
Is a facility offering inpatient and outpatient services within the scope of general practitioners. The facility has operating theatres where surgery under general anaesthesia is performed.
7. **Regional Hospital (Level 2 Hospital)**
Is a facility where care is provided by medical practitioners and specialists. The specialist care would be in surgery, medicine, orthopaedics, paediatrics, obstetrics, gynaecology and psychiatry.
8. **Tertiary Hospital (Level 3 Hospital)**
In addition to the services offered at a regional hospital, the tertiary hospital offers intensive care services, receives referrals from regional hospitals and is not limited by provincial boundaries.
9. **National Central Hospital (Level 3 Hospital)**
In addition to the services provided by tertiary hospitals, the central hospital provides central and national referral services. A central hospital is attached to a medical school and is a research centre.
10. **Specialised Hospital**
Is a hospital focused on one or more specialities, for instance psychiatry and TB.

(Source: HST Audit, 2012)