DETERMINATION OF PATIENT SATISFACTION AT ACCREDITED ANTIRETROVIRALTREATMENT SITES IN THE GERT SIBANDE DISTRICT, MPUMALANGA PROVINCE

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DECLARATION

"I, Damilola Akinkunle Ogunsanwo, hereby declare that the work on which this thesis is based, is original (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or shall be submitted for another degree at this or any other university, institution for tertiary education or examining body".

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Signature *Date*

DEDICATION

This piece of work is hereby dedicated to my lovely wife Oluwatoyin Ogunsanwo (Jewel) who stood by me even at the most difficult times during the period of my data collection. I love you; and my baby boy Oluwatofe Ogunsanwo, who was born during the period of my data collection; daddy loves you a great deal;

To God with whom all things are possible, for His watch over me during the various trips I had to make during the period of study for this work.

To Him be all the glory.

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Treatment
ARV	Antiretroviral
CCMT	Comprehensive Care for HIV Management and Treatment
CD4	Cluster of Differentiation 4, a glycoprotein that is found primarily on the surface of helper T cells
CDC	Centre for Disease Control and Prevention
CHC	Community Health Centre
DHIS	District Health Information System
DoH	Department of Health
DTI	Department of Trade and Industry
HCT	HIV Consulting and Testing
HIV	Human Immuno-deficiency Virus
KZN	KwaZulu Natal
MDoH	Mpumalanga Department of Health
MREC	Medunsa Research and Ethics Committee
NGO	Non Governmental Organisation
NSP	National Strategic Plan
PEPFAR	President's Emergency Plan for AIDS Relief
PHC	Primary Health Care
SERVQUAL	Service Quality
SLA	Stavudine Lamivudine Aluvia
SLE	Stavudine Lamivudine Efavirenz
SLN	Stavudine Lamivudine Nevirapine
STI	Sexually Transmitted Infection
TB	Tuberculosis
TLA	Tenofovir Lamivudine Aluvia
TLE	Tenofovir Lamivudine Efavirenz
TLN	Tenofovir Lamivudine Nevirapine
TQM	Total Quality Management
UNAIDS	United Nations Agency for International Development
USAID	United States Agency for International Development

VCT	Voluntary Counseling and Testing
WHO	World Health Organisation
ZDA	Zidovudine Didanosine Aluvia
ZLA	Zidovudine Lamivudine Aluvia
ZLE	Zidovudine Lamivudine Efavirenz
ZLN	Zidovudine Lamivudine Nevirapine

ABSTRACT

Introduction: Although high levels of patient satisfaction are important for a successful strategy against HIV and AIDS, research into patient satisfaction with healthcare services in general, and with antiretroviral treatment (ART) services in particular, has been limited in South Africa. The aim of this study was to determine patient satisfaction at accredited ART sites in the Gert Sibande District.

Method: Six hospitals initiating ART in the district participated in the study. The study was conducted using a sample of 300 patients. Proportional random sampling was used in selecting the number of patients from each facility. The first available required number of patients (sample of convenience) from each of the six hospitals that were over 18 years of age and received ART for at least four months who were willing to participate in the study completed the questionnaire. Descriptive statistics was used to analyse data and responses to categorical variables were summarised as frequency counts and percentages. Results were presented as tables, figures and graphs.

Results: The overall satisfaction of patients measured in this study was very high (97.6% satisfied) with respect to the general ART care provided by the facilities. The major factors contributing to satisfaction included the availability of medicines, knowledge on how to take medication and general satisfaction with the healthcare providers. The major factors contributing to dissatisfaction made by seven respondents included long waiting periods, shortage of staff and dirty toilets.

Conclusion: This study indicated general satisfaction of patients attending ART sites in the Gert Sibande District Municipality.

Recommendations: Based on the results of the study, it is recommended that healthcare service providers continually capture, measure and evaluate patient satisfaction through a range of agreed mechanisms such as administration of questionnaires to patients on a quarterly basis and patient feedback should be recognised as a legitimate method of evaluating health services. Provincial Performance Indicator(s) that measure compliance with minimum service standards

specific for all ART sites in the province should be developed and monitored. A long term strategy to address the critical shortage of healthcare professionals should be developed by provincial policy makers which will in the long run reduce long waiting times experienced by our clients.

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

This chapter presents the background and rationale for the study followed by the problem statement. The aim and objectives of the study as well as the significance of the study will also be explained.

1.2 BACKGROUND AND RATIONALE FOR THE STUDY

In the past decade, patient satisfaction has become an important performance and outcome measure of health care (Moret, Nguyen, Pillet, Faissard, Lombrail & Gasquet, 2007). Although high levels of patient satisfaction are important for a successful strategy against Human Immuno-deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS), research into patient satisfaction with health care services in general, and with antiretroviral treatment (ART) services in particular, has been limited in South Africa (Myburgh, Solanki, Smith & Lalloo, 2005).

In a weakened healthcare system, it is even more crucial to ensure a high quality of care and patient satisfaction to maximise the benefits of scarce resources. In addition, patient views on the quality of public sector antiretroviral (ARV) care are relatively unexplored (Igumbor, 2003; Myburgh et al., 2005). The assessment of satisfaction among hospitalised patients is increasingly recognised as a major component of quality management in patient care. Continuous quality improvement, comparison of hospital performances and demands for accountability are some of the reasons that lead hospitals to measure patient satisfaction (Ross, Steward & Sinacore, 1995).

As has been observed in many industrialised countries, the provision of ART via public health systems, can transform AIDS from a fast, insidious killer into a more manageable, though still incurable, chronic illness (Abdool Karim, 2005). However, in resource-limited settings, there are many challenges in successfully scaling-up ART and reorienting service delivery towards chronic disease care. Shortages in human resources for healthcare are often cited as the most important obstacle to a

successful treatment scale-up (Schneider, 2006; Chen, 2005 & Marchal, 2005). HIV/AIDS further fuels the absolute shortages of health workers in sub-Saharan and Southern Africa (Diaz, 2005; Kober, 2004 & van Damme, 2006). The large numbers of eligible patients and the labour-intensive public-sector ART programme overstretch the health system and overburden health staff (Chen, 2005; Marchal, 2005 & Dieleman, 2007). This is also the case in South Africa and the Free State Province (van Rensburg, 2006 & Steyn, 2006).

The Gert Sibande District has a HIV prevalence rate of 40.5%, which is the highest in the Mpumalanga Province. The HIV statistics for the Gert Sibande District for patients receiving ART up to November 2011 was 32,979 patients (Gert Sibande Health District Report, 2011). All Primary Health Care (PHC) and Community Health Centres (CHCs) in the district have been prepared for ART readiness by the provincial government since April 2010. This was in response to the World AIDS Day's proclamation in December 2009 by President Jacob Zuma, which stated that all HIV positive patients including pregnant women and TB-HIV co-infected patients with CD4 count of 350 cells/mm^3 and below are to receive treatment (UNAIDS, 2010a). However, this has been met with serious challenges such as the availability of staff and inadequate training.

This type of the study has never been carried out in the Gert Sibande District before. The aim of this study therefore was to determine patient satisfaction at accredited ART sites in the Gert Sibande District. The results of this study will be used to improve the quality of service at these accredited ART sites.

1.3 PROBLEM STATEMENT

Due to high prevalence of HIV/AIDS throughout the country, the health care system is overloaded. The Gert Sibande District is currently facing major challenges such as access to treatment, the slow pace of the ARV rollout, stock-outs of essential medicines and shortage of human resources. Any one or a combination of these challenges could cause the patient not to be satisfied with the services rendered at antiretroviral sites.

1.4 RESEARCH QUESTION

Are patients satisfied with services provided at accredited ART sites in the Gert Sibande District?

1.5 AIM

To determine patient satisfaction with regards to the Antiretroviral Treatment (ART) services in the Gert Sibande District, Mpumalanga Province.

1.6 OBJECTIVES

The objectives of the study were:

1. To determine if patients were satisfied or dissatisfied with services rendered at accredited ART sites in the Gert Sibande District in Mpumalanga.
2. To determine the factors associated with satisfaction of patients with regards to the Antiretroviral Treatment (ART) services in the Gert Sibande District in Mpumalanga.
3. To determine the factors associated with dissatisfaction of patients with regards to the Antiretroviral Treatment (ART) services in the Gert Sibande District in Mpumalanga.

1.7 SIGNIFICANCE OF THE STUDY

Patient satisfaction is a critical variable in any calculation of quality or value and therefore in the assessment of corporate/individual accountability. It is a legitimate and important measure of quality of care. Giving the patient an opportunity to voice their opinions about the care they receive can be seen as part of a broader commitment to public and patient participation in healthcare service planning and delivery.

The intention of the information provided in this study was to assist in the establishment of proper intervention strategies in improving the quality of service provided at the ART accredited sites in the Gert Sibande District and the province in general, which is envisaged to have a significant positive impact on the lives of patients.

1.8 SUMMARY

The introductory chapter explained the background and rational for the study, problem statement, research question, purpose of the study and significance of the study. The literature review follows in Chapter 2 and it cites and explains what has been done in this field of study.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, the literature review will focus on previous studies of authors which are relevant to the area of study. In addition, research studies that have contributed in a manner similar to the dissertation are cited.

2.2 THE GERT SIBANDE DISTRICT AND GENERAL WORLDWIDE STATISTICS

The Gert Sibande District Municipality is one of the three district municipalities in Mpumalanga Province and is situated in the eastern boundary of Mpumalanga. The Gert Sibande District Municipality comprises of an area of approximately 31 842km². It is mainly rural, with deep rural pockets where communities cannot access health services. It is characterised by poor road infrastructure which are currently being reconstructed and some are inaccessible during rainy season which contributes to compromised health service delivery in some rural areas. Gert Sibande is demarcated into seven sub- districts / municipal areas namely: Albert Luthuli, Dipaleseng, Govan Mbeki, Lekwa, Mkhondo, Msukaligwa and Pixley Ka Seme (Mpumalanga Department of Health, 2010).

The area is 61% rural and 39% urban. The total population in Gert Sibande is 943,137. Eighty six percent i.e. (811,098) of the population does not have medical insurance and as such, are dependent on the Department of Health for healthcare service delivery. It is estimated that at least 33% of the inhabitants of Gert Sibande are not employed. Gert Sibande district shares the borders with Swaziland in the East, KwaZulu Natal Province in the South, Free State Province in the West and Gauteng Province in the North. These borders affect the population size as there is in and out migration, which affects the district's performance outcomes. The district is characterised by vast farming areas. The main economic activity is mining, power stations and the major industry is Sasol Synthetic fuels in Govan Mbeki sub district. This area has the highest population in the district and draws a lot of migrant labour from other provinces and neighbouring countries. These characteristics of the district

pose a challenge to TB control as continuity of care cannot be guaranteed with the high migration of people (MDoH, 2010). The Gert Sibande District Municipality has five district hospitals and one regional hospital that are accredited ART sites (Department of Health, 2008).

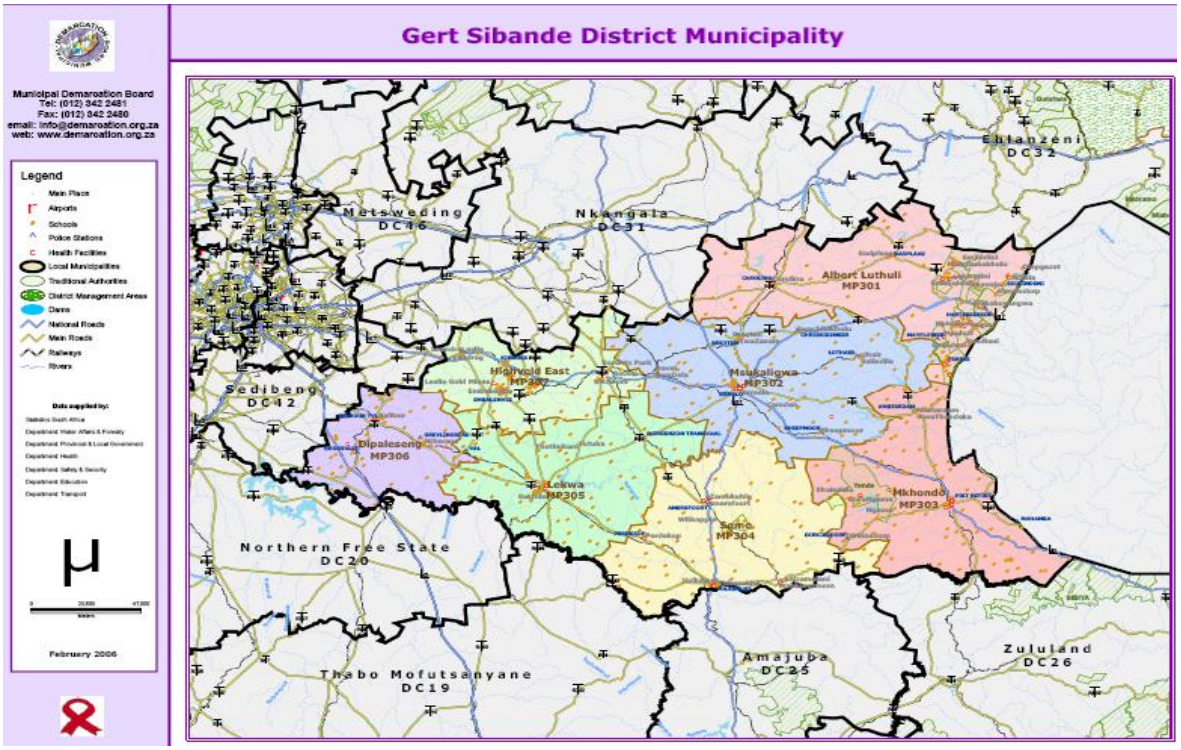

Figure 2.1: Map of Gert Sibande District.
(Source MDoH-DHIS 2010)

Figure 2.2: Map of Msukaligwa Local Municipality

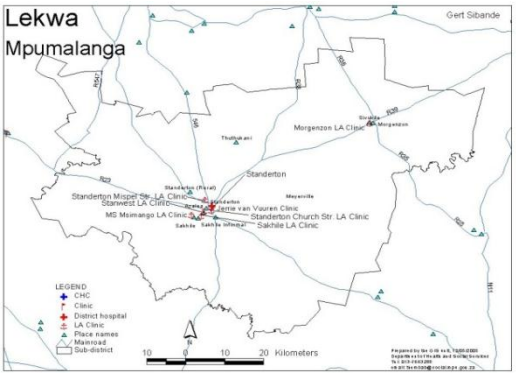

Figure 2.3: Map of Lekwa Local Municipality

Figure 2.4: Map of Govan Mbeki Local Municipality

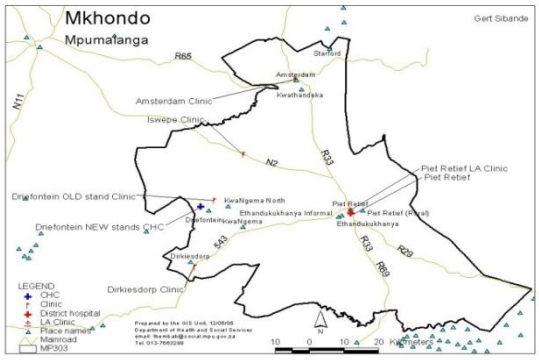

Figure 2.5: Map of Mkhondo Local Municipality

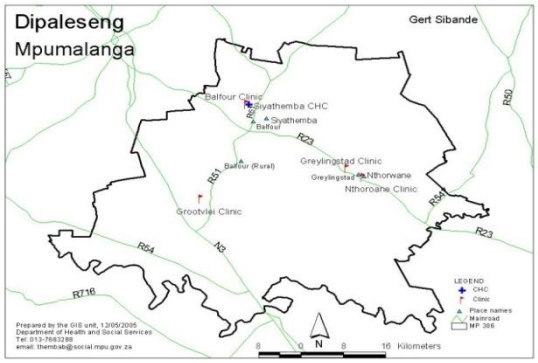

Figure 2.6: Map of Dipaleseng Local Municipality

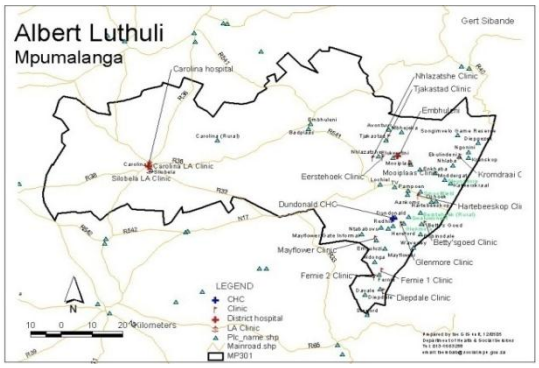

Figure 2.7: Map of Albert Luthuli Local Municipality

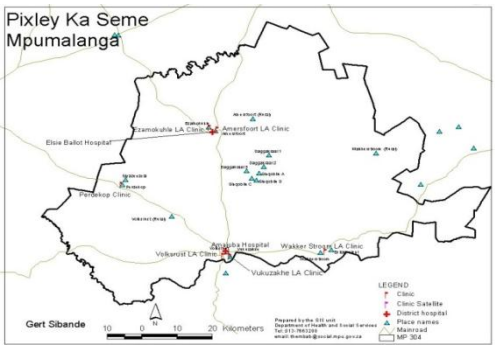

Fig 2.8: Map of Pixley Ka Seme Local Municipality

(Source MDoH-DHIS 2010)

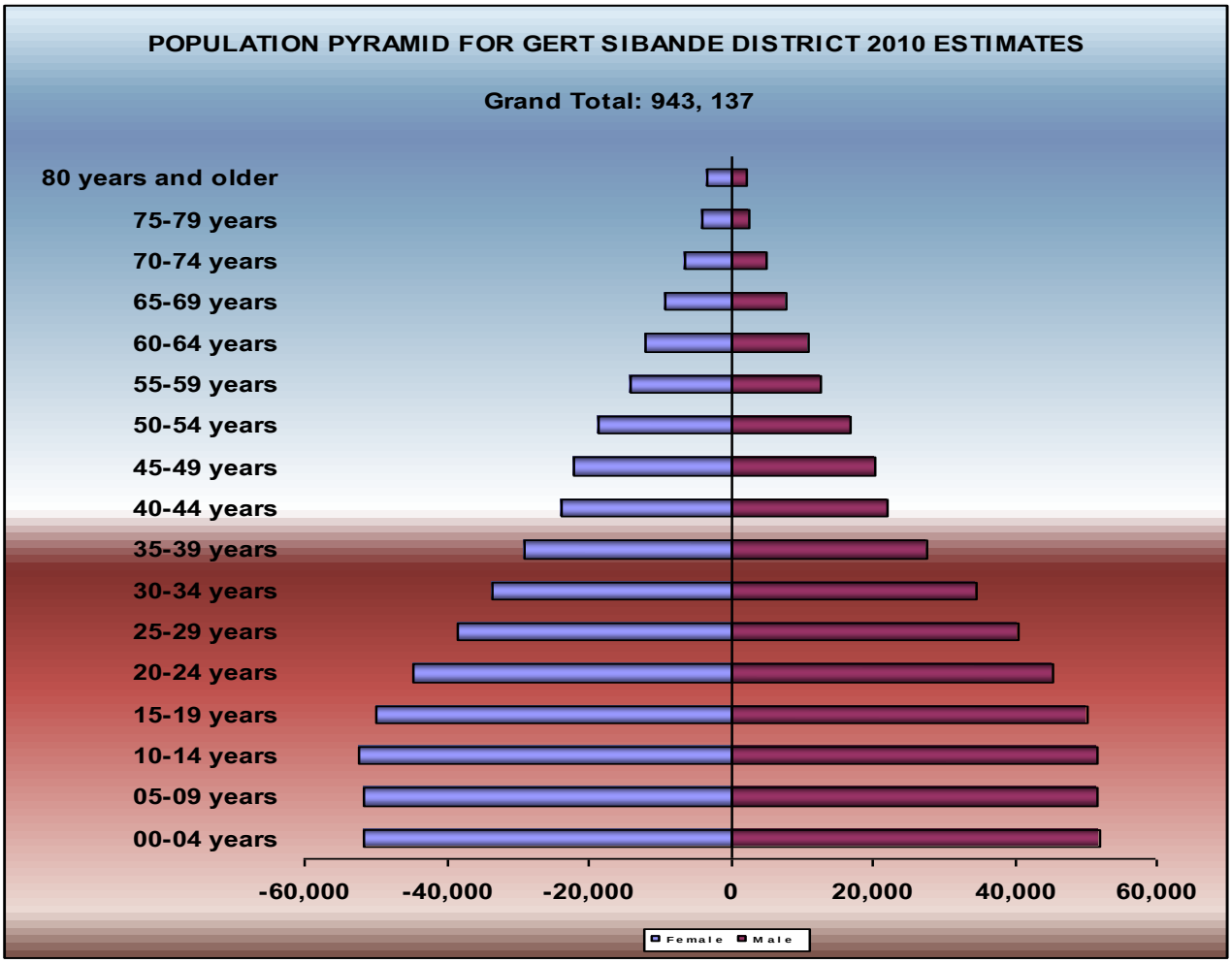

Figure 2.9: Major population demographic characteristics (Female-blue; Male-red) (Source DHIS mid- year estimates 2010)

According to the population pyramid shown in figure 2.9, there are more females than males in the Gert Sibande District. The base of the pyramid is broad indicating that the district was over populated with young people and children, therefore the school going age. The high number of teenagers requires the district to focus on specific health services for the youth which include Youth Friendly Services, reproductive health services, prevention and treatment of Sexually Transmitted Infection's (STI),Voluntary Counselling and Testing (VCT), and school health services (MDoH, 2010).

The graph narrows as it gets to the top of the pyramid, indicating that from age 20-24yrs there was a decrease in the population which is influenced by lack of tertiary education and unemployment. This is seen as a contributory factor to the high prevalence of HIV, STIs and low partner treatment rates. There are very few elderly people in the district, due to the declining life expectancy and migration (MDoH, 2010).

In 2010, the number of people living with HIV worldwide continued to grow reaching an estimated 34 million (30.9 million–36.9 million), up from 33.3 million (31.4 million–35.3 million) in 2009. As of December 2010, approximately 6.6 million people in low- and middle-income countries were receiving antiretroviral therapy, an increase of 1.4 million from the previous year and nearly a 22-fold increase since 2001. Despite these dramatic gains in treatment access, nine million people who were eligible for treatment were not receiving it as of December 2010 (UNAIDS, 2011).

Despite the overall decrease in the number of new infections, there were still an estimated 2.6 million (2.3 million–2.8 million) people who became newly infected with HIV in 2009. Although important progress has been achieved in preventing new HIV infections and in lowering the annual number of AIDS-related deaths, the number of people living with HIV continues to increase. AIDS-related illnesses remain one of the leading causes of death globally and are projected to continue as a significant global cause of premature mortality in the coming decades (www.hopeinview.org-23-11-2011). Although AIDS is no longer a new syndrome, global solidarity in the AIDS response will remain a necessity (UNAIDS, 2009).

HIV/AIDS is a pandemic that affects all communities around the globe, especially sub-Saharan Africa. In sub-Saharan Africa, where the majority of new HIV infections continue to occur, an estimated 1.8 million (1.6 million–2.0 million) people became infected in 2009; considerably lower than the estimated 2.2 million (1.9 million–2.4 million) people in sub-Saharan Africa newly infected with HIV in 2001(UNAIDS, 2010). Sub-Saharan Africa remains the region most heavily affected by HIV. It accounted for 68% of HIV infections worldwide, 69% of new HIV infections among adults and children and 72% of the world's AIDS-related deaths at the end of 2009. This trend reflects a combination of factors, including the impact of HIV prevention efforts and the natural course of HIV epidemics (UNAIDS, 2010b).

The epidemic diseases in sub-Saharan Africa vary considerably, with Southern Africa still the most severely affected. An estimated 11.3 million (10.6 million–11.9 million) people were living with HIV in Southern Africa in 2009, nearly one third (31%) more than the 8.6 million (8.2 million–9.1 million) people living with HIV in the region a decade earlier (UNAIDS, 2010b). The nine countries with the highest HIV

prevalence worldwide are allocated in the sub-region, with each of these countries experiencing adult HIV prevalence greater than 10%. With an estimated adult HIV prevalence of 25.9% (24.9%-27%) in 2009, Swaziland has the most severe level of infection in the world (UNAIDS, 2010b). The severity of the epidemic is closely linked to the region's poverty, low status of women, and other socio-economic factors. Even with the knowledge of how to protect oneself from infection, such information may not always be usable in daily situations of economic and social disadvantage that characterise the lives of many young people in poor countries (UNAIDS, 2008).

According to Mngadi et al. *(*2009), Swaziland spent 17% of total expenditures in 2008 to support HIV prevention programmes. Botswana has an adult HIV prevalence of 24%, with some evidence of a decline in prevalence in urban areas (UNAIDS, 2008). Lesotho's epidemic also appears to have stabilised, with an adult HIV prevalence of 23.2% in 2008 (Khobotlo, Tshehlo, Nkonyana & Ramoseme*,* 2009).

South Africa has the largest number of people living with HIV (5.7million) in the world (WHO/UNAIDS, 2009). The UNAIDS (2009) Global Report on Epidemic Update, estimated that in 2008, 310 000 people died from AIDS in South Africa. In South Africa, the Mpumalanga Province is ranked number second after KwaZulu Natal (KZN) in terms of HIV and AIDS prevalence (MDoH, 2010). It was estimated that about 10% of the overall population in the Mpumalanga Province live with HIV and AIDS. The Gert Sibande District has an HIV prevalence rate of 40.5%, which is the highest in Mpumalanga Province and has resulted into the Provincial HIV Counselling and Testing (HCT) launch campaign in the Lekwa sub-district. The HCT campaign was further rolled out to all the Sub-districts and would continue until June 2011(MDoH, 2010).

2.3 BEHAVIOUR CHANGE AND INCREASED COMPREHENSIVE CORRECT KNOWLEDGE REDUCES HIV INCIDENCE AND PREVALENCE IN MOST COUNTRIES WITH HIGH HIV PREVALENCE

The comprehensive and correct knowledge about HIV among both young men and women globally has increased slightly since 2003. Ten countries have achieved comprehensive correct knowledge levels above 60% for either men or women 15–24

years old including Namibia and Liberia from sub-Saharan Africa. Less than half of young people living in 15 of the 25 countries with the highest HIV prevalence can correctly answer five basic questions about HIV and its transmission (these include Botswana, Burundi, Cameroon, Central African Republic, Chad, Congo, Cote d'Ivoire, Guinea-Bissau, Kenya, Malawi, Nigeria, South Africa, Togo, United Republic of Tanzania and Zambia). Young people of ages 15–24 years old, showed gradually improving knowledge about HIV in these 25 countries but still fall short of the global targets (90%) for comprehensive knowledge set in 2001(UNAIDS, 2010b).

2.4 IMPACT OF INCREASED ACCESS TO TREATMENT ON EPIDEMIOLOGICAL TRENDS

There has been an unprecedented increase in access to HIV treatment this decade in resource-limited settings where antiretroviral medications were previously unavailable. According to a report by UNAIDS (2011) on global AIDS response, investments in the HIV response in low- and middle-income countries rose nearly 10-fold between 2001 and 2009, from $1.6 billion to $15.9 billion. However, in 2010, international resources for HIV declined (UNAIDS, 2011).

Advances toward universal access to treatment, care and support services were a significant achievement in 2009, especially given the considerable challenges that accompanied the flattening of global funding for HIV programmes in low- and middle-income countries. More people are receiving ART in all regions of the world than at any previous time in the epidemic. However, progress toward universal access goals remained mixed, with substantially greater gains in some settings and on certain aspects of treatment, care, and support than in others (WHO, 2011; UNAIDS, 2010 & USAID, 2011).

An estimated 5.2 million people in low- and middle income countries were receiving ART at the end of December 2009 which represented an increase of 1.2 million people, or 30%, over the number receiving such treatment 12 months earlier (WHO, 2010). Approximately 37% of people eligible for treatment were able to access life-saving medicines in 2009 in sub-Saharan Africa. The increase in the number of people receiving ART in 2009 was virtually even across Eastern Europe (34%), sub-Saharan Africa (33%), Asia (29%) and the Caribbean (30%). Only in Central and

South America (6%), where ART coverage was already high, was the rate of increase in access in 2009 significantly lower (UNAIDS, 2010b).

According to the data submitted by 99 countries, the number of health facilities delivering ART increased by 36% in 2009, and the average number of people receiving ART per health facility rose from 260 in 2008 to 274 in 2009. In 2010, the WHO (2010) issued revised treatment guidelines recommending earlier initiation of ART, at a CD4 count of <350 cells/mm^3. These new criteria increased the total number of people medically eligible for ART by roughly 50% i.e. from 10 million to 15 million in 2009 (WHO, 2010).

According to a report by UNAIDS (2010) on the global AIDS Epidemic, half or more of all adults eligible for treatment (CD4 <350 cells/mm^3) were receiving ART in 29 of the 109 low- and middle-income countries. From eight countries (i.e. Botswana, Cambodia, Croatia, Cuba, Guyana, Namibia, Romania and Rwanda) antiretroviral therapy coverage of 80% or more was achieved (UNAIDS, 2010b).

Eleven countries (Cameroon, Côte d'Ivoire, Ghana, India, Indonesia, Mozambique, South Africa, Ukraine, United Republic of Tanzania, Viet Nam and Zimbabwe) had coverage of less than 40%. Indonesia and Ukraine reported less than 20% of eligible adults receiving ART (UNAIDS, 2010b). In high-income countries where antiretroviral drugs have long been widely available, access to treatment has had an extraordinary impact on HIV-related mortality. In a multicentre study in 12 high income countries, the rate of excess mortality among people living with HIV in comparison with the HIV un-infected population declined by 85% following the introduction of highly-active antiretroviral therapy (Bhaskaran, Hamouda, Sannes, Boufassa, Johnson, Lambert & Porter, 2008).

With the largest ART programme in the world, South Africa is experiencing substantial public health benefits associated with improved treatment access. In the Western Cape Province of South Africa, six-month mortality among patients at an HIV treatment centre fell by roughly half (from 12.7% to 6.6%) between the start of the ART programme in 2001/2002 and 2005 as more patients with less severe

immuno-suppression enrolled (Boulle, Bock, Osler, Cohen , Channing, Hilderbrand , Mothibi, Zweigenthal, Slingers, Cloete & Abdullah, 2008).

Although current estimates of coverage of ART for children are close to those of adults according to WHO/UNAIDS (2009), the provision of ART to children has specific challenges, including the faster progression to AIDS and death, the difficulty of diagnosing HIV in children and the challenges in developing affordable and appropriate antiretroviral regimens for children (UNAIDS, 2008). Advances in several components of HIV treatment for children are now being reflected in epidemiological data. Use of simplified assays on dried blood spots now offers a feasible, cost-effective means of diagnosing HIV in infants and young children (Ou, Yang, Balinandi, Sawadogo & Shanmugam, 2007).

Early diagnosis and early ART were found to reduce infant mortality by 76% and to slow HIV-related disease progression by 75% in two medical centres in South Africa (Violari, Cotton, Gibb, Babiker, Steyn, Madhi & Jean-Philippe, 2008). However, even with the impressive medical outcomes achieved through diagnosis and treatment, mortality within the first months of therapy remains high for HIV-infected children in sub-Saharan Africa (Bolton-Moore, Mubiana-Mbewe & Cantrell, 2007; Bong, Yu, Chiang, Huang & Hsieh, 2007).

Between 2002–2003 and 2004–2006, during which time ART was introduced in the Umkhanyakude district of KwaZulu-Natal province in South Africa, HIV-related mortality among women aged 25–49 in the district fell by 22%, while HIV-related death rates among men declined by 29% (Herbst, Cooke, Bärnighausen, KanyKany, Tanser & Newell, 2009). South Africa has made tremendous strides towards the fight against HIV/AIDS through the National Strategic Plan (NSP) (2007-2011), and the Comprehensive HIV and AIDS Care, Management and Treatment Plan (DoH, 2008). The following goals have been proposed for NSP 2012- 2016:

- Reduce the rate of new HIV infections by 50% by 2016
- Reduce new HIV infections in children by 90% by 2016
- Reduce HIV associated maternal mortality by 50% by 2016
- Improve life expectancy by 5yearsformen and women by 2016

- Ensure access to appropriate treatment, care and support to 90% of all HIV-positive people and their families by 2016
- Ensure early diagnosis and early treatment for TB,STIs and HIV
- Reduce new TB infections to 2010 levels by 2016
- Reduce new drug resistant TB infections by 50% by 2016
- Expand access to TB treatment (including treatment for drug resistant TB)
- Reduce mortality related to HIV and TB by 25% and 50% respectively
- Reduce mother to children transmission of HIV to less than 2% by 2016
- Reduce the psycho social impact of HIV and TB on individuals, families and community
- End all unlawful discrimination related to HIV and TB status and measurably reduce stigma
- Increase the TB cure rate to 85% by 2016 (DOH, 2011)
- Based on the goals of the NSP, there are several key interventions proposed in the NSP 2012-2016:
- HIV testing and TB screening for all South Africans (12 and older) on an annual basis for those with unknown status, or previously tested HIV negative (improved case finding)
- Early diagnosis of HIV and TB
- Early treatment for HIV and TB
- Taking biomedical and behavioural prevention interventions to scale
- Reducing vulnerability to HIV and TB infection

2.5 PATIENT SATISFACTION

Patient satisfaction refers to contentment derived from fulfilment of patient needs after visiting health centres, be they private or public clinics, community health centres or hospitals (Andaleeb, Siddiqui & Khandakar, 2007). According to a report by the Irish Society for Quality and Safety in Healthcare regarding the Health Strategy Implementation Project (2003), satisfaction, like many other psychological concepts, is easy to understand but hard to define. The concept of satisfaction overlaps with similar themes such as happiness, contentment, and quality of life. Satisfaction is not some pre-existing phenomenon waiting to be measured, but a judgment people form over time as they reflect on their experience. A simple and

practical definition of satisfaction would be the degree to which desired goals have been achieved.

Patient satisfaction is an attitude, a person's general orientation towards a total experience of healthcare. Satisfaction comprises both cognitive and emotional facets and relates to previous experiences, expectations and social networks (Keegan et al., 2002).

Meredith and Wood (1995) have described patient satisfaction as *'emergent and fluid'.* It also has been described as a particularly passive form of establishing consumer's views (McIver, 1993). Satisfaction is achieved when the patient's perception of the quality of care and services that they receive in healthcare setting has been positive, satisfying, and meets their expectations. Patient satisfaction is deemed an important outcome measure for health services. In addition, the health care industry defines quality by attending to users' satisfaction (Bodur, Ozdemir & Kara*,* 2002).

Patient satisfaction depends on many patient characteristics such as age, gender, educational level and socio-economic status (Bodur et al*.,* 2002). However, there are various factors that determine, influence, or are associated with satisfaction.
According to the Irish Society for Quality and Safety in Healthcare *(*2003), important factors influencing patients/clients satisfaction included literacy levels, intellectual and physical/sensory disability levels and difficulties with language proficiency or ethnic and cultural diversity. Social elements within our society must be considered as they can very often dictate whether the consumer will provide feedback and express their satisfaction or otherwise, e.g., financial status, educational status, demographics (urban/rural), technology. Other reported factors that influenced patient satisfaction included communication, cost, continuity of service and providers, physical environment of clinic, humanity, information, time spent on patient, technical quality, official procedures, doctor's gender and nursing care (Andrzejewski, 1997).

According to a study carried out by Wouters, Heunis, van Rensburg & Meulemans (2008) on patient satisfaction with antiretroviral services at primary health-care

facilities in the Free State, South Africa; using four waves of cross-sectional data, there was a high overall satisfaction with the general services and services provided by nurses among the patients receiving public-sector ART (Wouters et al., 2008).

A similar study carried out by Chimbindi et al. (2009) on patient satisfaction with HIV treatment and TB care in rural KwaZulu-Natal, South Africa showed that overall patient satisfaction was high but patients expressed some dissatisfaction with certain dimensions of quality care including ability to talk to healthcare workers about their treatment and problems, time spent in queues waiting to be examined and facility cleanliness where six hospitals initiating ART therapy in the district participated in the study (Chimbindi, Bärnighausen & Newell, 2009).

The meeting of patient expectations are assumed to play a role in the process by which an outcome can be said to be satisfactory or unsatisfactory. Expectations are an important influence on the patient's overall measurement of satisfaction with a health care experience. According to Mahon (1996), patient satisfaction is influenced by the degree to which care fulfils expectation. However, some literature suggests that a link between satisfaction and fulfilment of patient expectations is not necessarily the case, since it was possible that the patient's evaluation of a service may be largely independent of actual care received (Al Sharif, 2008).

Satisfied patients are more likely to comply with their treatment, which is in turn associated with better clinical outcomes (Sandoval, Levington, Blackstien-Hirsch & Brown, 2005). However, patient satisfaction should not be measured in isolation. The patients' perceived health status influence patient satisfaction. Poor physical health status predict less positive judgments of aspects such as cleanliness of the building, confidentiality of consultation with the doctor, explanation about the visit to the clinic and standard of the clinic in general. The closer the facility is to the people, the better the level of satisfaction. Therefore, in order to have valid results regarding patients' views on level of satisfaction, perceived health status must also be evaluated (Al-Mandhari, Hassan & Haran, 2004).

Health status and health outcomes affect satisfaction. In general, sicker patients and those experiencing psychological distress record lower satisfaction, with the possible

exception of some chronically ill groups. Older respondents generally record higher satisfaction, but evidence about the effects of gender, ethnicity and socio-economic status is equivocal (Crow, Gage, Hampson, Hart, Kimber, Storey & Thomas, 2002).

Consumer participation is increasingly being linked with improvements in the quality of healthcare and improved health outcomes. There is an increasing impetus for shared decision making and person centred care. According to Munthe, Sandman and Cutas (2011), person centred care has become a central concept in healthcare as a response to:

- A general trend towards increasing attention to social inclusiveness and the needs of the customer.
- The rapidly increasing cost of healthcare and the imperative for effectiveness.
- The focus on improvement of processes and outcomes of care.
- Increased access of patient/clients to information about healthcare treatments and options. There is also growing evidence of the links between consumer feedback and participation in decision-making in individual care which leads to improvements in health outcomes and stronger therapeutic alliances.
- Effective consumer feedback strategies.
- Lead to more accessible and effective health services.
- Facilitate participation by those traditionally marginalised by mainstream health services.
- Make organisations more aware of significant areas of dissatisfaction with care and services.
- Give staff new insights into how people perceive aspects of their care and can increase consumer confidence.

According to Delbanco (1996), as techniques to measure the quality of healthcare proliferate and improve, health professionals were beginning to accept that patient and their families hold unique vantage points as expert witnesses of care and that they should plan their services to reflect the needs of the patient.

According to the Irish Society for Quality and Safety in Healthcare (2003), patients are rightly becoming more involved in their own healthcare and are being encouraged to do so. The movement to include patient evaluations of care is growing as more providers/organisations realise that patient satisfaction measurement is a cost effective, non-invasive indicator of quality of care. Giving the patient an opportunity to voice their opinions about the care they receive, can be seen as part of a broader commitment to public and patient participation in healthcare service planning and delivery.

2.6 APPROACHES BASED ON HEALTH SERVICE ATTRIBUTES TO SATISFACTION

Another approach that attempts to clarify the concept of satisfaction focuses on consumers' evaluations of health service attributes. These methods use reviews of the available literature or primary research techniques to produce lists of critical features that affect satisfaction with healthcare (Crow et al., 2002).

The classifications produced may subsequently form the basis for the development of instruments to measure satisfaction (Soufi, Belayachi, Himmich, Ahid, Zekraoui & Abouqal, 2010). The results of such studies generally confirm the multi-dimensional nature of the concept of satisfaction as first derived by Ware and colleagues (Crow et al., 2002).

Crow et al. (2002) reported that limitations of the expectations-based models make this empirical approach appealing to some researchers. In particular, by de-emphasising the link between expectation fulfilment and satisfaction, it can explain how respondents report satisfaction when their expectations are not fulfilled. Moreover, it enables the measurement of satisfaction in the face of ill-defined or unstable expectations.

Although important attributes of care may vary with the context of the investigation, in general they relate to three main issues: the characteristics of the provider, the features of the patient–practitioner relationship, and factors related to the structure and setting of healthcare delivery (Goold & Lipkin, 1999).

Provider characteristics include personality traits, and ability in the art and technical aspects of clinical practice. Some consumers may take the knowledge and technical skills of their healthcare professionals for granted, but softer aspects, such as concern, caring, warmth and sensitivity, are important influences on satisfaction. Likewise, the patient–practitioner relationship, including information exchange and patient involvement, are potentially significant means of providing practical and emotional support, and thereby of enhancing satisfaction. Patient preferences for adopting deferential or participatory roles vary; however, and concern has been expressed that insufficient attention has been paid to the way in which power, control or autonomy in the patient–practitioner relationship may affect respondents' evaluations of their care (Speedling & Rose, 1985; Avis et al., 1997).

Each healthcare user has a unique frame of reference from which evaluations are made and, therefore, different people assign different weights to particular attributes. This is explained in this approach in terms of antecedent factors: the characteristics of respondents that are presumed to influence the level and pattern of their reported satisfaction. Important antecedents include socio-demographic factors, health status and health beliefs (Crow et al*.,* 2002). Respondents with high levels of confidence in their providers may be reluctant to acknowledge care inadequacies; they may report satisfaction even if their expectations are not fulfilled (Glaser & Riegel, 1996).

2.7 ECONOMIC APPROACHES TO SATISFACTION

Economic analysis offers a theoretical basis for the largely empirical attribute-based approach and shares some common ground with expectation theories. Economists label the concept of satisfaction in the consumption of a product or service as "utility". Modern micro-economic theory predicts that individuals seek to purchase goods or services for the utility-generating attributes they provide. Applying this to healthcare, and assuming that patients have choice, they will choose a particular healthcare provider for the bundle of attributes on offer (e.g. accessibility, friendliness, qualifications, helpfulness of ancillary staff etc.).

Different individuals with different tastes and preferences will choose different providers because they have different attribute combinations (Nicholson, 1995; Laidler & Estrin, 1996). According to the utility theory, satisfaction depends on

whether the actual utility experienced is greater than, equal to, or less than the utility that the consumer expected to realise (Dobson, Maddana & Miller, 1995). Aspects of healthcare fall into each of the above categories.

2.8 HOLISTIC APPROACHES TO SATISFACTION

Holistic approaches attempt to incorporate all influences on satisfaction and thereby to provide a comprehensive framework for exploring interactions between variables that affect patients' evaluations (Asadi-Lari, Tamburini & Gray, 2004).

Patients may evaluate their healthcare experience to give a single global summary judgement, and/or they judge separate aspects of it. Either way, satisfaction is a multi-dimensional concept, derived from an evaluation of varied features of the care experience. The individual stimuli assessed by consumers include the actions, attitudes and appearance of human resources, the physical environment, and organisational aspects of care. Consumers' judgements represent perceptions created through cognitive and affective processes, which are specific to individual consumers, reflecting their particular personal characteristics. Socio-political values created by the healthcare system (market, public or mixed) and mediated by socio-demographic variables are likely to be important influences on individuals' values, beliefs and expectations. Satisfaction is an individual attitudinal response to the value judgements formed. Reported satisfaction will be influenced by the instruments and methods used by investigators seeking to measure it (Crow et al., 2002).

Satisfaction, or dissatisfaction, with attributes of healthcare affects subsequent behaviour, with consequences for both the individual consumer and the provider. Although many other factors are also involved, satisfaction is linked with adherence to medical advice, self-care, and hence with health outcomes. When consumers have a choice of provider, it is also presumed that satisfied customers will use the service again and recommend it to others (Crow et al., 2002).

This holistic approach is an endogenous model. The determination of satisfaction is a dynamic process involving two feedback mechanisms. First, individual attitudes are modified by experiences, which, in turn, alter expectations and value judgements in a way similar to the response shift phenomenon in health-related quality-of-life

research (Sprangers & Schwartz, 1999). Secondly, healthcare delivery is affected by both consumer attitudinal (voice) responses articulated through feedback mechanisms and behavioural (utilisation) responses such as changing provider (Crow et al., 2002).

Inclusive models of this type emphasise the multiple influences on satisfaction with healthcare, and imply that the collection of data relating to it is a broad and complex task with several possible sources for measurement or interpretation error (Crow et al., 2002).

For the purpose of this study, it is important to recognise that patients range from people who are in receipt of on-going care, personal assistance services and other community delivered support to people admitted to hospital on a once off or episodic basis. The opinions of the family, and advocates should also be considered.

2.9 MANAGEMENT OF PATIENT SATISFACTION AS PART OF TOTAL QUALITY MANAGEMENT

"Total Quality Management (TQM) is a set of management practices throughout the organisation, geared to ensure the organisation consistently meets or exceeds "customer" requirements and commitment to satisfaction" (Harris, 2010). TQM places strong focus on process measurement and controls as means of continuous improvement. It is a holistic approach to managing organisations and replaces top-down management with decentralised customer-driven decision making (USAID, 2010).

TQM is the way of managing for the future, and is far wider in its application than just assuring product or service quality. It is a way of managing people and business processes to ensure complete customer satisfaction at every stage, internally and externally. TQM combined with effective leadership, results in an organisation doing the right things right, first time (Department of Trade and Industry, 2010).

TQM is also an approach to improving the competitiveness, effectiveness and flexibility of an organisation for the benefit of all stakeholders. It is a way of planning,

organising and understanding each activity, and of removing all the wasted effort and energy that is routinely spent in organisations. It ensures the leaders adopt a strategic overview of quality and focus on prevention not detection of problems (DTI, 2010).

A frequently used definition of quality is *"Delighting the customer by fully meeting their needs and expectations"* (DTI, 2010). These may include performance, appearance, availability, delivery, reliability, maintainability, cost effectiveness and price. It is, therefore, imperative that the organisation knows what these needs and expectations are. In addition, having identified them, the organisation must understand them, and measure its own ability to meet them (DTI, 2010).

Quality starts with market research, to establish the true requirements for the product or service and the true needs of the customers. However, for an organisation to be really effective, quality must span all functions, all people, all departments and all activities and be a common language for improvement. The cooperation of everyone at every interface is necessary to achieve a total quality organisation, in the same way that the Japanese achieve this with companywide quality control (DTI, 2010).

Customer satisfaction is a primary goal of TQM. In order to maintain satisfied customers, a reliable methodology to monitor levels of satisfaction must be employed. Organisations must constantly monitor the effects of management decisions in terms of customer satisfaction and establish benchmarks for future evaluation (Helberg, 2008).

Patient Satisfaction measures the patients' opinion of the quality of customer service the centre provides to patients. Service quality (SERVQUAL) is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001). There are a number of different "definitions" as to what is meant by service quality. One that is commonly used defines service quality as the extent to which a service meets customers' needs or expectations (Lewis & Mitchell, 1990; Dotchin & Oakland, 1994a; Asubonteng, McCleary &Swan, 1996; Wisniewski

& Donnelly, 1996). Service quality can thus be defined as the difference between customer expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Shahin, 2011).

Shahin (2011) emphasised that knowledge about goods quality is insufficient to understand service quality due to three intrinsic characteristics of services including intangibility, heterogeneity and inseparability. It was further explained that services are performances or experiences and therefore intangible. Quality in services mostly occurs in service delivery and therefore services are inseparable from production and consumption.

Always there exists an important question: why should service quality be measured? Measurement allows for comparison before and after changes, for the location of quality related problems and for the establishment of clear standards for service delivery.

Edvardsen, Tomasson and Ovretveit, (1994) stated that, the starting point in developing quality in services was analysis and measurement. The SERVQUAL approach is the most common method for measuring service quality.

2.10 MONITORING AND EVALUATION OF PATIENT SATISFACTION

Patient satisfaction is a central element in the monitoring and evaluation of health care services. According to the Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment (CCMT) 2010-2015, monitoring and evaluation are part of their milestones. It is useful to assess the level of satisfaction on a regular basis in order to use it as a form of evaluation of services to see if improvements implemented are beneficial or not (DoH, 2008).

Patient satisfaction assessment is patient-based and usually information is elicited through use of a questionnaire. There is an expansion in the development and application of questionnaires that measure health and illness from the patient's perspective. Collectively these methods are referred to as patient-assessed health instruments (Moret et al., 2007). Such instruments are completed by patients

themselves or, when necessary, others on their behalf, to provide a measure of their experiences and concerns in relation to illness, health status and quality of life.

It has been suggested that patient-assessed instruments can be used for providing information on the health profile and health care needs of the population (Ventegodt, 1996). Data from such surveys, especially when accompanied by data on respondents' socio-economic status, sex, ethnicity, and age, could provide important information on the type of services needed and on whom they should be targeted.

2.11 PATIENT DISSATISFACTION

Dissatisfaction is defined as discontent, or a failure to satisfy. It is possible that consumers are satisfied unless something untoward happens, and that dissatisfaction is triggered by a critical event (Crow et al., 2002). Dissatisfaction arises when negative experiences disconfirm positive expectations, or when negative experiences confirm negative expectations. Disconfirmation of expectations affects perceived quality of care, and hence satisfaction (Gottlieb, Grewal & Brown, 1994).

Lech and Patryka (2002) reported that waiting for long periods, having no alternative appointment and possessing insufficient information are the sources of dissatisfaction in outpatient clinics. Additionally, an important determinant of patients' satisfaction with their health care is provider behaviour (Lech & Patryka, 2002). Dissatisfaction, on the other hand, leads to changes of provider and adverse publicity (Crow et al., 2002). Wouters et al. (2008) also reported long waiting times as a cause of dissatisfaction and confirmed claims by other studies which identified shortage of human resources at the facilities as a most important obstacle to a successful South African AIDS strategy.

Another study done in Addis Ababa, Ethiopia revealed that 82.5% of HIV/AIDS patients also indicated long waiting time as a major reason for their dissatisfaction with the pharmacy service. According to Karunamoorthi, Rajalakshmi, Makesh Babu & Yohannes (2009) patients also indicated other reasons for their dissatisfaction with the pharmacy service which included:

- A lack of knowledge about antiretroviral drugs
- Impoliteness of staff
- Shortage of drugs
- The need for a comfortable waiting area
- Patients call for personal interaction with their pharmacist and information on ARV side effects.

Mulcahy and Tritter (1998) noted that satisfaction and dissatisfaction were expressed in different terms. While satisfaction was expressed in a vague general way, respondents were far more specific about the sources of dissatisfaction. This finding differs somewhat from those of other qualitative studies of user views which found that dissatisfaction was also expressed in an unspecified and vague way (Bramadat & Driedger, 1993; Pathak et al., 1993; Avis et al., 1997). These differences may in part be due to the different methods used to explore dissatisfaction. Qualitative research on complaints has concluded that satisfaction and dissatisfaction are different constructs (Coyle, 1999; Mulcahy & Tritter, 1998).

The above reasons together with a weakened and overloaded health system threaten the quality of care and patient satisfaction levels, which can, in turn, seriously lessen the chances of a successful AIDS strategy. The importance of the link between human resource shortages and patient responsiveness to the ART programme, defined as the extent to which health systems meet patients' expectations of how they should be treated, has already been noted by Schneider et al. in 2006.

2.12 MODEL OF SERVICE QUALITY GAPS ON PATIENT PERCEPTIONS OF SERVICES

There are seven major gaps in the service quality concept. The model is an extension of Parasuraman et al., (1985). According to the following explanation by ASI Quality Systems (1992), Curry (1999), Luk and Layton (2002), the three important gaps, which are more associated with the external customers, are Gap 1, Gap 5 and Gap 6; since they have a direct relationship with customers.

Gap1 shows the customers' expectations versus management perceptions i.e. not knowing what customers expect. Gap 2 shows management perceptions versus service specifications i.e. not having the right service design and standards. Gap 3 shows service specifications versus service delivery i.e. not delivering to service standards. Gap 4 shows service delivery versus external communication i.e. not matching performance to promises. Gap 5 shows the discrepancy between customer expectations and their perceptions of the service delivered i.e. customer expectations are influenced by the extent of personal needs, word of mouth recommendation and past service experiences. Gap 6 shows differences in the understanding of customer expectations by front-line service providers while Gap 7 shows differences in the understanding of customer expectations between managers and service providers.

According to Brown and Bond (1995), "the gap model is one of the best received and most heuristically valuable contributions to the services literature". The model identifies seven key discrepancies or gaps relating to managerial perceptions of service quality, and tasks associated with service delivery to customers. The first six gaps (Gap 1, Gap 2, Gap 3, Gap 4, Gap 6 and Gap 7) are identified as functions of the way in which service is delivered, whereas Gap 5 pertains to the customer and as such is considered to be the true measure of service quality. The Gap on which the SERVQUAL methodology has influence is Gap 5.

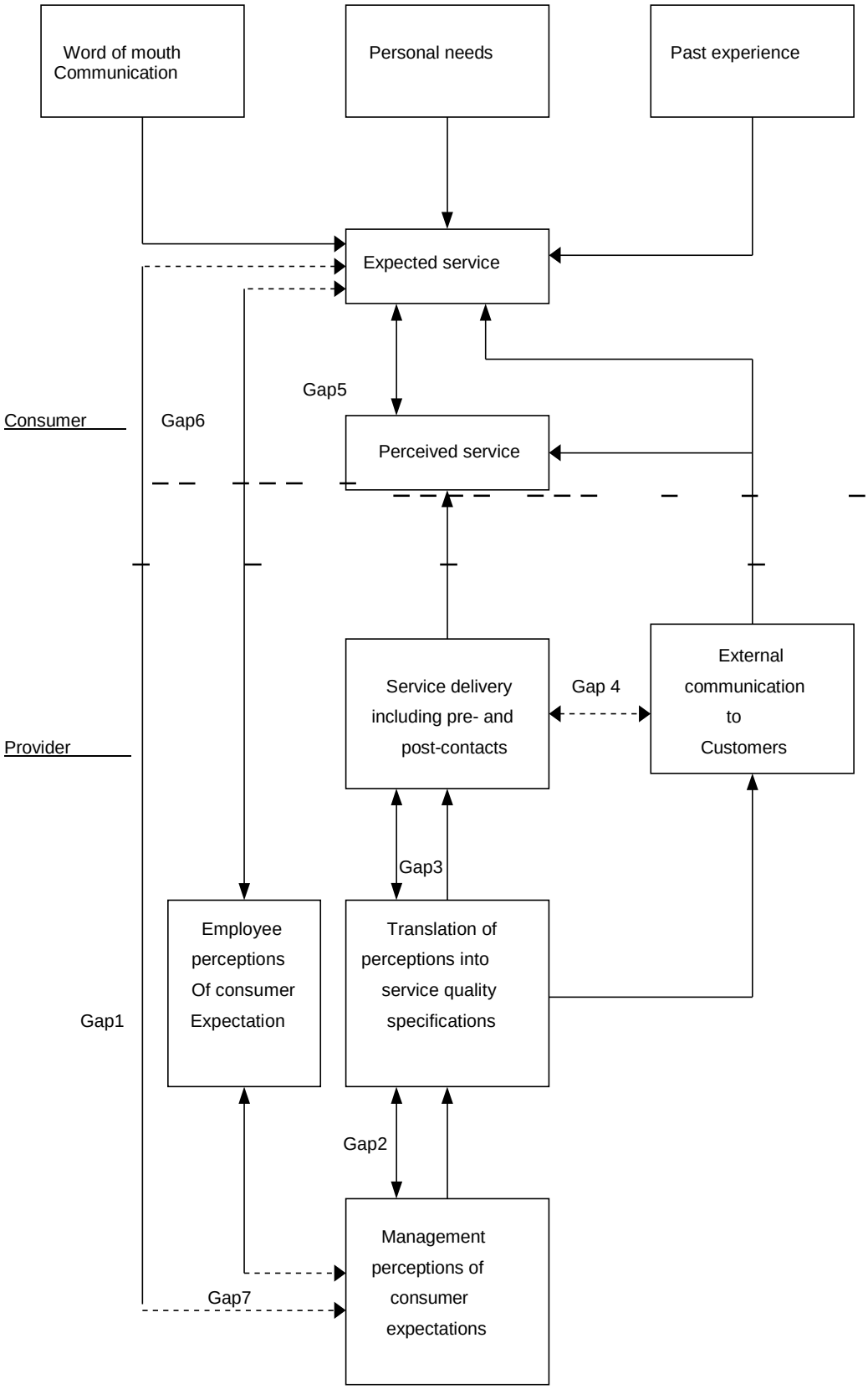

Figure 2.10 Model of service quality gaps (Parasuraman et al., 1985; Curry, 1999; Luk and Layton, 2002)

2.13 SUMMARY

Chapter 2 dealt mainly with the review of literature of the incidences and prevalence of HIV/AIDS across the globe in general and sub-Saharan Africa in particular. The incidence and prevalence of HIV/AIDS in South Africa in general and Gert Sibande in particular was also highlighted. Studies on patient satisfaction that have also been conducted similar to this research were also cited and different aspects of satisfaction were discussed. The methodology of the study is discussed in the next chapter.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter presents an outline of the research study design, sampling, study sites, study period and pilot study. The chapter also gives an insight into the data collection instruments, data entry and analysis, reliability and validity and finally on issues concerning ethical consideration.

3.2 STUDY DESIGN

The study followed a descriptive design, where quantitative data were collected in the form of researcher-administered questionnaires.

3.3 STUDY SITE

The study was conducted at five district hospitals i.e. (Embhuleni, Piet Retief, Carolina, Bethal and Standerton) and at one regional hospital (Ermelo).

3.4 STUDY POPULATION

The target population included all patients on ART attending the six hospitals.

3.5 INCLUSION AND EXCLUSION CRITERIA

3.5.1 Inclusion criteria

Patients over 18 years who received ART for at least four months or longer and are collecting repeat medication were included in the study. The first available required number of patients (sample of convenience) from each of the six hospitals that complied with the criteria which were willing to participate in the study completed the questionnaire.

3.5.2 Exclusion criteria

The study excluded all patients who received ART for less than four months.

3.6 SAMPLE SELECTION

A sample of 300 patients was studied and ssampling was done in conjunction with the statistician. With a sample size of 300, a two-sided 95% confidence interval for the proportion of satisfied subjects, using the normal approximation, extended a distance of 0.05 from the observed proportion (calculated from the sample). The expected proportion of satisfied subjects was in the range of 0.65-0.75 (65%-75%).

According to the 2011 hospital statistics, the number of patients seen at each hospital is shown in Table 3.1. Proportional random sampling was used when selecting the number of patients from each facility according to the randomisation plan below:

Table 3.1: Sampling plan

Sampling plan for 300 patients		
Hospital	**Average number of patients per month**	**Sample size**
Carolina	700	15
Standerton	1700	37
Bethal	2400	52
Embhuleni	2500	54
Ermelo	1600	35
Piet Retief	5000	107
TOTAL		300

3.7 STUDY PERIOD

Four months was allowed for data collection immediately after the pilot study was conducted and the necessary amendments completed.

3.8 TIME SCHEDULE

Table 3.2: Time schedule

Activities	Deliverables	Milestone	Timelines	By who
Final protocol assessment	Submission of the protocol to School Research committee	Approval	November 2010	Researcher
Ethic final approval	Submission to MREC	Approval	March 2011	Researcher
Pilot study	Data piloted	Consistent response	June 2011	Researcher
Data collection	Datasets given for analysis	Received	July-October 2011	Researcher/Delegated colleagues
Data analysis	Analysis	Results	November 2011	Researcher
Report writing	First draft report Second draft report	Corrections done Corrections done	November 2011 November 2011	Researcher
	Final research report	Submission to department for exam purposes	January 2012	Researcher

3.9 PILOT STUDY

The pilot study was conducted in June 2011 after MREC approval on five volunteer patients from Carolina Hospital who did not take part in the study. The aim of the pilot study was to validate the data collection tool and to identify any problems that the respondents might have with the questions so that modifications could be made to the questionnaires accordingly (Struwig & Stead, 2001). The researcher ensured that all the questions on the questionnaire were well understood by the average patient which allowed consistency in the responses to the same question by different patients.

3.10 DATA COLLECTION

A structured interview with each participating patient was conducted using a standardised structured questionnaire (Appendix B). The tool was adapted from a patient exit interview questionnaire used by the Pharmacy Department to collect data from Primary Health Care Clinics. This method of data collection from participating patients was selected because of possible different literacy levels of the patients. The required number of patients was selected while they were waiting for medication at the pharmacy waiting area. Information leaflets (Appendix C) were also distributed in the waiting area. Interviews with participating patients took place in the private consulting room of the pharmacy prior to patients receiving their medication.

The purpose of the study was explained to the patients and patients were requested to sign the consent forms (Appendix D). Patient questionnaires, information leaflets and consent forms were translated into siSwati (translation-back-translation process). The questionnaire was administered in English with the assistance of identified colleagues trained in data collection. A translated version of the tool was administered by colleagues who could communicate in siSwati. All responses in siSwati were translated to English through the translation-back-translation process. All the participating patients voluntarily and anonymously participated in the study.

3.11 DATA ANALYSIS

The data that were collected during the study were captured in a Microsoft Excel spread sheet. Data capturing were verified and validity checks (see section 3.12) were performed. Data was analysed using descriptive statistics. Responses to categorical variables were summarised as frequency counts and percentages. All statistical procedures were performed on SAS, Release 9.2 or higher, running on Microsoft Windows Vista. Data with qualitative aspects were captured and manually categorised. Results were presented as tables, figures and graphs.

3.12 RELIABILITY AND VALIDITY OF THE DATA

Reliability was achieved by standardising the measurement procedure so that the procedures are always the same (Struwig & Stead, 2001). The sequence of events was practised to ensure that all questionnaires were administered in the same way.

Validity was tested during the pilot study that was conducted in June 2011 before the actual research data collection, just to be sure that all questions asked were understood correctly and that the research team was satisfied with responses to questions. The pilot study therefore improved the internal validity of the questionnaire. The tools had been used before in data collection and its validity was tested. Patient questionnaires were translated to siSwati and back to English using the translation back translation process. All captured data were cross-checked and proof-read to ensure accuracy.

3.13 BIAS

Bias was minimised in the following ways:

Data collectors did not influence the patients during data collection. The questionnaires were completed anonymously and the completed questionnaires were placed in a sealed box. Because the patient questionnaires were structured and questions were also translated into siSwati, the data collectors asked the questions exactly as it appears on the questionnaire to each patient. The data collectors indicated the answer given exactly on the questionnaire. The data collectors did not prompt or lead the patients to answers. The data collectors also controlled their own non-verbal communication.

3.14 ETHICAL CONSIDERATIONS

This study was conducted following the approval from the Medunsa Research and Ethics Committee (MREC). Permission to conduct the study was also obtained from the Hospital's Superintendent at the different Hospitals which were obtained after MREC clearance (Appendix E). However, permission was already granted by the Hospital Superintendent of Embhuleni Hospital, District Manager of the Gert Sibande District and the Mpumalanga Ethics and Research Committee (Appendix F).

Informed consent was obtained from the patients before participation in the study. Patients were informed that they may withdraw from the study without negative consequences. Interviews were conducted in a private consultation area to ensure privacy, safety and confidentiality. Questionnaires were anonymous and therefore the identity of patients was not disclosed and patients were informed of this.

Data was handled with confidentiality. Controlled access to data forms was ensured by keeping the completed questionnaires under lock and key.

3.15 SUMMARY

Chapter 3 summarised the methodology pertaining to this study. The results of the data collected over the 4-month study period, will be presented in Chapter 4.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 INTRODUCTION

This chapter presents the results of the statistical analysis of the data collected during the study period and is presented according to the objectives of the study as follows:

- To determine if patients were satisfied or dissatisfied with services rendered at accredited ART sites in the Gert Sibande District in Mpumalanga.
- To determine the factors associated with satisfaction of patients with regards to the Antiretroviral Treatment (ART) services in the Gert Sibande District in Mpumalanga.
- To determine the factors associated with dissatisfaction of patients with regards to the Antiretroviral Treatment (ART) services in the Gert Sibande District in Mpumalanga.

Data from the completed patient care satisfaction survey questionnaires were analysed using descriptive statistics. Data was summarised and presented into frequency tables and graphs, followed by a short discussion.

4.2 DEMOGRAPHIC PROFILE OF ART PATIENTS AT THE ACCREDITED SITES

Table 4.1: Sampling plan of ART patients on treatment by hospital (N=300)

Hospital	Total no of patients	Percentage of patients per hospital
Bethal	52	17.3
Carolina	15	5.0
Embhuleni	54	18.0
Ermelo	35	11.7
Piet Retief	107	35.7
Standerton	37	12.3
Total	**300**	**100**

A total of 300 patients on ART for four months or longer were interviewed at the six accredited ART sites. The percentage representation of the hospitals is highlighted in Table 4.1: Bethal, Carolina, Embhuleni, Ermelo, Piet Retief and Standerton respectively.

Table 4.2: Total patient population by age (N=299)

Age	Total no of patients	Percentage of patients
18 -30	90	30.1
31 – 45	165	55.2
46 – 60	42	14.0
61+	2	0.7
Total	**299***	**100***

*1 missing data

The majority of the patients (55.2%) fell within the 31-45 age category, followed by 30.1% in the 18-30 category, 14% in the 46-60 category and 0.7% in the 61+ category.

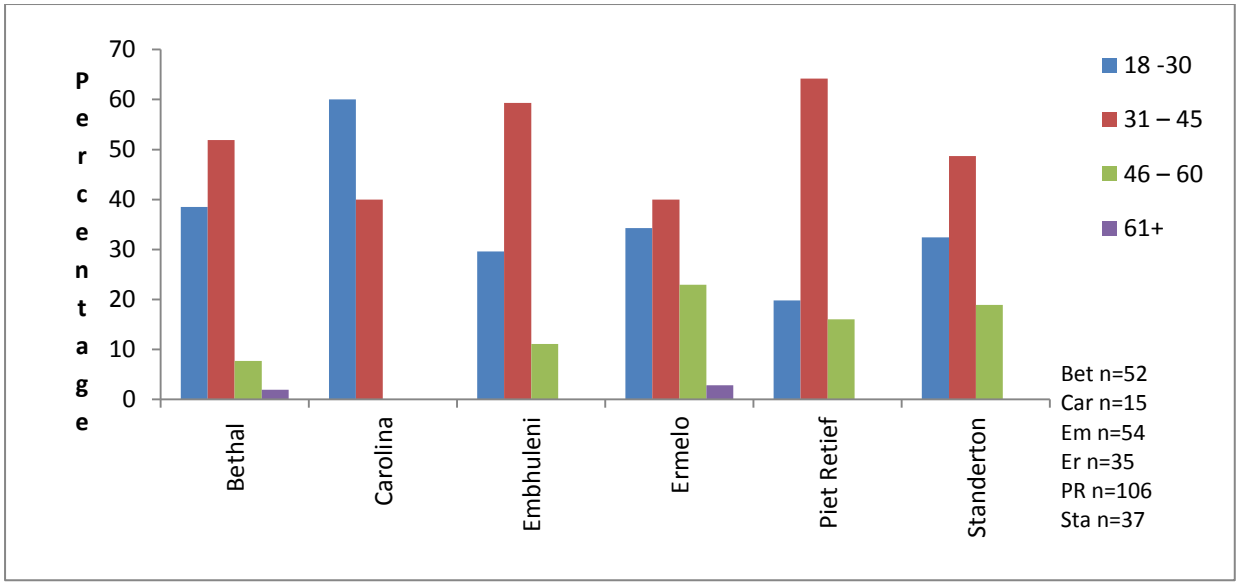

Figure 4.1: Age distribution of ART patients by hospital

The majority of the patients at Carolina Hospital fell within the 18-30 age category

Table 4.3: Gender distribution of patients by hospital (N=293)

Gender	Bethal n=52	Carolina n=13	Embhuleni n=52	Ermelo n=34	Piet Retief n=105	Standerton n=37
Female	35(67.3%)	8 (61.5%)	39 (75.0%)	24 (70.6%)	71 (67.6%)	25 (67.6%)
Male	17(32.7%)	5 (38.5%)	13 (25.0%)	10 (29.4%)	34 (32.4%)	12 (32.4%)
Total	**52 (100%)**	**13 (100%)***	**52 (100%)***	**34 (100%)****	**105 (100%)***	**37 (100%)**

* 2 missing data, **1 missing data

As shown in Table 4.3, there were more female patients on ART treatment than males in each of the hospitals.

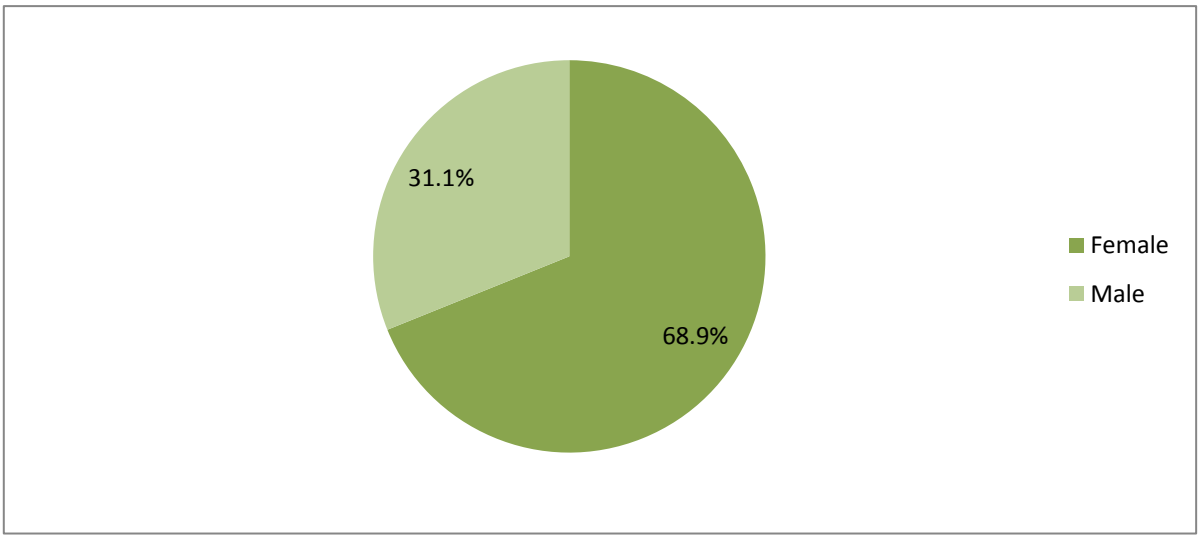

Figure 4.2: Gender distribution of the total number of patients (N=293)

The overall gender distribution in Figure 4.2 above shows that there were 68.9% females on treatment compared to 31.1% males.

4.3 LITERACY AND SOCIO-ECONOMIC STATUS OF ART PATIENTS AT THE ACCREDITED SITES

Table 4.4: Education level of patients by hospital (N=299)

Educational level	Bethal n=52	Carolina n=15	Embhuleni n=54	Ermelo n=35	Piet Retief n=106	Standerton n=37
Below-Grade 7	3 (5.8%)	2 (13.3%)	15 (27.8%)	4 (11.4%)	44 (41.5%)	13 (35.1%)
Grade 8 - Grade 12	48 (92.3%)	13 (86.7%)	38 (70.4%)	28 (80.0%)	59 (55.7%)	22 (59.5%)
Tertiary education	1 (1.9%)	-	1 (1.8%)	3 (8.6%)	3 (2.8%)	2 (5.4%)
Total	**52 (100%)**	**15 (100%)**	**54 (100%)**	**35 (100%)**	**106 (100%)***	**37 (100%)**

*1 missing data

According to Table 4.4, the majority of the patients had an education level between grades 8-12 across all the hospitals

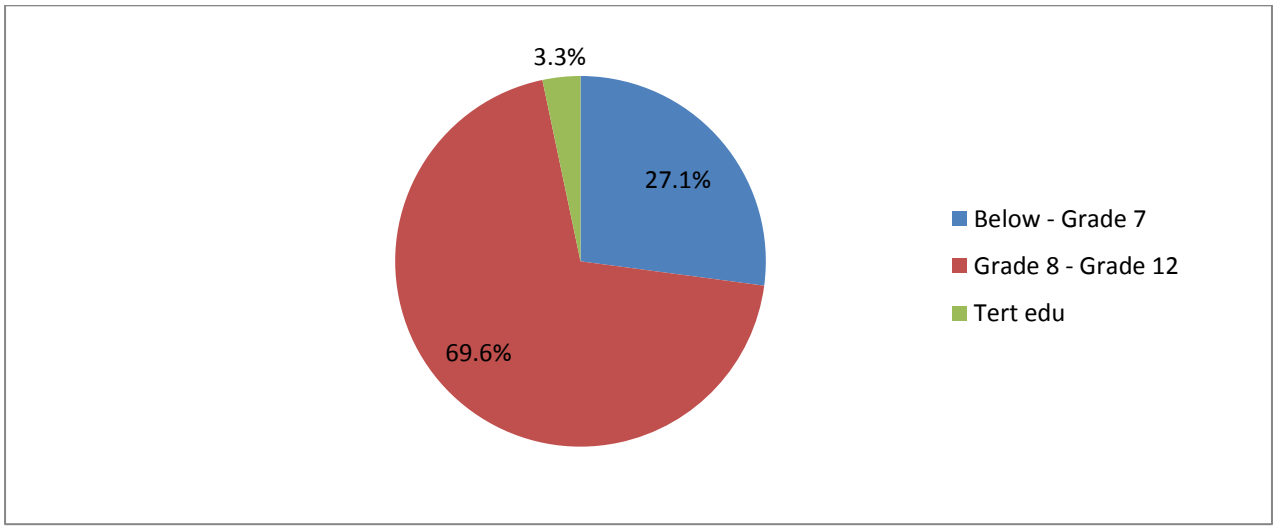

Figure 4.3: Education level of the total number of patients (N=299)

The majority of patients (69.6%) had an education level between grades 8-12 while 27% had an education level below grade 7 (Figure 4.3). Few patients had tertiary education (3.3%).

Table 4.5: Literacy level of patients by hospital (N=298)

Read and/or write	Bethal n=52	Carolina n=15	Embhuleni n=54	Ermelo n=35	Piet Retief n=105	Standerton n=37
Both	48 (92.3%)	13 (86.6%)	45 (83.3%)	33 (94.2%)	74 (70.5%)	31 (83.8%)
None	4 (7.7%)	1 (6.7%)	4 (7.4%)	1 (2.9%)	30 (28.6%)	2 (5.4%)
Read only	-	-	3 (5.6%)	-	-	1 (2.7%)
Write only	-	1 (6.7%)	2 (3.7%)	1 (2.9%)	1 (0.9%)	3 (8.1%)
Total	**52 (100%)**	**15 (100%)**	**54 (100%)**	**35 (100%)**	**105 (100%)***	**37 (100%)**

*2 missing data

According to Table 4.5 patients attending Ermelo hospital presented with the highest literacy levels (94.2%) from all the hospitals

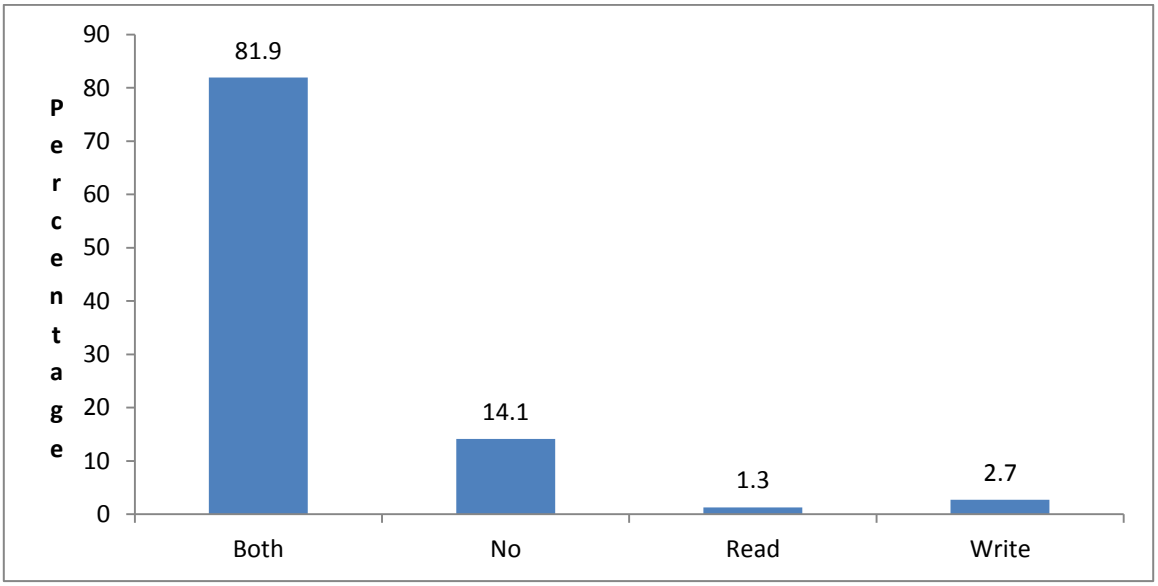

Figure 4.4: Literacy level of the total number of patients (N=298)

Figure 4.4 shows that the majority (81.9%) of patients could both read and write while 14.1% could not read and write at all. Few patients could only read (1.3%) or write (2.7%)

Table 4.6: Total number of patients having a disability (Physical, intellectual /mental) (N=298)

Disability?	Total no of patients	Percentage of patients
No	274	91.9
Yes	24	8.1
Total	**298***	**100***

*2 missing data

According to Table 4.6, only 8.1% of patients interviewed had one form of physical or mental disability such as an amputated finger, amputated limb, broken arm, broken back, broken right leg, epilepsy, leprosy, partial blindness, partial sight, partial deafness, spinal injury or amnesia. The majority had no form of disability (91.9%).

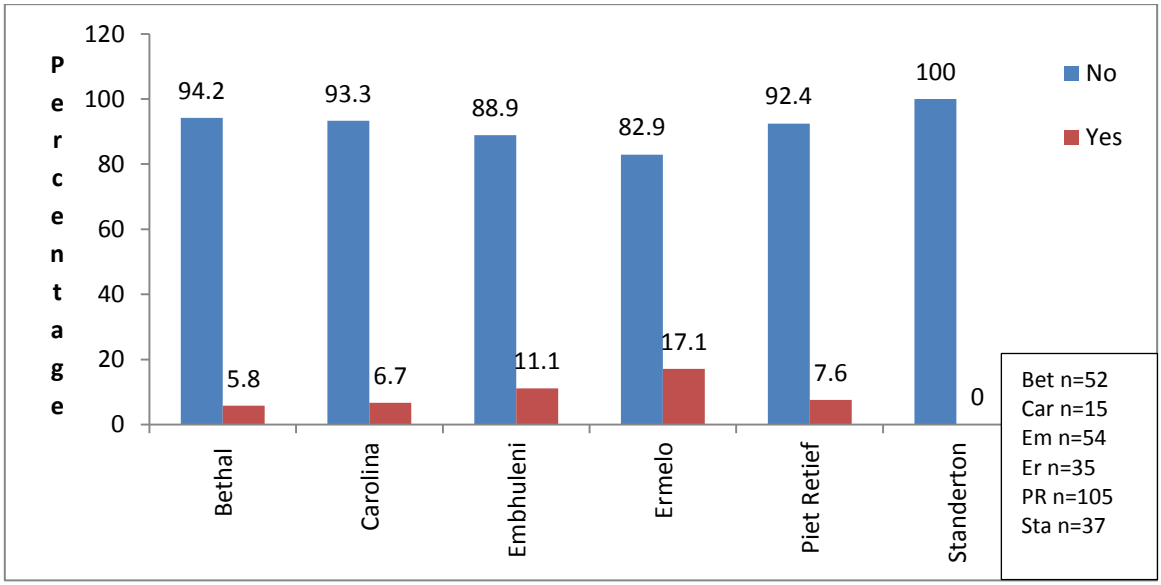

Figure 4.5: Patients having a disability by hospital

Figure 4.5 shows that patients from Standerton hospital presented with no form of disability (100%).

Table 4.7: Socio-economic status of the total number of patients (N=296)

Socio-economic status?	Total no of patients	Percentage of patients
Dependent	5	1.7
Employed	115	38.8
Unemployed	176	59.5
Total	**296***	**100***

*4 missing data

Of all the patients interviewed, 59.5% were unemployed, 38.8% were employed while 1.7% were dependent on family members for a living (Table 4.7).

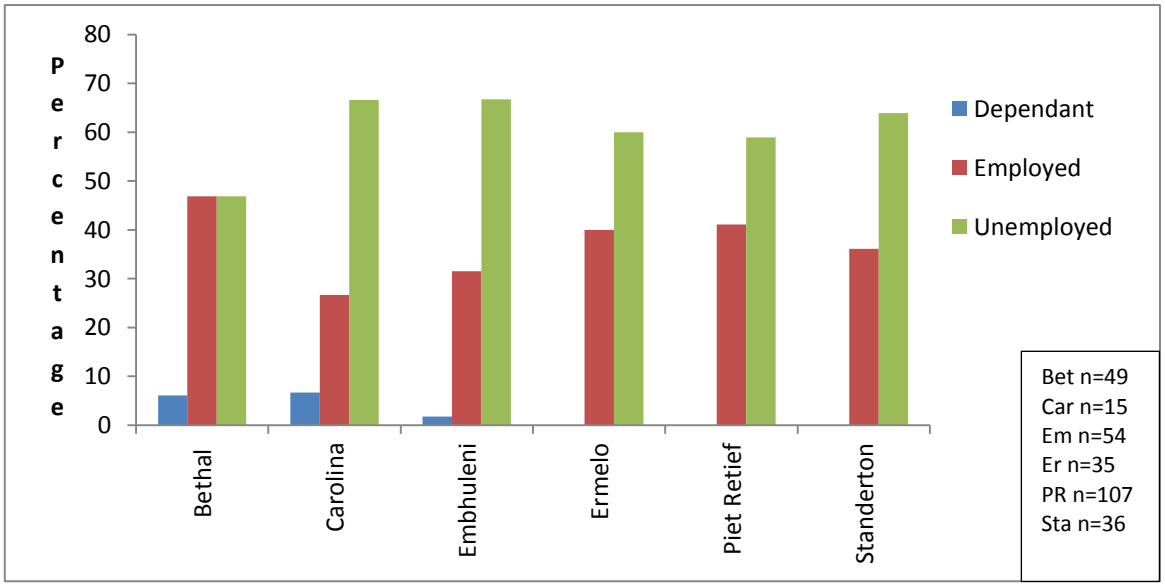

Figure 4.6: Socio-economic status of patients by hospital

Figure 4.6 indicated that Ermelo, Piet Retief and Standerton hospitals had no dependant patients attending these hospitals.

4.4 HEALTHCARE PROVIDER INFORMATION AT THE ACCREDITED SITES

Table 4.8: The same healthcare provider attends to you each time (N=300)

Same healthcare provider attends to you each time?	Total no of patients	Percentage of patients
No	169	56.3
Yes	131	43.7
Total	**300**	**100**

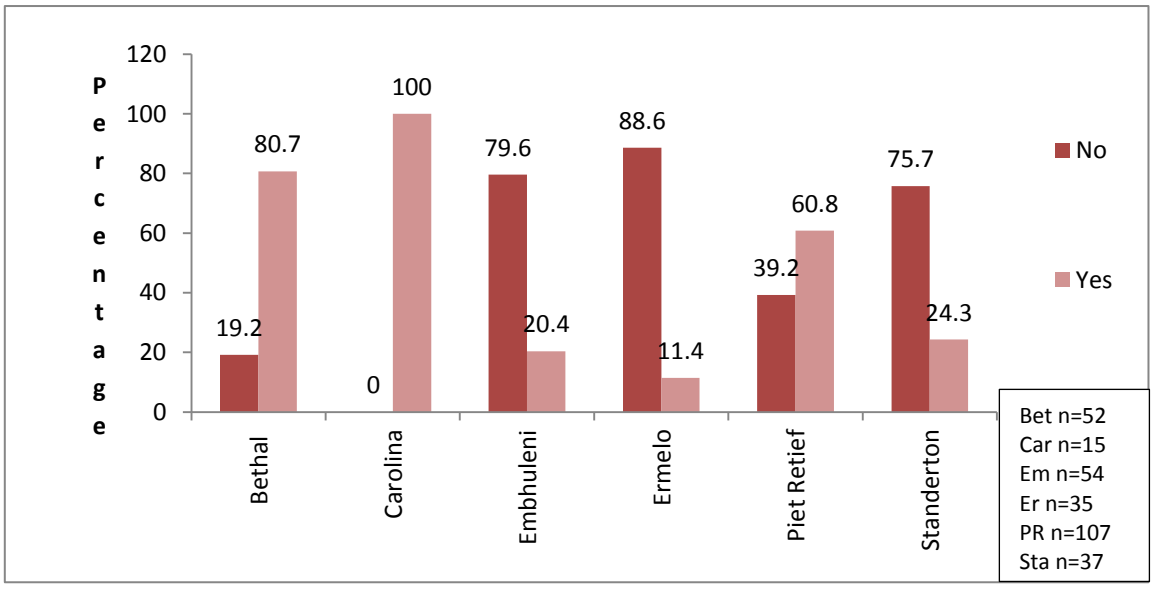

Figure 4.7: Same healthcare provider attends to you each time by hospital

Of the overall patients interviewed, 56.3% reported not seeing the same healthcare provider while 43.7% consulted with the same healthcare provider each time (Table 4.8). All the patients in Carolina hospital (100%) reported seeing the same healthcare provider, followed by Bethal (80.7%), Piet Retief (39.2%), Standerton (75.7%), Embhuleni (79.6%) and Ermelo (88.6%) hospitals (Figure 4.7).

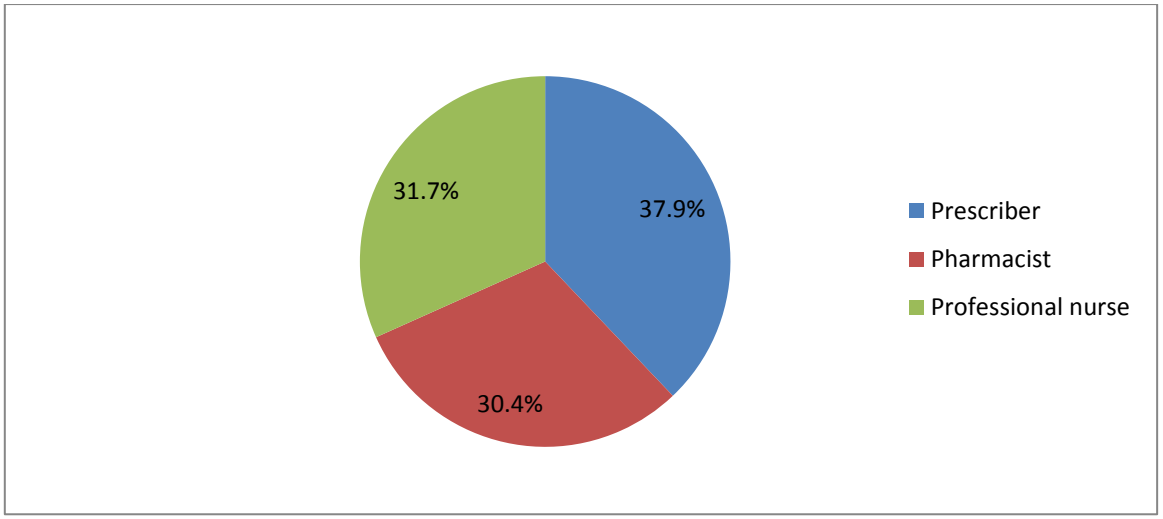

Figure 4.8: Status of healthcare provider (N=300)

Based on the analysis of the results about which healthcare provider attended to the patients, 37.9% of patients reported consulting with the doctor, 31.7% with the professional nurse and 30.4% with the pharmacist respectively (Figure 4.8).

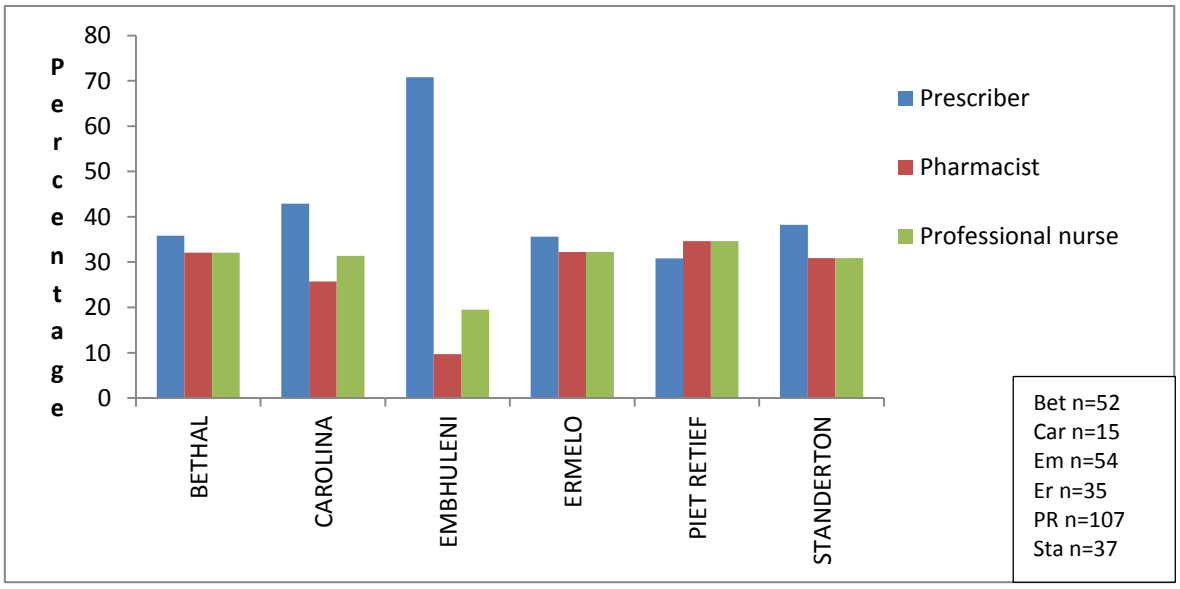

Figure 4.8.1: Status of healthcare provider by hospital

Figure 4.8.1 shows that most of the patients who consulted from all the hospitals, consulted with all the healthcare providers i.e. doctors, pharmacist and nurses. Patients from Embhuleni hospital (70%) mostly consulted with the doctor.

Table 4.9: Communication language of healthcare provider (N=300)

HCP speak your language?	Total no of patients	Percentage of patients
No	11	3.7
Yes	289	96.3
Total	**300**	**100**

The majority of the overall patients (96.3%) reported that their healthcare provider spoke their language and only a small group (3.7%) reported that the healthcare provider did not speak their language (Table 4.9).

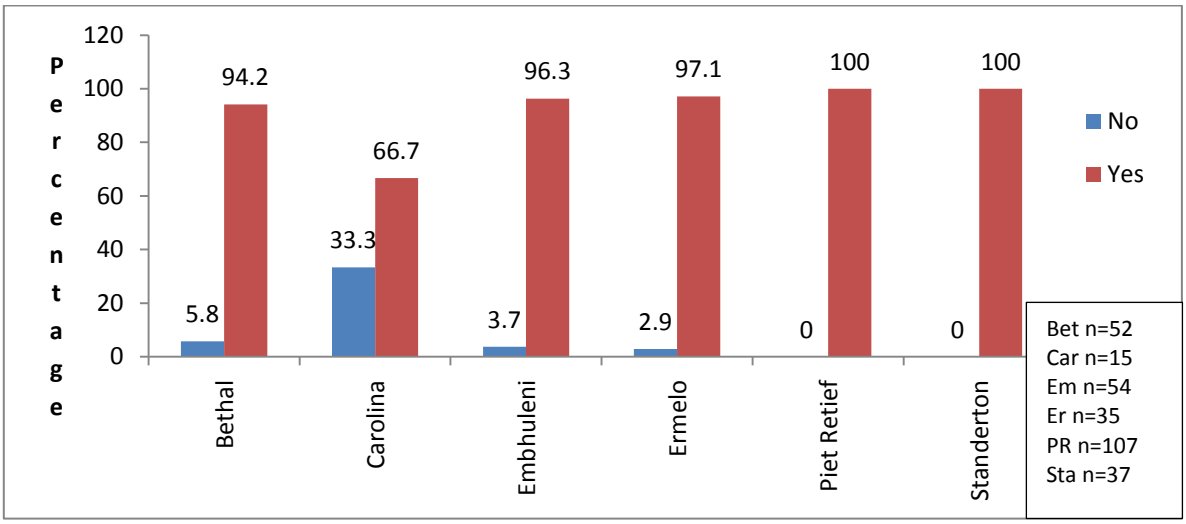

Figure 4.9: Communication language of healthcare provider by hospital (HCP speak your language?)

These trends are determined statistically which is also observed across most of the hospitals including Embhuleni (96.3%). All the patients in Piet Retief and Standerton hospitals reported that the healthcare provider spoke their language (Figure 4.9).

Table 4.10: Healthcare provider listens to problems (N=300)

HCP Listen to your problems?	Total no of patients	Percentage of patients
No	7	2.3
Yes	293	97.7
Total	**300**	**100**

Most of the patients (97.7%) interviewed agreed that their healthcare provider listened to their problems while only 2.3% reported that the healthcare provider did not listen to their problems (Table 4.10).

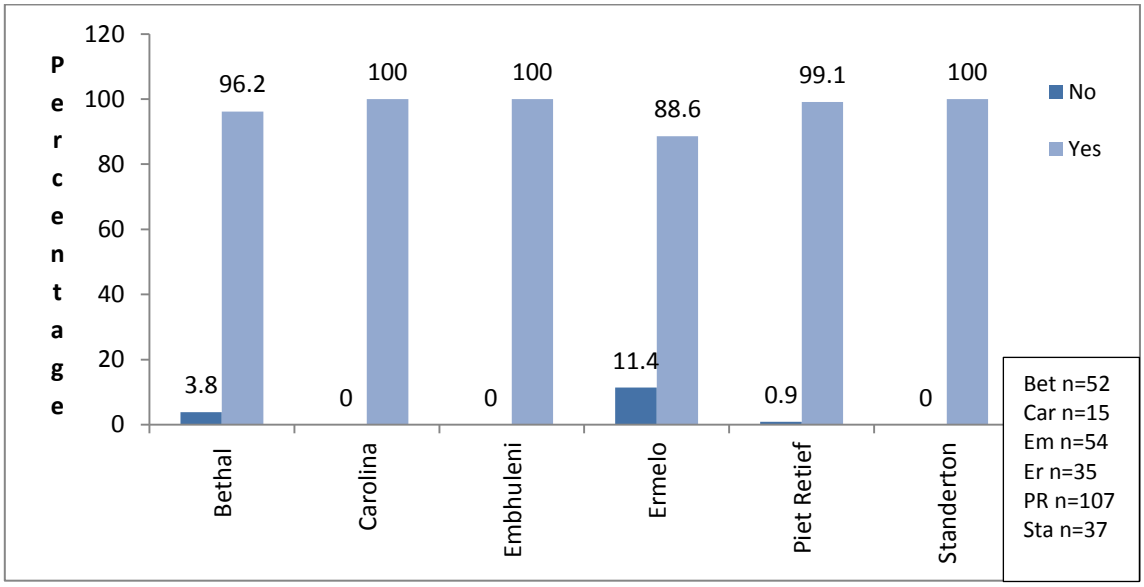

Figure 4.10: Healthcare provider listens to problems by hospital

A few patients from Bethal (3.8%) and Ermelo hospitals (11.4%) reported that their healthcare provider did not listen to their problems as seen in Figure 4.10.

Table 4.11: Politeness of healthcare provider (N=300)

HCP was polite?	Total no of patients	Percentage of patients
No	7	2.3
Yes	293	97.7
Total	**300**	**100**

Table 4.11 indicated that 97.7% of patients reported that the healthcare provider who attended to them was polite in comparison to 2.3% of patients who reported that the healthcare provider was not polite.

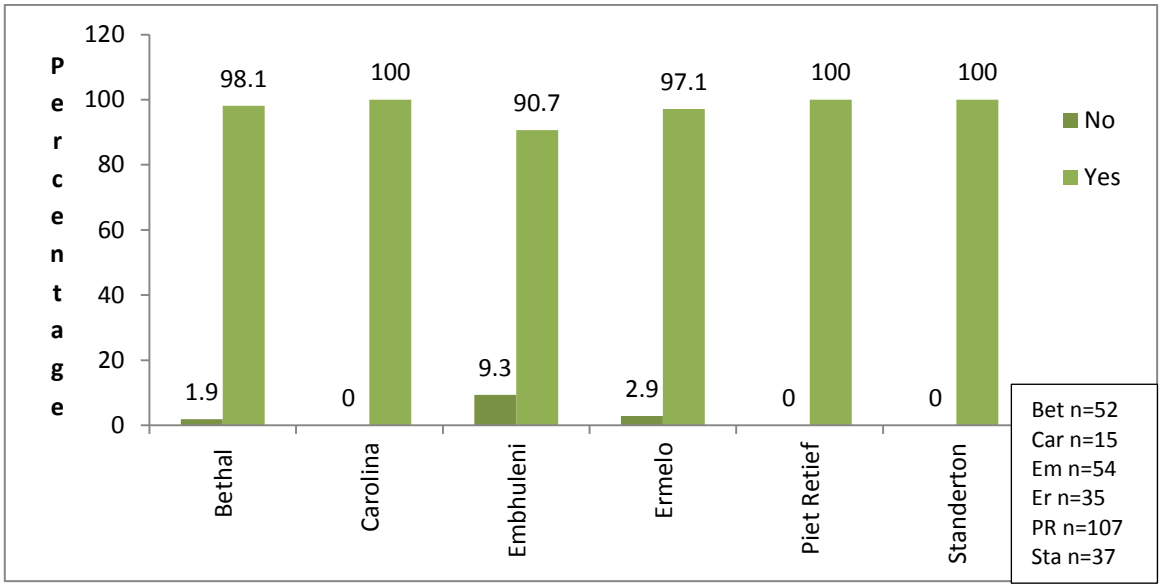

Figure 4.11: Politeness of Healthcare Provider by hospital

All the patients at Carolina, Piet Retief and Standerton hospitals respectively reported that the healthcare provider was polite (Figure 4.11).

4.5 SATISFACTION/DISSATISFACTION INDICATORS

Table 4.12: Explanation of CD4 count to patients (N=300)

Explained CD4 count?	Total no of patients	Percentage of patients
No	24	8.0
Yes	276	92.0
Total	**300**	**100**

Table 4.12 shows that from all the patients interviewed, 92% reported that their CD4 counts were explained to them during their visits to the clinics. However, 8% did not receive any information regarding their CD4 counts.

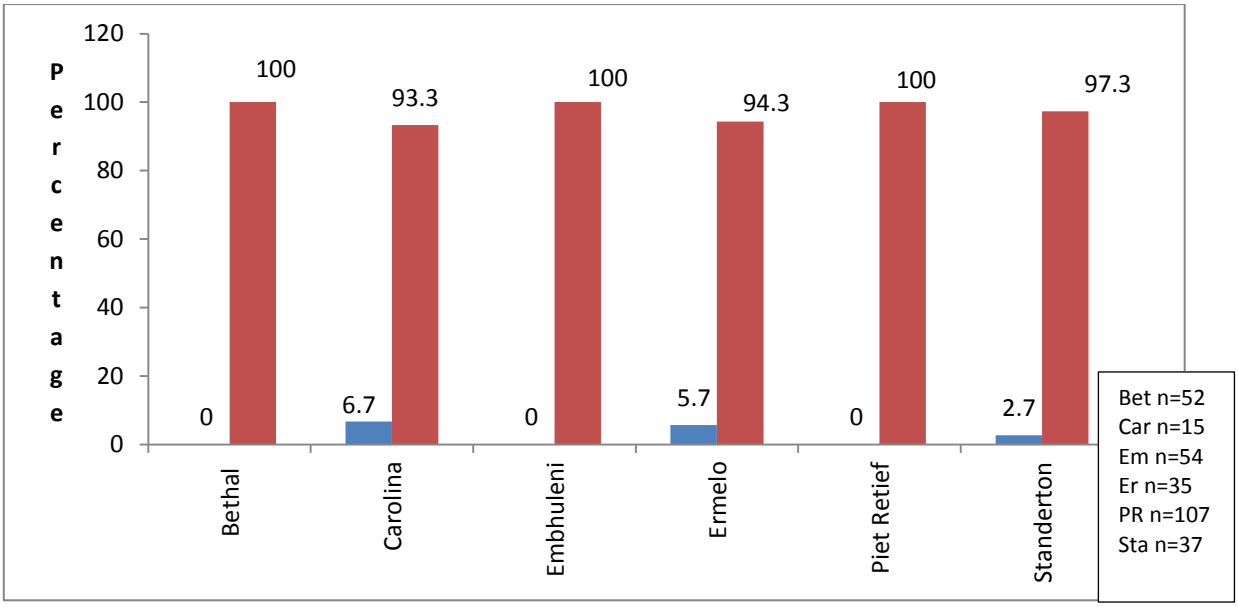

Figure 4.12: Explanation of CD4 count to patients by hospital

All the patients in Bethal (100%), Embhuleni (100%) and Piet Retief (100%) hospitals respectively reported that their CD4 counts were explained to them by the healthcare provider. Only 6.7%, 5.7% and 2.7% of patients in Carolina, Ermelo and Standerton hospitals respectively reported that the healthcare provider did not explain their CD4 counts to them (Figure 4.12).

Table 4.13: Opportunity by patients to ask questions (N=299)

Opportunity to ask questions?	Total no of patients	Percentage of patients
No	20	6.7
Yes	279	93.3
Total	**299***	**100***

1 missing data*

The overall results in Table 4.13 showed that 93.3% of patients had an opportunity to ask their healthcare provider questions while 6.7% reported that they did not have the opportunity to ask questions.

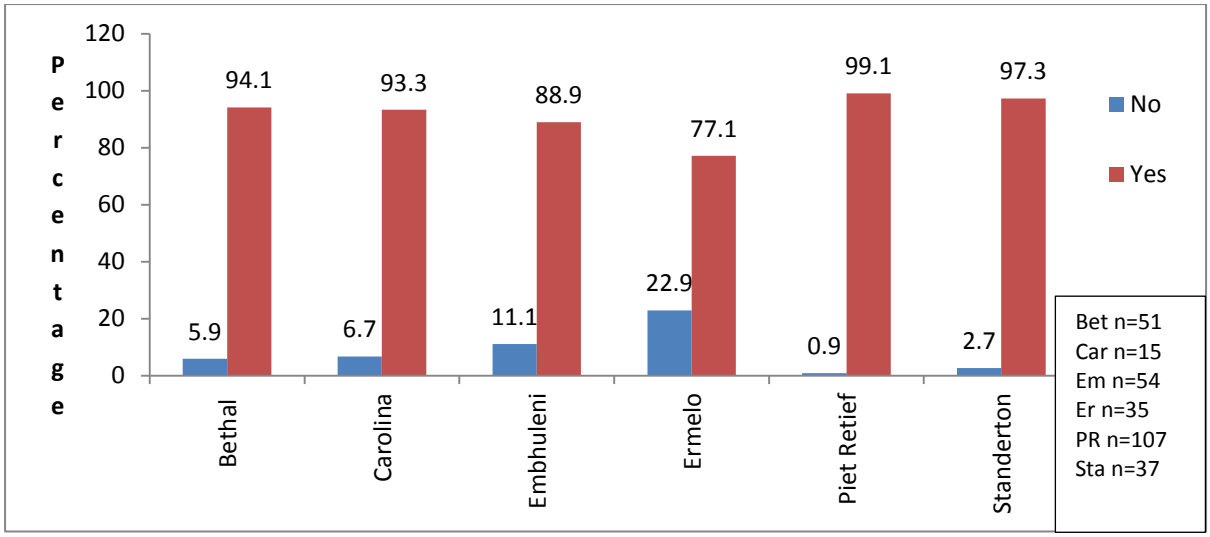

Figure 4.13: Opportunity by patients to ask questions by hospital

The majority of the patients at Piet Retief hospital (99.1%), followed by Standerton hospital (97.3%), Bethal hospital (94.1%), Carolina hospital (93.3%), Embhuleni hospital (88.9%) and Ermelo hospital (77.1%) reported having the opportunity to ask their health care provider questions (Figure 4.13).

Table 4.14: Satisfaction with answers by healthcare provider (N=299)

Satisfied?	Total no of patients	Percentage of patients
No	7	2.3
Yes	292	97.7
Total	**299***	**100***

*1 missing value

The majority (97.7%) of patients were satisfied with the explanations given to their questions by their health care provider while only 2.3% were not satisfied (Table 4.14).

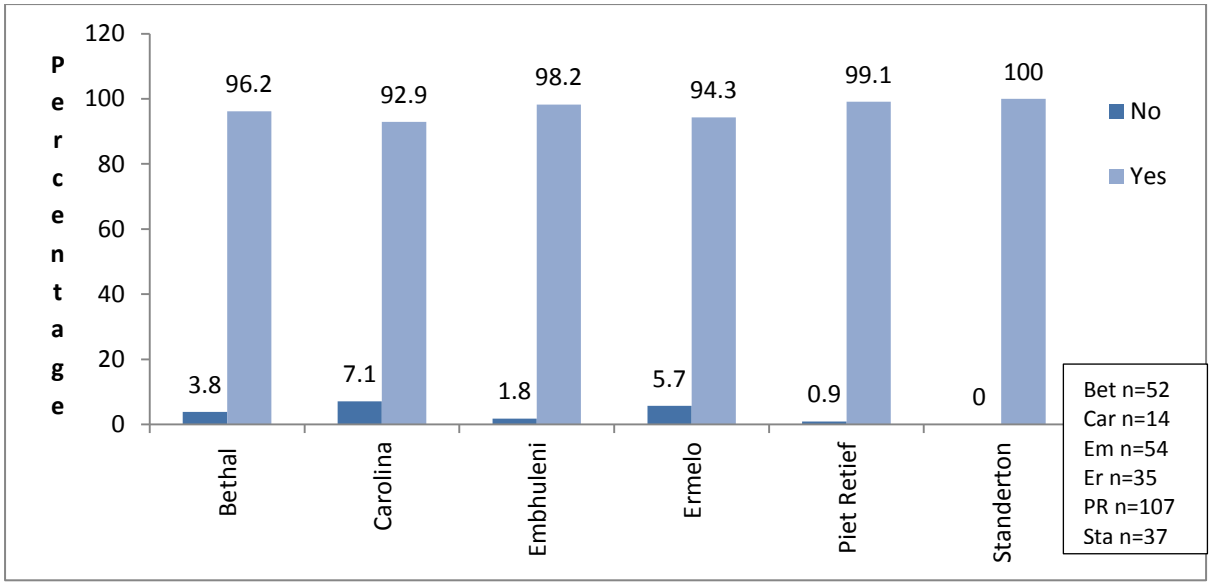

Figure 4.14: Satisfaction with answers by healthcare provider by hospital

All the patients (100%) at Standerton hospital were 100% satisfied with explanations given to them as indicated in Figure 4.14.

Table 4.15: Privacy during examination (N=300)

Privacy?	Total no of patients	Percentage of patients
No	10	3.3
Yes	290	96.7
Total	**300**	**100**

Table 4.15 indicated that from all the patients interviewed, 96.7% reported that they had privacy during their clinic consultation with only 3.3% reporting that they did not have privacy during clinic consultation.

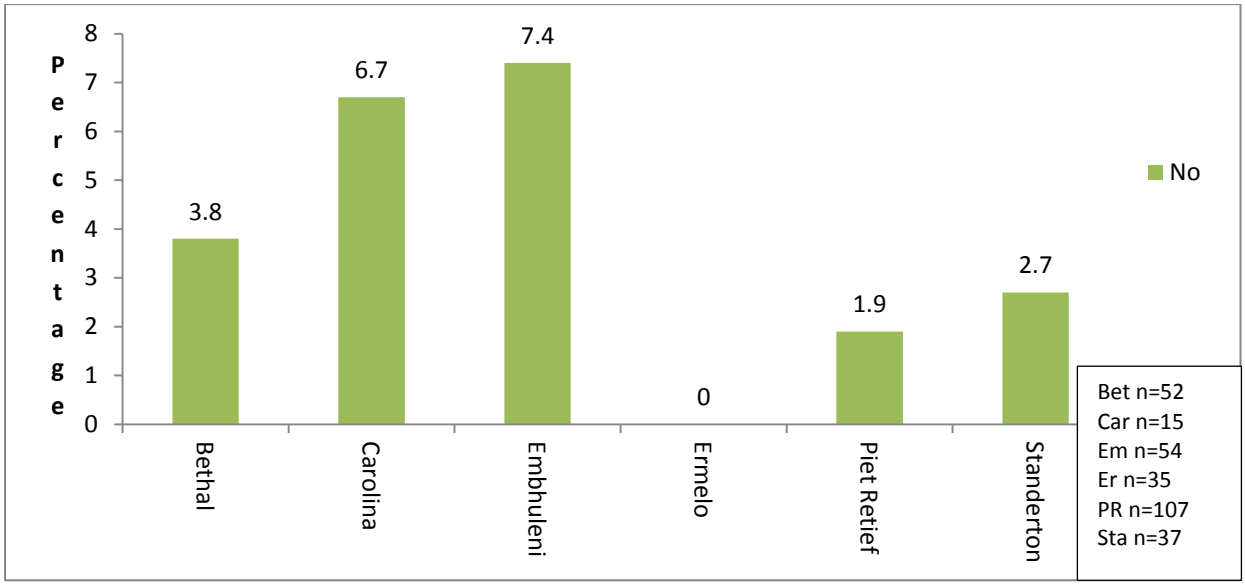

Figure 4.15: Privacy during examination by hospital

All the patients (100%) at Ermelo hospital had privacy during their examinations. Patients from Embhuleni hospital (92.6%) reported that they had privacy during their examinations (Figure 4.15).

Table 4.16: Confidentiality of medical records (N=300)

Medical records confidential?	Total no of patients	Percentage of patients
No	7	2.3
Yes	293	97.7
Total	**300**	**100**

The majority (97.7%) of patients also reported that their medical records were kept confidential by the facilities while only 2.3% of patients disagreed (Table 4.16).

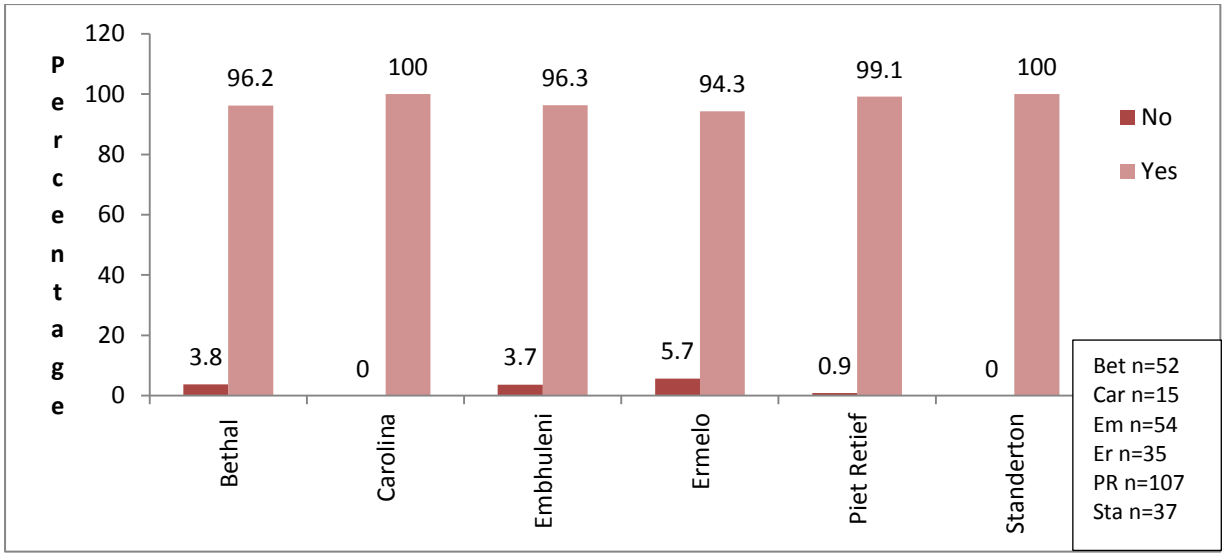

Figure 4.16: Confidentiality of medical records by hospital

All the patients at Carolina and Standerton hospitals (100%) reported that their medical records were kept confidential (Figure 4.16).

Table 4.17: Patients receiving medication (N=300)

Medication on time?	Total no of patients	Percentage of patients
No	3	1.0
Yes	297	99.0
Total	**300**	**100**

According to the interviews conducted with the patients, the majority (99.0%) of the patients reported receiving their medication on time each month while only 1.0% reported that they did not receive their medication on time (Table 4.17).

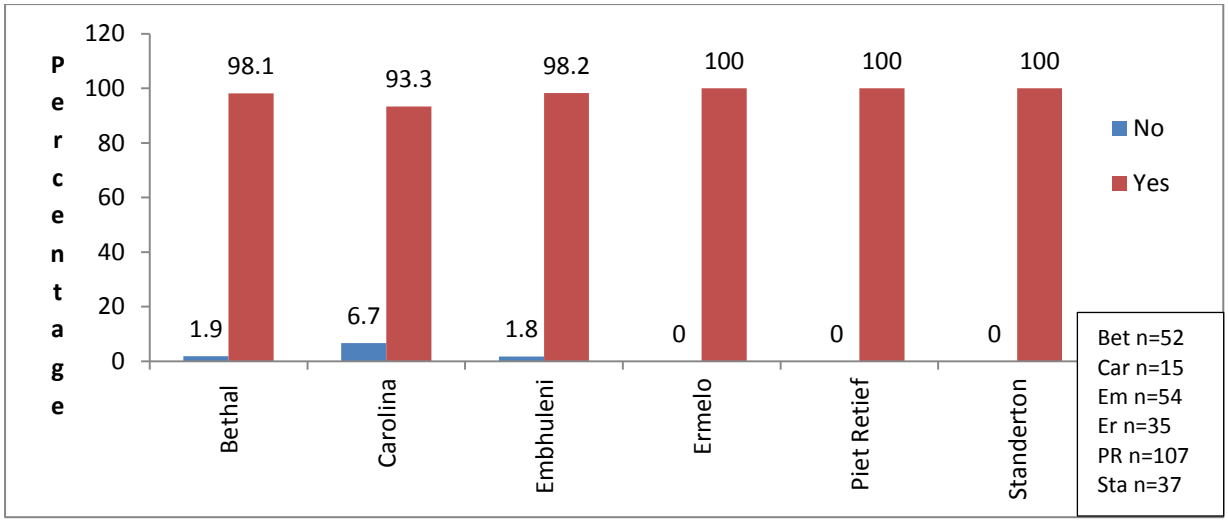

Figure 4.17: Timely receival of medication by patients by hospital

The results per hospital indicated that all the patients (100%) in Ermelo, Piet Retief and Standerton hospitals reported that they received their medication on time on each visit. Majority of the patients in Embhuleni (98.2%), Bethal (98.1%) and Carolina (93.3%) hospitals respectively also reported receiving their medication on time each month (Figure 4.17).

Table 4.18: Collection of TB and/or chronic medicines at the same time by hospital (N=297)

TB meds and/or other chronic treatment the same day?	**Bethal n=52**	**Carolina n=15**	**Embhuleni n=54**	**Ermelo n=35**	**Piet Retief n=104**	**Standerton n=37**
No	-	-	11 (20.4%)	6 (17.1%)	-	28 (75.7%)
Yes	52 (100%)	15 (100%)	43 (79.6%)	29 (82.9%)	104 (100%)	9 (24.3%)
Total	**52 (100%)**	**15 (100%)**	**54 (100%)**	**35 (100%)**	**104 (100%)***	**37 (100%)**

*3 missing data

Data per hospital shows that all the patients in Bethal, Carolina and Piet Retief reported receiving TB and/or chronic medication on the same day as their ARVs during each visit. Standerton (75.7%), Embhuleni (20.4%) and Ermelo (17.1%) patients respectively reported that they did not receive their TB and /or chronic medication on the same day as their ARVs (Table 4.18).

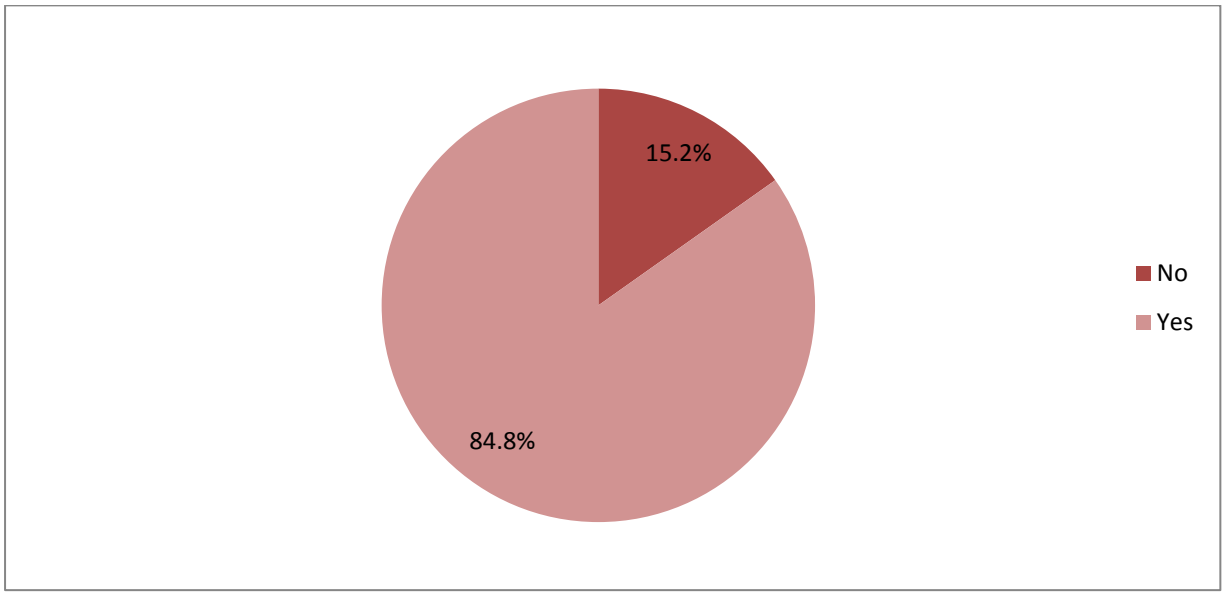

Figure 4.18: Collection of TB and/or chronic medicines at the same time (N=297)

Figure 4.18 shows that the majority (84.8%) of patients collected their TB and/or other chronic medication on the same day of their visit to the ART clinic.

Table 4.19: Convenience of ART site (N=300)

Site convenient?	Total no of patients	Percentage of patients
No	16	5.3
Yes	284	94.7
Total	**300**	**100**

In Table 4.19, the majority (94.7%) of the patients surveyed found their ART site convenient to them for consultation and treatment while only 5.3% did not find the site convenient to them.

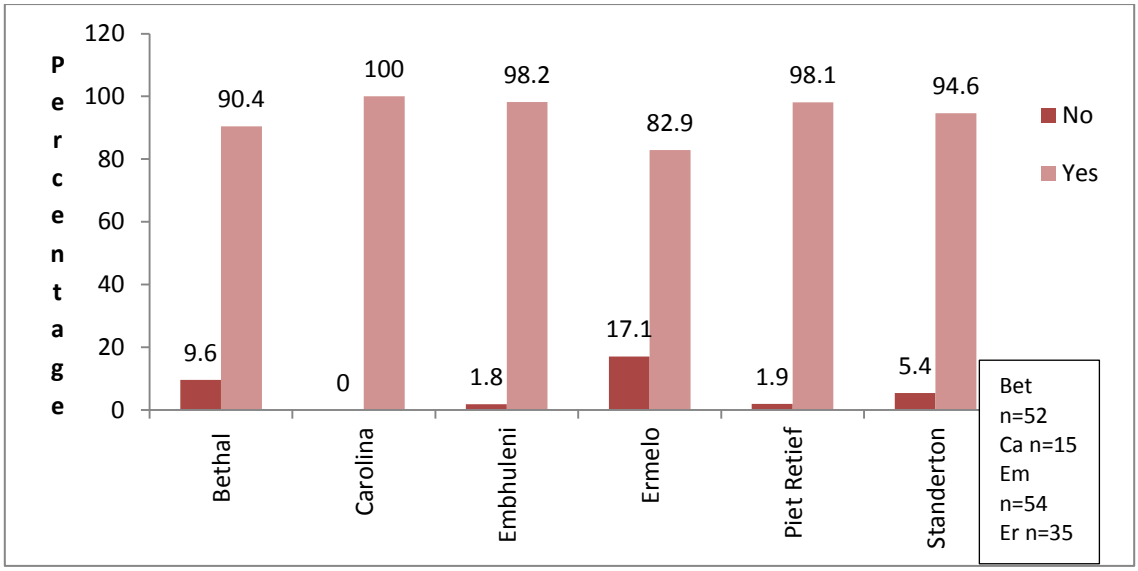

Figure 4.19: Convenience of ART site by hospital

All the patients at Carolina hospital found the site convenient while at Ermelo hospital 82.9% of patients found the site convenient (Figure 4.19).

Table 4.20: Collection of medication from the main pharmacy (N=300)

Would you like to collect your medication from main pharmacy?	Total no of patients	Percentage of patients
No	56	18.7
Yes	244	81.3
Total	**300**	**100**

Table 4.20 also indicates that 81.3% of patients preferred to collect their medication at the main pharmacy while 18.7% would like to have their medication available at the wellness clinic.

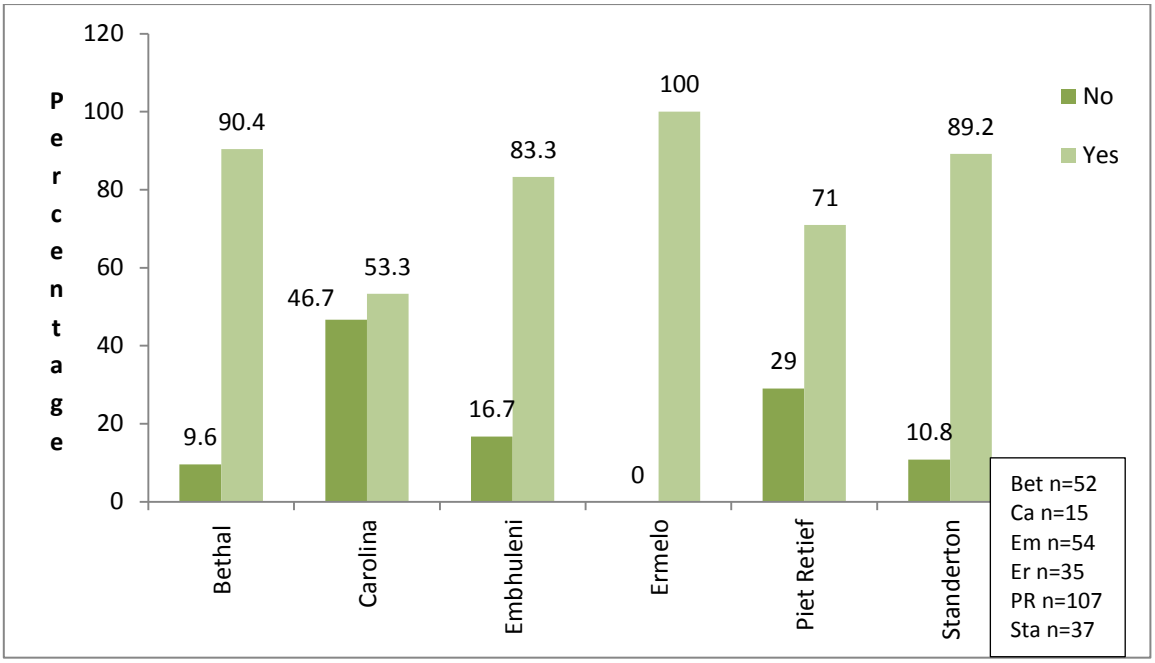

Figure 4.20: Collection of medication from the main pharmacy by hospital

All the patients surveyed at Ermelo hospital prefer the hospital main pharmacy for collection of their medication while at Carolina hospital only 53.3% of patients' prefer the main pharmacy (Figure 4.20).

Table 4.21: Appointment booking (N=300)

Need to book an appointment?	Total no of patients	Percentage of patients
No	10	3.3
Yes	290	96.7
Total	**300**	**100**

The majority (96.7%) of the patients' surveyed reported that they were given appointment dates before their next visit to the hospital while only 3.3% of patients said they came to the hospital anytime they were sick without having to secure an appointment (Table 4.21).

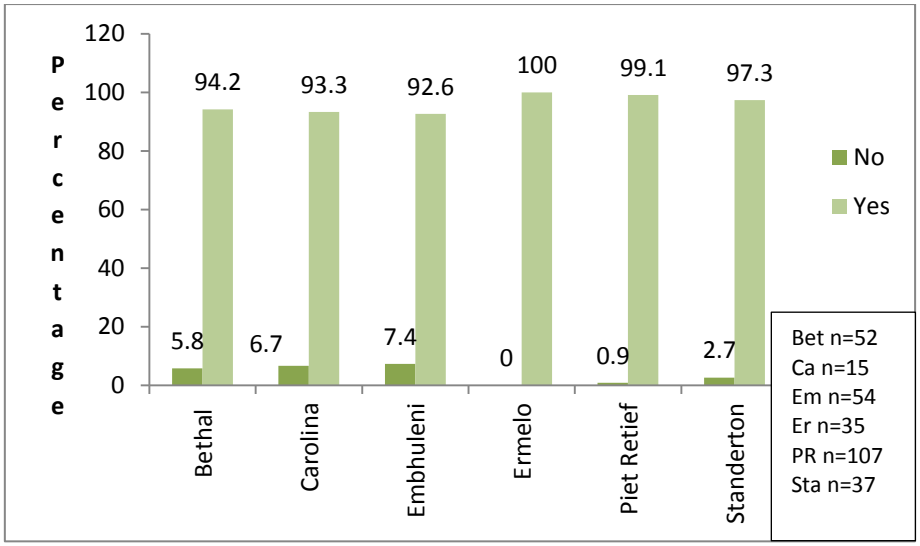

Figure 4.21: Need for appointment booking by patients by hospital

The survey of individual hospital on appointment booking by patients showed that the majority of the patients did not have to book an appointment before they consult. All the patients in Ermelo hospital reported that they did not have to book an appointment (Figure 4.21).

Table 4.22: Change of appointment (N=299)

Can you alter an appointment?	Total no of patients	Percentage of patients
No	68	22.7
Yes	231	77.3
Total	**299**	**100**

*1 missing data

Seventy seven per cent of all patients interviewed said they could easily alter their appointment date for consultation if the need arose while 22.7% said it was difficult to alter their appointment date (Table 4.22).

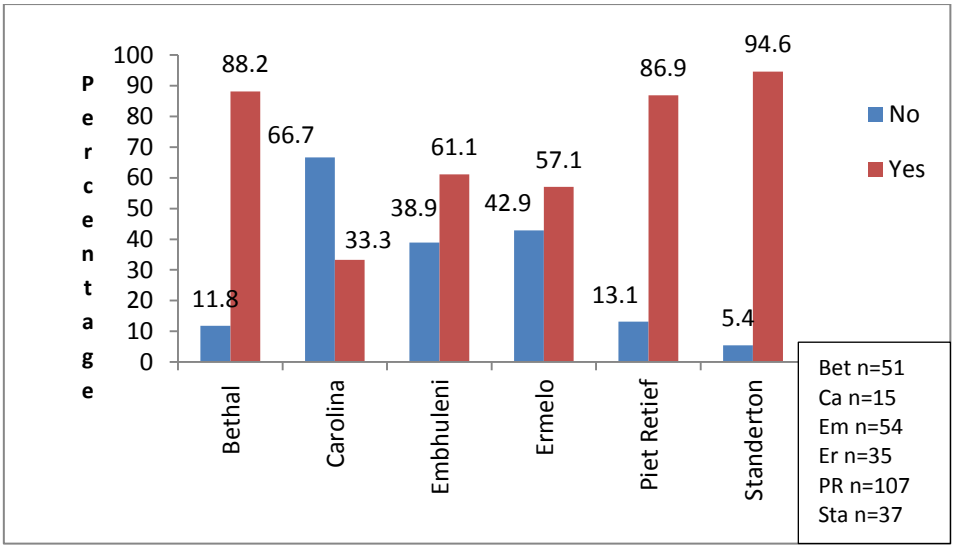

Figure 4.22: Change of appointment by hospital

The majority of patients at Carolina hospital reported that it is difficult to change an appointment (Figure 4.22).

Table 4.23: Attendance to patients by hospital (N=300)

First come-first help basis?	Bethal n=52	Carolina n=15	Embhuleni n=54	Ermelo n=35	Piet Retief n=107	Standerton n=37
No	3 (5.8%)	2 (13.3%)	14 (25.9%)	7 (20.0%)	5 (4.7%)	2 (5.4%)
Yes	49 (94.2%)	13 (86.7%)	40 (74.1%)	28 (80.0%)	102 (95.3%)	35 (94.6%)
Total	**52 (100%)**	**15 (100%)**	**54 (100%)**	**35 (100%)**	**107 (100%)**	**37 (100%)**

The majority of the patients from the six hospitals, Standerton (94.6%), Piet Retief (95.3%), Bethal (94.2%), Carolina (86.7%), Ermelo (80%) and Embhuleni (74.1%) reported that they were attended to on a first-come-first served basis (Table 4.23).

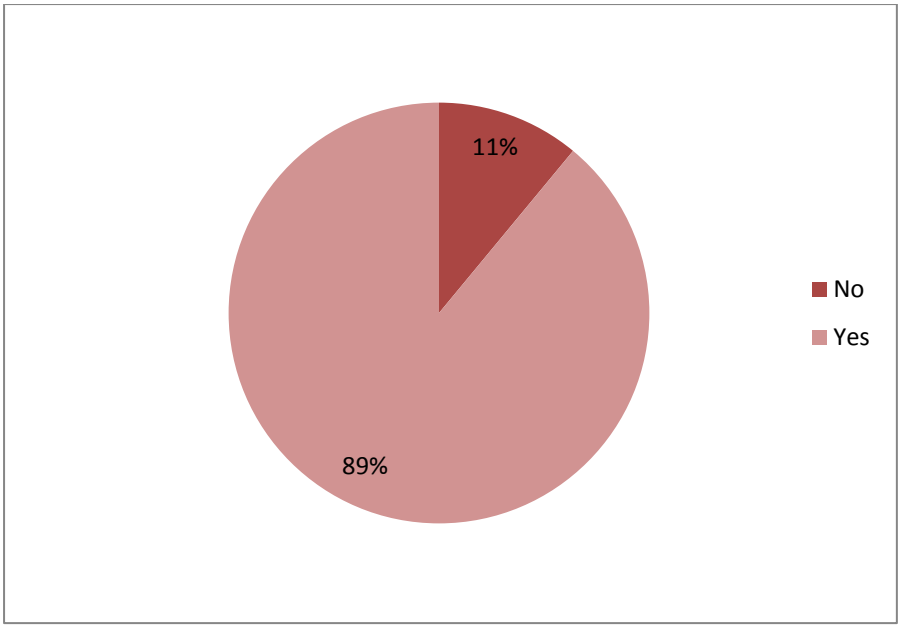

Figure 4.23: Attendance to patients on a first come, first help basis (N=300)

Most of the patients (89%) reported that they were assisted on a first-come-first-help basis. Only 11.0% reported not being assisted on such basis (Figure 4.23).

Table 4.24: Suitability of waiting area by hospital (N=299)

Waiting area suitable	Bethal n=52	Carolina n=15	Embhuleni n=54	Ermelo n=35	Piet Retief n=106	Standerton n=37
No	1 (1.9%)	3 (20.0%)	7 (13.0%)	6 (17.1%)	14(13.2%)	10 (27.0%)
Yes	51(98.1%)	12(80.0%)	47 (87.0%)	29(82.9%)	92(86.8%)	27 (73.0%)
Total	**52 (100%)**	**15 (100%)**	**54 (100%)**	**35 (100%)**	**106(100%)***	**37 (100%)**

*1 missing data

Table 4.24 shows that Standerton hospital patients appeared to be the least satisfied with the waiting area (27%) followed by Carolina hospital (20%).

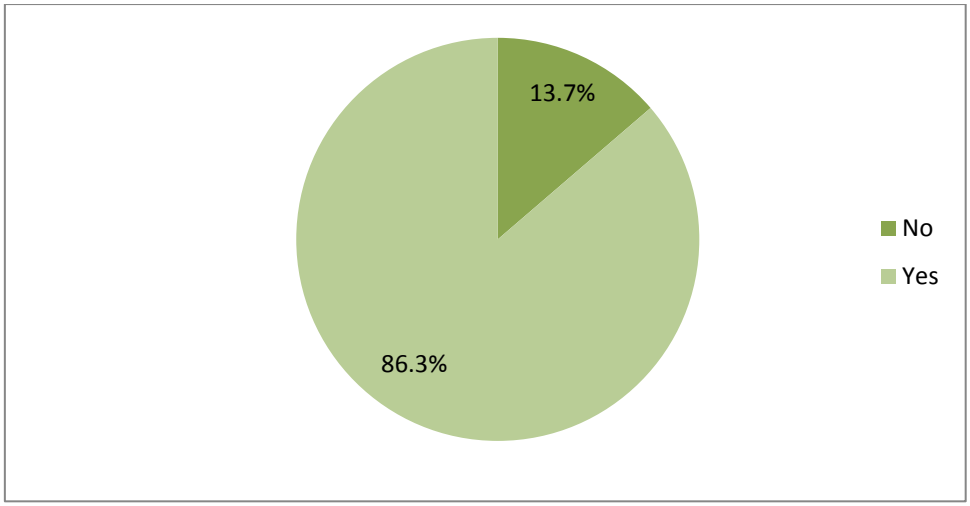

Figure 4.24: Suitability of waiting area (Total number of patients) (N=299)

Figure 4.24 shows that 86.3% of patients found the waiting area suitable for them while waiting for their medication.

Table 4.25: Waiting time (N=297)

Wait long before consultation?	Total no of patients	Percentage of patients
No	159	53.5
Yes	138	46.5
Total	**297***	**100***

*3 missing data

A survey of the waiting times across all the sites showed that 53.5% of the patients reported that they did not wait long before being attended to by their healthcare provider while 46.5% of patients complained of long waiting times before being attended to (Table 4.25).

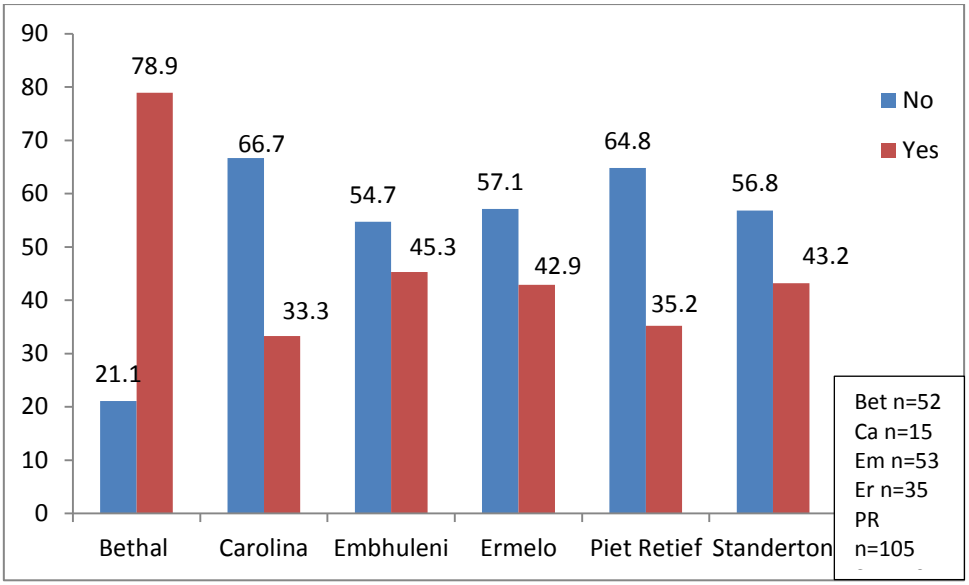

Figure 4.25: Wait long before consultation by hospital

The majority of patients at Bethal hospital (78.9%) reported that they wait long before consultation. However, the majority of the patients across the other hospitals reported not waiting long before consultation (Figure 4.25).

Table 4.25.1: Duration of waiting time (N=155)

How long	Bethal	Carolina	Embhuleni	Ermelo	Piet Retief	Standerton
15 Minutes	-	-	-	1 (2.9%)	-	-
25 Minutes	1 (2.4%)	-	-	-	-	-
30 Minutes	4 (9.9%)	-	-	9 (25.7%)	-	1 (6.2%)
35 Minutes	1 (2.4%)	-	-	-	-	-
40 Minutes	8 (19.5%)	-	-	4 (11.4%)	3 (9.1%)	-
45 Minutes	2 (4.9%)	-	1 (4.0%)	6 (17.1%)	-	-
50 Minutes	-	-	-	1 (2.9%)	-	-
1 Hour	18 (43.9%)	4 (80.0%)	6 (24.0%)	9 (25.7%)	11 (33.3%)	9 (56.2%)
1.5 Hours	1 (2.4%)	-	-	-	5 (15.1%)	-
2 Hours	2 (4.9%)	-	7 (28.0%)	2 (5.7%)	6 (18.2%)	4 (25.0%)
2.5 Hours	-	-	-	-	1 (3.0%)	-
3 Hours	1 (2.4%)	-	7 (28.0%)	3 (8.6%)	2 (6.1%)	2 (12.5%)
4 Hours	3 (7.3%)	-	3 (12.0%)	-	2 (6.1%)	-
5 Hours	-	1 (20.0%)	1 (4.0%)	-	1 (3.01%)	-
24 Hours	-	-	-	-	2 (6.1%)	-
Total	**41(100%)**	**5 (100%)**	**25 (100%)**	**35(100%)**	**33 (100%)**	**16 (100%)**

Table 4.25.1 indicates that 155 patients reported estimated times they waited before consultation. One patient said he was only waiting 15 minutes at Ermelo hospital while two patients said they waited 24 hours at Piet Retief hospital. The majority of patients estimated that they waited one hour.

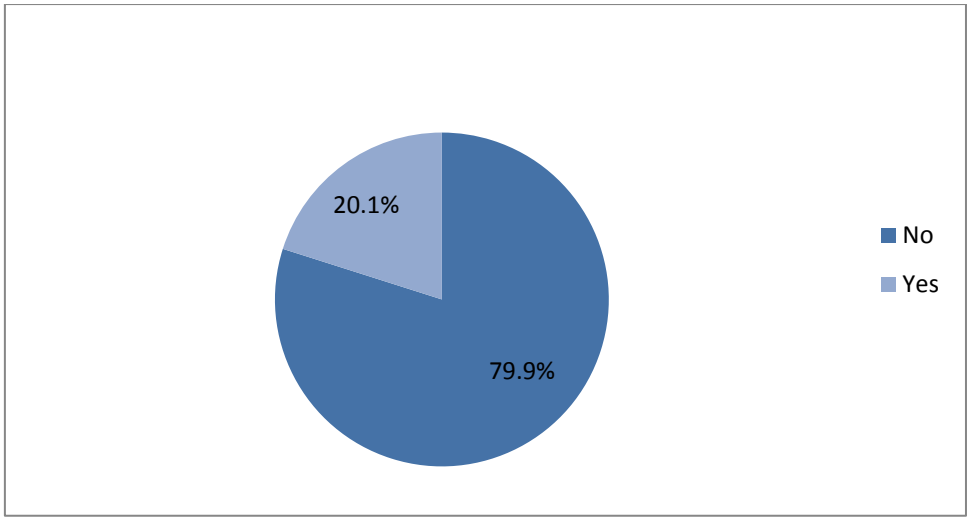

Figure 4.26: Refreshments while waiting for treatment (N=300).

Figure 4.26 shows a reflection of patients who had something to eat or drink while they were waiting for treatment at the sites. Only 20.1% of patients had something to eat or drink while only 79.9% did not receive anything to eat or drink while waiting for treatment. The proportion of patients who had something to eat reported that they were supplied refreshments by members of a Faith Based Organisation who usually come to visit them on their clinic days.

Table 4.26: Person dispensing medicines (N=298)

Who dispense medicines ?	**Bethal n=52**	**Carolina n=15**	**Embhuleni n=54**	**Ermelo n=35**	**Piet Retief n=107**	**Standerton n=35**
Pharmacist	52(100%)	15(100%)	54 (100%)	35(100%)	107(100%)	35 (100%)
Prescriber	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	**52 (100%)**	**15(100%)**	**54 (100%)**	**35(100%)**	**107(100%)**	**35 (100%)***

*2 missing data

According to Table 4.26, all the patients across the ART facilities indicated the pharmacist was the dispenser of their medicines during consultation.

Table 4.27: Patient to return to hospital at a specific time (N=300)

Healthcare provider asked patient to return?	Total no of patients	Percentage of patients
No	6	2.0
Yes	294	98.0
Total	**300**	**100**

The majority (98%) of the patients also reported that the healthcare provider asked them to return to the hospital at any time for consultation if they were ill (Table 4.27).

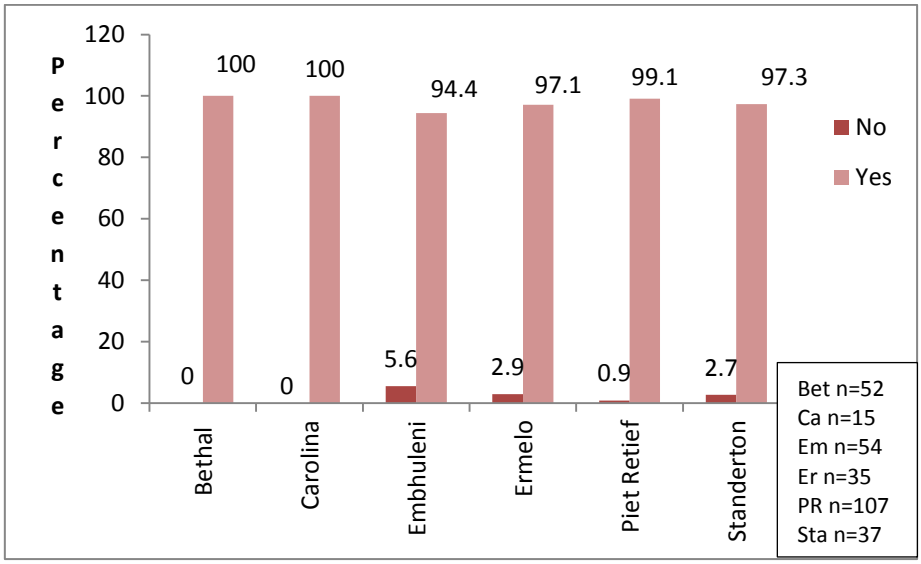

Figure 4.27: Healthcare provider asked patient to return by hospital

All the patients at Bethal, Carolina and Piet Retief hospitals indicated that the healthcare provider asked them to return at a specific time (Figure 4.27).

Table 4.28: ART Regimen used by patients during study period (N=300)

REGIMEN		BETHAL	CAROLINA	EMBHULENI	ERMELO	PIET RETIEF	STANDERTON	Total no on regimen
FIRST LINE REGIMEN	SLE	19 (36.5%)	6 (40.0%)	13 (24.1%)	11 (31.3%)	32 (29.9%)	13 (35.2%)	**94 (31.3%)**
	ZLE	4 (7.7%)	-	-	2 (5.7%)	10 (9.3%)	4 (10.8%)	**20 (6.7%)**
	TLE	21 (40.4%)	2 (13.3%)	21 (38.9%)	12 (34.3%)	37 (34.6%)	7 (18.9%)	**100 (33.3%)**
	SLN	1 (1.9%)	4 (26.7%)	9 (16.6%)	2 (5.7%)	19 (17.7%)	5 (13.5%)	**40 (13.3%)**
	ZLN	-	1 (6.7%)	-	1 (2.9%)	5 (4.7%)	3 (8.1%)	**10 (3.3%)**
	TLN	7 (13.5%)	2 (13.3%)	11 (20.4%)	4 (11.4%)	-	5 (13.5%)	**29 (9.7%)**
	SLA* (for patients who cannot take EFV/NEV)	-	-	-	-	-	-	
SECOND LINE REGIMEN	ZDA*	-	-	-	1 (2.9%)	-	-	**1 (0.3%)**
	TLA*	-	-	-	1 (2.9%)	2 (1.9%)	-	**3 (1.0%)**
	ZLA*	-	-	-	1 (2.9%)	2 (1.9%)	-	**3 (1.0%)**
	ABACAVIR	-	-	-	-	-	-	**0 (0%)**
Total Adults		**52 (100%)**	**15 (100%)**	**54 (100%)**	**35 (100%)**	**107 (100%)**	**37 (100%)**	**300 (100%)**

*A: Aluvia® (Lopinavir400mg/Ritonavir 100mg combination tablet)

Where **SLE**= Stavudine, Lamivudine, Efavirenz; **ZLE**= Zidovudine Lamivudine, Efavirenz; **TLE**= Tenofovir, Lamivudine, Efavirenz; **SLN**= Stavudine, Lamivudine, Nevirapine; **ZLN**= Zidovudine, Lamivudine, Nevirapine; **TLN**= Tenofovir, Lamivudine, Nevirapine; **ZDA**= Zidovudine, Didanosine, Abacavir; **TLA**= Tenofovir, Lamivudine, Abacavir; **ZLA**= Zidovudine, Lamivudine, Abacavir

Table 4.28 highlights the regimen that patients from the different sites were taking at the time of study with most patients placed on the first line regimen and very few on second line regimen. The overall results also indicates that most patients across the facilities were on a Tenofovir, Lamivudine, and Efavirenz (TLE) treatment regimen (33.3%) compared to a Stavudine, Lamivudine, Efavirenz (SLE) treatment regimen (31.3%) which indicates an increase in the switch over of patients from SLE to TLE.

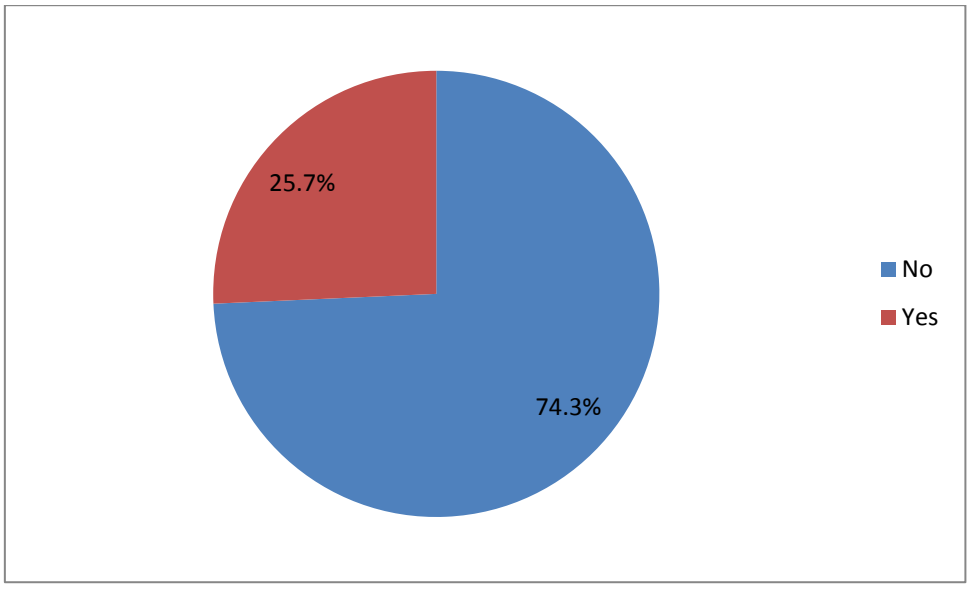

Figure 4.28: Problems encountered with treatment (N=300)

The majority (74.3%) of the patients did not report having any side effects with their ART treatment compared to 25.7% who complained of problems with their treatment (Figure 4.28).

Table 4.29: Availability of medicines (N=300)

Are medicines always available?	Total no of patients	Percentage of patients
No	4	1.3
Yes	296	98.7
Total	**300**	**100**

The overall result in Table 4.29 showed that from all the patients surveyed, 98.7% reported that medicines were always available to them every time they visit the

hospital for their repeat treatment compared to only 1.3% of patients who did not always receive their medicines during their appointment period.

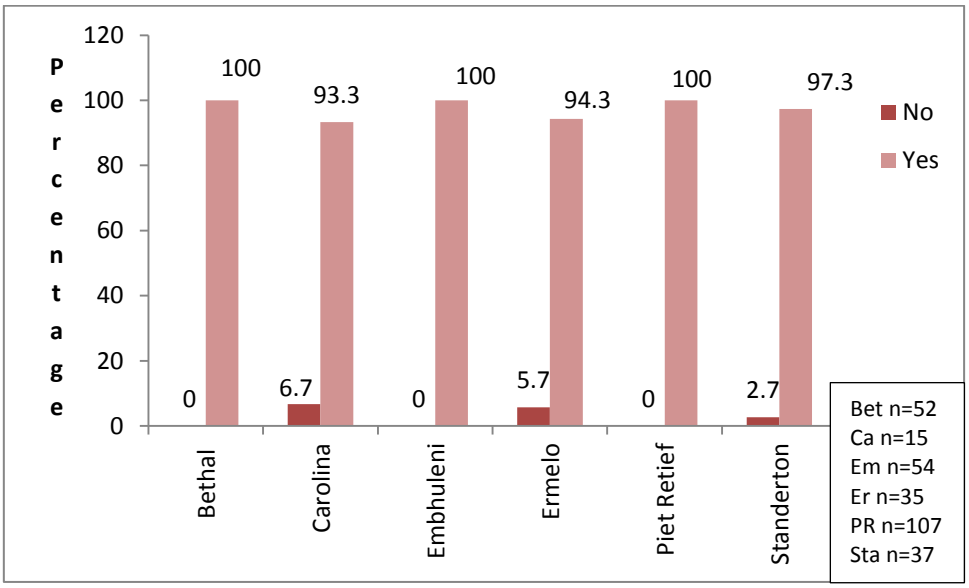

Figure 4.29: Availability of medicines by hospital

All the patients from Bethal, Embhuleni and Piet Retief hospitals indicated always having their medication available to them on their clinic days (Figure 4.29).

Table 4.30: Management of medicines (N=300)

Medicines easy to administer and manage?	Total no of patients	Percentage of patients
No	46	15.3
Yes	254	84.7
Total	**300**	**100**

Table 4.30 reflects the percentage of patients who found their medicines easy to administer and those who did not. The overall result suggests that 84.7% of the patients could easily administer their medicines while 15.3% of the patients could not easily administer their medicines.

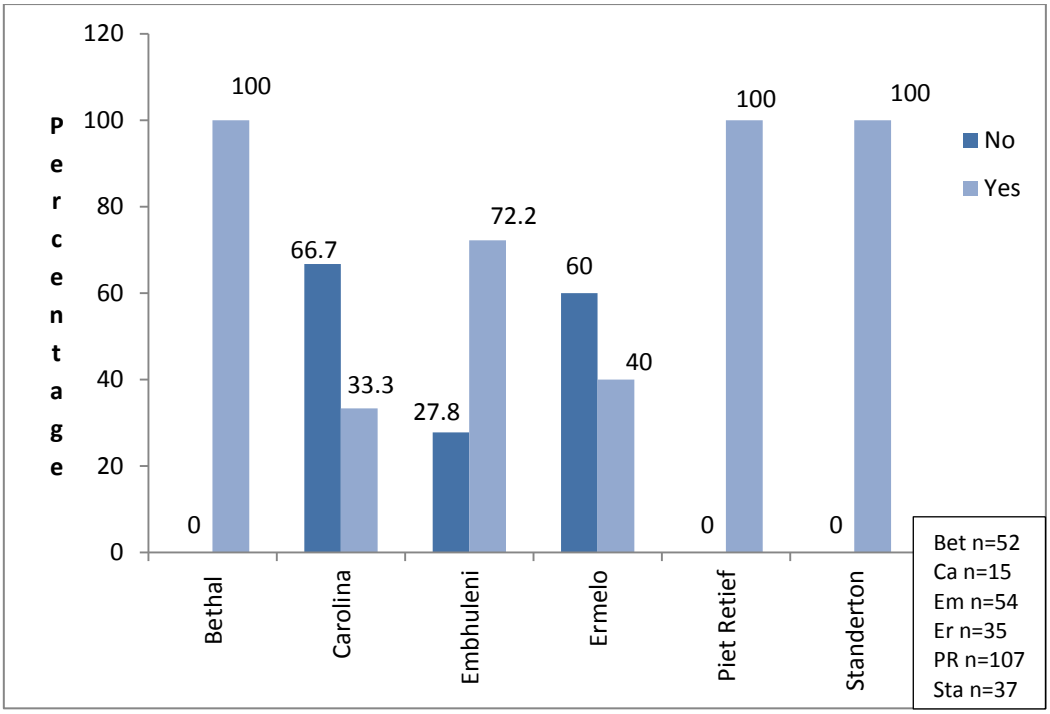

Figure 4.30: Management of medicines by hospital

All the patients from Bethal, Piet Retief and Standerton hospitals reported that they found their medicines easy to administer (Figure 4.30).

Table 4.31: Administration of medication by hospital (N=300)

Are you happy for the way in which you need to drink your medication?	**Bethal n=52**	**Carolina n=15**	**Embhuleni n=54**	**Ermelo n=35**	**Piet Retief n=107**	**Standerton n=37**
No	-	-	-	2 (5.7%)	2 (1.9%)	5 (13.5%)
Yes	52 (100)	15 (100%)	54 (100%)	33 (94.3%)	105 (98.1%)	32 (86.5%)
Total	**52 (100%)**	**15 (100%)**	**54 (100%)**	**35 (100%)**	**107 (100%)**	**37 (100%)**

In Table 4.31, the results from the hospitals show the percentage of patients surveyed on contentment with their medicines.

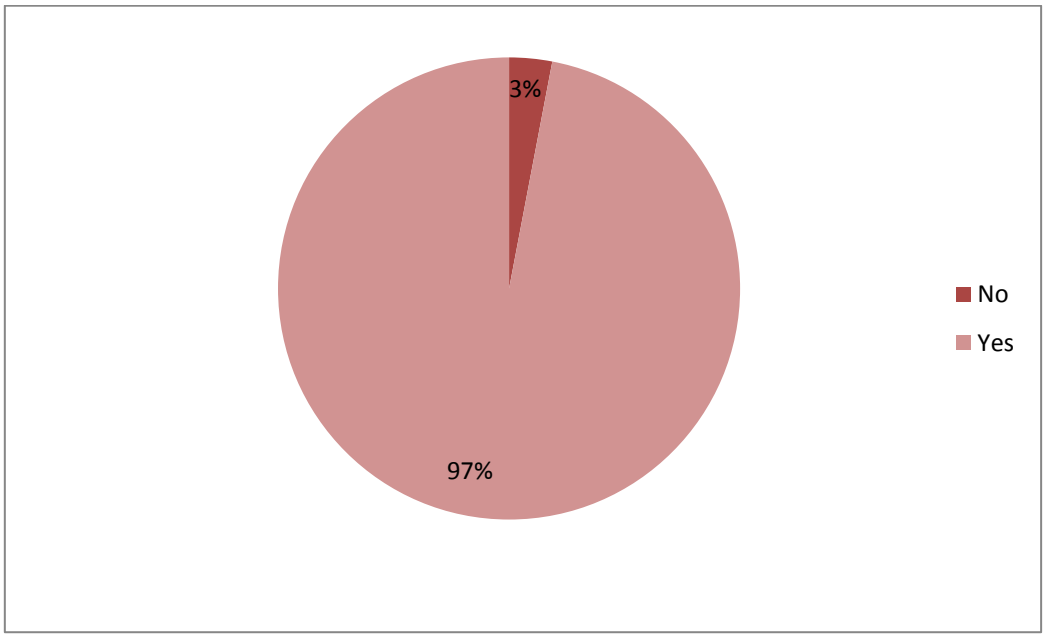

Figure 4.31: Easy administration of medication (N=300)

The majority (97%) of the patients indicated that they were happy with the way they use their medicines while only 3% disagreed (Figure 4.31).

Table 4.32: Clear directions on label (N=298)

Are directions on label clear?	Total no of patients	Percentage of patients
No	4	1.3
Yes	294	98.7
Total	**298***	**100***

2 missing data*

According to Table 4.32, the majority (98.7%) of patients understood the directions on the labels of the medicines while only 1.3% reported not understanding the directions on the medication label.

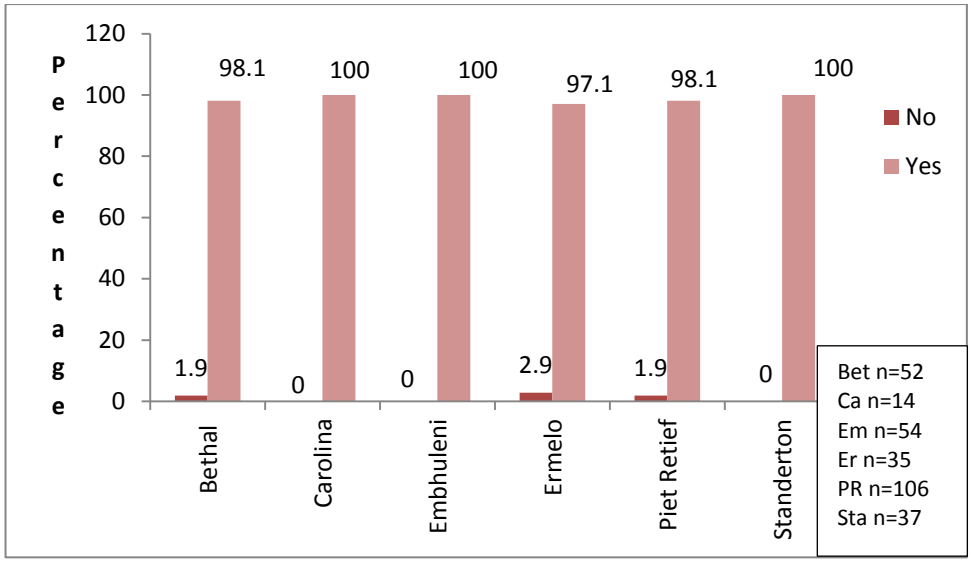

Figure 4.32: Clear directions on label by hospital

All the patients from Carolina, Embhuleni and Standerton hospitals respectively understood the directions on the labels (Figure 4.32).

Table 4.33: Satisfaction/dissatisfaction with care at facility (N=297)

Are you satisfied or dissatisfied with care?	Total no of patients	Percentage of patients
Dissatisfied	7	2.4
Satisfied	290	97.6
Total	**297***	**100***

*3 missing data

Overall reflections from the patients interviewed on satisfaction of care in the facilities shows that majority (97.6%) of the patients were satisfied with the care they receive from the ART sites while only 7 (2.4%) of the patients said they were dissatisfied with the level of care (Table 4.33).

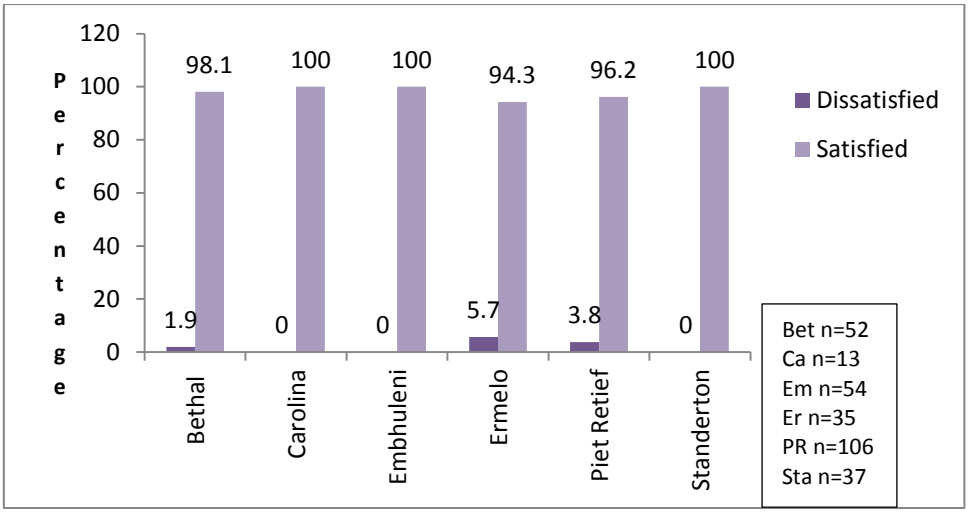

Figure 4.33: Satisfaction/dissatisfaction with care at facility by hospital

The entire patients interviewed (100%) from Carolina, Embhuleni and Standerton reported that they were satisfied with the care they received (Figure 4.33). Ermelo hospital recorded the lowest satisfaction with care (94.3%) among the facilities. The reasons cited by the patients who were dissatisfied include staff shortages, staff attitude, waiting time and dirty toilets.

Table 4.34: Return to facility (N=299)

Would you come to this facility again?	Total no of patients	Percentage of patients
No	16	5.3
Yes	283	94.6
Total	**299***	**100***

*1 missing data

The majority of the patients (94.6%) interviewed reported that they will visit the facility again to continue with their treatment at their current ART sites. Only 5.3% of patients prefer to continue their treatment at their local clinics due to high cost of transport (Table 4.34).

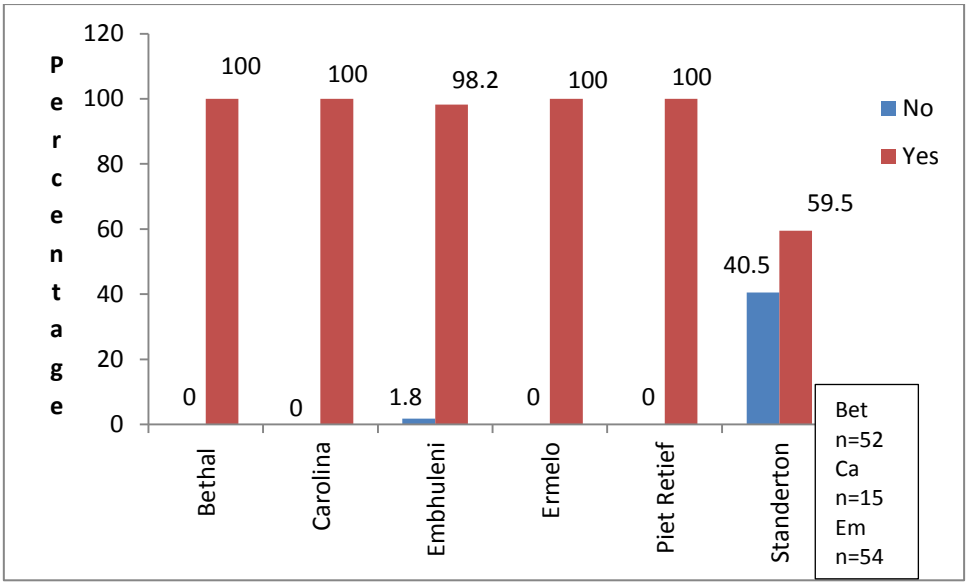

Figure 4.34: Return to facility by hospital

All the patients (100%) from Bethal, Carolina, Ermelo and Standerton hospitals would like to return to the same facility again (Figure 4.34).

Table 4.35: Distance of facility (N=296)

Is there a facility closer to your home?	**Bethal n=51**	**Carolina n=15**	**Embhuleni n=54**	**Ermelo n=35**	**Piet Retief n=104**	**Standerton n=37**
No	3 (5.9%)	7(46.7%)	13 (24.1%)	4 (11.4%)	11(10.6%)	2 (5.4%)
Yes	48 (94.1)	8 (53.3)	41 (75.9)	31(88.6%)	93 (89.4)	35 (94.6%)
Total	**51(100%)***	**15(100%)**	**54 (100%)**	**35 (100%)**	**104(100%)****	**37 (100%)**

*1 missing data, **3 missing data

The majority of the patients interviewed in all six hospitals reported that there is a facility closer to their home which they could have visited for consultation (Table 4.35)

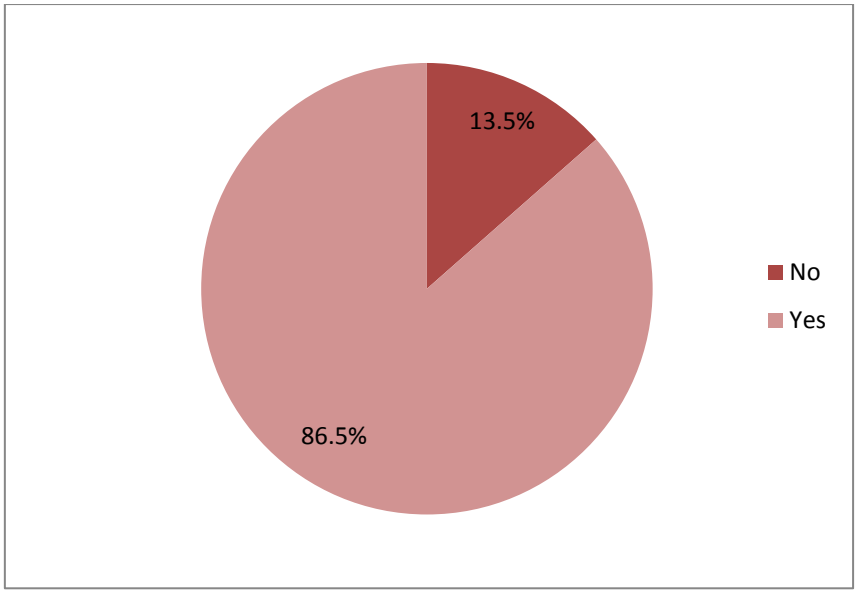

Figure 4.35: Other facility closer to you (N=296)

The majority (86.5%) of patients reported living closer to a facility in their locality which they could have visited for consultation and treatment (Figure 4.35).

Table 4.36: Cost of transport to facility (N=296)

What is the cost involved to get to this facility?	Total no of patients	Percentage of patients
R12 – R30	202	68.3%
R32 – R50	27	9.1%
R56 – R74	7	2.4%
R80 – R120	15	5.1%
No costs/ expenses involved	45	15.1%
Total	**296***	**100%***

*4 missing data

Table 4.36 highlights the cost implication for patients to get to the treatment facility. Most of the patients (68.3%) estimated an expenditure of R12- R30 to travel to the facility to receive treatment. Only 0.3% of the patients use a bicycle or their own transport to reach their treatment sites.

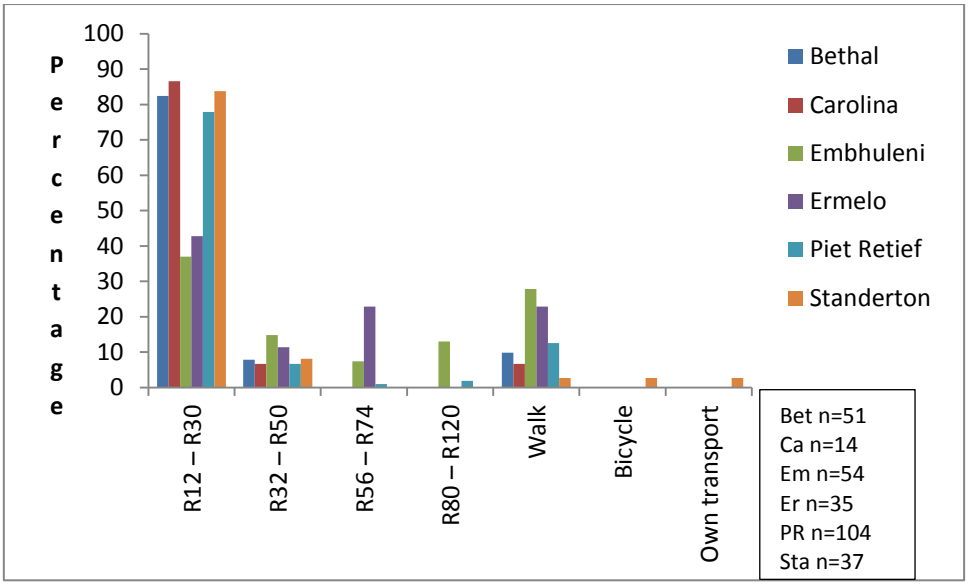

Figure 4.36: Cost and means of transport to facility

Cost of transport per hospital as shown in Figure 4.36 indicates that most of the patients from Bethal, Carolina Embhuleni, Ermelo, Piet Retief and Standerton spend between 12 and 30 rand to travel to their ART sites.

Table 4.37: Availability of transport to facility difficult (N=297)

Is availability of transport to this facility difficult?	Bethal n=52	Carolina n=15	Embhuleni n=54	Ermelo n=35	Piet Retief n=104	Standerton n=37
No	5(9.6%)	-	27 (50.0%)	8 (22.9%)	2 (1.9%)	23 (62.2%)
Yes	47(90.4%)	15(100%)	27 (50.0%)	27(77.1%)	102(98.1%)	14 (37.8%)
Total	**52 (100%)**	**15(100%)**	**54 (100%)**	**35 (100%)**	**104(100%)***	**37 (100%)**

*3 missing data

According to the above results, the facility where patients found the availability of transport most difficult was Carolina hospital (100%), followed by Piet Retief (98.1%), Bethal (90.4%) and Ermelo hospital (77.1%) respectively. The response of Embhuleni hospital patients is evenly distributed (50%).Standerton hospital was the

only facility where majority of the patients (62.2%) reported that they did not find the availability of transport difficult to get to their ART sites Table (4.37).

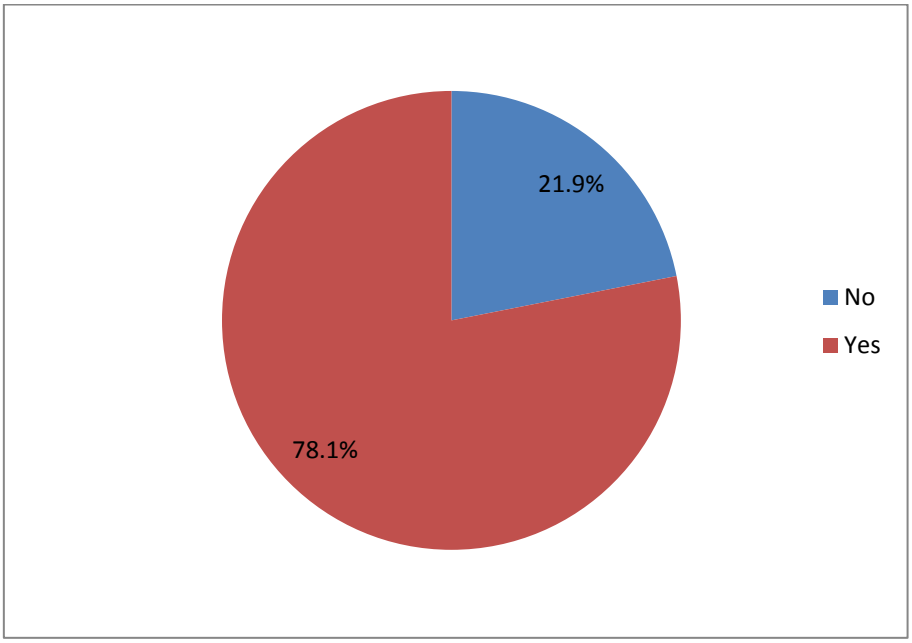

Figure 4.37: Availability of transport to facility difficult (N=297)

From the interview conducted with patients regarding the availability of transport to get to the facility for their treatment, majority of the patients reported finding the available transportation difficult to reach their ART site. This constitutes about 78% of the overall patients. Only 21.9% of the patients did not find the availability of transportation difficult to get to treatment sites (Figure 4.37).

Table 4.38: Patients who want to be transferred to other institutions by hospital (N=296)

Referral to other institution?	**Bethal n=52**	**Carolina n=15**	**Embhuleni n=54**	**Ermelo n=35**	**Piet Retief n=107**	**Standerton n=37**
No	9 (17.3%)	11 (73.3%)	38 (70.4%)	17 (48.6%)	26 (25.2%)	15 (40.5%)
Yes	43 (82.7%)	4 (26.7%)	16 (29.6%)	18 (51.4%)	77 (74.8%)	22 (59.5%)
Total	**52 (100%)**	**15 (100%)**	**54 (100%)**	**35 (100%)**	**107 (100%)***	**37 (100%)**

*4 missing data

Table 4.38 highlights the percentage preference for referral to other institutions per hospital. The majority of patients from Carolina (73.3%) and Embhuleni (70.4%) hospitals did not want to be transferred.

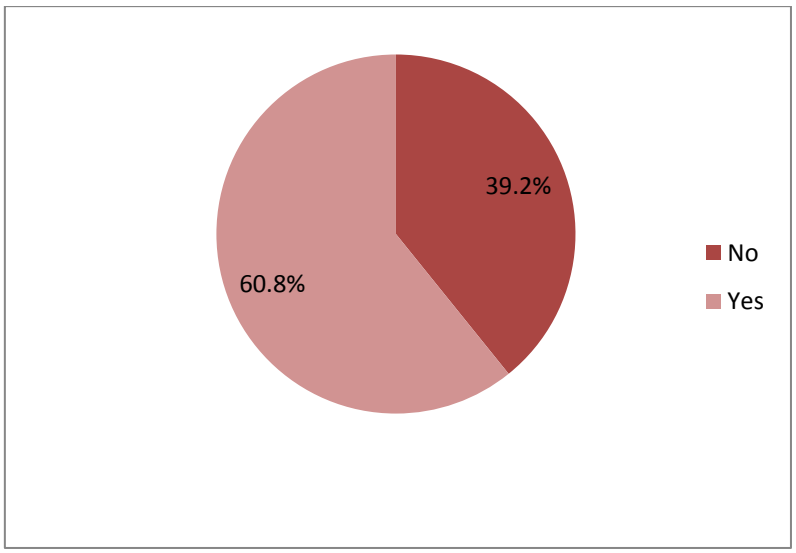

Figure 4.38: Patients who want to be transferred to other institutions (N=296)

According to the interview on whether patients would like to be referred to other institutions for treatment, the overall result indicated that majority of the patients (60.8%) would like to be referred to institutions closer to them. 39.2% would prefer to continue their treatment in their current facility (Figure 4.38).

4.6 SUMMARY

Chapter 4 summarised the data results collected over the 4-month study period and in-depth analysis of the results followed by a short discussion. The discussion and conclusion of the results will be presented in Chapter 5.

CHAPTER 5

DISCUSSION OF RESULTS AND CONCLUSION

5.1 INTRODUCTION

The results presented in Chapter 4 will be discussed in this chapter. This is followed by a discussion of the results according to the three main objectives of the study, as set out in chapter 1.

The objectives of this research were:

- To determine if patients were satisfied or dissatisfied with services rendered at accredited ART sites in the Gert Sibande District in Mpumalanga.
- To determine the factors associated with satisfaction of patients with regards to the Antiretroviral Treatment (ART) services in the Gert Sibande District in Mpumalanga.
- To determine the factors associated with dissatisfaction of patients with regards to the Antiretroviral Treatment (ART) services in the Gert Sibande District in Mpumalanga.

5.2 PATIENT DEMOGRAPHICS

5.2.1 Age and gender

In this study, a total number of 300 patients were interviewed across the six accredited ART sites. The majority of patients were between the ages of 31-45 followed by the 18-30 age groups. The total of these age groups (85.3%) represent a strong percentage of the active South African workforce.

Two hundred and two (69%) of the patients interviewed were females while 91 (31%) were males. This is consistent with previous studies which showed that women are at a greater risk of heterosexual transmission of HIV (Centres for Disease Control and Prevention, 2011). Biologically, women are twice more likely to become infected with HIV through unprotected heterosexual intercourse than men and therefore more women present at treatment centres. According to Jones et al., (1993) and Delgado et al., (1993) there were no relation between patient satisfaction and gender. However, satisfaction was higher among women than among men.

5.2.2 Educational and literacy level of patients

The educational level of patients revealed that the majority (70%) had between Grade 8-Grade 12 formal educational levels. The majority of patients (81.9%) could also both read and write. As the majority had formal education it would explain the high literacy level. No studies could be found to substantiate a link between literacy and patient satisfaction.

The study also found unemployment among the patients to be at about 60%. In 2011, Statistics revealed that the unemployment rate for South Africa is 25% (Statistics South Africa, 2011). This would explain the high unemployment rate in this study.

5.3 RESPONSES REGARDING THE GENERAL FACILITY AND HEALTHCARE PROVISION

According to the data obtained during the study, 56% of the patients interviewed did not consult with the same healthcare provider when they attended the clinic each time. However, staff shortages at healthcare facilities make it difficult to consult with the same health care provider each time patients attend the ART clinic (Wouters et al., 2008). An exception was Carolina Hospital where all the patients interviewed (100%) did consult with the same healthcare provider as Carolina Hospital specifically employed doctors for their ART clinic through NGOs partnering with government. Fifty seven per cent of patients would not like to see the same healthcare provider each time although very few patients reported language (3.7%) and politeness (2.3%) as reasons for dissatisfaction.

The majority (98%) of the patients reported that the healthcare provider who attended to them during their clinic consultation listened to their problems. The majority of patients (98%) interviewed also responded that their healthcare providers were polite to them during their consultation. A thorough explanation of CD4 count results were given to 92% of the patients by the healthcare providers on every visit to the clinic. In addition, 93% of the overall patients indicated that they had the opportunity to ask their healthcare provider questions on issues that were not clear

to them. The majority of patients (98%) indicated that they were satisfied with the explanations given to them concerning their questions. Privacy during medical examination and confidentiality of medical records are factors that are of utmost importance to patients. Table 4.15 showed that 290 (97%) of patients indicated that their medical examinations by the healthcare provider were done in private. Ninety eight per cent of patients indicated that their medical records were kept confidential. However, a study carried out by Masangalawe**,** Kandulu and van Oosterhout in 2011 indicated bad attitude of staff (19.6%), healthcare workers not listening to concerns (12.5%) and no explanations given to them by healthcare providers as major reasons for dissatisfaction.

The majority of patients (99%) across all the ART sites received their medication on time every month at the pharmacy with little or no complaints. The results of this study agree with a similar study carried out by Karunamoorthi et al*.* (2009) where 73% of the patients were very satisfied with the pharmacy service. Figure 4.18 indicated that 252 (85%) of the patients collected their TB and/or other chronic medication on the same day at the same clinic. This implied that patients would not have to come to the clinic twice and it saved them time and money considering their socio-economic background.

Ninety five per cent of patients found their ART site convenient to attend for their consultation with the healthcare providers. The reason cited to this high rate of convenience is the fact that most of the ART site structures were either renovated or donated by NGOs via the President's Emergency Plan for AIDS Relief (PEPFAR) funds.

Table 4.20 indicated that 244 (81%) of the patients preferred to collect their medicines from the main pharmacy rather than be separated from the general out-patients. It is the belief of the majority of the patients that stigmatisation will be minimised when they queue with other patients for collection of their medicines in the pharmacy. Ninety seven per cent of the patients indicated they had to book an appointment before their next consultation at the clinic. Seventy seven per cent of patients could easily alter their appointment with the healthcare provider if they could not attend the initial appointment. Twenty two per cent could not alter their

appointment in any way if they missed the initial appointment day. This however may lead to patients defaulting on their treatment. The data also revealed that 89% of patients were attended to in the clinics on a first-come-first-help basis.

The majority of the patients (86%) surveyed found the waiting area suitable for them during their consultation. Fifty three per cent of the patients surveyed did not have to wait long to be attended to at the facility. A survey of the time revealed that 37% of patients waited for an average of 1 hour, followed by 14% waiting for an average of 2 hours and 10% for an average of 3 hours. Bethal hospital patients experienced longer waiting times compared to other facilities in the district due to a serious shortage of pharmacists in the ART clinic dispensary where the patients received their medication.

Human resource shortage such as doctors and nurses was a factor highlighted by patients who complained of long waiting times at the clinics. This result is comparable to a previous study carried out by Wouters et al. (2008) which identified lack of human resources as a causal factor to the long waiting time which is deemed as a most important obstacle to a successful South African AIDS strategy. According to a study carried out by Probst et al. (1997) longer waiting times resulted in lower patient satisfaction. A similar study carried out by Newman et al. (1998) indicated that the majority of the ART patients waited for 120 minutes before getting service from the unit.

Also, the majority of patients surveyed (80%) indicated not receiving something to eat or drink while they were waiting for consultation with the healthcare provider. All the patients surveyed indicated that the healthcare provider who dispensed their medicines was the pharmacist. Almost all (98.0%) of patients indicated that the healthcare provider requested them to return to the facility on a monthly basis for cases such as repeats, baseline checks and down referral.

Only 26% of patients reported having side effects associated with their treatment regimens such as rash, rapid weight gain, and enlargement of breasts for male patients (gynaecomastia). The study showed that almost all of the patients (99%) confirmed availability of medicines at their facilities on every visit. The possible

reason is the prompt settlement of the ARV suppliers' account by the Department of Health to avoid shortage of medication and disruption of health service provision to the community.

5.3.1 Satisfaction/Dissatisfaction with care

Patient satisfaction is a critical factor that must be taken into consideration in order to achieve a successful outcome in healthcare. The overall number of patients that were satisfied with the general ART care in this study is very high (98%). The results of this analysis are consistent with studies by Wouters et al. (2008) and Bodur et al. (2002).

One factor that is also linked to patients' satisfaction at the ART sites was that the majority of patients (98%) understood the directions on the labels clearly and therefore, they knew how to take their medications. This again, can possibly be linked to the high literacy level. The majority (61%) of the patients indicated they would prefer to be transferred to a facility closer to their home due to the high cost and difficulty in obtaining transportation to and from the ART sites for consultation even though they were happy with the services they receive at the ART sites. They also believed that the government will improve services at the local facilities.

Reasons, why seven (2.4%) patients indicated dissatisfaction with services, included

- human resource shortages especially doctors and nurses,
- bad staff attitude such as impoliteness of the nurses,
- non-protection of their confidentiality and
- dirty toilets

Suggestions given by patients for improving care in the facilities include; having a once daily dosing of their ARVs to improve compliance, distribution of questionnaires every 3-6 months to get patient views on services rendered, provision of heaters to the waiting area during winter and enlargement thereof, supply of refreshments in the waiting area while waiting for treatment and renovation of facilities including separate toilets for the different genders. Patient's satisfaction is one of the imperative crucial components for the great success of any healthcare service

especially in ART units as these units play a vital role in the lives of thousands of HIV/AIDS patients.

In conclusion, even though South Africa still shows a relatively low coverage with ART in comparison to much poorer neighbouring countries, this study demonstrates that the overall satisfaction with ART-related services is high at assessment sites in the Gert Sibande District. The major factors contributing to satisfaction included the availability of medicines, knowledge on how to take their medication and general satisfaction with the healthcare providers. The major factors contributing to dissatisfaction made by only seven respondents included waiting too long, confidentiality issues, shortage of staff and dirty toilets. This study would therefore add valuable information to the field regarding patient satisfaction at ART sites.

The objectives as set out for this study were achieved by the researcher as the major factors contributing to the satisfaction and dissatisfaction of patients were identified as highlighted above.

CHAPTER 6

RECOMMENDATIONS

Patient satisfaction, as a method of evaluating health services is essential. Evaluation of patient satisfaction should form part of continuous improvement of health services rendered to patients. While satisfaction with delivered services is important, focusing on it alone fails to address patient needs. Understanding the difference between patient needs and patient satisfaction is crucial to the department's success in quality management.

Based on the results of this study, the following recommendations are proposed to the Provincial policy makers:

1. Healthcare service providers must continually capture, measure and evaluate patient satisfaction through a range of agreed mechanisms such as administering questionnaires to patients on a quarterly basis. It is proposed that the results of these questionnaires be analysed and considered in future service planning processes and patient feedback be recognised as a legitimate method of evaluating health services.

2. It is proposed that Provincial Performance Indicator(s) that measure compliance with minimum service standards specific for all ART sites in the province be developed and monitored.

3. To consider developing a Patient Satisfaction Toolkit to ensure that best practice information in relation to all facets of patient satisfaction instruments, models, guidelines, and feedback is centrally collated and widely available.

4. To consider including patient centered models of care into the core education curricula of all health professionals.

5. In recognition of the cultural diversity of the South African society and the emerging change in attitudes to service provision in the different care groups, it is proposed that feedback from patient satisfaction surveys be disseminated widely and through all available means possible.

6. It is also proposed that infrastructure at PHC facilities and CHCs be upgraded and overhauled by the provincial department which will make rendering services more accessible to people at the grassroots. This together with a successful down referral system in place will also reduce long waiting times and save the patient some cost.

7. Refreshments are made available in the waiting area for patients while waiting for their treatment in accordance with the principle of Batho Pele.

8. It is also proposed that the heads of these facilities address the problems of dirty toilets immediately.

9. Policy makers consider developing a human resource recruitment and retention strategy for healthcare professionals in order to reduce the long waiting time experienced by ART patients at the facilities which is a major source of dissatisfaction.

10. Lastly, it is proposed that further studies include measuring the levels of satisfaction and dissatisfaction.

In conclusion, it is therefore recommended that the results of this study be analysed and incorporated into the service planning process of the department and the departmental policy makers integrate the learning opportunities from patient feedback into their quality improvement plans.

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APPENDIX A

UNIVERSITY OF LIMPOPO
Medunsa Campus

MEDUNSA RESEARCH & ETHICS COMMITTEE

CLEARANCE CERTIFICATE

P O Medunsa
Medunsa
0204
SOUTH AFRICA

Tel: 012 - 521 4000
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MEETING: 02/2011

PROJECT NUMBER: MREC/H/14/2011: PG

PROJECT :

Title: Determination of patient satisfaction at accredited antiretroviral treatment (ART) sites in the Gert Sibande District, Mpumalanga Province

Researcher:	Mr D Ogunsanwo
Supervisor:	Dr S Bezuidenhout
Co-supervisor:	Ms EA Helberg
Hospital Superintendent:	Dr RA Ejike (Health / Embhuleni)
Involved HODs:	Mrs MS Ralefe (Health / Embhuleni)
Department:	Pharmacy
School:	Health Care Sciences
Degree:	MSc (Med)

DECISION OF THE COMMITTEE:

MREC approved the project.

DATE: 10 March 2011

RESEARCH & PARTNERSHIP 2011 -03- 10 MEDUNSA CAMPUS

PROF GA OGUNBANJO
CHAIRPERSON MREC

Note:
i) **Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.**
ii) **The budget for the research will be considered separately from the protocol.**
PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

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APPENDIX B

Patient care satisfaction survey

ARV Site: ……..Number: ……

Data collector: …….. Date: …….

Data collector: Tick the appropriate column

1	**Patient age**	18-30	31-45	46-60	61+
2	**Gender**	M		F	
3	**Educational level** **(State which level below GR 10)**	Below GR 10	GR 12	Tert Edu.	
4	**Can you read and/or write**	1.Read	2. Write	3. Both	4. No
5	**Do you have any disability?** **(Physical/Intellectual/mental)**	1.Yes	2. No	If yes, explain	
6	**Socio-economic status**	Employed	Unemployed	Dependent	
7	**Do you see the same health care provider when you attend the clinic?**	1. Yes		2. No	
8	**If no, would you like to be seen by the same health care provider?**	1.Yes		2. No	
9	**Is the health care provider a doctor, professional nurse or pharmacist?**	1-Prescriber	2- Pharmacist	3- Professional nurse	
10	**Did the health care provider who attended to you speak your language?**	1.Yes		2. No	
11	**Did the health care provider who attended to you listen to your problems?**	1.Yes		2. No	
12	**Was the health care provider who attended to you polite?**	1.Yes		2. No	
13	**Did the health care provider explain the CD4 count results to you?**	1.Yes		2. No	
14	**Is there an opportunity to ask questions?**	1.Yes		2. No	
15	**Are you satisfied with the answers/explanations that the health care provider gave to your questions?**	1.Yes		2. No	
16	**Do you have privacy during examinations?**	1.Yes		2. No	
17	**Does the health care provider keep your medical records confidential?**	1.Yes		2. No	

18	**Do you receive all your medication on time each month?**	1.Yes	2. No
19	**Do you get your TB medication or other chronic treatment on the same day in the same clinic?**	1.Yes	2. No
20	**Is this site convenient to you?**	1.Yes	2. No
21	**Would you like to be treated like any other patient at OPD and also get your medication from the main pharmacy?**	1.Yes	2. No
22	**Do you have to make an appointment?**	1.Yes	2. No
23	**Can you easily alter the appointment?**	1.Yes	2. No
24	**Do you have to come on a first come first help basis to this site?**	1.Yes	2. No
25	**Is the waiting area suitable and comfortable?**	1.Yes	2. No
26	**Do you have to wait long to be attended to?** **If yes, how long? .....**	1.Yes	2. No
27	**Do you get something to eat or drink if you have to wait long?**	1.Yes	2. No

28	**Who dispense the medicine to you?** *(Tick ONE)*	1-Prescriber	2-Pharmacist	3-Other
29	**Did the health care provider ask you to return to the facility at a specific time?**	1 – Yes	Reasons, e.g. if not feeling better	
		0 – No	Reasons, e.g. referral	

30 Patient knowledge on how to take his/her medicine:

ASK THE FOLLOWING QUESTION ONLY – DO NOT PROMPT THE PATIENT FOR ANY OF THE ANSWERS: **What medicines do you take now?**

Tick the appropriate spaces if the patient gives you any of the following information:

Indicate drug name:	Do you know how much and when?		
Drug 1:	1. Yes	2. No	3. Not sure
Drug 2:	1. Yes	2. No	3. Not sure
Drug 3:	1. Yes	2. No	3. Not sure
Drug 4:	1. Yes	2. No	3. Not sure
Drug 5:	1. Yes	2. No	3. Not sure

	Who explained to you how to take the medicines? *(Tick ONE)*	1-Prescriber	2-Pharmacist	3-Professional nurse
31	**Do you have any problem with your treatment?**	1.Yes	2. No	

32	**Are the medicines always available?**	1.Yes	2. No
33	**Are your medicines easy to administer and manage when you are at home?**	1.Yes	2. No
34	**Are you happy how you need to drink your medicines?**	1.Yes	2. No
35	**If medicines are not available, what do you do?**		
36	**Are the directions on the label of how to use the medication clear?**	1.Yes	2. No
37	**Are you satisfied or dissatisfied with the care you receive in this facility?** *(Tick ONE)*	1 - Satisfied	2. Dissatisfied

38	*If the patient is dissatisfied ask the following question:* **Please tell me about the things that you are not satisfied with.** *(Please tick 1 – Yes for the aspects mentioned by the patient)*			
	38a Staff shortages		1. Yes	0. No
	38b Staff attitude		1. Yes	0. No
	38c Medicines supply		1. Yes	0. No
	38d Waiting time		1. Yes	0. No
	38e Waiting area comfort & safety		1. Yes	0. No
	38f Other			

39	**Would you come to this facility again?**	1 – Yes	2 - No
39 b	**If Yes, why? /If no, why not?**		
40	**Is there a facility closer to your home, which you could have visited?**	1 – Yes	2. No
40 b	**If 1-Yes: Why did you visit this facility rather than the closer one?**		
41	**What is the cost involved to get to this facility?**		
42	**Is transport to this facility difficult for you?**	1. Yes	2 - No
43	**Would you like to be referred to other institutions closer to you?**	1. Yes	2. No
44	**What are your suggestions for improving care in this facility?**		

Thank the patient for participating in this interview.

Patient care satisfaction survey

ARV Site: …….. Number: ……

Data collector: ……. Date: ……...

Data collector: Tick the appropriate column

1	**Uneminyaka lemingaki?**	18-30		31-45	46-60	61+
2	**Bulili**	Wesilisa			Wesimame	
3	**Libanga lemfundvo wagcina kabani?** **(Chaza libanga lowagcina kulo mangabe wagcina ngaphasi kwelibanga lelishumi)**	Ngaphasi	GR 10	GR 12	Enyuvesi / Ekolishi	
4	**Uyakhona yini kufundza, kubhala nekubala?**	1.Kufundza		2. Kubhala	3. Konkhe	4. Cha
5	**Ngabe kukhona kukhubateka lonako? (Kwemtimba/Kwengcondvo)**	1.Yebo		2. Cha	Makungu-Yebo, Chaza	
6	**Kusebenta**	Uyasebenta?		Awusebenti?	Uyatisebenta?	
7	**Uvamise kusitwa ngumuntfu munye ngaso sonkhe sikhatsi yini mawuvakashele lapho kulomtfolamphilo?**	1.Yebo			2. Cha	
8	**Makungenjalo, ungatsandza yini kusitwa ngumuntfu munye ngaso sonkhe sikhatsi mawuvakashele kulomtfolamphilo?**	1.Yebo			2. Cha	
9	**Ngabe nguDokotela, liNesi noma nguuSomakhemisi?**	1-Dokotela	2- Somakhemisi		3- Nesi	
10	**Dokotela noma Nesi lokusitile ngabe bekakhuluma lulwimi lwakho yini?**	1.Yebo			2. Cha	
11	**Ngabe Dokotela noma Nesi lokusitile utilalele tonkhe yini tikhalo takho?**	1.Yebo			2. Cha	
12	**Ngabe loDokotela noma Nesi lokusitile bekangulotitfobile yini?**	1.Yebo			2. Cha	
13	**Dokotela noma Nesi ukuchazele yini ngemiphumela yengati yakho, nangesimo semasotja emtimba?**	1.Yebo			2. Cha	
14	**Ulitfolile yini litfuba lekubuta imibuto?**	1.Yebo			2. Cha	
15	**Wenetetisekile yini ngetinchazelo talolokusitile?**	1.Yebo			2. Cha	
16	**Indzawo lebenikhulumela kuyo, ngabe beyingulesitseke ngalokwenele yini?**	1.Yebo			2. Cha	
17	**Umsiti wakho ngabe uwusitsekise ngalokwenele yini umlandvo noma imininingwane yekugula kwakho?**	1.Yebo			2. Cha	

18	**Imitsi yakho ngabe uyitfola kahle ngesikhatsi, sonkhe sikhatsi na?**	1.Yebo		2. Cha
19	**Uyakhona yini kutfola imitsi yakho yeTB kanye naleminye imitsi loyinatsa njalo ngesikhatsi lesifanako mawuvakashele kulomtfolamphilo?**	1.Yebo		2. Cha
20	**Kukulungala kahle kakhulu nje kuvakashela lona mtfolamphilo?**	1.Yebo		2. Cha
21	**Ungatsandza yini kuphatfwa njengatotonkhe letinye tigulane, utfole imitsi yakho ekhemisi lenkhulu?**	1.Yebo		2. Cha
22	**Kuyaye kudzingeke kutsi nibekelane lilanga lelitsite lekubonana kanye nemsiti wakho wetemphilo na?**	1.Yebo		2. Cha
23	**Uvumelekile yini kutsi ulishintje lelolanga lekubonana melula nje?**	1.Yebo		2. Cha
24	**Ngabe lusito ulutfola ngekushesha yini ngekusti usheshe ufike, noma kunalenye indlela?**	1.Yebo		2. Cha
25	**Indzawo yekulindza ngabe ingulekwenetisako yini?**	1.Yebo		2. Cha
26	**Uyaye ume sikhatsi lesidze yini kute utfole lusito? Siyaye sibe ngulesinganani? .....**	1.Yebo		2. Cha
27	**Uyakutfola yini kudla noma kwekunatsa ngesikhatsi ulindzile?**	1.Yebo		2. Cha
28	**Uye uniketwe ngubani lemitsi?***(Tick ONE)*	1-NguDokotela noma Nesi	2-NguSomakhemisi	3-Ngulomunye
29	**Bashito yini kutsi uphindze ubuye, mhlawumbe ngelilanga lelitsite?**	1.Yebo	Reasons, e.g. if not feeling better	
		0 – Cha	Reasons, e.g. referral	

30	Imitsi yakho ngabe uyakwati kuwusebentisa? *ASK THE FOLLOWING QUESTION ONLY – DO NOT PROMPT THE PATIENT FOR ANY OF THE ANSWERS:* **Nguyiphi imitsi loyinatsako? Chazisisa ngayo.** *Tick the appropriate spaces if the patient gives you any of the following information:*			
	Indicate drug name:	Kutsi itsatfwa njani, nini, futsi kangakhi?		
	Umutsi wekucala:	1. Yebo	2. Cha	3. Mhlawumbe
	Umutsi wesibili	1. Yebo	2. Cha	3. Mhlawumbe
	Umutsi wesitsatfu	1. Yebo	2. Cha	3. Mhlawumbe
	Umutsi wesine:	1. Yebo	2. Cha	3. Mhlawumbe
	Umutsi wesihlanu	1. Yebo	2. Cha	3. Mhlawumbe
	Ngubani likuchazele ngekusebenta kwalemitsi yakho? (T*ick ONE)*	1- NguDokotela	2- NguSomakhemisi	3-NguNesi
31	**Kukhona yini tinkinga lohlangabetana nato mayelana nemitsi yakho?**	1. Yebo	2. Cha	
32	**Imitsi ihlala ikhona yini? Noma uhlala uyitfola yini?**	1. Yebo	2. Cha	
33	**Akusimatima yini kusebentisa lemitsi yakho ekhaya?**	1. Yebo	2. Cha	
34	**Uyenetiseka ngendlela lonatsa ngayo imitsi yakho na?**	1. Yebo	2. Cha	
35	**Imitsi mayingekho wentanjani?**			
36	**Kuyafundzeka yini lolokubhlwe kulemitsi mayelana nekunatfwa kwawo?**	1. Yebo	2. Cha	
37	**Wenetetisekile yini ngelusito lolutfole kulomtfolamphilo?** *(Tick ONE)*	1 - Satisfied	2. Dissatisfied	
38	*If the patient is dissatisfied ask the following question:* **Ngitjele ngetintfo letingakakuphatsi kahle kulomtfolamphilo.** *(Please tick 1 – Yes for the aspects mentioned by the patient)*			
	38a Kushoda kwebasebenti noma basiti bakulomtfolamphilo		1. Yebo	0. Cha
	38b Indlela labaphendvulana ngayo Labasiti		1. Yebo	0. Cha
	38c Kutfolakala kwemitsi		1. Yebo	0. Cha

	38d Sikhatsi sekulindza		1. Yebo	0. Cha
	38e Indzawo lekumiwa kuyo		1. Yebo	0. Cha
	38f Letinye tintfo nje? chaza			

	After the patient has finished, tick (0) for the aspects which s/he did not mention.		
39	**Utawuphindze ubuye yini kulona mtfolamphilo?**	1. Yebo	2 – Cha
39b	**Makunjalo leni? Makungenjalo, leni? Chaza.**		
40	**Ngabe kukhona yini lomunye umtfolamphilo losedvute nasekhaya, longakhona kuya kuwo?**	1. Yebo	2 – Cha
40b	**Makunjalo, yini lekwente wakhetsa kuta kulona?**		
41	**Kuyaye kubite malini kutsi ufike kulona mtfolamphilo?**		
42	**Ngabe kuyahambeka nje?**	1. Yebo	2 – Cha
43	**Ungatsandza yini kutsi bakutfumelele kulumunye untfolamphilo?**	1. Yebo	2 – Cha
44	**Ungafisa kwentiweni noma ke kwentani kuze lomtfolamphilo ube sezingeni lelitakutfokotisa?**		

Thank the patient for participating in this interview.

APPENDIX C

Gert Sibande District Municipality: Antiretroviral Clinic Services
Information leaflet

Dear .....…….....

My name is DAMILOLA AKINKUNLE OGUNSANWO. I am an MSc student from the Department of Pharmacy, University of Limpopo, MEDUNSA. I will be conducting research on ARV Services regarding patient satisfaction in the ARV clinics in the Gert Sibande District.

I would like you to answer a questionnaire, which seeks information regarding your level of satisfaction and how you were treated at the ARV clinic. The aim is to try and get your input regarding the services in the ARV clinics.

The entire questionnaire has 44 questions and will take at most 20 minutes to answer. All the information you give us about yourself will be strictly confidential. You will not be identified by name as the form is anonymous.

You are completely free to take part or not to take part in the study. If you decide that you do not want to be part of the study, this will not be held against you and you will not be disadvantaged in any way.

Gert Sibande District Municipality: Antiretroviral Clinic Services
Imininingwane yekungenela lolucwaningo

Sawubona Make/ Sisi noma Babe/ Bhuti

Ligama lami ngingu Damilola Akinkunle Ogunsanwo. Ngifundzela tebungcongcoshe kulelitiko labosomakhemisi enyuvesi yeseLimpopo, MEDUNSA. Ngifuna kuchuba lucwaningo lolumayelana nesifo sembulalave iHIV, kutsi ngitfole kabanti kutsi tigulane taloluhlobo tiphatseke njani kulemitfolamphilo leniketa lamaphilisi eHIV kulesifundza sakaGert Sibande.

Ngitawudzinga kutsi uphindvule imibuto lefuna kwati ngekwenetiseka nekuphatseka kwakho kulomtfolamphilo lolandza kuwo emaphilisi akho eHIV. Injongo yalolucwaningo kwetama kutfola imivo yakho ngaloluhlelo lwalomntfolamphilo.

Imibuto lowutawubutwa yona ngeke yendlule emashumini lamane nakune (44), futsi itawutsatsa cishe imizuzu lengemashumi lamabili kuphela (20 minutes). Yonkhe imininingwane lotasiniketa yona ngeke yatiwe ngulabanye bantfu, futsi ngeke kubhalwe nome kubutwe ngisho neligama lakho kulemibuto naletimphedvulo.

Unenvume nome ke lilungelo lekukhetsa kungenela noma ungangeneli lolucwaningo. Mawukhetse ke kutsi ungalungeneli lolucwaningo ngeke bese sewuyakhinyabeteka noma ngaluphi luhlobo, noma uphatseke ngedlela lengakalungi.

APPENDIX D

INFORMED CONSENT

Dear Sir/Madam,

You are requested to participate in a research study. The participation is voluntary.
The aim of the study is to determine satisfaction of patients with the quality of Antiretroviral (ART) services in Gert Sibande District of Mpumalanga Province.
You may refuse to take part in the study or discontinue participation without any loss in benefits.

The information obtained from the research will be used to improve the services at all our ART sites.

Confidentiality and anonymity.
All your responses and identity will be kept confidential.

If you would like to take part in the study, please sign the form below to allow us to proceed with asking you questions. If you would like to withdraw from the study at any point or for any reason, please feel free to do so and no questions will be asked.

If you have any questions or queries or would like more information about the study, please feel free to ask.

Thank you for your cooperation
Yours sincerely

_____

DAMILOLA AKINKUNLE OGUNSANWO
PARTICIPANT
I agree to participate in the study.
Name:..... .....
(In block letters) (Signature)
Date: ….....
WITNESS
Name: ....
(In block letters) (Signature)
Date: ….....

IMVUME YEKUCHUBA LUCWANINGO

Sawubona Make/Sisi noma Babe/ Bhuti

Uyacelwa kutsi ungenele lucwaningo, kepha ke unelilungelo lekuvuma noma kwala.

Injongo yalolucwaningo kwetama kutfola imivo nekuphatseka kwebantfu labatsatsa emaphilisi eHIV kulemitfolamphilo yalapha kuGert Sibande eMpumalanga.

Unenvume nome ke lilungelo lekukhetsa kungenela noma ungangeneli lolucwaningo. Mawukhetse ke kutsi ungalungeneli lolucwaningo ngeke bese sewuyakhinyabeteka noma ngaluphi luhlobo, noma uphatseke ngedlela lengakalungi.

Lemininingwane letawutfolakala kulolucwaningo itawusita kutsi kutfutfuke imphatfo nekusbentisana kulemitfolamphilo.

Kufihlakala kwemininingwane losinike yona

Yonkhe imininingwane lotasiniketa yona ngeke yatiwe ngulabanye bantfu.

Mawukhetsa kuchubeka nalolucwaningo, ngicela usayine kulelifomu ngaphasi kutsi uyasivumela kutsi sichubeke sikubute imibuto. Makwenteka kutsi sewufuna kuyekela kuphendvula imibuto, kanjalo usesevumelekile kutsi ungayekela ngaphadle kwekugwetjwa noma ke kubutwa leminye imibuto.

Ngabe kukhona yini imibuto noma tintfo longatsandza kuchazeleka ngato kabanti, ngicela ukhululeke kubuta.

Ngiyabonga kubambisana kwakho

Ngimi lotitfobako

_____

DAMILOLA AKINKUNLE OGUNSANWO (Umcwaningi)

LONGENELE LUCWANINGO

Ngiyavuma kungenela lolucwaningo

Ligama..... .....

(Bhala ngemagama lamakhulu) (Ngisayinele lapha)

Lusuku/ Lilanga.....

FAKAZI

Ligama..... .....

(Bhala ngemagama lamakhulu) (Ngisayinele lapha)

Lusuku/ Lilanga.....

APPENDIX E

health

Department:

Health

Mpumalanga Province

Enquiries: Mr. D. Ogunsanwo
Extension 2265

EMBHULENI HOSPITAL
PHARMACEUTICAL
SERVICES

Private Bag X1001
ELUKWATINI
1192
Tel.: +27 17 883 0093/4/5
Fax:+27 17 883 0067

Litiko LeteMphilo | UmNyango WezaMaphilo | Departement van Gesondheid

Embhuleni Hospital
Private Bag X1001
Elukwatini
1192
The District Manager: Gert Sibande Health District
Cc: CEOs, Clinical Managers and all Healthcare Providers and respective Managers
Gert Sibande Hospitals

Dear Sirs/Madams

Re: Covering Letter for Questionnaire on Determination of patient satisfaction at accredited Antiretroviral Treatment (ART) sites in the Gert Sibande District, Mpumalanga

I am an Assistant Manager, Pharmaceutical Services at Embhuleni Hospital and currently involved in a research to determine patient satisfaction at ART sites in the Gert Sibande District. I was required to conduct a questionnaire as part of management intervention strategy in antiretroviral treatment and to disseminate the report promptly to the Provincial Research and Ethics Committee.
The report will be made available to you and all the necessary stake holders in Gert Sibande in order provide each of them with quality evidence of the level of patient satisfaction in the district, and how intervention programmes can be used as a major turn-around strategy in our ART sites.

Privacy and Confidentiality

Any kind of information acquired during or in connection with this study that can be linked to any patient, healthcare professional or the hospital, will not be divulged

without the permission from the hospital authorities and the Mpumalanga Department of Health or as required in terms of research and ethics principles.

Completion of the questionnaires

The questionnaires will be researcher-administered and is optional for patients to participate. All information, suggestion or comments given will be strictly confidential in accordance with research and ethics principles. These questionnaires are a platform for introducing change and improving the level of services rendered at our ART sites.

Enquiries

Any question or concerns on the questionnaire must be directed to me, Mr. Damilola Ogunsanwo, Pharmacy Department, Embhuleni Hospital on (017) 883 0093 ext 2314.

Yours Faithfully,

_____ _____

Damilola Ogunsanwo (Mr) Date
Pharmacy Manager
Embhuleni Hospital Pharmacy

APPENDIX F: Approval letter granting permission to conduct study

MPUMALANGA PROVINCIAL GOVERNMENT

Building No.3
No. 7 Government Boulevard
Riverside Park Extension 2
Nelspruit
1200
Republic of South Africa

Private Bag X 11213
Nelspruit, 1200
Tel: 013 766 3429
int: +27 13 766 3429
Fax: 013 766 3491
int: +27 13 766 3491

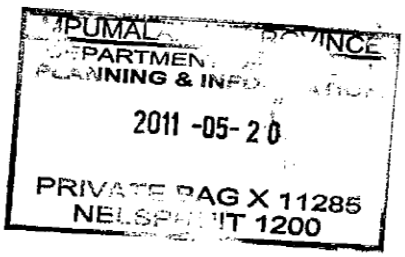
Department of Health

Litiko Letemphilo | Umnyango WezaMaphilo | Departement van Gesondheid

Enquiries: Molefe Machaba (013) 766 3009/3172

20 May 2011

Mr Damilola Akinkunle Ogunsanwo
Embhuleni Hospital
Private Bag X1001
Elikwatini
1192



Dear Mr. Ogunsanwo

APPLICATION FOR RESEARCH & ETHICS APPROVAL: DETERMINATION OF PATIENTS SATISFACTION AT ACCREDITED ANTIRETROVIRAL TREATMENT (ART) SITES IN GERT SIBANDE DISTRICT, MPUMALANGA PROVINCE

The Provincial Research and Ethics Committee has approved your research proposal in the latest format that you sent. No issues of ethical consideration were identified.

Kindly ensure that you provide us with the report once your research has been completed.

Kind regards,

Molefe Machaba
Research and Epidemiology

20-05-2011
Date

We care Do you?
Siyanakekela

MPUMALANGA
A Pioneering Spirit