UNIVERSITY OF KWAZULU-NATAL

PRIMARY HEALTH CARE DELIVERY: A CASE STUDY OF KWAZULU-NATAL WITH SPECIAL REFERENCE TO PHYSIOTHERAPY

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DEDICATION

This dissertation is dedicated to my late humble parents Swami Santhelingaanandha (direct disciple of our Sadh Guru) and Mrs Shakanthalay Nadasan

I am truly/uniquely blessed to be your daughter in this birth. Thank you for instilling in me the value of acquiring and sharing knowledge. I sincerely hope that your grandchildren will also continue this family legacy.

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"GOD IS LOVE AND LOVE IS GOD"

"A vision without a task is but a dream only
A task without a vision is mere drudgery
A vision with a task can alone
Change the World"

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ABSTRACT

The delivery of primary health care (PHC), as promulgated by the World Health Organization (WHO) and in South Africa, is of fundamental importance. Physiotherapy is an essential component of the health care delivery system and must promote PHC during clinical training and practice. In KwaZulu-Natal (KZN), PHC service delivery has been a problem for various reasons such as the history of the country (apartheid era pre-1994), financial constraints, lack of human resources, physical infrastructure and time constraints. Service delivery within the health sector is reported frequently in the media as physiotherapists and radiographers embarked on a strike latter part of 2009 in KZN due to a discrepancy in the Occupation Specific Dispensation (OSD). Physiotherapists have highlighted that they were overworked, carrying the strain of vacancies, due to frequent resignations to migrate to the private sector.

The aim of the research was to explore the promotion of PHC delivery in KZN. The objectives explored the empowerment of students and staff in the Health Science Disciplines to PHC service delivery. In addition, managers at provincial and local levels were included in the study. Barriers and factors that enhance the promotion of PHC were identified. The research design comprised of a survey, a quantitative and qualitative case study of KZN, using questionnaires or semi-structured interviews.

The findings indicated that the physiotherapy staff lacked PHC training ($p=0.000$) and 48.7% of the Disciplines in Health Sciences indicated that the rural needs were not being addressed with regards to PHC service delivery ($p=0.018$). Each discipline operated within its own silo, without any consultation and inter-disciplinary collaboration, to the detriment of effective delivery of PHC services. Fragmentation and duplication of PHC services existed between Provincial and Local Governments as indicated by 46% of the managers, which is disconcerting post 15 years of democracy in South Africa. The main objective of the National Health Plan and Reconstruction and Development Programme (RDP) was to readdress the inequalities and fragmented health services.

Numerous recommendations are made which will improve the journey towards transformation, comprehensive PHC service delivery, and the quality of life of all citizens.

ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANC	African National Congress
ANOVA	Analysis of Variance
APHCRI	Australian Primary Health Care Research Institute
ART	Antiretroviral Therapy
ARV	Antiretroviral
CBR	Community Based Rehabilitation
CDL	Chronic Diseases of Lifestyle
CHC	Community Health Centre
CPD	Continuing Professional Development
CSA	Child Sexual Abuse
CSP	Chartered Society of Physiotherapy
DARE	District Action Research and Education
DHAs	District Health Authorities
DHS	District Health System
DOH	Department of Health
DOTS	Directly Observed Tuberculosis Short-course
DPLG	Department of Provincial and Local Government
DPO	Disabled People's Organisation
DPSA	Department of Public Service Administration
DPT	Diphtheria, Pertussis and Tetanus
EEA	Employment Equity Act

EHS	Environmental Health Services
EHP	Environmental Health Practitioner
EPI	Expanded Programme on Immunization (EPI)
FFC	Financial and Fiscal Commission
GEAR	Growth, Employment and Redistribution Strategy
GIS	Geographical Information System
GP	General Practitioners
HBC	Home-based care
HBM	Health Belief Model
HFA	Health For All
HiB	Haemophilus influenza type B
HIV	Human Immunodeficiency Virus
HOD	Head of Department
HPCSA	Health Professionals Council of South Africa
HR	Human Resource
ICF	International Classification Framework
IDP	Integrated Development Plan
ILO	International Labour Organisation
IMCI	Integrated Management of Childhood Illnesses
INDS	Integrated National Disability Strategy, November 1997
IUHPE	International Union for Health Promotion and Education
KZN	KwaZulu-Natal
LES	Local Government Equitable Share

MDGs	Millennium Development Goals
MDT	Multi-Disciplinary Team
MEC	Members of Executive Council
MINMEC	Health Ministers of Cabinet/Members of Provincial Executive
MRC	Medical Research Council
NGOs	Non-Governmental Organisations
NHA	National Health Act 61 (2003)
NHIS	National Health Information System
NHS	National Health System
NQF	National Qualifications Framework
OSD	Occupation Specific Dispensation
OT	Occupational Therapist
PMC	Chronic Care Model
PEM	Protein Energy Malnutrition Scheme
PFMA	Public Finance Management Act
PC	Primary Care
PGDS	Provincial Growth and Development Strategy
PHC	Primary Health Care
PHCT	Primary Health Care Team
PMP	Private Medical Practitioner
PMTCT	Prevention of Mother-To-Child Transmission
PSC	Public Service Commission
PSNP	Primary School Nutrition Programme
PT	Physical Therapist /Physiotherapist

RDP	Reconstruction and Development Programme
SACI	Southern Africa Capacity Initiative
SADC	Southern African Development Community
SASP	South African Society of Physiotherapy
SD	Standard Deviation
SE	Standard Error
SNAP	Smoking, Nutrition, Alcohol and Physical Activity
SPSS	Statistical Package for Social Sciences programme
ST	Speech Therapist
STD	Sexually Transmitted Disease
STIs	Sexually Transmitted Infections
TB	Tuberculosis
TRC	The Truth and Reconciliation
UCT	University of Cape Town
UKZN	University of KwaZulu-Natal
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USSR	Union of Soviet Socialist Republic
VCCT	Voluntary Confidential Counseling and Testing
WCPT	World Confederation for Physical Therapy
WHO	World Health Organization
WPTPSD	White Paper on the Transformation of the Public Services Delivery

CONTENTS

CHAPTER 4

CHAPTER 5

PART B

PART C

FIGURES

TABLES

ANNEXURES

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Health services fall under one of the descriptions, namely, promotive, preventative, curative and rehabilitative. Within the health care system, service delivery takes place at various levels (primary, secondary and tertiary). At these levels, physiotherapy forms an integral component in the health care delivery system in all of the above listed descriptions.

The 'Five-Year Framework for Transformation – Increasing Efficiency and Effectiveness; KwaZulu-Natal Department of Health, 1999–2004' clearly states the **vision** and **mission** for the province and the **core values** on which they are based.

The White Paper on Transforming Public Service Delivery (Batho Pele White Paper) (1997) provides a policy framework and a practical implementation strategy for the transformation of public service delivery in South Africa. The focus is on service delivery to the 'people (consumers) first'.

According to Griffiths et al. (2005:910)**,** "health service quality improvement includes engagement in service delivery, promoting clinically effective practice particularly through promoting evidence-based care, supporting clinical governance, planning and prioritizing services, and engaging in appropriate research, audit and evaluation". In recent years, the major changes in policy and practice of the health service have led to a focus on client-centred care.

The Truth and Reconciliation (TRC) recommendations and the need for redress (October 2008) on primary health care (PHC) emphasized the closing of the gap between

advantaged and disadvantaged people, thus improving access to health services in an attempt to correct disparities between urban and rural areas.

In KwaZulu-Natal (KZN), the University of KwaZulu-Natal (UKZN) and the Provincial Administration are involved in the training of physiotherapy students academically as well as clinically in the various clinical areas, such as hospitals, clinics and community outreach centres. Academic departments need to offer PHC in their curriculum and ensure that students integrate theory/principles into practice during their clinical training. Anecdotal information suggests that physiotherapy is instrumental in achieving excellence in health care delivery and promotion of PHC. However, there is no empirical data to support this suggestion.

The study would identify how primary health care is promoted in KwaZulu-Natal during clinical training and clinical practice with special reference to the physiotherapy profession. In addition, the extent of promotion of primary health care and the alignment of clinical training with clinical practice will also be determined. This is essential and it would be in keeping with service delivery in the promotion of comprehensive PHC with particular reference to the physiotherapy profession.

1.2 CLARIFYING KEY CONCEPTS

The following key concepts or specific terms used in the study are clarified/defined to avoid ambiguity.

1.2.1 Delivery

Delivery is defined as 'the act of delivering or distributing something or carry out or perform, or to rescue: recovery or preservation from loss or danger; "work is the deliverance of mankind", "a surgeon's job is the saving of lives". Deliver is also defined as, free from harm or evil or the act of conveying something; or the item has been conveyed' (http://www.google.co.za).

In the context of this study, delivery refers to carrying out or performing the services related to primary health care.

1.2.2 Health and Health Care

According to the "Institute for the Future", which published a book, "Health and Health Care 2010, The Forecast, the Challenge" (2003:339), 'Perfect or ideal health is a state of complete physical, mental, social and spiritual well-being. For the vast majority of the population, being healthy means functioning as fully as possible under present circumstances. Health is a composite of interdependent components that, even if less than perfect, are optimal for the individual'. Each of the four components of health is a necessary contributor and neglect of any component of health predisposes one to, or creates, an unhealthy state.

The World Health Organisation (WHO) defines the concept 'Health' as 'not only the absence of disease and infirmity, but that it implies true physical, mental and social well-being' (Van Rensburg, 2004:146). The American Heritage Dictionary (2000), cited by Desai (2006:3), defines 'health care' as 'the prevention, treatment and management of illness and the preservation of mental and physical well being through the services offered by medical and allied health professionals'. The physiotherapy profession is included as one of the allied health professionals providing such services.

Thus, the above description of health and health care provides a basis for the definition of physiotherapy as well as the vision and mission for KZN Department of Health.

1.2.3 Physiotherapy or Physical Therapy

Physiotherapy or physical therapy "is a health care profession which provides services to individuals and populations to develop, maintain and restore maximum movement and functional ability throughout life. This includes providing services in circumstances where movement and function are threatened by aging, injury, disease or environmental

factors. Functional movement is a central element in what it means to be healthy. Physical therapy is concerned with identifying and maximizing quality of life and movement potential within the spheres of promotion, prevention, treatment/intervention, habilitation and rehabilitation. This encompasses physical, psychological, emotional and social well being. It involves the interaction between physical therapist/physiotherapist (PT), patients/clients, other health professionals, families, care givers and communities in a process where movement potential is assessed and goals are agreed upon, using knowledge and skill unique to physiotherapists" (Wikipedia, 2009).

Another formal definition of physiotherapy, according to the Chartered Society of Physiotherapy (CSP) Curriculum Framework (2002), is "It uses physical approaches to promote, maintain and restore physical, psychological and social well-being, taking account of variations in health status. Physiotherapy is science based, committed to extending, applying, evaluating and reviewing the evidence that underpins and informs its practice and delivery. The exercise of clinical judgment and informed interpretation is at its core" (http://www.csp.org.uk).

The above definitions of physiotherapy commonly include physical, psychological, emotional and social well-being. This encompasses a holistic approach to health and well-being as well as primary health care delivery.

1.2.4 Global Strategies of the WHO- Alma-Ata Conference

By 1970, health care worldwide was in turmoil with fragmented health systems including both public and private health care. Instead of promotive and basic care for the majority, the trend was towards expensive treatment for a few ill people. Inequalities of this nature were found world-wide in developed and developing countries. In response to these inequalities, an International Conference on Primary Health Care was jointly sponsored by the WHO and the United Nations Children's Fund (UNICEF). The government of the Union of Soviet Socialist Republic (USSR) hosted the conference at Alma Ata from 6 to 12 September 1978, and it was attended by 134 nations, comprising many governmental

and non-governmental organisations. The PHC philosophy was introduced here and endorsed by the participating nations. According to Dennil et al. (1999:2), it was seen as a means of achieving health care universally, and of attaining "Health for All by the year 2000". Thus, this conference had an immediate impact on the global strategies of the WHO including its policies and programmes. In addition, this conference strongly influenced the health policies of many nations including the Republic of South Africa.

1.2.5 Primary Health Care (PHC)

Primary health care refers to a health systems policy and approach to service delivery. PHC was formalised in the Declaration of Alma Ata in 1978, and was subsequently adopted by the WHO and the United Nations (UN). The Australian PHC Research Institute (APHCRI) defines PHC as: 'Socially appropriate, universally accessible, scientifically sound first level care provided by a suitably trained workforce supported by integrated referral systems and in a way that gives priority to those in most need, maximizes community and individual self-reliance and participation and involves collaboration with other sectors. It includes health promotion, illness prevention, care of the sick, advocacy and community development' (Australian Physiotherapy Association Position Statement, March 2008).

According to Dennil et al. (1999:7), a shift in the emphasis of health care in South Africa is essential to community-based PHC away from curative hospital-based care. The objective is to deliver health services efficiently and effectively through an infrastructure that covers the needs of communities at ground or district levels, with the necessary support and referral services at intermediate or provincial level and at central or national level. The process of change must be dynamic because it will be influenced by the political, social, technological and financial factors of the country.

Thus, physiotherapists are an important part of the multi-disciplinary team involved in the first level of care that has to be scientific (evidence-based research) in order to fulfil

the objective of delivering health services efficiently and effectively covering/meeting the needs of communities at ground or district levels.

1.3 PRIMARY HEALTH CARE AS A CHALLENGE FOR SOUTH AFRICA

The principles and points of departure for creating the post-apartheid dispensation in health and health care were set forward in detail in the National Health Plan for South Africa in 1994, together with and as an extension of the Reconstruction Development Programme (RDP). 'The underlying philosophy of the restructuring of the health system was the primary health care approach with emphasis on appropriate and comprehensive promotive, preventive, rehabilitative and curative care provided by the most appropriate PHC facilities, and with priority attention to PHC services in rural and impoverished urban areas" (Van Rensburg, 2004:114).

According to Mashazi (2002:13), "The Government of National Unity stood up to the challenge of transforming the health services and accepted the Alma Ata Declaration as a point of departure in readdressing the inequalities and fragmented health services. The government committed itself to transforming the health sector in order to unify the fragmented health services and integrate health personnel at all levels into a comprehensive and integrated national health system" {South Africa (2001a:3) cited by Mashazi (2002:13)}.

Thus, the philosophy of a primary health care approach is in keeping with physiotherapy/physical therapy, which is concerned with identifying and maximizing quality of life within the spheres of promotion, prevention, treatment/intervention, habilitation and rehabilitation. Therefore, it is essential for a physiotherapist, being part of the health personnel providing health services, to be integrated at all levels into the comprehensive and integrated national health system. As such, the challenge taken by the Government of National Unity in transforming the health services in readdressing the inequalities and fragmented health services seeks to be addressed.

1.4 HEALTH SERVICES IN KWAZULU-NATAL

The 'Five-Year Framework for Transformation – Increasing Efficiency and Effectiveness; KwaZulu-Natal Department of Health, 1999 –2004' outlined the vision and mission for the province and the core values on which they are based.

The vision of the Department of Health is to achieve optimal health status for all persons in the Province of KwaZulu-Natal. The mission is to develop a sustainable, coordinated, integrated and comprehensive health system at all levels, based on the primary health care approach through the District Health System (DHS). This means that the people of KwaZulu-Natal want to live life to the full by adopting healthy life-styles and discarding unhealthy practices, being free from illness and pain which could reduce their quality of life or having such conditions appropriately and efficiently controlled (KwaZulu-Natal Department of Health, 1999 –2004).

In addition, according to the KwaZulu-Natal Department of Health, (1999 –2004), the people of KwaZulu-Natal expect to be partners as well as consumers in the maintenance of their own health and health care systems. They expect the system to provide accurate and useful information and that there is community participation in decision-making. The people of KwaZulu-Natal also expect that the services be of high quality and address unseen threats to health. The services must be accessible with comprehensive service delivery and continuity of care.

In order to achieve the above expectations of the people in KwaZulu-Natal, there has to be a radical change in the mindset of all service providers in the health sector because their professional training was based on the curative institution or hospital-based health care. This shift of emphasis towards PHC requires additional training of all service providers, including educators at training institutions as well as adequate training in isiZulu (for KZN province) to eliminate possible language barriers during community participation for the decision-making process. Moreover, the provision of accurate and useful information will be effectively enhanced.

With the above client-centred expectations, the KwaZulu-Natal Department of Health, (1999 –2004), identified the following core businesses:

i) Continual assessment of health and health service needs and priorities to ensure equitable resource allocation through community participation.

ii) Promote and protect the health of the community and work towards the prevention of disease and injury.

iii) Ensure access to compassionate and caring health services.

iv) Promote the provision of comprehensive services that are responsive to the needs of individuals and communities.

v) Deliver high quality services in partnership with clients, the public and related agencies in a supportive environment which promotes trust and confidence.

The *Batho Pele* White Paper sent a strong message of government's commitment to a citizen-centred approach to service delivery, anchored by the eight *Batho Pele* principles: consultation, service standards, access, courtesy, information, openness and transparency, redress and value for money. Rapea (2004), then Deputy Director General in the Department of Public Service Administration (DPSA), stated that no business can exist without customers, and there cannot be a government without people. Therefore, the adoption of the *Batho Pele* concept in 1997 was not a public relations stance. *Batho Pele* is a deliberate strategy to instill a culture of accountability and caring by public servants.

Transformation of the existing health services, based on the PHC principles requires the redressing of the imbalances of the past. Therefore, the Discipline of Physiotherapy in KZN must ensure that PHC is comprehensive and integrated during training as well as in clinical practice.

1.5 PRIMARY HEALTH CARE AND PHYSIOTHERAPY

According to the Australian Physiotherapy Association Position Statement, (March, 2008:1), the education training and experience of physiotherapists make them valuable members of multi-disciplinary teams in PHC settings. Their educational programmes include the bio-medical and physiotherapy sciences that underpin evidence-based practice. Physiotherapists (PTs) base their practices on their ability to clinically reason and problem solve. PTs are able to independently plan, implement and evaluate interventions. PTs have skills as health educators and are well practised communicators. Physiotherapists work as autonomous practitioners but are also committed to multi-disciplinary teams to provide better health outcomes for the community in both the public and private sectors.

There has been a reorientation of the health care system in South Africa to a PHC approach, since 1994, which is being implemented through the district health system. "A situational analysis conducted in 1997, confirmed that rehabilitation services in South Africa (physiotherapy included) are largely under-developed and inaccessible to the majority of the population, especially those who live in rural areas" (National Department of Health, 2000 cited by Douglas et al., 2008:2).

Therefore, a primary health care team provides comprehensive PHC, which is a multi-disciplinary team amongst which the physiotherapist plays an important role within the three levels of health care, namely, the primary, secondary and tertiary levels of health care. The physiotherapist involved with PHC should acquire the skills required to render quality comprehensive PHC services.

1.6 PROBLEM STATEMENT

Challenges confronting physiotherapy students and staff at the University of KwaZulu-Natal in promoting primary health care services in KwaZulu-Natal.

1.7 AIM OF THE STUDY

The primary aim of the study was to explore how primary health care, namely, in physiotherapy is promoted in the KZN health sector.

1.8 OBJECTIVES OF THE STUDY

The objectives of the study were the following:

- To explore whether physiotherapy students were empowered in promoting PHC during clinical education to enhance the integration of theory into clinical practice.

- To explore whether clinical empowerment of physiotherapists in the promotion of PHC was occurring to enhance service delivery. To identify the obstacles and limitations in terms of the management of comprehensive PHC. To identify factors that adversely affect the promotion of PHC in physiotherapy.

- To explore whether there was an alignment between physiotherapy training and clinical practice in the promotion of PHC.

- To compare and review the promotion of PHC in physiotherapy with other provinces in South Africa, and in other disciplines in the health sector in KwaZulu-Natal.

- To develop a model for the promotion of PHC in physiotherapy in KwaZulu-Natal. To make recommendations on how PHC services can be promoted in the physiotherapy profession.

The critical questions that the study addressed were as follows:

- Are physiotherapy students empowered in the health sector during their clinical exposure to integrate theory into clinical practice in PHC?

- Are physiotherapists empowered in the promotion of primary health care to enhance comprehensive PHC service delivery? What are the obstacles and limitations in terms of the management of comprehensive PHC?

- What are the factors that enhance or adversely affect the promotion and the management of comprehensive PHC?

- Is there alignment between physiotherapy training and clinical practice in the promotion of primary health care in KwaZulu-Natal? What are the levels of PHC services in physiotherapy in terms of affordability, acceptability, equitability and availability?

- In the health sector in KwaZulu-Natal, was there adequate promotion of primary health care in physiotherapy and in the other disciplines?

- Are there models for the promotion of primary health care in physiotherapy training and clinical practice in KwaZulu-Natal?

1.9 JUSTIFICATION OF THE STUDY

A study on primary health care delivery in KwaZulu-Natal becomes relevant and justified considering that the former President, Motlanthe (2009:7-12) has alluded to the fact that the quality of services in every sector, that is, education, health, housing, water or sanitation, must be improved. Regarding the health sector, there is an essential need to provide efficient, decent and equitable health care by the implementation of effective programmes and projects. Consequently, this has an impact on health care delivery of which PHC forms an integral aspect.

The Physiotherapy Department at UKZN is experiencing challenges in offering adequate PHC training. This may be attributed to limited resources, lack of transport and the nature and quality of PHC. A question that may be posed here - is it the unco-ordinated approaches amongst team members, the inadequate translation of policies or their adoption or is the problem with implementation/delivery? A study of this nature has not been undertaken before at the University of KwaZulu-Natal or in KwaZulu-Natal although the various disciplines in the Faculty of Health Sciences are involved extensively in clinical training and clinical practice in the health sector.

The main aim of the study was to explore how primary health care, namely, in physiotherapy was promoted in the KZN health sector.

The significance of the study shall be two-fold:

i) To make recommendations to the health sector, especially on physiotherapy clinical training and practice to improve PHC services.

ii) To make recommendations to tertiary institutions with regards to undergraduate physiotherapy curriculum development and clinical training of students.

A study of this nature is important especially in view of a unified National Health system in South Africa. It would give government officials an insight into the complex challenges in the delivery of PHC services in KZN.

PHC services should promote equity; provide comprehensive; effective and efficient quality services; local accountability; community participation; decentralization; and inter-sectoral collaboration. Findings will be useful to health providers if research results indicate ways of promoting PHC during physiotherapy training. Quality and nature of PHC services can be improved for health care consumers (patients/clients).

1.10 LIMITATIONS

1. The research is confined mainly to PHC in clinical training and clinical practice in the KZN Province, although to some extent, information/input from other provinces were ascertained in the Discipline of Physiotherapy.

2. Another limitation is the limited available literature with regard to PHC in physiotherapy.

3. There is also limited literature available with regard to district health systems in South Africa.

4. The study includes the disciplines/departments in the public health sector only and, therefore, excludes private practices.

5. All the managers in the KZN health sector preferred to answer the questionnaire electronically and either emailing or returning the questionnaire by hand rather than being interviewed owing to time constraints.

6. Some of the clinical staff at the public hospitals and students involved with clinical training at the various departments such as physiotherapy, occupational therapy, medicine were unable to complete the questionnaire due to lack of knowledge/difficulty or inadequate training in PHC.

7. Some participants experienced time constraints in completing the questionnaires. However, the researcher had reached more than the required target sample size by distributing a larger number of questionnaires and ensuring a good return rate of the questionnaires.

8. Albert Luthuli and Prince Mshiyeni hospitals were excluded as the former hospital operates at a tertiary level (no PHC delivery involved) and with the latter hospital, the questionnaires were lost by the physiotherapy manager.

1.11 OUTLINE OF THE THESIS

Chapter 1 discusses PHC as a challenge for South Africa within the context of the national health policies and globalisation. It provides the background and serves to introduce the research topic. The research problem is highlighted with the aims, objectives and critical questions regarding PHC in physiotherapy training and clinical practice; as well as the limitations of the study.

Chapter 2 discusses the policy framework of the health care system. In addition, it highlights the conceptual framework of health care and PHC within the public administration paradigm. Since the physiotherapist is placed as one of the important role players in health service delivery, the Bill of Rights that is enshrined in the Constitution, which focuses on health care, will also be highlighted. In addition, the functions of the national, provincial, and district health department will be discussed.

Chapter 3 includes the literature review that focuses on the theoretical perspectives on which the study is grounded. PHC is reviewed in a general global context and in relation to the African continent as well as focussing on South Africa and the KZN province.

Chapter 4 provides the trends in PHC in relation to the physiotherapy profession, both national and international experiences (studies) from developing to developed countries. It focuses on the impact of PHC on service delivery and the models adopted to address PHC delivery.

Chapter 5 discusses the research design and methodology in detail. It outlines the procedures adopted in the study, the research instrument used and the statistical approach followed.

Chapter 6 includes the data analysis, interpretation and presentation of research findings.

Chapter 7 provides a summary of conclusions, shortcomings and recommendations and presents a critique on the present system followed. The results of the research was used to develop a model in PHC for application, formulated guidelines for the facilitation/ promotion of PHC in physiotherapy training and clinical practice.

Bibliography

Appendices included the interview and survey questionnaires.

1.12 SUMMARY AND CONCLUSION

The chapter provided an overview of the study. PHC was highlighted as a challenge for South Africa within the context of the national health policies and globalization. In addition, concepts were clarified, the research problem, aims, objectives, and critical questions regarding PHC in physiotherapy as well as the limitations of the study was discussed.

Chapter 2 highlights the conceptual framework of health care and PHC within the public administration paradigm.

CHAPTER 2

HEALTH CARE AND PRIMARY HEALTH CARE WITHIN THE CONTEXT OF A PUBLIC ADMINISTRATION PARADIGM

2.1 INTRODUCTION

The chapter explores the theoretical framework of health, primary health care and the development of the South African health system. Health care and primary health care is contextualised within the context of public administration. The policy situation in South Africa is highlighted which then adds empirical weight to the literature review in Chapters Three and Four. The situation is explained in relation to aspects within the Constitution dealing with health care and the rights of patients to access medical/paramedical services. The government should ensure that adequate funding is available to improve patients' rights of access to health care and primary health care services. The Department of Health is, therefore, responsible to uphold, protect and promote this right in health care and primary health care service delivery.

2.2 PUBLIC ADMINISTRATION PRINCIPLES WITHIN THE CONSTITUTION OF SOUTH AFRICA

As the supreme law of the country, the Constitution enshrines a set of principles or guidelines that determine the way the country will be regulated. It ensures the highest degree of human satisfaction without harming or inconveniencing the well-being of others. In addition, its guidelines include behaviour that is expected of public service workers, wherein physiotherapists are included.

1. Chapter 10, Section 195 of the Constitution, Act 108 of 1996 focuses specifically on public administration which must be governed by the democratic values and principles, *viz*:

a) A high standard of professional ethics must be promoted and maintained;

b) Efficient, economic and effective use of resources must be promoted;
c) Public administration must be development-orientated;
d) Services must be provided impartially, fairly, equitably and without bias;
e) People's needs must be responded to, and the public must be encouraged to participate in policy-making;
f) Public administration must be accountable, fostering transparency by providing the public with timely, accessible and accurate information;
g) Good human-resource management and career-development practices, to maximize human potential, must be cultivated; and
h) Public administration must be broadly representative of the South African people, with employment and personnel management practices based on ability, objectivity, fairness, and the need to redress the imbalances of the past to achieve broad representation.

2. The above principles apply to –

a) administration in every sphere of government;
b) organs of state; and
c) public enterprises.

3. National legislation must ensure the promotion of the values and principles listed in subsection (1).

4. The appointment in public administration of a number of persons on policy considerations is not precluded, but national legislation must regulate these appointments in the public service.

5. Legislation regulating public administration may vary among different sectors, administrations or institutions, for example, the legislation regulating public administration in the private sector is different where the focus is on profit gain.

6. The nature and functions of different sectors, administrations or institutions of public administration are relevant factors to be taken into account in legislation regulating public administration.

Managers in the public health sector, including those in the physiotherapy profession, responsible for the delivery of PHC services, must adhere and have deference to democratic values and principles.

2.2.1 Legal Prescripts of Health Care and Primary Healthcare

As South Africa has completed fifteen years of democracy, it is essential to assess the extent to which the country has achieved its promises to the people. The Reconstruction and Development Programme (RDP) endorsed the view that everyone should have access to free basic health care. In Section 27 of the Constitution, this endorsement is encapsulated and states that everyone has the right to access health care services, sufficient food as well as water and social security. The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.

The Bill of Rights in the Constitution is a cornerstone of democracy in South Africa as it enshrines the rights of all people, thereby affirming the democratic values of human dignity, equality and freedom. The state must protect, promote and fulfill the rights as contained in the Bill of Rights; and everyone has the right to life and the right to an environment that is not harmful to their health or well-being.

It is important to note that the inclusion of access to nutrition, water, social security and the right to an environment that is not harmful to one's health or well-being has an impact on health care, which requires collaboration with other sectors such as the municipalities; social security, welfare, education, health services. This was the challenge taken by the African National Congress (ANC) - led government at national, provincial and local level by establishing the district-based PHC system for South Africa.

When the 1996 Constitution came into effect, another important milestone for the disabled community in South Africa was achieved as well as the Employment Equity Act (EEA) in 1998.

The rights of all people, including people with disabilities, are protected by the Constitution. State Departments in all spheres of government have a responsibility to ensure that, in each line function, concrete steps are taken to ensure that people with disabilities are able to access the same fundamental rights and responsibilities as any other South African.

The Constitution of the Republic of South Africa, Act 108 of 1996:7 in Chapter 2, Bill of Rights, Section 9, Equality, subsection (3) states *"The state may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age,* ***disability****, religion, conscience, belief, culture, language and birth." In addition, "No person may unfairly discriminate directly or indirectly against anyone on one or more grounds in terms of subsection (3). Discrimination on one or more of the grounds listed in subsection (3) is unfair unless it is established that the discrimination is fair".*

Therefore, the Constitution guarantees fundamental rights to all citizens. It includes, in section 9, the quality clause, and the right to freedom from discrimination based on a number of social criteria. Discrimination based on disability is specifically mentioned, and disabled people are thus guaranteed the right to be treated equally as well as to enjoy the same rights as all other citizens.

The inclusion of this provision has far-reaching implications for preventing discrimination against disabled people in our society. It now requires practical implementation. Rehabilitation services rendered by the physiotherapist forms an essential component of PHC for the disabled people or the physically challenged people in our society.

According to Van Rensburg (2004:420), PHC and the District Health System (DHS) formed the cornerstones of health reform in South Africa.

Furthermore, in order to actualize South Africa's constitutional mandate of creating a 'better life for all', all public health care professionals, including physiotherapists, are obliged to meet the health needs of the population by engaging in comprehensive PHC. As such, training institutions must incorporate comprehensive PHC as part of their clinical training programme.

2.3 PUBLIC ADMINISTRATION AND PUBLIC MANAGEMENT THEORY

According to Schwella et al. (1996:7), public administration is a system of structures and processes operating within a particular society as environment; with the objective of facilitating the formulation of appropriate, legal and legitimate governmental policies; and the effective, and efficient and productive execution of the formulated policies. It also focuses on the system as a whole such as the political, social and economic environments; policy analysis; managerial processes; analytical tools; and individual, group and organizational behaviour. Public management is, therefore, an intrinsic part of public administration systems.

Schwella et al. (1996:6) affirmed that "Public management is the use of scarce resources in pursuing policy goals. The utilization should be optimally effective, efficient and productive, and legitimately and legally democratic". Public management is, therefore, the execution and continuation of a variety of functions made possible by public administration".

"Public resource management focuses on the relationship between public management functions, skills and techniques and the scarce resources used to achieve legitimate and legal policy goals and objectives" (Schwella et al., 1996:6). The model in Figure 1 under sub-heading 'Health and Primary Health Care in Physiotherapy within the context of the Public Management Model' explains and simplifies the complex concept of public

management, which comprises the environment of public management (general and specific), public management functions, skills, applications and supportive technology; and techniques for public management. The environment or context of public resource management and its attendant functions, skills, applications and techniques has to relate to public resources, i.e. human, financial, information and natural resources (Schwella et al., 1996:8).

2.3.1 Health and Primary Health Care in Physiotherapy within the Context of the Public Management Model

The underlying philosophy of restructuring the health system was the PHC approach as stipulated in the RDP and the National Health Plan of South Africa (1994).

In order to redress the inequalities and fragmented health services, PHC services should be a priority in rural and impoverished urban areas. Consequently, the physiotherapist, as a manager, would be obliged to deliver PHC services effectively, equitably, economically and efficiently to the people that are most in need of these services. This would require a major shift/change in the emphasis of health care from curative hospital-based care to a PHC approach for a physiotherapist. However, the process of change should be dynamic and be informed by the political, social, cultural, economic/financial and technological factors in South Africa.

A healthy individual or community requires basic needs to be in place, and physiotherapists being important members of the comprehensive PHC team should advocate for favourable conditions to maintain good health. Physiotherapy treatment will be ineffective if the other basic needs, namely, food, proper sanitation, water, electricity and education are not met first. In this regard, a needs analysis, advocacy and mediation are activities wherein physiotherapists should be involved at the PHC level to improve poor health conditions. Physiotherapists should work closely with the people in the rural areas so that they would be aware of their needs and their poor health caused by depressed socio-economic conditions. This close contact will enable the physiotherapist to be more proactive in improving the living conditions, which many of their patients in

the rural area experience (Douglas et al., 2008:5). Health care professionals, including physiotherapists, should advocate for provision of basic needs, for example, housing and sanitation. This involves extensive collaboration and/or mediation between different sectors if the provision of basic needs is not met, for example, housing, food, proper sanitation, water, electricity and education. The health and social well-being of the people will then improve.

The provision of promotive, preventative, curative and rehabilitative services, as required at a PHC level by the physiotherapy manager, involves dynamic interaction with patients, other health care professionals, families, caregivers and communities. Community participation is crucial to the decision-making process. Once a process is agreed upon, the physiotherapy manager uses his/her unique knowledge and skill to plan (goal setting), reason, problem solve, apply, implement, evaluate and review evidence that informs physiotherapy practice and delivery. These are similar to the public management functions, skills, applications and supportive technology and techniques as indicated in the public management model (Figure 1).

Moreover, the physiotherapy manager must identify as well as co-ordinate approaches to PHC service delivery (which refers to a health system's policy) among the multi-disciplinary team members through discussion/decision making, translate/adopt PHC policies and implement/deliver PHC services appropriately, ensuring equity. This also involves resource allocation, that is, financial, human, natural and information. The physiotherapist serves as an educator and communicator of accurate and useful information in the community as access to this information is a major problem in rural areas.

Policy analysis forms part of management applications and supportive technology and techniques, as indicated in the public management model (Figure 1). Cloete and Wissink (2000:74) affirm that policy analysis implies a multi-disciplinary approach that seeks to generate information about the decision process in order to provide the means for optimal policy decisions. Significant policy analytical approaches include:

- Policy content analysis which has the following analytical components: policy interpretation studies, comparative policy analysis, policy pathologies, and policy dynamics;
- Policy systems analysis, with analytical components such as policy behavioural studies, policy institutional studies, and policy process studies;
- Policy issue analysis, which includes analytical components such as policy problem structuring and policy advocacy; and
- Policy outcome analysis, which includes analytical components such as policy monitoring and policy impact analysis; and finally
- Policy values analysis, which includes the value and ethical analysis of public choices.

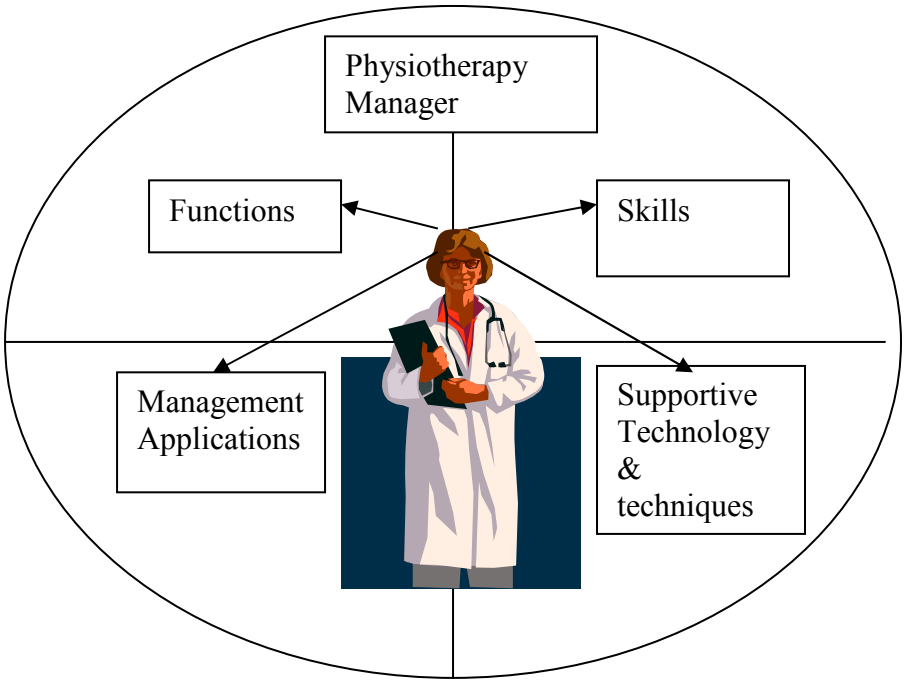
Dunn (1994:1) reiterates the above definition of policy analysis as 'a process of multi-disciplinary inquiry designed to create, critically assess, and communicate information that is useful in understanding and improving policies'. Dunn (1994:3) suggests that 'knowledge from multiple disciplines and professions is usually more effective in responding to real-world problems than is knowledge from single disciplines and professions. Real-world problems come in complex bundles that are political, social, economic, administrative, legal, ethical, and more'. Consequently, policy analysis is crucial for evidence-based practice and the effective delivery of PHC services.

People with physical disabilities require construction of simple assistive devices for daily living from locally available resources (sometimes, natural resources) or out of appropriate paper-based technology. Computer technology is equally important in rural areas, for example, to e-mail patients' test results/details to the specialists in secondary and tertiary hospitals for guidance in treating difficult/challenging patient conditions. This avoids patients travelling extensively back and forth, to follow long queues before being attended to at these hospitals and results in a more cost effective delivery of PHC services. These are the supportive technology and techniques as shown in Figure 1. The physiotherapy manager must, therefore, ensure that PHC services are integrated and comprehensive.

Figure 1: Public Management Model

External environment

***Political *Social *Cultural *Economic *Technological**



Specific Environment

***Suppliers *Competitors *Regulators *Consumers**

Functions	**Skills**	**Applications**
Policy-making	Decision Making	Policy analysis
Planning	Communication	Strategic management
Organising	Management of change	Organisation development
Leading	Management of conflict	**Supportive technology and techniques**
Control and evaluation	Negotiation	Computer technology and information management Techniques for public management

Adapted from: Schwella et al. (1996:7)

Table 1 illustrates the shift from the traditional closed-process approach to an open environment-based management approach. Closed systems operate independently of the environment whilst the open system allow managers to adapt to the changing environment {Schwella (1999:67) cited by Desai (2006:115)}. The shift of Public Administration from the old rule-bound and conservative approach to a more pro-active, creative, public management paradigm drives the machinery of public service delivery. The new approach provides for the translation of health care delivery from the traditional to the modern (Desai, 2006:116).

Table 1: Public Administration and Management Systems

Inputs	Public Administration	Outputs	Public Management	Outputs
Political Environmental Social Technological	Transformation of inputs into outputs by: policy making; staffing; organizing; financing; control; and determination of work procedures. In the execution of these processes, the normative guidelines of public administration are taken into consideration. They are principles of the body politic; societal value systems; legal rules and *Batho Pele* principles.	These outputs may be Acts, policies, procedures and standards for managers, legislation; rules; and regulations.	Inputs involve Planning Leading Organizing Coordination Control	Outputs in the form of service delivery to the people. These outputs will result as feedback as inputs.

Adapted from: Du Toit (1999:47)

'The redirection of the health care system towards PHC, along with the concomitant establishment of the District Health System as a framework for PHC delivery and management has been the transformation event in the public health sector in South Africa since 1994. After many years of being kept in a secondary, under-developed and neglected position, as well as with the emphasis of hospital-based, doctor-oriented and advanced technology in health care, the Government of National Unity accorded PHC a central place in health policy and the health care system. The motivation behind this shift

is clear, namely, to render the health care services more accessible to that part of the population in greatest need of care, a stance well aligned with the long history of progressive and oppositional groups and movements in the local health domain. In addition, the aim was to redistribute health resources in the public health sector more equally among the geographic areas, i.e. between and within the provinces. Overriding these motivations was the ideal of creating a more equitable and just health care dispensation" (Van Rensburg, 2004:451).

Since the Government of National Unity accorded PHC a central place in health policy and in the health care system, the physiotherapy manager is obliged to deliver PHC services accordingly. This must be carried out taking into account the external factors (inputs), public administration, public management and the outputs (listed in Table 1 that also overlap with the functions, skills and applications in Figure 1) in the form of PHC service delivery to the people adhering to all the principles, especially the *Batho Pele* principles.

2.4 TRADITIONAL HEALTHCARE SYSTEMS

The period after 1948, known as the era of 'apartheid', different and unequal treatment of the different race groups manifested itself in the form of, unequal provision for and access to care, different availability and quality, and the disproportionate distribution of human resource services and facilities according to race (Van Rensburg, 2004:77).

The Browne Commission of Inquiry (1980) into Health Services was appointed to rationalize health services, to promote services that are more effective and to place the costs of the services on a sound basis. The inquiry in the 1986 report found shortcomings: fragmentation of control over health services, under-emphasis of preventive and PHC, over-regulation of the private sector, constraints in state psychiatric, geriatric, dental and rehabilitation services, under-development and poor co-ordination of health education, shortages of health personnel and inadequacy of statistical information on health matters (Van Rensburg, 2004:90).

In the Department of Health 2000 – 2004 Health Sector Strategic Framework document, the above was reiterated, that, prior to 1994, the South African health system was built on apartheid ideology and characterized by racial geographical disparities, fragmentation, duplication as well as hospi-centricism with lip service paid to the PHC approach.

2.5 NEW PUBLIC MANAGEMENT

Public sector organizations are adopting business principles, using concepts such as treating the citizen as a customer. The aim of this new paradigm is to foster a performance-oriented culture in a less centralized public sector. 'The paradigm is characterized by a closer focus on results in terms of efficiency, effectiveness and total quality management' (Desai, 2006:117). This paradigm is encapsulated in the 1997 White Paper on the Transformation of Public Service Delivery (*Batho Pele* White Paper).

Desai (2006:118) adds that highly centralized hierarchical structures, for example, at national government are replaced by a decentralized management environment (district level) where decisions are made closer to the point of delivery, which provides scope for feedback.

Since 1994, the ANC led government in South Africa has been characterized by a number of administrative, economic, social, and political changes, which have influenced government structures and decision-making. The systems approach indicates that no environmental component can be seen in isolation. Thus, the political changes have a significant correlation with change, in especially the social and economic components of the environment. The political component affects almost every facet of the public managers' activities because they are influenced by factors such as the system of government, the Constitution, the Bill of Rights, and the nature, promulgation and implementation of laws. Public administration functions within a political milieu, meaning that all the actions of public managers are guided by the requirements of political authority. The component comprises the regulations with which the authorities of a state regulate the structures and processes within a state. This includes the general

political climate, the degree and nature of the concentration of political power and the existing party system (Van Der Waldt and Du Toit, 1999:104).

Some of the social issues that affect the health services are the increase in the population growth, urbanization and housing, as well as HIV/AIDS.

However, the social environment cannot be seen in isolation from the economic environment. This environment must also be explored.

2.5.1 HIV/AIDS

The implications and the extent of AIDS in South Africa is one of the most challenging elements in health care. The number of AIDS cases doubles every 8,5 months {Crewe (1992:19), in Van der Waldt and Du Toit (1999:114)}. It was estimated that approximately four and half million people will be HIV positive by the year 2005. These projections predict that two and half a million people will already have died of AIDS by that time. AIDS will have the following effects in particular:

i) Loss of human resources;
ii) Implications for the recruitment and training of new staff;
iii) Loss of labour productivity;
iv) Loss of effectiveness and efficiency;
v) Direct and indirect health cost;
vi) Interruption of the production process; and
vii) Higher cost of employee benefits {Kruger in Kroon (1995:64), cited by Van der Waldt and Du Toit (1999:114)}.

The above earlier predictions have been correct as South Africa is currently experiencing one of the most severe pandemics in the world. There were approximately 5.7 million people living with HIV, and almost 1 000 AIDS deaths occurring every day at the end of 2007. HIV is widespread in South Africa with statistics showing that almost one in five

adults are infected. AIDS causes almost half of all deaths in South Africa and a staggering 71% of deaths among those aged between 15 and 49. In some parts of the country, cemeteries are running out of space because so many people are dying from AIDS. This is due to few people having access to antiretroviral drug treatment (http://www.avert.org/aidssouthafrica.htm).

In addition to the death and suffering that HIV has caused on individuals, their families and communities, South Africa's AIDS pandemic has also had a major impact on the country's overall social and economic progress:

- Average life expectancy in South Africa is currently 54 years. Without AIDS, life expectancy is estimated to be 64 years. Over half of the 15 year olds are not expected to reach the age of 60.

- Between 1990 and 2003, a period when HIV prevalence was dramatically increased, the country fell by 35 places in the Human Development Index, a global directory that ranks countries by how developed they are.

- In 2006, a leading researcher estimated that HIV-positive patients would account for 60-70% of medical expenditure in South African hospitals.

- Schools have fewer teachers and in 2006, it is estimated that 21% of teachers in South Africa are living with HIV (http://www.avert.org/aidssouthafrica.htm).

Hence, the AIDS pandemic in South Africa and the above predictions have a devastating impact on the economic and social development of the country because the health of people is severely affected. This pandemic will result in an increase in the demand of health care services at hospitals and PHC services at district and community levels. The government released a plan in 2007 that has two main goals in the fight against HIV/AIDS:

1. To reduce the number of new HIV infection by 50% by 2011; and
2. Reduce the burden of HIV/AIDS by increasing access to antiretroviral drug treatment packages to 80% of HIV-positive individuals.

The former President, Motlanthe (2009:7-12) has alluded to research into HIV prevalence demonstrating stabilization and a slight reduction in rates of infection.

However, a 'slight' reduction in HIV infection rates according to the Oxford Dictionary means 'not much, not great or not thorough'. This implies that the reduction in HIV infection rates is not significant and South Africa still needs a more concerted effort in reducing HIV infection rates, as this will influence the population size, planning for the country's future needs as well as delivery of all basic services (health, education, social security and welfare) including PHC services.

2.5.2 Urbanisation and Housing

The Central Statistical Service projects the total population in South Africa to be 53 million in the year 2010 (Van Der Waldt and Du Toit, 1999:114). This growth rate will make huge demands on the government with regard to allocation of scarce resources and have a major influence on urbanization, poverty, unemployment, water supply and health services.

Van Rensburg (2004:176) explains why there is sometimes a marked variation in the same population projections of different organizations. Population projections for South Africa are complicated by a number of uncertainties regarding the current and future size of the specific population. Such uncertainties include the actual size and age distribution as reflected in the last census data (the total population in South Africa to be 53 million in the year 2010), the future impact of AIDS, current and future fertility rates, and migration dynamics of the country. In order to project future population trends, any demographic model needs to make certain assumptions in respect of uncertainties. Significant variations in assumptions may, therefore, lead to marked differences in projections.

Various projections for the South African population for 2010/2011 was provided by various organisations, along with the year in which the projection was made. Examples of these are; the Actuarial Society of South Africa in the year 2000 projected a population of 49, 3 million, the Institute for Futures Research in the year 2001 projected a population of 50, 3 million, and the United Nations Population Division in the year 2002 projected a population of 44, 9 million.

In this regard, there would be uncertainties with respect to the planning of future health care services for South Africa, as this will affect the infrastructure including the physical facilities, for example, the number of clinics required in the rural areas, the financial resources and the human resources required for PHC delivery, in particular.

2.5.3 Health Services

Due to the rapid population growth, extensive primary health care is required which has to be financed by the taxpayer. 'A lack of infrastructure such as too few clinics and hospitals in rural areas, and a shortage of medical staff represent an additional burden on the authorities' (Van Der Waldt and Du Toit, 1999:115).

The health sector strategic framework (1999-2004) by the DOH had acknowledged the upgrading of clinics and building of new ones. South Africa will have close to 3 000 clinics in order to provide a clinic for every 13 000 population.

According to former President, Motlanthe (2009:7-12), there is evidence of a massive improvement in the access to primary health facilities. Ninety five percent of South Africans now live within 5 kilometres of a health facility (clinic).

However, there is an uncertainty concerning population projections for South Africa, as discussed above. If there is an increase in the population size, then public service managers in the health sector, including physiotherapy managers, face an enormous challenge in delivering PHC services, especially in the rural areas where such services are

desperately required by the people most in need. The major challenge for all public sector managers would be to ensure an adequate workforce of skilled human resources to meet increasing population demands in order to reach the Millennium Development Goals that former President, Motlanthe, alluded to in his State of the Nation address in February 2009. This would imply that all health care professionals, including physiotherapists, must be adequately trained or skilled for effective, efficient and economical delivery of PHC services, resulting in quality patient care. Planning and delivery of all PHC programmes must be aligned with the objective of reaching the Millennium Development Goals, as well as improving and sustaining quality health care services.

The Financial Fiscal Commission (FFC) (2004:28, 30, 32) highlighted that, based upon the requirement in the Bill of Rights, all citizens "have the right to an environment that is not harmful to their health or well-being". Consequently, there is a strong constitutional obligation to include Environmental Health Services (EHS) in the list of the basic health services that are currently included in the basic component of the Local Government Equitable Share (LES) formula. The coverage of EHS in South Africa does not meet the national norm of 1 Environmental Health Practitioner (EHP) per 10 000 population. The current national average, according to a recent study by the Health Systems Trust, is approximately 1 per 24 000 population. However, this national average masks huge provincial differences. Concerning government's scarce skills strategy to attract and retain health professionals in the public sector, it was proposed that government consider ways of extending the coverage of the scarce skills allowance and rural allowance, where appropriate, to local government professionals as well.

2.6 HEALTH PROMOTION THEORY/MODELS

According to Kreuter et al. (1998:130), four theories contain the models most frequently applied by health promotion practitioners as a means to uncover clues that will lead them to the intervention approaches that best fit the problem and circumstances they face, namely, the Health Belief Model (HBM), Self-Efficacy, the Theory of Reasoned Action and Diffusion of Innovations Theory.

2.6.1 Health Belief Model (HBM)

The HBM emphasizes that unless a person sees some value in making a behaviour change, there will be no reason for him or her even to consider the change. There are four main principles in the HBM: *perceived susceptibility, perceived severity, perceived barriers and perceived benefits*. The HBM reiterates that behaviour change is most likely to occur when a person believes he or she is at risk for a particular disease or health problem (perceived susceptibility) and believes the consequences of getting that disease would be serious for him or her (perceived severity). In addition the person believes there are more benefits to be gained from changing the behaviour (perceived benefits) than there are problems to overcome in changing the behaviour (perceived barriers) (Kreuter et al., 1998:131).

Rosenstock (1990), cited by Eales et al. (2001:24) concluded that an appreciation of the knowledge and the attitude of a patient will facilitate the understanding of the patient's motivation and the likelihood that the patient will adhere to a specific health behaviour change.

2.6.2 Self-Efficiency

Self-Efficacy is an important concept in the social learning theory. According to the social learning theory, individuals, who believe they are capable of taking some specific action and who believe that taking action will lead to a desirable outcome, are most likely to change. A person's beliefs about his or her ability to make a particular change are called self-efficacy. Beliefs about whether making that change will lead to a particular outcome are called outcome expectations. Both beliefs work together to affect a person's actions. For example, if a person believes that making the change would be valuable for him/her, but does not feel he/she is capable of making the change, it is unlikely to occur. It is important to note that beliefs about self-efficacy are always specific to some action (Kreuter et al., 1998:133).

2.6.3 Theory of Reasoned Action

The theory specifies that a person's intention of taking some health-related action is determined by two factors - the person's attitude toward the behaviour, and what the person thinks other people would want him or her to do regarding the behaviour. A person's attitudes are made up of:

- beliefs about outcomes that may result from engaging in behaviour; and
- beliefs about how desirable or undesirable those outcomes are.

A person's perceptions of others' beliefs are determined by:

- what the person thinks others would like him or her to do regarding the behaviour; and

- how much or little the person wants to comply with what others think he or she should do (Kreuter et al., 1998:135).

2.6.4 Diffusion of Innovations Theory

The origins of this theory were in communications and, interestingly, in agriculture. It explains how a new idea or product (an innovation), with time, gains momentum and spreads (diffuses) through a given population (Kreuter et al., 1998:137). Adoption is a key word in the context of this theory – simply translated, it means to do something (e.g., think, believe, purchase, act or behave) in a way that you have not done before. Thus, new ideas and products spread in a population or society to an extent that people "adopt" them. The notion of an adoption spreading through a population implies that not everyone jumps on the bandwagon immediately. Some do; but others are more conservative and wait it out, perhaps looking for evidence that the innovation in question is not just a passing fancy (Kreuter et al., 1998:137).

Health promotion is one of the important pillars to be considered when physiotherapists provide services at a PHC level. Physiotherapists must work with the people in the community when engaging in health promotion. Awareness of patients' knowledge and attitude will facilitate an understanding of the patient's motivation to adhere to a specific behaviour change, for example, to stop smoking, which is important if patients have respiratory conditions (asthma or tuberculosis). Health promotion will facilitate an increase in control over peoples' health as well as improve it, for example, the importance of losing weight in obese patients suffering from arthritis or cardiac conditions.

2.7 HEALTH CARE AND THE SPHERES OF GOVERNMENT

Public administration facilitates the functioning of government officials within the three spheres of government operating at national, provincial and district levels. Chapter 3 of the Constitution of the Republic of South Africa, 1996 (Act 108) makes provision for the three spheres of government which are distinctive, interdependent and interrelated. It is required of each sphere of government (and all organs of state) to act in accordance with principles laid down in Section 41 of the Constitution, 1996.

Governments have a responsibility towards society and they have to act in the interests of society. In South Africa, the hierarchical structure consists of central, nine provincial and a large number of local governments. It is important to note that government structures are created in this way not only to govern people but also to render specific services to the people they govern. This is confirmed by the Constitution of the Republic of South Africa, Act 108, 1996, for example, Section 152(1)(b) specifically states that one of the objectives of local government is 'to ensure the provision of services to communities in a sustainable manner'.

The central government is structured to govern on a national level, provincial governments and their institutions are structured with the purpose of governing within their areas of jurisdiction, for example, within KwaZulu-Natal or any of the other nine

provinces. To govern implies to render services to the inhabitants of the area; examples of services rendered by provincial governments are ambulance services and provincial roads. What applies to provincial governments also applies to local governments. In addition, to govern implies regulating the exploitation and utilisation of resources. The government and its institutions do all this through the process of public administration and management (Du Toit and Van Der Waldt, 1998:2-8).

Health, social services and education are some of the services delivered within the three spheres of government. Inter-sectoral collaboration as well as inter-departmental collaboration is important for effective service delivery as education, employment, water, sanitation, and housing are recognized as the key determinants of health.

2.7.1 National Department of Health

The National Department of Health is headed by the Director-General for Health and is accountable to the Minister of Health. The Ministry of Health is currently under the leadership of Health Minister, Dr Nkosazana Dlamini Zuma, the former being Ms Barbara Hogan. The Department of Health (DOH) implements management policies, for example, human resource management policies that are generated by the Department of Public Service and Administration (DPSA).

According to Desai (2006:119-120), the mission of public health administration is to ensure conditions in which people can be healthy. The vision is to be a responsive public service that delivers on the government's commitment to a better life for all the people of South Africa. Since 1994, there has been significant expansion and improvement of health services. New laws have been formulated, hospitals have been revitalized and clinics have been built. Moreover, there are enhanced preventive efforts and an increased availability to medicines. These initiatives all contribute to the improved health status of the nation.

The role and numerous functions of the national DOH relate to those of leadership, support, regulation and liaison, which include (Van Rensburg, 2004:127):

- **firstly**, leading in formulating national health policy and legislation;
- planning for and strategic management of health care resources;
- setting norms and standards;
- quality assurance and monitoring the achievement of the national health goals;

- **secondly**, a supportive role, as it is responsible for building the capacity of provincial health departments and municipalities;
- for lending support to the provinces and municipalities in accessing cost-effective and appropriate health commodities at all levels;
- for ensuring the equitable resource allocation to the provinces and municipalities;

- **thirdly**, it provides appropriate regulation of the public and private health sectors;
- it facilitates international health liaison.

The following policies influence health care delivery, of which PHC is an essential component.

2.7.1.1 Reconstruction and Development Programme (RDP) (1994)

On assuming power in 1994, the ANC led government, as the first democratically elected government, developed an ambitious, socialist-oriented RDP. The RDP sets the institutional framework for the reduction of poverty and inequality owing to the important role of the programme in integrating South Africa's development policy. The RDP Programme began with a centralized ministry and provincial structures, and played an initiating role, raising the 'development literacy' of South Africans as well as launching projects and research (Poverty and Inequality in South Africa, Summary Report, May, 1998:39).

The RDP document emphasized that access had to be improved in rural areas. Every person would have the right to achieve optimal health and the right to be treated with dignity and respect. The state should be responsible to provide the conditions to secure the health of the people mainly through achieving equitable social and economic development as well as eradicating all forms of discrimination in the health sphere.

The RDP (1994) contained several proposals, strategies and policy programmes. These were geared towards the final eradication of apartheid and the ushering in of a democratic, non-racial and non-sexist South Africa. The RDP policy was grouped under the following five broad policy programmes (RDP, ANC, 1994a:42-43):

- Meeting the basic needs of all the people of South Africa was the first priority of the RDP. These included, for example, the provision of jobs, land, housing, water, electricity, telecommunication, transport, health care and social welfare.

- Developing/upgrading our human resources required intense development in the education sector from primary to tertiary levels in order to ensure realization of this programme. This included training from homes, workplaces, public works programmes and in rural areas. A key focus throughout the RDP is the full and equal role for women in every aspect of the economy and society.

- In strengthening the economy, programmes dealing with the following areas were dealt with: linking reconstruction and development; industry, trade and commerce; resource-based industries; upgrading infrastructure; labour and worker rights in South Africa.

- Democratising the state and society was an integral part of the RDP, without it the resources and potential of our country and people will not be available for a coherent programme of reconstruction and development. This key area focuses on the role of the Constitution and the Bill of Rights, of national, provincial and local government, the administration of justice, the public sector, the police and

security forces, social movements and Non-Governmental Organisations (NGOs) and a democratic information system in facilitating socio-economic development.

- Making the state and the public sector more efficient. The RDP envisaged transformation of the delivery system that would "encourage and develop delivery systems and practices that are in line with international norms and standards; introduce management practices that promote efficient and compassionate delivery of services, and ensure respect for human rights and accountability to users, clients and the public at large".

According to Dennill (1999:182), the six basic principles that make up the foundation of the RDP are:

i. the programme must be integrated and sustainable;
ii. be a people-driven process;
iii. promote peace and security;
iv. form the basis of nation building;
v. link reconstruction and development; and
vi. form part of the democratization of South Africa.

Despite the closure of the RDP office in 1996, the RDP, as a policy, has not been done away with as an RDP Fund still exists, and RDP structures at provincial level remain in place in a revised form. Members of the programme management team have been shifted into various government departments where they worked with the Director-General to prioritise, plan, budget and co-ordinate. The risk was that, because the RDP was not funded by the Exchequer, but by International Grant Aid, many projects were not integrated into main budgets and fell away when foreign donors lost interest (Poverty and Inequality in South Africa, Summary Report, May 1998).

The RDP soon came under criticism and became symbolic of the new government's inability to deliver on its election promises and development programmes. Generally, the

constraints were unrealistic goals and shortcomings in the implementation of the RDP. Due to these constraints, the political and civic support for the RDP was systematically eroded and the RDP ministry was dissolved (Van Rensburg, 2004:113).

All these programmes had direct and indirect bearing on health and health care. The relevance of the RDP for health became even more pronounced in a number of priority health programmes. These programmes addressed the most serious health and development issues in the South African society at the time. They comprised, amongst others, feeding schemes for primary school children, free health care for children under six and for pre- and post-natal mothers, the building of new clinics, rural water provision, land reform, housing, literacy, infrastructural improvements, and public works' job creation programmes. The RDP provided for the creation of an National Health System (NHS), into which all the different role players and services in the health sphere –public and private – had to be drawn, and which was to be organized at the national, provincial, district and community levels. The proposed organizational framework for the NHS was the district-based PHC system that strongly emphasized social development, community participation and empowerment, inter-sectoral collaboration and cost-effective care. The closer integration of preventive, promotive, curative and rehabilitative services were also set as a clear goal (Van Rensburg, 2004:113).

In relation to physiotherapy, the programme ensured an increase in access to services by building more clinics and promoting PHC. Therefore, the delivery of physiotherapy services must incorporate preventive, promotive, curative and rehabilitative services promoting a PHC approach to service delivery.

2.7.1.2 National Health Plan (1994)

The RDP (ANC, 1994a) and the National Health Plan for South Africa (ANC, 1994b) were the two policy documents that paved the way for the fundamental transformation of the health system in South Africa. Comprehensive PHC is encapsulated both as a

philosophy and as a strategy for health care delivery. This is reflected in the goals set for reform of the health sector (ANC, 1994b:7 in Van Rensburg, 2004:420):

- Ensuring the emphasis is on health and not only on medical care;

- Redressing the harmful effects of apartheid on health care services;

- Encouraging and developing comprehensive health care practices in line with international norms, ethics and standards through the creation of a single comprehensive, equitable and integrated NHS;

- Emphasizing that all health workers have an equally important role to play in the health system, and ensuring that teamwork is a central component of the health system;

- Recognising that the most important component of the health system is the community, and ensuring that mechanisms be created for full, effective community participation, involvement in planning, provision, control and monitoring of services. This is conducted through democratically elected representatives on effective community structures and within the framework of a decentralized district health system responsible for all community health services in a district;

- Introducing management practices aimed at efficient and compassionate health care delivery. Authority and control over the funding was to be decentralized to the lowest level possible, compatible with rational planning and maintenance of good quality care;

- Ensuring respect for human rights, and accountability to users of health facilities and the public at large; and

- Reducing the burden and risk of disease affecting the health of all South Africans.

Similar to the RDP programmes, free health care was introduced in the public sector for specific patient groups focusing on the health needs of the most vulnerable groups in society. Clinics and health centres were to be the first points of contact with the health system. A number of priority health programmes were introduced, such as mother and child health, nutrition, mental health, control of communicable diseases, and violence.
In addition, the plan incorporated, in great practical detail, many proposed health policies pertaining to specific areas in health. These included emergency medical services; health technology; care for the elderly; control of communicable diseases, disaster preparedness and humanitarian action; drug policy; environmental health; health promotion; HIV/AIDS and Sexually Transmitted Diseases (STDs); laboratory services; women's, maternal and child health; non-communicable diseases; nutrition; occupational health; oral health; rehabilitation; research; rural health; traditional practitioners and violence, (Van Rensburg, 2004:115-116).

Evidently, in health care, there is a major overlap in the principles, goals, policies and programmes of the National Health Plan with that of the RDP. This plan was an effective guide for transformation and formed an integral part in rationalization as well as restructuring of hospitals. In summary, the plan emphasized a fundamental shift from past policies and practices in healthcare towards PHC, a single, equitable and integrated NHS, the district health system (DHS), and community involvement in health issues. New health policies focused on preventive care as opposed to curative care.

In 1999, the national DOH introduced the Patients' Rights Charter to ensure the right of all people to access health care services as well as be treated with dignity and respect. In addition, it was a requirement that health information should be provided in a language understood by the patient; moreover, patients have the right to complain about the health services.

According to Desai (2006:123), substantial training and re-orientation of existing personnel and training of new cadres of health-workers was envisaged, for example, the introduction of community health workers. It was suggested that systematic collection and analysis of appropriate data on health would be necessary as part of comprehensive health information.

Legislation and relevant policies, that impact on the delivery of PHC and with special reference to physiotherapy, for example, rehabilitation, will be highlighted hereunder:

2.7.1.3 The White Paper for the Transformation of the Health System in South Africa, 1997

This was the main policy document after 1994, which aimed to present to the people of South Africa a set of policy objectives and principles upon which the Unified National Health System of South Africa will be based. It also presents various implementation strategies designed to meet the basic needs of all people, given the limited resources available (DOH, 1997:1). The strategic approach in developing a future health care system in the country is that of 'Comprehensive PHC'. It, therefore, builds on the health objectives outlined in the RDP and the National Health Plan for South Africa (1994).

The White Paper included the following policy measures that would fundamentally transform health care delivery in South Africa:

- "Unifying the fragmented health services into a comprehensive and integrated NHS to address the legacy and impact of apartheid on health;

- Decentralizing health service management with emphasis on the DHS;

- Promoting equity, accessibility and utilization of health services by rendering PHC available to all South Africans;

- Establishing health service units that offer essential PHC service packages within an effective referral system linking primary, secondary and tertiary levels of care;

- Involving communities in the planning and provision of health services;

- Ensuring the availability of essential drugs in health facilities by implementing an essential drug list;

- Giving special attention to health services for the most needy, that is, the poor, the under-served, the aged, women and children; and

- Developing a national health information system (NHIS) to facilitate health planning and management, and to strengthen disease prevention and health promotion" (DOH, 1997).

In addition, five key strategies were outlined to steer the reform of the health sector, namely:

- The health sector must promote equity by the development of a single, unified health system;

- The health system will emphasise the PHC approach, and focus on the district level as the main locus of implementing PHC;

- The district, provincial and national levels will play distinct and complementary roles in health promotion and implementing PHC;

- The government, NGOs and the private sector will have to combine forces in the promotion of common health-related goals; and

- An integrated package of essential PHC services will be available to all South Africans at the first point of contact.

The above list of objectives, principles and strategies foreshadowed the key policies in subsequent years that became the building blocks of reform of the health sector. These objectives have also been translated into the National Health Bill and constitute the essence of the National Health Act (Van Rensburg, 2004:119).

It is evident that a comprehensive PHC approach, focusing on the district level as the main locus of implementing PHC services, is mandatory during physiotherapy training and clinical practice. Health promotion also forms an essential part when physiotherapists implement PHC with special attention given to the people that need it the most.

2.7.1.4 The White Paper on Transforming Public Service Delivery (*Batho Pele* White Paper-1997)

The *Batho Pele* White Paper was published on 24 November 1997 by the Department of Public Service and Administration (DPSA) in order to provide a policy framework and a practical implementation strategy for the transformation of Public Service Delivery. It is primarily about how public services are provided, and specifically about improving the efficiency and effectiveness of the way in which services are delivered to meet the basic needs of all South African citizens. *Batho Pele* in Sesotho means 'People First'. Improving service delivery is, therefore, the ultimate goal of the public service transformation programme.

The *Batho Pele* Principles

The eight *Batho Pele* principles for transforming public service delivery have been identified in the White Paper on Transforming Public Service Delivery (*Batho Pele* White Paper-1997) and promulgated in the National Health Act 61 (2003). The principles are expressed in broad terms in order to enable national and provincial departments to

apply them in accordance with their own needs and circumstances. There has been an addition of three more principles, which now total to eleven principles. The eleven *Batho Pele* principles are as follows:

i) Service standards - citizens should be told what level and quality of public services they will receive so that they are aware of what to expect.

ii) Access - all citizens should have equal access to the services to which they are entitled, for example, increasing access of public services for those who have not previously received them. Many people who live in remote areas can be reached by setting up mobile units and redeploying facilities and resources closer to those in greatest need.

iii) Ensuring courtesy - citizens should be treated with courtesy and consideration.

iv) Providing more and better information - citizens should be given full, accurate information about the public services they are entitled to receive, especially those who have previously been excluded from the provision of public services.

v) Increasing openness and transparency - citizens should be told how national and provincial departments are run, how much they cost and who is in charge.

vi) Remedying mistakes and failures (redress) - if the promised standard of service is not delivered, citizens should be offered an apology, a full explanation and a speedy and effective remedy; and when complaints are made, citizens should receive a sympathetic, positive response.

vii) Getting the best possible value for money - public services should be provided economically and efficiently in order to give citizens the best possible value for money.

viii) Consultation - citizens should be consulted about the level and quality of the public services they receive and, wherever possible, should be given a choice about services that are offered. It is important that consultations not only cover aspects about services currently provided, but also about the provision of new basic services to those who lack them. In this way, consultation can help to foster a more participative and co-operative relationship between the providers and users.

ix) Encouraging innovation and rewarding excellence - systems must be in place to recognise and reward staff for their contributions towards improved service delivery. Performance measurement systems include assessment of the staff contributions towards improving service to the public. An environment conducive to service delivery must be created to enhance staff's capacity to deliver services and staff must be encouraged to make suggestions for improving services.

x) Customer impact - by putting all the *Batho Pele* principles into action at the same time, staff should work together to improve service, which, in turn, should have an impact on customers or people (patients). Working together as a team, ensures better service and assistance to improve the lives of all the customers or people (patients).

xi) Leadership and strategic direction - in any organisation, leadership is important. Leaders set the direction and lead by example. Our leaders are responsible for creating the right environment, which encourages creativity and innovation. Good leaders empower their people to work together, plan together and reach the targets and goals together.

The South African government has, through the Reconstruction and Development Programme (RDP), the Growth, Employment and Redistribution Strategy (GEAR) and the White Paper on the Transformation of the Public Services Delivery WPTPSD),

placed emphasis on meeting the necessary needs of all citizens by a reduction in unnecessary government consumption and the release of resources for productive investment and their redirection to areas of greatest need. Therefore, government institutions must be re-orientated to optimise access to their services by all citizens, within the context of fiscal constraints and the fulfilment of competing needs.

According to a former State President, Thabo Mbeki, State of the Nation report:

'The state of delivery". We need massively to improve the management, organisational, technical and other capacities of government so that it meets its objectives (Sunday Times, February 13, 2005).

Moreover, the recommendations for action by the DOH were to develop all plans and activities around the client/patient-centred Transformational Strategy, implement Transformational Project and Task Teams to specifically describe services, activities and measurements guided by the vision and mission and embracing the core values of the Department of Health, to ensure that this Transformational Strategy becomes a dynamic organizational culture in KwaZulu-Natal (KZN Department of Health, 1999 – 2004).

In this regard, the curriculum in physiotherapy needs to be transformed or restructured so that clinical education incorporates the *Batho Pele* principles. This entails a change in mindset and commitment of all academic staff, including education and training so that the *Batho Pele* principles can be implemented in teaching and clinical education of all levels of physiotherapy students. The four steps to improving service delivery, as outlined in 'The delivery to the people' guide (in chapter 2), must be followed, that is, strategic direction/planning; implementing a service delivery improvement programme; and measuring performance and recognising achievements. These steps should also be followed at all the clinical areas as well.

Physiotherapy service delivery necessitates consultation with all patients at the various clinical sites (approximately 14), especially in the peri-urban and rural areas, providing

ongoing information on the quality of services they need, including reports. The language barrier needs to be addressed so that students and staff are able to communicate effectively with patients especially in isiZulu. The department needs to draw up an equity plan to recruit more African staff and students so that more African physiotherapists are trained to address the needs of people that were previously disadvantaged. If students are trained, according to the White Paper on Transforming Public Service Delivery (1997), and the Constitution of the Republic of South Africa, they will continue implementing *Batho Pele* principles. This will improve their service delivery during their community service in the rural areas and throughout their career as physiotherapists at all levels, that is, junior, senior and managerial leadership positions.

2.7.1.5 National Health Act 61 (NHA) (2003)

The aim of this Act is to establish the district health system based on the principles of the PHC approach. The purpose of the NHA is to regulate health as well as to provide uniformity in health services. In addition, the Act specifies the general functions of the National Health Department with specific reference to the Director-General's responsibilities, which include the implementation of the national health policies. These policies include the distribution of human resources, provision of appropriately trained staff to meet the health care needs as well as the effective and efficient utilisation, functioning, management and support of human resources.

Moreover, the Act provides for health care at primary, district, tertiary and specialised care. According to Desai (2006:130), many patients bypass the first step in the ladder of care and approach hospitals because they may be under the assumption that hospital care is superior to clinic care. Consequently, this patient approach increases the workload of the health professionals.

From experience, working at various public hospitals for many years, there has always been a shortage of health professionals due to an increase in patient load resulting in staff being overworked and burnt-out. Currently, posts at public sector hospitals have been

frozen and requires many months, sometimes up to eighteen months to two years for the unfreezing of the posts, advertisements, selection and appointment of new incumbents. It must be emphasised that human resources form an essential part for the efficient and effective delivery of health care services.

2.7.1.6 Strategic Priorities for the National Health System (NHS), 2004-2009

The Department of Health has identified strategic priorities for part of the second decade of democracy (2004-2009) in South Africa in order to realise its vision of "an accessible, caring and high quality health system".

Dr Manto Tshabalala-Msimang, a former Minister of Health, stated that the National Department would work closely with provincial departments of health, and municipalities to ensure that the key strategic issues are implemented. She also assured that the Health Ministers of Cabinet/Members of Provincial Executive (MINMEC) would review progress and take collective action to strengthen implementation in areas of non-performance (Strategic Priorities for the National Health System (NHS), 2004-2009).

Some of the priorities for five years (2004-2009) include the following:

- Improve governance and management of the NHS;
- Promote healthy lifestyles;
- Strengthen PHC, emergency services and hospital service delivery systems;
- Human Resource (HR) planning, development and management;
- Prepare and implement legislation; and
- Planning, budgeting, monitoring and evaluation.

On governance issues, functional integration between provincial and municipal health services was implemented, but with serious challenges, and that only five provinces had service level agreements with municipalities finalized by 2004. Challenges with respect to PHC and the DHS include: the funding of municipal health services; strengthening

community participation in the governance of PHC services; and eliminating fragmented services provided by *provinces* and *municipalities.*

2.7.1.7 White Paper on an Integrated National Disability Strategy (INDS), November 1997

A former President, Mbeki, (foreword of the White Paper on the Integrated National Disability Strategy, November 1997) asserts that research estimates between 5 and 12% of South Africans are moderately to severely disabled. Despite this large percentage of disabled people, few services and opportunities exist for people with disabilities to participate equally in society.

People with disabilities are excluded from the mainstream of society and experience difficulty in accessing fundamental rights. There is a strong relationship between disability and poverty. Poverty makes people more vulnerable to disability and disability reinforces and deepens poverty. Particularly vulnerable are the traditionally disadvantaged groups in South Africa, including people with severe mental disabilities, people disabled by violence and war, and people with AIDS.

Disability tends to be couched within a medical and welfare framework, identifying people with disabilities as ill, different from their non-disabled peers and in need of care. There is a corresponding neglect of their wider social needs because the emphasis is on the medical needs of people with disabilities. This has resulted in severe isolation for people with disabilities and their families (foreword of the White Paper on the Integrated National Disability Strategy, November 1997).

People with disabilities in South Africa came together in the early "eighties to mobilize and organize themselves. Their aim was to build a strong civil movement of organizations controlled by disabled people themselves. Central to the disability rights movement is the assertion of disability as a human rights and development issue.

Throughout the world, disabled people are organizing themselves to engage society on the question of their fundamental rights. The United Nations has issued two documents dealing with the concerns of people with disabilities. These are the United Nations Standard Rules for the Equalisation of Opportunities for Persons with Disabilities and the World Programme of Action concerning Disabled Persons. Both documents call for extensive changes in the environment to accommodate the diverse needs of disabled persons in society. The emphasis is on a fundamental shift in how we view disabled people, away from the individual medical perspective, to the human rights and development of disabled people. The result is a social model for disability based on the premise that if society cannot cater for people with disabilities, it is society that must change. The goal must be the right of people with disabilities to play a full, participatory role in society. A key principle of disabled people's movements throughout the world, and indeed of the social model itself, is the involvement of people with disabilities in the process of transformation (White Paper on the Integrated National Disability Strategy, November, 1997).

An understanding of disability, as a human rights and development issue, leads to a recognition and acknowledgment that people with disabilities are equal citizens and should, therefore, enjoy equal rights and responsibilities. This implies that the needs for every individual are of equal importance, and that needs must be made the basis of planning. It further implies that resources must be employed in such a way as to ensure that every individual has equal opportunities for participation in society (INDS, 1997:10).

In addition to rights, people with disabilities should have equal obligations within society and should be given the support necessary to enable them to exercise their responsibilities. This means that society must raise to expectations of people with disabilities.

A human right and development approach to disability focuses on the removal of barriers to equal participation and the elimination of discrimination based on disability.

The social model emphasizes two things: the shortcomings of society in respect of disability, and the abilities and capabilities of people with disabilities themselves. This results in an approach that requires that resources are made available to transform so-called "ordinary" amenities and services to cater for a more diverse environment.

The social model, therefore, implies that the reconstruction and development of our society involves a recognition of, and intention to address the developmental needs of disabled people within a framework of inclusive development. Nation building, where all citizens participate in a single economy, can only take place if people with disabilities are included in the process (INDS, 1997:11).

The objectives of the *Integrated National Disability Strategy* (1997:19) include:

1. the facilitation of the integration of disability issues into government and developmental strategies, planning and programmes;

2. the development of an integrated management system for the co-ordination of disability planning, implementation and monitoring in the various line functions at all spheres of government;

3. the development of capacity building strategies that will enhance government's ability at all levels to implement recommendations contained in the *Integrated National Disability Strategy*; and

4. a programme of public education and awareness raising aimed at changing fundamental prejudices in South African society.

The key policy areas identified include prevention, health care, rehabilitation, public education, barrier free access, transport, communications, data collection and research, education, employment, human resource development, social welfare and community development, social security, housing and sport and recreation. The White paper has developed policy objectives, strategies and mechanisms for each of these areas. These

overlap with the preventive, promotive, curative and rehabilitative aspects of the comprehensive PHC approach to health care that must be practised by all health care professionals.

The Mercury, 20 March 2006, featured an article:

"Disabled delegate thrown off aircraft". Cape Town: After touting SA's disability model and policies at an international conference in Malawi, members of the Disabled People SA organization said they had been "humiliated" and "embarrassed" when asked to disembark from a South African Airways flight because of their handicaps.

Jacqui O'Sullivan said they had launched an investigation into the matter and would keep the organization up to date with the developments. She said the problem had arisen when their medical information had not been transferred to the return flight and the crew did not know they would need additional staff on board; for every three disabled people you need one additional staff member. "Here is a captain who is supposed to be concerned about safety who is happy to leave a group of disabled people on the tarmac. This was very embarrassing as we had just come back from a conference where we praised SA".

To date, there was no follow-up published in the newspapers.

According to the White Paper on the Integrated National Disability Strategy (November 1997) on air travel, although the major airports have introduced extensive upgrading projects to make their facilities more user-friendly, smaller provincial regional airports still remain extremely discriminatory against disabled commuters. This is, in part, due to a lack of information on national guidelines and minimum standards and norms.

The above incident is just one of the many examples that give the public insight as to the enactment of legislative, policy and program-based reforms that have been formulated and implemented to enable disabled people to enjoy full rights and freedoms. Therefore,

the question arises as to whether people with disabilities have access to services as well as social, economic and political opportunities.

2.7.1.8 National Rehabilitation Policy, Department of Health - November 2000

The South African government has committed itself to bringing health services closer to the people by adopting the PHC approach, of which rehabilitation is an important component. Rehabilitation services should be structured and strengthened in order to improve access to these services, especially for those people who did not have it previously. A need exists to find solutions to the many problems associated with rehabilitation. Managers and rehabilitation professional have realized that part of the solution is to involve patients/people in decision-making, who can own the process as well as be empowered simultaneously. This will develop an ethos in society, ensuring quality of care at all times, with respect for human dignity and acknowledgement of a person's right to self-determination (National Rehabilitation Policy, 2000:1).

Rehabilitation professionals include physiotherapists as an integral component of the rehabilitation team and, as such, they must take cognizance of the above in order to deliver PHC services equitably, effectively and efficiently.

The White Paper on an INDS (1997:64) proposed the development of national policy guidelines with regards to rehabilitation. Community-based rehabilitation was endorsed as a basis for the national rehabilitation strategy, supported by secondary and tertiary rehabilitation services. This is in line with the provisions of the UN Standard Rules on the Equalisation of Opportunities for Persons with Disabilities that proposes rehabilitation services should be available in the local community. The context of this policy document is that it forms part of the strategy to improve the quality of life of people with disabilities.

The goal of this policy is to improve accessibility to all rehabilitation services in order to facilitate the realization of every citizen's constitutional right to have access to health care services. The objectives include (National Rehabilitation Policy, 2000:2):

- To improve accessibility of rehabilitation services for people suffering from conditions that can lead to disability as well as those living with disabilities;

- To establish mechanisms for inter-sectoral collaboration in order to implement a comprehensive rehabilitation programme;

- To facilitate appropriate allocation of resources, and encourage their optimal utilization;

- To facilitate human resource development which takes into account the needs of both the service providers and the consumers;

- To encourage the development and implementation of monitoring and evaluation strategies for rehabilitation programmes;

- To ensure participation of persons with disabilities in planning, implementation and monitoring of rehabilitation programmes; and

- To encourage research initiatives in rehabilitation and related areas.

Community Based Rehabilitation (CBR) is a strategy within community development for the rehabilitation, equalization of opportunities and social integration of people with disabilities. CBR is implemented through the combined efforts of disabled people themselves, their families and communities, and the appropriate health, education, vocational and social services (WHO, 1994 in DOH, 2000:6). CBR is an integral part of PHC and its principles are applicable at all levels of service delivery, from community to tertiary level. CBR ensures the empowerment of people with disabilities, caregivers and

parents of disabled children. CBR is a strategy/philosophy and not a service. It is people-centred and people-driven focusing on a mutual transfer of skills, knowledge and resources between the community, people with disabilities and service providers (National Rehabilitation Policy, 2000:6-7).

Therefore, CBR should be included during clinical training of physiotherapists as part of PHC service delivery. Universities were also found to produce a limited number of graduates, who often lacked the skills to work in and with rural communities (DOH, 2000:4). Preferably, physiotherapy training should be aligned to clinical practice, ensuring that patients have equal access to health care services available at various levels: primary, secondary and tertiary; and in different contexts: home, community and institution.

Some of the important guidelines for establishing a rehabilitation programme that has implications for physiotherapy training and clinical practice include (National Rehabilitation Policy, 2000:8-13):

- Service providers must strive to render a comprehensive service, which covers all components of rehabilitation. This requires close collaboration between all service providers as well as a clearly defined referral system. Components of rehabilitation will include medical, psychological, educational, vocational and social rehabilitation inclusive of the provision of assistive devices;

- A healthy balance between institution-based and community-based rehabilitation services is essential. Therefore, the necessary personnel (including physiotherapists) should be trained and with regards to community service. Members of the community must be empowered to play a more direct and meaningful role in the rehabilitation process;

- Persons with disabilities must participate in planning, implementing and monitoring rehabilitation. They should also be given the opportunity to influence policy formulation and to participate in the whole process of programme development and implementation;

- Inter-sectoral collaboration between the Education, Labour, Health, Housing, Transport, Welfare and other relevant sectors for planning and implementing strategies to improve the quality of life for people with disabilities;

- Facilitate training and development. Reorientation of service providers towards the new ethos of service provision in the public sector is important. Those working in the community should be equipped with the necessary skills;

- Services are still concentrated at tertiary institutions in urban areas, with poor services available in rural areas, however, efforts are being made to establish services in previously marginalized areas;

- Training and health personnel development should occur within a national framework;

- The rehabilitation personnel (therapists, therapy assistants) should form part of the primary health care team as proposed in the White Paper for the Transformation of the Health System in South Africa. This document clearly stipulates that a Primary Health Care Team (PHCT) must include community health nurses, midwives, doctors, PHC nurses, enrolled nurses and nursing auxiliaries, oral hygienists, therapists (which include physiotherapists, clerical and support staff and rehabilitation personnel, of which physiotherapists form an essential component. In addition, social workers should form part of the envisaged PHCT. All rehabilitation personnel form part of the referral team at the district level. The ideal recommended ratio of PHCT'S to the population should be 1: 15 000 as a long-term goal;

- In order to eliminate language barriers, the training of black therapists should be a priority; and

- Curricula for rehabilitation personnel must be reviewed to incorporate PHC principles and reflect the caring ethos. It is essential that a distinct career path exists and that rehabilitation personnel are not trained on an *ad hoc* basis. Personnel should be versatile enough to work in different settings, as well as be informed about the role and functions of their colleagues.

For this reason, it is imperative that education and training programmes aim to recruit and develop personnel who are competent to respond appropriately to the health needs of the population, including those people with disabilities. The main emphasis during training should be effective rehabilitation services within a PHC approach, in keeping with the appropriate level of care without compromising the versatility and mobility of trainees. Moreover, training should focus on the CBR concepts and principles. The White Paper for the Transformation of the Health System in South Africa has identified the training of rehabilitation personnel as a priority, therefore, training institutions must increase their capacity and address the national training needs. This will increase the clinical skills of rehabilitation workers, including physiotherapists. It also requires the development of management skills at all levels if substantive health reform is to be sustained. In addition, research capacity, focusing on essential health research strategy, should be implemented to support health sector development and this can easily be incorporated at undergraduate physiotherapy training, as research is an essential component in the final year of study.

2.7.1.9 Health Charter (2005)

According to Desai (2006:135), the Health Charter proposes transformation of the Health sector in the areas of access, equity, quality and Black Economic Empowerment. It also acknowledges that human resources are critical to the access to health services, which, in turn, is essential for achievement of the objectives of the Charter. It was highlighted that

there is no baseline of information parameters regarding human resources. Moreover, there is no benchmarking of salaries for health professionals, and the skills shortage is leading to a downward spiral amongst those who work in such fields since fewer people are available to perform the work. The sustainability of the national health system is dependent upon the efficient use, management and generation of its human resources.

In respect to accessibility, this is an example of the challenges faced by Department of Health in transforming the Health sector as proposed by the Health Charter. Such challenges are highlighted in a recent article entitled *"[En] closed clinic"*.

Residents of Sydenham in Durban, KZN are calling the non existent access to the clinic the worst service delivery the community has seen in recent months. The Sydenham clinic has no direct access route. The only entrance is through a block of flats that is only for residents living in these flats, and patients have to tell a lie or deceive the security guard on duty just to enter the clinic (Gazette, March, 2009).

Another example related to quality in the health sector is the findings following an investigation by a task team authorized by a former Health Minister, Manto Tshabalala-Msimang, featured in the 'Daily News' (October:2008), entitled *'Report on Eastern Cape hospitals reads like a horror story'*.

In the first three months of the year 2008, 140 childhood deaths, mostly linked to gastro-enteritis (infection in the stomach), were reported in nine hospitals in the Eastern Cape. An audit of the health records of 45 babies who died revealed that in 85% of the cases, the weight of the infant patients was not recorded, 60% did not have their nutritional status confirmed and the HIV status of 75% of the cases was not documented. The task team's report classified the quality of health care provided to 88% of these patients as "inadequate". The new Health Minister Barbara Hogan was congratulated for authorizing the release of the findings of the report.

The district health concept was intended to enable monitoring of patient conditions, so that focused interventions could take place. A similar incident occurred in Durban, KZN and Gauteng hospitals in the year 2006 where many babies died. The findings of the report revealed that poor basic medical and nursing standards and practices were found to be poor. In addition, limited infection control measures such as the lack of 'hand washing' by health personnel between patient examinations caused the spread of infection and the resultant death of many babies.

The articles indicate that poor service delivery by health care professionals can be detrimental to the lives of people especially babies and it is of great concern that Eastern Cape, Gauteng and KZN have reported such incidences.

The sustainability of the national health system is dependent upon the effective, efficient, economical use, management, and utilization of its human resources. In addition, national government must provide adequate funding and proper facilities as well as the infrastructure for quality health care. Monitoring and evaluating the delivery of PHC services is equally important so that there is control in the use of government funding.

2.7.1.10 Compulsory Community Service/Vocational Training for Physiotherapists

In 2001, community service was introduced for all health professionals including newly qualified physiotherapists. This service meant that, upon completion of a four-year physiotherapy degree, physiotherapists were assigned to hospitals where their shortage was the greatest.

A physiotherapist, upon registration for the first time with the Health Professionals Council of South Africa (HPCSA), must perform remunerated physiotherapy community service for a period of one year. Community service meant that there was a compulsory year spent in the public service. The main objective of community service is to ensure the improved provision of public health services and specifically physiotherapy services to all the citizens of the country. Consequently, it was anticipated that the introduction of

community service would help in alleviating the shortage of physiotherapists and other health care professionals in the public sector. However, this service has not satisfied the increased need for physiotherapists, especially at PHC level.

Although many provinces welcomed the additional assistance made available through community service, the potential usefulness of these junior health professionals, unsupervised in the periphery, was questionable. There was a real need for health professionals with some experience. A further challenge is the use of human resource planning to determine how training institutions, in particular, the Faculty of Health Sciences, with their various schools and disciplines, need to be transformed. Training institutions must be challenged to meet the needs of the health sector in terms of who is trained, that is, a skills mix at each level of care is required, and the need for affirmative action to correct the imbalances of the past. In addition, the content of training must include primary health care and management skills. Therefore, training at UKZN in the Faculty of Health Sciences must be aligned to clinical practice, which is required during compulsory community service. Retraining of health professionals, including physiotherapists, is also essential, as not all previously trained healthcare professionals underwent PHC training.

According to the Health Systems Trust (2004, cited by Desai, 2006:137), Steve Reid, a researcher at the Centre for Rural Health at UKZN, conducted research into community service for health professionals and found that the experience of community service was not as negative as it had initially been made out to be. The unnecessary amount of negativity was due to the programme being implemented without adequate consultation. It had to be complemented by better working conditions, competent management and rural allowance.

However, there is also a need to explore the use of non-financial incentives such as housing, vehicles and educational incentives to attract and retain scarce health professional categories, for example, advanced midwives, pharmacists, rehabilitation personnel, which include physiotherapists and medical specialists. This is urgent

particularly in rural and other under-served areas. Human resource is the most expensive resource and is the most critical for efficiency and effective service delivery in the public sector.

2.7.2 Provincial Department of Health (KZN)

The execution of national policies is the responsibility of provincial departments of health. The Members of Executive Council (MEC) of each of the nine provinces are responsible for health. Burger (2005), cited by Desai (2006:140-141), highlighted the following responsibilities for the provincial health departments:

- Providing and/or rendering health services;
- Formulating and implementing provincial health policy, standards and legislation;
- Planning and managing a provincial health-information system;
- Researching health services to ensure efficiency and quality; controlling quality of health services and facilities;
- Screening applications for licensing and inspecting private health facilities;
- Co-ordinating the funding and financial management of district health authorities;
- Effective consulting on health matters at community level;
- Ensuring that delegated functions are performed;
- Monitoring the health of the provincial population;
- Monitoring the performance of hospitals, districts and programmes;
- Monitoring equity of access and coverage;
- Providing specific provincial programmes.

The KZN Provincial Department of Health is responsible for policy development, implementation, monitoring and evaluation of the under-mentioned health programmes:

- Chronic Diseases and Geriatrics;
- Health Promotion;
- Maternal, Child and Women's Health;

- Nutrition;
- Oral Health;
- Communicable Diseases;
- Mental Health and Substance Abuse; and
- Rehabilitation.

Physiotherapists are important members of the multi-disciplinary team involved in all of the above mentioned health programmes in preventive, promotive, curative and rehabilitative roles of PHC delivery.

2.7.2.1 Health Sector Strategic Framework 2000-2004: Accelerating Quality Health Service Delivery (DOH)

The vision of the Department of Health is "a caring and humane society in which all South Africans have access to affordable, good quality health care" (DOH, 2000-2004).

Its mission is "to consolidate and build on the achievements of the past five years in improving access to health care for all and reducing inequity. Moreover, to focus on working in partnership with other stakeholders to improve the quality of care of all levels of the health system, especially preventive and promotive health, as well as to improve the overall efficiency of the health care delivery system" (DOH, 2000-2004).

The vision and mission emphasize accessibility to quality health care of all levels of the health system, especially preventive and promotive health which are essential components of PHC.

Ten Point Plan by DOH (1999–2004)

- Decreasing morbidity and mortality rates through strategic interventions;
- Improving quality of care;
- Speeding up delivery of an essential package of services through the district health system;

- Revitalisation of hospital services;
- Improving resource mobilisation and the management of resources without neglecting the attainment of equity in resource allocation;
- Improving human resource development and management;
- Reorganisation of certain support devices;
- Legislative reform;
- Improving communication and consultation within the health system and between the health system and the communities we serve; and
- Strengthening co-operation with our partners internationally.

The core business of the KZN Department of Health (1999-2004) includes the following:

1. Continual assessment of health and health service needs and priorities to ensure equitable resource allocation, through community participation;

2. Promote and protect the health of the community and work towards the prevention of disease and injury;

3. Ensure access to compassionate and caring health services;

4. Promote the provision of comprehensive services that are responsive to the needs of individuals and communities; and

5. To deliver high quality, seamless, comprehensive and effective health services in partnership with clients, the public and related agencies in a supportive environment which promotes trust and confidence.

The most important aspect in all of the above plans is improving quality of care in the health sector. This involves the effective, efficient, equitable and economical delivery of PHC services by health care professionals. Consequently, health service delivery

performance needs to be measured and is a challenging endeavour for public sector managers.

2.7.3 District Level

'A District Health System (DHS) based on PHC is a more or less self-contained segment of the NHS. It comprises first and foremost a well-defined population living within a clearly delineated administrative and geographic area. It includes all the relevant health care activities in the area, whether governmental or otherwise' Tarimo (1991:4), in DOH (2001:4).

Strachan (2000:1) asserts that the district health system is the blueprint on which South Africa's health system will be modeled. This system devolves control over health services to the lowest possible level in a demarcated geographical area. This brings the controlling authority as close as possible to the unique needs and wants of the community it serves. PHC services is crucial to the health of a district, this being the first point of contact between a patient and the health services. Moreover, another vital component of the district system is the district hospital, which provides hospital services to the district and clinical support to the PHC clinics.

The primary functions at this level are (Abedian, 1998:24, in Desai, 2006:145):

- Implementing a provincial health policy;
- Developing a local health care strategy based on need;
- Developing and managing the district performance budget;
- Purchasing and administering contracts for district healthcare from various providers; and
- Patient registration.

Therefore, in keeping with the White Paper for the transformation of the health system of South Africa, the health system must focus on districts as the major locus of implementation and emphasise the PHC approach.

2.7.3.1 White Paper on Local Government, 1998

The DOH has proposed decentralizing significant functions to local government, and will potentially designate municipalities as District Health Authorities (DHAs) where they have the capacity to perform this function. The Department perceives a clear need to integrate services currently rendered by multiple authorities (for example, where provincial and local governments operate separate clinics close to each other in the same area), and to co-ordinate those vertically split services which impact upon health quality (water supply, welfare, transport access, etc.). The DHS, which reintegrates and co-ordinates services at the local government level, is the best way to achieve this. DHAs will be established across the country with boundaries aligned with municipal boundaries where possible (White Paper on Local Government, March 1998:66).

A critical element that impacts on the provision of integrated services at the primary level identified in the White Paper on Local Government (March 1998: 35-36) relates to the interaction between the provincial and local spheres of government. This interaction is further complicated by the different capacities within the different municipalities. A challenge facing South African municipalities is the substantial variations in capacity, with some municipalities having little or no pre-existing institutional foundations to build on. Creating viable municipal institutions for dense rural settlements close to the borders of former homeland areas, which have large populations with minimal access to services, and little or no economic base, is, therefore, required.

The DHS also drives the delivery of the PHC package. The re-demarcation of municipalities, although intended to result in a better fit between the health districts and municipalities, has also not had the desired effect. National and provincial departments of

health needed to find ways of supporting service delivery at local levels in ways that strengthen integration.

In this regard, there was an update on the Department of Provincial and Local Government (DPLG) policy review of the White Paper on Local Government, which appeared on the DPLG website (www.thedplg.gov.za/policy) on 12 December 2007. The purpose of the review was to take stock of practice over the past thirteen years (1994 – 2007), to derive lessons and insights that can inform specific and practical approaches to the system of provincial and local government more efficient, accountable, equitable, and able to provide a better quality of service to South Africa.

The DPLG has classified the relevant issues and lessons that will be considered further in the process into five main thematic clusters. These themes form the framework and basis for the policy review, targeted research and further consultation, and will inform the structure of the White Paper. The five thematic areas are the following:

1. The roles of provincial government and two-tier local government;

2. Deepening local democracy, accountability and participation;

3. Strengthening capacity to meet basic needs and enable sustainable development;

4. Refining the inter-governmental roles, functions and fiscal frameworks of spheres; and

5. Making cooperative governance work more effectively and improving oversight, performance management, and the monitoring and evaluation system (www.thedplg.gov.za/policy).

The way forward in the next phase of the review is that, during 2008, further research and consultations will examine these areas as well as other issues under the above-mentioned

themes to determine whether additional measures are required. The overall process will culminate when a White paper is submitted to Cabinet in 2009.

The health sector had during the period 1994 - 1999 upgraded clinics and built new ones. There has been a steady shift in resources to primary care facilities. South Africa will have close to 3000 public sector clinics and this will provide a clinic for every 13 000 population. The challenge is to fully staff and equip these facilities so that they can provide a comprehensive health service and lead to more cost effective delivery. It was also envisaged that by the end of 2004 work in partnership with other sectors to ensure existing and new clinics and community health centres have electricity, telecommunication services, water and sanitation as well as easy accessibility by road will be accomplished. All PHC facilities must run community outreach programmes aimed at galvanizing the energies of communities for active participation in health programmes, especially preventive and promotive aspects of health service, (Health sector strategic framework, 1999-2004).

However, the former President, Motlanthe (2009:7-12), has alluded to a massive improvement in the access to primary health facilities.

The (DPLG) policy review of the White Paper on Local Government (www.thedplg.gov.za/policy) also affirms that the recently released community survey shows that access to services has improved across the range of indicators for free basic services and millennium development goals. In this regard, expenditure on social services such as education, health and social development shows improvement and stability, though outcomes are still skewed geographically. Backlogs in municipal infrastructure and services remain substantial, asset maintenance is a concern and the shortage of technical skills is an acute problem in many municipalities.

2.7.3.2 The e-Thekwini Revised Integrated Development Plan (IDP) 2003-2007

The e-Thekwini Revised IDP 2003-2007 describes local government's challenge of moving away from an inward looking, inefficient and ineffective government to one that is more accessible, accountable and aligned. The delivery of vital health services needs to be undertaken by municipalities in a sustainable and integrated manner. This includes addressing the HIV/AIDS, TB, other communicable diseases, and primary health care challenges. The IDP strategy examines ways of ensuring that primary health care is carried out in a systematic and integrated manner, with clear objectives set for each aspect.

The service also needs to be equitable, efficient and effective, and must, therefore, be aligned with national and provincial sectors in a co-ordinated method since local government cannot deal with these issues alone. For this to be realised, there needs to be concerted commitment to strategic budgeting for financial viability and sustainability. Local government, which is involved in the District Health System and Primary Health Care Centre, must be afforded adequate opportunities to participate in decision-making and policy formulation that will affect implementation of health service delivery.

2.7.4 Problems Encountered in KZN Health Sector

The public service was perceived as being characterized by inequitable distribution of public services (especially in rural areas), lack of access to services, lack of transparency, openness and consultation on the required service standards. In addition, lack of accurate and simple information on the services as well as the standards at which they are rendered were problems identified. Lack of responsiveness and insensitiveness towards citizens' complaints and discourteous staff was also perceived. These perceptions, which are frequently reflected in the media reporting of public service activities, are also shared by many public servants themselves (Republic of South Africa, 1997:12).

The (DPLG) policy review of the White Paper on Local Government emphasised that the intergovernmental system is well – established and generally sound. However, some uncertainty appears to exist with respect to particular functional areas. In most (but not all) cases, the uncertainty arises because it is unclear whether provinces or municipalities are responsible for a particular function. In other cases, there is a question about which level of government should be responsible for certain services in order to enhance access, efficiency, equity, and accountability. Areas of apparent uncertainty that have emerged repeatedly in the research submissions are the optimal long-term revenue structure for local government; housing; museums, arts and culture; public transport; district roads; municipal health; primary health care in metros and secondary cities; and the regional planning function of provinces (www.thedplg.gov.za/policy).

The recent (DPLG) policy review indicates that PHC service delivery still requires improvement in order to enhance access, efficiency, equity, and accountability. It was recommended that the DPLG will work with relevant sectors, the National Treasury and other partners to examine the above issues, and further research will be undertaken so that changes proposed are practical and well considered. The policy review will further examine which level of government is best placed to perform a function in cases where location is a key consideration in providing a better quality of service to the public and improving accountability.

2.7.4.1 Public Service Review Report 1999/2000

The Department of Public Administration (DPSA) 1999/2000 Review report discussed the problems identified in KwaZulu-Natal Province. Concerning health, there were weak links at the three spheres of government. Limited strategic direction from the provincial centre, and no systematic planning at departmental levels was also identified. Moreover, performance management systems for individuals lacked a proper system, that is, the monitoring and management of quality services. Large-scale theft of state assets in the health sector also exists. Mechanisms to monitor impact of policies/policy implementation, including public expenditure reviews, therefore, need urgent

consideration. A later report shall be discussed under the sub-heading, State of the Public Service report 2006.

The report includes the following lessons that have been learnt in South Africa over the previous five years, 1995-1999 (DPSA, 1999/2000 Review report):

- Time lines for transformation have mostly been over-optimistic;

- Transformation has been tackled in an *ad hoc* manner, without paying due regard to matters of sequencing, co-ordination and integration;

- Management as a factor in leading successful transformation initiatives has not been adequately recognised;

- The demands brought about by policy overload and the pace of change outstripped the managerial capacity available, and the demands were not matched by initiatives to develop managers at a variety of levels for these challenges;

- The public service is caught up in crises management, leaving little space for strategic and visionary management to take root in practice;

- The regulatory frameworks are not adequately aligned, nor flexible and sophisticated enough to accommodate most situations without causing distress to a significant grouping of actors regulated by these frameworks;

- Problems still exist in terms of adequate accountability framework within the public service, but also at a bureaucratic-political interface.

Suggestions for the way forward, as highlighted in this report, centres around the following themes:

- Improving co-ordination of government efforts to transform the public service;

- Improving the monitoring and evaluation capacity on government initiatives;

- Strengthening management capacity;

- Creating frameworks regarding public service organisation and structuring that will allow for both appropriate uniformity and adequate differentiation at the same time;

- Improving quality of service;

- Improving on people management, and

- Maximising the opportunities that technical advances offer for electronic government.

It is imperative that the quality of health services needs to be improved, as suggested in the above report.

2.7.4.2 State of the Public Service Report 2006

The capacity challenges facing the public service is the need to strengthen human resource management and development to ensure that there is a skilled, professional, motivated and productive workforce that drives government programmes, particularly those aimed at redressing the legacy of apartheid and consolidating democracy. Furthermore, the public service needs the capacity to consolidate its systems, planning processes, financial management, monitoring and evaluation, and to leverage these to ensure sustained effective delivery. The capacity for promoting and sustaining public

participation, which is vital for ensuring that the right needs are met, requires attention (State of the Public Service Report, 2006:5).

Concerning public service delivery, in most departments, the capacity to adhere to the *Batho Pele principles* is yet to develop beyond merely displaying the posters and bearing them on walls, (State of the Public Service Report, 2006:8). The White Paper on Transforming Public Service Delivery identifies the principle of value for money as key to ensuring that the public service is transformed. Within this principle, allocative and operational efficiency are the two key concepts that are important for managers as well as decision-makers in order to drive delivery. Allocative efficiency requires the capacity to ensure that resources are deployed in line with the priorities of government. To achieve this, the capacity to understand clearly what these priorities are and what they are intended to achieve is vital. In addition, the capacity to develop cost effective strategies and programmes that are aligned to these priorities is critical. Operational efficiency takes the process further by linking the costs of delivering a service or outputs to the quantity. What is desirable is the capacity to improve the cost-benefit ratio, thus improving the overall efficiency with which resources are used, and freeing up more resources for delivery (State of the Public Service Report, 2006:28).

The State of the Public Service Report (2006:30) emphasises that the lack of capacity to link performance delivery to time-lines poses another challenge, as is the finding that, in 61% of the departments, there was non-alignment between strategic plans, annual and financial plans.

It further suggests that the service delivery capacity of Government should be improved once the unified public service is operationalised. There is an urgent need to harmonize capacity throughout the three spheres of government (State of the Public Service Report, 2006:34).

In terms of provinces, qualified audit opinions across the Departments of Education, Health and Social Development are commonly found in most of the nine provinces and

these increased over the period 2001/02 to 2003/04 from 49% to 63%. The most significant deterioration can be found in the health sector. These findings are of concern since the Departments of Education, Health and Social Development normally receive the largest share of the budget and are also at the core of the poverty reduction programmes of government. Specific interventions would be required to ensure that this trend is reversed (State of the Public Service Report, 2006:47).

The Public Service Commission (PSC) regards workplace management of HIV/AIDS in the public service as challenging and important as the ability of the public service to provide quality services can be impacted by HIV/AIDS prevalence amongst its workers, and can compromise service delivery to the population generally. One way of strengthening the public service to deal with this in its workplace is to ensure that effective HIV/AIDS related health and counselling infrastructures are in place. This is another area where the capacity of the public service needs strengthening (State of the Public Service Report, 2006:60).

The study will focus on PHC delivery with reference to physiotherapy in KZN and recommendations on the way forward in improving the quality of PHC services will be suggested.

2.8 Governance

Good governance must include initiatives to strengthen the institutions of government and civil society, with a view to making government transparent, democratic and accountable to the public (Kuye, 2002:13).

The Government of National Unity has adopted decentralization as the model for both governance and management. Decentralised governance is embodied in the Constitution in the form of the powers and functions of the three spheres of government. The powers and functions of the local spheres of government reinforces the importance of this sphere in particular.

In general terms, the concept 'decentralisation' implies the shift of power, authority and functions away from the centre. It is viewed as a mechanism to achieve the following: greater equity and efficiency; greater involvement of, and responsiveness to communities; the reduction in the size of the bureaucracy far removed from the communities being served; and greater coordination between social sectors. The World Bank views the decentralisation of public health services as potentially the most important force for improving efficiency and responding to local health conditions and demands (District Health System in South Africa, 2001).

Section C of the White Paper on Local Government (March 1998) outlines the roles and responsibilities of national and provincial government with respect to local government, which has been constitutionalised. Co-operative governance is a key feature of inter-governmental relations, to allow for co-ordination and integration among the three spheres of government. Local government and municipalities can only fulfill their constitutional mandates if they work closely with the other two spheres of government by maintaining open, co-operative and constructive relations with the provincial and national spheres of government (Reddy, 2001:26).

The transformation of the health system required restructuring according to a 'district health system' (DHS), and the delivery of health care is according to the principles of the PHC approach. The development of a new local government system is still new in South Africa, and thus poses many challenges in terms of realising service delivery needs that are to be met in an integrated manner. Consequently, it is imperative that health districts, municipalities, provinces, the private sector and the national department work together to build an effective and efficient health information system. This is vital for planning and managing health service delivery. In addition, various other government department systems, such as Home Affairs, Social Services, Public Services and Administration and Treasury, impact on the health system, and, therefore, must ensure that these systems are integrated with that of the health system.

The decision to create a unified but decentralized national health system based on the DHS model was a significant step in the transformation of the health system. The main reason for this is the belief that this system is the most appropriate vehicle for the delivery of PHC. In addition, the decision to decentralise the delivery of health care is consistent with the overall policy to decentralise government (District Health System in South Africa, 2001).

The revisiting of the Provincial Growth and Development Strategy and the Integrated Development Programmes will also be necessary to ensure alignment to allow government to make choices about investment and development spending, and to form a basis for making strategic developmental choices. The promulgation of an Intergovernmental Relations Bill also seeks to promote more effective co-ordination and to enhance monitoring and evaluation as it is critical that all the key driving champions are held accountable for the successes or failure of elements of the strategies.

The Ten Year Review on Service Delivery in South Africa, commissioned by the Presidency, identified blockages to service delivery, and resultant failures in intergovernmental service delivery. In the Governance and Development Branch, failure was partly due to the complexity of the constitutional system that has inter-locking power between spheres. It also states that the schedules of powers are not necessarily consistent with the developmental challenges facing the country, and that there are arbitrary breaks between national, provincial and local powers. The findings also refer to the fact that national government should have an overall policy-making and capacity building role, and **should not** have a service delivery role (Intergovernmental Relations and Service Delivery in South Africa, A Ten Year Review: April 2005).

Other challenges include the confusion on the role of some forums, and the gross under-funding at local government level. The recommendation has been made to link provincial strategic plans and the Provincial Growth and Development Strategy (PGDS) with IDP's, and that they should be explicitly required by legislation to take IDP's into account when provincial treasuries make their allocations of funds. It is, therefore, clear that a more co-

ordinated and integrated approach to local government is required, with proper budget planning, capacity and skills at local level, and a coherent national and provincial framework to give effect to efficient and effective service delivery programmes at a local government level.

At a primary level, a critical element that impacts on the provision of integrated services relates to the interaction between the provincial and local spheres of government. This interaction is further complicated by the different capacities within the different municipalities. In health districts in which municipalities, either individually or collectively, can render the comprehensive package of PHC services, this should be explored and facilitated by provinces. The delegation of these services to a district health authority (which may either be a municipal council or group of councils or a provincially established authority) should be regulated by service agreements.

2.9 SUMMARY AND CONCLUSION

The Chapter has provided a broad overview of the policies that the South African government has introduced. The broader framework for the different levels of care has been provided at national level. The policies pertaining to health care and PHC are included together with the assistance required at provincial and district level for PHC delivery. These policies have placed PHC within the public administration and management paradigm. Furthermore, health and primary health care in physiotherapy has been contextualised within the public administration and management framework. Health promotion theory/models were also highlighted as one of the important pillars to be considered when physiotherapists provide services at a PHC level.

Based on this background, chapters three and four will follow focusing on PHC delivery in physiotherapy at a local, national and international level concentrating on a selected developed and developing countries. Thereafter, based on this background, the research design shall be developed in chapter five.

CHAPTER 3

THEORETICAL PERSPECTIVES OF PRIMARY HEALTH CARE

3.1 INTRODUCTION

Health care systems world-wide are in a turmoil due to the rising costs of health care and the increased demand on governments to use limited resources and deliver quality health care services effectively, economically, equitably and efficiently. The Department of Health's five year strategic plan 1999 – 2004 affirmed that prior to 1994, the South African health system was based on the ideology of apartheid, which was characterized by radical and geographic disparities; fragmentation, duplication as well as hospital based curative care with a lack of implementation of health care services based on a PHC approach. Fourteen departments of health existed with each having its own objectives. Furthermore, rural communities found access to health care very difficult. There was lack of facilities. In addition, the financial burden of finding and financing transport to health facilities as well as payment for health services acted as barriers to access health care. A majority of the rural hospitals had very limited access to medical doctors and health care personnel (including physiotherapists) as well as a limited supply of medication at public health facilities, which was expensive. The apartheid government did not take responsibility to provide access to health care services for rural communities, most of whom were classified as 'black'[1].

Cockerham (1995:317), cited by Van Rensburg (2004:16), emphasized that different countries are taking different approaches to solve health problems. However, most countries appear to be moving toward a system that will eliminate inequities.

The World Health Organisation (1978:3) identified that health was a "fundamental human right"; its aim was "the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive

[1] 'Black'- refers to Indians, Coloureds and Africans in the apartheid regime.

life". South Africa has been through a process of transformation over the past fifteen years and as a signatory to the Declaration of the Alma-Ata, has committed itself to bringing health services closer to the people by adopting the PHC approach. Moreover, the Declaration of the Alma-Ata, which was adopted in 1978 by the World Health Assembly, led to the radical redirection of the course of global health care towards that of PHC.

Zimba (2002) affirmed that the Primary Health Care (PHC) concept had evolved from the Alma Ata Conference (1978) and this approach is currently receiving tremendous attention worldwide as a mechanism to ensure effective and efficient public health services. Since then, many countries began to reorient their health services to achieve the goals of availability, accessibility and affordability for health care for all citizens; and a number of management issues came to the forefront. Clearly, the provision of comprehensive PHC services is the key aspect to improving health services. In South Africa, the district health system has been identified as an ideal model for comprehensive PHC services to reach all citizens.

3.2 PRIMARY HEALTH CARE: DEFINITION AND DECLARATION OF ALMA ATA

'Primary Health Care (PHC) according to the World Health Organisation (1978:3-4; 1998a) is essential health care based on practical, scientifically sound and socially acceptable methods, made universally accessible to individuals and families, and at a cost they can afford'.

The Alma-Ata conference defined Primary Health Care as being "essential care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the communities through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination" (Fry and Hasler, 1986:18, Dennil et al., 1999:2, Van Rensburg, 2004:28).

Primary Health Care forms an integral part of South Africa's health system, and as such, it contributes to the overall social and economic development of the citizens/society. The promotion of maximum community and individual self-reliance involves participation in planning, organisation, operation and control of PHC.

Section V11 of the Declaration of Alma Ata {WHO (1978: 428-30), cited by Fry and Hasler (1986:9-10), Dennil et al. (1999:5) and Van Rensburg (2004:28)} captures Primary Health Care as:

i. "Reflects and evolves from the economic conditions and socio-cultural and political characteristics of the country and its communities, and is based on the application of the relevant results of social, biomedical and health services research and public health experience;

ii. Addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly;

iii. Includes: education concerning health problems and methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation. In addition, maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs;

iv. In addition to the health sector, it involves all related sectors and aspects of national and community development, in particular, agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and demands the co-ordinated efforts of all those sectors.

v. Requires and promotes maximum community and individual self-reliance and participation in the planning, organization, operation and control of PHC, making

fullest use of local, national and other available resources; and develops, through appropriate education, the ability of communities to participate;

vi. Should be sustained by integrated, functional and mutually-supportive referral systems, leading to the progressive improvement of comprehensive health care for all, and giving priority to those most in need; and

vii. Relies at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team to respond to the expressed health needs of the country".

The basic elements of primary health care include education about the prevailing health problems and methods of preventing and controlling them as well as the promotion of food supply and proper nutrition. In addition, an adequate supply of safe water and basic sanitation, maternal and child health care, including family planning and care of high risk groups, immunisation against the major infectious diseases, prevention and control of locally endemic diseases, appropriate treatment of common diseases and injuries, and provision of essential drugs are included (Dennil et al., 1999:3).

Similarly, Fry and Hasler (1986:123-124) also identified the above basic elements of primary health care; suggesting that PHC operates in the community, including patients' homes, and that it is influenced heavily by social and environmental factors, namely, housing, industry, nutrition, water supply, drainage and poverty. It is fundamental in both under-developed and developed countries for PHC workers to have a close relationship with the people they serve through the community worker or volunteer because they are accepted as part of the community, are available when needed and subscribe to the common beliefs and philosophies of their people.

Consequently, it is imperative that PHC include the social and environmental factors, and healthcare professionals need to understand how they influence health care.

Primary Health Care advocates the delivery of comprehensive PHC services, which are embedded in the basic elements of PHC (Section V11 of the Declaration of Alma Ata). This endorses the fact that it should include a balance of promotive, preventative, curative and rehabilitative health (Hlahane, 2003:1).

In times of increasing demand and economic pressures, PHC represents an effective approach to improving service efficiency, co-ordination and continuity so that peoples' /patients' health needs can be met equitably and appropriately. The effective provision of PHC requires community participation to address health inequities; inter-sectoral collaboration and multi-disciplinary team effort; which requires interdisciplinary trust and respect, effective communication, cooperation and leadership (Australian Physiotherapy Association Position Statement, March 2008).

In South Africa, the delivery of comprehensive PHC services poses a major challenge due to many factors, that is, financial constraints, staff shortages, frequent strikes by health care professionals because of poor salaries and the lack of equipment and medicines. Doctors in major hospitals, including Mahatma Gandhi, Stanger and King Edward VIII in KwaZulu-Natal, were involved in intermittent strikes in June 2009 for a duration of three months. The government's major challenges were on salary discrepancies and it acknowledged that medical professionals have been underpaid for a long time. Moreover, some provinces appointed junior doctors to higher - level posts in a desperate bid to retain skills (http://multimedia.thetimes.co.za).

Doctors provide an essential service to patients, working in close collaboration with physiotherapists as well as other health care professionals and a primary health care team includes a physiotherapist who plays an important role in providing comprehensive PHC services. The physiotherapist must, therefore, acquire the skills necessary to render quality comprehensive PHC services.

3.3 HEALTH FOR ALL BY THE YEAR 2000 (HFA 2000)

Emanating from the Alma Ata Declaration are the following Charters, viz; the 'Health for All' by the year 2000 through the promotion of Primary Health Care, the Ottawa Charter for Health Promotion (1986) as well as the Jakarta Charter (WHO, 1997) and the 'Health Care for All' in 2001.

The goal set by the WHO was to achieve 'Health for All' by the year 2000 through the promotion of PHC. The key elements of this strategy were outlined in the Alma Ata Declaration as follows (Baum, 2002:33):

- an emphasis on global cooperation and peace as important aspects of PHC;
- recognition that PHC should be adapted to the particular circumstances of the country and communities within it;
- recognition that health status reflects broader social and economic development;
- PHC is the backbone of the nation's health strategy with an emphasis on health promotion and disease prevention strategies;
- Achievement of equity in health status;
- Participation in the planning, organization, operation and control of PHC, supported by appropriate education; and
- involvement of all sectors in the promotion of health.

Initially, the 'Health for All' package was implemented to developing countries by their governments. It was interpreted as a comprehensive package that linked health improvement to the overall social and economic development. As such, many governments embraced the notion and PHC was introduced in many countries. In South Africa, there is no clear demarcation in primary medical as well as paramedical care, creating duplication and no consistent continuity of patient care. The three spheres of government and the various relevant state departments still function in a compartmentalized manner while the private sector generally remains aloof in matters of

public health. Consequently, results in PHC delivery are non-comprehensive as the major responsibility is predominantly borne by health departments.

'Primary Health Care is the key in the pursuit of Health for All' (Fry and Hasler, 1986: 368). PHC brings healthcare close to the community by encouraging community participation/involvement; it can deal with most of the daily health-related problems and select those patients who need secondary or tertiary (hospitalized) care. PHC includes self-help and family care, care by auxiliaries (for example, support by Non-Governmental Organisations), nursing and paramedical professionals, traditional and alternative medicine practitioners, well-trained general practitioners and family physicians. In addition to care, relief and comfort of the sick, its goals must include health promotion and maintenance, disease prevention, rehabilitation, care of the physically and mentally handicapped and chronically ill, elderly and the dying. PHC must be available, accessible, efficient and effective. This encompasses the preventative, promotive, curative and rehabilitative care that must be accessible to all citizens of South Africa.

3.4 CHARTERS FOR HEALTH PROMOTION

The two Charters for Health Promotion were the Ottawa Charter (1986) and the Jakarta Charter (1997).

3.4.1 The Ottawa Charter for Health Promotion: 1986

The Charter was prompted as a result of the 'Health for All' by the Year 2000 Strategy was not being adopted by industrialized countries. Moreover, the limitations of the lifestyle and behavioural approaches which refer to the skills required that enable people to make healthy choices (for example, correct diet, regular exercises, sober habits) were increasingly being seen as requiring a new conceptualisation for health promotion and an appropriate time for a major health promotion statement.

The Ottawa Charter was seen as the foundation of the new public health system as it managed to integrate many of the different perspectives on health promotion. Behavioural and lifestyle approaches formed an integral part of the acquisition of personal skills for health.

According to the WHO (1986), cited by Baum (2002:35), the Charter is based on the belief that health requires peace, shelter, education, food, income, a stable ecosystem, social justice and equity as prerequisites. Five strategies of the Ottawa Charter are indicated hereunder:

- *The development of healthy public policy,* which recognises that most private and public sector policies that affect health lie outside the conventional concerns of health agencies. Policies such as free and universal education, environmental protection legislation, progressive taxation, welfare, occupational health and safety legislation and enforcement, land rights legislation and control of the sale and distribution of substances, for example, alcohol and tobacco. Essentially health becomes a concern and responsibility of every sector of government.

- *The creation of supportive environments* in which people can realise their full potential as healthy individuals. The charter recognises the importance of social, economic and physical environmental factors in shaping people's experiences of health.

- *Strengthening community action* refers to those activities that increase the ability of communities to achieve change in their physical and social environments through collective organisation and taking of action.

- *The development of personal skills* acknowledges the role that behaviour and lifestyles play in promoting health. The skills include those that enable people to make healthy choices. In addition, it extends the skills base for health to those

associated with community organisation, lobbying and advocacy, and the ability to analyse individual problems within a structural framework.

- *Reorientation of health services* is a call for health systems to shift their emphasis from (in mostly industrialised countries) an almost total concentration on hospital-based care and extensive technological diagnostic and intervention to a system that is community-based, more user-friendly and controlled, which focuses on health.

The Ottawa Charter reinforces the importance of, and recommends advocacy for health, enabling people to achieve their full health potential and mediation between different interests in society for the pursuit of health. Thus, all of the above-listed strategies are encapsulated in the PHC approach for the delivery of healthcare services.

3.4.2 The Jakarta Charter on Health Promotion: (WHO 1997)

According to Fricke (2005:10), "the Jakarta Declaration on Health Promotion into the 21st Century resulted from the fourth international conference on health promotion where increased cooperation between the various sectors was deemed necessary for the success of health promotion activities. Priorities identified for health promotion included the following:

1. promotion of social responsibility for health;
2. increased investments for health development;
3. consolidation and expansion of partnerships for health;
4. increased community capacity and empowerment of the individual; and
5. a secure infrastructure for health promotion".

Fricke (2005:10) adds that both "health promotion and disease prevention include all those purposeful activities" such as health education or detection of risk factors that are meant to improve personal and public health.

3.5 THE 'HEALTH CARE FOR ALL' – 2001

The Declaration on 'Health Care for All' was formulated in 2001 as another modified version of a global strategy on health. It was endorsed by the Conference on 'Health Care for All' in Antwerp, Belgium. The emphasis shifted from 'Health' to Health Care' and access to health care is viewed as a fundamental human right.

The Declaration on 'Health Care for All'– 2001 (cited in Van Rensburg, 2004:32) states that *'National governments, international organisations, all agencies and individuals concerned with health and development must':*

1. Recognise access to health care for all, requiring adequate human resources, infrastructure, essential drugs and commodities, as a basic human right, and as essential for the control of poverty-related diseases;
2. Acknowledge the need for multi-sectoral approaches to reduce the burden of HIV/AIDS, tuberculosis, malaria and other infectious and non-communicable diseases;
3. Ensure that specific disease control programmes strengthen regular health systems and that they are co-ordinated with other programmes and interventions;
4. Ensure that health systems are responsive to the needs and expectations of the populations, benefit from fair sustainable financing and contribute to improving health incomes;
5. Strengthen in partnership the financial, logistic, operational and scientific capacities of the low income countries to improve their health services and disease control programmes, and to orient international research to the needs of people and the health systems;
6. Facilitate and encourage the development and management of human resources in the health sector, and ensure that market mechanisms allow and promote global access to essential drugs and health-promotive commodities; and
7. Share this declaration and the global of 'Health Care for All' as a common agenda behind which all stakeholders can unite.

This declaration supports all health initiatives to realize 'Health for All' and renews the commitment of the international community to provide 'Health for All'.

The Declaration reiterates to the international community that the global health system is obliged in providing all necessary financial investments and technical support to low-income countries in order to ensure global access to health care.

3.6 UNITED NATIONS MILLENNIUM DEVELOPMENT GOALS

The Millennium Development Goals (MDGs) refer to the eight goals that respond to the world's main development challenges, which should be achieved by 2015. The MDGs are drawn from the actions and targets contained in the Millennium Declaration that was adopted by 189 nations and signed by 147 Heads of State and Governments during the UN Millennium Summit in September 2000.

The Millennium Development Goals:

- Synthesise, in a single package, many of the most important commitments made separately at the international conferences and summits of the 1990s; and
- Recognize explicitly the interdependence among growth, poverty reduction and sustainable development.

The eight MDGs, which can be broken down into 21 quantifiable targets and are measured by 60 indicators, are briefly highlighted below (http://www.undp.org/mdg):

Goal 1: Eradicate extreme poverty and hunger.

Indicators:

- Target 1a: Reduce by half the proportion of people living on less than a dollar a day.
- Target 1b: Achieve full and productive employment and decent work for all, including women and young people.

- Target 1c: Reduce by half the proportion of people who suffer from hunger.

Goal 2: Achieve universal primary education.

Indicators:

- Target 2a: Ensure that all boys and girls complete a full course of primary schooling.

Goal 3: Promote gender equality and empower women.

Indicators:

- Target 3a: Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015.

Goal 4: Reduce child mortality.

Indicators:

- Target 4a: Reduce by two thirds the mortality rate among children under five.

Goal 5: Improve maternal health

Indicators:

- Target 5a: Reduce by three quarters the maternal mortality ratio.
- Target 5b: Achieve, by 2015, universal access to reproductive health.

Goal 6: Combat HIV/AIDS, malaria and other diseases.

Indicators:

- Target 6a: Halt and begin to reverse the spread of HIV/AIDS.
- Target 6b: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.
- Target 6c: Halt and begin to reverse the incidence of malaria and other major diseases.

Goal 7: Ensure environmental sustainability.

Indicators:

- Target 7a: Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources.
- Target 7b: Reduce bio-diversity loss (proportion of land area covered by forest, consumption of ozone depleting substances, marine areas, fish stocks, species threatened by extinction), achieving, by 2010, a significant reduction in the rate of loss.
- Target 7c: Reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation.
- Target 7d: Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020.

Goal 8: Develop a global partnership for development.

Indicators:

- Target 8a: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system.
- Target 8b: Address the special needs of the least developed countries.
- Target 8c: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly).
- Target 8d: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long-term.
- Target 8e: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.
- Target 8f: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications

The MDGs impact on comprehensive PHC delivery, which is multi-disciplinary and multi-sectoral, for example, poverty and hunger can lead to malnutrition as well as

disease (Kwashiorkor), illiteracy leads to difficulty with health promotion and education on disease prevention.

The MDGs are an agreed set of goals for the year 2015 that can be achieved if all role players work together (for example, multi-sectoral teamwork) and do their part. Poor countries have pledged to govern better, and invest in their people through health care and education. Affluent countries have pledged to support them, through aid, debt relief, and fairer trade.

Consequently, the MDGs represent a global partnership that has developed from the commitments and targets established at the world summits of the 1990s in response to the world's main development challenges as well as to the calls of civil society. These goals promote poverty reduction, education, maternal health, gender equality, and aim at combating child mortality, AIDS and other diseases. All the MDGs, excluding goals 2 and 3 (i.e. to achieve primary education and gender equality), overlap with the Declaration on Health Care for All (2001), and with the philosophy or PHC approach in delivering health care services to the people. The former State President has also alluded to the achievement of the MDGs in the 2009 State of the Nation address in order to address abject poverty in South Africa.

3.7 BACKGROUND TO THE CURRENT SITUATION IN SOUTH AFRICA

According to South Africa's health policy (The 1997 White Paper for the Transformation of the Health System), the services offered in the health care system are based on the PHC philosophy and should include (De Haan, 2005:25):

- Environmental health care, including the supply of safe water and adequate safe sanitation;
- Maternal and child health care, including antenatal and delivery services, family planning services and well-baby clinics;
- Health promotion including health education;

- Access to health data and health information;
- Prevention and control of communicable diseases, including access to immunization services;
- Access to primary curative services for the treatment of minor ailments or common endemic conditions or diseases;
- Rehabilitative services; and
- Services to persons in the community, including school health, workplace services, and community development projects.

In his State of the Nation address, the former interim President, Motlanthe (2009:7-12), stated that, "government was painfully aware that abject poverty is too widespread in our society; and the level of inequality is too high". Access to basic services, for example, access to portable water has improved from 62% in 1996 to 88% in 2008; electricity 58% to 72%; and sanitation 52% to 73%. Evidence of the social wage is seen in massive improvements in access to primary health facilities. Ninety five percent of South Africans live within 5 kilometres of a health facility; all clinics have access to potable water. Child immunization coverage has steadily increased to 85% and malaria cases have massively declined. Research into HIV prevalence demonstrates stabilization and a slight reduction in rates of infection. The antiretroviral (ARV) programme is not only the largest in the world; but it is expanding all the time, with over 690 000 patients having commenced on ARV treatment since the commencement of the programme.

Motlanthe further adds that despite these improvements, many health facilities do not always have the required medicines, appropriate staffing levels, and constant supply of basic services such as clean running water and electricity. In some of these facilities, management is poor and staff attitudes need improvement. Overall, there have been advances in the social programmes, which is only a reflection of quantitative change. In all sectors, namely, education, health, housing, water or sanitation, the pivotal question that confronts the people of South Africa daily is how to improve the quality of these services (Motlanthe, 2009:7-12).

In addition, South Africans need to improve the education system; to provide efficient, decent and equitable health care; to develop the rural areas and ensure food security; and to intensify the fight against crime and corruption. "South Africans do not suffer the poverty of visions. Our challenge is to translate these visions into programmes and projects for effective implementation. These goals are shared by virtually all of humanity, as reflected in the United Nations Millennium Development Goals" (Motlanthe, 2009:7-12).

The Medical Research Council (http://www.mrc.ac.za) reported that South Africa has one of the most rapidly ageing populations in sub-Saharan Africa, and after Nigeria, houses the second-largest number of older persons, which is 3.3 million in the region. The population of older people is expected to continue growing for at least the next two decades, despite the impact of HIV/AIDS. Although PHC is free in South Africa for older persons, dedicated geriatric services in the public sector have been marginalized as older persons' health care become overshadowed by an emphasis on child, maternal and reproductive health care. This was highlighted in several studies as older peoples' dissatisfaction about inefficient health care systems, long-waiting queues, under-staffed facilities and shortages of medication.

The primary aim of the DOH is to ensure that all South Africans have access to affordable, good quality healthcare through a caring and effective National Health System (NHS) based on the PHC approach. Fifty - three health districts were established in line with the new metropolitan and district municipal boundaries. From 1997 to 2007, access to PHC, measured by visits, increased from 67 021 961 to 101 644 080. Since 2004, the DOH has prioritized healthy lifestyles as one of the critical programmes that need to be advocated throughout the country. The Healthy Lifestyles Programme promotes health and well-being among individuals, communities and populations, enabling them to address the broad determinants of health and to identify health - risk factors. The critical aspect of this programme is to address the onset and prevalence of non-communicable diseases; the dangers of obesity, unhealthy diet and physical inactiveness; successful aging and mental health; and the contribution of alcohol abuse to

non – natural deaths (violence, road accidents, drowning and injuries). The last Friday of February each year has been declared Healthy Lifestyle Day for both South Africa and the continent. In addition, the number of health – promoting schools have increased from 3 500 to 5 000. The programmes initiated include prevention of tobacco use, to develop food gardens and promote sports participation (http://www.info.gov.za).

Moreover, approximately R15,1 billion was made available for the operations of the national DOH for 2008/9 as well as a number of conditional grants were provided for provinces. It is envisaged that an additional 25 000 posts will be filled by 2010. The strategic priorities for 2008/09 were to (http://www.info.gov.za):

- Strengthen the health programmes;
- Improve quality by developing and implementing health – facility improvement plans;
- Develop an integrated national health information system;
- Strengthen health financing, in particular, increasing funding for the public health sector;
- Achieve further reduction in the prices of medicines and pharmaceutical products;
- Strengthen human resources for health;
- Strengthen international health relations; and
- Improve management and communication.

In June 2008, the Phelophepa Healthcare Train was announced as the winner of the United Nations Public Service Award for improving the delivery of services. Since its inception in 1993, the innovative "miracle train", the Phelophepa, as a modest three-coach eye clinic, developed into a fully fledged health care train, boasting four additional clinics providing basic health education and counselling services in South Africa's remote, underprivileged communities. Phelophepa, means "good, clean health", in both Setswana and Sesotho. Working in partnerships with provincial departments of health, it seeks to deliver comprehensive, affordable and accessible health care in communities with no health services or with poor infrastructure. During its coverage of 36 points

annually, Phelophepa's personnel educate and guide local volunteers in basic health education (http://www.info.gov.za). All fourth-year optometry students at the University of KwaZulu-Natal offer their clinical services on the Phelophepa Healthcare Train as part of their clinical placement, on a rotational basis.

According to South Africa's 2006/07 year book, the Comprehensive HIV and AIDS Care, Management and Treatment Plan to address challenges posed by HIV and AIDS is one of the largest in the world. Expenditure on dedicated programmes for HIV and AIDS within provincial health budgets grew from R330 million in 2002/ 03 to R1, 7 billion in 2005/ 06 and is projected to increase to R2, 4 billion by 2008/ 09. While the South African cure rate for tuberculosis (TB) has been improving over the recent past, it is still below the cure rate of many countries. The worst affected provinces are the Eastern Cape, Western Cape, KwaZulu-Natal and Gauteng, which contribute about 80% of the countries total TB burden (http://www.info.gov.za).

According to Dr Thuthula Balfour-Kaipa, Policy Analyst, Health Development at the Development Bank of Southern Africa (2007:42), South Africa being a developing country, Environmental Health Services (EHS) should receive high priority. EHS are an integral part of the management of the environment and play a key role in the primary prevention of diseases such as cholera, typhoid, food poisoning, and other communicable diseases. With developmental backlogs such as 17% of the population with no access to clean water and a higher figure with no access to basic sanitation, more financial spending should be on environmental health in a bid to prevent disease. National Treasury provided financing for the service in 2006. Due to delays in legislation, 10 years were lost and interim EHS (municipal health services) have been in limbo, with great uncertainty for staff. Some municipalities froze posts for environmental health practitioners and shifted resources away from these services. A greater need exists for funding of environmental health services in rural district municipalities and other mechanisms will have to be found to address the equity issue.

Dr Ivan Toms, Director of City Health, Cape Town (2007:56) also alluded to the fact that in towns and cities across the country, local government health officials are dealing with everything from rats and restaurant kitchens to air pollution and HIV/AIDS strategies. Furthermore, Mhlambi (2004:63) affirms that the HIV/AIDS pandemic has resulted in hospitals admitting a number of patients whose illness requires closer supervision than ever before. However, there has not been a corresponding increase in the allocation of resources to deal with this added burden of disease. Consequently, less professional staff is available to care for this increased and frail patient load, leading to 'burnout' or overworking of staff. The biggest threat to the sustainability of the implementation of *Batho Pele* and Patient Charter is the critical shortage of professional staff, especially nurses. Service delivery depends on maintaining optimum staffing ratios.

Another challenge highlighted by Mhlambi (2004:63) is that the public sector is still riddled by inefficiency, theft and waste. The successful implementation of the Public Finance Management Act (PFMA) requirements in hospitals will depend largely on the availability of appropriately qualified staff, for example, accountants, who are rarely found in most institutions. He added that "South Africa is world renowned for its excellent and progressive policies. The challenge is now to translate those policies into tangible improvements in our public service delivery".

Financial discipline, as affirmed by the National Department of Health (2004:60), has been a cornerstone of the post-apartheid government requiring all departments to operate within allocated budgets. Therefore, good financial management at hospital level is critical. The quality of care also depends mainly on good management and effective systems. The availability of beds, the length of waiting times and the availability of medicines, clean linen and appropriate food for all depend on efficient management. The National Department of Health (2004:66, 61) emphasized that the quest for health had to start with measures to achieve better equity in the health system. "Priority would be accorded to strategies designed to impact on the health of the poorest and most vulnerable sections of the society". Health services in the deep rural areas, corresponding to the former homelands are often critically short of skilled professionals.

The Health Systems Trust report of the research programmes (1998) indicated some short- falls in the delivery of PHC services as follows:

- A pilot study on the PHC package in the Free State indicated that large gaps existed between what is on the core package and what service providers deliver. Key issues include the resources available at the clinic level, the staffing complement and their training;
- UKZN reported on the procedural skills of rural doctors. Rural doctors are often expected to perform tasks beyond their scope of practice and, therefore, need specific preparation and on-going support;
- A study in Cape Town highlighted that the sustainability of community-based health programmes depends, to a large extent, on the degree to which communities accept the candidates chosen as health workers; and
- The Deputy Medical Superintendant Ngwelezana Hospital, KZN (Stefan Morell), investigated the capacity of rural hospitals to support compulsory community service. The research found that the problem of staffing rural hospitals is unlikely to be met by compulsory community service. It is likely that these young doctors will be stretched beyond their capacity with insufficient support and opportunity for development.

Dr Busi Nyembezi, former Head of KZN Department of Health, highlighted the following health service challenges on 'Strategic Planning between DOH and UKZN in October 2006:

- The comprehensive management of TB, HIV and AIDS, Sexually Transmitted Infections (STIs), maternal and childhood conditions and other communicable and non-communicable diseases;
- Addressing the increasing burden of poverty related diseases;
- Integration of the Primary Health Care Services provided by the municipalities; outside the Metro, with the provincial services;
- Improving quality and utilisation of health and management information;

- The development of an acceptable level of tertiary Health Services to improve access and to be on par with certain other provinces;
- Redistribution and development of Regional Hospital Services to ensure service availability in the Presidential rural nodes;
- Addressing the shortage of professional and skilled personnel – and improving overall organisational capability and culture; and
- Redressing the backlog in Infrastructure Development and Upgrading.

In summary, the quality of health services in South Africa, in particular PHC delivery, must be improved in order to provide efficient, decent and equitable health care focusing especially on developing rural areas. The approach is holistic focusing on preventive and promotive services. Hence, this research focused on the assessment of PHC in KZN with particular reference to the Discipline of Physiotherapy.

3.8 STRATEGY FOR THE IMPLEMENTATION OF PRIMARY HEALTH CARE

The strategy for implementation of primary health care should include equity, accessibility, affordability and availability in order to reduce the level of inequality in our society. The quality of PHC services must also be improved paying attention to the four E's of service delivery, that is, equity, efficiency, effectiveness and economy.

Dennil et al. (1999:6) assert that there must be political commitment to PHC by the government in power. The identification of priorities is necessary so that detailed plans of action can be set out. Depending on the level of development, health needs and available resources, this will vary from one country to the next. However, most health systems need to be adapted to a more community-based or decentralized system to ensure that services is available to all.

In this regard, Dennil et al. (1999:6-7) suggest that, 'a successful strategy for implementing PHC should be based on the following':

- Equity. All people should have equal access to basic health care and social services. There should be an absence of any variability and discrepancy in care amongst different people. Resources must be distributed equitably. This does not mean that all areas must be provided with the same resources but means that those areas that have the least resources should be given the most assistance;

- Accessibility. Services must be extended to be within the reach of all people in the country. Special attention must be given to disadvantaged regions of the country, especially small isolated rural areas. Services must be:

    1. geographically accessible**,** meaning that health services should be within a reasonable distance (the WHO suggests 5-10 km) and that transport should be available;
    2. financially accessible to the individual and the community;
    3. functionally accessible**,** in that the appropriate type of care be available to meet the needs of the specific community;

- Affordability. The level of care offered should be aligned to what the community and the country can afford. No person should be denied health care because of inability to pay;

- Availability. There should be sufficient and appropriate services to meet the particular health needs of each community;

- Effectiveness. The services provided must do what they were intended to do for the specific community. The effectiveness of the service must also be justifiable in terms of total cost; and

- Efficiency. The results attained should be proportionate to the input, in terms of effort expended, money spent, resources used and time utilized.

Communities should be involved in the planning, provision and monitoring of their health service in order to allow different needs to be met within their communities. A multi-sectoral approach to health is also important such as, the provision of nutrition, education, clean water and shelter is central to health care delivery. For example, Departments of Water Affairs and Education are important role players within the health system.

From the Manitoba Branch of the Canadian Physiotherapy Association perspective (Fricke, 2005:12), "the following six PHC objectives were included:

1. Effectiveness: the ability to maintain or improve health;
2. Productivity: the relationship between the services produced and the resources used to produce them;
3. Accessibility: promptness and ability to visit a PHC physician, and ease of accessing specialized and diagnostic services;
4. Continuity: the extent to which services are offered as a coherent succession of events in keeping with the health needs and personal context of patients;
5. Quality: perception and degree of conformity with recognized professional standards; and
6. Responsiveness: consideration and observance of the expectations and preferences of service users and/or providers".

There is some overlap or similarities between the above listed PHC objectives and the strategy for PHC implementation suggested by Dennil, for example, effectiveness, accessibility, efficiency/productivity and availability/continuity.

Khosa et al. (2004:3) emphasised that equality implies providing the same level of services to everyone regardless of the peoples' need for the service. Equity requires that more resources are targeted towards meeting the needs of those who are most disadvantaged and vulnerable. It is expected that people living in poverty, with

inadequate water, sanitation, housing, food, and/or education, will require more health services because of the health-damaging effects of deprivation.

In 1999, the Health Systems Trust published the first Equity gauge, which focused strongly on the relationship between access to, and quality of health care systems and health outcomes, and attempted to measure whether health care was being provided in a fair and equitable way. It focused mainly on health status indicators and, to a limited degree, socio-economic factors surrounding health care access to health services. The second equity gauge seeks to place the goal of equitable health care within a broader framework that links socio-economic disparities with health outcomes.

Tanser (2001:826) explored new approaches to spatially analyse primary health care usage patterns in rural South Africa. The objective was to develop indices to quantitatively access and understand the spatial usage patterns of health facilities in the Hlabisa district of South Africa. The researchers mapped and interviewed more than 23 000 homesteads (approximately 200 000 people) in the Hlabisa district, South Africa and spatially analysed their model primary health usage patterns using a geographical information system. In addition, contour maps of health service use were generated and the relationship between clinic catchments and distance-defined catchments using inclusion and exclusion error was quantified. The researchers propose the distance usage index (DUI) as an overall spatial measure of clinic usage. This index is the sum of the distances from clinic to all client homesteads divided by the sum of the distances from clinic to all homesteads within its distance-defined catchment. The index encompasses inclusion, exclusion, and strength of patient attraction for each clinic. Eighty-seven percent of homesteads use the nearest clinic. Residents of homesteads travel an average distance of 4.72 km to attend clinics.

Reutter et al. (2005:356) explored partnerships and participation in conducting poverty-related health research. The researchers suggested that people living in poverty encounter barriers to participation, and that further efforts are needed to obtain their input in the development of programmes, services, and policies. It was recommended that primary

health care research include community partners on the research team, community advisory committees and perspectives of policy makers and service providers. Researchers require adequate funding to develop and maintain partnerships with stakeholders, to train and support vulnerable people in developing skills and confidence as active research participants and to communicate the research to relevant stakeholders. In addition, evaluation of the participatory process should be built into the research design.

The current literature indicates that the District Health System model is effective for PHC. Thus, South Africa, in commonality with a number of other countries, has begun to reorient the health services to achieve the goals of availability, accessibility and affordability of health care for all citizens (Zimba, 2002:9).

The Financial and Fiscal Commission (FFC, 2004:3) defined a health district as part of a province in which:

- A clearly defined comprehensive package of PHC services is delivered to all people in that area;
- One health authority is responsible for PHC;
- Decisions about health care for that district are made by a District Health Authority (DHA) responsible for that district, not at a higher level of the health department; and
- Communities have a real say over their own health care (participation).

The main pillars of the DHS, as identified by the WHO, are organisation, planning and management, financing and resource allocation, inter-sectoral action, community involvement and development of human resources (FFC, 2004:3).

However, the lives of the poor black people are still impoverished by inequity in South Africa. There are still vast differences and inequalities in the provision of health services

to various population groups with the poor, especially rural Africans and Coloureds, that experience difficulty in the affordability and accessibility of health services.

De Haan et al. (2005:25) also alluded to inequity in health, suggesting that there is still a marked difference between disease profiles of the developed and the developing world. The developing countries still have a high incidence of communicable and other preventable diseases associated with the environment in which they live and with a lack of resources, such as sufficient income, homes, access to food, safe water and sanitation. Moreover, inequity in health exists between rural and urban areas. In most parts of Africa, including South Africa, morbidity and mortality rates are higher for the following reasons in rural areas than in urban areas:

- Standards of environmental hygiene are poor in the rural areas. A lack of available services results in poor sanitation and poor access to safe water. Consequently, gastro-intestinal and parasitic infections are common in these areas;
- There is more poverty in rural areas because there are fewer educational and employment opportunities; therefore, all the diseases related to poverty, such as malnutrition and the diseases related to deficiency in, for example, protein, vitamins, are common;
- There are often large numbers of insect vectors and, consequently, there are higher rates of diseases such as malaria, yellow fever, and river blindness in the rural areas than in towns and cities; and
- Fewer medical care services are available and often these are inaccessible because transport is inadequate (De Haan et al., 2005:25).

Furthermore, from a service delivery point of view, there is a lack of the necessary leadership, to develop and implement the health services, which are required to meet the needs of the people.

3.9 SUMMARY OF THE CORE PHC PROGRAMMES IN SOUTH AFRICA

The Department of Health identified the PHC Core package (2001:5). The purpose of this package is, in the perspective of equity, to define comprehensive PHC services, which, within 5 years following implementation, will be common to the whole country. This package would help to quantify requirements of staffing, infrastructure, equipment and financial resources.

As part of the comprehensive PHC service package, the main PHC programmes, including the various sub-programmes that must be rendered at PHC facilities is summarized hereunder. These programmes comprise of strategic interventions aimed at dealing with the leading causes of mortality, morbidity and disability in South Africa (Van Rensburg, 2004:425-427).

i. Non – personal health services

- Occupational health – includes occupational health promotion services, sensitizing workers to specific occupational health problems and primary risk assessment of occupational health exposure. Target date set by DOH for programme implementation was the end of 2001.
- Health promotion – the goal is to promote health and prevent disease of all, especially the rural and historically disadvantaged communities.
- Environmental health – entails information on environmental health services, waste management, water quality, chemical and food safety. The target date for this service was the end of 2001.

ii. Disease prevention and control

- Chronic diseases – can be inherited, but many lifestyle and environmental factors such as inappropriate diet, smoking, sedentary lifestyle and excessive alcohol consumption can increase risks. Prevention and promotion of healthy behaviour is

vitally important apart from early diagnosis, management and harm reduction. Priority chronic diseases include hypertension, diabetes, asthma, stroke, epilepsy, rheumatoid arthritis, renal disease, obesity and obstructive lung disease.

Geriatrics – the right lifestyle, involvement in family and society, and a supportive environment for the elderly all preserve well-being.

Disabilities and rehabilitation – the purpose of rehabilitation at clinic level is to provide a service to detect disabilities early in order to prevent complications and the worsening of the effects of a disability on a person's functional ability, to treat disabling and potentially disabling conditions, and to provide access to rehabilitative services for people with disabilities. Specific services include a basic assessment of people with disabilities (for example, stroke, spinal injury, arthritis), followed by a treatment programme compiled in consultation with the disabled person and his or her family. Consumable assistive devices (for example, continence devices) and other aids to daily living are prescribed and provided, and people are trained in their use. Patients are also assessed for disability and care dependency grants.

- Oral health – comprises of promotive and preventative oral health services (such as oral health education, tooth-brushing programmes); and basic treatment services (for example, an oral examination, scaling and polishing of teeth).
- Communicable diseases – although many of these diseases are preventable (for example, cholera, malaria, measles, hepatitis, lead poisoning, meningococcal infection, tuberculosis, whooping cough), they continue to be major health problems in South Africa.

Physiotherapists should be extensively involved in all of the above programmes, except oral health. The PHC approach focuses on promotive and preventative services whilst the rehabilitative and curative services should be as required by the patients.

iii. Maternal, child and women's health

- Women's health and genetics – include antenatal care (ANC) and deliveries, post-natal care, monitoring and prevention of maternal and perinatal mortality, contraceptive services, screening for cervical cancer, termination of pregnancy, genetic services, and monitoring and prevention of sexual assault and care, are provided in an integrated and comprehensive manner covering preventive, promotive and rehabilitative aspects of care.
- Child and youth health – integrated management of childhood illnesses (IMCI) strategy was developed by the WHO and UNICEF in 1995, and adopted by South Africa in 1996. The IMCI focuses on broad aspects aimed at maintaining the well-being of the whole child, which are considered at every encounter with a sick child. There are three components of the IMCI strategy, namely, the clinical, health system and the community. The clinical component involves the improvement of the health system by improving the case management skills of health workers. The health system component aims to ensure that IMCI practitioners and health facilities have the drugs, equipment and other support elements essential for providing high quality care. The community component entails improving family and community practice. The household and community component of the IMCI strategy uses participatory methods to identify key household and community practices that are conducive to optimal child health and development.

  Expanded programme on immunization (EPI) – includes all basic immunizations such as vaccinations against TB, diphtheria, pertussis and tetanus (DPT), polio, hepatitis B, measles and haemophilus influenza type B (HiB).
- Nutrition – the integrated nutrition programme includes the Primary School Nutrition Programme (PSNP), micronutrient food fortification and supplementation with specific micronutrients, for example, vitamin A. In addition, the Protein Energy Malnutrition Scheme (PEM) is a state-subsidised

nutrition intervention programme aimed at addressing malnutrition amongst pre-school children, pregnant and lactating women, and the chronically ill.

Physiotherapists are involved extensively in maternal, child and women's health, except for the immunization programmes because physiotherapists do not practise invasive techniques, for example, administering injections.

iv. HIV/AIDS, Sexually Transmitted Infections (STIs) and Tuberculosis (TB)

- HIV/AIDS at a PHC level comprises of the provision of a comprehensive range of services, including the identification of possible cases, testing with pre- and post-counselling, the treatment of associated infections, referral of appropriate cases, and education about the disease to promote better quality of life. Furthermore, the promotion of universal precautions with the provision of condoms and the application of occupational exposure policies, including needle-prick injury is also essential. It also includes home-based care (HBC), voluntary confidential counselling and testing (VCCT) and prevention of mother-to-child transmission (PMTCT) of HIV.
- STIs – the control of STIs, which is a component of reproductive health, is one of the most cost-effective strategies of reducing HIV infections and this service must be available at clinics daily.
- TB – all PHC facilities should have been diagnosing and treating TB patients according to national TB guidelines by the end of 2001, including the Directly Observed Tuberculosis Short-course (DOTS) service.

Education on prevention of the above infections is extremely important, as 'prevention is better than cure'. Consequently, good health will be promoted in the community resulting in a substantial reduction in the rates of these infectious diseases, namely, HIV/AIDS, TB, and STIs.

v. Health monitoring and evaluation

A public health surveillance system – this includes notifications, HIV surveillance, maternal and women's health, the immunization system and PHC monitoring.

vi. Mental health and substance abuse

The aim of this service at the PHC level is to improve the mental health and well-being of individuals and communities.

vii. Gender issues

- Violence and sexual abuse – for this service to be rendered, cooperation among the health sector, the police and the departments of Social Development and Justice is necessary.

It would appear, however, that the target dates, set by the Department of Health (DOH) for implementation of these programmes was the end of 2001, were not met. Equity and access to health care are the key principles required for the transformation of health services. The PHC service package is a comprehensive model used as a mechanism to define parameters for service delivery. It is also standardized for the delivery of services at a primary care level as a "one stop" approach, including preventive, promotive, basic curative and rehabilitative services as well as the common quality norms and standards that are required for each PHC service.

According to the DOH (2001), the comprehensive PHC service package is to be universally attainable and guaranteed for every South African, while ensuring a solid basis for a single, unified healthcare system.

Khaleghian and Gupta (2005:1), distinguish between public health services and public health functions. Public health services are 'merit goods that include immunization, TB

control, sexually transmitted disease clinics, while others are public goods such as vector control. Public health functions are almost all pure public goods that include *inter alia* policy- making, disease surveillance, population health assessment, health education'.

Motlanthe (2009), in his State of the Nation address, challenges all South Africans to translate these PHC visions or goals into programmes and projects for effective implementation. The quality of PHC services must be improved, hence, this study focused on PHC delivery where the physiotherapist plays a major role in rendering preventive, promotive, basic curative and rehabilitative services. All of these services are encapsulated in the comprehensive PHC model and approach, which originated from the Alma-Ata Declaration, in an attempt to redirect the course of global health care towards that of PHC. A primary health care team is necessary for the delivery of PHC services. It is imperative that all the members of the team be clear about their roles and that of other members. In addition, they also need to communicate and cooperate with each other and respect each other's contribution.

Furthermore, there has to be a change in the basic education of doctors, nurses and allied health care professionals, with a greater emphasis on population needs, care in the community, behavioural skills in communication, management and multi-disciplinary learning in keeping with the PHC approach to service delivery. Consequently, a balance between high technology tertiary health care and low technology primary care needs to be included designing the curriculum for the training of health care professionals altering in favour of the PHC philosophy. The necessary resources must also be made available by government and the tertiary institutions.

3.10 PUBLIC PRIVATE PARTNERSHIPS IN HEALTHCARE

The National Department of Health (2004:64) has recognised across the public sector that partnerships with the private sector, if well selected and properly structured, can benefit patient groups that rely on government services to meet their basic needs. Health departments were guided by some basic principles during implementation of public-

private partnerships. These partnerships should enhance the overall sustainability of the national health system through (National Department of Health, 2004:64):

- Improving overall access to health care;
- Reducing the gap in access to care between rich and poor, urban and rural residents; and
- Containing the costs of service and achieving better results for money expended.

According to Van Zyl et al. (2004:67), public/ private initiatives can provide collaborative health care solutions in South Africa. These include a number of implicit operational elements, namely: outsourcing, public/ private partnerships with contracts, service level agreements and strategic alliances. Benefits of establishing the public/ private initiative include: the involvement of the communities, the acceleration of service delivery, the establishment of a centre of excellence, the retention of professional staff, and the establishment and grouping of core functions within an institution. An example is the Universitas/ Pelonomi Hospital collaboration in the Free State. The Universitas Hospital is a well- maintained tertiary hospital whilst Pelonomi Hospital was 36 years old with a large maintenance backlog. The public/ private initiative offered bidders space within, and access to facilities at Pelonomi and Universitas Hospitals. In exchange, the bidder had to complete upgrading work at Pelonomi hospital. There were three classes of facilities offered, namely, the exclusive use of wards at theatres at both Pelonomi and Universitas Hospitals, shared facilities such as lifts and clinical services (for example, radiology), and the use of the remaining 500 bed space from the 2 100 beds used by both hospitals. Both stakeholders will benefit from the public/ private initiative. Pelonomi hospital will be maintained and upgraded and revenue will be used to sustain the infrastructure. The private sector will be able to use redundant facilities for commercial gain.

Barnardo (2003:36-37), presented the Lentegeur hospital experience as another example of making service delivery work through good partnerships. This hospital is a psychiatric hospital which opened in 1986 with 1 555 beds but in 2003 the hospital had used 984

beds. The management, through a formulised process, made excess facilities (wards that were closed down) available to other departments. Moreover, it was important to form partnerships, to improve inter-sectoral cooperation as well as to de-stigmatise mental illness. Some the departments that benefited through this process were, namely, the Learners with Special Educational Needs Training School from the Education Department, the Departments of Social Services as well as Education with office accommodation and a hospice for people with AIDS.

Fidler et al. (2006:1) described the evolution of public hospitals from public budgetary units and public management to incorporated autonomous organizations under private corporate law, resulting in a contractual relationship between (public) owners and private hospital management in two case studies from Austria and Estonia. This arrangement enhanced horizontal integration through networking of public hospitals and introducing private management helps create a new corporate culture, allowing flexibility to achieve efficiencies through downsizing and economies of scale. Based on contracts between ownership and managerial functions create strong incentives for a business-like, results-oriented and consumer-friendly management.

In KZN, public private partnerships can enhance collaboration between many stakeholders for example UKZN, the private sector health professionals, public sector hospitals, NGO's, other sectors especially when the there is limited resources in the public sector to upgrade facilities and acquire more facilities or equipment. However, this will require planning and structured contracts for the enhancement of PHC service delivery.

3.11 HEALTH POLICY IN THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC)

De Haan et al. (2005:25) affirm that the Southern African Development Community (SADC) was established in Windhoek in 1992, to encourage closer cooperation among the peoples and governments of the region. The Treaty is legally binding and requires

partner countries to coordinate and rationalise their policies and strategies for sustainable development. Membership of SADC consists of 14 countries in the southern part of Africa, whose governments together address the needs of the 190 million people living in the region.

Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe are the countries that are signatories to the agreement. In August 1997, a Health Sector Committee was established to improve cooperation in addressing common health problems affecting the member states. The goal of the Health Sector Committee was to identify strategies to attain an acceptable level of health for all citizens. The Committee adopted the WHO global targets for 2002, as the basis of the joint regional initiative. In order to pursue this goal, De Haan et al. (2005:26) reiterated that the member states accept a protocol based on five principles, which state that in the regions, and among the member states, there shall be:

1. Mutual respect and equality of member states through striving for health policies that is consistent throughout the region;
2. Coordination, sharing and support through:
    - Determining data that will be collected and that will identify regional trends and priorities;
    - Conducting research that will determine ways to improve the health of the people in the region;
    - Promoting health through healthy public policy, health education and producing appropriate educational material; and
    - Determining ways of using the limited resources available in the region, optimally (including human resources), in order to meet the needs of the people.

3. Commitment to the PHC approach in order to attain optimal health for all, with special attention being given to strategies to control TB, malaria and HIV/AIDS,

as well as to improve child health.

4. Efforts made to improve access to health care at all levels and to improve referral systems.

5. Equity promoted to achieve better health through development strategies, including economic strategies.

In this regard, South Africa being part of the SADC, has alluded to the PHC approach in the delivery of health care services for the country and the Southern African region. The PHC approach is encapsulated in the health policies of the country and South Africa is obliged to deliver health services accordingly.

3.12 RESEARCH STUDIES ON PRIMARY HEALTH CARE IN SOUTH AFRICA

A search for related literature revealed that there were studies conducted in South Africa on PHC by health professionals, especially the nurses (Cawa, 2001; Zimba, 2002; Hlahane, 2003; and Mugabo, 2001).

3.12.1. Decentralisation and Integration of Health Services

The processes of policy making, budgeting and service implementation was explored in three provinces (not listed in the article) of South Africa, by conducting interviews with health managers at different levels of government (McIntyre and Klugman, 2003:1). The authors assert that "the process of decentralization created disjunctures between the policy-making authority of higher levels of government and the implementation capacity of service provision levels. In addition, the complex dynamics between managers responsible for specific policies were explored, such as reproductive health policies, and those responsible for managing the integrated delivery of all policies, with their resultant contestations over authority and resources" (McIntyre and Klugman, 2003:1). The findings were that the pace of change in South Africa and the enormous capacity it

required, both in relation to financial management and the technical skills needed for specific programmess, had created a sense of frustration and demoralisation. Although shortage of financial resources, such as the shortage of staff, was frequently assumed to be the biggest constraint in this context, most managers identified other issues, particularly staff morale, as greater barriers to the delivery of high quality health services. The authors concluded that it is the complexity of experience and feelings described by health managers that may determine the extent and quality of service delivery. Consequently, both practice and research need to give greater attention to issues of power relations and personal experience of change. The study has highlighted that the "softer" human issues such as the perceptions of managers and health providers to restructuring and policy changes as well as staff morale issues are critical challenges that must be considered for the successful implementation of key health policies (McIntyre and Klugman, 2003:1).

3.12.2 Quality Care at PHC Level in the Western Cape

A study on the quality of care at primary level (Cawa, 2001), focused on the quality of service at different Community Health Centres (CHC) in the Western Cape. Community Health Centres promote primary health care. The purpose of the study was to measure the quality of health service delivery at CHC's, and to inform government to develop a strategy to improve the status of health services in South Africa as a whole. This was conducted by looking at the origin of primary health care, qualitative and quantitative assessments, then ultimately comparing the results, to establish various perceptions to quality of health care. In addition, shortfalls were also identified. The data collection for this study was mainly through interviews with health professionals, and the community (patients), observation, questionnaires and checklists. In addition, secondary data gleaned from published and unpublished materials were collected. The major findings were that in most of the CHC's there was a shortage of staff, which ultimately gave rise to overcrowding and long waiting hours. The most frequent mentioned complaints about the services were long waiting times, the attitude of nurses and the lack of explanations given to patients regarding their diagnosis, and the lack of community participation in health

care. Health professionals complained about their working conditions, security as well as their remuneration.

According to Cawa (2001), health services in South Africa are deteriorating on a daily basis. The Department of Health should provide strong leadership, management and continuing education for health professionals, including doctors, nurses and administrative personnel to confront challenges and to pursue aims for improving health services. It was concluded that future health policies required better planning and implementation. Additional staff and resources are required to improve service delivery, and the government needs to increase the budget to avoid worsening of the situation. However, with adequate resources and quality health services, positive effects in the health status of the poor and the efficiency of the health delivery system can be envisaged.

The above study reflects the failure of health professionals to deliver quality PHC services at PHC level according to the *Batho Pele* principles and the failure of government to provide the necessary financial and human resources for effective and efficient service delivery.

South African citizens have been faced with a fragmented PHC services for more than two decades (Zimba, 2002:66). Historically, the Provincial Administration of the Western Cape has been responsible for curative health services and the local authority for prevention services. However, in practice, one cannot separate the two services. Hence, there is a dire need for the integration of these two levels of authority. The health care system traditionally emphasised curative care that is not effective in improving the health of the whole population. There is a maldistribution of health services along the race, place of residence and wealth. Previously, patients had to seek treatment from facilities run by the Provincial Administration, the former House of Representatives, two tiers of local government and non-governmental organisations. On the whole, the health services were poorly managed and there was a lack of planning. The central Department of Health had a responsibility for setting broad policy for the country and matching goals, co-

ordinating and distributing national resources. It is still the responsibility of the National Health Department to monitor performance in provinces and districts. This ensures equity and brings about rational plans, which are in line with National Government policy and directives. Furthermore, the major obstacles delaying the implementation of PHC at the district level in the Western Cape are multifold, namely, the lack of goals, the absence of consensus on what PHC is, and the lack of proper information system. The prolonged period for the transition of PHC impacts on the morale of the health personnel. New health patterns are needed, as health problems change and communities become older. Furthermore, these new health problems are influenced by the political situation that prevails (Zimba, 2002:66).

The author suggests that resistance to change by many professionals and managers is the root cause of the delay to implement the PHC model. Currently, authorities struggle to control over shrinking of public sector resources, and the backlog of inequity still has to be resolved. This is further exacerbated by the severe shortage of managerial skills at both provincial and local level. It was concluded that in order to implement an effective and efficient PHC model, it is imperative that a basic package of PHC service should be agreed upon to ensure the equitable distribution of resources, and a comprehensive and integrated service delivery. Decision-making should take place at a district level and tasks should be delegated to the lowest level. Evaluation and information should become central to managing the service. All PHC services should be integrated under one authority, and restructured along district and regional lines. These services should be integrated, with most services being available every day of the week. Therefore, the "one stop approach" should be implemented whereby services, such as baby clinics, ante-natal and post-natal clinics, family planning, and also adult curative services are rendered on a daily basis. In order to achieve this, an enabling legislation to facilitate the integration process is of paramount importance (Zimba, 2002:67).

The above study highlights the importance of delivering PHC services in accordance with the "one stop approach" alluded to by the Department of Health (PHC Core package). In

addition, many health care professionals and managers need a change in mindset towards implementing the PHC model.

3.12.3 Nursing Skills Required for Primary Health Care Delivery in Potchefstroom

In South Africa, professional nurses undergo training which gives them various levels of skills. It is difficult for professional nurses to render comprehensive primary health care services without specific knowledge and skills. Some lack skill in preventive and promotive health care delivery, others are not trained to take care of a pregnant woman or a baby after delivery or of a mental health patient, while yet others render curative services only. It is possible that nurses do not recognise their limitations and are not aware of the skills needed to render comprehensive primary health care services. Their perceptions could influence their practice and severely affect the quality of health services. The aim of the study was to explore and describe the perceptions professional nurses have of their own level of skills to render quality comprehensive primary health care services, as well as to formulate guidelines for the facilitation of trained professional nurses to render quality comprehensive primary health care services (Hlahane, 2003).

Findings indicated that professional nurses perceive the skills required to render quality comprehensive primary health care services as the ability to assess, diagnose and manage patients, as well as specific skills acquired during the various nursing training programmes (Hlahane, 2003). The more comprehensively trained, the more competent they feel. The less comprehensively trained, the more negative they experience their work. Nurses viewed their own level of skills as ranging from adequate to lacking and inadequate, depending on their training. It was important to develop skills ranging from computer skills to the full range of skills. The conclusions drawn are that the professional nurses with different training and levels of skills are well aware of the skills required to render comprehensive primary health care services. They maintain that trained professional nurses need qualifications in General nursing, Midwifery, Community nursing, Psychiatric Nursing and Clinical Nursing Science, and Health Assessment, Treatment and care. Recommendations were made for nursing education, nursing

research and nursing practice with specific reference to the formulation of guidelines for the facilitation of trained professional nurses to render comprehensive primary health care services, with a focus on control, orientation, mentoring, planning of training, support systems, and consultancy (Hlahane, 2003).

The importance of knowledge and skills training of nurses should also extend to include all health care professionals and managers rendering comprehensive PHC services, including physiotherapists. This would ensure quality PHC delivery, which is lacking, according to the state of the nation address by the former interim President, Motlanthe mentioned earlier and recognised by government.

Nurses' strategies for the routine screening for hidden child sexual abuse among preadolescents were explored at primary health care level (Mugabo, 2001). The objectives of the study were, firstly, to elicit whether or not primary health care nurses conduct routine enquiry for hidden sexual abuse among pre-adolescents (10 to 12 years of age). Secondly, to determine which methods the nurse use to detect child sexual abuse among children and, thirdly, to establish existing or potential factors that would support or inhibit such routine enquiry. Data was collected from nurses from different cultural backgrounds working within a 50km radius of the University of Western Cape using a structured self-administrated questionnaire.

The conclusions of the study are that a small proportion of primary health care nurses screen routinely for sexual abuse among preadolescents despite the fact that child sexual abuse (CSA) appears to be prevalent in a variety of forms and their mandate to report child abuse. The nurses, who do screen, use different strategies and methods to detect CSA, such as interviews, observations and physical examinations of the child. Recommendations are that where there are indications of CSA in the community, the primary health care nurses should be adequately trained to assess for CSA in preadolescents (Mugabo, 2001).

From the above study, it can be summarized that, although child sexual abuse must be assessed and reported on according to the programme encapsulated in the comprehensive PHC core package, implementation was still a major problem. Physiotherapists, as part of a multi-disciplinary team who identify CSA, must refer patients to the appropriate health care professionals, for example, the psychologists or psychiatrists.

3.12.4 Equity in Geographical Allocation of Resources

According to the Health Systems Trust (2003:1), provincial spending on social services, such as education, health and social welfare has remained stable in recent years, but substantial inequalities still exist amongst provinces, as stated in the latest intergovernmental fiscal review. Provincial inequalities also exist in the health sector, hampering service delivery mainly in poorer provinces such as, Limpopo, Eastern Cape and KwaZulu-Natal. In addition, scarcity of health professionals is a serious problem in mainly rural provinces. The higher growth in poorer provinces confirmed the trend towards improvement in inter-provincial equity and towards equalization of access to grants.

A study on an assessment of equity in geographical allocation of resources relative to need, in public primary health care services in the Northern Cape was conducted (Philip, 2004). South Africa has one of the most unequal societies in the world with regard to income, gender, socio-economic status and the distribution of key social services. Much of these inequalities, which are also reflected in its health sector and the general health status of its different population groups, can be attributed to the discrimination and systematic disadvantaging of certain race groups under the apartheid rule. Many researchers have highlighted and raised concern about these substantial disparities in allocation of resources between provinces.

Government resource allocation are largely geographically based and the fiscal federalism, currently used in South Africa, has been recognised in many ways for its incompatibility of promoting equity across national sectors. Through inter-provincial

allocation, health budgets are set through the medium-term fiscal framework process and are monitored for equity. Most provinces still use historical budgets when making resource allocations at the district level, resulting in many rural areas and health districts being under-resourced. South Africa with gross inequities in health, equity in geographical allocation of resources can only be achieved through vertical equity, by preferential allocation of resources based on increased need. A descriptive study using routinely available data to compare health expenditure to health needs in measuring the inequities in financial and human resource allocation, relative to need, between districts in the Northern Cape was explored (Philip, 2004).

The study concluded by making recommendations based on the analysis to the provincial health management for the equitable redistribution of finance and staff, particularly professional nurses per district in proportion to the dependent population to achieve equity between districts. One of the main limitations of the study was that it used secondary data, which could contain inaccuracies (Philip, 2004:129).

The above recent study illustrates that, despite efforts by the post apartheid government to reduce inequities; these geographic disparities still exist not only between provinces, but also within provinces. It can be deduced that PHC delivery will be extensively affected, as government does not adequately address the most important factor, equity. It must be emphasized that equitable health care services are the cornerstone of PHC delivery in order to ensure that the needs of the people in the rural and impoverished urban areas are addressed.

3.12.5 Accessibility of Primary Health Care Services

A Geographical Information System (GIS) was used to optimize access to PHC services within the proposed new health district in Hanover (Pillay, 1997). GIS is a useful tool for addressing questions of access to PHC services within a district-based health system. An assessment of the health resources within the proposed district revealed spatial inequalities between the areas in South Africa and, in particular the areas of KwaZulu-

Natal. These areas are disadvantaged in terms of health care facilities, health care personnel, health services, water, sanitation, roads and economic opportunities. In collaboration with the Department of Health and the New Hanover Primary Health Care and Development Programme, five potential fixed clinic sites and two mobile clinic points were identified using a GIS. The study also went beyond considering population as the only and most important variable in the identification of potential sites. Other variables such as the road network density, the number of primary schools and the number of mobile clinics within a 10 kilometre radius of each site were also taken into account. Khanyile and nKululueko mobile points were sited which could make PHC services more accessible. Community participation was crucial in identifying and confirming each potential site. The Pregan's PC formula (mathematical formula) was specifically designed to determine the 'potentiality' of each site, for example, if the PCs value was less than one, then the site was not considered.

Accessibility of PHC services is another important factor to be considered in addressing the needs of poor especially in rural areas. The former interim President, Motlanthe, alluded to the fact that although there has been positive steps taken to alleviate abject poverty, many health facilities do not always have the required medicines, appropriate staffing levels, and constant supply of basic services such as clean running water and electricity.

In another study in KZN, maximizing the benefits from community service dieticians was explored. Many obstructions and constraints to service delivery and professional development were identified. These included the lack of supervision and support, the lack of preparedness of the institutions receiving community service dieticians and the lack of clarity of the community service dieticians' perception of community service. In addition, unhappiness of some community service dieticians being placed a long way from home, work and role overload, not being part of a team, lack of understanding the community service dieticians' role and under utilization of their services were identified. Some positive aspects, namely, the social interactions experienced in the community setting, learning new skills and support that was received from other community service

professionals, enhanced developmental progress of the community service dieticians. It was recommended, that, training institutions need to be more proactive in preparing dietetic students for community service and DOH need to ensure that there are structures in place to provide adequate resources for the support and supervision of community service dieticians (Paterson et al., 2006:1-18).

3.12.6 Community Involvement in Primary Health Care

A study on 'Care groups in Venda: Primary health care knowledge as a strategy for community development' was conducted by Gaigher (1992:172). The main problem identified was the lack of community involvement. The environment, in which care group activities must take place, mitigates against their best efforts to pursue principles of community involvement without which no supportive community development can take place. "Development of man implies education, knowledge and skills. It implies health and vitality of the population and a climate of social justice within which the drives of people are channeled to exploit the natural resources for their common good. All of these factors are lacking in the Third World. The care group organisation can, despite these impediments, make a significant impact on community development. Their success is however, subject to a change in the prevailing philosophy of national development programmes in South Africa. Much more emphasis must be placed on genuine reforms and new approaches to the provision of health care including health education and the role of the community worker. Much of the apathy of the community can also be rectified if care group organisers, motivators and planners base their actions and programmes on the premise that improvement in the quality of life is a precondition to productivity, and not a consequence. Only then will it be possible for care group workers to use primary health care as a strategy for community development" (Gaigher, 1992:172).

Although the study was conducted in the apartheid era, the challenges related to PHC delivery, namely, the importance of community involvement, improvement of the quality of life as a precondition to productivity and community development still confronts us today. Furthermore, primary health care knowledge, including health education, is

viewed as a strategy for community development and participation, which is essential for the preventive and promotive aspects of PHC.

A model for the integration of provincial and local authority nurses rendering primary health care services in a district was explored (Mashazi, 2002). The integration of health services in Gauteng involved the devolution of PHC services from the provincial health departments to the local authority health department, because the local authority health department are nearer and accountable to the community. The process of integration of health services resulted in closing down of provincial clinics and transferring of provincial authority nurses to the local authority clinics. The transfer process impacted negatively on staff morale and on the resources available for health care delivery to the communities. The findings revealed that the local and provincial authority nurses were integrated without proper consultation and, as a result, integration was rejected. The obstacles towards integration were lack of proper consultation, disparities in conditions of service and resistance to change (Mashazi, 2002:171-172).

The integration of provincial and local authority nurses rendering primary health care services in a district remains a challenge despite efforts to integrate these services.

Client satisfaction with regard to accessibility of PHC services in Molemole Municipality of Limpopo Province was explored (Rapakwana, 2004). The findings were that geographical, financial and cultural accessibility were satisfactory and functional accessibility was problematic. Attitudes, shortages of staff, unavailability of treatment, dysfunctional hours and fragmented services were the main reasons for dissatisfaction. According to Dreyer et al. (2000:132), cited by Rapakwana (2004:5), "accessibility in health care is the continuing and organised supply of an equitable level of health care that is within easy reach of all citizens geographically, functionally, financially and culturally. Geographical accessibility implies that aspects such as distances, travelling time and means of transport are acceptable to the community served. Financial accessibility concerns affordability of services for the community and state. Functional accessibility implies that the appropriate type of health care is made available to individuals when they

need it. Cultural accessibility refers to the acceptability of services within the cultural norms and values of the community. Acceptability in the context of health care implies that services relate to the needs of people that are serviced".

Accessibility is a cornerstone to successful delivery of PHC services and remains a challenge especially in the rural communities.

The estabilishment of a comprehensive PHC service at the Motherwell Community Health Centre in Port Elizabeth was explored (Von Der Marwitz, 1997). Nurses, who are required to be the backbone of PHC services, have been "trained" to render the health care service traditionally provided by the health authority, for example, the provincial authority renders a curative service, while the local authority renders a preventative and promotive health care service. The study was conducted to identify the major problems in the health care provided by the separate service providing authorities in Motherwell (NU4) and NU8 clinic, Port Elizabeth. The results of the data gathered from the community survey, time and motion study and two-structured questionnaires indicated that:

- The traditional emphasis of different health rendering authorities was still evident in the respondent responses;
- The patients' health problems were frequently not addressed comprehensively i.e. on a preventative, promotive, curative and rehabilitative level; and
- The community largely perceived the health services as inadequate.

The recommendations made related to clinical practice, education and research, which would contribute to the establishment of effective and more efficient delivery of a comprehensive PHC service (Von Der Marwitz, 1997).

The effective and more efficient delivery of a comprehensive PHC service poses a major challenge in South Africa due to lack of resources, namely, human, financial and information. These are the three most important resources that are required for effective

and efficient delivery of all basic services, including PHC services. In addition, there is a scarcity of natural resources in the rural areas such as water, food, as well a lack of basic needs, namely, homes, electricity, access to health facilities, schools, sanitation. Consequently, South Africa is confronted with major challenges in the delivery of comprehensive PHC services.

3.13 REGIONAL EXPERIENCES ON THE IMPLEMENTATION OF THE DISTRICT HEALTH SYSTEM (DEPARTMENT OF HEALTH 2001)

South Africa strived to learn from the experiences of other countries that had a head start with respect to restructuring of the health system according to the district health system (DHS) and implementation of a DHS. Health care was delivered in keeping with the principles of the PHC approach, for example, Tanzania, Sudan, and Gambia. These countries used various forms of decentralization in the health system. The Government of National Unity has adopted decentralization as a model for both governance and management.

3.13.1 Tanzania

A major obstacle to district development in Tanzania was the capacity of district managers working within a system which dis-empowered them where:
'District health managers often have limited motivation because of the combined effect of resource constraints, limited authority and inflexible administrative systems, while incentives to improve management, such as salary levels or opportunities for career development, are weak and health managers motivation is further undermined by their skill's weaknesses' {Gilson et al., 1994 in (DOH, 2001)}.

Four main weaknesses in the health administration structure in Tanzania were identified, viz; {Barnett and Ndeki, 1992 in (DOH, 2001)}:

- An inflexible and ineffective resource allocation process;
- An inadequate planning process;

- Lack of clarity in terms of accountability within and between levels of the system;
- Lack of management capacity and understanding within the district health management teams.

Gilson et al. (1994 in DOH, 2001) argue that to improve resource allocation, planning and budgeting, the following should be done:

- The development of district health plans on which budget requests and resource allocation are based;
- Clarify the roles of the centre, region and district in relation to planning and budgeting;
- Develop the role of the region to support the management at a district level; and
- Enhance the motivation of district health managers to manage by providing them with greater control over resource allocation and greater authority to take action to meet local needs.

In an effort to provide district managers with the necessary skills in Tanzania, Barnett and Ndeki (1992), in (DOH, 2001), used the District Action Research and Education (DARE) approach, which was also used in Ghana. DARE is described as follows:

The key terms: 'action research' and 'education' emphasise two central activities in the process. Action research is research conducted by people involved in a situation often used to analyse problems they are experiencing, with the purpose of finding solutions to those problems and monitoring the process by which the solutions are implemented.

Two different sets of researchers in different regions of Tanzania produced similar results by using DARE {Barnett and Ndeki, 1992 and Ahmed et al., 1993 in (DOH, 2001)}. The former found that within a year district heath management teams were able to identify problems and develop interventions. In addition, team spirit was enhanced during the process. Ahmed et al. (1993, in DOH, 2001) found similar results in both urban and rural districts. The urban district focused on the following: increasing the availability of

continuing education for health workers; establishing a library; preparing guidelines for good performance; and developing a system to recognise and reward the best workers. The plan for the rural district focused on: improving the preparation and follow-up of supervisory activities through workshops and meetings involving members of the district health management team.

3.13.2 Ethiopia

Lindelow and Serneels (2005:1) reported findings from focus group discussions with health workers and users of health services in Ethiopia. The discussions identify a number of problems, including absenteeism and shirking, pilfering drugs and materials, informal health care provision, illicit charging, and corruption. These problems have been documented in other studies from Ethiopia and elsewhere. However, in contrast to previous work, the focus group discussion provide detail insights into reasons for these problems. The participants suggested that problems are rooted in the ongoing transition from a command-and-control health sector, to a more pluralistic system. In this transition, human resource policies have not kept up with new realities. An inadequate policy and regulatory framework, combined with weak enforcement, has created new opportunities and altered incentives, while contributing to an erosion of trust and professional norms amongst health workers. In addition to these health system changes, the HIV/AIDS crisis has brought new challenges for a profession that was already trying to cope in a difficult environment. The overall message emerging from the findings is the need for a radical revision of human resource policies.

3.13.3 Sudan

Though committed to the PHC approach, the health status of Sudan showed little improvement {Rahim et al. (1992), in (DOH, 2001)}. In an effort to address this problem, the country was divided into 175 decentralised administrative units each with its own health management team. The functions of these teams included:

- Responsibility for administrative, technical and financial matters including personnel matters;
- Local planning and implementation;
- Organisation of logistic support;
- Improvement in coverage of health services;
- Integration of health services (vertical services) and inter-sectoral collaboration;
- Promotion of community participation; and
- Establishment of an information system.

The main problems experienced in implementing the above policy, which resonate with some of the problems experienced in Tanzania, included:

- Central level failed to explain the policy to regional and lower levels;
- Absence of clear implementation strategy;
- Health area management were unable to initiate and maintain activities, given the lack of support from higher levels;
- The administrative separation of facilities run by the Ministry and local government was not resolved - this also made it difficult for the health care management team to supervise health workers at village level; and
- The uneven size of health areas made it difficult for a health team to effectively supervise personnel in large health areas.

3.13.4 Gambia

Even though decentralisation was adopted as national policy in Gambia, very little was achieved until a donor-funded management strengthening project was established in 1991 {Conn et al. (1996), in (DOH, 2001)}. Regional management teams were established and required to plan, using a six-month planning cycle. Both decentralised management and accountability were promoted and management capacity was developed using a 'learning by doing' approach. The major constraint to decentralisation was the centralised control of budgets and other administrative practices.

3.13.5 Nigeria

Chukwuani et al. (2005:1-24) conducted a baseline survey to audit the PHC operations and determine community perception and expectations of PHC service delivery in 72 communities in Engu state, southeastern Nigeria. The study was intended to facilitate the development of intermediate performance indicators for monitoring the progress of an ongoing health sector reform and to gather baseline data for planning and policy formulation.

The results indicated the lack of operational efficiency in the majority of the facilities audited. In addition, the majority of the facilities did not provide all the services required, were poorly maintained, and did not have enough skilled health workers and operated without a budget. There appeared to be no formal financial management system in place and no financial resource generation. The community survey identified two major problems; low utilization of PHCs and poor service provision. The key indicator by the community for evaluating performance of the PHCs remains "access to essential drugs". The major prospect was the willingness of a number of respondents to invest in health financing through insurance schemes and payment of health tax.

It was evident that poor funding, bad management practices and infrastructural decay is the bane of efficient PHC delivery. Consequently, cost determination studies were proposed, to establish the financial implication of the minimum package for provision of primary healthcare services, as an essential prerequisite to the reform process. Some critical issues identified from the data obtained which could form the basis for major policy thrust include: development of strategies for sustainable promotion of public-private-partnership for enhanced community involvement in healthcare management, ensuring that interventional investment is proportional to the health needs of the populace and funding of healthcare through equitable integration of user fees/chargers (Chukwuani et al., 2005:1-24).

The need for sustained strong public health care in developing countries was emphasised by Sreefland (2005:1). To accomplish this sustenance, it is necessary to address the situation of general scarcity of resources, so that district health teams are able to improve quality of care because resources are available (staff posts and salaries, drugs, maintenance of facilities, transport) to supervise and manage. Consequently, through improving the relations between staff and patients, mutual trust and respect will be enhanced. Only with strong basic health services, can major issues such as improvement of child health or long-term delivery of antiretroviral to AIDS affected adult populations be accomplished. Subsequently, public health care can adequately face the pressure of the health problems that confront it.

The provision of basic health services is the cornerstone to the PHC approach to service delivery and developing countries, including South Africa, are still faced with this major challenge, particularly in rural settlements or communities.

3.13.6 Lesotho

In a study on the performance of different models of primary care provision in Southern Africa, Mills et al. (2004:931-943) examined the performance of different models of primary care (PC) provision, in order to identify their strengths and weakness from the perspective of a government wishing to develop an overall strategy for improving PC provision. Models that were evaluated were:

a) South African general practitioners (district surgeons) providing services under public contracts;
b) Clinics provided in Lesotho under a sub-contract between a construction company and a South African health care company;
(c) General Practitioner services provided through an Independent Practitioner Association to low income insured workers and families;
(d) A private clinic chain serving low income insured and uninsured workers and their families; and

(e) For comparative purposes, South African public clinics (Mills et al., 2004:931-943).

Performance was analysed in terms of provider cost and quality (of infrastructure, treatment practices, acceptability to patients and communities), allowing for differences in services and case-mix. The diversity of the arrangements made direct comparisons difficult; however, clear differences were identified between the models and conclusions drawn on their relative performance and the influences upon performance. The following were the most relevant (Mills et al., 2004:942):

1. Two models involving private providers, contracted General Practitioners (GPs) and the clinic chain, were delivering care at a cost comparable to that of the public sector;
2. No model involving private providers consistently demonstrated higher overall technical quality than public clinics; GP care suffered from a lack of standardisation; and the clinic chain, while possessing the potential for standardisation, failed to deliver this for chronic care due to low patient contacts;
3. Private providers (except contracted GPs) were perceived by patients to offer higher quality of service; and
4. Both examples of public/ private contracts suffered from weakness of contract design and implementation, which affected performance adversely.

The public/ private contracts are very useful for the public sector with limited resources only with a well-structured contract design and effective implementation.

3.13.7 The Southern Africa Capacity Initiative (SACI)

High levels of HIV infection, food insecurity, natural disasters, brain drain phenomenon: these cumulative issues are causing Southern Africa to lose considerable portions of the workforce that are so crucial to the sub-regions development. The Southern Africa Capacity Initiative (SACI) strategy of mixing limited human capacities and enhancing

service delivery is assisting the sub-region to curb capacity erosion in key areas including public services, agriculture, health, education and the private sector. With this approach, the United Nations Development Programme's (UNDPs) flagship strategy for capacity development is helping to make the development of governments more effective and creating for the attainment of Millennium Development Goals (**http://content.undp.org**).

Nine countries are participating in the SAIC programme, namely, Botswana, Lesotho, Malawi, South Africa, Swaziland, Mozambique, Namibia, Zimbabwe and Zambia. The measures by the SAIC and UNDP strategy are designed not only to replenish the supply of human resources in the sub-region, but also to enhance the leadership, management and planning capabilities of Southern Africans working in the private sector. The programme has been effective in the public and private sector. Moreover, the programme has been assisting to deliver basic social services in a fast, transparent and efficient manner throughout the sub-region.

A similar approach was developed in South Africa where bottlenecks were identified and action taken in the KwaZulu-Natal and Limpopo health sectors. SACI's measures increased efficiency in record-keeping and scheduling, helping to significantly reduce hospital waiting times at no additional cost. In Lesotho, Malawi, Zambia and Mozambique, SACI is helping governments seize information and communication technology opportunities and assess the challenges presented by e-governance to improve service delivery in the public sector (**http://content.undp.org**).

From the above international experiences, it can be summarized that organisation, planning and management, financing and resource allocation are all important issues that need to be considered for the implementation of the District Health System. In addition, development of human resource, community involvement and inter-sectoral action must also be considered.

3.14 INTERNATIONAL STUDIES ON HEALTH CARE DELIVERY

Relevant or related studies on healthcare delivery were selected, namely, Sweden and Australia to include an international perspective.

3.14.1 Sweden

Florin et al. (2005:1) explored the possibility of developing a national integrated classification of health care interventions in Sweden. The existing classifications in Sweden on health care interventions used for quality assurance issues and for decisions on resource allocation did not capture all types of health care interventions. The work of professional groups such as nurses, physiotherapists, and occupational therapists was invisible. There was a need to develop a classification of health care interventions that comprise all activity within the health care sector. The aim was to describe a multi-professional collaborative work on classification development and to provide suggestions for an organising structure that can capture interventions in the health care services, incorporating different professional perspectives. The professional groups reached a common understanding about the use of the classification of the International Classification of Functioning, Disability and Health (ICF) as a unifying framework in the classification of health care interventions (refer to Table 2 below). A proposal was made for a revised structure of the current classification of interventions using ICF as a unifying framework. The ICF provides a comprehensive framework for the multi-disciplinary collaborative teamwork that is necessary for the delivery of quality PHC services (Florin et al., 2005:1).

From an analysis of the Swedish experience, Anell (1996), in (DOH, 2001), suggests that two prerequisites are necessary for decentralisation to be effective: (i) the administrative level to which responsibility is delegated must be able to handle these new responsibilities; and (ii) the administrative level must be willing to do so-incentives may be necessary to increase motivation.

Table 2: International Classification Framework

ICF components with definitions and second level structure
Physiological functions of body systems (including psychological functions)
1. Mental functions
2. Sensory functions and pain
3. Voice and speech functions
4. Functions of cardiovascular, haematological, immunological and respiratory system
5. Functions of the digestive, metabolic and endocrine systems
6. Genitourinary and reproductive functions
7. Neuro-musculoskeletal and movement related functions
8. Functions of the skin and related structures
An activity is the execution of a task or action by an individual. Participation refers to involvement in life situations
1. Learning and applying knowledge
2. General tasks and demands
3. Communication
4. Mobility
5. Self-care
6. Domestic life
7. Interpersonal interactions and relationships
8. Major life areas
9. Community, social and civic life
Environmental factors make up the physical, social and attitudinal environment in which people live and conduct their live
1. Products and technology
2. Natural environment and human changes to environment
3. Support and relationships
4. Attitudes
5. Services, systems and policy

3.14.2 Philippines

Despite a campaign to explain the process of devolution to personnel in the Philippines, there were many complaints: security of tenure was uncertain; salary increases and benefits were delayed; and health service delivery was jeopardised in the hands of 'non-technical' administrators. The users of the service complained of the lack of drugs and deterioration in the condition of hospitals {Quimpo (1996), in (DOH, 2001)}.

3.14.3 United Kingdom

A conceptual model was outlined for public health practice by proposing the three domains as a framework to organize and to deliver public health programmes (Griffiths et al., 2005:907). The model is built on the premise that public health is the concern of every citizen and, therefore, needs a common definitional base. Different levels of skill and a wide range of contributions are necessary for optimal impact of public health programmes. The different domains of practice help to construct a basis for understanding the necessary elements of the public health system and their interactions.

The three domains, according to Griffiths et al. (2005:911), are the health improvement domain, health protection and service quality improvement. The health improvement domain covers key aspects of activity to reduce inequalities, working with partners in the National Health Service (NHS) as well as in "other sectors such as education and workplaces. It involves engagement with structural determinants such as housing and employment, as well as working with individuals and their families within communities to improve health and prevent disease through adopting healthier lifestyles.

Health protection includes the prevention and control of infectious diseases as well as response to emergencies, such as the result of a chemical or radiation disaster or of bioterrorism. It engages with the regulation for clean air, water and food, thus preventing or dealing with environmental health hazards. Health service quality includes engagement in service delivery, promoting clinically effective practice especially through

promoting evidence-based care, supporting clinical governance, planning and prioritizing services, and engaging in appropriate research, audit and evaluation" (Griffiths et al., 2005:911).

"The three domains are not separate entities but overlap and are interdependent. These can be used to describe the services to be delivered, the core skills, knowledge and competencies that are needed, and the roles and responsibilities of those delivering them" (Griffiths et al., 2005:911). This model demonstrates that for effective delivery of programmes, public health skills are required by a variety of specialists, others in the NHS (midwives, general practitioners) and people outside the health sector (teachers, community workers, parents). The three domains of public health are aligned to the comprehensive delivery of PHC services as it involves community participation, multidisciplinary and multi-sectoral collaboration for the effective delivery of health programmes (Griffiths et al., 2005:911).

3.14.4 East Harlem

Barriers to the delivery of healthcare services to a Latino community in East Harlem were identified by Canlas (1999:257-258) and included fear of deportation, unfamiliarity with modern medicine, inability to speak English and reliance upon traditional curing practices all contributed to the underutilization of medical services. The role of the health care provider must be an empathetic listener who is able to understand the patient's traditions and values. Health care providers in a Latino dominated community have a responsibility to expand their cultural awareness in order to create a patient/ provider relationship anchored in trust. The patients' whole person, that is, their beliefs, traditions and value systems must be embraced. Moreover, health care providers must understand and acknowledge their different perceptions of healthcare. This experience will assist in the education of future professionals.

3.14.5 Australia

In Australia, the Gawler Health Service, Community Services in conjunction with the University of South Australia, School of Nursing and Midwifery, provided undergraduate students of nursing with comprehensive project-focused placement (Smith and Flint, 2006:117). The placement enabled undergraduate students of nursing to understand the needs of citizens of a rural community and the health service delivery required. Participation in such a placement enabled students to develop an understanding of a fundamental aspect of the community nurse's role. This understanding is essential for registered nurses if they are to meet international health care agendas that require the health care sector to work in partnership with the community.

During placement, nursing students worked in pairs or small groups on a negotiated project that furthered their understanding of community assessment as it related to a particular group of people within the community. This involved a range of activities, including searching the literature, designing a tool to clarify the community's perspectives on an issue, and summarising the project for the organisation and preparing a statement for the local press. Examples of projects undertaken by students that focused on the perspectives of community members were patients' experiences of discharge planning, community's understanding of risk factors associated with diabetes or Hepatitis C. The project enabled students to extend their knowledge and skills in a way that provided benefits to the organisation. With financial constraints and limited staff, organisations need to reap some benefits for the time given to students while contributing usefully to the student's education. Understanding the perspective of the community in relation to felt needs, knowledge or attitudes can provide important information to community health care agencies (Smith and Flint, 2006:118).

The project-focused placements in the community were an excellent mode of clinical education/ practice for students in health care disciplines in keeping with the PHC approach to service delivery. However, in South Africa, it must be emphasized that

multidisciplinary collaboration of students is essential to enhance competency in PHC service delivery before the one-year compulsory community service placement.

3.15 SUMMARY AND CONCLUSION

The literature review explored the theoretical perspectives on which the study is grounded. PHC was defined and, emanating from the Alma Ata Declaration, the following Charters, viz; the 'Health for All' by the year 2000 through the promotion of Primary Health Care, the Ottawa Charter for Health Promotion (1986) as well as the Jakarta Charter (WHO,1997) and the 'Health Care for All' in 2001 were highlighted.

The chapter has reviewed PHC in a general global context and in relation to the African continent as well as focussing on South Africa. Information on the United Nations Millennium Development Goals, strategies for the implementation of PHC, public/ private partnerships and service delivery in PHC are also discussed.

The next chapter discusses PHC and its relation to the physiotherapy profession from developing to developed countries.

CHAPTER 4

PHYSIOTHERAPY AND PRIMARY HEALTH CARE

4.1 INTRODUCTION

The concept 'Health for All by 2000' was introduced in 1978 by the World Health Organisation at a conference held at Alma-Ata (Kazakhstan) by the World Health Assembly. A major change in the direction of health care was highlighted in the Alma-Ata Declaration, as discussed in chapter 3. The primary health care (PHC) concept is a holistic and comprehensive approach to health care that emphasizes community-based rather than hospital-based health care. This means that health becomes the responsibility of health workers as well as the other sectors of the community whose work influences the environment such as ensuring safe water, adequate sanitation, food (agriculture), housing and education. Working together as a health care team with the participation of individuals in the community, health workers promote a healthy environment that promotes health and reduces the chances of developing diseases such as cholera, TB and HIV/AIDS.

According to Desai (2006:16), health care systems around the world are in a crisis as they face the challenge of effective and efficient service delivery with the use of limited available resources. Physiotherapists represent an integral component of the cycle of health care. The pillars of health care included are the preventative approach, the remedial approach, the rehabilitative and the maintenance approach (Report to DOH, 2009 submission). In this regard, these pillars of health care are encapsulated in the pillars of the PHC approach, namely, preventive, promotive (maintenance), curative (remedial) and rehabilitative. Physiotherapists work within the three levels of health care, namely, the primary, secondary and the tertiary levels. The secondary and the tertiary levels of health care are hospital-based focusing on the curative and the rehabilitative approach of health care.

4.2 PHYSIOTHERAPY

Physiotherapy is a health care profession, which provides services to individuals as well as populations in order to develop, maintain and restore maximum physical, psychological, emotional and social well-being thereby enhancing functional independence throughout life. Physiotherapy roles are either institution-based or community-based. There are a number of significant differences in physiotherapy roles between institution-based and community-based physiotherapists, as identified by Bury (2005:53). Physiotherapy in institutions, direct service provision to the patients with a predominantly 1:1 therapist: patient ratio and the focus can be on a strong biomedical model, although attitudes and approaches are changing. Physiotherapists rendering services at hospitals and in the private sector are perceived with a higher professional status when compared to community-based physiotherapists who are perceived with a lower professional status. Moreover, community-based physiotherapy services are mainly indirect with 1 therapist: to a given population. There is good basic care for all the people in the community and therapy time is allocated and based on the needs of the population. The community-based physiotherapist uses a strong social model, serves as an expert resource and teaches/trains local health workers as well as families to carry out day-to-day therapy.

Physiotherapy comprises many specialties, *inter alia,* cardiopulmonary, geriatrics, neurological, orthopaedic and pediatrics, which are the more common areas.

The practice of physiotherapy may be located in various settings, namely, outpatient clinics, inpatient rehabilitation facilities, extended care facilities, private homes, education and research centres, schools, hospices, industrial work places or other occupational environments, fitness centres and sports training facilities. To clinically practise as a physiotherapist, the educational qualification varies from countries requiring little formal education to countries requiring a masters and doctoral degrees.

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The integration of research evidence into practice has been and continues to be a challenge across the scope of medicine with physiotherapy being no exception, (Wikipedia, http://en.wikipedia.org/wiki/Physiotherapy). Physiotherapists are required to acquire professional/ expert body of knowledge, skills and judgment. However, Bury (2005:52) states that a community-orientated approach requires a significant shift of control from professional to the patient/ family, thus physiotherapists are far more a resource for patients and families. The development of evidence-based practice has sought to challenge the profession-centric model of practice to one that creates a more balanced relationship between professionals and patients, through promoting shared decision-making.

Bury (2005:52) adds further that PHC may not have been embraced by some health care professionals, who potentially see it as providing negative incentives for them professionally. Moreover, the focus is on prevention, when their skills and main business have been curative, often with the opportunity for additional private income. Consequently, all of the above pose dilemmas for a developing profession.

According to Fricke (2005:ii), physiotherapy "is an independent self-regulated profession" capable of an increased role in PHC. Physiotherapists have the necessary tertiary education and experience to promote health and prevent disease, both on an individual basis and at community level. Physiotherapists are an integral component of a collaborative inter-disciplinary team and, therefore, must understand the importance of the broader determinants of health and their impact on individual and population health status. In this regard, they can assist in health promotion and disease prevention strategies, as well as identify and remediate a myriad of health conditions. Equity, inter-sectoral collaboration and community participation are recognized as pillars of PHC.

In South Africa, the physiotherapy degree (B.Sc Physio or B.Physio) includes four years of theory modules and general practice training, involving all aspects of physiotherapy. The first year consists of an introduction to theoretical modules. Clinical education time, which is supervised gradually increases until the fourth year, where the student usually

spends about 80% clinically in practice. In the fourth year of study, students are required to complete a Physiotherapy Research project, which fulfills the requirements of an Honours degree. Before entering professional practice or specialization, the student must complete a compulsory year of community service after graduation. According to the HWSETA approved sector plan (2005–2009), the number of physiotherapists in selected public sector posts for 2006 was 783 and the projected employment for 2009 is 961 and 2010 is 1 023. There has been a scarcity of physiotherapists in South Africa with only 402 in the year 2001 and, therefore, physiotherapists in the public sector receive a scarce skill allowance.

4.3 PHYSIOTHERAPY AND PRIMARY HEALTH CARE (PHC)

The PHC approach to health care is based on principles that allow people to receive care in order to enable them to lead socially and economically productive lives (Dennill, 1995), cited by Douglas et al. (2008:2). According to the WHO (1978), 'a PHC approach to health care includes promotive, preventative, curative and rehabilitative care'. PHC was defined as "a strategy of public health, derived from a social model of health and sustained by the Declaration of Alma Ata" (Keleher, 2001:6). The PHC practitioners work from a social model of health based on an understanding that peoples's basic needs such as shelter, support, safety from violence, sanitation, water, affordable food supplies must be first met for attaining optimal health. In addition to these basic provisions, essential primary health care services, namely, maternal and child health care, community based affordable medical care, the provision of essential medicines and immunization is necessary. Therefore, PHC practitioners work to change the social, political, environmental and economic determinants of illness resulting in the creation of better health in communities, regions or cities. "The range of social determinants of health incorporate inter-related circumstances of poverty, wealth and income distribution, psycho-social deprivation, discrimination such as sexism and racism, powerlessness, factors related to gender, age, race and ethnicity, socio-ecological environments, literacy and health service utilization" (Keleher, 2001:7). Consequently, a single sector or just the health system cannot deal with all the social determinants of health.

Physiotherapists, as an integral component of the multi-disciplinary team and specialists in offering rehabilitation services, are extensively involved in all aspects of PHC services at all levels of health care (primary, secondary and tertiary) including advocacy/ mediation roles in negotiating for basic social services with other sectors. Consequently, physiotherapists are able to enhance the quality of life of individuals. Fricke (2005:6) listed the following 12 key determinants of health, which Health Canada acknowledges as contributing to a person's health status:

1. Income and social status;
2. Social support networks;
3. Education and literacy;
4. Employment/ working conditions;
5. Social environments;
6. Physical environments;
7. Personal health practices and coping skills;
8. Healthy child development;
9. Biology and genetic endowment;
10. Health services;
11. Gender; and
12. Culture.

Fricke (2005:9,4) added that in accordance with the Canadian Physiotherapy Association, physiotherapists, "as health care professionals, should understand the effect of the determinants of health on their patients' outcomes, including how physiotherapists can affect the determinants of health in their daily professional practice. This requires physiotherapists to be sensitive to their patients, and adapt their treatment approach to the range of life experiences that each patient brings to the therapeutic relationship, including employment, family environment, education, and physical and mental health. As PHC providers, physiotherapists practise within their own professional competency and refer patients to other professionals as appropriate". In addition, some of the competencies

required for *effective health care service delivery,* being integral to the physiotherapy profession, are the following:

- "Embrace a personal ethic of social responsibility and service;
- Incorporate the multi-determinants of health in clinical care;
- Rigorously practise preventative health care;
- Integrate population-based care and services into practice;
- Partner with communities in health care decisions;
- Work in inter-disciplinary teams; and
- Ensure care that balances individual, professional, system and societal needs" Fricke (2005:9,4).

According to Van Rensburg (2004:413), PHC, as a strategy, denotes the way in which services are organized and delivered, the emphasis that it lays on health care provision, and the type of institutions and health workers for service delivery. The following are two approaches to PHC:

- The selective PHC approach tends to target one or a few diseases or health problems with specific interventions or programmes such as immunization or screening for disease (vertical or categorical programming); and
- The comprehensive PHC approach maintains a much broader approach; it incorporates the social context and the conditions under which people live. With this approach, collaboration with sectors outside the health sphere (inter-sectoral) is essential. Thus, comprehensive PHC is part of community development and requires a multi-disciplinary team approach. This implies that interventions are firmly based on scientific research and on broad-based planning, as well as implementation and coordination of such care.

Keleher (2001:8) concurred with the above two approaches of PHC and added that a comprehensive PHC approach addresses a whole range of social and environmental factors that cause ill-health in tandem with those that sustain and create good health. It

was emphasised that the significance of PHC is its values and strategic orientation towards the health of people who are most in need, together with the commitment of all practitioners to work in interdisciplinary ways to change social as well as the structural barriers to health.

Since 1994, there has been a re-orientation of the health care system in South Africa to a PHC approach, which is implemented through the district health system. A situational analysis, conducted in 1997, confirmed that rehabilitation services in South Africa (physiotherapy included) are largely underdeveloped and inaccessible to the majority of the population, especially those who live in remote rural areas (National Department of Health, 2000:3).

The focus of health care services is usually institution-based, and, therefore, the needs of patients are not completely satisfied. At the provincial level, mechanisms are being established to extend the coverage of rehabilitation services including physiotherapy to the majority of the population. However, the poorest of the poor still struggle to access these services, including other public health services. The reasons for this inaccessibility are poverty-related as services are still being concentrated at the tertiary institutions, and private sector service providers are in the urban areas (National Department of Health, 2000:3).

According to Keleher (2001:7), the principles of PHC include equity based on need; affordable access to needed services; the sustainability of PHC services; and empowerment of people in tandem with efforts to assist with self-determination. These are principles of social justice.

Physiotherapists undertake the following identified roles in PHC and Community-Based Rehabilitation (CBR), dependent on local cultural and socio-economic circumstances (Bury, 2005:52):

- Preventing disability and deformity;

- Educating / training disabled people to move around;
- Promoting self-care;
- Educating, training and transferring skills to other staff;
- Consultancy, advice, support and supervision to other health care personnel;
- Health promotion and disease prevention;
- Curative and rehabilitation services;
- Instigators of CBR services;
- Team leaders and managers;
- Providers of direct care;
- Advocates for disabled people, local communities as well as the profession; and
- Advisors to governments, NGOs and local communities on establishing CBR programmes.

Therefore, effective teamwork to deal with the social determinants of health in tandem with a comprehensive PHC approach by health care professionals will result in the diminution or decrease of health inequities.

According to the South African Society of Physiotherapy (SASP, 1993), cited by Douglas et al. (2008:2), 'The provision of physiotherapy services at a PHC level should be based on the four pillars of PHC, namely, promotive, preventative, curative and rehabilitative care'.

4.3.1 Promotive Services

The WHO (1986) asserts that health promotion is "the process of enabling people to increase control over their health and to improve it".

Promotive services include activities such as advocating for provision of basic needs, for example, housing, sanitation, and food; and mediating among different sectors for provision of services such as education, welfare, health care, and social security. It includes the creation of a supportive environment by increasing access to physiotherapy

services and health-related information as well as providing health education to individuals/groups (Douglas et al., 2008:4). "Health promotion is a practical approach aimed at achieving greater equity in health. Health promotion strategies can develop and change lifestyles as well as have an impact on the social, economic and environmental conditions that determine health" (Frantz, 2008:28).

The Ottawa Charter for Health Promotion (discussed in Chapter 3) set out the following five strategies that are important for success (WHO, 1986):

- Building healthy public policy;
- Creating supportive environments;
- Strengthening community action;
- Developing personal skills; and
- Re-orienting health services.

According to Frantz (2008: 28), physiotherapists can play a role in all of the above five areas. AIDS and chronic diseases of lifestyle (CDL) has taught health care professionals the importance of being vigilant in public health and health promotion efforts relating to the well-being of the population as these diseases are mainly influenced by risky behaviour and can be prevented.

The definition of health promotion with reference to "people with disabilities includes promotion of healthy lifestyles and a healthy environment, prevention of secondary complications and further disabling conditions. In addition, preparing a person with a disability to understand and monitor his or her own health and health care needs as well as participation of the individual in community activities is also essential" (Biggs et al., 2008:38-39). Therefore, an important focus of health promotion is motivating individuals to engage in healthy lifestyle behaviours, for example, addressing the risk factors related to stroke by aggressive management, namely, decreasing high blood pressure, stopping cigarette smoking and excessive alcohol consumption. In addition, correct use of prescribed medication, moderate intensity exercise and a low fat diet reducing cholesterol

levels can all assist to reduce the risk of stroke and recurrent stroke. Primary prevention strategies must be implemented in order to prevent secondary stroke especially in those individuals who are at high risk (Biggs et al., 2008:39).

In 2003, the International Union for Health Promotion and Education (IUHPE) developed the following operational plan for the African Region regarding health promotion programmes (Frantz, 2008:28):

- Developing and disseminating guidelines on assessment of health promotion programmes;
- Conducting an effective literature review on effectiveness of health promotion programmes in the region;
- Implementing special research projects regarding topics such as tobacco, youth/adolescent health, ageing, CDL; and
- Commissioning a publication to review and synthesize evidence-based health promotion effectiveness.

According to Richardson (1999:467), health promotion and management of chronic disease as well as on treatment and cure of acute disease have also changed. The aim now is to empower patients to manage their own health needs.

Therefore, the promotion of health is an essential component of PHC, which includes self-help skills that can be introduced to the patients at all the stages of rehabilitation that is, acute, sub-acute and chronic stages. The physiotherapist can play a vital role here, as a member of the multi-disciplinary team by working with patients in modifying their lifestyle, for example, the joint protection principles in patients suffering from arthritis, namely, balancing work and exercise with rest is very important. These modifications in the way in which patients perform their activities of daily living can prevent damage to their joints and deformities, which will enable them to cope as well as be functionally independent. Joint protection principles are a method of modifying the patient's lifestyle in order to promote better health for the patients suffering from arthritis.

4.3.2 Preventative Services

Preventative medicine is that branch of medicine concerned with the prevention of disease (Oxford Dictionary, 1994). Preventive medicine or preventive care refers to "measures taken to prevent diseases, or injuries rather than curing them" (Wikipedia, 2009), whilst The Columbia Encyclopedia (2009), defines preventive medicine as "a branch of medicine dealing with the prevention of disease and the maintenance of good health practices". It encompasses activities such as research into the causes of disease; immunization against those diseases for which the causes are known, for example, poliomyelitis, influenza, and measles; studies of environmental deterrents to health; and instruction in public health and hygiene (http://www.answers.com). Preventative services include the identification of health risks at homes, schools and work as well as implementation of appropriate screening procedures at homes, school and work. In addition, preventative services includes designing intervention strategies in order to reduce/eliminate the health risks and monitoring and evaluating health risks (Douglas et al., 2008:5).

According to De Haan et al. (2005:23), promotive and preventative care operates at three levels, namely, primary, secondary and tertiary prevention.

4.3.2.1 Primary Prevention

This level of disease prevention consists of two stages, which are, health promotion and specific protection (De Haan et al., 2005:23):

Health promotion whereby steps are taken to promote optimal health in individuals and communities by:

- Ensuring adequate nutrition;
- Promoting high standards of environmental hygiene through the provision of suitable housing; satisfactory ventilation and the prevention of overcrowding; the

efficient disposal of refuse and sewage; the provision of safe water supplies; and the control of rodents and insects, including flies;

- Encouraging satisfactory standards of personal hygiene and cleanliness;
- Ensuring suitable working conditions and the elimination of occupational hazards;
- Providing genetic counselling to people at risk;
- Promoting optimal psychological health through marriage guidance, vocational guidance, and the use of good child-rearing practices;
- The use of effective health education to achieve these aims and objectives; and
- Ensuring that legislation and policy are appropriate to attain optimal health for all people (De Haan et al., 2005:23).

Specific protection consists of the following:

- Immunization;
- The use of protective clothing in industries, such as goggles and helmets;
- The wearing of seat belts in cars and crash helmets on motorcycles;
- The prophylactic use of drugs to prevent diseases such as malaria, and condoms in safe sexual practices;
- The elimination of the vectors or the treatment of carriers of disease; and
- The control of diseases in animals (De Haan et al., 2005:23).

The primary prevention, therefore, "avoids the development of a disease and most population-based health promotion activities are primary preventive measures" (http://www.answers.com). The primary prevention level, therefore, overlaps with the promotive and preventative pillars of PHC.

4.3.2.2 Secondary Prevention

The person is suffering from a disease and measures that are taken are directed at rendering the patient non-infectious in a short time as possible, preventing and stopping the spread of the disease during the secondary level of prevention. Prompt and effective

treatment of all sufferers is essential for successful prevention at this level. Secondary prevention is accomplished by (De Haan et al., 2005:24):

- Early diagnosis;
- Appropriate treatment, including isolation where necessary;
- Case-finding so that all persons suffering from the condition may be traced and treated;
- Notification of the disease to the appropriate authorities when legally required to do so, especially in the case of listed diseases such as TB and cholera; and
- Treatment and control of the contacts who may be infected.

Secondary prevention activities "are aimed at early disease detection, thereby increasing opportunities for interventions to prevent progression of the disease and emergence of symptoms" (http://www.answers.com). The secondary prevention level overlaps with the curative pillar of PHC.

4.3.2.3 Tertiary Prevention

Tertiary prevention involves the limitation of disability and rehabilitation. "It reduces the negative impact of an already established disease by restoring function and reducing disease-related complications" (http://www.answers.com).

Limitation of disability is a level of prevention where the concern is to stop the progress of the disease and to prevent complications. The important factors in the limitation of disability are prompt diagnosis, effective treatment and the early recognition of possible complications. The aim at the rehabilitation level of prevention is to return the person to his/her community, to ensure optimal function, and that further deterioration will be prevented. Where necessary, physiotherapy, vocational guidance, sheltered employment and social services such as disability grants should be made available (De Haan et al., 2005:24).

The tertiary prevention level overlaps with the rehabilitative pillar of PHC.

4.3.3 Curative Services

Curative is helping to cure illness (Oxford Dictionary, 1994). Curative refers to "serving or tending to cure or relating to the cure of diseases" (http://www.yourdictionary.com). Curative care refers to "treatment and therapies provided to a patient with an intent to improve symptoms and cure the patient's medical problem. Antibiotics, a cast for a broken limb are some examples of curative care" (http://patients.about.com).

Curative services include neurological, orthopaedic, paediatric, musculoskeletal, cardiopulmonary and gerontological conditions. The treatments may include the management of pain, improving exercise capacity (endurance), improving muscle strength, improving mobility, improving function, environmental analysis and adaptation and integrating patients into the community (Douglas et al., 2008:5).

4.3.4 Rehabilitative Services

Rehabilitation is the restoration of a person to a normal life by training, after a period of illness (Oxford Dictionary, 1994). It is the word used "to describe ways of helping people with disabilities to become fully participating members of society, with access to all the benefits and opportunities of that society" (White Paper on an Intergrated National Disability Strategy (INDS), 1997:26).

The rehabilitative services, according to Douglas et al. (2008:6), include the following activities:

- Providing assistive devices. Assistive devices are key mechanisms by which disabled people participate as equal citizens within society (DOH, 2003:4). It promotes a normal lifestyle, improves their quality of life and enhances the prospects of employment, education and participation for people with disabilities such as wheelchairs for people with motor impairments, hearing aids and braille;

- Constructing simple assistive devices for daily living from locally available materials or out of appropriate paper based technology;
- Teaching patients how to use the assistive device;
- Teaching basic maintenance of wheelchair and other assistive devices;
- Assessing people with disability for the need of specialized assistive devices;
- Assessing people with disability for placement in an educational institution, work, sporting purposes, etc;
- Designing and implementing treatment and rehabilitation programmes for people with a stroke or amputation;
- Guiding the PHC doctor in assessment of the degree of disability for disability and other grants;
- Designing and directing "needs driven awareness raising" e.g. disability issues;
- Screening and referring for surgical release of contractures and other corrective procedures;
- Assessing accessibility of clinics and other facilities within the community for people with disability;
- Disability surveys are conducted in order to establish the prevalence of disability in the area;
- Establishing and running support groups; and
- Training of caregivers and volunteers.

Only appropriately trained rehabilitation providers, of which the physiotherapist forms an integral component, must do assessment and prescription for assistive devices. Once the selection has been finalized, the same professional should issue the device and provide the necessary training.

4.4 PRIMARY HEALTH CARE IN NON-COMMUNICABLE DISEASES

Non-communicable diseases are defined by De Haan et al. (2005:53-54), as 'a broad term that refers to all conditions not caused by a micro-organism and which are therefore not transferable from one person to another'. It can be acute (sudden/recent onset) or chronic

(long standing usually occurs after an acute illness) resulting in long-term health problems that require patients to seek assistance that is not only medical in nature. Consequently, the management of these diseases requires action not only by the nurse and doctor, but also by other members of the multi-disciplinary team, such as a physiotherapist, speech therapist, occupational therapist, psychologist and social worker.

In South Africa, the incidence of chronic diseases has increased, resulting in higher morbidity and mortality rates. In this regard, there is an increase in the need for health care. The management of chronic diseases should occur at the three levels, namely, primary, secondary and tertiary prevention. The priority chronic diseases identified by the WHO include (De Haan et al., 2005:55):

- Cardiovascular diseases which are diseases affecting the heart and blood vessels;
- Hypertension refers to an increase in blood pressure;
- Stroke is a condition that affects all age groups and is caused by a cerebral (brain) haemorrhage, a thrombosis or an embolism (blood clot);
- Rheumatic fever/ rheumatic heart disease is a serious form of rheumatism (disease causing pain the joints, muscles, or fibrous tissue) with fever, chiefly in children;
- Coronary heart disease is a disease that causes the narrowing of the coronary arteries usually by deposition of cholesterol which later forms a blood clot and results in the obstruction of blood flow to the heart muscle;
- Cancer is a disease in which tumors or malignant growths form;
- Genetic diseases; and
- Chronic obstructive pulmonary disease including asthma is a term used to refer to a group of chronic diseases of the lungs.

In addition to the above list of chronic diseases, in South Africa, the following are experienced:

- Trauma from accidents resulting in disability;

- Epilepsy is a condition characterized by seizures that occur due to a chemical or structural disorder in the brain;
- Arthritis refers to a large group of diseases that can involve many of the body's systems but all have an arthritic (inflammation of joints) component; and
- Diabetes Mellitus is a disease that results from a deficiency in the production or utilization of the hormone called insulin.

An extensive review of the literature to establish specific areas of practice that supported evidence for rehabilitation services at a PHC level was conducted (Fricke, 2005:25-29). Strong evidence for this service was found in the "areas of arthritis, coronary heart disease, chronic lung disease, incontinence, diabetes, osteoporosis, fall prevention and low back pain. However, there were also areas where the supporting evidence was weak or absent. Following this review, a focus group of experts consisting of physiotherapists working or interested in PHC were requested to name areas of practice in PHC where physiotherapy could play a significant role. Some additional areas identified were mental health, a navigator role with case management, physical inactivity and obesity in children as well as adults, pre/ anti-natal care, rheumatoid arthritis and workplace safety. Examples of a navigator role are the identification and assessment of patients for the services they require; advocacy and the ability to act on behalf of patients to ensure that needed interventions are obtained with the patients progressing as anticipated; evaluation and monitoring to ensure the usefulness and effectiveness of the case management plan so that outcomes/goals are reached. In addition, co-ordination, planning and identification of the level of care and then the level of services as well as the scope of resources required to meet patient care needs is important" (Fricke, 2005:25-29).

Physiotherapy is involved in most of the above-listed conditions but at a tertiary prevention level, which is an extremely late stage in rehabilitation. Consequently, a physiotherapist working in a collaborative interdisciplinary primary PHC model would be beneficial as early intervention at primary and secondary levels of prevention is warranted resulting in prevention of illness/disease, disability and complications.

Communicable diseases *inter alia,* cholera, HIV/AIDS, measles, pulmonary TB, malaria, pneumonia, (the six major diseases) are 'a group of infectious diseases caused by specific micro-organisms, which are readily transmissible from an infected person to a susceptible host (a persons' level of immunity to the disease or state of nutrition)' (De Haan et al., 2005:55). These diseases, as well as parasitic diseases (ringworm, scabies, thrush), pose a serious threat to underdeveloped areas such as those found in the sub-Saharan Africa because they are linked with environmental conditions and with poverty. The situation is further exacerbated in the area because of natural disasters caused by floods and droughts as well as political problems such as conflicts and wars. However, with an integrated approach that focuses on the underlying causes such as the socio-economic, cultural and physical environment, communicable diseases are preventable and can be controlled.

South Africa also faces many challenges in controlling the six major communicable diseases. These diseases occur mainly in the rural and impoverished communities because of poor socio-economic factors such as poverty, malnutrition, fatigue, overcrowding and poor ventilation. The PHC delivery of services is the only way forward in controlling and eradicating these diseases, which should involve every health care worker/professional (including physiotherapists) to play their role in improving the quality of life of all citizens in the country.

4.5 RESPIRATORY DISEASES

Respiratory diseases are diseases or conditions that affect the respiratory system (airways and lungs), namely; bronchitis, which is inflammation of the membrane lining the trachea and bronchial tubes, pneumonia, is an inflammation of the lungs, asthma, is a reversible obstructive lung disease caused by increased reaction of the airways to various stimuli (Goodman and Snyder, 2007:340).

According to the Health Systems Development Unit (2001:110), primary health care workers must know how to conduct the following simple procedures in order to diagnose and manage patients with respiratory problems:

- Collect sputum from a patient;
- Execute simple chest physiotherapy;
- Use a bronchodilator inhaler;
- Make up and use a nebuliser; and
- Do a tuberculin PPD skin test.

Physiotherapists are involved extensively in the first four of the above listed procedures when assessing and treating patients with respiratory problems. According to the Health Systems Development Unit (2001:111), physiotherapy is a useful aid in the management of respiratory diseases, especially infections, for example, pneumonia, bronchitis, emphysema, bronchitis and tuberculosis. It is also useful in the management of asthma.

The two main functions of chest physiotherapy are:

- It loosens and drains mucus from the lungs; and
- It opens the airways, thereby allowing air to pass to all areas of the lungs.

Although physiotherapy is usually rendered by a physiotherapist, simple and effective physiotherapy techniques can be rendered by anyone in the person's own home. Therefore, primary health care workers need to know how to render simple physiotherapy techniques so that they can teach mothers and relatives of patients with respiratory diseases how to execute it themselves.

The local physiotherapist in a PHC setting can demonstrate how to execute correct chest physiotherapy. Patients that suffer from asthma should use an inhalation of bronchodilator drugs before chest physiotherapy. Chest physiotherapy must be repeated frequently at least 3-4 times a day. It is essential to teach relatives of patients with respiratory diseases to execute chest physiotherapy at home (Health Systems Development Unit, 2001:112).

The role of community participation in PHC programmes, such as the delivery of effective anti-TB treatment to patients in high-burden settings, was explored (Kironde

and Kahirimbanyi, 2002:16). This prospective study involved 769 patients with confirmed pulmonary TB who were followed-up over a one-year period. Questionnaire interviews were also carried out with 135 lay volunteers participating in the TB programme. One-third of the TB patients received their treatment from lay volunteers in the community. Treatment outcomes for new patients supervised from the community were found to be equivalent to those who received treatment through other modes of treatment delivery. Furthermore, for the re-treatment of patients, community-based treatment was found to be superior to self-administered therapy. In this regard, health care workers should consider community participation as a feasible way to ensure accessibility and effectiveness in PHC programme. Moreover, community participation can be extended to involve other high-burden diseases such as HIV/AIDS. A major challenge to community participation in developing countries is the desire for remuneration by the lay volunteers. Future research is needed into ways of achieving sustainability in resource-limited but high disease burden settings.

Public-private partnerships for equity of access to care for TB and HIV/AIDS in India were explored (Sheikh et al., 2006:1). Two research studies were reviewed to examine the role of Private Medical Practitioners (PMPs) in TB and HIV/AIDS care, the themes of equity, access arising in private sector delivery of care for TB and HIV/AIDS were explored, and the future policy directions for involving PMPs in public health programmes were highlighted. The authors concluded that public-private partnerships can enhance continuity of care for patients with TB and HIV/AIDS and affirm that interventions to involve PMPs must be supported by appropriate research, together with political commitment and leadership from both public and private sectors.

The World Health Organisation has proposed a public-health approach to antiretroviral therapy (ART) to increase access to treatment for HIV-positive people in developing countries, recognizing that the western model of specialist physician management and advanced laboratory monitoring is not feasible in resource-poor settings. With this approach, standardized simplified treatment protocols and decentralized service delivery result in the delivery of treatment to large numbers of HIV-positive adults and children

through the public private sector. "Simplified tools and approaches to clinical decision-making, centred on the "four Ss" – when to: start drug treatment; substitute for toxicity; switch after treatment failure; and stop – enable lower level health-care workers to deliver care. Simplified operational guidelines, tools, and training materials enable clinical teams in primary-care and second-level facilities to deliver HIV prevention, HIV care, and ART, and to use a standardized patient-tracking system" (http://www.sciencedirect.com).

Primary health care workers must educate the people in the community, especially those with respiratory illness about the dangers of smoking.

4.6 ASPECTS OF LIFESTYLE ADVICE IN PRIMARY HEALTH CARE

The Medical Research Council (MRC) highlights the three main pillars on which a healthy lifestyle rests, namely, have a healthy diet; exercise; and reduce exposure to harmful substances such as alcohol and tobacco. This does not cost extra money but saves money. Furthermore, a healthy lifestyle will help people enjoy more aspects of their lives by improving their physical, mental and social well-being (http://www.mrc.ac.za).

According to the Health Systems Development Unit (2001:163)**,** the following advice should be given to patients with a raised BP (blood pressure). These general measures are beneficial to improve the health status of all community members.

- Lose weight. Weight loss in overweight patients help to reduce blood pressure. It can also make a difference between having to take medication or not;
- Stop smoking;
- Exercise;
- Reduce fat in the diet. Eat plenty fresh fruit and vegetables;
- Reduce salt; and
- Reduce alcohol intake.

Patient education comprises of counselling, empowerment and motivation, which includes regular monitoring and follow-up treatment. Ensuring compliance means educating patients adequately about the reasons for the treatment, using language that is easily understood. It also means being sensitive to the individual problems that patients may have in terms of their culture, level of education and social situation, for example, understanding the reasons why treatment was defaulted instead of reprimanding the patient (Health Systems Development Unit, 2001:185).

According to South Africa's progress report on the declaration of commitment on HIV and AIDS (2006:5), the following are the important pillars of a comprehensive plan:

- Ensuring that the great majority of South Africans who are currently not infected with HIV remain uninfected. Prevention and changing lifestyles and behaviour are, therefore, critically important in managing the spread of HIV and the impact of AIDS;
- Improved nutrition and lifestyle choices to ensure and enhance the health benefits of good nutrition and healthy living for those who are infected as well as those who are not infected;
- Enhancing the use of prophylaxis and treatment of opportunistic infections;
- Effective management of those HIV-infected individuals who have developed opportunistic infections through appropriate treatment of AIDS-related conditions;
- Provision of antiretroviral therapy in patients presenting with low CD4 counts to improve functional health status and to prolong life;
- Integration of traditional and complementary medicine into the comprehensive care, management and treatment programme;
- Providing a comprehensive continuum of care, support and treatment;
- Ensuring the principle of non discrimination in the provision of services as a whole and in the provision of HIV and AIDS services in particular; and
- Strengthening the National Health System to ensure the effective delivery of comprehensive HIV and AIDS care and treatment as well as other equally

important health care priorities and programmes. These include the improvement in laboratory services, in information systems, human resources and capacity development, drug procurements and distribution.

Physiotherapists encounter patients with HIV/AIDS in all levels of intervention, namely, primary, secondary and tertiary levels rendering preventive, promotive, rehabilitative and curative services. Consequently, all aspects of HIV/AIDS are included in the physiotherapy undergraduate curriculum.

Health sector reforms and the implications for sexual and reproductive health advocacy in low-income countries such as Asia and sub-Saharan Africa were discussed (Standing, 2002:1). Generally, governments are struggling to develop financing mechanisms in contexts of severe income inequality and low access as well as utilization of services by the poor. In many countries, diseases such as AIDS, a rise in non-communicable diseases and the aging populations, seriously overburden health services, requiring policy responses. The current international debate is focused on the conditions necessary for socio-economic development and the role of governments, and how to improve the performance of health sector bureaucracies and delivery systems. A major challenge is how to re-negotiate the policy and financial space for sexual and reproductive health systems within national health systems and at international level.

Smoking, Nutrition, Alcohol and Physical Activity (SNAP) is a behavioural risk-reduction model developed for the Australian Government in 2002 and trialed in an urban and rural Division in New South Wales in 2003. It focuses on people with existing or high risk of chronic disease and examines systematically how primary care teams in general practice can provide more effective interventions for the prevention of chronic disease, and link with other services, especially health promotion units and NGOs that provide, for example, nutrition services, exercise programmes and counselling for at-risk drinking. Sustainability of PHC innovations can be broken down to six domains, namely, political, institutional, financial, economic, consumer (patient) and workforce. Key inhibitors and facilitators of sustainability for the respective initiatives using the defined

domains as reference points need to be discussed in order to determine sustainability of initiatives (http://www.sciencedirect.com).

It is crucially important for all health care professionals, including physiotherapists, to promote a healthy lifestyle especially in the rural communities, which must include a healthy diet, exercise and reduce exposure to harmful substances (alcohol, tobacco and drugs). Consequently, health promotion and prevention of disease, which are encapsulated in PHC approach to service delivery, will, therefore, be enhanced.

4.7 MODELS OF PRIMARY HEALTH CARE

The models of PHC depend on whether the approach is selective or comprehensive, the extent of interdisciplinary collaboration or teamwork and the use of information technology to promote communication between providers.

The World Health Organisation (1985) defined the PHC team as "a group of persons who share a common health goal and common objectives determined by community needs, to which the achievement of each member of the team contributes, in a coordinated manner, in accordance with his/ her competence and skills and respecting the functions of others".

Four different types of primary health care models were cited (Fricke, 2005:14):

- "The integrated community model which tends to use information technology to promote communication between providers; takes responsibility for longitudinal continuity of care; offers services 24 hours a day, seven days a week; and works collaboratively to ensure a wide range of services are available to their patients (used in Finland);
- The non-integrated community model also offers the public a wide range of services, but does so directly without any established partners in the other aspects of the health care system, without any integrated information technology, ensured

continuity of care, or services available 24 hours a day, seven days a week (used in Sweden);

- The coordinated professional model focuses on the provision of continuous service to patients. Frequently, there is a health care team made up of a physician and a nurse. The nurse is often the liaison with other components of the system and coordinates clinical integration of services. This model is used in Denmark, the Netherlands, United Kingdom and United States of America; and
- The purpose of the professional contact model is to ensure accessibility of PHC, where primarily physicians working alone serve as the patient's gateway to the health care system (used predominately in Canada)" (Fricke, 2005:14).

The integrated and non-integrated community models are both based on a geographically defined population and supports community development that is meeting the needs of the people with a multi-disciplinary health care team providing medical, health, social and community services. South Africa has been trying to adopt both these models but have not been very successful because the multi-disciplinary health care team is non-existent. In addition, the use of information technology such as telemedicine is limited due to lack of resources. In most peri-urban and rural areas the coordinated professional model is being used because of the absence a multi-disciplinary health care team members at district level such as physiotherapists, occupational therapists, social workers, dieticians and psychologists.

4.8 RESEARCH STUDIES IN SOUTH AFRICA ON PRIMARY HEALTH CARE AND PHYSIOTHERAPY IN SELECTED PROVINCES

The opinion of physiotherapists and physiotherapy assistants regarding physiotherapy services required at a PHC level in two provinces were sought (Douglas et al., 2008). One of the provinces was urban (Gauteng) and the other one predominantly rural (Limpopo). A descriptive study design was used and data was collected by a self-administered questionnaire from 171 participants (physiotherapists and physiotherapy assistants). Sixty six % of physiotherapists in Gauteng province and 68% in Limpopo province agreed that promotive services are required whereas the percentage for physiotherapy assistants in

Gauteng and Limpopo province were 78% and 89%, respectively. Preventative services were suggested by 82% and 85% of physiotherapists and 95% and 96% by physiotherapy assistants in Gauteng and Limpopo. Eighty nine percent and 88% of physiotherapists; 80% and 85% of physiotherapy assistants in Gauteng and Limpopo, respectively, agreed that curative services are required. Rehabilitative services were indicated by 83% and 90% of physiotherapists, 85% and 95% by physiotherapy assistants in Gauteng and Limpopo, respectively (Douglas et al., 2008:1).

Advocacy refers to a person who advocates/recommends a policy; an advocate of reform or a person who pleads on behalf of another and mediation refers to a person who acts as negotiator or peacemaker to bring about a settlement in this way (Oxford Dictionary, 1994). According to the Ottawa Charter, a healthy nation needs certain conditions to be in place and, as such, health care practitioners (including physiotherapists) should advocate for favourable conditions to maintain good health (WHO, 1986, cited by Baum, 2002:35). Physiotherapy treatment will often be ineffective in the absence of basic needs, *inter alia,* housing, sanitation, food and water.

The authors of the study (Douglas et al., 2008) expressed concern that physiotherapists from both provinces felt that advocacy and mediation were not important roles as they viewed these services as belonging to other professionals, like lawyers.

Physiotherapy assistants, however, agreed that at a PHC level, they should be involved in advocacy and mediation activities. This role was seen as more important in the Limpopo province, where assistants are involved in advocacy for their patients, and where poor health conditions increases the need for more advocacy services. Physiotherapy assistants probably have closer contacts with the reality of poor health caused by depressed socio-economic conditions and are more aware of the need to be proactive in improving the conditions, which many of the patients in the rural areas experience. The provision of promotive, preventative, curative and rehabilitative services was seen as required at a PHC level by both physiotherapists and assistants in both provinces with no major significant differences between the two provinces (Douglas et al., 2008: 3-7).

4.9 PHYSIOTHERAPY IN EVIDENCE-BASED HEALTH PROMOTION

Health promotion is an integral component of primary health care delivery that physiotherapists include during clinical practice. Physiotherapy training and clinical experiences make them valuable members of multidisciplinary teams in primary health care settings. The training includes the biomedical and physiotherapy sciences that underpin evidence-based practice. Although anecdotal evidence suggests that physiotherapists are instrumental in achieving excellence in the promotion of PHC, there is, however, a lack of evidence-based practice or no empirical evidence to support this.

Frantz (2008:29) highlights that the lack of support for evidence-based health promotion activities could have a negative effect on the implementation of evidence-based policy efforts, especially in the area of physiotherapy. Evidence-based health promotion is an approach to practising health promotion in which the health care provider and patient are aware of the evidence supporting selected strategies and the strength of that evidence.

The foundation of health promotion is grounded in the Ottawa Charter for Health Promotion in 1986, discussed in Chapter 3. Health promotion has been defined as the "science and art of helping people change their lifestyle to move toward a state of optimal health" (O'Donnell, 1989:5, cited in Fricke, 2005:10).

Rychetnik and Wise (2004), cited by Frantz (2008: 29), identified the factors that may be sought to support evidence-based health promotion:

- Magnitude and etiology health problems;
- Effectiveness of local health promotion interventions;
- Impact of public policy initiatives or the dissemination of programmes to larger populations; and
- Cost-effectiveness of initiatives.

The practice of evidence-based health promotion in physiotherapy is crucial as this impacts on the four 'E's of PHC service delivery, that is, effectiveness, efficiency, equity and economy. Thus, physiotherapy excellence results in quality care of patients according to *Batho Pele* principles, thereby improving the quality of life of their patients so that they can contribute to the economic and social development of South Africa.

The criteria for evaluating the success of health promotion programmes should include factors such as (Frantz, 2008:29):

- Programme reach (did the programme reach the target population?);
- Programme acceptability; and
- Programme integrity.

The following guidelines for making decisions and using evidence in health promotion were suggested (Frantz, 2008:29):

- Be explicit as possible regarding the principles and values regarding health promotion activities;
- Recognize the tensions and interaction between structural and individual determinants of health and between values and facts;
- Use multiple sources of evidence; and
- Show awareness of the decisions made concerning the evidence: be a reflective practitioner.

Health promotion in tandem with disease prevention include purposeful activities that improve both personal and public health such as health education, health promotion measures, detection of risk factors, "enhancement of healthy living and maintenance of health, both on an individual level as well as the community as a whole" (McCloy, 2001, cited by Fricke, 2005:11).

Physiotherapists are addressing health promotion topics with patients but questions whether these topics and programmes are being evaluated as well as meeting the basic guidelines suggested for evidence-based health promotion (Frantz, 2008:30). There is a need within the physiotherapy profession to agree on criteria for effectiveness and quality of health promotion programmes. Health promotion programmes conducted by physiotherapists take place in a variety of settings, namely, communities, workplace and schools, and, therefore, the criteria for effectiveness must be clearly defined as well as based on clear outcomes. Frantz (2008:30) suggests that physiotherapists consider the following information when designing and implementing health promotion programmes as quality indicators (Table 3).

Table 3: Quality Criteria for Health Promotion Programmes

Indicators	**Programmes Outcomes**	**Programmes Process**	**Research Designs**	**Repeatability**
Goals of the programme	Knowledge changes	Networking	Participatory research	Is it universal?
Selected target groups	Environmental changes	Commitment	Action Research	Is it limited?
Division of responsibility at management and operational level	Epidemiological changes	Exposure	Qualitative research	
Resources	Behavioural changes	Participation		
Organisation	Maintenance			

The use of health-impact assessments of all public policies and programmes have been emphasised, at all levels from national to local, "in order to hold policy makers accountable for the positive, neutral and negative impacts on health" (Mittelmark, 2000:2, cited in Keleher, 2001: 57-61).

An example that can be referred to in South Africa is '*back week' which is a national intervention programme targeting a large population group of all ages.* The South African Society of Physiotherapy (SASP), however, has not yet evaluated the

effectiveness of this national programme. Frantz (2008:30) strongly recommends that the '*back week' programme* be evaluated according to knowledge, environmental and behavioural changes using the above-suggested outcomes. In addition, effective evaluation of health promotion programmes by physiotherapists in the management of patients, although universal, has been hindered by lack of outcome measures for these programmes. It is hoped that the above indicators can be used by physiotherapists as a basis when implementing health promotion programmes.

4.10 ALIGNMENT OF THE PHYSIOTHERAPY CURRICULUM TO THE HEALTH CARE SYSTEM

An investigation into the alignment of the 2003 physiotherapy curriculum in KZN and the expectations of the health care system suggested that the major focus was on the development of a technically competent physiotherapist, supported by broad exposure to patient conditions within institutionalized settings (Ramklass, 2009:218). Until 2003, changes in the curriculum from the conception of the degree programme highlighted a few technical shifts in its content and change from year-long courses to a modular degree programme. Data was gathered from physiotherapy students, physiotherapy academics, physiotherapy managers and community physiotherapists. It was affirmed that amongst the physiotherapy academics themselves, there was no consensus on how the curriculum should align itself with transforming policies post-apartheid. A range of intended goals was highlighted from the development of a skilled, competent physiotherapist to broader imperatives for developing a holistic individual for society.

Ramklass (2009:218) emphasized that working within multidisciplinary teams is an essential component of primary health care. In KZN, the clinical education sites were largely urban, institution-based settings within the public sector. There was no practice experience at rural sites, home-based care, or at rural or mobile clinics. With the PHC approach, the physiotherapist's role has expanded from being a clinician to becoming a member of a health care team involved in health promotion, disease prevention, community development and advocacy, contained within the notion of social responsibility. However, in the absence of guiding strategies to support policy shifts post-

1994, physiotherapy curricula have remained relatively static. The significance of the study lies in the value of student and practitioner feedback to inform curriculum and professional development in the light of sociopolitical changes and health care expectations. The gap lies in a conceptual framework to re-align physiotherapy education and practice with the changed philosophy for health care. Post-training difficulties, for example, the administration and management of physiotherapy departments were also identified. In addition, lack of proficiency in an African language and issues relating to cultural diversity influenced cross-cultural interpersonal relations. The challenge for physiotherapy professional development and curriculum restructuring, according to Ramklass (2009:221), lies in developing both technical competence and interpersonal skills. Furthermore, this requires reshaping physiotherapy curricula that positively influence change in students' racial attitudes, their comfort with diversity and beliefs about cultural pluralism, whilst simultaneously producing a critical, competent and caring physiotherapist.

Whilst the KZN physiotherapy curriculum was inconsistent with the requirements of the actual practice in the current health care system Futter, (2003: 13) developed a curriculum module to prepare students at the University of Cape Town (UCT) for community-based physiotherapy rehabilitation. A module on community physiotherapy preceded a four-week placement in an historically disadvantaged community with no access to rehabilitation facilities. Seventy-five students provided severely disabled persons and their caregivers with rehabilitation and education programmes in their homes. The students were provided with two sessions of clinical supervision on a weekly basis. The findings were that the majority of students found the clinical placement a valuable learning experience and suggested that it should be developed into a multi-disciplinary student rotation. The clinical supervisors identified several topics that were essential to include in the community physiotherapy module to assist the students in moving from a medical model to a bio-psychosocial model. With the bio-psychosocial model, people with disabilities and their families are perceived as a functional part of the broader community in the management of patients.

According to Bury (2005:30), focusing on rehabilitation and PHC, community-based rehabilitation (CBR) is one model of service provision advocated by the World Health Organisation. Integrated systems by which PHC could be achieved are community-based health care, by and for the community, encompassing traditional health care combined with basic health services, controlled and financed by the government or private institutions.

PHC should "shift the focus away from a purely biomedical model to one of prevention with consideration of the non-medical determinants of health. However, most surveys reported that their PHC teams were physician – centred with the main focus on curative/ rehabilitative aspects of illness" (Fricke, 2005:11).

An important aspect with regards to physiotherapy education from the World Confederation for Physical Therapy (WCPT) declaration of principle (Bury, 2003:33), is that the curriculum should equip Physiotherapists to practise in a variety of health care settings including, but not limited to, institutional, industrial, occupational and primary health care that encompass urban and rural communities.

The aim of both the studies conducted in UKZN and UCT by Ramklass and Futter, respectively, in 2003, were to identify gaps in the existing undergraduate programme that needed to be addressed in order to prepare students to be competent and confident to practise in community settings during the compulsory year of community service. The researchers found that students were insufficiently aware of social, political, economical, cultural and religious differences influencing the communities and how this impacted on the health of disabled people and their carers. Other gaps related to levels of knowledge concerning the socio-political environment, human rights issues and health behaviours and beliefs. In UCT, changes to the curriculum were done incrementally during the year and also at the beginning of each of two years. These have been in operation for the past five years as health services are increasingly being developed in disadvantaged peri-urban and rural areas. In addition, strategies for dealing with risky behaviour were investigated and implemented, for example, a member of the community accompanies

the students and clinical supervisor on their home visits. Consequently, students rated the experience gained quite high. However, the study in UKZN from an educational perspective identified the gaps in the existing undergraduate programme with the physiotherapy curricula remaining relatively static in alignment with the primary health care approach and emphasis on inter-sectoral collaboration.

4.11 COMMUNITY BASED REHABILITATION (CBR) MODEL

There is a need for a stronger orientation towards rehabilitation in PHC services, balanced with the current emphasis on health promotion and disease prevention (Bury, 2005:29). The provision of physiotherapy services is insufficient in most countries, therefore, service delivery models need to be developed that result in the skills and knowledge of physiotherapists meeting the needs of a higher proportion of people that are in need. This requires a flexible, responsive and innovative approach to developing services that are reflective of local needs, environments and available resources.

According to the World Health Organisation, access to appropriate rehabilitation remains problematical because these services are frequently centred on urban institutions (Bury, 2003:4). Moreover, rehabilitative care is frequently driven by health care professionals rather than people with disabilities, their carers and communities, and, therefore, fails to address priorities and needs from their point of view. Recognising the significant shortfalls worldwide, there has been many calls to increase the number of health care professionals available to provide services, including physiotherapists. Unfortunately, there has been limited progress in maximizing the potential of that which is available for the majority of people in need.

Community-based rehabilitation was defined as "a strategy within community development for the rehabilitation, equalization of opportunities and social inclusion of all children and adults with disabilities. CBR is implemented through the combined efforts of people with disabilities themselves, their families and communities, and the

appropriate health, education, vocational, and social services" (ILO, UNESCO, UNICEF and WHO, 2002).

It was suggested that using whatever definition, CBR is nowhere a completed model that can be fully examined (Miles, 2001:12). In this regard, some 15 years after launching the idea of 'national CBR', Helander admitted that "several decades of work will be needed to identify the appropriate ways of arriving at a system capable to deliver essential services to all those in need" (http://www.independentliving.org). However, the World Confederation for Physical Therapy (WCPT) supports the development of CBR as 'a means of empowering people with disabilities to maximize their physical, mental and social abilities'(Bury, 2003:32, 7). The WCPT recognizes that community change is inevitably necessary to promote and fulfill the human rights of people with disabilities to become active participants of their communities. Furthermore, CBR extends beyond health and encompasses domains such as educational, social, vocational and economic rehabilitation. This comprehensive approach to rehabilitation requires inter-agency, cross-sectoral and multi-professional collaboration at all levels. It is vital for health care professionals to work with local communities and individuals as partners involved in service planning, operation and monitoring. Thus, a **partnership model** in the delivery of PHC services encompasses empowering people with disabilities to be active participants and decision-makers in health care planning, delivery, individual treatment programmes and service evaluation.

What is also required is a needs-based model developed in response to local circumstances, that is, assessing local needs and analyzing resources allocation. This encompasses the health needs such as the type of frequent disabilities, causes and differing levels of severity of the disability and measures already in place to prevent those disabilities. From a cultural context, it is important to assess the situation of the disabled persons and their family, extent of participation (exclusion from social activities/ participation), factors influencing participation, expectations of disabled peoples, carers and community as well as health-seeking beliefs. In addition, the health service provision includes the rehabilitation services, disability prevention and rehabilitation services

needed, government philosophy and health service plans – political, economic and social positions, accessibility of general health services and availability of existing resources (Bury, 2005:44).

Two levels of participation that frequently co-inside were suggested by Fricke (2005:17) that can be used as existing models of physiotherapy in PHC are the traditional biomedical model and the role of physiotherapy in health promotion and prevention in the broader context of PHC which requires more supporting evidence specific to physiotherapy.

Physiotherapists must be equipped to work in both urban and rural settings and have an important contribution to make in CBR (Bury, 2003:32):

- By providing interventions aimed at health promotion, disease prevention, treatment and rehabilitation;
- By educating and transferring skills to other staff, carers and the community to achieve the fulfillment of physiotherapy and patient goals;
- Through consultancy, advice, support and supervision to other health, education and social care personnel;
- As initiators and managers of programmes; and
- As policy advisors to Governments, Non-Governmental Organisations (NGOs) and Disabled People's Organisations (DPOs).

Consequently, the WCPT calls on national governments and NGOs to ensure integration in policy development to support CBR. In addition, equal status must be conferred on those who work in rural communities with those based in urban institutions. Therefore, physiotherapists must be prepared to fulfill these roles through education and continuous professional development (CPD) opportunities. Both CBR and PHC focus on the needs of individuals and the wider population.

The work in Mpumalanga and KwaZulu-Natal by Rule et al. (http://www.hsrcpress.ac.za) illustrates the value of CBR together with the need for consensus – building on the future of CBR within the South African context. There is a need to broaden the understanding of disability. A broader understanding must recognise rehabilitation as an enabling process to promote poverty alleviation, community participation, economic empowerment and development, and survival of people with disabilities. 'Is the concept of independent living relevant in a South African, or indeed any social context? Conflict between the different stakeholders involved in CBR needs to be channeled constructively into developing new knowledge related to effective strategies for implementation, and the training of future service providers'. The Integrated National Disability Strategy (1997) and National Rehabilitation Policy (DOH, 2000) need to develop implementation mechanisms that could contribute to a common understanding of CBR as a strategy in community development to alleviate poverty. Consequently, sustainability of CBR initiatives would be fostered.

A forum of health professionals was held in Brisbane, Queensland, Australia, in August 2003, to discuss the relevance and potential of the CBR model to rural, remote and indigenous communities in Australia (Kuipers and Allen, 2004:1). It was noted that, although considerable strengths were evident in the CBR model, it has not made a significant impact on the service system in Australia. The forum recognized that the Australian context is quite different from many countries in which CBR has traditionally been implemented and suggested that it may have particular application to remote, rural and indigenous communities. To facilitate the principles of CBR in these communities, the forum recognized the need for greater community involvement in disability services, the need to develop appropriate training frameworks, and the need to redirect resources to such community models. In keeping with the CBR philosophy, it was highlighted that if the model is to be implemented effectively, substantial consumer and community involvement must be instrumental in future steps.

The study has explored PHC delivery in KZN with special reference to physiotherapy from a management and administrative perspective including other disciplines that play a vital role in a multi-disciplinary team approach to PHC.

4.12 PRIMARY HEALTH CARE INTER-DISCIPLINARY COLLABORATION

Multidisciplinary and interdisciplinary collaboration, which refers to the team working between different clinical health care professionals form the cornerstone of comprehensive PHC service delivery.

Collaboration was described to include (Hills and Mullett, 2005:287):

- A shared definition and philosophy of health;
- Strong relationships between providers;
- Value placed on the contribution and trust of team members;
- Familiarity with the roles and contributions of each provider concerning the health of the patient;
- Immediate access to other practitioners;
- Opportunities for formal and informal interactions; and
- Peer support.

With "multidisciplinary teamwork, members carry out their assessments and treatments of the patient individually and communicate the outcome of their intervention and recommendations to the other team members. Whilst interdisciplinary teamwork involves members formulating and planning solutions to the patient's needs as a team, treatment goals are set and reviewed jointly. This approach is the preferred model of team activity. Trans-disciplinary teamwork is very important in community rehabilitation in which one discipline is able to take over the tasks of another when the latter is not available" (Fricke, 2005:13).

A qualitative investigation of occupational therapy and physiotherapy practice in a community rehabilitation setting was conducted in order to identify areas of

commonality, difference and overlap (Smith et al., 2003:58). The following were the results of the study:

- Professional tribalism exists and hampers effective team working;
- Service users were frequently unable to identify the differences between the two professional groups;
- Skill sharing, the sharing of common terminology and the blurring of professional boundaries occurred on a daily basis;
- Clinicians and managers felt the underpinning philosophy taught separately to each profession in the pre-registration level was the key factor that differentiated between the two professions; and
- Increased shared learning and joint modules between the professions at as early a stage in pre-registration training as possible was regarded as beneficial (Smith et al., 2003:58).

The potential advantages and disadvantages of introducing inter-professional education into the health care curricula in Spain were evaluated (Mendez et al., 2008:334). It was suggested that there is an emerging body of knowledge in favour to both its feasibility and value as an educational method. Of importance, inter-professional learning has the potential to facilitate positive attitudes towards teamwork and collaboration among health and social care professionals. The development of this change in mind-set may influence behavioural changes resulting in the reduction of fragmented health care, thus leading to improved patient outcomes. Furthermore, inter-professional education should be orientated towards meeting the specific needs of the people for which it is provided. Therefore, the timing, learning methods and length of the initiative should be adapted accordingly. Educators need to identify with the following as a way forward for inter-professional education (Mendez et al., 2008:334):

- Extent to which inter-professional education can influence teamwork and health care outcomes;

- Most suitable educational methods to use when implementing inter-professional education in order to evaluate its impact on learning, professional socialization and patient care;
- Best time to introduce inter-professional education;
- Type of topics that would benefit from being taught using inter-professional approaches;
- Mix of persons who should be involved in inter-professional learning; and
- Type of learning methods most suited to inter-professional education.

The authors of the study added further that if the above are to be adequately addressed, rigorous methods are needed in order to generate the necessary evidence-based body of knowledge on which to build and implement such far reaching educational reforms.

Professional autonomy and jurisdiction, as a major barrier to interdisciplinary collaboration, was cited in Canada (Fricke, 2005:12). Professionals still tended to work in a 'traditional model of disciplinary parallelism' instead of working together towards shared goals, making collective decisions and sharing responsibility as well as tasks. Longevity in clinical practice at community health centres does not necessarily lead to successful interdisciplinary collaboration due to the internal dynamics of the working group, which played a significant role in hindering its success.

According to Grimmer et al. (2000:3-6), successful research into service delivery in physiotherapy involves appropriate classification of presenting problems, risk management, treatment decision-making processes, evidence-based management strategies and their effectiveness, use of measures of outcome that reflect stakeholders' needs and the cost implications of service delivery models. Several consumer groups are considered to be stakeholders in physiotherapy services, namely, direct recipients of care (patients and their families), providers of care (physiotherapists and their employees), researchers and educators, students, funders (patients themselves or third party payers) and indirect beneficiaries of care (referrers, other health service providers, employers, society). Commitment to achieving high quality physiotherapy care requires an

understanding of all the constructs of the physiotherapy package from all physiotherapists. "Clinicians, educators and researchers must work collaboratively to ensure that the profession has an evidence-based platform on which its survival may well depend. Thus it seems imperative that physiotherapy services are underpinned with evidence-based practice that is acceptable to, and reflects the needs of, all stakeholders" (Grimmer et al., 2000:3-6).

The researcher in the current study has observed that in KZN team working between health care professionals during clinical training and practice is either absent or occurs at a minimal level, hence, the motivation for the study. A collaborative interdisciplinary model PHC model including physiotherapy intervention is essential for comprehensive PHC service delivery.

4.13 BARRIERS TO A PRIMARY HEALTH CARE ROLE IN PHYSIOTHERAPY

Physiotherapists in Canada involved in a "focus group and surveys identified the following areas as potential barriers to an increased role of physiotherapy in a PHC setting:

- Funding infrastructure aimed at a hospital setting instead of the community level;
- Resource allocation;
- Professional tradition of working in a biomedical model in acute and rehabilitative care;
- Systems – based model of current entry-to-practice physiotherapy programme at the University of Manitoba;
- Misconceptions of health promotion offered by other health disciplines;
- Prioritization of tertiary prevention in current physiotherapy positions;
- Lack of awareness of physiotherapy scope of practice (public and medical);
- Lack of creativity around current resource allocation;
- Professional focus on treatment skills rather than on the patient; and
- Lack of role clarity in primary care environment" (Fricke, 2005:32).

The author proposed that the above barriers can be addressed with "greater communication between health care planners, researchers, and providers in order to establish the best practice for resource allocation. It was further added that population health necessitates a global perspective on health care delivery and rehabilitation should be no exception" (Fricke, 2005:32).

Consequently, the researcher in the current study was obliged to establish the potential barriers to an increased role of physiotherapy in PHC delivery in the KwaZulu-Natal. Once these barriers are identified, proactive steps/measures can be instituted to enhance the PHC service delivery in the physiotherapy profession.

4.14 PRIMARY HEALTH CARE CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

Continuing Professional Development (CPD) refers to information and knowledge acquisition and maintenance as an integral component as well as recognition that effective professional practitioners must possess a broad range of skills gained from a range of activities to practise successfully. Abilities encompass problem solving, critical reflection, communication and team working (Gunn and Goding, 2009:209).

In South Africa, since 2007, CPD is a compulsory requirement by the Health Professionals Council of South Africa (HPCSA) for all health care professionals to obtain CPD points of which physiotherapists require 30 points yearly in order to engage in clinical practice.

In a qualitative study, Gunn and Goding (2009:209) investigated CPD of physiotherapists based in community primary care settings. The objectives were to provide an insight into individual physiotherapists' experiences of CPD, and to gain an understanding of the challenges of undertaking CPD in a geographically dispersed PHC setting. It was evident that CPD had an effect on clinical practice in this small group of physiotherapists working in community National Health Service settings. Undertaking CPD significantly

improved confidence as well as competence in clinical practice. This enabled individuals to form effective therapeutic relationships with patients and other members of their teams. However, engagement in aspects such as reflective practice and portfolio keeping was generally poor, with participants feeling that they lacked skills in these areas.

In another qualitative study, O'Sullivan (2003:107) explored the barriers to undertaking CPD and considered the possible solutions. The main issue that emerged was that physiotherapists require support from their professional organisation and employers for the integration of CPD with their practice resulting in them becoming independent learners. This support for effective CPD together with the increased awareness and understanding of CPD integration by the physiotherapists is the "key which can unlock the potential of the workforce". CPD has become an integral component among individuals, employers and professional organizations because of the increasing demand for accountability, competitiveness, flexibility and a skilled/competent workforce. The findings of this study can be used to inform policy within the physiotherapy and other health care professions. "The profile of CPD within the government's lifelong learning agendas, and within the health professions, provides opportunities to explore further the support and resources available for this vital area" (O'Sullivan, 2003:119).

Physiotherapists, in the focus group and surveys project, identified the following areas of importance in the training to work in a community setting at a PHC level (Fricke, 2005:34-37):

- Group education and intervention;
- Preparation and implementation of health promotion/disease prevention strategies;
- Community needs assessments;
- Public speaking;
- Leadership development;
- Increased emphasis on preventative medicine;
- Role of physiotherapy in PHC;

- Advocacy; and
- Case management skills.

The author added further that opportunities for education in community health should be made available for both physiotherapy students and physiotherapists in clinical practice in the form of continuing education. It was affirmed that community heath is a key component of PHC strategies, as such, all health care providers must be well acquainted in the potential that a population perspective can offer. Moreover, formal and valid evaluation tools should accompany new programmes. Data that can measure both short- and long-term impact of PHC delivery in physiotherapy should be gathered. Qualitative and quantitative evidence can be used in considering the expansion of service delivery.

According to Futter (2003:13), "Education and training of health professionals involves service to the community and in order for it to be relevant to the health needs of the communities, students should be exposed to these in real-life situations and not within the walls of academic institutions…. It allows students to understand people's lifestyles and living conditions and the social, cultural, economic, political and ecological factors that influence the health of individuals".

In South Africa, especially in KZN, physiotherapists had no or minimal clinical training in PHC service delivery (prior to 2001) before the compulsory community service of all health care graduates in the Faculty of Health Sciences. In this regard, CPD in PHC delivery as in service training will be appropriate and aligned to the health care policy for the effective delivery of health care services of the country. In-service training, as stipulated in the White Paper for the Transformation of the Health System in South Africa (1997:44, 24), is required to orientate working health professionals to new strategies and thereafter, ongoing refresher training is required. In addition, the role of training institutions is to provide appropriate, multi-disciplinary community-problem and outcome-based education programmes in accordance with the National Qualifications Framework (NQF) to support and enhance the PHC approach. Consequently, all health care professionals including physiotherapists have a responsibility to ensure safe and

competent practice; by keeping abreast with the recent developments of the health care system, thus promoting high standards of continuing education, professional development and research.

4.15 SUMMARY AND CONCLUSION

The Chapter highlights the trends in PHC in relation to the physiotherapy profession, both national and international experiences (studies) from developing to developed countries. In addition, it focuses on the impact of PHC on service delivery and the models adopted to address PHC delivery as well as the importance of Continuing Professional Development (CPD). In addition, PHC services encompassing preventative, promotive, rehabilitative and curative services were highlighted in detail. Furthermore, potential barriers to an increased role of physiotherapy in a PHC setting and interdisciplinary collaboration were discussed to compare the researcher's findings in the study with the literature.

Chapter 5 will outline the research design and processes followed in the survey. It will elucidate the methods and techniques used to elicit and analyse data.

CHAPTER 5

RESEARCH DESIGN

5.1 INTRODUCTION

The empirical investigation focuses on primary health care delivery in KwaZulu-Natal with special reference to the physiotherapy profession. The study aims to formulate guidelines for the facilitation/promotion of Primary Health Care (PHC) and make recommendations for PHC promotion in physiotherapy.

The integration of research evidence into practice continues to be a major challenge across the scope of medicine and in the physiotherapy profession despite an overall positive attitude towards evidence-based practice. 'Most physiotherapists continue to base practice decisions largely on anecdotal evidence' although throughout the 1990s and, to date, there has been a shift of emphasis toward the use of research and scientific evidence to guide practice decisions (http://en.wikipedia.org/wiki/Physiotherapy).

The emergence of a democratic government in 1994 in South Africa called for the effective delivery of services to the people in order to enhance their quality of life. According to State President, Zuma, goals have been set for further reducing inequalities in health care provision, to boost human resource capacity, revitalize hospitals and clinics. In addition, the fight against the scourge of HIV and Aids, TB and other diseases needs to be stepped up. Moreover, there is an urgent need to work together in order to promote quality health care, in line with the United Nations Millennium Development Goals to halve poverty by 2014 (Zuma, 2009). In this regard, the challenges of PHC delivery in physiotherapy needs to be identified and explored in order to provide equitable, effective, efficient and economical services, more especially to the people that are most in need, namely, the rural and impoverished urban areas.

Against this background, an empirical study was undertaken in tandem with the literature review, to explore whether students in the Discipline of Physiotherapy are empowered in

promoting PHC during clinical education. The field research explored the nature and extent of PHC delivery in KwaZulu-Natal. It is evident that in the health sector there needs to be an alignment between clinical training and clinical practice in the promotion of PHC. A descriptive exploratory survey design was selected to study the population.

The Faculty of Health Sciences, at the University of KwaZulu-Natal (UKZN), formed the study sample. UKZN is the only tertiary institution in the KwaZulu-Natal province that offers training of health care professionals in physiotherapy, medicine, occupational therapy, optometry and other health care disciplines. The situation varies in the provinces of Gauteng and the Cape, which have three institutions each that offer training in health care. KZN also records the highest population density and is home to 21 per cent of the country's population (DOH, 2005a). Desai (2006:148) suggests that the province provides central level care for 50 per cent of the population of the Eastern Cape.

5.2 RESEARCH APPROACH/METHODS

The provision of comprehensive PHC services in the physiotherapy profession during clinical training in KZN continues to pose major challenges. A need exists to investigate the comprehensiveness of PHC services, also, its efficiency and effectiveness during physiotherapy clinical training. For this reason, it is essential to analyse PHC services in physiotherapy and determine whether they meet the needs of the population. Managers at provincial and district levels (district rehabilitation co-ordinators) from all districts in KZN were purposively selected for interviews because of their involvement in the co-ordination of PHC services.

5.2.1 Survey of Appropriate Literature

This included primary and secondary data surveys.

5.2.1.1 Primary

A qualitative (survey) and quantitative (using a scoring mechanism) research design involving professionals and students in the health sector, especially in physiotherapy training and clinical practice, was undertaken to collect data in the research project. Investigation of obstacles and limitations that impact on the implementation of effective PHC services in physiotherapy is also included.

5.2.1.2 Secondary

A literature survey of sources was conducted whereby historical and current patterns of PHC provision were scrutinized by consulting the latest texts, legislation, minutes, reports and agendas from the allied health departments as well as other available literature. The principles of PHC approach, with regard to the implementation of a district health system, were critically reviewed and analysed so that the researcher could develop an in-depth understanding with regard to PHC services in physiotherapy. In addition, international literature was reviewed, especially in developing countries to include an international perspective on PHC. Based on the literature, conclusions were drawn which serves as a basis for exploring PHC services in physiotherapy in KZN.

5.3 RESEARCH DESIGN

The type of research design used in this study is a survey, which involves asking individuals questions about their opinions, beliefs, attitudes or behaviours with regard to PHC delivery. Wilson et al. (2000:9) assert that individuals are selected to take part in a survey because they share certain characteristics and form some kind of population.

The study is also a case study in KZN, which is an in-depth investigation of a single or small number of units. The unit may be individual people, patients, groups or organisations. Case studies involve the collection of qualitative or quantitative information, or a combination of both qualitative and quantitative data. Evaluation of

service is one of the most common uses of the case-study method, for example, an examination of team building in one or a smaller number of primary health care teams (Wilson et al., 2000:10).

The survey in the case study of KZN included subjects in many disciplines in the Faculty of Health Sciences at UKZN engaged with PHC training and clinical practice. In addition, managers at provincial and district level involved with health care delivery as well as physiotherapists in public hospitals were included. Moreover, some nurses and doctors at PHC clinics and physiotherapists in other provinces were also included.

A combination of both qualitative and quantitative data was collected with the aim of exploring as well as describing the delivery of PHC services in KZN in physiotherapy training and clinical practice.

Cohen et al. (2007:112) suggest that a quantitative piece of research will be able to use analytical and inferential statistics, while a qualitative piece of research will be able to target those groups in institutions or clusters of participants who will be approached to participate in the research. Thus, the researcher adopted this approach in order to achieve both types of analyses and information.

5.4 STUDY POPULATION AND SAMPLING TECHNIQUES

The study population included students and staff from the Faculty of Health Sciences, at UKZN, managers and staff at public sector hospitals, nurses and doctors at some PHC clinics, as well as managers at provincial and district levels.

5.4.1 Faculty of Health Sciences, at UKZN

The Faculty of Health Sciences at UKZN is the only tertiary institution in the KZN province that offers training of health care professionals. The Faculty has nine Disciplines, namely, Physiotherapy, Optometry, Sports Science, Medicine, Nursing,

Occupational Therapy, Speech Therapy and Audiology, Pharmacy, Dental Therapy and Oral Hygiene. In physiotherapy, medicine, occupational therapy, optometry and other health care disciplines, clinical training usually commences in the third year of study and intensifies in the fourth year, which is the final year of study for most disciplines except medicine.

Therefore, the following were the inclusion and exclusion criteria for the student and staff population in the Faculty of Health Sciences, UKZN:

5.4.1.1 Inclusion Criteria

- Students must be involved in clinical training, that is, from third to fourth year of study in all the disciplines except for medicine where fifth year students were included.
- Permission had to be obtained from the Head of Department of the discipline.
- Permission had to be obtained from the Chairperson of the Student Representative Council, especially for medical students' participation.
- Permission had to be obtained from the student or staff member of the discipline.

5.4.1.2 Exclusion Criteria

- All first and second year students in the various health care disciplines at UKZN.
- The disciplines where the Head of Department did not grant permission, namely, speech therapy and audiology as well as nursing where there was no response to the researcher's request for permission to collect data.
- The Discipline of Pharmacy was excluded, as the focus in clinical training is drug prescription, which is not an essential component of physiotherapy.
- The Dental Therapy Discipline was excluded, as dentists do not form part of the rehabilitation team.

5.4.2 Public Sector Hospitals

Clinical training and practice in physiotherapy involves the placement of third as well as fourth year students at clinical sites, namely, hospitals. In this regard, permission had to be sought from the Department of Health and Managers in Physiotherapy Departments for data collection. The hospitals included were the King Edward VIII, King George V, Addington, Clairwood and Wentworth, as these were main clinical sites where students are placed for clinical training and practice.

The following staff members were included at these clinical sites:

- Physiotherapy academic staff (full and part-time) who supervised students; and
- Managers, senior and junior clinical staff members in physiotherapy, occupational therapy and social work.

5.4.3 Primary Health Care Clinics

The Disciplines of Nursing and Medicine are an essential service in PHC settings, that is, clinics and district hospitals. As such, doctors and nursing staff must be included in this research for their invaluable input, experience as well as their expertise in PHC delivery. Hence, the doctors and nursing staff at clinics in the Merebank area (south coast) and Phoenix area (north) were included as part of the research sample as the managers at these two areas responded favourably to the researcher's request to collect data..

5.4.4 Managers at Provincial and District Level

Managers at provincial and district level (district rehabilitation co-ordinators) from all districts in KZN were also included. There were two managers at provincial level and eleven at district level involved primarily with rehabilitation services. The district rehabilitation co-ordinators were from KZN districts (Annexure G), namely, Umgungundlovu (Applebosch, Montebello, Umgeni, Northdale, Hillcrest, Christ the

King, St Appolinaris, Edendale Hospitals); Ugu (St. Andrews, Murchison, Port Shepstone); Uthukela (Emmaus, Church of Scotland and Escourt Hospitals); Umzinyathi (Ekombe, Nkandla, Mbongolwane, Untunjambili Hospitals); Amajuba (Madadeni, Newcastle, Vryheid); Zululand (Thulasizwe, Ceza, Benedictine, Bethesda, Nkonjeni); Umkhanyakude (Mseleni, Manguzi, Mosvold); Uthungulu (Lower Umfolozi, Ngwelezana, Eshowe, Catherine Booth); Ilembe (Umphumulo, Stanger, Osindisweni); Sisonke (Taylor Bequest, EG Usher); Ethekwini (Mahathma Gandhi, King Edward VIII, King George V, Addington, Clairwood, GJ Crookes Albert Luthuli, Prince Mshiyeni, RK Khan Hospitals). Health care professionals, including physiotherapists, are placed for a one-year compulsory community service at these KZN district hospitals upon completion of their four year university degree. In this regard, these eleven district managers that co-ordinate rehabilitation services, together with the two provincial managers for the KZN province, were purposively selected.

Wilson et al. (2000:15) affirmed that in purposive sampling subjects are selected because they have certain characteristics, for example, key stakeholders in an organisation. Cohen et al. (2007:115) also emphasise that purposive sampling enables the researcher to acquire in-depth information from those people with knowledge by virtue of their professional role, power, access, to networks, expertise or experience.

5.4.5 Population sample Outside the University of KwaZulu-Natal

Provinces that provide physiotherapy training, namely, Gauteng, (University of the Witwatersrand, Limpopo and Pretoria); Cape, (University of Western Cape, Stellenbosh and Cape Town) and Bloemfontein were also included in order to acquire input from the provinces for this research study.

Wilson et al. (2000:15) postulated that stratified sampling is used when the population contains subgroups and it is necessary to ensure that representatives of all groups are included, for example, nurses employed on different professional grades. Randomisation within each subgroup can be applied.

Cohen et al. (2007:111) also reiterated that stratified sampling involves dividing the population into homogenous groups, each group containing subjects with similar characteristics.

Stratified sampling was used to select health care staff from a range of professions that complied with the above set criteria, and were willing to participate in the study. The sample included various strata or subgroups, for example, students and managers or staff from various disciplines in the health sector, namely, Physiotherapy, Nursing, Medicine, Social Work.

For the purpose of this research, the sample was selected from two groups, namely:

- Group 1- *students* from the University of KwaZulu-Natal, that is, the third and fourth year physiotherapy students registered for the Bachelors degree in Physiotherapy. In addition, some students in other disciplines in the College of Health Sciences, such as the Departments of Occupational Therapy, Medicine, Optometry were also included.

- Group 2- *staff,* namely, physiotherapy lecturers /clinical staff/ supervisors. All levels of physiotherapy staff in the health sector employed in Physiotherapy Departments at KZN provincial hospitals or other institutions, for example, Schools for the Disabled that are involved in the clinical training of physiotherapy students. Part-time and full time lecturers /clinical supervisors that offer a service to the above mentioned patients and students. Staff in other Disciplines in the College of Health Sciences, University of KZN in the Departments of *inter alia* Nursing, Medicine, Optometry and Managers or staff at provincial and local level were also included. The Heads of Department/ staff in physiotherapy in some of the other provinces involved with clinical training in the Republic of South Africa were also consulted.

5.4.6 Sample Size

The sample size was determined by the population of therapists/ students involved with clinical training. The staff numbers per discipline ranged from 5 to 10, therefore, the staff sample size will be relatively small due to the staff student ratio being 1:8 or 10 (Nadasan et al., 2001). The approximate total student and staff population in the year 2008 for the various disciplines were as follows:

- 60 third and fourth year Physiotherapy students; 7 full-time staff members;
- 21 fourth year Occupational Therapy students and 5 full-time staff members; and
- 25 fourth year Optometry students and 8 full-time staff members.

The ten physiotherapy students that participated in the pilot study were excluded from the main sample. Consequently, approximately 100 students from the various disciplines, and 25 staff members formed the initial sample size. The Higher Degrees Committee at UKZN supported this as the research design was also qualitative, and large numbers would be difficult to analyse.

The researcher also adopted sequential sampling where the size of the sample was not pre-set. Wilson et al. (2000:15) emphasised that the researcher collects data from each subject in turn until he/she is satisfied that there is no new information for collection, that is, the topic is saturated. This is used predominantly in qualitative research, where, for example, in setting up a new service, potential users are asked what they need until no new ideas emerge. Maree (2007:81-82) asserted that most qualitative studies do not treat data collection and data analysis as two separate processes, but view them as an ongoing, cyclical and iterative (non-linear) process. The reason for this is that most qualitative studies are guided by the criterion of saturation of data (the point where no new ideas and insights are brought to the fore).

Cohen et al. (2007:105) suggested that determining the size of the sample will also have to take account *non-response, attrition and respondent mortality, that is, some*

participants will fail to return questionnaires, leave the research, return incomplete or spoiled questionnaires (for example, missing out items, putting two ticks in a row of choices instead of one). For this reason, the researcher overestimated the size of the sample required, to build in redundancy.

Further, Cohen et al. (2007:105) adds that with qualitative and quantitative data, the essential requirement is that the sample is representative of the population from which it is drawn.

Since primary health care delivery posed major challenges for the Physiotherapy Department at UKZN, the researcher had an open mind to the emergence of new ideas. The researcher maximised the response rate by distributing 250 questionnaires as well as took cognisance of the above on sample size. The return rate for the main sample size is indicated below.

Table 4: Main Sample Size

Main Sample	**Numbers**
1) Students	
• Occupational Therapy	**21 = 100%**
• Optometry	**25 = 100%**
• Physiotherapy	**39 = 82 %**
• Medicine	**18**
Total number of students	**103**
2) Staff	
• Managers	**22**
• Physiotherapists – academic	**8**
• Physiotherapists - at hospitals (King Edward VIII, King George V, Wentworth, Clairwood Hospitals)	**21**
• PHC Nurses	**13**
• Optometrists	**4**
• Doctors	**2**
• Other Staff - Social Workers	**3**
• Occupational Therapists	**2**
• Physiotherapists – in other provinces	**7**
Total Number of Staff	**82**
Total Sample	**185**

5.5 DURATION OF THE RESEARCH

The study was conducted in the period from June 2008 to December 2008.

NB: This was revised pending delays in administrative processing of proposal and ethical clearance.

5.6 INSTRUMENTATION FOR DATA COLLECTION

Pillay (2000:331) acknowledged that a survey is conducted to answer certain questions, test certain hypothesis or serve an exploratory study. It is also essentially a method of obtaining information from a group of respondents by means of direct contact, namely, either through personal interview, telephone interview or self-administered questionnaires.

The researcher's instrument for the study included both the personal, telephonic interview, and self-administered questionnaires.

Cohen et al. (2007:158) affirmed that the advantage of the questionnaire over interviews is that it tends to be more reliable because it is anonymous and it encourages greater honesty (though dishonesty might not be able to be discovered sometimes). Moreover, it is more economical than the interview in terms of time and money; and there is the possibility that it can be mailed.

5.6.1 Ethical Issues: Questionnaire Use

Ethical issues involving questionnaire respondents must be taken into consideration. In this regard, Cohen et al. (2007:318) suggested that the following factors affect every stage on the use of a questionnaire:

- Informed consent;

- Right to withdraw at any stage or not to complete particular items in the questionnaire;
- The potential of the research to improve the situation (the issue of beneficence);
- The guarantees that the research will not harm the respondents (the issue of non-maleficence);
- The guarantees of confidentiality, anonymity and non-traceability in the research;
- The degree of threat or sensitivity of the questions, which may lead to respondents' over-reporting or under-reporting;
- Factors in the questionnaire itself (for example, its coverage of issues, its ability to catch what respondents want to say rather than to promote the researcher's agenda), that is, the avoidance of bias and the assurance of validity and reliability in the questionnaire – the issues of methodological rigour and fairness; and
- The reactions of the respondent, for example, respondents will react if they consider an item offensive, intrusive, misleading, biased, misguided, irritating, inconsiderate, impertinent or abstruse (difficult to understand; profound).

In addition, Cohen et al. (2007:318) suggested that attention has to be given to the questionnaire itself, the approaches that are made to the respondents, the explanation given to the respondents, the data analysis and the data reporting.

The researcher incorporated all of the above factors by carrying out pre-pilot and pilot studies before the main questionnaire was distributed. These ethical issues also formed part of the ethical clearance procedures at UKZN, for example, the respondent's informed consent, their right to withdraw from the study, and the guarantees of confidentiality.

5.6.2 Telephonic and Personal Interviews

The researcher conducted interviews, both telephonic and personal, with the Heads of Departments in Physiotherapy, and other disciplines in the health sector involved with clinical training of students in KZN, and clinical practice at provincial and local levels (Annexure A). The interviews with managers or staff at provincial and local levels were

structured in order to gain in-depth information on PHC at the provincial and local levels (Annexure B). The interview was structured highlighting the purpose and objectives. Key questions were formulated in order to achieve these objectives. Heads of Department/ staff in physiotherapy, in some of the other provinces in the Republic of South Africa, were also consulted. However, all staff and managers preferred responding electronically, by email, due to time constraints.

5.6.3 Baseline Survey Questionnaires

Validated baseline survey questionnaires, including demographic detail on, *inter alia,* gender, race, age, and home language, were self-administered, to collect data from the Heads of Department in the health sector in physiotherapy, and other disciplines; the junior and senior staff as well as the part-time lecturers/ clinical supervisors. The Heads of Department/ staff in physiotherapy in some of the provinces in the Republic of South Africa were also included (Annexure A).

The self-administered baseline survey questionnaires, including demographic detail, were also used to collect data from the following people:

- The third and fourth year (physiotherapy) students that offer a service to patients during their clinical training (Annexure A); and

- Students in the Faculty of Health Sciences, namely, in the Departments of Optometry, Medicine, Occupational Therapy (Annexure A).

All information was strictly confidential and staff, as well as students, were not required to include their names (Annexure C).

Managers or staff at the provincial and local levels that could not be interviewed were sent the questionnaires electronically (Annexure B).

5.7 PROCEDURES

Approval or consent for conducting the research project at KZN provincial hospitals and other institutions were obtained from the following:

- Ethical Research Committee of UKZN for ethical clearance;
- The KZN Department of Health (Annexure E);
- Heads of Departments in the health sector in KZN provincial hospitals and other institutions involved with physiotherapy clinical training (Annexure D);
- Heads of Departments and students in other disciplines in the Faculty of Health Sciences, University of KZN, such as, the Departments of Optometry, Occupational Therapy, Medicine (Annexure F);
- The Heads of Department/ staff in physiotherapy in KZN and in other provinces in the Republic of South Africa (Annexure D); and
- 3rd and 4th year physiotherapy students at UKZN.

In addition, the researcher observed the departments, wards and other hospital surroundings. A retrospective record review was conducted at each clinical site in order to assess/analyse the involvement of PHC.

5.8 PRE-PILOTING THE QUESTIONNAIRE

Williams (2003:245) affirmed that questionnaires are used in a wide range of settings to gather information about the opinions and behaviour of individuals. The validity as well as the reliability of the measurement tool, that is, the questionnaire, needs to be rigorously tested to ensure that the data collected is meaningful. The design as well as the

method of administration of a questionnaire will also influence the response rate that is achieved and the quality of data that is collected. It is essential to pre-pilot the questionnaire to identify any ambiguities in the questions and to identify the range of possible responses for each question.

Consequently, the researcher conducted pre-pilot studies with friends and colleagues informally in order to gather information as well as explore the questions together to identify potential problems. After each session, the questionnaire was amended before re-piloting with another group of testers. Williams (2003:250) emphasized that this process should instill confidence in the researcher that the questions are unambiguous, appropriate and acceptable to the respondents. It also tests the layout of the questionnaire at this stage to ensure that people can navigate their way through the questionnaire.

5.9 DESIGN OF THE QUESTIONNAIRES

The questionnaire that was developed was used to collect the primary data from the respondents for the study. The aims of the study was borne in mind relevant to the stated objectives of the investigation (refer to chapter one) in designing the questionnaire. The construction and design of the questionnaire involved pre-pilot studies as well as pilot studies. These took the form of several drafts, which entailed a fair amount of time for refinement until the final research instrument was formulated.

According to Van der Waldt et al. (2002), two types of questions in questionnaires can be differentiated:

1. Open-ended: No options are provided for the respondent to answer the question. Respondents must think of their own response and describe it in their own words. If respondents have and take the time to reflect on answers to the question, the researcher can get more meaningful information than from closed questions.

2. Closed: The respondents are given a set of alternatives from which he/she can choose to answer the question.

The questionnaire comprised structured questions (closed questions) using the following kinds of question and response modes. In addition, the researcher also chose the scale of data to be adopted.

Table 5: Question Type and Scale of Data

Question Type	**Level of Data**
Dichotomous questions	Nominal (Yes/No)
Rating scales	Ordinal
Open-ended questions	Word-based data

Scales of data concerns numerical data. Cohen et al. (2007:322) affirmed that nominal data indicate categories and ordinal data indicate order ('high' to 'low', 'strongly disagree' to 'strongly agree'). Dichotomous questions are useful, for it compels respondents to come off the fence on an issue. It provides a clear, unequivocal response and is possible to code responses quickly, there being only two categories of response. These can take several forms and require 'yes'/ 'no' response. In addition to these, the researcher asked for information about dichotomous variables, for example, gender (male/female). In these cases, only one or two responses can be selected and this enables nominal data to be gathered.

According to Cohen et al. (2007:331), 'the space provided for an open-ended response is a window of opportunity for the respondent to shed light on an issue or course. Thus, an open-ended questionnaire has much to recommend it'.

Open-ended questions gave the respondents an opportunity to make broad comments on the aspects of primary health care delivery and physiotherapy.

Structured questions also used rating scales, for example, the Likert scale. Cohen et al. (2007:328, 331) reiterated that rating scales are useful for tapping attitudes, perceptions and opinions. Matrix questions are not types of questions but concern the layout of questions, which helps to save space. It enables the same kind of response to be given to several questions, for example, 'strongly disagree' to 'strongly agree'.

Option type questions were included, where the respondents were allowed to add a criterion or response of their own to the list provided.

Checklists requesting the respondents to rate the responses in terms of the criteria given in accordance with importance were also included.

Cohen et al. (2007:328, 342) postulated a range of practical implications for designing a questionnaire, and the main points can be highlighted as:

- Operationalize the purposes of the questionnaire carefully;
- Be prepared to have a pre-pilot to generate items for a pilot questionnaire, and then be ready to modify the pilot questionnaire for the final version;
- If the pilot includes many items and the intention is to reduce the number of items through statistical analysis or feedback, then be prepared to have a second round of piloting, after the first pilot has been modified;
- Decide on the most appropriate type of question, for example, dichotomous, multiple choice, closed, open;
- Ensure that every issue has been explored exhaustively and comprehensively; decide on the content and explore it in depth;
- Use several items to measure a specific attribute, concept or issue;
- Ensure that the data acquired will answer the research questions;
- Ask more closed than open questions for ease of analysis;
- Balance comprehensiveness and exhaustive coverage of issues with the demotivating factor of having respondents complete several pages of a questionnaire;

- Be simple, clear and brief, wherever possible;
- Ensure a balance of questions that ask for facts and opinions (especially if statistical correlations and cross-tabulations are required);
- Do not assume that respondents know the answers, or have information to answer the questions, or will always tell the truth. Therefore, include 'don't know', or 'not applicable' categories;
- Balance the number of negative questions with the number of positive questions;
- Consider the readability levels of the questionnaire and the reading and writing abilities of the respondents;
- Be clear on the layout of the questionnaire so that it is unambiguous and attractive;
- Ensure that the respondent knows how to enter a reply to each question, for example, by circling, ticking; provide the instructions for introducing, completing and returning the questionnaire;
- With the data analysis in mind, plan so that the appropriate scales and kinds of data are used;
- Be satisfied if you receive a 50 per cent response to the questionnaire; decide what you will do with missing data and why the questionnaires have not been completed and returned; and
- Include a covering explanation, thanking the potential respondent for anticipated cooperation, indicating the purposes of the research, how anonymity and confidentiality will be addressed, who you are and what position you hold, and who will be party to the final report.

In summary, the key issue that permeates this lengthy list is for the researcher to pay considerable attention to respondents, to view the questionnaire as they would and envisage how they will regard it. Pillay (2000:339) also acknowledged some of these key elements for a sound questionnaire design.

The researcher took cognizance of the above-listed range of practical implications when the questionnaires were designed with close supervision and guidance from a biostatistician.

5.10 PILOTING THE QUESTIONNAIRE

Before any questionnaire is delivered, it should be "piloted" (i.e. tested) to check that it is going to function effectively. It is important to pilot a questionnaire for the following reasons (http://www.tardis.ed.ac.uk):

- To test how long it takes to complete;
- To check that the questions are not ambiguous;
- To check that the instructions are clear; and
- To allow an elimination of questions that do not yield usable data.

Boynton (2004:1372-1375) also highlighted the above, and adds that piloting is essential to check if the questionnaire works in the study group. Furthermore, it identifies administrative as well as analytical problems. It was also affirmed that taking detailed notes on how participants react to both the general format of the instrument and the specific questions is important during piloting. Piloting will provide a guide for rephrasing questions to invite a richer and detailed response. The author suggested that it was better to collect fewer questionnaires with good quality responses than high numbers of questionnaires that are inaccurate or incomplete.

Ideally, it should be piloted on a group similar to the one that will form the population of the study. It is difficult to give an exact number for the pilot group, but as a rule of thumb, pilot on about 5-10% of the final sample number. The results from the pilot study, however, should not be included in the final results, (http://www.tardis.ed.ac.uk).

In this regard, a trial run was conducted to test the interview schedule/ questionnaire on staff/ students and determine the study feasibility. Since the initial projected sample size

was 125 subjects, a pilot study was conducted on ten students in order to validate the questionnaire. This represented 8 per cent of the projected sample size.

On completion of the pilot questionnaire, respondents were asked to answer the following questions in writing:

1. How long did it take to complete?
2. Were the instructions clear?
3. Were any questions unclear or ambiguous?
4. Did you object to answering any questions?
5. Was the layout clear and attractive?
6. Any other comments?

If respondents omitted certain questions, the researcher should be able to find out why. This was conducted by a focus group interview with the researcher and all the participants of the pilot study. In addition, the written responses to the above six questions of the pilot study was also discussed and the researcher made written notes of the views of all the participants so that the questionnaire could be corrected/ amended accordingly. Four individual unstructured interviews were also conducted with the following staff members:

- A senior member of staff;
- An internationally trained physiotherapist;
- A physiotherapy lecturer from Pretoria University that had clinical and lecturing experience in the Gauteng province; and
- A staff member that was trained at the University of Cape Town and worked in the Gauteng province for a number of years.

The interviewees made written notes on the pilot questionnaire before the unstructured interview with the researcher. The interview duration was one to two hours to enable the

researcher in recording all the discussions in writing. The questionnaire was amended accordingly with the assistance of the interviewees.

Williams (2003:246) emphasized that qualitative methods, including focus groups and unstructured interviews, are increasingly being used to identify issues of importance to patients as a first stage in questionnaire studies. Purposive sampling technique was chosen because a range of possible views can be identified. Focus group meetings are a useful way of identifying issues because the views of a range of subjects can be examined at the same time. Furthermore, interaction between participants can lead to new issues being identified. The data collection process and covering letters to participants were also piloted.

5.11 DESIGNING A CODING SCHEME

Boynton (2004:1372-1375) suggested that all researchers should be taught how to enter, clean, code and back up the data. In addition, the system for doing this should be universally agreed and understood. Data entry and coding must be included in any pilot study to get an estimate of the time required as well as the potential problems to troubleshoot.

In a similar perspective, Williams (2003:251) defined coding as 'the process of converting questionnaire data into meaningful categories to facilitate analysis'. The coding scheme must be thought about at the beginning of the study and, wherever possible, built into the questionnaire, for example, by numbering the response tick boxes for each question. This allows entering of data directly from the questionnaire into the database for analysis. It is prudent to discuss the coding scheme for the questionnaire with a statistician at this stage in order to rectify any mistakes.

Moreover, to avoid biasing the data of the pilot study, the researcher consulted with an independent biostatistician from the Medical Research Council (MRC) with the questionnaires from the pilot study. The biostatistician assisted the researcher with the

coding of the answers, the preparation of the data spread sheet on the Statistical Package for Social Sciences programme, and the capturing of the data for the pilot study. In addition, to maintain scientific objectivity, data analysis to test validity, reliability, and acceptability of the pilot study was also conducted.

The testing of a questionnaire can be a very time-consuming process and this stage of questionnaire design has often been overlooked when researchers are eager to start collecting the data. However, this then casts doubt over the robustness of the data that are collected (Williams, 2003:250 and Boynton, 2004:1372).

5.12 TESTING VALIDITY

A questionnaire can be said to be 'valid' if it examines the full scope of the research question in a balanced way, i.e. it measures what it aims to measure. There are several aspects of validity that need to be tested. Criterion validity 'is assessed by comparing a new measure with an existing 'gold standard' scale. If such a scale exists, however, one would question the need to develop a new questionnaire' (Williams, 2003:250).

In this study, however, there was no existing 'gold standard' scale as it was a pioneer study in KZN on PHC delivery with special reference to physiotherapy. Hence, the researcher was obliged to develop a new questionnaire.

According to Wilson et al. (2000:166), internal validity "relates to the validity of the study itself, including both the design and the instruments used". In this regard, the researcher presented the research proposal several times before approval and ethical clearance, that is, to the staff members in the Department of Public Administration, the School Board and the Higher Degrees Committee at UKZN.

'The factual validity of a questionnaire can be assessed by comparing responses about clinical events with information recorded from the clinical notes. The face validity of a questionnaire can be examined by interviewing people, either face-to-face or over the

telephone, after they have completed the questionnaire to find out whether the responses they have given in the questionnaire agree with the real options. When testing face validity, it is important to word the questions in the interview differently from those in the questionnaire otherwise all you will be testing is the reliability of your questions' (Williams, 2003:250).

Wilson et al. (2000:162) defined content validity as "a set of operations or measures that together operationalise all aspects of a concept".

According to Cohen et al. (2007:137,158), in order to demonstrate content validity, the instrument must show that it fairly and comprehensively covers the domain or items that it purports to cover. Furthermore, there is a need to pilot questionnaires and refine their contents, wording and length as appropriate for the sample being targeted.

In tandem with content validity is instrument validity, which is "the extent to which the instrument or indicator measures what it purports to measure" (Wilson et al., 2000:165).

Construct validity, as suggested by Maree (2007:217), is needed for standardization and has to do with how well the construct/s covered by the instrument is/are measured by different groups of related items. Wilson et al. (2000:162) defined construct validity as "the extent to which the measurement corresponds to the theoretical concepts (constructs) concerning the object of the study".

In this regard, the researcher engaged in intensive pre-pilot and pilot studies, as discussed above, which included individual face-to-face interviews and focus-group interviews discussing the respondents' written comments after completion of the pilot questionnaires. Furthermore, the questionnaire was assessed by comparing responses about clinical events on PHC delivery with information recorded in the physiotherapy clinical record books.

Wilson et al. (2000:165) emphasized that a study could have instrument validity but still lack validity overall due to lack of external validity. External validity is defined by Wilson et al. (2000:164) as, "it relates to the extent to which the findings from a study can be generalized (from the sample) to a wider population (and be claimed to be representative".

The sample in the study included all the physiotherapy students and staff involved with clinical training and practice. Moreover, students and staff in the Disciplines of Medicine, Occupational Therapy, Optometry and Nursing were also included. In addition, health sector managers at provincial and local levels as well as social workers and physiotherapy staff from other provinces were included. The broad sample enables the researcher to generalize findings from the study to a wider population.

5.13 TESTING RELIABILITY

Maree (2007:215) and Williams (2003:250-251) defined reliability 'as an assessment of the reducibility and consistency of an instrument'. For self-complete questionnaires, two aspects of reliability should be examined. The researcher can assess test-retest reliability by asking people to complete the questionnaire on two separate occasions approximately two to three weeks apart, assuming that their circumstances will not have changed in the interim. The researcher can determine the internal consistency of the questionnaire by asking a question or questions in more than one way during the questionnaire. The responses given can then be compared as before.

As such, the researcher assessed test-retest reliability by asking respondents to complete the questionnaire on two separate occasions approximately two weeks apart during the pilot studies. Internal consistency was also taken into account by asking questions in more than one way, that is, both qualitatively and quantitatively. In this regard, a brief summary of the pilot studies is included here-under.

5.14 TESTING ACCEPTABILITY

According to Williams (2003:251), 'qualitative methods can be used to access the acceptability of a questionnaire'. The researcher can either ask the subjects included in the pilot study to write their comments about the questionnaire on a separate sheet or ask them over the telephone how they found answering the questionnaire during the validity test. It is also a good idea to ask subjects in the pilot study how long it took them to complete the questionnaire. The researcher can then include this information in the cover letter that is used to accompany the questionnaire in the main survey.

The researcher tested acceptability in the pilot studies by requesting the respondents to write their comments about the questionnaire on a separate sheet and discussing these comments at a focus group interview. Moreover, respondents were asked how long it took them to complete the questionnaire and this information was included in the main survey.

5.15 SUMMARY OF QUANTITATIVE ANALYSIS OF THE PILOT STUDY

The pilot study revealed that there were inconsistencies in respondent responses with some of the questions. Inconsistency means different responses to the same questions at different occasions/attempts or a response at one occasion and a missing response at another occasion.

Question 7 and 12: one respondent indicated on the first occasion/attempt, that PHC training was not received and that there was no clinical empowerment for the future with regards to PHC. However, on the second occasion, the individual indicated a "yes" to PHC training and future PHC empowerment. This was possibly due the fact that the respondent could have joined PHC training after the first attempt, hence, the different response on the second attempt to the questionnaire.

Questions 15 to 19: revealed inconsistencies among the subjects for the first and second responses especially for the choice between "fair and good". This is highly possible because these questions require the respondents to perceive their knowledge, skills and experience in PHC. (Perceptual)

Questions 20a to 20f: revealed inconsistencies for the first and second responses for some of the subjects. This was discussed at a focus group discussion and the possible explanation or main reason was the lack of understanding of the PHC terminology. Therefore, the questionnaire was revised defining the terms.

The pilot study also revealed that more precision was required in the questionnaire design. For example, some questions with multiple/many possible responses have to be split into different sub-questions each with 'yes' and 'no' responses. These questions are question 21-23 in Section C, for example, "Factors that encourage PHC engagement".

Questions 24 to 63 required respondents to be exposed to PHC and most subjects indicated that they did not remember being exposed to the community or PHC training, hence, the inconsistencies in the first and second responses. These sections were on PHC Compliance/ Delivery and an integrated approach to PHC delivery at a clinic level.

Few students indicated that they were rushing on their second attempt to fill the questionnaire in order to assist at a sports event. Therefore, to avoid bias, the researcher needs to secure a suitable time with the respondents to administer the questionnaires.

5.16 QUALITATIVE ANALYSIS OF PILOT THE STUDY

Content analysis was chosen whereby the answers to questions were grouped together to identify common responses or themes. Similar responses to improve PHC delivery included better accessibility; PHC must be compulsory and better collaboration with other disciplines is necessary.

Answers to question 8.2 on whether the Physiotherapy Department at UKZN is addressing the PHC needs of the people in rural areas were also similar, for example:

- "The department was doing something in terms of addressing the needs of the people until they removed the community module in level 1. For our community blocks we do not go to rural areas;
- One semester course and 4 weeks clinical block is not enough to empower the students while they are also bombarded with more work from other courses which seemed to be given more attention;
- The department is not addressing the needs of rural people instead they only know about the needs of the community (needs analysis) but they do not go back to the community to give feedback and deliver programmes for them;
- The length of the time for the course is not enough to gather full knowledge and confidence;
- **Subject 5a-** our clinical blocks are not in rural areas. **5b-** our clinical blocks are in urban areas;
- **Subject 6a-** students attend clinicals at 3rd year level 4 days a week, with a clinical supervisor from the university. **6b-** we attend clinicals 4 days a week;
- **Subject 7a-** we do not go to rural areas in our clinical practice in training to become physiotherapists. I think more time should be allocated to rural areas. **7b-** we have not adequately assisted people in rural areas;
- **Subject 8a-** do not go to clinical areas in the rural areas and we are not exposed to it and we do not know. **8b-** many reasons why they are not being utilized and needs are not being met- PHC is inaccessible, time, mode of transport, expensive to get transport; and
- **Subject 9a-** I have not seen any assistance or aid catering to the needs of the people in the rural areas. **Subject 9b-** I have not seen any means of addressing the needs of the rural areas".

Subject responses a and b above, refer to two separate responses at two different occasions to the same questions by the same individual. From the above qualitative

analysis, it can be summarised that the qualitative questions were clear and the responses were consistent/ similar when the same participants answered the same questionnaire at two separate occasions for the pilot study. The responses were also similar for the other qualitative questions.

In addition, the biostatistician included frequency distribution of demographic data (for example, race, age, gender) as well as descriptive analysis of the pilot study such as means, t-tests and paired t-tests.

5.17 MAXIMISING THE RESPONSE RATE OF QUESTIONNAIRES

According to Boynton (2004:1372-1375), it was better to collect fewer questionnaires with good quality responses than high numbers of questionnaires that are inaccurate or incomplete. However, the following factors were shown to increase response rates:

- The questionnaire is clearly designed and has a simple layout;
- It offers participants incentives or prizes in return for completion;
- It has been thoroughly piloted and tested;
- Participants are notified about the study in advance with a personalized invitation;
- The aims of the study and means of completing the questionnaire are clearly explained;
- A researcher is available to answer questions and collect the completed questionnaire;
- If using a postal questionnaire, a stamped addressed envelope is included;
- The participant feels that he/she is a stakeholder in the study;
- Questions are phrased in a way that holds the participant's attention;
- Questionnaire has clear focus and purpose and is kept concise;
- The questionnaire is appealing to look at, as is the researcher; and
- If appropriate, the questionnaire is delivered electronically.

Cohen et al. (2007:223) also agree with the above ways of increasing the response rate of questionnaires.

The researcher took cognizance of the above factors to maximize the response rate and applied them after the pilot study when the final questionnaires were used for data collection.

5.18 DESCRIPTION OF THE QUESTIONNAIRES

The instrument used for this survey consisted of pre-coded questionnaires, which were carefully constructed, pre-piloted and piloted to facilitate maximum responses as well as simultaneously obtain more detailed information.

5.18.1 Questionnaire One/Interview: Staff and Students (see Annexure A)

This questionnaire for all staff and students in the Faculty of Health Sciences comprised of the following five sections:

- *Section A: Demographic data*

  It was necessary to analyze the demographic profile of the staff and students in order to discuss aspects of PHC delivery in KZN with special reference to the physiotherapy profession.

- *Section B: Professional experience, for example, general, PHC experience and policy issues*

  This section included closed-and open-ended questions with the aims of eliciting the respondents' understanding of PHC (knowledge, principles, strategies for implementation), the policy that governs PHC as well as the professional experience, both general and PHC experience.

- *Section C: Factors that may encourage or discourage PHC engagement.*

The purpose of this section was to identify factors that may encourage or discourage the respondents to engage in PHC.

- *Section D: PHC clinical training/ delivery*

Closed-ended questions were included so that respondents could rate the delivery and clinical training in PHC.

- *Section E: An integrated approach to PHC delivery at a clinic level.*

This section aimed to examine the integrated approach to PHC delivery, which involves teamwork, training and intensive collaboration. It comprised of closed-and open-ended questions.

5.18.2 Questionnaire Two/Interview: Staff and Managers at Provincial and Local Government (see Annexure B)

The questionnaire for staff and managers at provincial and local government comprised of the following two sections:

- *Section A: Collaboration with other health professionals involved in PHC delivery*

This section included closed-and open-ended questions, which aimed at exploring the extent of collaboration in PHC delivery, especially at a managerial level.

- *Section B: Community involvement*

The purpose of this section was to establish the extent of community involvement and the delivery of a comprehensive PHC service.

5.19 RECORDING

The data collection sheets (Annexure A and B) were used for recording purposes of all data obtained from all levels of staff (full-time and part-time) in the health sector and

(physiotherapy) students. In addition, the researcher recorded all information in writing during the telephonic and personal interviews with the Head of Department of Physiotherapy and other disciplines. Observations by the researcher during the visits at KZN Provincial Hospitals were also noted. The data was analysed both qualitatively (using content analysis) and quantitatively (using a scoring mechanism).

5.20 DATA ANALYSIS AND INTERPRETATION (SYNTHESIS)

Ultimately, all fieldwork culminates in the analysis and interpretation of some set of data, be it quantitative survey data or experimental recordings. Mouton (2001:108) affirmed that analysis involves 'breaking up' the data into manageable themes, patterns, trends and relationships. The aim of analysis is to understand the various constitutive elements of the data through an inspection of the relationships between concepts, constructs or variables. In addition, it involves establishing whether there are any patterns or trends that can be identified or isolated, or to establish themes in the data. According to Mouton (2001:109), 'interpretation involves the synthesis of one's data into larger coherent wholes. It means relating one's results and findings to existing theoretical frameworks or models, and showing whether these are supported or falsified by the new interpretation'.

Statistics has been used in order to provide empirical evidence to support or refute theories. Data was analysed using both descriptive and inferential statistics.

5.20.1 Descriptive Statistics

Descriptive statistics describe and present data, which include the following:

- The mode (the score obtained by the greatest number of people);
- The mean (the average score);
- The median (the score obtained by the middle person in a ranked group of people, that is, it has an equal number of scores above it and below it);
- Minimum and maximum scores;

- The range (the distance between the highest and the lowest scores);
- The variance (a measure of how far scores are from the mean, calculated as the average of the squared deviations of individual scores from the mean);
- The standard deviation (SD: a measure of the dispersal or range of scores, calculated as the square root of the variance);
- The standard error (SE: the standard deviation of sample means);
- The skewness (how far the data are asymmetrical in relation to a 'normal' curve of distribution; and
- Kurtosis (how steep or flat is the shape of a graph or distribution of data; a measure of how peaked a distribution is and how steep is the slope or spread of data around the peak) (Cohen et al., 2007:503-504).

The above statistics make no inferences or predictions; they simply report what has been found, in a variety of ways. Descriptive data are presented by frequencies and percentages and forms of graphical presentation, for example, frequency and percentage tables, bar charts, line graphs, pie charts, box plots etc.

5.20.2 Inferential Statistics

Inferential statistics, on the other hand, strive to make inferences and predictions based on the data gathered. These will include, for example, hypothesis testing, correlations, difference testing (t-tests and analysis of variance, factor analysis) (Cohen et al., 2007:504).

Bivariate analyses: use simple-cross tabulations to identify trends and examine possible associations between one variable and another.

Multivariate analysis/regression analysis techniques can then be used to test the effect of one variable on an outcome, whilst controlling for another.

5.20.2.1 Analysis of Means - The t-test

Maree (2007:225) affirmed that this technique is used under the following circumstances:

- When two independent groups need to be compared based on their average score on a quantitative variable, for example, average IQ of males and females;
- When the average scores on two quantitative variables need to be compared in a single sample, for example, pre-test and post-test in the experimental group; and
- When the average of a quantitative variable needs to be compared with a specified constant value in a single sample, for example, comparing the average IQ of mathematics higher grade learners to a specified value of 120.

There are three values calculated and displayed with every t-test that are usually reported by researchers. These values are the test statistic (t-value), the degrees of freedom (n-1 one sample cases and n-2 in two sample cases) and the p-value ($p < 0.05$).

5.20.2.2 Analysis of Variance ("ANOVA")

This technique is used when there are more than two independent groups that need to be compared on a single quantitative measure or score. Specifically, it tests whether the groups have different average scores. The technique would be appropriate when, for example, a study aims to investigate whether or not four different cultural groups differ in terms of their attitude towards a certain political issue, measured as a total score of a number of 5-point Likert scale items (Maree, 2007:229).

ANOVA is appropriate if

- The quantitative variable is normally distributed in each population; and
- The spread (variance) of the variable is the same in all target populations.

The null hypothesis, in this case, is that all population means are the same and there is only one alternative to this null hypothesis, and that is that not all population means are

equal. An *F*-test is used in ANOVA to detect significant differences. The test statistic (*F*-value and the *p*-value) are the two important values produced by an ANOVA. These two values are usually reported by researchers when the outcome of an ANOVA is discussed.

5.20.2.3 The Mann-Whitney Test

The Mann-Whitney test, according to Maree (2007:233), is a non-parametric test that can be used when two independent groups need to be compared based on a single variable, namely, the non-parametric equivalent of the *t*-test for independent groups. This test is useful to apply rather than the *t*-test when the samples from the populations are small (less than 30) and it cannot be assumed that the study variable is normally distributed in the populations. The Mann-Whitney test makes use of the ranks of the study variable rather than the actual values. This means that the extreme values have far less influence on the outcome than they would if the *t*-test is used. The reason for this test is that when all the values of the study variable are ranked ignoring to which group the values belong, the ranks should be evenly spread across the two groups if the two populations have equal medians. 'When one population has a larger median than the other, it is expected that the ranks for that population's sample values will be the higher ones. This will be reflected in the test statistic which is based on the sum of the ranks in each group'. The null hypothesis tested by this test is that the medians of the two populations are the same.

5.20.2.4 Analysis of Relationships - The Pearson Correlation Coefficient

Correlation is applied when one wishes to see the nature, direction and significance of the relationship between two variables. Pearson correlation matrix indicates the direction, strength and significance of the bivariate relationship among the variables in the study as discussed in Pillay (2000: 348).

Maree (2007:234-236) affirmed that this coefficient, which is also known as correlation coefficient, 'is a measure of the strength of the *linear* relationship between two quantitative variables'. It is imperative to establish that the relationship is linear before

performing the analysis, which will reveal the direction and the strength of the relationship as well as whether it is statistically significantly different from zero. The statistical test (*p*-value) is valid only if it has assumed that the distribution of the variables in the population is normal, especially in small samples. The data for such an analysis consists of a pair of values that is one for each of the two variables – for each subject in the sample. The Pearson correlation coefficient has the following properties:

- It is usually denoted by *r*;
- The minimum is -1 and the maximum is +1;
- The sign (+ or -) indicates whether there is a positive (+) or negative (-) relationship between the variables;
- Values close to +1 or -1 are an indication of strong (linear) relationships;
- Values close to zero are an indication of weak (linear) relationships; and
- A value of +1 means a perfect positive relationship and a value of -1 means a perfect negative relationship (Maree, 2007:234-236).

5.20.2.5 The Chi-Squared Test

The chi-square test measures the difference between a statistically generated expected result and an actual result to establish if there is a statistically significant difference between them, i.e., to see if the frequencies observed are significant (Cohen et al., 2007:525)

According to Maree (2007:246), this test is a non-parametric test and is indicated in situations where the researcher wants to examine the relationship or association between two nominal variables. The calculations with this analysis are based on the two-way cross-tabulation (or contingency table) of the two variables. The Chi-squared test is also known as the Chi-squared test for independence since it is used to test whether two (nominal) variables are independent (no relationship) or dependent (related). The hypotheses statements for this test are as follows:

- Ho: the variables are independent; and
- H_1: the variables are dependent.

Hence, there is only the one possible alternative hypothesis, and there is no distinction between directional and non-directional tests. 'The rationale behind this test is that for each cell an expected frequency is calculated under Ho, namely, what the frequency would have been if there were no association between the two variables. The Chi-squared test statistic is then calculated measuring how far from this "no association" scenario the observed data is. Small values of this test statistic indicate that the observed and expected cell frequencies are close and this would lead to the null hypothesis not being rejected. Big values of the test statistic, on the other hand, indicate that the observed and expected cell frequencies are very different, leading to the rejection of Ho' (Maree, 2007:246).

The test is only valid if the expected cell sizes are not too small. Generally, an accepted rule of thumb is that no cell should have an expected frequency of less than 5 (Maree, 2007:246).

The statistical techniques discussed above are the ones that are commonly used in quantitative research. Each technique is used in different circumstances, thus testing different things. The aim of the discussion was to familiarize the researcher with these techniques, in terms of when to use them, and some idea of how they work as well as what the results mean in practice. Furthermore, it empowered the researcher to engage in fruitful discussions with the statistician in the data analysis process and synthesis (interpretation).

5.21 QUANTITATIVE ANALYSIS

For purposes of statistical analysis, the data was edited and captured by the researcher. Excel spreadsheet and SPSS statistical package were used to assist in data capture and analysis. Frequencies, percentages, means and t- tests were used in the analysis of the data.

Nominal data can be processed using the chi-square statistic, the binomial test, the G-test and cross-tabulations. Dichotomous questions are treated as nominal data.

Cohen et al. (2007:503) defined non-parametric data as those that make no assumptions about the population, usually because the characteristics of the population are unknown and vice versa for parametric data. Non-parametric data are often derived from questionnaires and surveys, while parametric data tend to be derived from experiments and tests. Nominal and ordinal data are considered to be non-parametric, while interval and ratio data are considered parametric data.

Non-parametric analysis can be performed on ordinal data, for example, the rating scales. The rating scales are widely used on research, for they combine the opportunity for a flexible response with the ability to determine frequencies, correlations and other forms of quantitative analysis. 'They afford the researcher the freedom to fuse measurement with opinion, quantity and quality' (Cohen et al., 2007:327).

5.22 QUALITATIVE ANALYSIS

The researcher engaged in the following for the analysis of qualitative data:

5.22.1 Coding Open-Ended Questions

According to Wilson et al. (2000:130), an open-ended question allows a respondent free reign to give any answer he/she wants. If an open-ended question is asked of many people, however, it is likely to start building up some sort of pattern to the answers. It is, therefore, possible to develop a coding frame to reflect the most frequently occurring and the most important answers to an open-ended question. The best way to do this is to examine a proportion of the answers received to use a five-bar gate system to record the most frequently cited answers. Once these have been established, each category can be assigned a nominal numerical value and all the answers given to the open-ended question can be coded.

The researcher adopted the above as one of the methods of coding an open-ended question. However, content analysis, which is described below, was also used.

5.22.2 Content Analysis

Content analysis is defined by Maree (2007:101) as 'a systematic approach to qualitative data analysis that identifies and summarises message content'. It can be used to analyse qualitative responses to open-ended questions on surveys, interviews or focus groups. It is a process of looking at data from different angles with a view of identifying keys in the text that will assist in understanding and interpretation of raw data. 'Content analysis is an inductive and iterative process where we look for similarities and differences in text that would corroborate or disconfirm theory' (Maree, 2007:101).

In this regard, the researcher used content analysis for the analysis of open-ended questions in order to identify similarities and differences in the responses so that an understanding and interpretation of raw data can be made possible.

5.23 TRIANGULATION

According to Cohen et al. (2007:141), triangulation is defined as the use of two or more methods of data collection in the study of human behaviour. Triangular techniques in the social sciences attempt to map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint and, making use of both quantitative and qualitative data. The more the methods contrast with each other, the greater the researcher's confidence.

Davids et al. (2005) explained that triangulate means to use a range of methods, types of information, investigators and/or disciplines to cross-check.

5.24 PRESENTING THE RESULTS OF QUALITATIVE RESEARCH

A good staring point in the presentation of findings of qualitative data is to look at the themes and categories which have emerged and to use these to structure the results' section of the research project. The themes are presented in sections with the categories as subsections. The categories of data are used to construct a case that the themes are the main findings of the study. Further evidence to support the findings is provided by using direct quotations from respondents. Key quotations are selected to illustrate the meaning of the data. Table 6 below indicates the structure of themes and categories, which emerged from an investigation into the need for an outreach teenage health clinic (Wilson et al., 2000:73).

Table 6: Example of Themes and Categories

Themes	**Major categories**	**Minor categories**
1. Health issues for young people	Sexual health Drugs Mental health	Safe sex, pregnancy, sexuality Smoking, alcohol, illicit drugs Stress, self-esteem, relationships
2. Barriers to accessing services	Lack of knowledge Attitudes	Services available, perceptions Peer pressure, own beliefs
3. Incentives to use services	Availability Approachability	Time, venue Staff attributes, environment

A presentation of these findings would describe what 'health issues' for young people, in general, meant. This would be followed by identification and description of each of the broad categories of health issues – sexual health, drugs and mental health. Each category of health issues describes how a range of topics is included in this category (the minor categories). Quotations can also be extracted from the questionnaire responses to illustrate why and how this is a health issue. Quotations are good examples of what people have said specifically about the category described. According to Wilson et al. (2000:73), a range of quotations should be selected to illustrate such features as: the

strength of opinion or belief; similarities among respondents; differences among respondents; and the breadth of ideas.

The researcher has used a similar approach, as illustrated above, in presenting the results of open-ended questions, as this reflects an example, which is related to PHC research. As the researcher works through the different categories, links between categories would be made to demonstrate how the themes emerged, and how conclusions about the findings were drawn.

5.25 SUMMARY AND CONCLUSION

The chapter has highlighted the research design and procedures/ processes followed in the survey. It includes a description of the target population, as well as how the sample was drawn. Furthermore, the sampling technique employed, the description of the questionnaires and how they would be administered were also explained. Pre-pilot and pilot studies to enhance the validity as well as the reliability of the questionnaires were discussed in detail. In addition, it has elucidated the methods and techniques used to elicit and analyze data.

Finally, the analysis of the questionnaires was conducted by the researcher with assistance from a biostatistician from the Medical and Research Council (MRC), and guided by the promoter. Chapter 6 will provide the data according to the outlines of the current chapter.

Based on the information gathered, conclusions and recommendations were developed. The study will then support and serve as a basis for recommending how PHC services can be promoted in physiotherapy. Thus, the results of the research will be used to formulate guidelines for the facilitation/promotion of PHC in physiotherapy training and clinical practice.

CHAPTER 6

DATA ANALYSIS AND INTERPRETATION OF RESULTS

6.1 INTRODUCTION

The research design discussed the procedures that the researcher followed using various descriptive and inferential statistical techniques for the analysis of the quantitative data. The chapter reviews the responses from Health Science students, health care staff from various disciplines and managers at provincial as well as local government levels in the Department of Health. Data analysis includes the Cronbach's Alpha, Chi-Square, Fisher;s Exact, Mann Whitney, ANOVA and the Kriskal Walis test. Qualitative data in the form of open-ended questions in the survey was captured using content analysis by identifying similar and different responses to enable interpretation of the raw data. The analysis/ interpretation of results by triangulating quantitative and qualitative data enables the presentation of the findings.

The reliability results for the pilot study are presented in Table 7 below.

Table 7: Reliability Results of the Pilot Study

Cronbach's Alpha	Number of Items
.706	112

Since the Cronbach's alpha value is above 0.700, it indicates an acceptable level of inter-correlation for the data. Hence, the researcher proceeded with the main study.

The chapter is divided into three parts, *viz:*

PART A: Qualitative analyses of the data obtained from the managers (Annexure B);

PART B: Provides a discussion on the responses (qualitative analyses) from the staff and students, as well as the common questions answered by the managers (Annexure A and B);

PART C: Focuses on the responses (quantitative analyses) from the managers, students and staff (Annexure A and B).

Two hundred and fifty (250) questionnaires were distributed with a response rate of 74%. The total sample size N=185. However, five questionnaires had to be disqualified due to a large proportion of missing data. The researcher's final sample size, N=180 (72% response rate) was used in the data analyses. The sample consisted of N=22 managers, Health Science students N=99 and staff from various health care disciplines N=59. According to Williams (2003:251), a 75% response rate for a questionnaire survey is extremely good.

PART A

6.2 MANAGERS AT PROVINCIAL AND DISTRICT LEVEL (QUALITATIVE ANALYSIS)

The managers comprised of N=22 (12, 2%) of which two managers were at head office, provincial level, eleven managers were district rehabilitation co-ordinators and the other nine managers were at hospitals, clinics or KZN academic institutions.

This part of the chapter is based on the qualitative input in the form of open-ended questions provided by the managers from the constructed questionnaire (Annexure B).

6.2.1Understanding of the PHC Policy

The following responses were captured in respect of the managers' understanding of the PHC policy:

i. "Not detailed understanding for 'clinics in rural areas'. Not known. **(N=2)**;
ii. Provision of integrated health care services to the community level. It puts emphasis on integration of all health programmes into PHC. Shift from institution based care to home based care. Increasing accessibility to clinic services and increasing quality of services at clinics. It reduces hospital load. Patients to approach local health facility-entry level and be referred when deemed necessary. Essential or basic health services (medical) at local level is taken to the needy. Accessibility, affordability of comprehensive health care services to all the people. It is based on the National Health Act, provision of health care needs to all the people of South Africa. **(N=7)**;
iii. The policy is fine/comprehensive; it is the implementation that is the problem. Whilst it is the best way of making services available to all the people of South Africa, it is not backed up by the logistics, HR, adequate funding and infrastructure. **(N=2)**;
iv. Clinics should render comprehensive PHC using a one-stop approach. Specialised personnel such as therapists should be accessible through periodic visits. Reorientation of rehabilitation from institution based to community oriented and community based services. It is the provision of service that prevents disabilities, early detection of disabilities to prevent further complications and treat potentially disabling conditions. The service is accessed through the PHC nurse. A therapy assistant should provide the service in consultation with a visiting therapist **(N=5)**; and
v. **Head office-Provincial level:** A policy provides guidance in planning, monitoring, evaluation and implementation of PHC services" **(N=2)**.

In summary, most managers understood the policy that governs PHC, highlighting the important aspects, *viz*; essential integrated health care services to the community level, and shift from institution based care, accessibility, affordability of comprehensive health care services based on National Health Act provision that provides guidance in planning, monitoring, evaluation and implementation of PHC services.

However, **implementation** of the policy was emphasised to be a major problem due to lack of comprehensive PHC using a one-stop approach. **Specialised personnel** such as therapists are **not accessible**. Of importance to physiotherapy is the **reorientation of rehabilitation from institution based to community oriented and community based services.** This must be addressed in clinical training and clinical practice for the effective delivery of rehabilitation services by therapists.

Therefore, the delivery of **PHC services is inadequate** due to lack of logistics, human resources, adequate funding and infrastructure. **Resources are limited** and not adequately provided by National and Provincial Government for the effective delivery of PHC services. Moreover, two managers indicated that their understanding of the policy was inadequate or not known. This implies that **in-service training** regarding PHC policy needs consideration in order to **empower all managers as leaders** of PHC service delivery.

6.2.2 Collaboration with Other Primary Health Care Professionals

Managers indicated their responses to the structures that exist for collaboration as follows:

a. "None to my knowledge - consultation /referral as need arises (**N=2)**;
b. Liaison meetings with hospitals. Good referral system. 'We work together on immunization campaigns'. 'Being based at the district office, I am involved in all the programmes' meetings. Anything that is rehabilitation is discussed with me first. However, this does not always occur at an institutional level'. Weekly meetings with other district programme co-ordinators. Face to face seems to be the most ideal however constant interaction with other professionals is key **(N=5)**;
c. Sharing of resources at clinics. Being in one team with other professionals. Multi-disciplinary Team (MDT) meeting when time permits (**N=1)**;

d. Meetings at district level. Support visits to institutions. Operational and strategic planning workshops at district and institutional level. Meetings and interdisciplinary forums. HOD and hospital meetings. **(N=5)**;
e. Integrated community awareness events, which involve all programmes (**N=1)**;
f. Guidelines and referral systems - some written consults, referral forms, some telephonic, e-mail. Roster with clinics serviced by speech therapist, occupational therapist and physiotherapist that are closer to the patient's home, i.e. within their attachment area. Referrals to other professionals **(N=7)**;
g. Through rehabilitation programme at DOH, KZN and at National level and through HPCSA (**N=1)**; and
h. **Head office - Provincial level:** Task teams, workshops, seminars, conferences and meetings" (**N=2)**.

Collaborative structures in the form of meetings, referral systems task teams, workshops, seminars, conferences, interdisciplinary forums and integrated community awareness events/programmes do exist. However, some managers indicated that collaboration only occurred when time permits, and that it did not always occur at an institutional level. In addition, two managers indicated that there was no collaboration, consultation only occurred when there was a need. This implies that there is little or no communication/ feedback between the various levels (primary, secondary and tertiary) of service delivery within the health care system.

Reasons for non collaboration with other health professionals are indicated below:

1. Approach to service delivery was very fragmented which focus on discipline specific approaches; and
2. There has not been a need to collaborate with emergency health workers.

In summary, **PHC service delivery** is **fragmented**, with **no or minimal** interdisciplinary **collaboration**, which indicates that the various disciplines still **operate in silos.**

6.2.3 Indicators for Community Involvement/Participation in Health care Delivery

A number of activities indicated community participation below:

i. "Clinics and workshops in rural areas;
ii. 'Imbizos' (rally/gathering), collaborated events, support groups;
iii. Engage with all Community Based Organisations (CBO's), Non Governmental Organisations (NGO's) in the community area that also deliver health care **(N=2).** Regularly they volunteer at clinics, geriatric services, help with all admininistration at clinic level, also home base care. I have regular contact with members of the community via community based rehabilitation forums. They also are members of clinic committees. There are community health workers and home based carers. It is needed to help identify those in the need of care **(N=3)**;
iv. Disabled Peoples' Organisations (D.P.O.'s) attending meetings. Therapists attending D.P.O. meetings/forums. Clinics with clinic committees. Hospitals with hospital boards;
v. The functionality of clinic committees the effectiveness of the complaints mechanism;
vi. CVA or paraplegic patients who need extra assistance when discharged;
vii. Broad based community programmes that are targeted for the community. For preventative health care - awareness programmes. For promotive, curative and rehabilitative health care **(N=2)**;
viii. Statistics of the number of patients attending clinics **(N=2)**;
ix. Involvement in decision making; and
x. **Head office-Provincial level:** Number of functional clinical committees, number of poverty alleviating projects, number of complaint mechanism" **(N=2).**

Community participation/involvement in PHC was positive and included clinics, clinical committees, number of poverty alleviating projects, number of complaint mechanism, CBOs, NGO's, D.P.O.'s, community based rehabilitation forums, workshops and broad based community programmes.

However, the following were reasons offered by three managers for not encouraging community involvement in health care delivery:

1. There was no specific regulated structure in place;
2. Profit driven organizations were not interested in PHC; and
3. These managers did not find the need to involve trade unions as involvement with the community is very limited.

It can be deduced that although community involvement or participation, which is a cornerstone for PHC service delivery, did take place, there is a need for a specific **regulated structure** to be in place. Profit-driven organizations can be interested in PHC with **innovative ideas on public-private** partnerships or contracts.

6.2.4 Explanation for a Conducive Environment to render PHC Services

1. "Based at a tertiary training institution with good telecommunication and framework;
2. The facilities were not built with comprehensive services in mind, shortage of staff is a major challenge. Staff shortages mean a full rehabilitation team is not available for outreach services. Shortage of space at clinics for therapists to work. There is no space at the clinics to accommodate the visiting therapists and there are no therapy assistants at the clinics to provide the rehabilitation service. Need assurance re-safety. No/ need resources- human and financial. Need specific regulation of service **(N=4)**;
3. We have many community health workers linked to the clinics, they home visit, do defaulter training. The DOH policies are supportive of comprehensive care. PHC clinics are having consulting rooms for privacy. Waiting areas are fitted with comfortable chairs. Most clinics are having at least one professional nurse trained in PHC. Regular interaction based on current professional standing **(N=3)**;
4. **N/A -** to our state hospital/institute. Being based in a tertiary institution, one is unlikely to encounter needs at a primary level **(N=2)**;

5. Hospital is centrally located;
6. Do not have the infrastructure to provide outpatient PT;
7. Senior management does not encourage provision of services outside the organization; and
8. **Head office - Provincial level:** Partially compliant due to limited resources example number of rehabilitation facilities or infrastructure at PHC. No mental health, a psychosocial rehabilitation, or oral health" **(N=2).**

It is of great concern that managers at provincial and district levels have indicated that the **environment was only partially compliant in rendering a comprehensive PHC** service due to limited resources, for example, the number of rehabilitation facilities; no space; staff shortages or infrastructure at PHC settings. Moreover, **physiotherapy services are usually omitted** because of the lack in infrastructure and a full rehabilitation team is not available for outreach services. Only three managers indicated a positive response concerning provision of adequate facilities for rendering a comprehensive PHC service. Government must, therefore, provide the funds in order to **implement the policy on PHC** delivery. Equally, where resources are limited, **creative and innovative ideas** on enhancing PHC service delivery is beneficial, for example, involving Health Science students to provide a PHC service. Consequently, **all Health Science students** in the **various disciplines** will benefit from the invaluable PHC experience, which will empower them for effective, quality PHC delivery during their year of compulsory community work upon graduation. In this regard, the shortage of **human resources will be effectively addressed** with government saving funds by not having to employ too many health care personnel if students offer an adequate service, which can be profitably used to cater for other needs.

PART B

6.3 STAFF, STUDENTS, AND MANAGERS' RESPONSES (QUALITATIVE ANALYSIS)

The staff comprised of the managers N=22 (12, 2%) as indicated in Part A above, students (N=99) and staff (N=59) from the Disciplines of Physiotherapy, Optometry,

Occupational therapy and Medicine. In addition, nurses and social workers were included. This part of the chapter is based on the qualitative input in the form of open-ended questions provided by the students in the Faculty of Health Sciences, UKZN, and staff from various health care disciplines as well as managers that responded to the same questions from the constructed questionnaire (Annexure A and B).

6.3.1 Understanding of Primary Health Care

Staff and students responded to their understanding of the term primary health care as follows (Table 8):

Table 8: Responses by Students and Staff on the Term Primary Health Care

Term PHC: Students	Staff
"Accessible health care **N=16** Available to all, patients right, appropriate health care **N=11** Affordable, Health care promised-cheap, high standard **N=10** Community Based health care, outreach, mobile clinics-by DOH **N=20** Maintain good health/ wellbeing **N=2** Promote health/programmes **N=11** Prevention- ill health, disease, educate **N=14** 1st line care/contact, basic level **N= 58** Appropriate, culturally acceptable **N=3** Equitable Doctors/health care workers, MDT care to patients **N=5** All aspects of Health care, inclusive **N=2** Health management at acute stage Medical treatment by nurses 1st –minor illness/injury, 1st aid before hospital care **N=2** **OT-**Health care offered by making people aware of their rights, based on social model **N=2** Hospital health care to patients, facilities-effective/ best".	"1stline health care service/ contact, basic/ grassroots level **N=41** Follows referral to special care/facility if required Holistic, comprehensive health care to the needy **N=13** Preventative disease management / therapeutic care-**N=15** Essential, accessible, affordable health care **N=11** Available-all citizens, universally acceptable to community at a cost that is affordable-Alma Ata 1978 **N=18** Health promotion, education of people to help themselves/empower-individuals on health/ well-being **N=13** Address physical, social, psychological aspect Health care at community care level-prevent/ promote e.g. breastfeed, oral hygiene, Family Planning, immunization **N=11** Provide service–screen, create awareness **N=4** Government structure aimed to meet basic medical need-SA citizen -health care-clinic/ Out Patient Department-district level **N=9** Assess/treat patients- community level-provide preventative, promotive, rehab care **N=3** **Health care-**efficient, effective, equitable Encourage community participation in health management Rehabilitation services at a clinic Medical staff work as part of MDT and conduct a needs analysis on area".

Table 8 shows that most students (N=58) and staff (N=41) responded to the term PHC as first line health care service/contact at a basic or grassroots level. However, this response indicates a sample of N=99 which represents 63% of the total sample (N=158) of students and staff defined primary care rather than PHC. Few respondents indicated aspects of PHC, which can be selective and even fewer respondents indicated the comprehensive approach to PHC, for example, the MDT care for patients, including all

aspects of health care (preventative, promotive, curative and rehabilitative), community based health care (N=29 students and N=29 staff).

In addition, the following explanations were cited for the term PHC:

1. "It is essential health care based on practical, scientifically sound and socially acceptable methods and technology made available to individuals;
2. It is a health care system that promotes health care in an inclusive manner, addressing health broadly, including prevention, access and finance. All aspects of health care;
3. Provision of basic health care within access of both urban and rural population; Focus on prevention of lifestyle disease through education;
4. Care from a local clinic closest to place of abode. Care includes education on self management and medication as ordered by PHC personnel;
5. Health care aimed at populations to prevent health problems and promote health;
6. Assessing and treating patients at a community level and providing preventative, promotive and rehabilitative care at this level;
7. It is an approach that seek to bring comprehensive health care services in an affordable manner with wide coverage; and
8. Provide health service to the people closer to or where they reside and to encourage community participation in health management".

It is important for all health care professionals in training and in clinical practice to be empowered with adequate knowledge on the term PHC as well as to distinguish between primary care, selective and comprehensive PHC. A thorough understanding of the term PHC is the initial stepping-stone towards the delivery of quality PHC services.

6.3.2 Understanding the Policy that Governs PHC

Students and staff responded to their understanding of the policy that governs PHC in Table 9 below, which indicates that 31 respondents were not knowledgeable about the policy that governs PHC. Furthermore, many respondents did not indicate a thorough

understanding of the policy or there was confusion between the PHC policies with that of the *Batho Pele* principles.

However, there were a few positive, comprehensive responses by students and staff (N=6) to their understanding of the policy that governs PHC:

1. "Most medical conditions are preventative and treatable at primary level and therefore few people are referred to 2nd or 3rd levels for treatment;
2. Based on National Health Act and Patients Right - Governments obligation to provide comprehensive health care to rural population - specific focus on education, family planning, immunization and hygiene. Also, several intentions in PHC is outlined - disease prevention, awareness and treatment strategies, rehabilitation services to be provided;
3. Governed by DOH - delivery at grassroots level and free to all;
4. As laid in the White Paper for the transformation of health care. The policy is comprehensive and applicable to our country;
5. It makes provision for providing a health care service at the community level with the available resources so that secondary and tertiary institutions are not overworked with patients that can be treated at a primary level; and
6. It enables health professionals to bring services closer to the people and to empower people to take charge of their health".

Table 9: Responses by Students and Staff on the Policy that Governs PHC

PHC Policy: Students	**Staff**
"Available- all citizens, appropriate **N=18** Affordable/ free, essential **N=6** Not sure/don't know **N=14** Based on Alma Declaration,White paper (RDP policy) **Batho Pele- people first N=8** Health care giver render service –offer-hospital service to communities Rights to use it anytime, accessible **N=16** Holistic approach- health care **N=2** Equality, equity, best medical care/ quality **N=8** Understanding is poor **N=5** Prevention is better than cure **N=3** CBR Medical/ psychosocial model-individuals holistic being -family, social, knowledge-affects health **N=2** Right to Medical facility Ensure implementation and management of PHC Its geographically distributed - people of certain community-go to a specific hospital/ clinic Many PHC policies- ensure effective delivery Treat every patient, any condition, refer to appropriate discipline Higher people control/RUN PHC Fair in terms of needs Think its PHC Act? Resources and funding People start seeking help-primary level Delivery and treatment of health care - practical and socially acceptable" **N=2**.	"Good-excellent **N=2** Nursed based care at PHC facility-utilized first **N=7** Affordable, accessible, available within 5km **N=13** 1st Health promotion/ awareness, curative aspect-last **N=5** Compulsory comprehensive/ basic, essential health care - all patients-local community- clinic- MDT-access-referral system **N=12** Treat all citizens equally, uniformly- irrespective of colour, race, creed, sex etc-various socio-economic backgrounds **N=4** Most medical conditions- prevent/ treat -empower people then few people are referred to secondary and tertiary levels for treatment **N=4** **Doctors**- policy not discussed DHS/ government policy-ensure principle-met-if not maximally -government continues monitoring/ evaluation for improvement **N=5** Right for all SA citizens-students must engage in training None/ don't know **N=10** Based National Health Act, Patients right-governments obligation –provide comprehensive health care -rural population -focus- education, Family Planning, disease prevention/ awareness, treatment strategies, rehabilitation services **N=5** By DOH-deliver- grassroots level, free to all **N=2** Serves to screen patients, refer appropriately or manage patients that don't require to visit hospitals **N=4** Provides health care service at community level with resource so that secondary/ tertiary institutions - not overworked **N=3** Includes CBR Developed by WHO-designed-make essential health care affordable/ accessible-everyone".

It is imperative that all staff and health science students have a thorough knowledge of the legislative and policy framework that governs PHC in order to align their goals/

objectives for the effective delivery of PHC services in accordance with the needs of the country.

6.3.3 Reasons for Absence PHC Delivery in the Discipline

The following were the responses from the staff and students indicating whether their discipline was addressing the needs of the people in the rural areas with regards to PHC.

The physiotherapy students' responses were as follows:

1. "All the clinical work is carried out in urban hospitals. Projects can be done rurally but students generally use nearby, easily accessible areas;
2. We ourselves aren't fully empowered with regard to PHC. Also, concerning the 72 clinics in the Ethekwini region, only nine have physiotherapists, four of them being full time;
3. I personally have not seen any attempt to promote PHC;
4. We learn about it at varsity but don't do enough practical of it;
5. Not addressed as a priority in each level of study but is addressed in community service; and
6. PHC principles are not addressed much and it is not updated on a regular basis to provide any up to date information or statistics".

The medical students also indicated a lack of promotion of PHC in the rural areas as follows:

Medicine - PHC well addressed in urban areas, but in the rural areas with large populations with little access to PHC sites, specifically too few doctors are there. In addition, these doctors are often foreign with inadequate knowledge of PHC and the local health problems in S.A.

The response from the Occupational Therapy Department was the following:

"Speech and audiology work in collaboration with occupational therapists (OTs). I have not seen or heard of physiotherapists (PTs) going into low socio-economic/ rural areas. OT's have much more working experience in the rural areas as compared to other professions. **OT-** More direction and lectures are required in the community-based modules and on PHC specifically. It has been a general topic covered; more detail is required to cover it more comprehensively".

The Department of Nursing's response was that the 'essence of PHC has been lost in my opinion - more of an emphasis on curative care. Patients want medication and not home remedies and exercise'.

Physiotherapy staff and physiotherapists from other provinces responded as follows:

- **PT – "**Urgent need to lobby with DOH and Municipal clinics to formally institute and implement appropriate and adequate exposure of undergraduate and postgraduate students to a structured study, including theory and clinical components;
- Needs not addressed, concentration of services in urban and periurban areas. Need to improve services and expand the area of services;
- Only community service in place, post on completion of degree with no prior structured experience;
- Community Service Officer (CSO) - offer PT service to four clinics in Wentworth /Mereback - South coast area that is, Isipingo, Umlazi, Charles James Hospital and FOSA clinic. CSOs (PT and OT) work together to assess and treat patients with osteoarthritis, PTB, HIV/AIDS, stroke, amputees. Exercise classes, education on the different types of conditions, importance of compliance to taking medication, ordering of assistive devices are all the different types of services rendered twice a month at each clinic. Thus, all community service therapists are allocated community clinics around the hospitals in rural/ peri-urban areas to serve in their compulsory community service year. We can improve by sending out permanent staff to more clinics;

- PT - other provinces: With the implementation of the CSO programme the PHC services has increased but KZN is falling behind in addressing the needs and more is required to be done to promote PHC; and
- PT: Other provinces: The community block is not covering the rural areas or the marginalized groups. It is very fragmented. No efforts of collaborative work are envisaged".

In summary, most of the physiotherapy students (N=72/ 73%) have acknowledged that PHC is incorporated in the undergraduate curriculum but less time or effort is spent on the practical implementation of PHC service delivery. Moreover, clinical training occurs predominantly in the urban areas/hospitals and not in the rural areas where PHC services are required. Yet upon graduation as a physiotherapist, the expectation is to render community service when students were not equipped with any experience, only guided by the opinions of lecturers, in most cases. Other reasons for lack of rural PHC exposure were related to transport problems, limited resources and lack of medical facilities in the rural areas, which forces people, to access basic services in the urban areas. It was suggested that needs analysis must to be conducted by students in rural communities with supervision by the lecturers and an increase in rural exposure, especially during the fourth year of clinical training is required. The rural exposure will enable the physiotherapy students to move away from the institution based or curative model of health care services.

The physiotherapy staff (N=56, 95%) reiterated the same finding that rural PHC exposure was inadequate during clinical training with no rural outreach programmes and students could only choose rural areas for electives or as undergraduate research projects, which were optional but not compulsory. In addition, the one-year compulsory community service was the only time that most graduates were exposed to rural PHC service delivery for the first time. The physiotherapy students or graduates base the current approach primarily at an investigative or exploratory level. Consequently, the PHC needs in the rural areas are not addressed, as services during clinical training are concentrated in the urban and sometimes peri-urban areas. The focus of the undergraduate curriculum is on

the curative model and rendering rehabilitation services with very little emphasis on preventative care or exposure to a PHC centre. The exposure to the Aryan Benevolent Home as a community block was not true PHC rural exposure to serve the rural community, as this was still institution-based health care. There was no rural outreach programme but a poor attempt by the Physiotherapy Department to move to PHC rural areas, which needs proper reorganization. A large number of patients with basic problems can be managed at primary level in the community rather than a high referral rate for treatment at regional hospitals and tertiary institutions. This is a waste of money and time leading to ineffective, inefficient as well as uneconomical delivery of PHC services.

Some of the problems identified by physiotherapy staff were that there were time constraints at the clinic as more time and effort was required to offer a valuable physiotherapy service. Access to the CSO in physiotherapy was poor with the PHC facility being far and travel was expensive for the patients. As a result, patients' needs for physiotherapy were not addressed. A suggestion was that permanent staff should be sent to PHC clinics and incentives should be provided. This would address the issue of decreased staff numbers at PHC facilities to service large numbers of patients.

The view of physiotherapists from the other provinces (N=4) was that insufficient self-projects were set up for the KZN students in the rural areas**.** Physiotherapists from Gauteng province (N=2) emphasised that physiotherapy students in Gauteng are exposed to Community Health care Centres, rural areas, home visits, clinics and outreach projects in order to provide PHC delivery of services. The view from Cape Town province was that UWC physiotherapy students conduct needs analyses in rural areas independently, visit clinics and work as a multi-disciplinary team (MDT) to try to address needs of the community as well as empower them.

The medical and occupational therapy students reported a similar finding with there being little rural exposure to PHC services and more PHC training was required. There is an increase in the rural population with little access to PHC services and a few, often foreign, doctors with no understanding of South Africa's problems as well as PHC

knowledge. Doctors are not motivated to work in rural areas due to the poor remuneration. Furthermore, there is a lack of basic health care, equipment such as gloves, human resources and funding for PHC services although clinics are available in the KZN province. Referrals to other levels of service are often unnecessary or late. Occupational therapy students (N=13, 62%) acknowledged that a limited rural exposure was not adequate to meet the needs of the people in rural areas, only a small contribution was made at the Valley Trust community area. Furthermore, Community Based Rehabilitation (CBR) is taught in level one. By the fourth year of study, students have forgotten this knowledge. Occupational Therapy (OT) students also felt that their PHC knowledge was limited and that there was no collaboration with the physiotherapy students or staff.

The optometry students (N=14, 56%), however, felt that external sites were serviced and evaluated during the year of internship. Rural areas are visited for screening, referral, evaluation and management of patients. The problem identified was that people were unaware of the optometry services and the UKZN clinic. However, optometrists felt that the screening sites during training were still predominantly located at hospitals in the urban and peri-urban areas with private sector involvement primarily. The implementation of PHC requires more structuring to meet the high demand for eye-care services.

The nursing staff reported that basic health care needs are provided and clinics are built (N=4). Nurses provide education on prevention and promotive care, feeding scheme, gardening with community involvement. Medicines and health care are not always available. Moreover, nurses are reluctant to work in the rural areas with poor working conditions. Therefore, due to a lack of human resources, all the rural areas are not serviced. Clinics in the rural areas are insufficient, far and inaccessible with transport being a major problem leading to poor quality PHC services.

In summary, students and staff from all disciplines reported that PHC services in the rural areas were either lacking or optional as in the case of the Physiotherapy Discipline or limited (Medicine, Optometry and Occupational therapy) during clinical training and

clinical practice. KwaZulu-Natal province is far behind in this regard as the Cape and Gauteng provinces are extensively involved in the delivery of PHC services at undergraduate level. Currently, the PHC services are fragmented with no collaborative/ multi-disciplinary team (MDT) work amongst the disciplines. The doctors and nursing staff have reported a major shortage of human resources in all disciplines. Human resources are essential and form an integral component for the delivery of PHC services within the public administration as well as public management paradigm. In addition, health care services in KZN are still institution-based following the curative/medical model of delivery despite it being 15 years post-democracy in South Africa.

6.3.4 Primary Health Care Delivery by other Professions

Health care disciplines had to comment on PHC delivery of the other disciplines as indicated below:

i. "At the Isipingo Clinic, management and care is very comprehensive - service offered besides the treatment of minor ailments include VCT, Psychiatric / geriatric chronic care. Physiotherapy, mental health + aged, social worker services and ante - natal care on a monthly basis;
ii. Nursing - feels that medical doctors are placing more emphasis on medication supplied from PHC level and overburdening PHC with issues that need to be addressed in hospital, e.g. sick HIV patients;
iii. There is an urgent need for all health care professionals to collaborate with professional nurses currently providing acceptable level of service at PHC. Social workers deliver a good PHC service. 'Other disciplines are not serious with no effort to collaborate'. Disciplines have little PHC experience (N=45) and are moving towards PHC delivery but it is still not a major section (Occupational therapy). 'The essence of PHC is lost with emphasis still being curative;
iv. PHC services are poor, at worst non-existent. Integration and interaction with other disciplines is required in clinical training and clinical practice for holistic PHC delivery of services. The PHC services are fragmented due to no efforts for collaborative work being envisaged (N=45). PHC implementation and sustainability

is a major problem. 'PHC is not a priority in the curriculum, hospital work is'. Facilities/ equipment and updated information is required. Staff shortages with too many services added on without the staff compliment, "we are Jack of all trades but master of none";

v. Physiotherapists (PTs) - other provinces: nursing and medicine have well designed collaborative programmes that are affordable, reliable and accessible to all. Medical students live and spend three weeks in the rural area to serve the community; and

vi. Physiotherapists are concerned about safety in the rural areas, therefore exposure to PHC is inadequate, UKZN does not provide any insurance cover. Hence, physiotherapists are not well informed and lack PHC work experience. However, there is a need to lobby with DOH and the clinics in order to implement adequate PHC exposure. An attempt to introduce PHC is new and will take time and effort. A needs analysis in the rural communities must be carried out. Many community service officers were concerned about serving the compulsory one year without any prior structured experience".

6.3.5 PHC Models

Both students and staff did not relate well to the PHC models and approaches, apparently due to a lack of PHC knowledge or experience. However, the managers and some of the staff were able to answer the question on PHC models. Some of the responses were as follows:

1. "Undergraduate and postgraduate curriculum must include epidemiology components relating to lifestyle diseases and prevention of such;
2. Could be more diverse – limited to hospitals and clinics, schools and centers. Need to develop a greater **outreach** programming;
3. Gets the community involved through talks as well as campaigns e.g. diabetes, epilepsy talks. Promoting health and empowering the community to prevent sickness;

4. Good but should have bottom up approach to ensure better community participation;
5. **Managers: Selective PHC-** Adoption of certain selection interventions such as growth monitoring, or oral rehydration therapy;

   Core Package Approach- This is the approach that South Africa has taken. Identified core packages of service are implemented. This approach is very reminiscent of the selective PHC approach, which has largely failed in the countries where it was tried. The core package approach implements health sector based activities that have already been agreed upon by health professionals and academics. The fact that it is a national package it also brings the threat of losing focus on local issues;

   Comprehensive PHC - stresses social and economic development, intersectoral collaboration and community participation. This model requires that districts carry out assessments of local health problems and then formulate multi-faceted interventions with multi-sectoral teams and local communities; and

   PHC models are fragmented and needs more cohesion although the model is good incorporating greater access to health care, which is cost effective (N=4).

   The District Health Service Model is followed with emphasis on prevention as the best practice. The models are effective at some clinics that are filled to capacity".

Many students from the various disciplines did not comment on the PHC models, others indicated that they did not know (N=20) whilst some students reported that it did not feature in the curriculum and the modules were very basic. Physiotherapy students reported that teaching was rigid with the focus on treatment of physical symptoms only with no to little emphasis on prevention and promotion strategies. The DHS was mentioned with the Phoenix community centre as an example that refers appropriately when required. Occupational therapy students mentioned following the social model and not the medical model. CBR was mentioned but more practical application was required.

The staff reported on holistic health care focusing on attaining functional independence using a comprehensive care model that necessitates the integration of all disciplines, providing all the services such as Physiotherapy, Occupational therapy, Psychological care, Speech therapy, Optometry, Nursing, Medical care was essential. Chronic care model (PMC), referral pathways of regional and district hospitals, CBR, outreach programmes, PHC based on the curative, preventative, promotive and rehabilitative approaches with the current emphasis being on the preventative and promotive aspects (curative in the past) was mentioned (N=4). However, some staff (N=15) reported 'do not know, none, or fair to poor knowledge' on PHC models.

Some of the managers (N=6) related well to the PHC models but identified problems of health care professionals not being well trained, prevention of disabilities were by therapists only and equipment was not always available for the treatment of basic conditions. Although the nursing staff were well trained, knew the norms/standards of PHC but, due to increased workloads, no time was spent on the preventative aspects of health care.

6.3.6 Approaches to PHC Services

Approaches or modes to primary health care services encompass the four pillars, namely, the preventative, promotive, curative and rehabilitative services. Students and staff commented on these approaches to PHC services whilst the managers identified as well as explained the fragmentation/ duplication of PHC services between provincial and local governments. These responses are discussed below:

6.3.6.1 Preventative Services

The Health Science students (N=55) and staff (N=50) suggested that education on preventing lifestyle diseases, exercising and a good diet following needs analysis by community interaction are important preventative strategies. Some students (N=1) and staff (N=5) did not know what the preventative services were. The Optometry Department suggested that a good educational and awareness programme where many

rural people are reached whilst students rotate to offer their clinical services on the "Health" train. The other responses by staff and students are summarized below:

a. "Teaching community problems associated with poor social habits. Encourage them to practice sober habits e.g. smoking, malnutrition, drinking, not exercising. Community education on chronic conditions as well as personal/oral hygiene and importance of taking care of ones health is important;
b. Workshops on educating the population concerning disabilities are conducted at schools and clinics;
c. Collaborate with existing PHC centers to include screening, establish needs, and educate. Health promotion workshops, role playing education, DVD, advertisements, media, population based community talks, rural educational days/ open days, demonstrations (caregivers as well), presentations, campaigns at local clinic, schools, government hospitals must be included. Use of posters, sign-boards, flyers, brochures, handing out pamphlets, information booklets in the different languages and using incentives- e.g. give away caps or T-shirts to convey the message about health to the public were suggested. Illiteracy must be addressed as well especially with pamphlet usage;
d. There was none in the context of PHC. Prevention was incorporated into home programmes especially in the management of chronic diseases post discharge from hospital. Preventative measures at primary and secondary school level should be part of the curriculum. Weekly programme on clinical compensatory alternative methods with regards to assistive devices was suggested;
e. Mobile clinics and the vaccination/immunisation programme (prophylaxis), mental health, use of condom dispensers, prevention of HIV/ pregnancy, family planning, clean water, sanitation VCT, food/nutrition, back-care, sports, breast care and visual/early screening were all examples of preventative services; and
f. Outcomes and sustainability of these services was suggested to be poor. Inclusion of in service educational days was important".

At UWC in the Cape Province, a needs analysis is conducted in the community and the available facilities are identified, a budget is drawn up and discussed with community leaders. Training is incorporated, if extra assistance is required. The programme is conducted and evaluated.

6.3.6.2 Promotive Services

Responses by staff and students in relation to promotive services are summarized below:

a. "Visit rural areas as much as possible at lease 2-3 times a week. Involve the community, empower them by teaching basic techniques and ways of managing some of the health problems e.g. injuries, incorporate home visits. Physiotherapy services should be promoted at PHC clinics as it is more accessible for patients rather than hospitals. Accessibility to prophylactic medication, vaccinations, health education e.g. back-care were reported. Referral to a dietician for advise to patients on nutrition and healthy lifestyle is essential;
b. Through collaboration with existing services currently in place at PHC level. Engage the community that is involvement of the community to come up with what they think will work for them; and
c. Volunteers are identified in the community that assist with health promotion. These volunteers deliver talks as well as are able to monitor 'special cases'. Pamphlets are distributed. Counselling is also available, including family involvement. People are educated/ empowered on the practice of good health principles / healthy living and home visits are incorporated. Close monitoring of patients' blood pressure, sugar levels and pregnant mothers are essential. The other programmes were the same as listed for the preventative services above".

Staff (N=47) suggested educational campaigns and the health calendar, back-week and cerebral palsy week as part of the promotive services. In addition, early detection/ identification, screening for diabetes and hypertension were vital. This includes treatment

and adequate referral patterns. Physiotherapy services need to be promoted at clinics with better communication with hospitals and institutions.

6.3.6.3 Curative Services

The majority of the respondents (N=65/ 65% students, N=55/ 95% staff) were able to indicate what the curative services are except for some students (N=13) and staff (N=5) that did not know about these services. The following responses are a summary of the curative services as indicated by the students and the staff:

a. "Provide medication, encourage medication intake, attendance of rehabilitation programmes. Distribute drawn up programmes to the community to continue with at home, for example, a TB programme. Mobile clinics and home visits to train caregivers are included. Availability and accessibility to modern medication, investigative/ diagnostic tests e.g. X-rays, CT scans, MRI, blood tests (hospital services) for accurate diagnosis/ correct medication, palliative care and operative procedures. The curative medical model focuses on curing the diseases and is institution based. Treatment of a variety of conditions, for example, diabetes, hypertension, TB and complications of these diseases as well as referrals to other levels of care. Treatment is individualized. A TB register is kept for all patients in order to trace defaulters to TB treatment. Prevalence of disability problems in the rural areas must be identified. Therapeutic treatment by PT's and OT's. Optometrists also offer services, for example, provide spectacles;
b. Education and awareness campaigns provide informative pamphlets, posters, workshops, adverts via television / radio and instructions to different levels of the population are included on communicable as well as non–communicable diseases. Promote healthy lifestyles in school curricula as part of daily living;
c. 'Prevention is better than cure'. It is important to empower individuals and arm them with knowledge. Eradicate diseases, treatment and provide prophylactic vaccinations and VCT. Follow-up treatment is encouraged to ensure compliance /

adherence, evaluation and research. The perception is that these measures or services are not beneficial; and

d. 'Everyone needs to work in a multi-disciplinary team (MDT) to effectively treat patients, therefore all health care disciplines (OT, PT, Speech Therapy, Optometry) need to be at a PHC clinic'. This mainly occurs during the placement of the Community Service Officer (CSO). The biopsycho-social model must be followed, treating the whole person. Seminars and CPD activities for staff on PHC must be provided in out lying areas".

6.3.6.4 Rehabilitative Services

The majority of the staff identified rehabilitation services (N=55/ 95%) and some students (N=43/ 43%) whilst other students (N=13) and staff (N=5) did not know about these services. A summary of the responses are indicated below:

a. "These services are not adequate. 'I have never come across any modes of rehabilitation services at the PHC areas that I was in'. It needs to be stepped up in rural and peri-urban areas. The focus is curative where patients are assessed and referred to hospitals for follow-up treatment. Patients need to be re-integrated into the community, for example, to aid cerebral palsy children or stroke patients with physiotherapy services. Psychotherapy is required for depressed patients that must be supervised. Therefore, skilled personnel that are trained are important for the effective delivery of PHC services. HIV counseling should be ongoing in PHC;
b. Investigation, prevention through education and optimization of function is included. PT, OT, ST, Psychological services at a hospital or at clinics (mobile clinic). The disease process can be slowed down and functional independence can be incorporated with rehabilitation services. Education of caregivers, patient follow-up after hospital discharge and monitoring is important. These services are individualized and population based (therapeutic and education programmes);
c. None at the clinics, except what is prescribed to patients on discharge from hospital as part of a home programme. A MDT is required at the clinics;

d. Continual information at different centres, charts and different levels of the population must be incorporated. Educate people on the rehabilitation services that are available by inclusion in school curricula, tertiary institutions and involve the local communities. This information must be readily available;
e. By visiting smaller satellite clinics patients that require advanced care may be identified and referred to appropriate channels for rehabilitation or appliances. PHC can also provide basic surgical appliances for these patients as well;
f. Together with nursing staff and doctors, rehabilitative services are needed in communities because some patients can only get as far as a clinic and not the hospital. Rehabilitation services are not organised, not well advertised and there is no evidence of these services to date. The approach is top-down;
g. Physiotherapy includes the assessment and treatment plan, exercise programmes and re-assessment. Occupational Therapy includes assessment and treatment plan (physical and mental status). The psychologist is involved with counselling. Re-education programmes following injury or illness, balance, posture correction and assistive devices is provided. The referral system for OT/ PT needs revision. Health care professionals must work within a multi-disciplinary team to ensure that follow up of treatment and effectiveness of PHC services is provided. The biopsycho-social model, CBR, psycho-didactic model is incorporated that is focus on patients abilities, psychological implications and their disability. Rehabilitation needs to continue at home, work, hospital environment and in the community focusing on self-care as well as caregiver training. With CBR, basic skills and provision of assistive devices are used to improve the patients' quality of life (QOL). Optometrists can provide low vision devices. A holistic approach for the comprehensive management of patients is essential; and
h. The rehabilitation policy/ procedures including specific cancellation should be communicated to all therapists at a CPD workshop. Currently these services are institution-based".

In conclusion, rehabilitation services are non-existent or minimally offered at PHC settings. All therapists (PT, OT, ST) are not familiar with the rehabilitation policy and

procedures. Consequently, PHC services in the rural areas are not comprehensive without a MDT and, as such, these services are of poor quality, ineffective, inequitable, inefficient and uneconomical. Furthermore, these services are not aligned with the requirements of the legislative framework and the national health policy of South Africa as the peoples' health needs in the rural areas are not adequately met.

6.3.6.5 Identification of Fragmentation and Duplication of Health Services

Only 12 managers responded to the identification of fragmentation and duplication of PHC services as indicated in Table 10 below, which indicates that the managers identified fragmentation and duplication of PHC services between the two authorities, namely, local and provincial governments. The problem has been long-standing, that is, for 15 years post-democracy in the country and requires extensive qualitative research from a PHC context to identify specific problems on efficiency, comprehensive audit of existing services (including responsibility and accountability issues), needs analysis for each level and collaboration (including inter-sectoral). In addition, strategic planning on the best way forward including administrative, reporting structures and processes, monitoring using measurable outcome indicators as well as revision of service level agreements between the two authorities (Local and Provincial governments) is essential. A major problem identified was that local governments have no posts for therapists and this explains why rehabilitation services are non-existent at most clinics. Consequently, an important pillar of PHC services are not provided at clinics in the rural areas leading to poor service delivery that impacts on the quality of life of the people in rural communities.

Table 10: Identification of Fragmentation and Duplication of Health Services

Managers identification	Explanation
"Do more monitoring and use measurable outcome indicators. Very, very difficult - have different conditions of service. Regular meetings between province and local government. Ideally, inter-sectoral collaboration e.g. joint meeting, collaborative planning **X3** Improved relationship between 2 authorities. Joint meetings regarding PHC issues. Set distinct boundries for each authority. Regular liaison with Provincial and Local authorities and proper referral pattern to be established with clear demarcation of catchment areas **x5** Service level agreement must be signed by local authority and provincial dept. Research **x2** Needs analysis for each level Strengthen Public-Private Partnerships Comprehensive audit of existing services to establish/ identify responsibility and accountability issues One needs to understand the role each other plays. Determine best course forward and fill in gaps left behind. **Head office:Provincial level:** Number of clinics in a particular catchment area **x2**".	"More qualitative 'efficiency' research Rehab services are only rendered by Provincial staff not by Local Government (LG) **x2** Province and LG offer same service and province has much more staff. **X2** On a practical level reporting structures and processes are different, administration involved tends to frustrate more than facilitate. LG authority provide comprehensive PHC package as it is being provided by provincial clinics. LG authority must have own team of specialists at visiting clinics *viz* doctors, social workers, therapists and psychiatrists. Conduct research i.e. activities in PHC context. Through research problems can be identified and solved **x2** Needs analysis for each level *viz* identify what is appropriate for each level. In order to establish/identify responsibility and accountability issues. "Cover all bases". Patients sometimes attend local clinics (that fall under the Municipality) as well as provincial clinics (DOH). This causes confusion and duplication of services. If there is regular liaison between the 2 authorities, duplication can be prevented and more comprehensive and holistic management can be provided. **X2**".

However, a positive response although not yet implemented (as identified by the majority of managers, N=19, 86% in, Table 10) was reported by three managers as follows:

The Local Government clinics are in the process of a take over by Provincial Authorities and Provincial Authorities are already coordinating most of their operations. Local Government are now involved in all activities of the Provincial Authorities so that there is no duplication of services. 'When it comes to rehabilitation services, the Local

Authority clinics do not have rehabilitation staff of their own so they actually depend on the services of the therapists employed by the provincial government. There is no duplication of rehabilitation services'. **Head office -Provincial level:** KZN is in the process of integrating the local and provincial government, for example, clinics and environmental health services (**N=3).**

The researcher emphasizes that, although rehabilitation services are not duplicated between the two authorities, these services are non-existent at most clinics, resulting in poor, selective PHC delivery of services that are not comprehensive without CBR, which impacts on the quality of life of the people in rural areas.

6.3.7 Barriers or Obstacles Related to PHC Delivery

Staff and Health Science students responded to a question on how barriers to the promotion of PHC are to be overcome whilst managers had to identify the obstacles/ problems related to the delivery of a comprehensive PHC service.

6.3.7.1 Barriers to Overcome for PHC Promotion

Staff and Health Science student's responses on how the barriers to the promotion of PHC can be overcome, are indicated below:

1. "Re-planning of the physiotherapy programme and how it is implemented. In today's current situation, for physiotherapists and the profession to gain respect in communities, as well as for people to realize how essential these services are, physiotherapists (PTs) need to be more community – oriented. Physiotherapists lack this skill and will continue do so until we start thinking of strategies for implementing PHC where it is needed. 'Change of attitudes by teaching staff towards community intervention (i.e. be non-biased) and think of what suits the patients and not what is always convenient for them'. Physiotherapists are only

involved with the community during their year of compulsory community service and a few PTs are based at community health centres **(N=20 Students);**

2. Good planning and better strategy between PT's and OT's is required to make an effort to find time, for community involvement. 'This requires a group of enthusiastic / motivated well-informed lecturers or empowering them with PHC knowledge by watching a DVD, if there is no clinical field-work or read articles to get informed'. Optometry Department had worked out a strategic plan for a year on how to promote or motivate students to be involved with PHC service delivery. Other departments lack the skill and strategy for PHC implementation **(N=8 Students);**
3. By using more finances for community work, travel in groups / teams with at least one male, work together with other disciplines, make time for community work **(N=20 Students, N=10 Staff);**
4. 'Working hand in hand with the health care members (hands on approach) from lower levels to upper levels of management, for example, from Nursing to the Minister of Health or Health care Authorities'. Communication, liaison/ consultation, participation of all health disciplines (departments) including the community **(N=10 Students, N=16 Staff)** and patients as well as the government, making sure that everyone meets all the needs of the patients including the communities. Improve the education and training of all categories of health workers. In addition, local government must provide the basic infrastructure in the community, making the public aware of the services offered in the community;
5. 'Although we work in the hospital we are isolated from other disciplines so we do not network'. During training, all health care disciplines should have the opportunity to work together in PHC clinics, for example, OT's or PT's to experience PHC and find how they can contribute. This should not be a once off but should be integrated into the curriculum. It is vitally important to work as a multi-disciplinary team in order to reach a mutual goal;
6. PHC needs to be viewed by the government as an essential right. People working in PHC need to be remunerated appropriately, provided with the correct support structures as well as facilities to operate effectively / efficiently and to be

encouraged to work more in this sector. Greater support from senior management is required together with improvement in resource allocation *viz* finances, human resources;

7. Through governmental levels, conferences and at undergraduate level, students need to be informed about the essence of PHC. Work overload is not addressed at governmental level;
8. Optometry Department – 'more time would make a difference, if there, are a leader / supervisor / committed lecturer to assist students to go to rural areas and conduct campaigns'. It was suggested that the students and staff of the other disciplines should also be involved with the 'Optometry train'**(N=36 Students, N=22 Staff).** A special programme encourages MDT work, for example, the 'flying doctor' where all health care professionals assist within local communities / civic associations / schools;
9. 'It is necessary for all disciplines to work together for the greater cause and not compete so much';
10. Staff – PHC will only happen 'when leaders plan and allocate resources effectively'. Motivating the staff in health facilities, provide good, safe and healthy working environment as well as time management is required **(N=3 Students, N=3 Staff)**;
11. Engage the community and vigorously lobby government as well as other stakeholders or key role players (DOH). Community involvement with PHC schedules, for example, education on diseases / conditions **(N=7 Staff)**;
12. Will require engagement with DOH / approaching the appropriate people (active involvement) with respect to the following resources for a better health care system **(N=6 Staff)**:
    - Organization of structures for implementation; improve infrastructure, create jobs for the people; may have to change the way the clinic operates **(N=3 Students).** Require 24 hour services at clinics and PHC centres should not only be for patients from the community. More medical out-patient units also need to be built, not just PHC clinics. A well organised infrastructure with positive management contribution to set standards and accommodate positive

service delivery is required. Patients must access one stop care and not be referred to too many institutions **(N=6 Staff);**

- Human resources that are dedicated and hard working, more posts (unfreeze and create **(N=11 Students, N=15 Staff)**; government must provide staff with incentives to assist with PHC, increase access, CSO to serve more clinics as there are too many patients, time management is important **(N=5 Students, N=11 Staff).** Reduce nepotism;
- Financial resources, equipment, facilities **(N=16 Students, N=14 Staff)**; apply for sponsorship **(N=3 Students);**
- Ensure safety of professional participants / physiotherapists in PHC at the clinics especially **(N=8 Staff)**;
- Applying for sponsorship of certain goods that are required in the health facilities. When there are no medicines, patients use home remedies. IT will make networking much easier, currently referral letters are sent;

13. Through planning, consultation, close collaboration, networking and engagement with other disciplines, organizations, professionals and other students. Monthly clinical meetings with NGOs, CBOs, patients and the community, include health education networking discussions as well as team building. Collaboration with the entire multidisciplinary team in order to share resources / pool resources together of different disciplines, synchronise travelling so that transport can be shared and to avoid travelling alone to improve safety **(N=36 Students, N=20 Staff). 'These are not barriers'. 'Solve each barrier'. 'Barriers are too many and not effectively overcome' (N=4 Students, N=10 Staff). Be creative with financial constaints;**
14. Travelling is possible by government transport services with a driver. Concerning time, patients have to be prioritized/ given appointments. **(N=3 Students, N=7 Staff).** 'Not exposing ones valuables and always being alert to your surroundings will help in-terms of safety'. In addition, safety is possible by engaging with community members for the promotion of PHC. A place can be accessed for regular meetings with community members. Conduct a needs analysis and identify risk factors as well;

15. Limited HR and time constraints (**N=8 Students)**, making it compulsory for the community service physiotherapist/ CSO to visit clinics as part of their community service. There is a need to send health care professionals to rural areas by mobile clinics;
16. Education of people to accept health personnel, those that are ignorant on their rights, the quality of services and inability to network with other disciplines engaged in PHC: National awareness campaigns, educational programmes, advertisements on radio, newspapers and regular in-service with especially nurses in order to promote every profession (promotional days / weeks). Educate people to use the clinics in order to decrease the congestion at other levels of service. Teach the community to respect and value health personnel especially communities that are hostile. A mind-shift change of the community is required regarding hospital versus PHC level of services, educate them that the same services can be accessed at the clinic. Moreover, by educating people at a younger age interaction with the population can be improved. **(N=11 Students, N=15 Staff);**
17. Difficulty experienced in amending job descriptions: This will require negotiations with staff and Unions;
18. PHC is accessible mainly in urban areas. Rural areas still has a need for PHC delivery, address clinic inaccessibility by building clinics close to the community **(N=5 Students);**
19. Other province PT: In general, barriers are not overcome because there is a huge socio-economic factor to these on the part of the patients/ community and lack of resource on the part of the state that is poor state facilities. It was suggested by medical students that more social grants for people from socio-economic backgrounds that are ill are necessary together with monthly follow-up of treatment. Referral to the social worker is necessary as there are many problems that need to addressed with the people at rural communities. **(N=4 Staff);**
20. Continuous updates (CPD), in-service training, workshops to promote each others profession and educational courses on PHC for all therapists including PT's is essential **(N=10 Staff)**; and

21. Transparency between institutions and referral patterns must be standardized between facilities with standard protocols between province and municipal institutions/ facilities" **(N=7 Staff).**

The medical students also felt that there was a need for adequate PHC in rural areas with feasible, sustainable, quality improvement projects and the barriers were poorly overcome **(N=6 Students).** Early prevention of complications is possible by increasing the number of PHC nursing sisters, doctors access to patients, more time, patient education on better quality of services as some services, for example, family planning and HIV/AIDS prevention are under-utilized. The occupational therapy students suggested that UKZN education involves a rural service by providing quality services of a high standard as well as cheap fundraising and income generation projects. In addition, physiotherapists highlighted a need for more assistant training so that a service in the rural areas can be provided and people in these communities can be empowered by them. Concerning rehabilitation services, there should be better organisation and structure, better control to ensure that all health care professionals are providing a service at the clinic. Incentives should be provided for staff to work in PHC settings as well as staff must be motivated and a safe, healthy work environment must be provided **(N=10 Staff)**.

In essence, there needs to be a framework for reaching everybody in the rural areas. More time, better attitude from staff and monetary compensation is required. Government should allocate an adequate budget to employ people specifically for PHC service delivery. UKZN must be more involved in teaching / clinically exposing students to PHC service delivery at an under-graduate level.

6.3.7.2 Obstacles / Problems Related to the PHC Delivery

The common obstacles/ problems or barriers identified by students, staff and management were budget constraints, lack of HR, lack of collaboration among all health care professionals, lack of coordination resulting in duplication of services, poor communication and commitment by all health care professionals. In addition, there are

safety and transport problems in the rural areas, lack of rehabilitation services and language translators. Furthermore, a lack or poor delivery of PHC services by staff and students at UKZN during undergraduate training exists because of no insurance coverage of Health Science students. Moreover, at provincial level, poverty was identified as a major obstacle to the promotion of PHC services.

The managers' identification of obstacles or problems related to PHC delivery, which are similar to that identified by staff and students are indicated in Table 11 below:

Table 11: Obstacles/ Problems Related to the PHC Delivery

Obstacles to PHC Delivery Identified by Managers
"Inadequate working space, challenges in rendering comprehensive services, change of mind set for PHC nurses, PHC facilities being controlled by LG **(N=12).** Nurses are trained and leave for overseas, high turnover of nurses. Lack of HR - skilled personnel e.g. therapy assistant at clinic. One visit per month by a therapist is of no benefit to the community with no incentive pay for volunteers. Need mid level worker category permanently working **(N=13).** Budget constraints **(N=11)** and poor infrastructure **(N=6).** Location, access and poor communication systems. Lack of coordination of disciplines for avoidance of duplication of services. Lack equipment/ facilities at a clinic, often patients have to be referred to the hospital for full services **(N=8).** Transport problem including poor roads, for home visits and community outreach **(N=4).** Lack of translators is a problem at community level. Mindsets need to change, as most health workers do not see rehabilitation as part of core PHC package. Safety is an issue as well as cooperation from senior management. Lack of specific regulation of service. Lack continued in service course directed by outcomes of regular needs analysis. Students cannot be taken to the homes as there is no insurance coverage from UKZN. Profit- in private sector one has to pay for these services. Absence of conducive channels and individuals with passion for PHC provision. Poor buy in of the idea of providing a service at a PHC level by health care professionals **(N=2).** **Head office-Provincial level: Poverty" (N=2).**

6.3.8 Modes of PHC Control and Evaluation

Control and evaluation are important functions of public management and students, staff and managers had to provide the researcher with details on how the delivery of PHC services were controlled, evaluated and monitored as indicated below.

6.3.8.1 Modes of PHC Evaluation

1. "PT students at UKZN indicated that 'Community projects are done on our own. No supervision takes place, which makes one question how it is possible that we are doing the right thing'? Only weekly feedback is provided to the supervisor and end of block presentations are carried out at the university. The OT students also reiterated that there was no evaluation of the first year PHC module or course;
2. Although not adequate, there has been some visits to clinics from workers from DOH e.g. District Manager, Superintendents from nearby hospitals. At district or facility level – regular clinical audits, surveys and patient evaluations are conducted **(N=3 Staff);**
3. Daily statistics are collated and sent for capturing. Monthly and quarterly reports/ statistics for TB, VCT, tally sheet with constant supervision. Evaluation is done as part of EPMDS - Employee Performance Management System by management and based on this training/ workshops are planned;
4. More evaluations are needed in order to identify the missing links in PHC delivery so that patients can receive quality/effective services. An audit of whether evaluations are met is required. Some staff suggested that evaluations were seldom or haphazardly carried out, or never evaluated. In addition, information on PHC services are collected but not evaluated. The challenges and recommendations for each clinic is required as well as an improvement in the supervisory skills; and
5. Statistics book, record cards at clinics - Patient numbers seen, conditions treated, medication prescribed and number of deaths, staff employed. Sometimes, by

questionnaires. District office evaluates the CSO who sends monthly reports (by fax) on the number of patients assessed, treated, number of assistive devices provided and the number of patients attended to at the clinic (clinical audit)".

However, some students and staff indicated that they were 'not sure' or 'not applicable' to the modes of PHC evaluation (**N= 26 Students, N=10).** Students and most staff had no clinic experience and were unable to comment. The Health Professionals Council of South Africa (HPCSA) can be involved in the evaluation of PHC delivery during training and clinical practice.

Occupational therapy staff emphasized that clinicians carried out evaluations only and that there was no overall system of monitoring.

6.3.8.2 Modes of PHC Control

Staff, students and managers' responses on the modes of PHC control were the following:

1. "Visits by delegates from the DOH to monitor the effectiveness of PHC delivery that is, monthly supervisory visits/ reports or the Section Head are conducted. It can be limited if only unit HOD's are utilized. The community members can also play a role in PHC control as well as Local Government. There is no control or standardization of patient's comments and correct referral patterns are not followed;
2. Not aware - presume that evaluation monitoring and control will be largely given direction through needs analysis given, provision of new clinics in rural areas. Administration at district level has poor management;
3. PHC trained personnel assess patients and refer accordingly to various levels of care, therefore not overburdening PHC services;
4. By PHC registers at clinics they are able to count the number of people receiving treatment every month **(N=4).** Duty schedules, time/ attendance sheets, leave forms, statistics, medicine control **(N=4)**; and

5. **Managers:** Services are coordinated at a district level through the district programme coordinators who ensure that programme policies and guidelines are implemented at the clinics. Financial control of the services is done by the mother hospital".

There is a need for accountability to the poorest and needy community of the country. Similarly, some students and staff indicated that they were 'not sure' or 'not applicable' to the modes of PHC control (**N= 35 Students, N=16 Staff).** Students and most staff had no clinic experience and were unable to comment. It was suggested that PHC delivery must be observed and compared with the different disciplines, namely, doctors, nurses, OT's, PT's, ST's, optometrists. It is also controlled by government's financial constraints, availability of staff and medication. Management within the hospitals is possible through application/ implementation of the *Batho Pele* principles and by individuals' professional ethics. All health care professionals need to be evaluated at the work place. The evaluation and control of PHC service delivery requires planning.

For nurses, the South African Nursing Council (SANC) rules and regulations according to the PHC Act is applicable. By protocols and regular monitoring of PHC services as well as renewing old protocols, new guidelines are followed.

The OT's reported that there was nothing specific for the control of PHC services whilst the Optometry Department suggested that this was carried out by the supervisors / staff. It was also conducted on an *ad-hoc* basis through a needs analysis given, and provision is made for new clinics in the rural areas. PT's highlighted that the district office performed quarterly reports / statistics by the co-ordinator. CSO inputs on the services at clinics **(N=9 Staff).** PHC policy and procedures must be followed, personnel are trained to assess patients and refer accordingly to various levels of care, thereby not overburdening PHC services.

The managers' responses to the modes of PHC evaluation and control are shown in Table 12 below:

Table 12: Managers' Response to PHC Evaluation and Control

PHC Evaluation	PHC Control
"Only done on a small scale by district office - mainly to check gaps, space availability, equipment. DOH lack resources for service delivery, therefore evaluations of services are not a priority **(N=2).** Clinic supervisors do not have basic training for evaluation of rehabilitation services. Supervision done by PHC supervisor. Use questionnaire, survey form, audit PHC register/card. If indicators are based on a target- regularly monitored. It is based on report of operational management. Monthly reports and statistics submitted to district office **(N=7).** Quarterly reviews by district office team to cover all PHC services **(N=7).** Clinic and institution- support visit done. Operational plan targets are analysed quarterly and action plans to correct gaps are done. Meetings" **(N=2).**	"By HOD's/ supervisors occasionally. By district office for now, but CHC will be having their own staff in the near future, responsible for supporting their satellite clinics **(N=7).** Monthly reports and statistics for each clinic/ PHC facility is submitted to district office. **(N=5)** PHC register, statistics, audit all services. Supervision at all clinics. Senior management based at head office level. Operational plan targets are analysed quarterly and action plans to correct gaps are done. Guidelines are followed. Policies are in place and implemented. At Faculty level. Haven't a clue".

The Managers' evaluations are based on indicators set by the provincial head office and information on these indicators is reported quarterly. **Head office - Provincial level:** stated that this was executed through a supervision manual, monitoring and evaluation meetings as well as reports by Authorities, DHS **(N=2).** However, some managers indicated that evaluation and control of PHC service delivery was not a priority. It was only conducted on a small scale by district office and more importantly, PHC supervisors lacked the basic training for evaluation of rehabilitation services.

6.3.9 Suggestions for promotion of PHC in Clinical Training and Practice

Students, staff and managers had to provide the researcher with details on the promotion of PHC services in clinical training and clinical practice. The salient points are captured below:

1. "More multidisciplinary work is essential so we work together in training and in the compulsory community service year as we have never worked together and this leads to conflict in the community service year. Course based only on PHC with all disciplines involved, people need to understand different disciplines, adequate referral systems, hospitals and government;
2. 'OT's really have not worked with PT's to know their training! Clinics in rural areas do not have therapists especially PT's';
3. **PT -** recurriculise, lobby community, government and other stakeholders. Staff **(N=45)** highlighted that PHC training at undergraduate level should be from first year to fourth year;
4. Inclusion in the undergraduate curriculum, exposure to PHC practice at UG level. Integrate visits to PHC centers throughout UG levels. To include community clinical blocks at a PHC rural level and not institutions e.g. Aryan Benevolent Home. All disciplines should be integrated together during placements at clinical sites and there should be common UKZN PHC sites for all Health Science students to use during clinical training. In this way more practical application and clinical site visits to implement PHC knowledge / services is possible. This involves restructuring the curriculum, lobby the community, government and stakeholders. A needs analysis and more community engagement is possible;
5. 'Social responsibility by every staff member and student - these can be integrated so that communities are served'. All staff in all disciplines require *compulsory* extensive training / refresher courses / update in PHC services or monthly in-service training was also suggested **(N=45 Staff, N=14 Students)**. CPD workshops on PHC were also included. Private practitioners must also get involved;

6. Have a set time-table, for example, the last week of the month - include a topic for health promotion e.g.: what is osteoarthritis, how to manage it, biomechanics advice for office workers, TB management, conduct exercise classes; and
7. **Managers:** Training institutions should include one clinical block at a District Hospital (preferably rural) where the students can have the opportunity of being placed on a PHC clinic rotation. The course work should also include the District Health System and a more in depth look at the philosophy of PHC and its implications on rehabilitation as well as the policy and procedures of PHC. In KZN, undergraduates need to be exposed more to rural clinics, instead of **"homes"** they deem as centers for PHC. Make PHC a major part of undergraduate training of health professionals **(N=11 Managers, 95 Students, N=50 Staff) Head office-Provincial level:** Training curriculum for health professionals must be changed from disease management to a PHC approach and emphasise prevention" **(N=2).**

A further summary of the managers' comments are indicated in Table 13 below:

Table 13: Managers' PHC Training Suggestions

Managers' PHC Training Suggestions
"CPD / training workshop. Training must be ongoing and regular. Students have to come prepared for PHC i.e. not expect fancy equipment in clinics as well as standardized tests but be able to adapt to environment. Students need to understand the rational behind this framework, more work in a PHC setting, theory on PHC model must be included - syllabus and need to be working interactively from 3rd yr, not just doing Valley trust block **(N=11).** Module/clinical training at PHC facility/clinic – curriculum review **(N=11).** Promotion of PHC in clinical training and practical will reduce number of patients that need to see a doctor. Most patients are attended to by the PHC nurse. Regional and district hospitals must educate patients on relevant / essential PHC services available to ensure maximum use of clinics and decrease in hospital load **(N=2).** Collaboration with UKZN".

In KZN, a lack of multi-disciplinary teamwork in training and practice permeates once again with the undergraduate training focusing on institution-based clinical sites rather than rural clinics. It was suggested that PHC must be an integrated service and not used merely for issuing treatment. Provisions must be made to train all staff, improve working conditions and the salary for staff that provide PHC services in rural areas. Management also requires training to be qualified to manage PHC services.

6.3.10 PHC Research

PHC research is important for evidence-based practice in PHC implementation of services (delivery). Most of the staff, students and managers were not aware of much PHC research being conducted with many of the respondents not answering this question. The responses are summarized in Table 14 as follows:

Table 14: PHC Research: Students, Staff and Managers' Responses

Students	Staff	Managers
"None / not sure / don't know / not aware **(N=28).** PHC is huge yet SA don't know/ do much concerning it. *'This research is the first, effective (N=12).* Awareness is increased. *'If problem found, have solution- never implemented'* If service is good, leads to positive outcomes, patients are healed from the diseases. 4th yr research/ projects Under and Postgraduate Research results are at government level- district office collates statistics from various areas. Workshop to update staff on new management protocols is required".	"No feedback from researchers / don't know **(N=17).** Lack of incentives for research within DOH, limited research **(N=2).** *This research study-only one.* Yes-Researchers at medical school, KZN province conduct evaluations/ on literature **(N=4).** HPCSA conducts research. Yes, Looking at referral system, research projects on community re-integration of people after stroke, on exercise and HPT, obesity in children **(N=3).** 4th yr research / community project Undergraduate and Postgraduate levels **(N=2).** District office collects statistics from various areas".	"Do not know any being conducted at present **N=8.** No research-lack of capacity at the moment and lack of resources**,** never get feedback from researchers. UKZN Medical school conducts various studies. **(N=2)** and studies are conducted by NGO. **PG/DOH-** MRC is assisting to review PHC Supervisors Manual **N=2.** Done through internal audits".

Table 14 illustrates that students (N=28), staff (N=17) and managers (N=8) were unaware of any research being conducted as feedback is never given by researchers. Research was limited or absent due to lack of capacity, resources and incentives, as suggested by some staff as well as managers. Some students and staff have acknowledged that this research was the first one on PHC that they were aware of, and which was effective to improve PHC services. However, a few students (N=1%), staff (N=7, 12%) and managers (N=5,

23%) alluded to being aware of research conducted by various organizations such as UKZN, Medical School, NGO's, HPCSA, MRC and DOH. Very few staff and students (less than 1%) suggested that there were a few undergraduate and postgraduate research projects on PHC. A few staff and managers acknowledged that the District Office collects statistics from various areas to conduct internal audits. Moreover, some students affirmed that *'PHC is huge yet SA don't know or do not do much concerning it'* and *'if a problem is found, there is a solution but it is never implemented'*. The students added that a workshop to update staff on new management protocols is required and if PHC service is good, it leads to positive outcomes, patients are healed from the diseases.

6.3.11 Public-Private Partnerships (PPP)

Public-Private Partnerships (PPP) are increasingly valuable in the presence of scarce and limited government resources, if proper, well-structured contracts are drawn up and signed by both parties concerned. As the demands by people are high and unlimited, government is struggling to meet the needs of the people and deliver quality services in all spheres, sectors and levels. The researcher, therefore, included PPP in order to establish whether the respondents were aware of and had any experiences of PPP.

However, many subjects did not answer the question on PPP. Table 15 below illustrates that students (N=27), staff (N=12) and managers (N=2) were unaware of any PPP (23%). In addition, there were a few students (N=7), staff (N=10) and managers (N=5), being 11% of the total sample, were aware of PPP with, for example, NGOs, Redcross, and Lovelife. At provincial level, managers acknowledged the existence of PPP for policy formulation and training, research, as well as implementation of delivery of PHC services **(N=2).** Furthermore, managers acknowledged that PPP had just been introduced into DOH for a few years. The partnerships that seem to be working are those with the NGO's in the HIV field. The partnerships with rehabilitation NGO's are not effective due to a lack of clarity in their role in the district and a lack of a clear framework for monitoring and evaluating these partnerships.

Table 15: PPP - Students, Staff and Managers' Responses

Students	Staff	Managers
"Don't know **x27** Overseas- funding, **OT -**less sponsors, ICEE - in optometry, PPP-research collaboration, **little-**some private doctors offer PHC service **N=7.** Expensive, low income patients-no PHC not accessible, decrease/ poor referral system between Public and Private-operate at their own level, private focus is money, ignore public service, private-increased resources-service less of population **N=13".**	"Not practiced **x12** Partially involved**,** PPP-industry Engen –social responsibility programme, studies on eye-care service in SA, lead to improvement/ recommendations, NGO assist different professions –Redcross**,** Lovelife, not many PPP exist in PHC-usually involved in tertiary care-IALCH –resource problem **N=10.** Effect-challenges-cost in private are higher than public. No collaboration between PPP and Government-work independently, focus is no funds, long queues/ waiting, private referral only-financial constraints, patient turnover and time factor does not appear to be conducive to PHC delivery **(N=7).** Is PPP ?effective Private- no monitoring of PHC service delivery -up to PT to provide equal service i.e. no under/over patient treatment".	"Cannot comment- not been involved in any, rehabilitation services are rendered only by state employed therapist **N=2.** NGO's – contracted for home based care delivery and community health worker programme **N=3.** More interaction is needed with regard to suppliers and financial resources. PPP just been introduced into DOH over the past few yrs. **PG/Head Office:** For policy formulation and training, research, as well as implementation of delivery of PHC services **(N=2)".**

Some students and staff were of the view that PPP was challenging and questioned their effectiveness. Since the private sector focuses on profits, there was little to no

collaboration between these two sectors with each sector usually working independently. PPP was expensive for low-income patients with PHC services not accessible. Moreover, a decrease or poor referral system exists between public and private sectors with the latter operating on their own level, as the focus is money and ignores the public service.

6.3.12 PHC Strategic Planning, Organization, Leadership, Training, Development and Control

Strategic planning, organization, leadership, and control are *inter alia* the essential management functions (discussed in Chapter 2) that all managers should engage in. Consequently, all respondents had to comment on these important public management functions.

1. "If we have more training and involvement in PHC during our studies we are more likely to be involved in PHC once we are qualified and PTs have a vital role to play in the provision of PHC;
2. A greater understanding and knowledge of PHC needs to be implemented at student level. Health professionals need a reason to stay and be involved in offering and promoting PHC. Better facilities are a definite requirement. More focus on PHC is required at all levels to improve implementation. More input needed from PT's as to implementation and planning a way forward. Clinicians are with patients and would have a better plan for the delivery of PHC;
3. 'We as PT students should have a better knowledge of PHC but we are not taught it effectively and not encouraged to look into it at all';
4. Inclusion in the undergraduate curriculum, exposure to PHC practice at under-graduate level is required. Development of specific policy to govern PHC in a physiotherapy context is important. DOH must be approached for provision of the required resources. Promote collaboration with other disciplines;
5. 'Feedback from community PT's will allow us to determine the main areas that require attention in preventative care. These areas should be included in the undergraduate training as part of the community block. Education on a small scale

as in 1:1 service, offer family caregiver counseling, deliver talks at general family / community clinics, train personnel to work with physically disabled;

6. 'Heavier emphasis on nurses and doctors who are made aware of exactly what the other professionals do and how to refer accordingly. At present, they expect guillotine amputees to get prosthesis without revision';
7. The government health department needs to be more stringent on PHC delivery by organizing workshops to train health care providers on how to upgrade their service to the public. In addition, to provide incentives to the health care providers to continue working in different health institutes. Continuous motivation programmes for staff worker;
8. 'A stakeholder analysis should be done, to facilitate a discussion on how better as PTs we can deliver an effective PHC service'; and
9. **Head office-Provincial level:** Training of staff. Behaviour changes with regards to promotion of healthy lifestyles **(N=2)".**

The above comments reiterate that the physiotherapy profession is retarded in undergraduate training and clinical practice concerning PHC delivery of services. Strategic planning, organisation, leadership, control and evaluation are mandatory management functions that the physiotherapy profession require in collaboration with other disciplines including the students, key stakeholders / role players, DOH, and the communities. Training and development of staff in all disciplines should be compulsory on PHC services in order to align the delivery of health care services with the requirements stipulated in the National policy of the country. Moreover, South Africa formed part of the global initiative on PHC when the Declaration of Alma Ata was signed in 1978 and is, therefore, obligated to deliver PHC services accordingly. Table 16 below indicates a summary of responses from all subjects regarding these management functions.

Table 16: Management Functions Comments: Students, Staff and Managers

Students	Staff	Managers
"Don't know enough **(N=6).** All health care professional need further training to provide this service, give incentives to educate on the importance of this! **N=24.** Dynamic PHC leaders to strategise, implement, and reach community that need PHC, planning not a problem but deliverance is! Patients first **N=8.** Improve –mobile clinics and dispensing of medicines. Health promotion, MDT work, educate patients on follow-up of treatment **N=6".**	"High level of PHC training - free, accessible for all health care professionals (IMCI training), include rewards for best practice, CPD / workshops-specific guidelines – policies / procedure, motivation program, promote collaboration, appropriate referral **N=22.** More dynamic PHC leaders to strategise, have systems in place and implement, reach community that need PHC, monitor/ evaluate on a regular basis **N=7.** Research community services-how staff cope despite shortages of staff, equipment, medicines. PTs must be employed to work permanently at satellite clinics. In-service community PHC levels will decrease the burden on state institutions".	"More CPD training and better exposure of health professionals to rural areas, very little training for PHC staff on rehabilitation since staff shortage, nurses not able to attend to this service, make training of nurses accessible and affordable **(N=6).** Leaders should inject more finance resources to training of personnel **(N=6)** Staff exodus, stop freezing posts, hasten PHC structure to address staff shortage. Upgrading of residences at PHC facilities a retaining strategy **(N=4).** Provision of budget for rehababilitation services at PHC which are not always included **(N=3).** PHC strategic planning is a relatively new service at community level and needs to be marketed well **(N=2)".**

Students (N=24), staff (N=22) and managers (N=6) affirmed that all health care professionals required PHC training on strategic planning, organization, leadership, and control. Moreover, dynamic leaders are required to ensure successful implementation of PHC service delivery, as indicated by students (N=8), staff (N=7) and managers (N=6). Staff also suggested that research and in-service PHC implementation is necessary to decrease the burden on state institutions. Managers emphasised that PHC strategic planning is a relatively new service at community level and needs to be marketed well. In addition, an increase in budget to employ more staff, include rehabilitation personnel at clinics and staff retention strategies were required. Students were concerned about promoting MDT work and improving all aspects of PHC services.

6.3.13 Recommendations

All respondents were requested information on recommendations for the future regarding PHC delivery in KZN. A summary of some of the responses are indicated below:

1. "It must be implemented in all areas especially rural areas because it is difficult for people, in rural areas to get to hospitals, 'when they do get there they are sent back without help'. All health care professionals must visit rural areas, almost every month, for example, PT's are registered under HPCSA, and annual CPD points are required to stay registered. Thus, the KZN health sector must draft a policy that requires health care workers to implement PHC delivery on a monthly basis in order to establish a continuous process for health service delivery. Can include incentives for PHC work. This will prevent future illness because people will have knowledge about a disease and ways of preventing it. Improve education facilities, health promotion / awareness and education programmes, including home based care in the rural areas. HPCSA can advertise which rural areas require PHC services as promotion of PHC is required in all provinces;
2. 'If PHC workers are happy and properly trained, there would not be a stigma attached to PHC'. CPD workshops, training and exposure to create awareness, motivate and educate all health care providers on PHC guidelines, understanding

of policies and procedures will be useful. 'Patients first not people's jobs'. PTs must be employed to work permanently at satellite clinics to reach communities that are in need and improve the quality of PHC services;

3. More government involvement and realistic policies are required;
4. Medical school and Health Science Faculty/ Supplementary Health Sciences should work together - plan a proper programme / infrastructure for undergraduate training / PHC clinical exposure, in collaboration with the DOH. Lobby for the provision of comprehensive PHC services in line with other disciplines, which must be adopted / implemented aggressively, particularly the preventative, promotive, curative and rehabilitative services especially for chronic illnesses. This will increase awareness of PHC from undergraduate level. At the moment service delivery by students are fragmented. Consult with CSOs and PT clinicians to plan the way forward. Appropriate clinical training policy for KZN for all health care professionals to implement PHC delivery on a monthly continuous basis is of paramount importance. Better clinical training / implementation is required. Sustainability of community work by student rotation to the same area is important. Collaboration of all disciplines to offer services at clinics are required, better MDT work and respect is essential. Health care delivery should focus on the prevention of future illnesses as people are empowered on the preventative measures;
5. PHC should be adopted and implemented aggressively as part of preventative, curative and rehabilitative strategies in line with other health care disciplines especially for chronic illnesses;
6. Community blocks in 3rd and 4th yr undergraduate training. Guidance from nurses will assist other disciplines in improving implementation at clinics. Staff posts at clinics with improved communication between different disciplines is required;
7. Need all members of the therapy groups both private and public sector as well as retired persons to become involved. Awareness campaigns are essential;
8. Greater focus on PHC is needed by government *viz* more facilities / space, equipment, infrastructure, clean, safe, PHC environment, improve working conditions, more mobile clinics, drugs for HIV, HR / staff posts, increase budget /

funding / salaries, improve accessibility, more research. Job creation and incentives for PTs such as rural allowances are required. Funds to increase the supply of assistive devices, pay caregivers and community health workers will improve the delivery of PHC services in rural communities. Good management including maintenance of these resources in the delivery of PHC services is also essential. More dynamic PHC leaders to strategise and implement PHC services is necessary. There should be defined roles for all personnel involved in PHC, proper referral / management systems and effective coordination of PHC delivery. This must be visible and transparent to all individuals involved with PHC;

9. 'All disciplines of health care need specific training / in-service / refresher courses and guidelines so we have proper understanding of the policies and procedures'. Faster, more efficient, quality patient care is required in PHC service delivery. PHC research is vitally important to improve PHC service delivery. **Managers:** Increase rehabilitation mid-level workers at clinics with the primary function of health promotion and community development, so that more community outreach can be done and more work on empowering communities can be done as well. The CBR facilitators work together with the community health workers (CHWs) conducting home visits, identifying patients and referring for rehabilitation/ other services. All CHC's to have a full complement of rehabilitation staff that will be responsible for visiting satellite clinics on weekly bases supervising therapy assistants based at clinics. District not to depend on community service therapist to provide this service because of inconsistency / availability of CSO's which threatens sustainability of the service. There must be skill mix at PHC facilities. Rehabilitation wise, increase training with CHW to include rehabilitation and disability issues. Management needs to be encouraged to support therapy departments in outreach attempts **(x14)**; and
10. **Head office-Provincial level:** need for complete teams. Promotion of working relationships among all the structures at PHC levels, collaboration **(N=5)".**

The nursing staff together with the medical staff have requested the employment of more nurses as well as doctors; more training of personnel; and unfreezing of posts for PHC

delivery. Nurses requested incentives for PHC services and to streamline ante-natal care, immunization, geriatric and family planning services. Voluntary community work must be encouraged in the rural communities. It was also affirmed that nurses that are trained in the hospitals are far better than those that are trained at university. This implies that the university-trained nurse lacks PHC experience and is, therefore, not as competent. Guidance from nursing staff can assist other health care disciplines in improving the implementation of PHC services at the clinics. Communication will also improve between all health care providers as PHC services will be integrated and collaborative.

Other staff suggested that PPP was an option. Employers' rights need to be protected just as patients rights are. Adherence to control measures/ rules and political tolerance was also important.

The recommendations by the respondents focus on training of staff and students as well as the training of community health workers / mid-level workers. Rehabilitation services are scarce / lacking or non-existent in most rural areas and, because of budget constraints, student exposure will be of extreme benefit in bridging this gap of scarce rehabilitation skills. Consequently, all students will be well trained for effective PHC service delivery when serving one year of compulsory community service. Inclusion of a salary for other health care professionals during training may be an option. However, collaboration of all health care providers, academic personnel and MDT work is extremely important in this regard, together with the support from DOH as well as key stakeholders/ role players from all other sectors. The Faculty of Health Sciences at UKZN must solve the transport and insurance issues for all Health Science students. Effective management of PHC services is the key to successful delivery and all managers must be trained accordingly. Improving on the monitoring systems, control and evaluation of PHC services is important for standardized quality in health care service delivery.

6.3.14 Challenges

The challenges that confront PHC delivery in KZN were listed by the respondents and are summarized below:

1. "Poor management at the higher offices, government not providing enough money (budget constraints from the DOH), resources, infrastructure and equipment needed to deliver services in rural communities, for example, space in health institutions, transport, medication, HR (high patient doctor ratio, influx of foreigners or illegal immigrants) to implement PHC **(N=94/ 94% Students, N=47/ 81% Staff, N=22/ 100% Managers);**
2. Students, managers and staff highlighted that commitment from local and provincial government is necessary. **Government /** DOH needs to be more pro-active as the current services are cheap and of a poor quality. All services should be supported especially in the rural areas where proper services are not given. There is a lack of commitment, training, monitoring/evaluation of the PHC programme and integration of services with no follow through. Poor administration, corruption, non-committed incompetent leaders, health personnel attitude, poor staff morale and lack of PHC education / motivation, decrease in PHC leadership / support structures, misunderstanding, lack of communication between disciplines and government, lack of co-ordination strategies for the implementation of PHC, compliance, shortage of PHC services, vision and mission. Current PHC approach is fragmented and needs holistic management of patients by different disciplines, requiring more attention as well as encouragement. Private practitioner involvement and integration of the various disciplines in PHC delivery is important **(N=12 Students, N=22 Staff);**
3. Safety of personnel delivering PHC is not adequate. Unemployment, poverty, an increase in HIV/AIDS /TB, language barriers in the rural areas and politics must be addressed;
4. Holistic management of patients by different disciplines needs more attention and needs to be encouraged. There is also a lack of motivation from health care providers;

5. Students, staff and managers identified time constraints, accessibility, transport (distance between the clinics) and affordability as major problems. Access: Vast areas still not serviced at all, even by mobile teams and illiteracy of the majority of population exists. Therapists receive little support for outreach efforts from medical/ PHC management. Overcrowding at clinics with a staff: patient ratio of 1:70, which exceeds the recommended ratio by WHO of 1:30**.** This results in long queues in clinics;
6. Staff attraction (with better salaries) to apply for PHC posts and retention policies as well as training of PHC staff in rehabilitation are therefore essential. The CSO post is used on a yearly basis, and is not being sustained requiring more planning of CSO programme. More job opportunities as well as job opportunities are required for all health care providers. The major challenge is poor staff attitudes and willingness/ limited effort by health care providers; and
7. People in the rural areas lack knowledge/education (ignorant/illiterate) and patient compliance is poor as well as an acceptance of western medicine is a problem".

Managers: "The combination hospitals (regional hospitals, which are also district hospitals) are a problem. As regional hospitals, 'they do not see the need to be involved in PHC and the DHS. Often the management pushes their regional hospital agenda and forgets their district obligations'. Comprehensive audit of existing services is necessary in order to establish/identify responsibility and accountability issues. Community 'buy in' and mind set is required, as people still believe that the service is better at hospitals as well as if being seen a doctor is important. People prefer White/ Indian doctors/ therapists, as the belief is that 'they are better'. The mindset needs to be changed.

8. **Head office-Provincial level:** Poverty, poor transport, infrastructures, communication, crime, budget constraints and staff shortage **(N=2)".**

The above challenges overlap with the barriers or obstacles that health care providers face in the delivery of PHC services in KZN.

6.3.15 Opportunities

Most respondents emphasised that there were plenty of opportunities in offering PHC delivery in KZN but better leaders and managers in health care were required. A summary of these responses are presented below:

1. "Increased easy access to low cost / affordable services are taken to the people in rural areas, faster service will ease burden / pressure of overcrowding at state / tertiary hospitals (other levels of care) and saves resources. Equitable services with free medicines increased PHC sites, mobile / out-lying clinics, home-based care/ outreach to provide all the poor people with adequate health care services covering a wide demographical area. Prevention of permanent disability, mobilization of health care resources and treatment of minor illness is possible;
2. Patients will be provided with self-care empowerment/education. **'Health for all' -** offers opportunity for communities to grow/receive health care to ensure well-being. Improvement in the quality of life, better patient care, the **four 'E's in Health care service delivery;**
3. Early identification of people with problems, illness, which could be prevented when detected early. Rehabilitation services and CBR opportunities. Health promotion/prevent illness and maintenance health for all. All communities are benefiting from the TB / HIV intervention programmes with some improvement in the KZN statistics;
4. There are so many communities that are not explored. Spreading a wider cover for the health sector will be a good learning environment / plate-form for students and health care providers/ professionals for PHC service delivery experience/ knowledge. CSO are able to provide a service at the clinics. Creation of job opportunities/satisfaction and employment for the effective delivery of comprehensive PHC services is possible. 'Opportunities to work with all walks of life - community love for the people'. Promotion of all disciplines at community level with access to OT, PT and other interventions. There is good communication at district hospitals according to the managers;

5. Will ease cost of travel by patients. Saves time and money - PHC services are not far from residential areas/live away from city;
6. **Managers:** There are still glaring socio economic disparities in KZN and this leads to inequity in access to quality health care. PHC delivery would offer the opportunity to give equal quality of health care to all persons in KZN; and
7. **Head office - Provincial level:** Community participation and empowerment. Promotion of healthy lifestyles. Improve environment holistically **(N=2)".**

However, some respondents stated that opportunities for PHC delivery in KZN were limited due to government interference, poor leadership and inequitable PHC services. Urban and peri-urban areas had better PHC services whilst another limitation was the provision of PHC at clinics only.

PART C

6.4. QUANTITATIVE ANALYSES: MANAGERS RESPONSE (ANNEXURE B)

This part of the Chapter focuses on the quantitative analyses from the data collected from managers (Annexure B). The quantitative analyses from the students and staff (Annexure A) will follow thereafter. The reliability results for the managers in the main study are presented in Table 17 below:

Table 17: Reliability Statistics: Managers Response

Cronbach's Alpha	Number of Items
.685	21

The reliability value is close to the accepted norm of 0.70, which indicates an acceptable level of consistent scoring for the study.

6.4.1 Managers' Designation and Discipline

Table 18 below indicates the cross-tabulation between Managers' Designation and their Discipline / Department specialty or qualification.

Table 18: Managers' Designation and Discipline

Types of Managers		Discipline/Department						Total
		Physiotherapy	Nursing	Medicine	Occupational Therapy	Provincial Level	Other Province Physio-therapists	
Manager-Provincial level	Count	0	0	0	0	7	0	7
	% Total	.0%	.0%	.0%	.0%	31.8%	.0%	31.8%
Manager-Physio	Count	9	0	0	0	0	2	11
	% Total	40.9%	.0%	.0%	.0%	.0%	9.1%	50.0%
Manager-other disciplines	Count	0	2	1	1	0	0	4
	% Total	.0%	9.1%	4.5%	4.5%	.0%	.0%	18.2%
Total	Count	9	2	1	1	7	2	22
	% Total	40.9%	9.1%	4.5%	4.5%	31.8%	9.1%	100.0%

Table 18 indicates that almost half of the managers (40.9% + 9.1%) were involved with physiotherapy. A little less than one-third (31.8%) were from the provincial level. Provincial level and physiotherapy managers comprised the majority of their fields.

Of the managerial types that made up the sample, half of them were physiotherapy managers. There was almost a 2:1 ratio of provincial level managers to managers from other disciplines, namely, Nursing, Medicine and Occupational therapy, as reflected in Figure 2 below.

Figure 2: Managerial Types

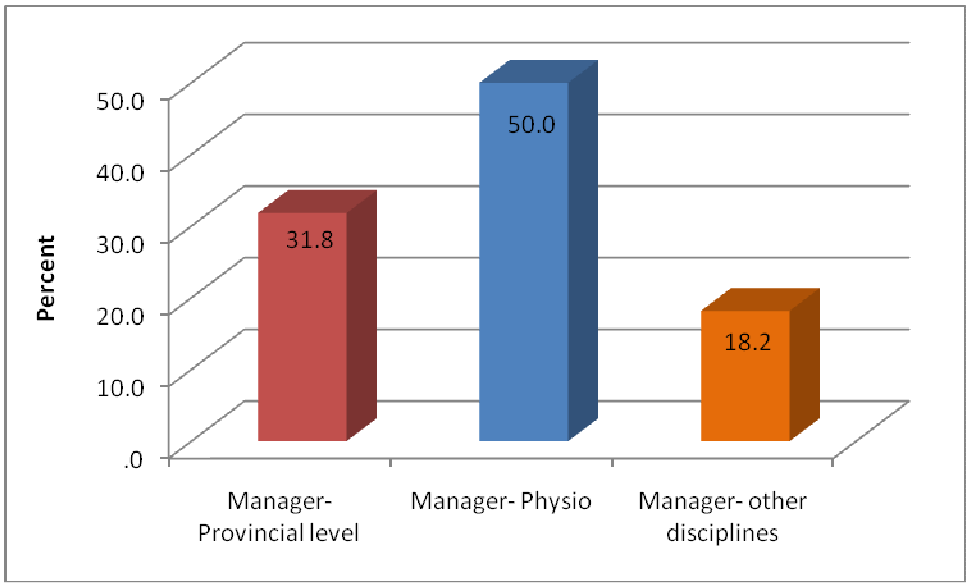


Figure 3: Managerial Disciplines

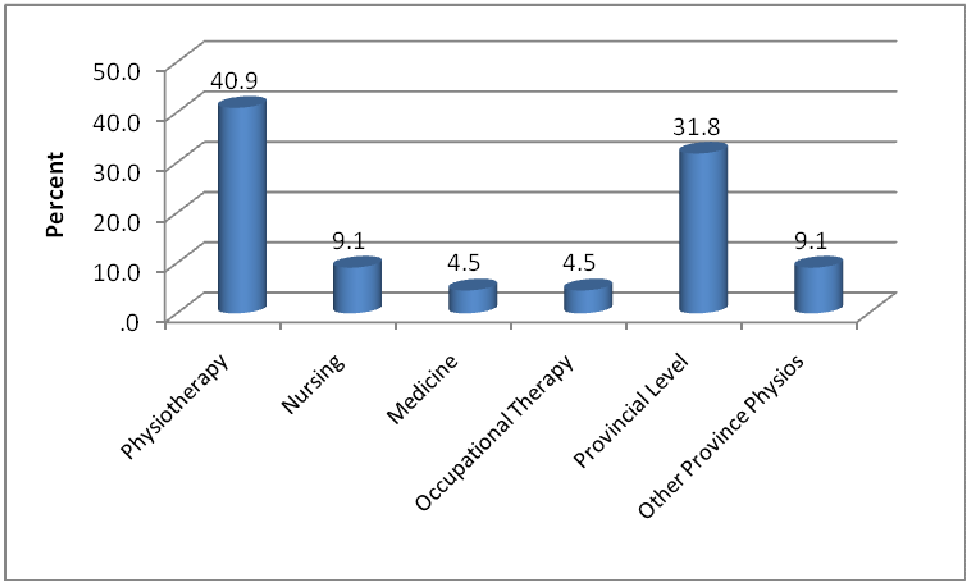


Figure 3 indicates that the majority of the managers are from the Departments of Physiotherapy (41%) and Provincial level (32%) as well as managers from other provinces (9%).

6.4.2 Frequency of Collaboration with Health care Professionals

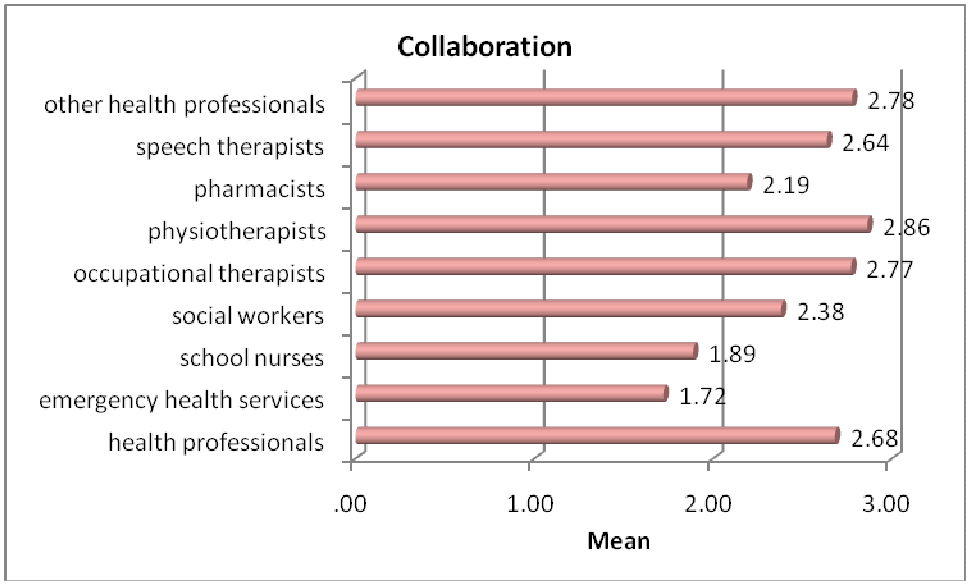
Managers' responses to collaboration with other health care professionals were either occasionally or regularly, as indicated in Table 19 below:

Table 19: Frequency of Managers' Collaboration

Type of Managers			Collaborate- health professionals		Total
			Occasionally	Regularly	
Designation	Manager- Provincial level	Count	2	5	7
		% Total	9.1%	22.7%	31.8%
	Manager- Physiotherapy	Count	3	8	11
		% Total	13.6%	36.4%	50.0%
	Manager- other disciplines	Count	2	2	4
		% Total	9.1%	9.1%	18.2%
Total		Count	7	15	22
		% Total	31.8%	68.2%	100.0%

In total, 31.8% of the managers indicated that collaboration with other health care professionals was on an occasional basis with physiotherapy managers comprising 13.6%, whilst 68.2% of the managers collaborated regularly with physiotherapy managers comprising 36.4% and provincial level managers totalled 22.7%. The managers from other disciplines (18.2%) collaborated with other health care professionals occasionally (9.1%) and (9.1%) regularly.

Figure 4: Collaboration of Managers with Health care Professionals



In general, mean scores closer to 3 indicated regular collaboration with other health professionals (Figure 4). In particular, close collaboration was practised with speech therapists, physiotherapists, occupational therapists, social workers and other health professionals. However, collaboration with school nurses and emergency health services was practised less often as all therapists indicated that there was no need to collaborate on a regular basis. All therapists form part of the multi-disciplinary team in the delivery of PHC services, and are an integral component of rehabilitation services. Consequently, it is compulsory for managers as leaders in PHC delivery to collaborate with all health care professionals.

Chi-Square tests were performed on the managers' responses to collaboration with other health care professionals as indicated in Table 20 below:

Table 20: Chi-Square Tests for Managers' Collaboration

Chi-Square Tests	Value	Difference	Asymp. Sig. (2-sided)
Pearson Chi-Square	.748[a]	2	.688
Likelihood Ratio	.710	2	.701
Linear-by-Linear Association	.379	1	.538
N of Valid Cases	22		

Since the chi-square p-value is more than 0.05, it implies that there was no significant statistical difference in the manner of collaboration between managers and health care professionals. It means that managers are collaborating with all groups of health care professionals in a similar manner.

6.4.3 Community Involvement/ Participation

Table 21 and Figure 5 indicate that generally the managers' involvement with the community was either absent, occasional or regular as a frequency percentage of 9.1%, 31.8% and 59.1%, respectively.

Table 21: Encouragement of Community Involvement/Participation

	Type of Responses	Frequency	Percent
Valid	No	2	9.1
	Occasionally	7	31.8
	Regularly	13	59.1
	Total	22	100.0

Figure 5: Managers' Community Involvement

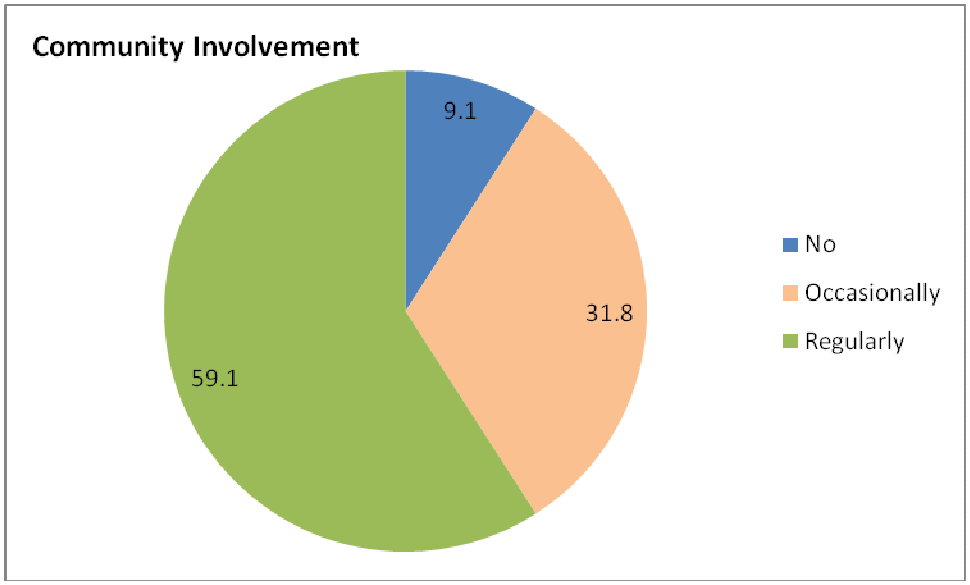


Table 22: Type of Managers and Community Involvement

Types of Managers		Encourage Community Involvement/Participation			Total
		No	Occasionally	Regularly	
Manager-Provincial level	Count	0	2	5	7
	% Total	.0%	9.1%	22.7%	31.8%
Manager-Physiotherapy	Count	1	4	6	11
	% Total	4.5%	18.2%	27.3%	50.0%
Manager- other disciplines	Count	1	1	2	4
	% Total	4.5%	4.5%	9.1%	18.2%
Total	Count	2	7	13	22
	% Total	9.1%	31.8%	59.1%	100.0%

Table 22, in total, 31.8% of the managers indicated that community involvement was on an occasional basis with physiotherapy managers comprising 18.2%, provincial level managers 9.1% in a 2:1 ratio, whilst 59.1% of the managers were involved with the community regularly, with physiotherapy managers comprising 27.3%, and provincial

level managers 22.7%. The managers from other disciplines (18.2%) were involved with the community occasionally (4.5%) and (9.1%) regularly. However, 9.1% of the managers comprising of physiotherapy, and other discipline managers were equally never involved with the community.

Table 23 indicates a Chi-Square for involvement of managers with the community.

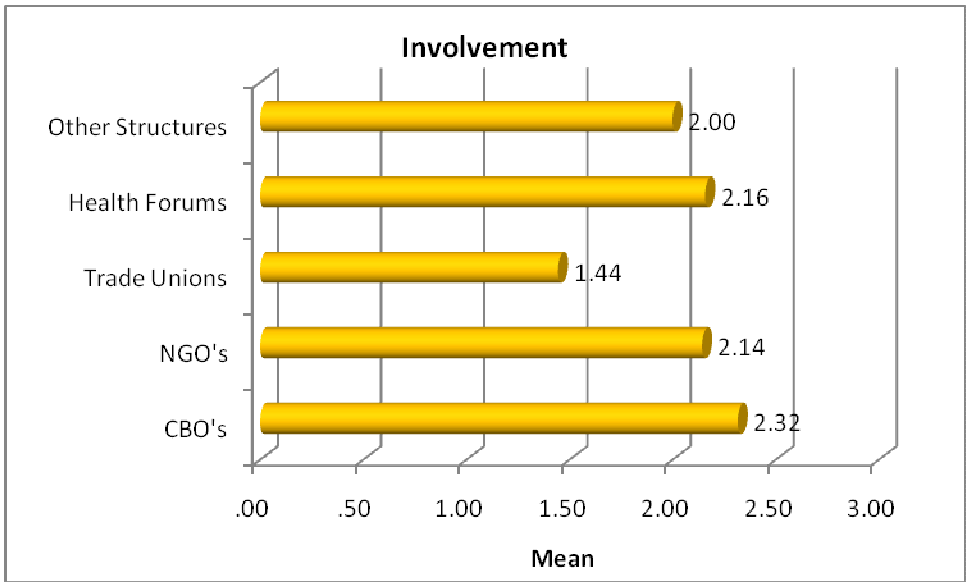
Table 23: Statistical Test for Community Involvement

Test	Encourage Community Involvement/ Participation
Chi-Square	8.273[a]
df	2
Asymp. Sig.	.016

Since the p-value is less than 0.05, it implies that there is a significant difference in the expected frequencies per category. All managers should be involved with empowering people in the communities as part of the health promotion and disease prevention strategies in PHC delivery. However, almost 41% of the managers indicated an absent to occasional community involvement.

Figure 6 below shows the managers' involvement with specific organizations or other structures.

Figure 6: Managers' Involvement with Specific Organisations



An average score of 2 implies that there were as many respondents who scored occasional involvement as there were who did not (in other words, scored never).

Table 24: Statistical Test: Managers' Involvement with Specific Organisations

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.178[a]	4	.703
Likelihood Ratio	2.446	4	.654
Linear-by-Linear Association	1.304	1	.253
N of Valid Cases	22		

Since the chi-square p-value is more than 0.05 (in Table 24), it implies that there was no significant statistical difference in the manner of community involvement. It means that community involvement with all groups were similar.

6.4.4 Effective Public Private Partnerships, Environment, Duplication Between Provincial and Local Government, Evaluation/ Monitoring and Research in PHC Delivery

Managers responded to various aspects that are important in the delivery of primary health care services such as the effectiveness of public private partnerships (PPP), whether the environment was conducive to rendering a comprehensive PHC service, the existence of duplication of PHC services between provincial and local government. In addition, the evaluation and monitoring of PHC service delivery as well as whether ongoing research studies were being conducted were established.

Figure 7: Various Aspects in Primary Health Care Delivery

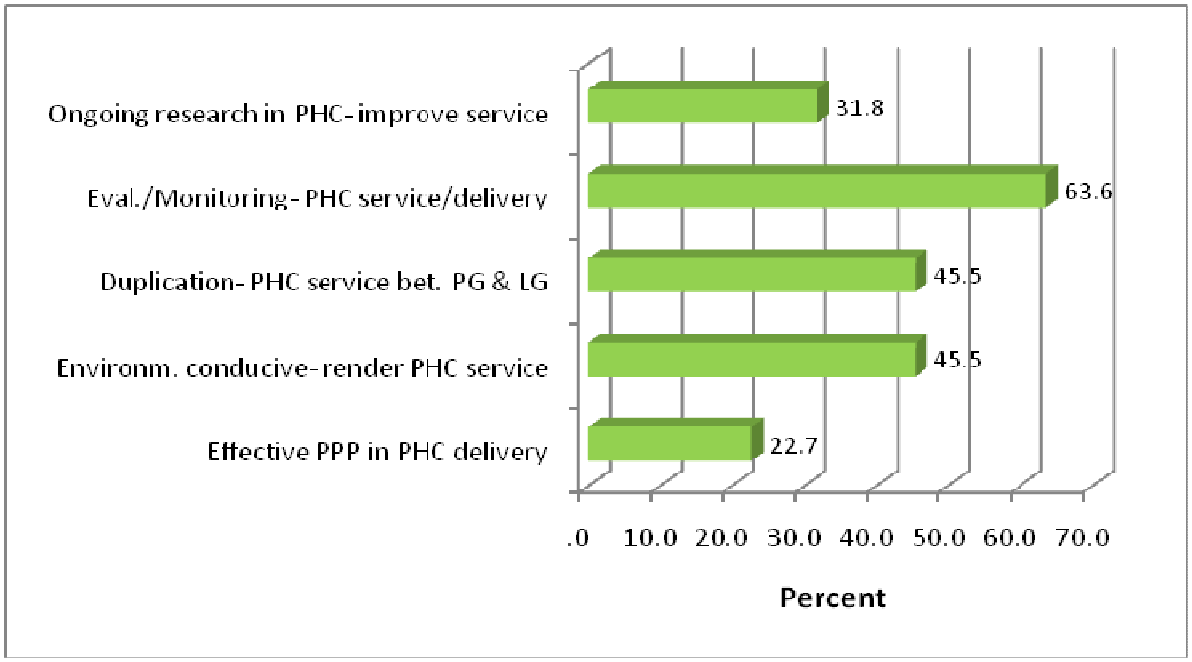


Figure 7 indicates that although 67% of the managers responded positively that evaluation and monitoring of PHC service delivering was occurring, there was limited on-going research in PHC (32%) in order to improve service delivery in the ratio of almost 2:1. In total, only 46% of the managers indicated that the environment was conducive to rendering a comprehensive PHC service. Duplication of PHC services between provincial and local government still exists as indicated by 46% of the managers

post 15 years of democracy in South Africa. The existence of effective PPP in the delivery of PHC services was limited as indicated by only 23% of the managers.

To determine whether there was any significant relationship between the various factors in PHC delivery and the types of managers involved by designation, a chi-square test was performed. The results are indicated in Table 25.

Table 25: Statistical Test for the Various Factors in PHC Delivery

Factor	Chi Square p-value
Effective PPP in PHC delivery	.031
Environment is conducive to render PHC service	.578
Duplication- PHC service bet. PG & LG	.165
Evaluation/ Monitoring of PHC service/delivery	.054
Ongoing research in PHC to improve services	.839

It was observed that a significant relationship existed between the first factor, and the type of manager by designation as the p-value (0.031) is less than 0.05. Public-private partnership is a new concept of PHC delivery in KZN as most managers were not acquainted with, or lacked knowledge and experience with this type of service delivery. Managers in the health sector need to be empowered in PPP as an alternative to effective PHC delivery of services as government resources are scarce and limited in relation to people's unlimited demands/wants being enormous. The rest of the factors for PHC service delivery showed no significant relationship with the managers' designation.

6.4.5 Dimension Analysis/ Factor Analysis

Why is factor analysis important?

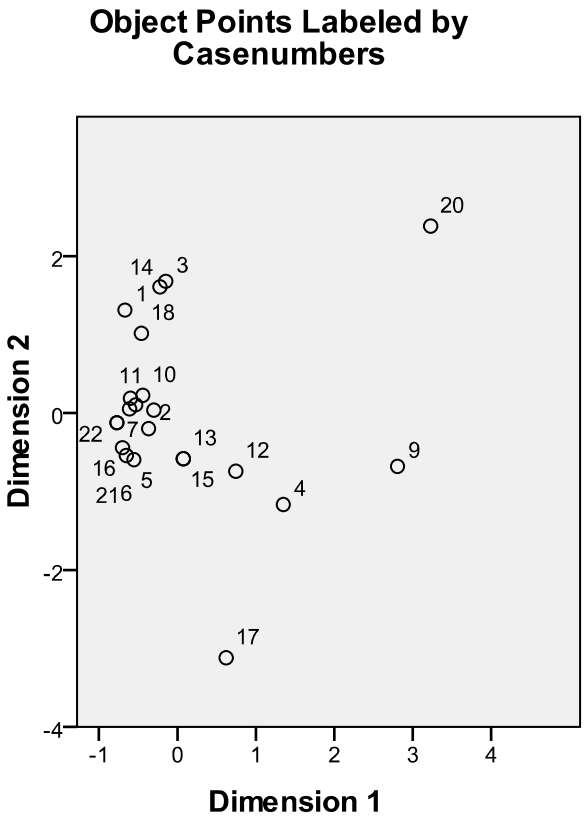
Factor analysis is a statistical technique whose main goal is data reduction. A typical use of factor analysis is in survey research, where a researcher wishes to represent a number of questions with a small number of hypothetical factors. For example, as part of a national survey on political opinions, participants may answer three separate questions

regarding environmental policy, reflecting issues at the local, state and national level. Each question, by itself, would be an inadequate measure of attitude towards environmental policy, but *together* they may provide a better measure of the attitude. Factor analysis can be used to establish whether the three measures do, in fact, measure the same thing. If so, it can then be combined to create a new variable, i.e., a factor score variable that contains a score for each respondent on the factor. Factor techniques are applicable to a variety of situations. A researcher may want to know if the skills required to be a decathlete are as varied as the ten events, or if a small number of core skills are needed to be successful in a decathlon. Researchers need not believe that factors actually exist in order to perform a factor analysis, but, in practice, the factors are usually interpreted, given names, and spoken of as real things.

6.4.5.1 Collaboration Factors

Figure 8 shows that the factors (questions) that make up the collaboration dimension (category) spread across the dimensional area. This spread indicates that there was some mixing of the questions, and that all questions do not measure the same theme. Ideally, the responses should be along one (or close to one) dimension only. The reasons why some managers deviated for collaboration with the various health care professionals was indicated in the Table 19.

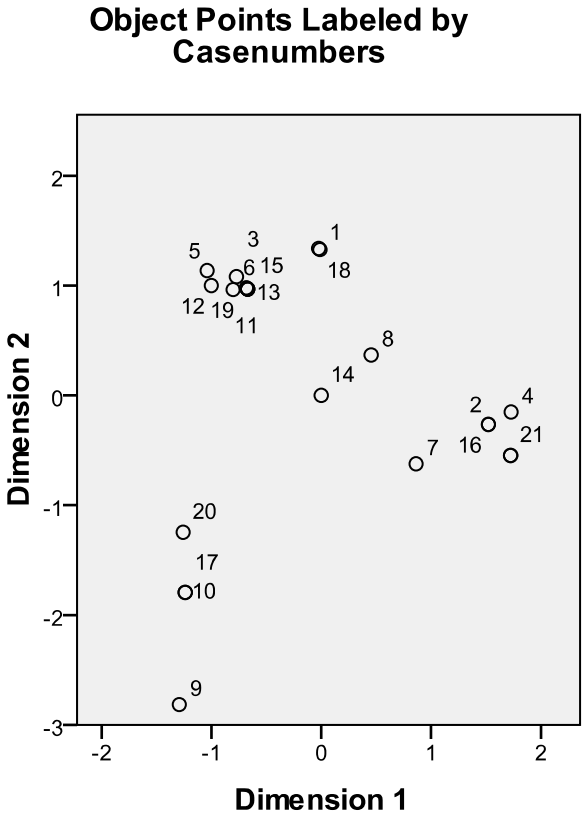
Figure 8: Collaboration Factors



6.4.5.2 Community Involvement Factors

A similar scenario was observed for the community involvement factors as shown in Figure 9. The reasons why the results are so varied for the managers' community involvement with the various structures or organisations was indicated in Table 22.

Figure 9: Community Involvement Factors



Variable Principal Normalization.

6.4.6 Hypothesis Testing

Tests were performed to determine whether there was a statistically significant relationship between the variables listed in Table 26 below.

Chi-Square test:

The null hypothesis states that there is no relationship between the variables in Table 26 below. The alternate hypothesis indicates that there is a relationship. All significant relationships are highlighted in yellow.

Table 26: Chi-Square Tests for Various Factors

Cross Tabulations	chi-square p-value	Correlation p-value	r - value
Discipline/Department vs Collaboration: Health Professionals	.603	.659[c]	
Designation vs Collaboration: Emergency Health	.054	.740[c]	
Discipline/Department vs Collaboration: Emergency Health	.044	.635[c]	
Designation vs Collaboration: School Nurses	.161	.089[c]	
Discipline/Department vs Collaboration: School Nurses	.098	.011[c]	0.584
Designation vs Collaboration: Social Workers	.226	.326[c]	
Discipline/Department vs Collaboration: Social Workers	.448	.197[c]	
Discipline/Department vs Collaboration: Occupational Therapists	.067	.374[c]	
Designation vs Collaboration: Physiotherapists	.055	.031[c]	-0.46
Discipline/Department vs Collaboration: Physiotherapists	.013	.173[c]	
Designation vs Collaboration: Pharmacists	.333	.141[c]	
Discipline/Department vs Collaboration: Pharmacists	.590	.984[c]	
Designation vs Collaboration: Speech Therapists	.077	.027[c]	-0.472
Discipline/Department vs Collaboration: Speech Therapists	.015	.547[c]	
Discipline/Department vs Collaboration: Other Health Professionals	.323	.193[c]	
Designation vs Effective PPP in PHC delivery	.031	.013[c]	.572
Discipline/Department vs Effective PPP in PHC delivery	.115	.003[c]	-.655
Designation vs Encourage Community Involvement/Participation	.703	.263[c]	
Discipline/Department vs Encourage Community Involvement	.257	.560[c]	
Designation vs Involvement with CBO's	.152	.123[c]	
Discipline/Department vs Involvement with CBO's	.054	.517[c]	
Designations vs Involvement with NGO's	.159	.231[c]	
Discipline/Department vs Involvement with NGO's	.386	.301[c]	
Designations vs Involvement with Trade Unions	.107	.951[c]	
Discipline/Department vs Involvement with Trade Unions	.155	.868[c]	
Designations vs Involvement with Health Forums	.059	.039[c]	-.478
Discipline/Department vs Involvement with Health Forums	.130	.147[c]	
Designations vs Involvement with Other Structures	.135	.095[c]	
Discipline/Department vs Involvement with Other Structures	.135	.008[c]	.992
Designations vs Environment conducive- render PHC service	.578	.358[c]	
Discipline/Department vs Environment conducive- render PHC service	.835	.777[c]	
Designations vs Duplication- PHC service bet. PG & LG	.165	.072[c]	
Discipline/Department vs Duplication- PHC service bet. PG & LG	.226	.947[c]	
Designations vs Evaluation./Monitoring- PHC service/delivery	.054	.223[c]	
Discipline/Department vs Evaluation/Monitoring- PHC service/delivery	.022	.005[c]	-.601
Designations vs Ongoing research in PHC- improve service	.839	.593[c]	
Discipline/Department vs Ongoing research in PHC- improve service	.585	.556[c]	

Hypotheses tests: *P-values and statistical significance*. The traditional approach to reporting a result requires a statement of statistical significance. A **p-value** is generated from a **test statistic.** A significant result is indicated with "$p < 0.05$".

Consider the following: Discipline / Department vs Evaluation / Monitoring of PHC service delivery. The p-value is less than 0.05 indicating that there is a significant relationship between the variables. The r-value also shows a strong negative relationship. This means that there is little or no ongoing research in PHC monitoring by the disciplines / departments.

Single values indicate that there is a significant relationship. The value of r will indicate the direction of the relationship. (Negative r values imply an inverse relationship, whilst positive r-values show a directly proportional relationship.)

6.5 QUANTITATIVE ANALYSES FROM THE STUDENTS/ STAFF PERSPECTIVE (ANNEXURE A)

This section of Part C focuses on the quantitative analyses from the data collected from students and staff in Health Sciences and health care professionals. The reliability results for this section of the main study are presented in Table 27:

Table 27: Reliability Statistics from the students and staff

Cronbach's Alpha	N of Items
.703	23

A reliability coefficient of 0.700 or higher is considered as “acceptable”, with the lower end of acceptability being 0.700 (UCLA Academic Technology Services, 2002). The overall reliability score of 0.703 indicates a satisfactory degree of acceptable, consistent scoring of the different categories for this research.

6.5.1 Descriptive Statistics of Demographic Data

Demographic data, including race, age, gender, discipline, province of training and home language, were analysed using descriptive statistics.

6.5.1.1 Race

Descriptive statistics of the race of staff and students were cross-tabulated, as indicated in the Table 28 and Figure 10. 'Black' in this section refers to Africans from South Africa and the African continent.

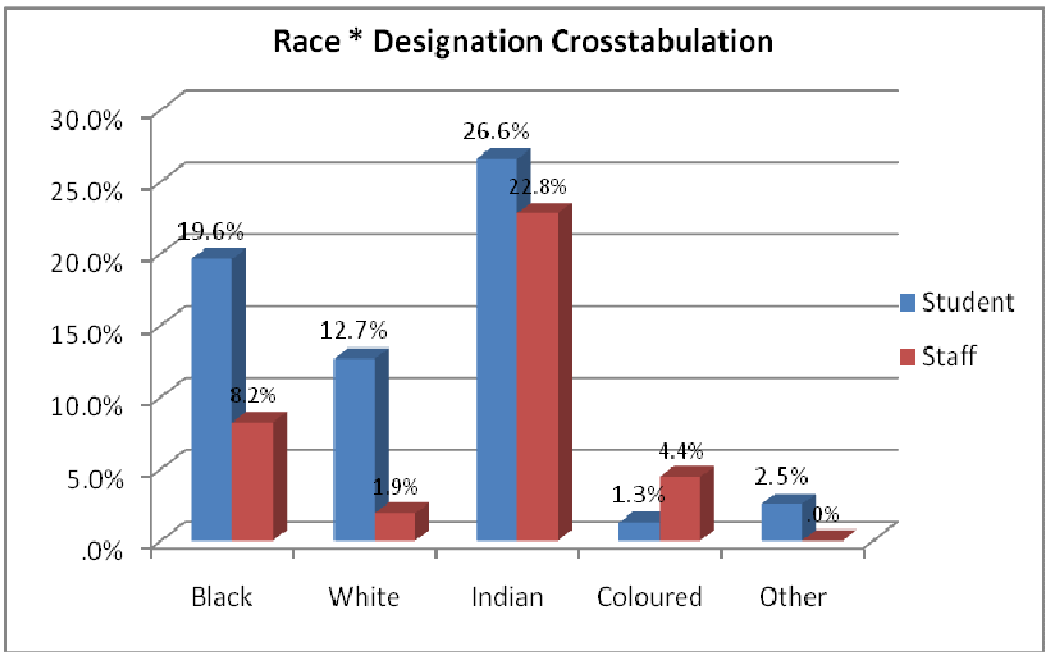
Table 28: Race of Students and Staff

			Designation		
			Student	Staff	Total
Race	Black	Count	31	13	44
		% Total	19.6%	8.2%	27.8%
	White	Count	20	3	23
		% Total	12.7%	1.9%	14.6%
	Indian	Count	42	36	78
		% Total	26.6%	22.8%	49.4%
	Coloured	Count	2	7	9
		% Total	1.3%	4.4%	5.7%
	Other	Count	4	0	4
		% Total	2.5%	.0%	2.5%
Total		Count	99	59	158
		% Total	62.7%	37.3%	100.0%

In total, 62.7% of the sample were students, and 37.3% were staff of which Black comprised of 19.6% students, and 8.2% staff, Indian comprised of 26.6% students and

22.8% staff, Coloured comprised of 1.3% students and 4.4% staff, as indicated in Table 28 as well as Figure 10.

Figure 10: Race Distribution of Students and Staff



6.5.1.2 Age

Respondents indicated their age in years in categories such as 18-30 years, 31-40 years, 41-50 years, 51-60 years, 61-65 years and more than 65 years. All students (62.7%) and most staff (14.6%) were in the age category 18-30 years, which constituted 77.2% of the total sample. The ages of other staff were distributed across all the age categories as indicated in Table 29.

Table 29: Age Distribution of Students and Staff

			Designation		
			Student	Staff	Total
Age	18-30	Count	99	23	122
		% Total	62.7%	14.6%	77.2%
	31-40	Count	0	12	12
		% Total	.0%	7.6%	7.6%
	41-50	Count	0	12	12
		% Total	.0%	7.6%	7.6%
	51-60	Count	0	6	6
		% Total	.0%	3.8%	3.8%
	61-65	Count	0	5	5
		% Total	.0%	3.2%	3.2%
	>65	Count	0	1	1
		% Total	.0%	.6%	.6%
Total		Count	99	59	158
		% Total	62.7%	37.3%	100.0%

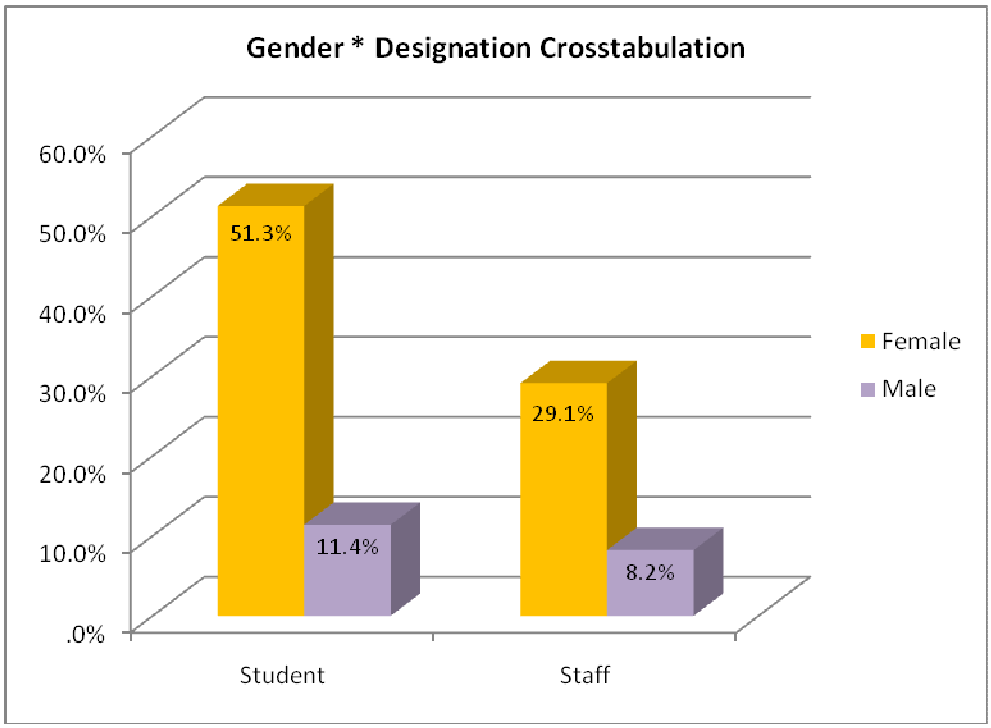
6.5.1.3 Gender

The gender of respondents consisted of predominantly female (80.4%) with students and staff comprising 51.3% and 29.1%, respectively, as indicated in Table 30 as well as in Figure 11 below. In total, males constituted only 19.6% of the sample of which 11.4% were staff and 8.2% were students in the Health Science Disciplines and health care professionals.

Table 30: Gender Distribution of Students and Staff

			Designation		
			Student	Staff	Total
Gender	Female	Count	81	46	127
		% Total	51.3%	29.1%	80.4%
	Male	Count	18	13	31
		% Total	11.4%	8.2%	19.6%
Total		Count	99	59	158
		% Total	62.7%	37.3%	100.0%

Figure 11: Gender Distribution of Students and Staff



6.5.1.4 Discipline or Department

Students and staff were from the Disciplines of Physiotherapy (43%), Nursing (7.6%), Medicine (13.3%), Occupational Therapy (13.3%), Optometry (16.5%) and Social Work (1.9%), as indicated in Table 31. In addition, 4.4% of physiotherapists from the other provinces were included. The majority of the staff and students were from the Discipline of Physiotherapy, as the study has special reference to this discipline.

Table 31: Discipline Distribution of Students and Staff

			Designation		Total
			Student	Staff	
Discipline/Department	Physiotherapy	Count	39	29	68
		% Total	24.7%	18.4%	43.0%
	Nursing	Count	0	12	12
		% Total	.0%	7.6%	7.6%
	Medicine	Count	19	2	21
		% Total	12.0%	1.3%	13.3%
	Occupational Therapy	Count	19	2	21
		% Total	12.0%	1.3%	13.3%
	Optometry	Count	22	4	26
		% Total	13.9%	2.5%	16.5%
	Other Disciplines - Social Work	Count	0	3	3
		% Total	.0%	1.9%	1.9%
	Other Province Physiotherapists	Count	0	7	7
		% Total	.0%	4.4%	4.4%
Total		Count	99	59	158
		% Total	62.7%	37.3%	100.0%

6.5.1.5 Home Language

Respondents indicated that their home language was IsiZulu (17.1%), English (67.7%), Afrikaans (3.8%), Xhosa (5.1%) and other languages (6.3%). IsiZulu is the home language for the majority of the people in rural areas, but only 12.7% of the students and 4.4% of the staff understand this language well as shown in Table 32.

Table 32: Home Language Distribution of Students and Staff

			Designation		Total
			Student	Staff	
Home Language	IsiZulu	Count	20	7	27
		% Total	12.7%	4.4%	17.1%
	English	Count	63	44	107
		% Total	39.9%	27.8%	67.7%
	Afrikaans	Count	4	2	6
		% Total	2.5%	1.3%	3.8%
	Xhosa	Count	3	5	8
		% Total	1.9%	3.2%	5.1%
	Other	Count	9	1	10
		% Total	5.7%	.6%	6.3%
Total		Count	99	59	158
		% Total	62.7%	37.3%	100.0%

The language distribution has serious implications for the communication of staff and students with the people in the rural areas. Consequently, language was identified as a major barrier in the delivery of effective PHC services in the qualitative analysis. Effective community participation or involvement for health promotion and prevention strategies is the key for successful PHC service delivery. Furthermore, understanding the patient is crucial for the effective delivery of curative and rehabilitative services offered

by health care professionals, especially physiotherapists who spent many hours with the patient.

Table 33: Cross-tabulation of Home Language Distribution with Race

			Race					Total
			Black	White	Indian	Coloured	Other	
Home Language	IsiZulu	Count	26	0	0	0	1	27
		% Total	16.5%	.0%	.0%	.0%	.6%	17.1%
	English	Count	2	19	77	7	2	107
		% Total	1.3%	12.0%	48.7%	4.4%	1.3%	67.7%
	Afrikaans	Count	0	4	0	2	0	6
		% Total	.0%	2.5%	.0%	1.3%	.0%	3.8%
	Xhosa	Count	8	0	0	0	0	8
		% Total	5.1%	.0%	.0%	.0%	.0%	5.1%
	Other	Count	8	0	1	0	1	10
		% Total	5.1%	.0%	.6%	.0%	.6%	6.3%
Total		Count	44	23	78	9	4	158
		% Total	27.8%	14.6%	49.4%	5.7%	2.5%	100.0%

Table 33 indicates that only 16.5% of the black respondents are fluent or well versed in IsiZulu, their home language, although it is an important factor in understanding people in the rural areas.

In total, only 31.3% of the sample were Black students comprising of only 8.1% each from the Disciplines of Physiotherapy and Optometry, as well as just 3% from the Discipline of Occupational Therapy, as shown in Table 34 below. It is evident that the admission of Health Sciences students are not properly aligned to the White Paper on the Transformation of the Health System in South Africa with respect to PHC delivery, given that language is a major barrier. This can be eliminated if IsiZulu, as a home language, is

taken into consideration during student selection. Although IsiZulu is mandatory as one of the training courses for all Health Science students, the language competency is not necessarily enhanced or improved during PHC service delivery. The medical students were not considered in this regard, as the representation was small in relation to the total number/ percentage.

The total percentage of Black staff was only 22%, of which 6.8% was from the Discipline of Physiotherapy. The staff was predominantly Indian (61%). This further compromises PHC services as language has been reiterated as a barrier for effective delivery. However, the community preferred Indian and White health care personnel, as discussed in the qualitative analyses. Consequently, education of the people and communities in the rural areas is essential to accept Black health care professionals, as the language barrier can be then addressed.

The respondents that indicated 'other' for home language included mainly foreign languages, *inter alia,* Damara, Sepedi, Swati, Tswana, Venda and Xitsonga.

Table 34: Cross-tabulation of the Race Distribution with Discipline and Designation

Designation				Discipline/Department							Total
				Physio-therapy	Nursing	Medicine	Occupational Therapy	Optometry	Other Disciplines - Social Wrk	Other Province Physios	
Student	Race	Black	Count	8		12	3	8			31
			% Total	8.1%		12.1%	3.0%	8.1%			31.3%
		White	Count	10		2	7	1			20
			% of Total	10.1%		2.0%	7.1%	1.0%			20.2%
		Indian	Count	20		3	9	10			42
			% of Total	20.2%		3.0%	9.1%	10.1%			42.4%
		Coloured	Count	0		2	0	0			2
			% of Total	.0%		2.0%	.0%	.0%			2.0%
		Other	Count	1		0	0	3			4
			% of Total	1.0%		.0%	.0%	3.0%			4.0%
	Total		Count	39		19	19	22			99
			% of Total	39.4%		19.2%	19.2%	22.2%			100.0%
Staff	Race	Black	Count	4	4	0	0	1	1	3	13
			% of Total	6.8%	6.8%	.0%	.0%	1.7%	1.7%	5.1%	22.0%
		White	Count	2	0	0	1	0	0	0	3
			% of Total	3.4%	.0%	.0%	1.7%	.0%	.0%	.0%	5.1%
		Indian	Count	20	5	2	1	3	2	3	36
			% of Total	33.9%	8.5%	3.4%	1.7%	5.1%	3.4%	5.1%	61.0%
		Coloured	Count	3	3	0	0	0	0	1	7
			% of Total	5.1%	5.1%	.0%	.0%	.0%	.0%	1.7%	11.9%
	Total		Count	29	12	2	2	4	3	7	59
			% of Total	49.2%	20.3%	3.4%	3.4%	6.8%	5.1%	11.9%	100.0%

6.5.1.6 Location of Training for Staff

The Health Science students that formed the sample were studying at UKZN. Most of the staff and students underwent undergraduate and postgraduate training in KZN as indicated in Figure 12 and Table 35 as 78% and 79%, respectively.

Table 35: Location of Training for Staff in Health Sciences

Province	Place of Junior degree/ Professional training	Senior degree/ Professional training
KZN	77.97	78.79
Gauteng/Wits	5.08	12.12
Gauteng/Medunsa	10.17	3.03
Cape Town/ UWC	6.78	6.06

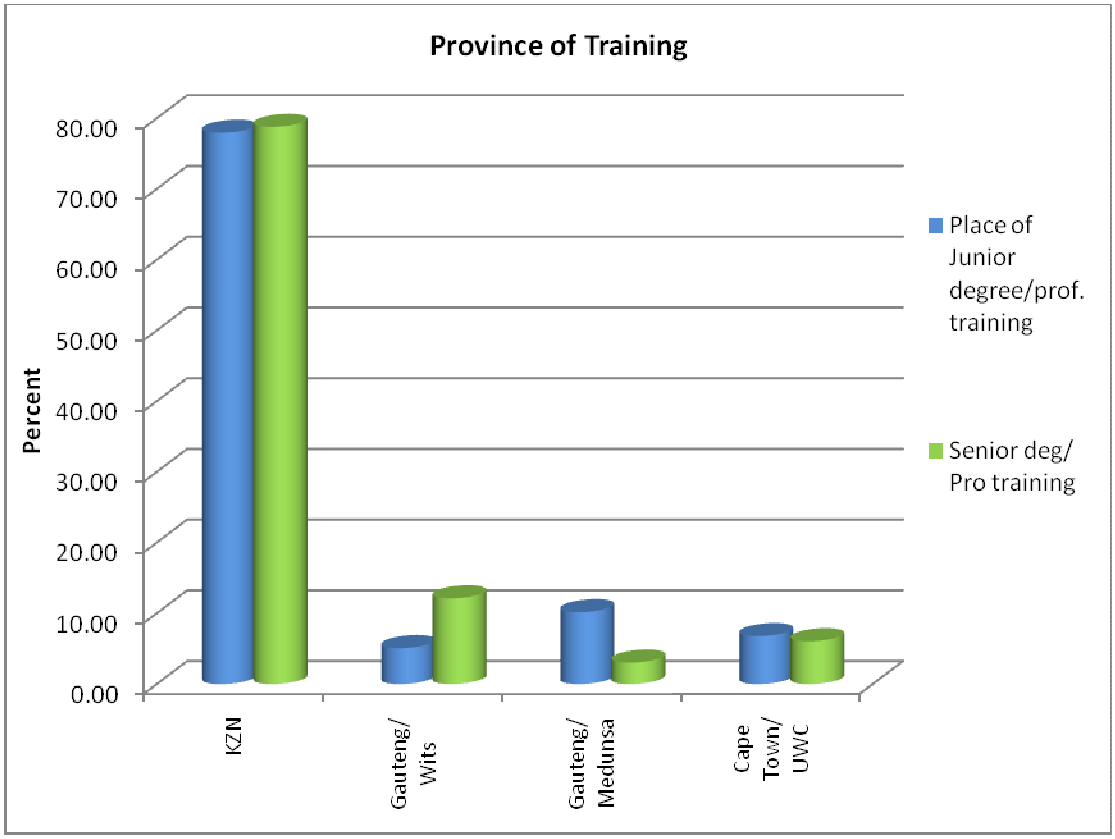
Although the majority of the staff was trained in KZN, the equity of staff representation for the effective delivery of PHC in the rural areas needs to be addressed. Consequently, this will enhance effective community involvement or participation, which is mandatory for the comprehensive delivery of PHC services. Demographical background, such as home language and understanding the culture of people in rural communities, is essential.

Respondents that indicated 'other' for place of the undergraduate degree, included India, University of Benin (Nigeria) and the Eastern Cape. Post-graduate degrees were also obtained from UNISA, University of London (UK) and Sunny in Buffalo in the United States.

The type and length of PHC training ranged from a short course, seminar and workshop (one day) to a semester module in the undergraduate curriculum (96 hours). The occupational therapy students were exposed to a rural area in their first year (4 hours per week for 12 weeks), optometry students are exposed to a 4-week clinical block in the rural area (mobile train) and medical students have some exposure to rural areas for PHC delivery. Physiotherapy students, however, were exposed mainly to hospitals and

institutions for their clinical training with rural exposure being an option for clinical electives, research projects and a community block.

Figure 12: Location of Training for Staff



6.5.2 General Professional and PHC Experience

Qualitative responses by staff and students in this section included general discipline as well as PHC experience on policy issues.

6.5.2.1 PHC Training Per Discipline/ Department

The majority of the staff and students (67.5%), as indicated in Table 36 below, received PHC training at junior or undergraduate level of which only 25.5% were from the

Discipline of Physiotherapy, and a small percentage (6.4%) of staff were involved with PHC at postgraduate level. However, of the 26.1% who had no PHC training at all, 16.6% were from the Discipline of Physiotherapy. In total for the Discipline of Physiotherapy, only 26.8% of the respondents underwent PHC training.

Table 36: PHC training as Per Discipline/Department

			Discipline/Department							
			PT	Nursing	Medicine	OT	Optometry	Other-Social Work	Other Province PTs	Total
PHC training	No	Count	26	0	3	3	6	3	0	41
		% Total	16.6%	.0%	1.9%	1.9%	3.8%	1.9%	.0%	26.1%
	Yes- Senior/ Post.Graduate level	Count	2	6	0	1	0	0	1	10
		% Total	1.3%	3.8%	.0%	.6%	.0%	.0%	.6%	6.4%
	Yes- Junior/ UG level	Count	40	6	17	17	20	0	6	106
		% Total	25.5%	3.8%	10.8%	10.8%	12.7%	.0%	3.8%	67.5%
Total		Count	68	12	20	21	26	3	7	157
		% Total	43.3%	7.6%	12.7%	13.4%	16.6%	1.9%	4.5%	100.0%

A Chi-Square test in Table 37 below, shows statistical significance (p=0.000) for PHC training as per discipline.

Table 37: Statistical Test for PHC Training

Chi-Square tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	63.719[a]	12	.000
Likelihood Ratio	49.573	12	.000
Linear-by-Linear Association	3.617	1	.057
N of Valid Cases	157		

6.5.2.2 PHC Inclusion

In total, 81.4% of the respondents indicated that PHC was included in the curriculum, which was statistically significant p = 0.000 as shown in Table 38.

Table 38: PHC Inclusion

			Designation		
			Student	Staff	Total
PHC inclusion	0	Count	0	2	2
		% Total	.0%	1.3%	1.3%
	Yes	Count	92	35	127
		% Total	59.0%	22.4%	81.4%
	No	Count	6	21	27
		% Total	3.8%	13.5%	17.3%
Total		Count	98	58	156
		% Total	62.8%	37.2%	100.0%

6.5.2.3 Clinical Training Promotes PHC Empowerment

In total, of the 70.2% of staff and students who indicated that the clinical training was empowering for the future concerning PHC, 25.8% of the respondents were from the

Discipline of Physiotherapy, whilst 17.9% from physiotherapy indicated a negative response as shown in Table 39 below.

Table 39: Clinical Training Promotes PHC Empowerment

			Discipline/Department						Total
			Physiotherapy	Nursing	Medicine	Occupational Therapy	Optometry	Other Province Physios	
Clinical training-PHC empowerment	Yes	Count	39	12	16	11	22	6	106
		% Total	25.8%	7.9%	10.6%	7.3%	14.6%	4.0%	70.2%
	No	Count	27	0	5	8	4	1	45
		% Total	17.9%	.0%	3.3%	5.3%	2.6%	.7%	29.8%
Total		Count	66	12	21	19	26	7	151
		% Total	43.7%	7.9%	13.9%	12.6%	17.2%	4.6%	100.0%

Since the p-value is less than 0.05, it implies that there is a significant relationship between the variables (Table 40). That is, there is a relationship between PHC training and the department in which respondents belong. Since the 'yes' category is much greater (in Table 39), it implies that PHC training is taking place as indicated in Table 40 below.

Table 40: Reliability Test for Clinical Training

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.111[a]	5	.015
Likelihood Ratio	17.685	5	.003
Linear-by-Linear Association	4.045	1	.044
N of Valid Cases	151		

6.5.2.4 Disciplines in UKZN that address PHC Rural Needs

Table 41 indicates that although the Health Science disciplines are including PHC training in the curriculum, 51.3% agreed that their discipline was addressing the needs of people in the rural areas concerning PHC, and 48.7% responded negatively, of which 26.6% were staff, and 22.1% were students. This finding was statistically significant with p=0.018. Addressing rural needs is the cornerstone for effective comprehensive PHC service delivery and UKZN can improve in this regard, as also discussed in the qualitative analysis in parts A and B of this chapter.

Table 41: Disciplines in UKZN that address PHC Rural Needs

			Designation		
			Student	Staff	Total
Disciplines in UKZN -addressing PHC rural needs	Yes	Count	57	22	79
		% Total	37.0%	14.3%	51.3%
	No	Count	41	34	75
		% Total	26.6%	22.1%	48.7%
Total		Count	98	56	154
		% Total	63.6%	36.4%	100.0%

6.5.2.5 Ratings on PHC Policy, Principles and Implementation

Respondents rated their knowledge on PHC policy, principles, strategies for PHC implementation and clinical experience in PHC using a Likert Scale from 1 to 5. The results indicated a mean of 3 to 3.8 for staff and students as shown in Table 42.

Table 42: Ratings on PHC Policy, Principles and Implementation

Designation		PHC Policy knowledge rating	PHC Principles knowledge rating	Strategies- PHC implementation	Clinical Experience- PHC implementation	Promotion of PHC in Physio rating	Promotion of PHC in other professions
Student	Mean	3.74	3.54	3.81	3.45	3.56	3.26
	% Total	62.4%	62.4%	62.4%	62.4%	62.2%	61.6%
Staff	Mean	3.68	3.66	3.73	3.66	3.59	3.23
	% Total	37.6%	37.6%	37.6%	37.6%	37.8%	38.4%
Total	Mean	3.72	3.59	3.78	3.53	3.57	3.25
	% Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	N						

To test whether there were any significant relationships between the variables, the chi square test was performed. These results are presented in Table 43 below.

Table 43: Reliabilty Test for Rating on PHC Policy, Principles and Implementation

Factors	p-value
PHC Policy knowledge rating * Discipline/Department	.000
PHC Policy knowledge rating * Designation	.334
PHC Principles knowledge rating * Discipline/Department	.008
PHC Principles knowledge rating * Designation	.049
Strategies- PHC implementation * Discipline/Department	.000
Strategies- PHC implementation * Designation	.110
Clinical Experience- PHC implementation * Discipline/Department	.000
Clinical Experience- PHC implementation * Designation	.022
Promotion of PHC in Physio rating * Discipline/Department	.000
Promotion of PHC in Physio rating * Designation	.372
Promotion of PHC in other professions * Discipline/Department	.038
Promotion of PHC in other professions * Designation	.218

All the highlighted statements in Table 43 indicate that there was a significant relationship between the variables that constitute these statements.

6.5.2.5 Ratings on PHC Factors

Students and staff rated their discipline regarding accessibility, affordability, equity, comprehensiveness of PHC services, as well as on addressing rural needs, and on the collaboration with other disciplines. The results indicated a mean of between 3 to 3.8 for staff and students as shown in Table 44.

Table 44: Ratings on PHC Factors

Designation		Accessibility of PHC in Discipline e.g. Physio rating	Affordability of PHC in Discipline rating	Equity of PHC services in Discipline rating	Rural Peoples needs addressed	Comprehensive PHC in Discipline rating	PHC collaboration-other disciplines
Student	Mean	3.09	3.04	3.37	3.63	3.52	3.67
	% Total N	62.9%	63.3%	63.6%	63.3%	63.1%	62.8%
Staff	Mean	3.38	3.04	3.62	3.98	3.71	3.84
	% Total N	37.1%	36.7%	36.4%	36.7%	36.9%	37.2%
Total	Mean	3.20	3.04	3.46	3.76	3.59	3.73
	% Total N	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

6.5.3 Factors that Encourage or Discourage PHC Engagement

This section identified factors that encouraged or limited PHC promotion.

6.5.3.1 Factor Analysis

The tables of commonalities are indicated in Table 45 for the different categories.

Table 45: Commonalities for the Different Categories

Commonalities	Extraction
Factor- PHC- prevention of diseases	.528
Factor- PHC- prevention of disability	.507
Factor- PHC- prevention of complications	.564
Factor- PHC- patient education- diseases, healthy life	.607
Barrier- PHC- travelling	.293
Barrier- PHC- accessibility	.397
Barrier- PHC- individual safety	.281
Barrier- PHC- peoples attitude- assistance- urban	.295
Barrier- PHC- limited financial resources	.208
Barrier- PHC- limited human resources	.338
Barrier- PHC- time constraints	.440
Barrier- PHC- accept health personnel	.348
Barrier- PHC- inability- network/collaborate	.361
PHC promotion in clinical training-physiotherapy	.537
Clinical training level 3 promotes PHC-physiotherapy	.401
Clinical training level 4 promotes PHC-physiotherapy	.417
Promotion of PHC- training of doctors	.846
Promotion of PHC- training of nurses	.850
Promotion of PHC- training of OT	.690
PHC delivery- accessible	.354
PHC delivery- implemented- discipline	.667
PHC delivery- adequate- discipline	.693
PHC delivery- appropriate- discipline	.607
PHC delivery- equitable- discipline	.673

The rotation method used is the Varimax Method with Kaiser Normalization. This orthogonal rotation method minimizes the number of variables that have high loadings on

each factor. It simplifies the interpretation of the factors. Factor analysis/ loading shows inter-correlations between variables.

The commonality for a given category can be interpreted as the amount of variation in that category explained by the factors that constitute the category. In this instance, for example, there are 5 variables (questions) that make up the last category (as indicated in the category matrix in Table 47 below). The analysis is similar to that for multiple regression: signage against the two common factors yields an R^2 = 0.693 (for PHC delivery-adequate-discipline), indicating that about 69.3% of the variation in terms of PHC delivery-adequate-discipline is explained by the factor model.

The argument can then be extended to the rest of the model for all categories. Two categories divide into finer components. This is explained below in the rotated category matrix in Table 47. An assessment of this model can be obtained from the commonalities. The ideal is to obtain values that are close to one. This would indicate that the model explains most of the variation for those variables. In this case, the model explains approximately 50% of the variation for the variables in the commonality Table 45. The average scores of the components are indicated in Table 46 as follows:

Table 46: Mean Commonality Scores for Various Categories

Category	Mean Commonality Score
Factor PHC	0.552
Barrier PHC	0.329
Promotion PHC	0.623
PHC Delivery	0.599

Table 46 gives the percentage of variation explained in the model as well as the overall assessment of the performance of the model. The individual commonalities demonstrate how well the model is working for the individual variables, and the total commonality gives an overall assessment of performance.

Table 47: Rotated Component Matrix

PHC – Factors and Barriers	Component			
	1	2	3	4
Factor- PHC- prevention of diseases	.003	.723	.015	.069
Factor- PHC- prevention of disability	.072	.689	-.068	-.148
Factor- PHC- prevention of complications	-.047	.749	-.039	.008
Factor- PHC- patient education- diseases, healthy life	.034	.777	-.053	-.009
Barrier- PHC- traveling	.137	-.149	-.104	.491
Barrier- PHC- accessibility	.011	-.213	-.209	.554
Barrier- PHC- individual safety	.085	-.028	-.027	.522
Barrier- PHC- peoples attitude- assistance- urban	.079	.184	.082	.498
Barrier- PHC- limited financial resources	.017	-.093	.155	.418
Barrier- PHC- limited human resources	-.032	.130	.271	.497
Barrier- PHC- time constraints	-.121	.010	.129	.639
Barrier- PHC- accept health personnel	-.143	.157	-.173	.523
Barrier- PHC- inability- network/collaborate	.048	.433	.034	.413
PHC promotion in clinical training-physiotherapy	.726	.094	.022	.026
Clinical training level 3 promotes PHC-physiotherapy	.612	.114	.015	.111
Clinical training level 4 promotes PHC-physiotherapy	.556	.274	.178	-.034
Promotion of PHC- training of doctors	.098	-.145	.902	-.051
Promotion of PHC- training of nurses	.075	-.022	.912	-.105
Promotion of PHC- training of OT	.220	-.165	.783	.046
PHC delivery- accessible	.574	-.114	.103	.035
PHC delivery- implemented- discipline	.807	-.106	-.070	.004
PHC delivery- adequate- discipline	.828	-.035	-.062	.036
PHC delivery- appropriate- discipline	.776	-.003	.059	-.036
PHC delivery- equitable- discipline	.820	.017	.019	-.014

Factor analysis is a statistical technique whose main goal is data reduction. A typical use of factor analysis is in survey research, where a researcher wishes to represent a number of questions with a small number of hypothetical factors. With reference to Table 47:

- The principle component analysis was used as the extraction method, and the rotation method was Varimax with Kaiser Normalization. This is an orthogonal rotation method that minimizes the number of variables that have high loadings on each factor. It simplifies the interpretation of the factors;
- Factor analysis/loading show inter-correlations between variables; and
- Items of questions that loaded similarly imply measurement along a similar factor. An examination of the content of items loading is (and using the higher or highest loading in instances where items cross-loaded at greater than this value) effectively measured along the four categories.

It is noted that the first and last categories loaded perfectly. This means that the questions comprising these categories measured what they set out to measure. The other two categories split into finer components, indicating a mixing of the categories. This means that the questions in the overlapping categories did not specifically measure what they set out to measure. That means that the respondents did not clearly distinguish between the questions constituting the categories. This could be because of incorrect interpretation or inability to distinguish what the questions were measuring.

6.5.3.2 Category Analysis

The analyses below are for the major categories that constitute the study. Figure 13 on factors that encourage PHC engagement or promotion indicates an existence of a high level of agreement of the respondents with each of the statements that constitute this category. The reasons for this correlation are that all respondents were knowledgeable on PHC theory, however, the practical implementation in addressing the needs of the people in the rural areas differed. Other factors listed were to bring change in the patient's life, curative aspect of basic illness, early detection of illness, encourages support for each other, educate patients to act during a relapse of illness, help care-givers to cope, help the

people that do not have ('the have nots'), improve the quality of life/ promote and maintain a positive life. In addition, MDT work is promoted as well as the research projects on PHC in rural communities.

Figure 13: Factors that Encourage PHC Promotion

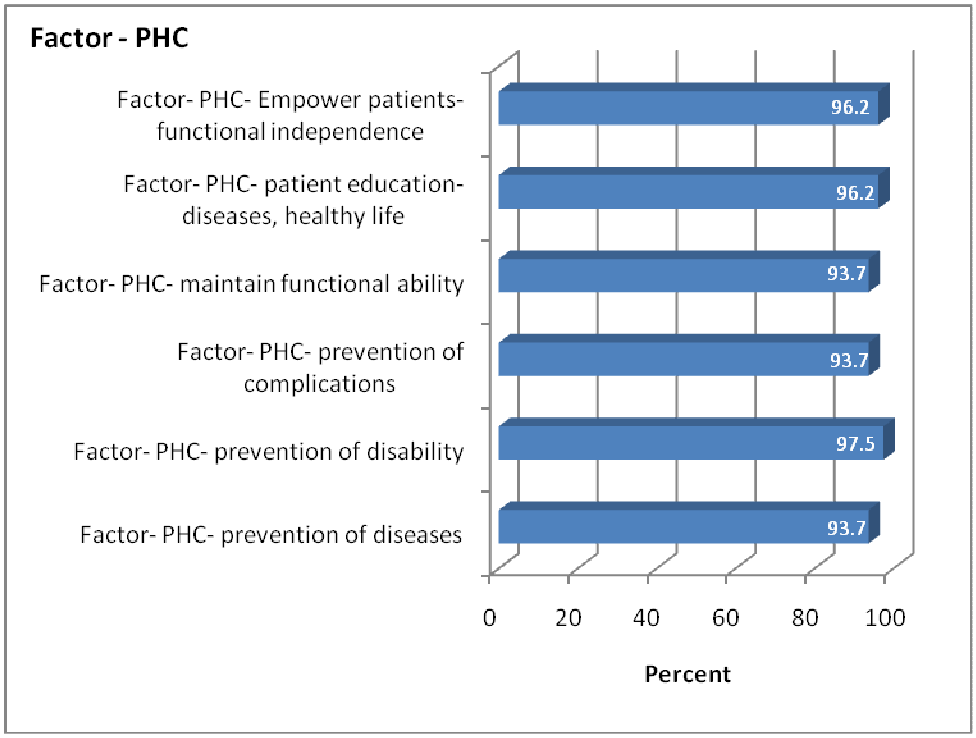
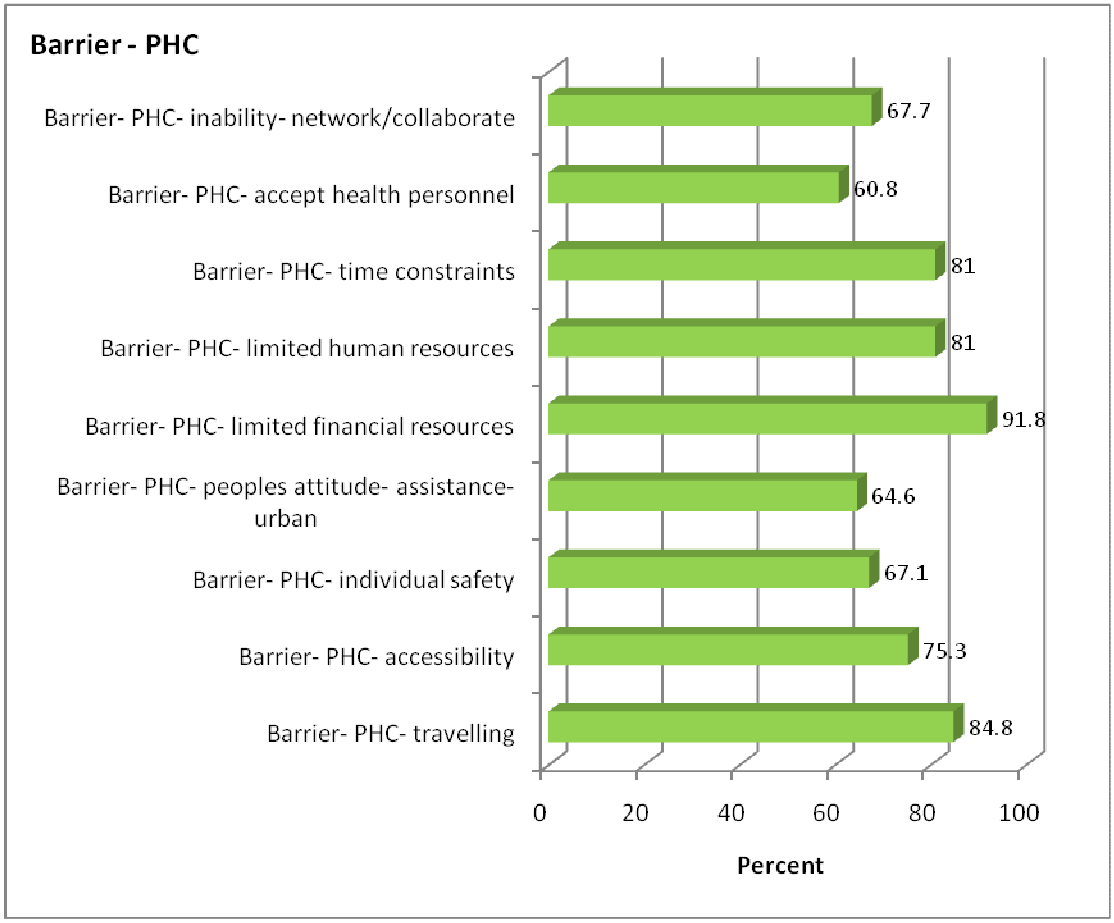


Figure 14 on the barriers or limitations to the promotion of PHC indicates that respondents were in strong agreement that limited financial resources (92%) are a major barrier. Financial resources are a fine thread that underpins public management and administration in any sector, and in this study on the health sector. Travelling (85%), time constraints (81%) and limited human resources (81%) also seem to be issues or barriers to the promotion of PHC. Two major resources, namely, financial and human resources, were identified as major barriers. Time constraints are related to the limited human resources, especially servicing the clinics in rural areas, with few staff having to attend to many patients. Accessibility (75.3%) to PHC services is an important barrier that must be addressed for effective, equitable and efficient delivery. Individual safety (67.1%) and

collaboration with other disciplines (67.7%), are equally important to enable the comprehensive delivery of PHC services.

The other barriers to PHC promotion were the attitude of health care personnel, difficulties to amend job descriptions, education, engagement of the community to lobby government/role players, lack of organizational structure for promotion of PHC for physiotherapists, poor MDT cooperation, and unwilling ward councillors. Similar barriers to PHC promotion were identified by Fricke (2005:32).

Figure 14: Barriers to the Promotion of PHC



6.5.4 PHC Clinical Training/ Delivery

Staff and students responded to various questions related to the PHC training and delivery of services using a Likert Scale ranging from 0 which indicated no compliance, to a maximum of 4 for substantial compliance. Tables 48 to 63 indicate the responses to PHC delivery from staff and students that were cross-tabulated with their disciplines.

6.5.4.1 Promotion of PHC Clinical Training/ Delivery

Respondents indicated whether PHC was being promoted in their respective disciplines specifically in Table 48 as follows:

Table 48: PHC Promotion in Clinical Training

Compliance Level		Discipline/Department							Total
		PT	Nursing	Medicine	OT	Optometry	Other-Social Work	Other Province PTs	
Minimal / non compliance	Count	27	3	1	1	7	2	3	44
	% Total	17.2%	1.9%	.6%	.6%	4.5%	1.3%	1.9%	28.0 %
Partial compliance	Count	22	4	10	8	2	0	1	47
	% Total	14.0%	2.5%	6.4%	5.1%	1.3%	.0%	.6%	29.9 %
Significant/ Substantial compliance	Count	19	5	9	12	17	1	3	66
	% Total	12.1%	3.2%	5.7%	7.6%	10.8%	0.6%	1.9%	42.0 %
Total	Count	68	12	20	21	26	3	7	157
	% Total	43.3%	7.6%	12.7%	13.4%	16.6%	1.9%	4.5%	100.0 %

In total, 28% of the respondents indicated none to minimal compliance, 29.9% partial compliance, and 42% substantial compliance, of which only 12.1% indicated substantial compliance in the Discipline of Physiotherapy. The other disciplines that indicated substantial compliance were Optometry (10.8%) and Occupational Therapy (7.6%). This finding showed statistical significance with p=0.000.

6.5.4.2 Clinical Training Level 3-4 Promotes PHC

Respondents indicated whether level 3 clinical training in their respective disciplines promoted PHC, as shown in Table 49.

Table 49: Clinical Training Level 3 Promotes PHC

Compliance level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	31	21	52
	% Total	20.0%	13.5%	33.5%
Partial compliance	Count	25	18	43
	% Total	16.1%	11.6%	27.7%
Significant / Substantial compliance	Count	41	17	58
	% Total	26.5%	11.0%	37.4%
N/A	Count	1	1	2
	% Total	.6%	.6%	1.3%
Total	Count	98	57	155
	% Total	63.2%	36.8%	100.0%

In total, 33.5% of the respondents indicated none to minimal compliance, 27.7% partial compliance and only 37.4% substantial compliance in the promotion of PHC during clinical training at level 3.

Table 50: Clinical Training Level 4 Promotes PHC

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	7	15	22
	% Total	4.5%	9.7%	14.2%
Partial compliance	Count	23	22	45
	% Total	14.8%	14.2%	29.0%
Significant / Substantial compliance	Count	63	21	84
	% Total	40.6%	13.5%	54.2%
N/A	Count	4	0	4
	% Total	2.6%	.0%	2.6%
Total	Count	97	58	155
	% Total	62.6%	37.4%	100.0%

Table 50 indicates that, in total, 14.2% of the respondents indicated none to minimal compliance, 29% partial compliance and only 54.2% substantial compliance in the promotion of PHC during clinical training at level 4.

6.5.4.3 Alignment between Disciplines' Training with Clinical Practice

It is of paramount importance that all disciplines in the Faculty of Health Sciences align their training with clinical practice in tandem with the health care requirements or the legislative framework/National Policy of the country, as outlined in Chapter 2 of this study.

Table 51: Alignment between Disciplines' Training with Clinical Practice

Compliance Level		Discipline/Department							Total
		PT	Nursing	Medicine	OT	Optometry	Other-Social Work	Other Province PTs	
Minimal / non compliance	Count	28	2	3	3	2	2	3	43
	% Total	18.1%	1.3%	1.9%	1.9%	1.3%	1.3%	1.9%	27.7%
Partial compliance	Count	21	2	4	4	6	0	2	39
	% Total	13.5%	1.3%	2.6%	2.6%	3.9%	.0%	1.3%	25.2%
Significant/ Substantial compliance	Count	16	8	12	12	18	1	0	67
	% Total	10.3%	5.2%	7.7%	7.7%	11.6%	.6%	.0%	43.2%
N/A	Count	2	0	0	2	0	0	2	6
	% Total	1.3%	.0%	.0%	1.3%	.0%	.0%	1.3%	3.9%
Total	Count	67	12	19	21	26	3	7	155
	% Total	43.2%	7.7%	12.3%	13.5%	16.8%	1.9%	4.5%	100.0%

Table 51 indicates that, in total, only 43.2% of the respondents agreed that there was substantial compliance to alignment between disciplines' training with that of clinical practice, of which only 10.3% were from the Discipline of Physiotherapy, 7.7% from the Discipline of Occupational Therapy and 11.6% from Optometry. In Physiotherapy, 18.1% responded to none to partial compliance, and 13.5% to partial compliance for alignment of training with clinical practice. This finding was statistically significant with p=0.001.

6.5.4.4 Patient Empowerment leading to Responsibility for Good Health

Students and staff (63.5%) indicated the strongest response (substantial compliance) for patient empowerment that provides education and encourages patient responsibility over rehabilitation, as well as promotion of "good health" which as a major priority in clinical practice, as shown in Table 52. Therefore, this response was not statistically significant.

Table 52: Patient Empowerment Leading to Responsibility for Good Health

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	13	7	20
	% Total	8.3%	4.5%	12.8%
Partial compliance	Count	19	15	34
	% Total	12.2%	9.6%	21.8%
Significant / Substantial compliance	Count	64	35	99
	% Total	41.0%	22.4%	63.5%
N/A	Count	1	2	3
	% Total	.6%	1.3%	1.9%
Total	Count	97	59	156
	% Total	62.2%	37.8%	100.0%

6.5.4.5 Therapist/ Staff Empowerment in PHC Promotion

Table 53 indicates that, in total, 50% of the staff and students acknowledged that substantial compliance to clinical empowerment in the promotion of PHC is occurring in order to enhance service delivery in the health sector. Partial compliance and none to minimal compliance were acknowledged by 30.8% and 17.3% of the respondents, respectively.

Table 53: Therapist/ Staff Empowerment in PHC Promotion

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	14	13	27
	% Total	9.0%	8.3%	17.3%
Partial compliance	Count	27	21	48
	% Total	17.3%	13.5%	30.8%
Significant / Substantial compliance	Count	55	23	78
	% Total	35.3%	14.7%	50.0%
N/A	Count	1	2	3
	% Total	.6%	1.3%	1.9%
Total	Count	97	59	156
	% Total	62.2%	37.8%	100.0%

Table 54: Chi-Square Test for PHC Training/ Delivery

Cross-tabulations	p-value
PHC promotion in clinical training-physiotherapy * Discipline/Department	.000
PHC promotion in clinical training-physiotherapy * Designation	.063
Clinical training level 3 promotes PHC- * Discipline/Department	-
Clinical training level 3 promotes PHC- * Designation	.381
Clinical training level 4 promotes PHC- * Discipline/Department	.043
Clinical training level 4 promotes PHC-example physiotherapy * Designation	.001
Alignment between discipline e.g. physiotherapy training/clinical practice-PHC * Discipline	.001
Alignment between discipline e.g. physiotherapy training/clinical practice -PHC * Designation	.024
Patient empowerment-responsible for good health * Discipline/Department	.124
Patient empowerment-responsible for good health * Designation	.237
Therapist empowerment in PHC promotion * Discipline/Department	.017
Therapist empowerment in PHC promotion * Designation	.308

The highlighted values in the chi-square in Table 54 show a significant relationship.

6.5.4.6 Accessibility of PHC Delivery

In total, only 43.2% of the respondents indicated substantial compliance that PHC delivery is accessible to patients, of which 27.7% were students and 15.5% were staff, as shown in Table 55. Minimal/non compliance and partial compliance occurred in an almost 1:2 ratio.

Table 55: Accessibility of PHC Delivery

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	19	10	29
	% Total	12.3%	6.5%	18.7%
Partial compliance	Count	31	21	52
	% Total	20.0%	13.5%	33.5%
Significant / Substantial compliance	Count	43	24	67
	% Total	27.7%	15.5%	43.2%
N/A	Count	3	4	7
	% Total	1.9%	2.6%	4.5%
Total	Count	96	59	155
	% Total	61.9%	38.1%	100.0%

6.5.4.7 Implementation of PHC Delivery

Only 50% of the respondents indicated significant/substantial compliance to the implementation of PHC delivery in their discipline, of which 32.7% were students and 17.3% were staff, in an almost 2:1 ratio as shown in Table 56. Partial compliance also occurred in a 2:1 ratio while minimal/non-compliance occurred in a 1:1 ratio.

Table 56: Implementation of PHC Delivery

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	14	14	28
	% Total	9.0%	9.0%	17.9%
Partial compliance	Count	32	16	48
	% Total	20.5%	10.3%	30.8%
Significant / Substantial compliance	Count	51	27	78
	% Total	32.7%	17.3%	50.0%
N/A	Count	0	2	2
	% Total	.0%	1.3%	1.3%
Total	Count	97	59	156
	% Total	62.2%	37.8%	100.0%

6.5.4.8 PHC Delivery- Adequate

Only 36.8% of the respondents indicated that PHC delivery was adequate in their discipline, of which 25.8% were students and 11% were staff, in an almost 2:1 ratio as shown in Table 57. Minimal/non-compliance (31.6%) and partial compliance (30.3%) also occurred. The poor response to PHC delivery being adequate in the various disciplines was statistically significant with p=0.001.

6.5.4.9 PHC Delivery- Appropriate

In total, 55.2% of the respondents indicated that PHC delivery was appropriate in their discipline, of which 37.7% were students and 17.5% were staff in an almost 2:1 ratio as shown in Table 58. Minimal/non-compliance (20.8%) and partial compliance (21.4%) also occurred.

Table 57: PHC Delivery- Adequate

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	27	22	49
	% Total	17.4%	14.2%	31.6%
Partial compliance	Count	29	18	47
	% Total	18.7%	11.6%	30.3%
Significant / Substantial compliance	Count	40	17	57
	% Total	25.8%	11.0%	36.8%
N/A	Count	1	1	2
	% Total	.6%	.6%	1.3%
Total	Count	97	58	155
	% Total	62.6%	37.4%	100.0%

Table 58: PHC Delivery- Appropriate

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	18	14	32
	% Total	11.7%	9.1%	20.8%
Partial compliance	Count	17	16	33
	% Total	11.0%	10.4%	21.4%
Significant / Substantial compliance	Count	58	27	85
	% Total	37.7%	17.5%	55.2%
N/A	Count	3	1	4
	% Total	1.9%	.6%	2.6%
Total	Count	96	58	154
	% Total	62.3%	37.7%	100.0%

6.5.4.10 PHC Delivery- Equitable

Responses to substantial compliance as to whether PHC delivery was equitable in the discipline were only 38.8% in total, of which 28.3% of the respondents were students and 10.5% were staff, as shown in Table 59. In addition, the existence of minimal/non-compliance (25.7%) and partial compliance (31.6%) were also indicated by respondents. Equitable PHC delivery amongst the various disciplines was insufficient, and showed a high statistically significance (p=0.000). However, equitable PHC delivery is another cornerstone for effective services in the rural areas. Equity is particularly important in South Africa with the legacy of apartheid denying the people, especially in the rural areas, of fair and just health care services. A similar trend was also observed for community involvement/participation in PHC delivery, as indicated in Table 60.

Table 59: PHC Delivery- Equitable

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	20	19	39
	% Total	13.2%	12.5%	25.7%
Partial compliance	Count	28	20	48
	% Total	18.4%	13.2%	31.6%
Significant / Substantial compliance	Count	43	16	59
	% Total	28.3%	10.5%	38.8%
N/A	Count	5	1	6
	% Total	3.3%	.7%	3.9%
Total	Count	96	56	152
	% Total	63.2%	36.8%	100.0%

6.5.4.11 Community Involvement/ Participation

Community involvement/participation is another essential aspect for the successful delivery of PHC services, especially in rural communities. Students and staff in the various disciplines were not actively involving the community in PHC delivery, as in

total substantial compliance was only 39.6%, (in Table 60) which was statistically significant (p=0.021) as shown in Table in 61.

Table 60: Community Involvement/ Participation

Compliance Level		Designation		Total
		Student	Staff	
Minimal / non compliance	Count	22	23	45
	% Total	14.3%	14.9%	29.2%
Partial compliance	Count	26	16	42
	% Total	16.9%	10.4%	27.3%
Significant / Substantial compliance	Count	45	16	61
	% Total	29.2%	10.4%	39.6%
N/A	Count	3	3	6
	% Total	1.9%	1.9%	3.9%
Total	Count	96	58	154
	% Total	62.3%	37.7%	100.0%

Table 61: Chi-Square Test for PHC Delivery

Cross-tabulations	p-value
PHC delivery- accessible * Discipline/Department	.575
PHC delivery- accessible * Designation	.732
PHC delivery- implemented- discipline * Discipline/Department	.002
PHC delivery- implemented- discipline * Designation	.219
PHC delivery- adequate- discipline * Discipline/Department	.001
PHC delivery- adequate- discipline * Designation	.685
PHC delivery- appropriate- discipline * Discipline/Department	.084
PHC delivery- appropriate- discipline * Designation	.434
PHC delivery- equitable- discipline * Discipline/Department	.000
PHC delivery- equitable- discipline * Designation	.215
Community involvement/ participation * Discipline/Department	.021
Community involvement/ participation * Designation	.191

The highlighted values in Table 61 show a significant relationship for the PHC delivery variables.

6.5.4.12 Total and Percentage Score for PHC Compliance/ Delivery

The ANOVA statistical tests was conducted for the total and percentage scores for PHC compliance/delivery as per designation (student or staff) as well as per discipline.

Table 62: ANOVA Test per Designation

		Sum of Squares	df	Mean Square	F	Sig.
Total Score- PHC compliance/ delivery	Between Groups	623.988	1	623.988	5.191	.024
	Within Groups	18632.305	155	120.208		
	Total	19256.293	156			
Percentage- PHC compliance/ delivery	Between Groups	1735.243	1	1735.243	5.197	.024
	Within Groups	51749.617	155	333.868		
	Total	53484.860	156			

Overall, the low total and percentage scores showed statistical significance, as highlighted in Tables 62 (above) and 63 (below) as p=0.024 and p=0.035, respectively.

Table 63: ANOVA Test per Discipline

		Sum of Squares	df	Mean Square	F	Sig.
Total Score- PHC compliance/ delivery	Between Groups	1643.857	6	273.976	2.333	.035
	Within Groups	17612.436	150	117.416		
	Total	19256.293	156			
Percentage- PHC compliance/ delivery	Between Groups	4571.938	6	761.990	2.337	.035
	Within Groups	48912.922	150	326.086		
	Total	53484.860	156			

6.5.5 An Integrated Approach to PHC Delivery at a Clinic Level

Respondents in this section indicated on the Likert Scale their choices related to an integrated approach to PHC delivery at a clinic level.

Table 64: Means for PHC Delivery at a Clinic Level

Statements	N		
	Valid	Missing	Mean
Integrated service will enable patient to spend less time at a clinic	156	2	1.69
Further training not required to render a comprehensive service	157	1	3.22
Integrated service will enable enough time for quality service to patients	157	1	1.86
Fully Educated/ equipped to render PHC service	156	2	2.68
Staff members use correct referral system	157	1	2.83
Discipline e.g. Physiotherapy staff treat comprehensively	156	2	2.74
Difficult to trace patients for curative services	152	6	2.36
No problems with staff co-operation	152	6	2.97
With integrated service there is no supplies problem	154	4	2.64
Established channels of communication between services	155	3	2.90
Discipline e.g. P.T.s direct patients to the right service	156	2	2.29
Received Adequate training to render comprehensive service	155	3	2.45
Enjoy working at clinic	152	6	2.69
Channels of communication functioning well	156	2	1.85
All Discipline e.g PT staff treat comprehensively	156	2	1.60
Would like to do refresher courses-specific topic	155	3	1.78
Misunderstanding wrt which service is responsible for what function	153	5	2.15
More job satisfaction when rendering a comprehensive service	155	3	1.75
Discipline e.g. PT staff spend time daily on administration	154	4	2.52
In-service training needed- discipline- comp. service	154	4	1.86
Space problems if services are integrated	154	4	2.12
Fragmentation of PHC service bet. Local/Provincial Govt causes delays	153	5	1.99
Integration of services by mobile clinics is an excellent idea	154	4	1.73
Drivers licence should be part of Discipline e.g. Physiotherapy training	152	6	2.40

Mean scores are shown in Table 64 (above) for all variables. Mean scores closer to 2 indicated that respondents agreed to the statements whilst mean scores closer to 3 indicated disagreement.

6.5.5.1 Integrated Service – Less Patient Time

Most respondents indicated responses for the statement 'An integrated service will enable patient to spend less time at a clinic' on the following Figures 15 and 16, as per designation (staff or students) and as per discipline, showing agreement.

Figure 15: Integrated Service – Less Patient Time per Designation

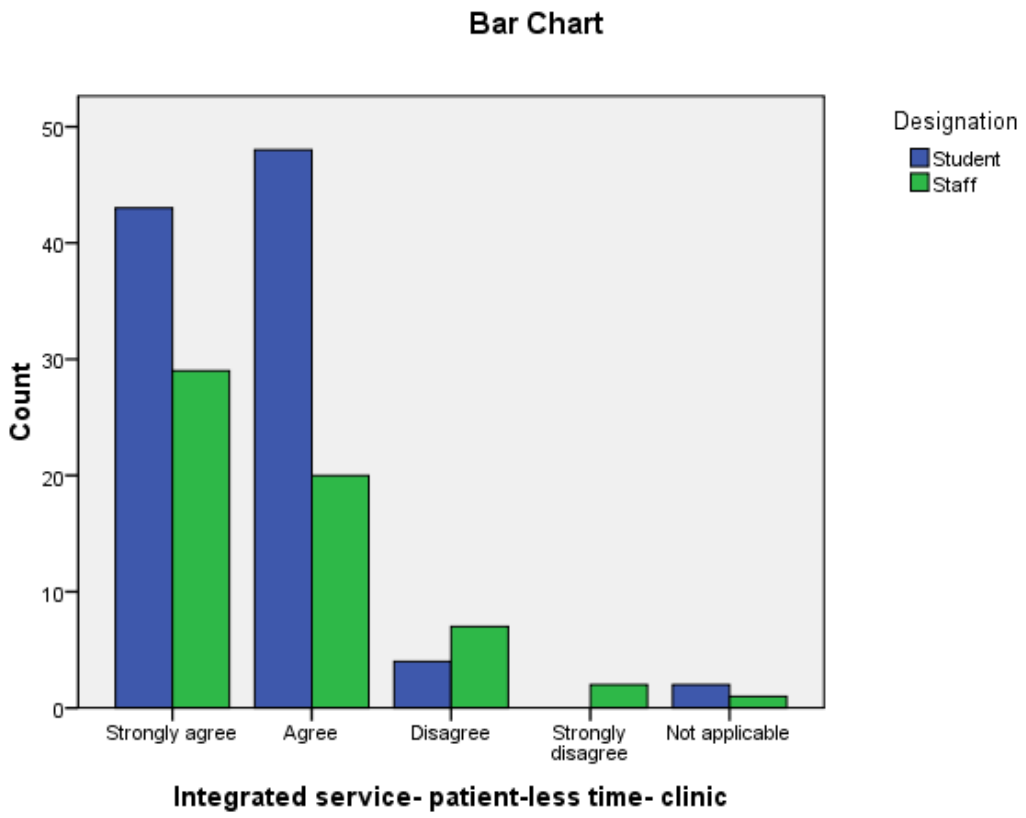
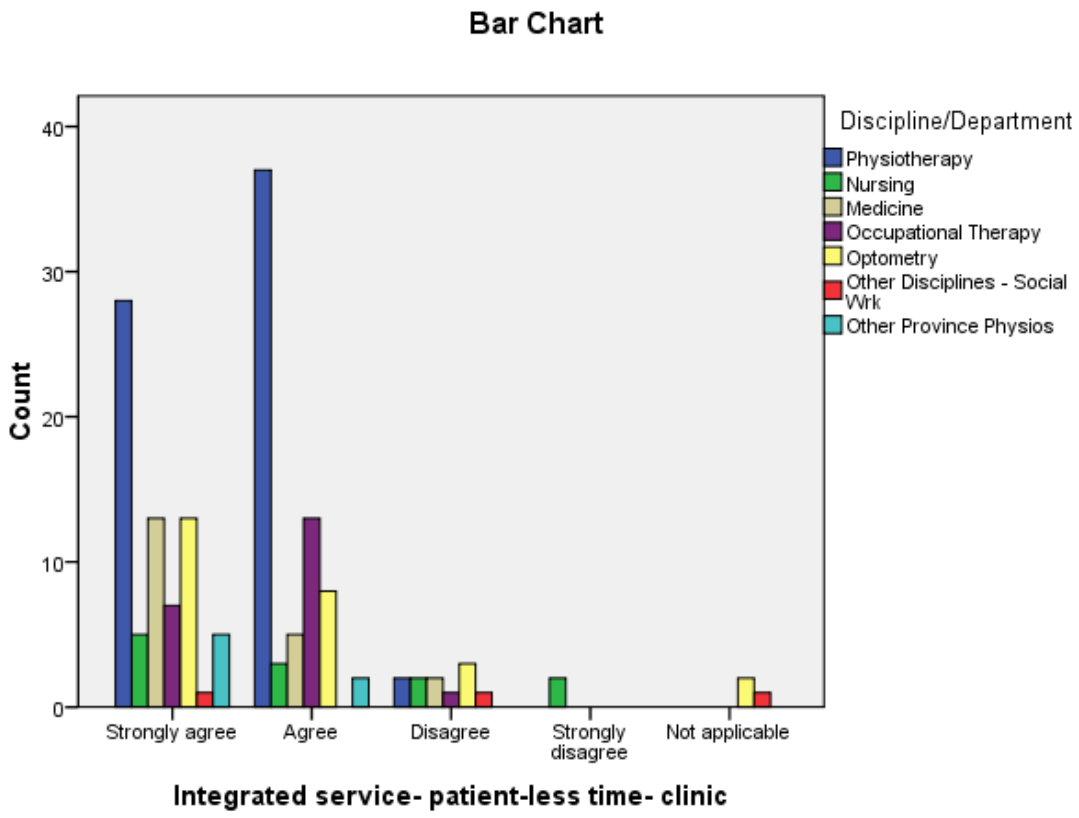


Figure 16: Integrated Service – Less Patient Time per Discipline



The responses by the Physiotherapy Discipline, especially, shows a strong level of agreement which was highly statistically significant (p=0.000) as per the Chi-Square test.

6.5.5.2 Integrated Service – Quality Service

Most respondents indicated responses for the statement 'An integrated service will enable enough time to render a quality service to patients' on the following Figures 17 and 18, as per designation (staff or students) and as per discipline, showing agreement. The responses by all the disciplines show a strong level of agreement which was highly statistically significant (p=0.000) as per the Chi-Square test.

Figure 17: Integrated Service – Quality Service per Designation

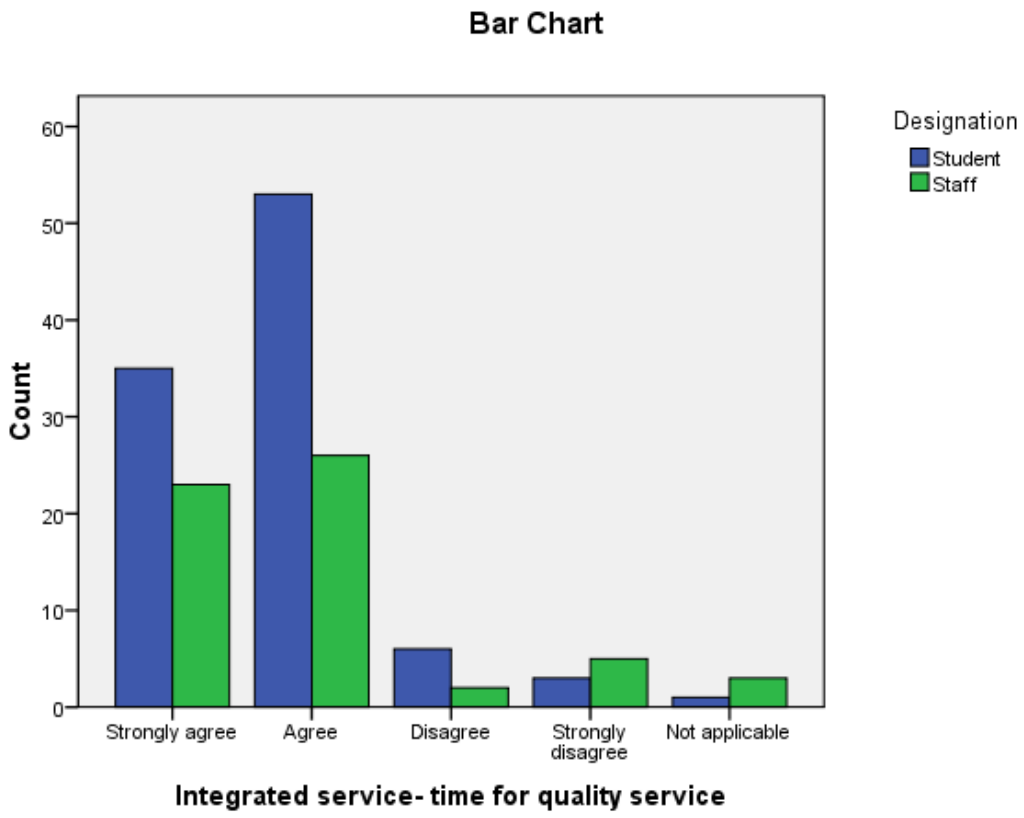
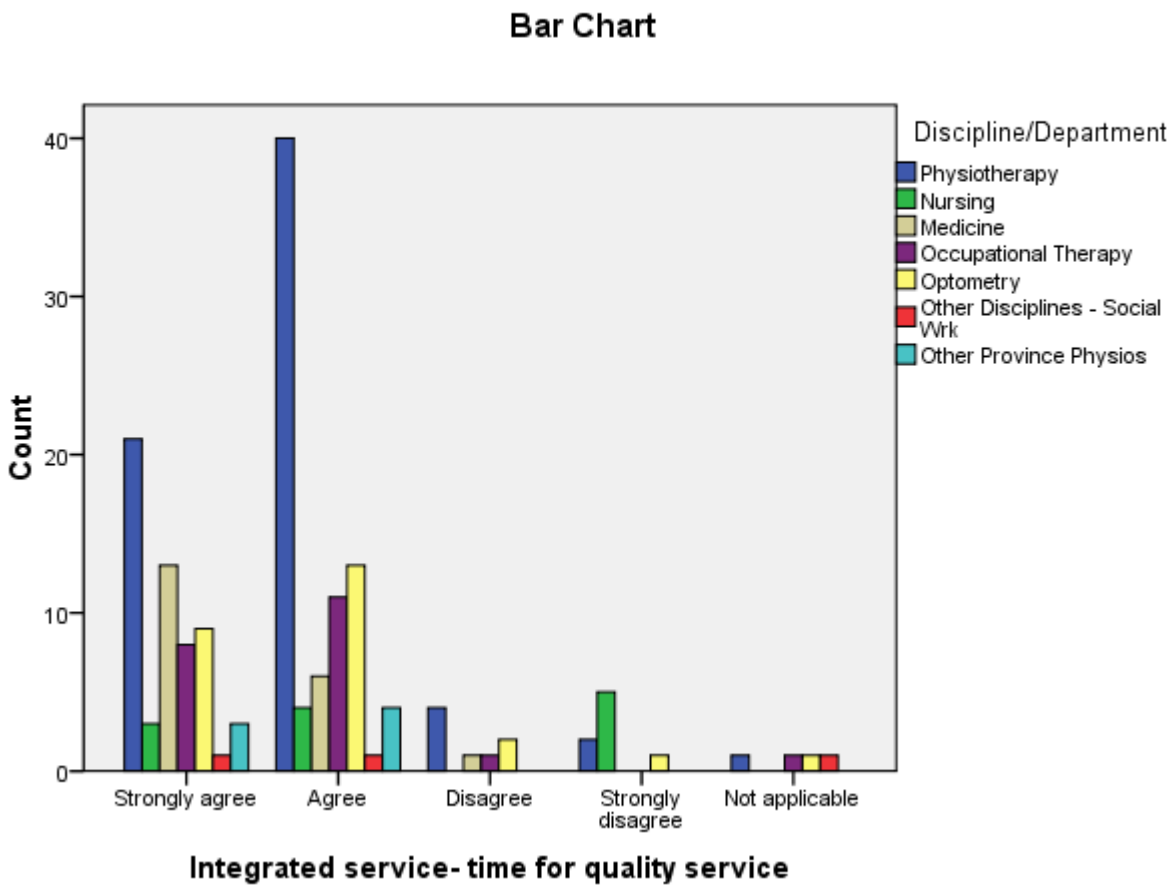


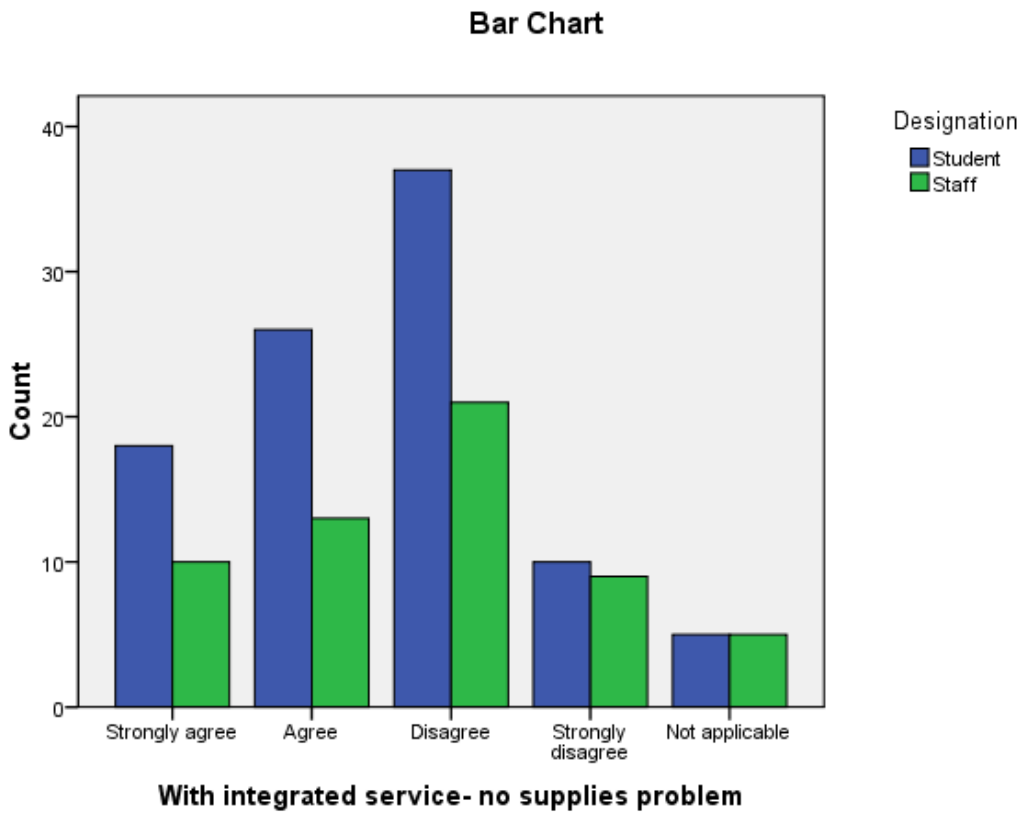
Figure 18: Integrated Service – Quality Service per Discipline



6.5.5.3 Integrated Service – Supplies

Respondents were in disagreement with the statement concerning there being no supplies problem with an integrated service as the mean was greater than 2 for most responses, as indicated in Figure 19. This finding implies that government's resources are limited and there is extreme difficulty meeting the demands of all citizens. Managers, who are the leaders in the forefront of PHC service delivery, require innovative and creative strategies to alleviate the problem of limited supplies.

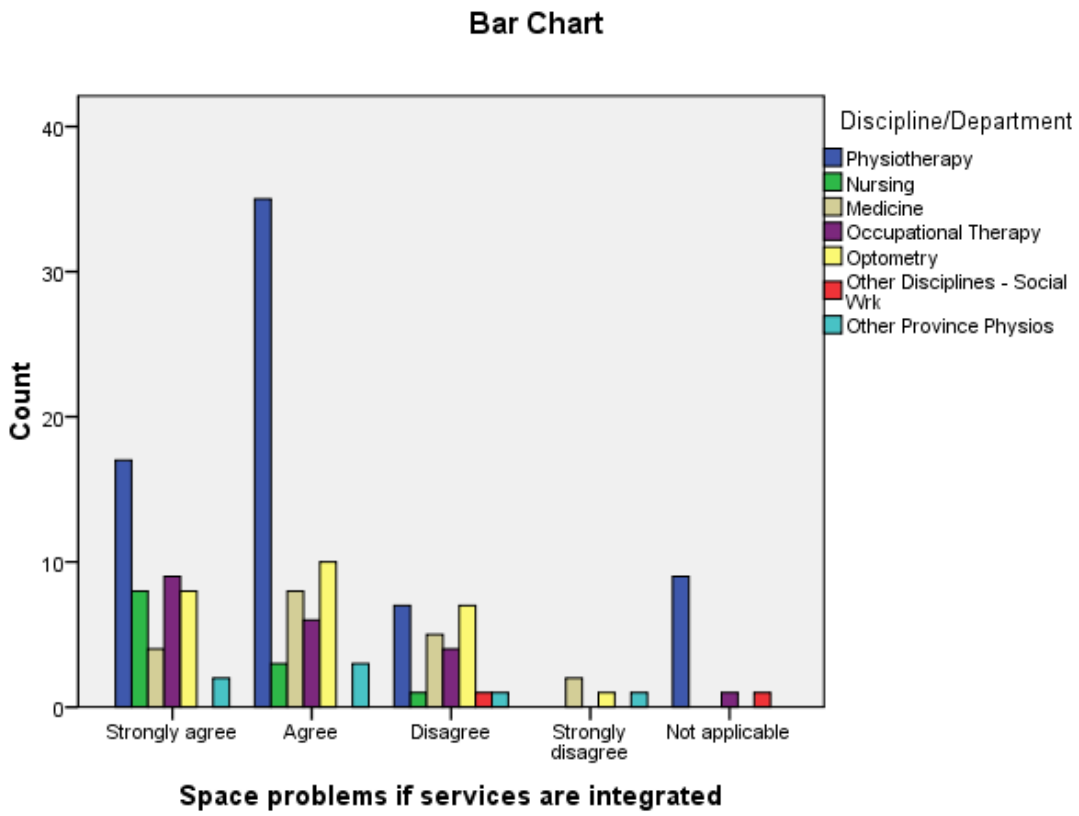
Figure 19: Integrated Service – Supplies



6.5.5.4 Integrated Service – Space Problems

Staff and students from the various disciplines, especially in Physiotherapy, agreed strongly as indicated in Figure 20 that there were space problems in the clinics with an integrated service, which was statistically significant (p=0.011).

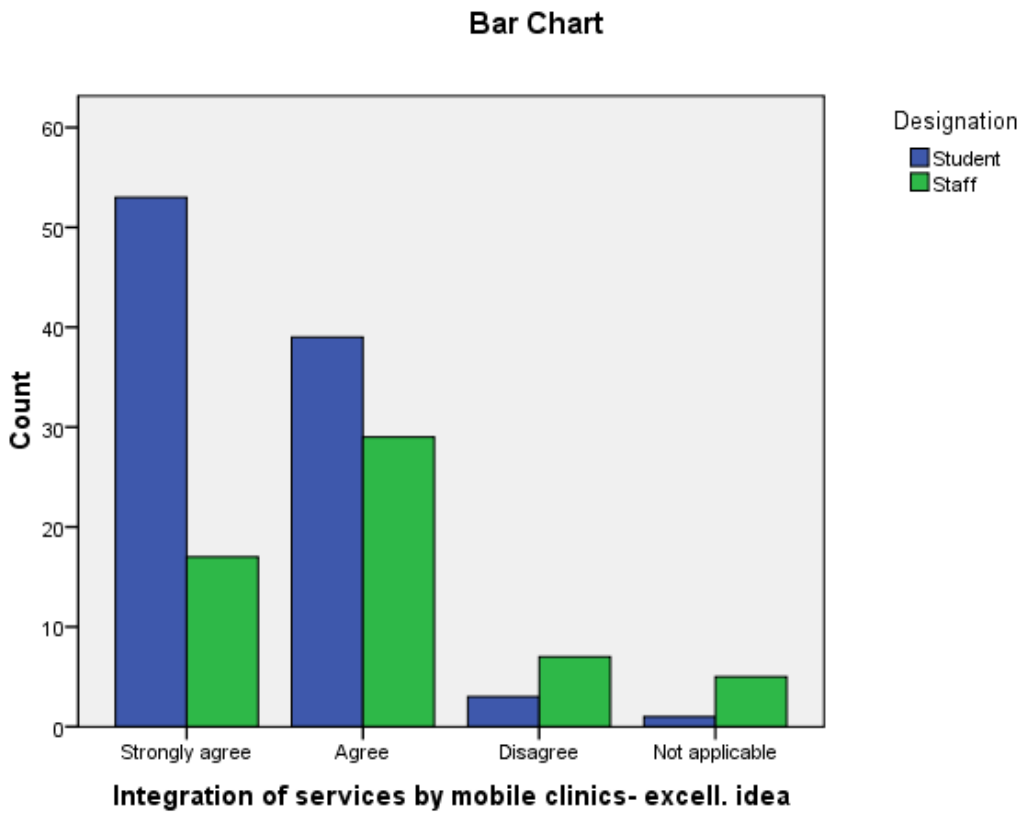
Figure 20: Integrated Service – Space Problems



6.5.5.5 Integrated Service – Mobile Clinics

Staff and students from the various disciplines, especially in Physiotherapy agreed strongly as indicated in Figure 21 below that integrated services rendered by mobile clinics was an excellent idea. This finding was statistically significant (p=0.001).

Figure 21: Integrated Service – Mobile Clinics

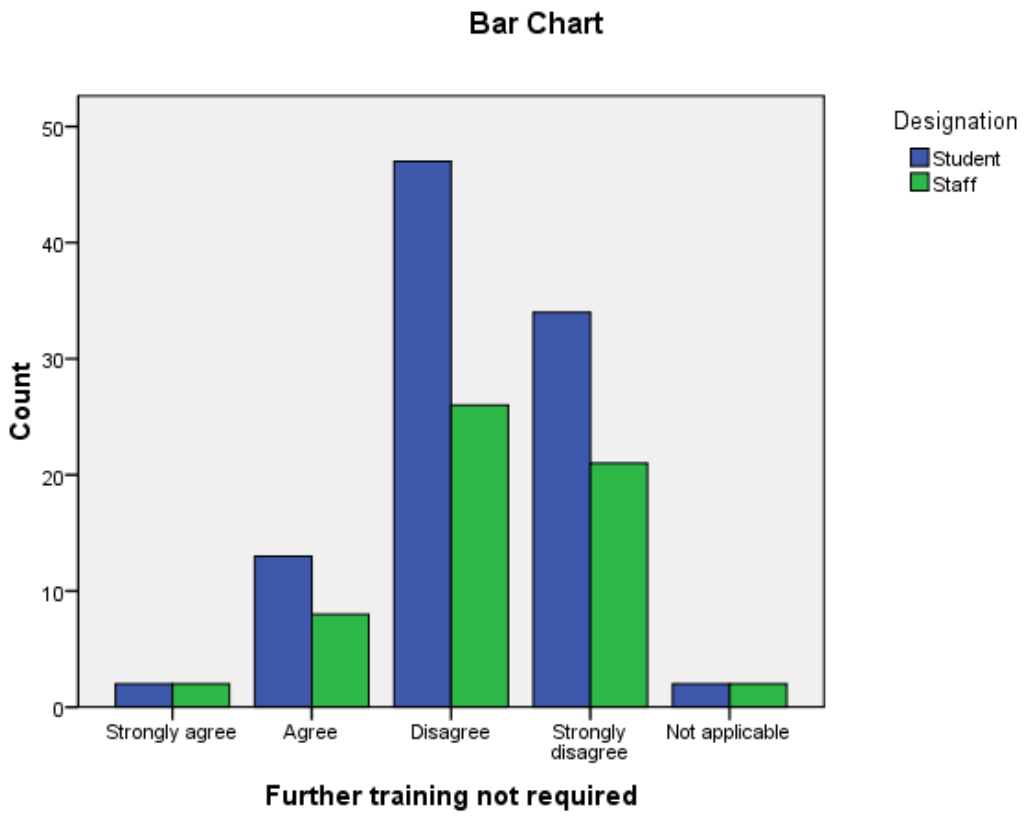


All the responses to the statements on an integration of services at a clinic were discussed and the statements on PHC training will follow.

6.5.5.6 Further PHC Training

The mean responses were more than 2 for most respondents to further training not being required to render a comprehensive service, as indicated in Figure 22. This finding was statistically significant (p=0.038).

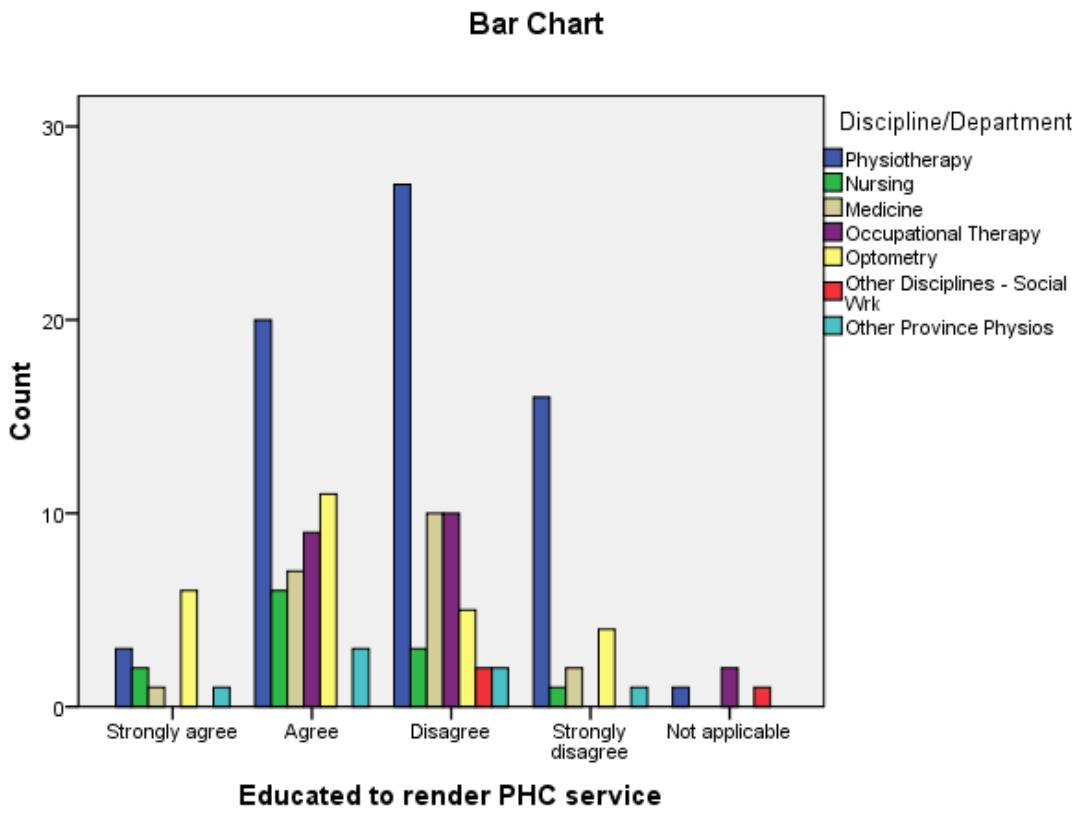
Figure 22: Further PHC Training



6.5.5.7 Education and Training

The respondents in the various disciplines indicated mixed responses of agreement and disagreement to being educated or equipped to render a comprehensive PHC service as, shown in Figure 23. This finding was not statistically significant.

Figure 23: Education and Training



However, many respondents agreed to requiring refresher courses or in-service training to render a comprehensive service at a clinic, as indicated in Figures 24 and 25 below. This finding was statistically significant with p values of 0.018 and 0.000, respectively.

Figure 24: Training- Refresher Courses

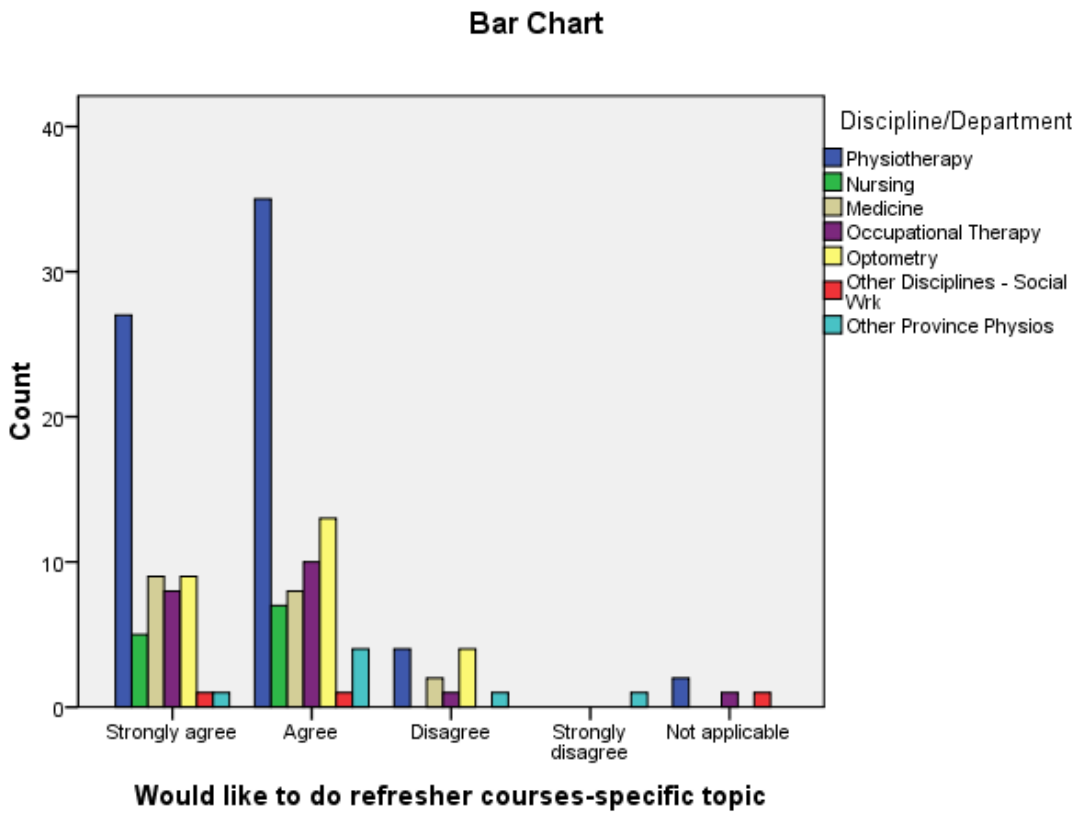
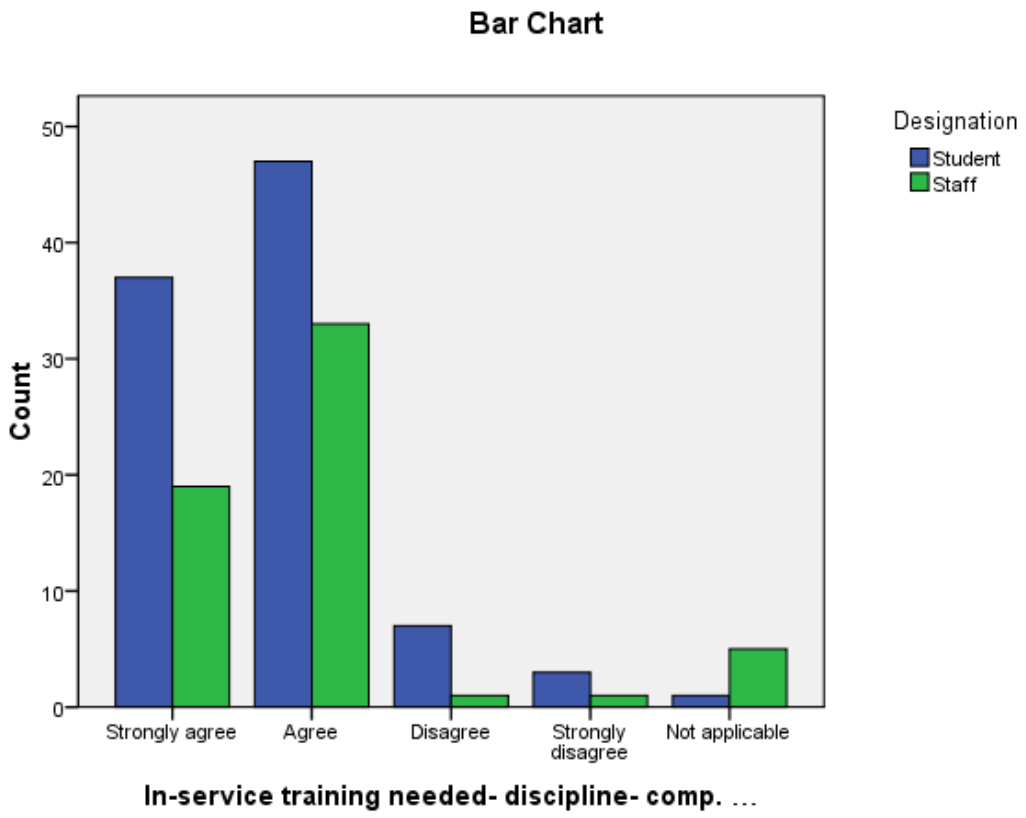


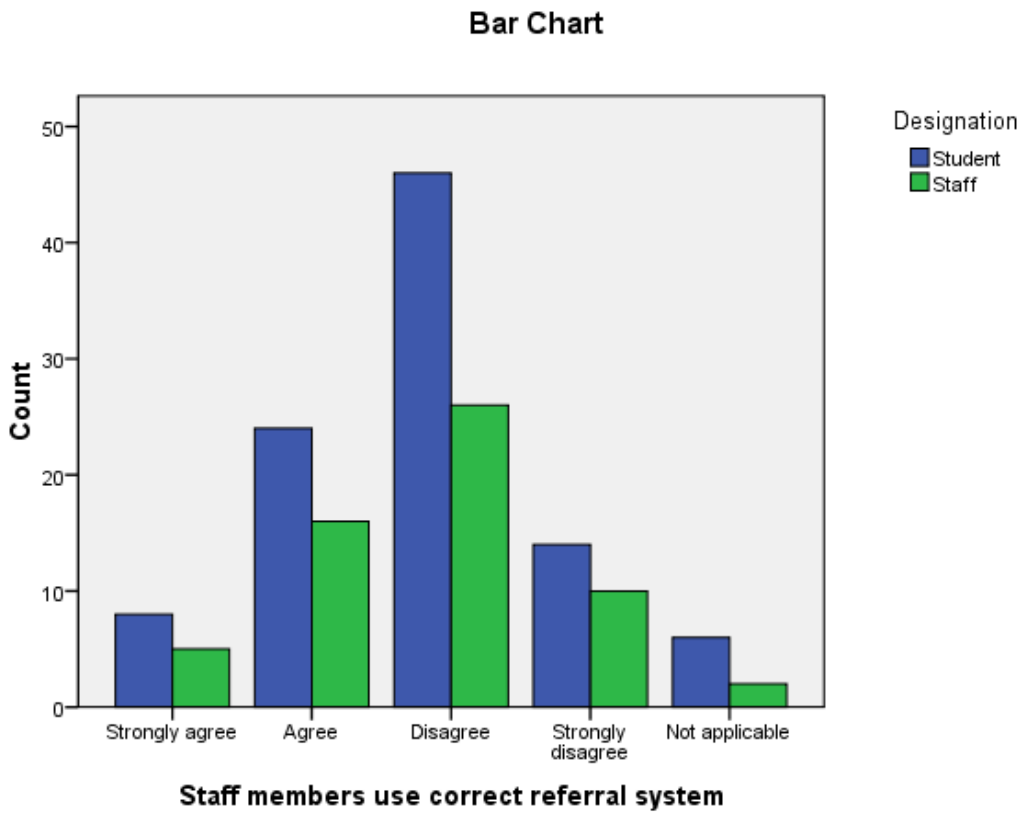
Figure 25: In-Service Training



6.5.5.8 Referral Procedures

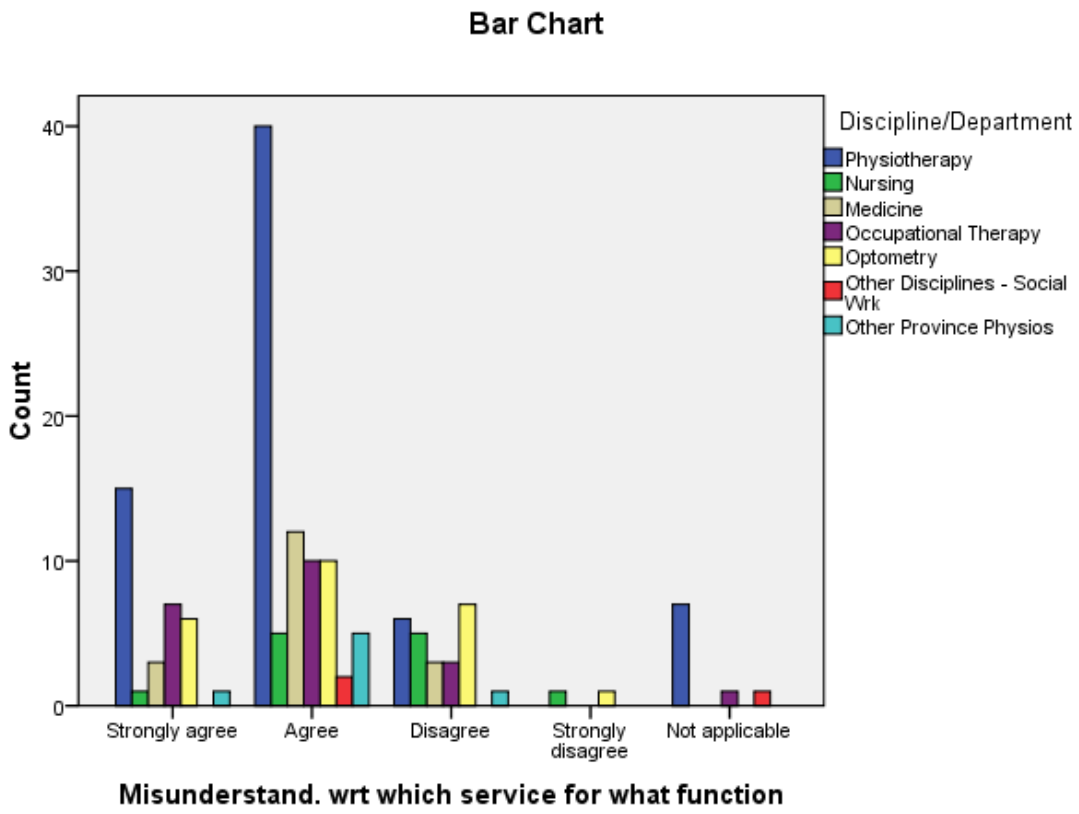
The theme related to statements on referral procedures. Most respondents indicated mean responses above 2, as shown in Figure 26 below, as a disagreement that staff always make use of the correct referral procedures, with p=0.000 showing high statistical significance.

Figure 26: Referral Procedures



Related to referral procedures, most respondents agreed to the statement that 'misunderstandings exist with respect to which service is responsible for what function at a clinic', as indicated in Figure 27.

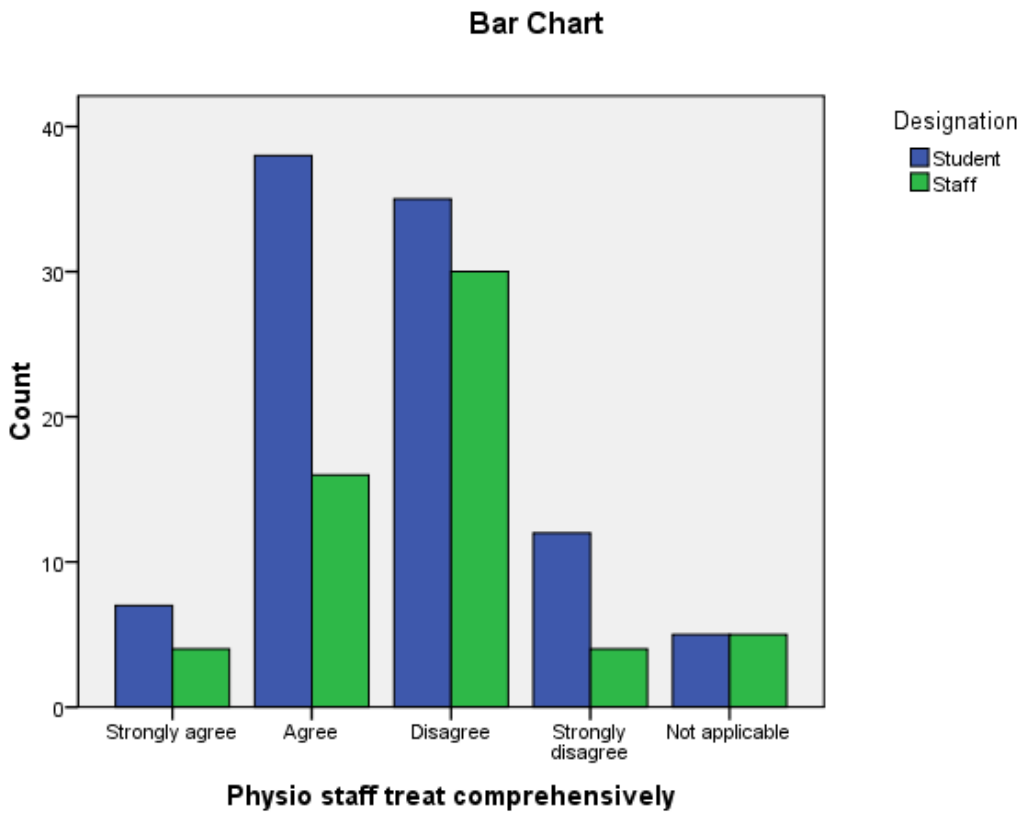
Figure 27: Misunderstandings with Referral Procedures



6.5.5.9 Comprehensive PHC

Statements related to the theme comprehensive PHC were indicated by the respondents in Figure 28. There was agreement and disagreement as to whether respondents treated patients comprehensively at clinics. This finding was statistically significant (p=0.036).

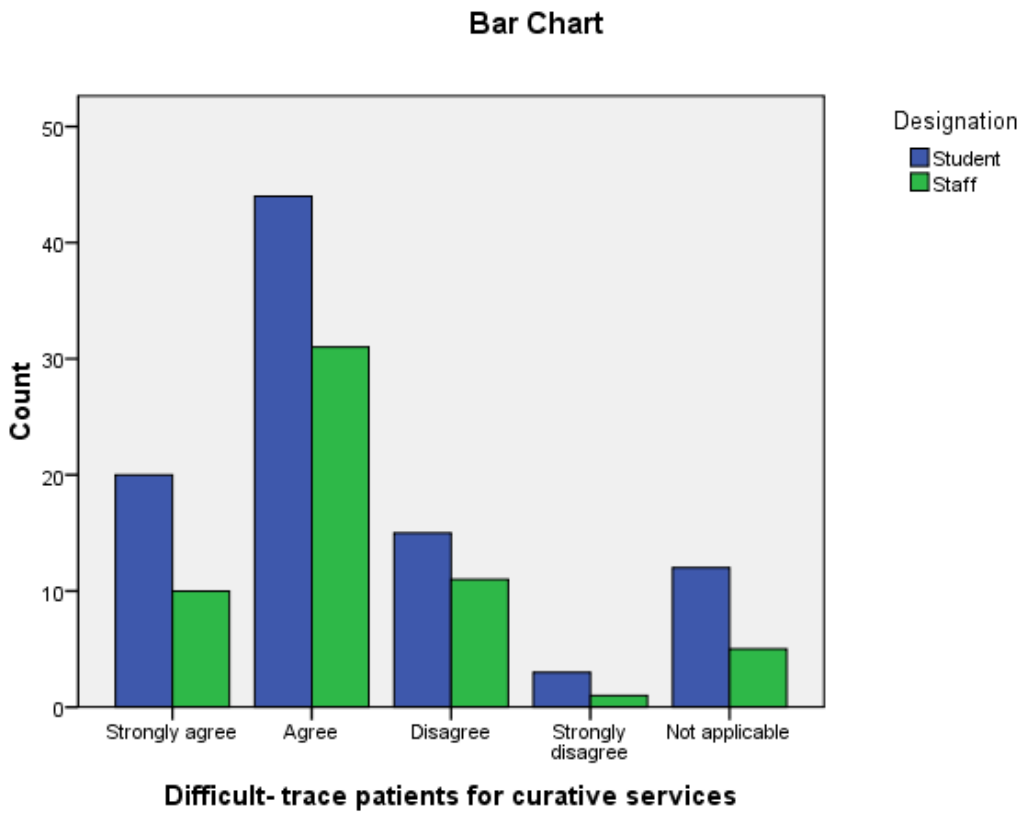
Figure 28: Comprehensive PHC



6.5.5.10 Curative Services

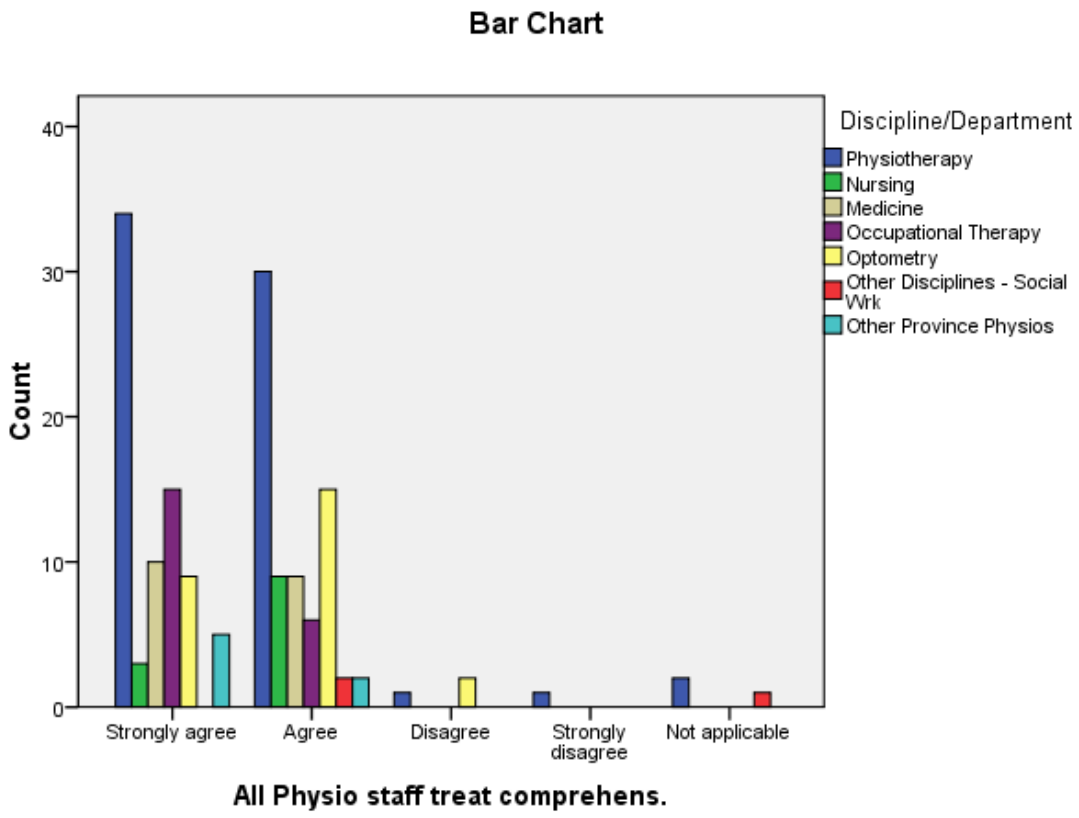
Most respondents agreed that there were difficulties tracing patients for curative services shown in Figure 29. This finding has major implications for the spread of communicable diseases such as TB, cholera and malaria which can be life threatening, if not cured.

Figure 29: Curative Services



The majority of the respondents in the various disciplines agreed that all staff must be able to treat patients comprehensively at the clinic, as shown in Figure 30 below.

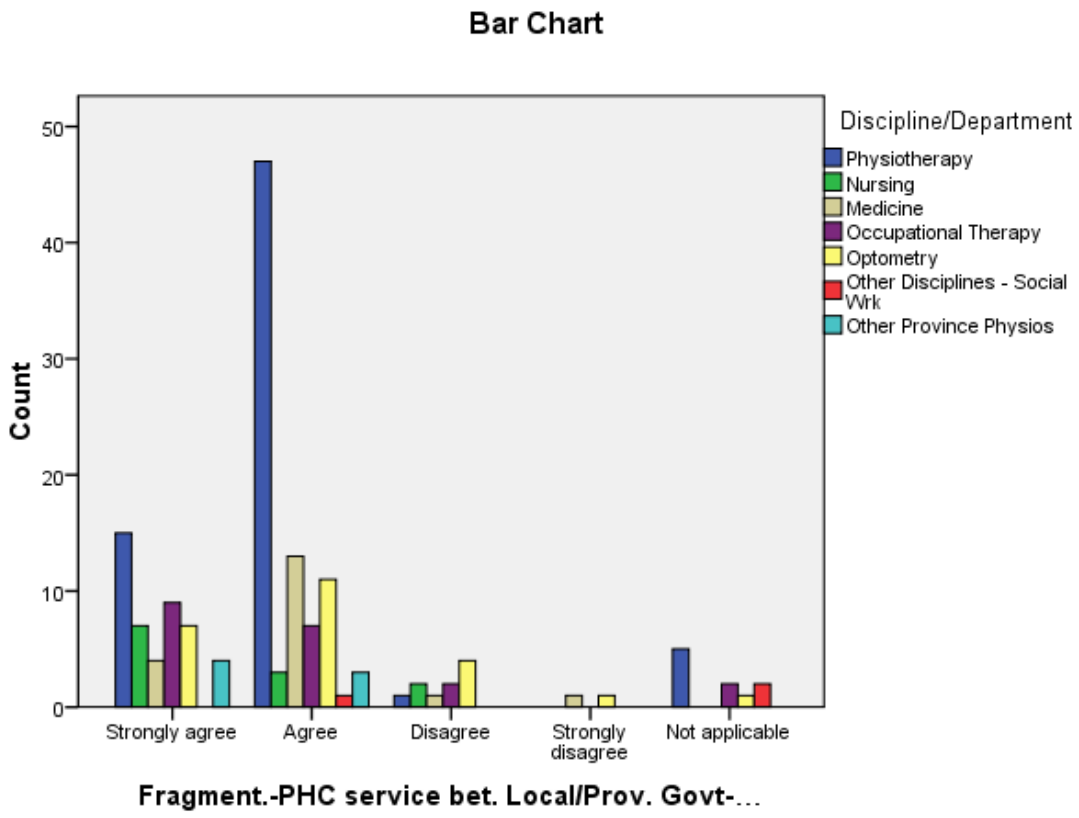
Figure 30: Comprehensive Treatment



6.5.5.11 Fragmentation of PHC Services

The majority of the respondents in the various disciplines agreed that fragmentation of PHC services between Provincial and Local Government Authorities caused delays, as shown in Figure 31 below. This finding was statistically significant (p=0.001).

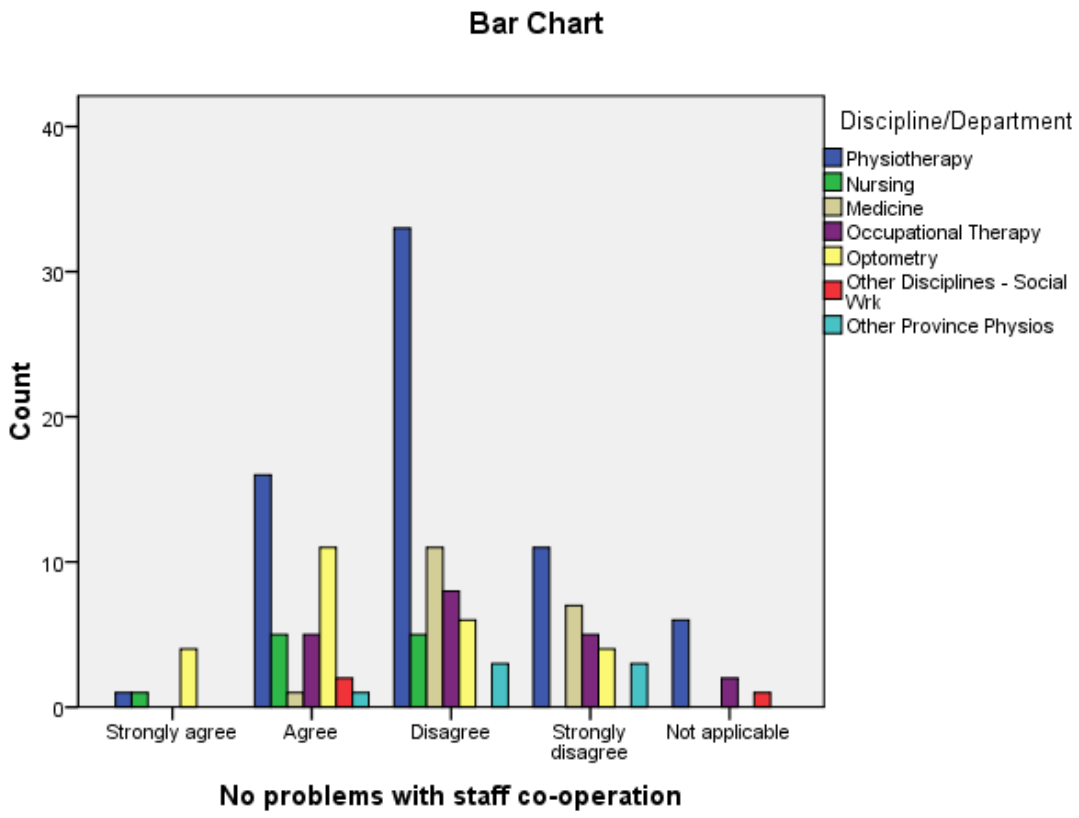
Figure 31: Fragmentation of PHC Services



6.5.5.12 Staff Cooperation/Communication

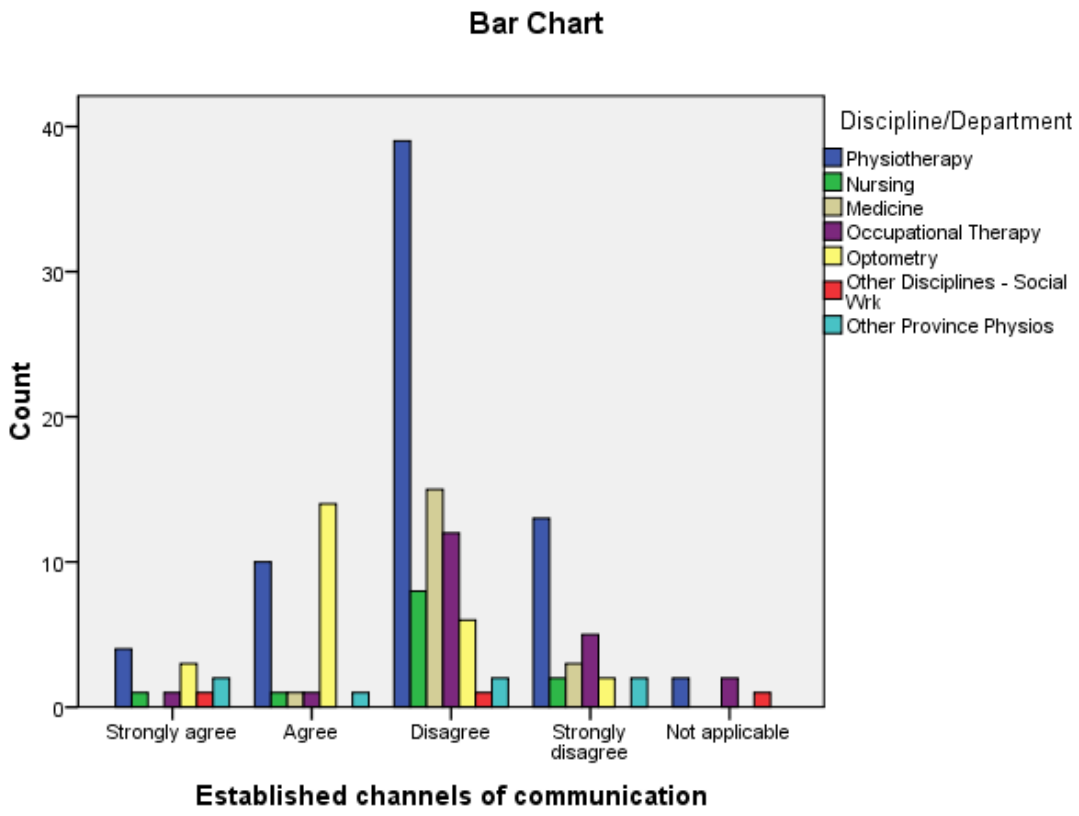
The majority of the respondents in the various disciplines disagreed that there were no problems with respect to co-operation of staff, as indicated in Figure 32 below. This finding was statistically significant (p=0.006).

Figure 32: Staff Cooperation/ Communication



Related to the same theme, the majority of the respondents in the various disciplines disagreed that there were well-established channels of communication between services, as indicated in Figure 33 below. This finding was statistically significant (p=0.000).

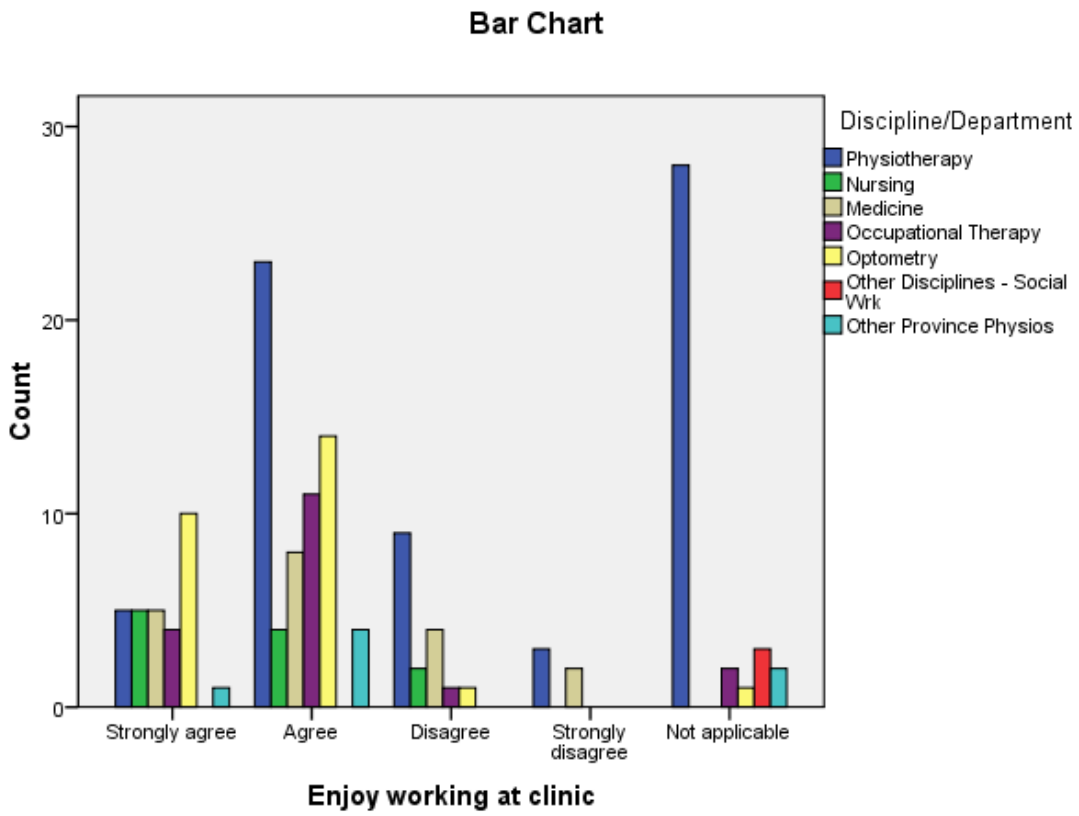
Figure 33: Established Channels of Communication



6.5.5.13 Job Satisfaction

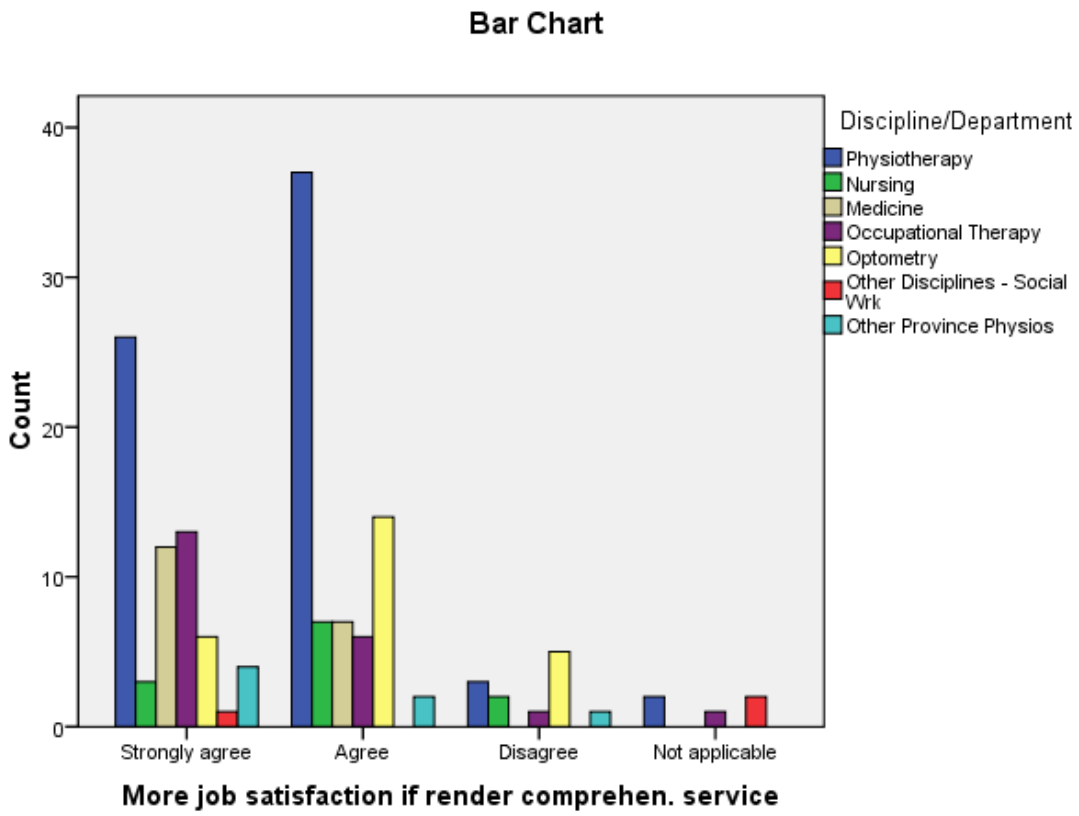
The majority of the respondents in the various disciplines agreed that working in the clinic was enjoyable, as shown in Figure 34 below. Moreover, many respondents in the Discipline of Physiotherapy indicated that this was not applicable. This finding was statistically significant (p=0.000).

Figure 34: Job Satisfaction –Clinic



Related to this theme, the majority of the respondents agreed that there would be more job satisfaction with the rendering of a comprehensive service, as shown in Figure 35 below. This finding was statistically significant (p=0.000).

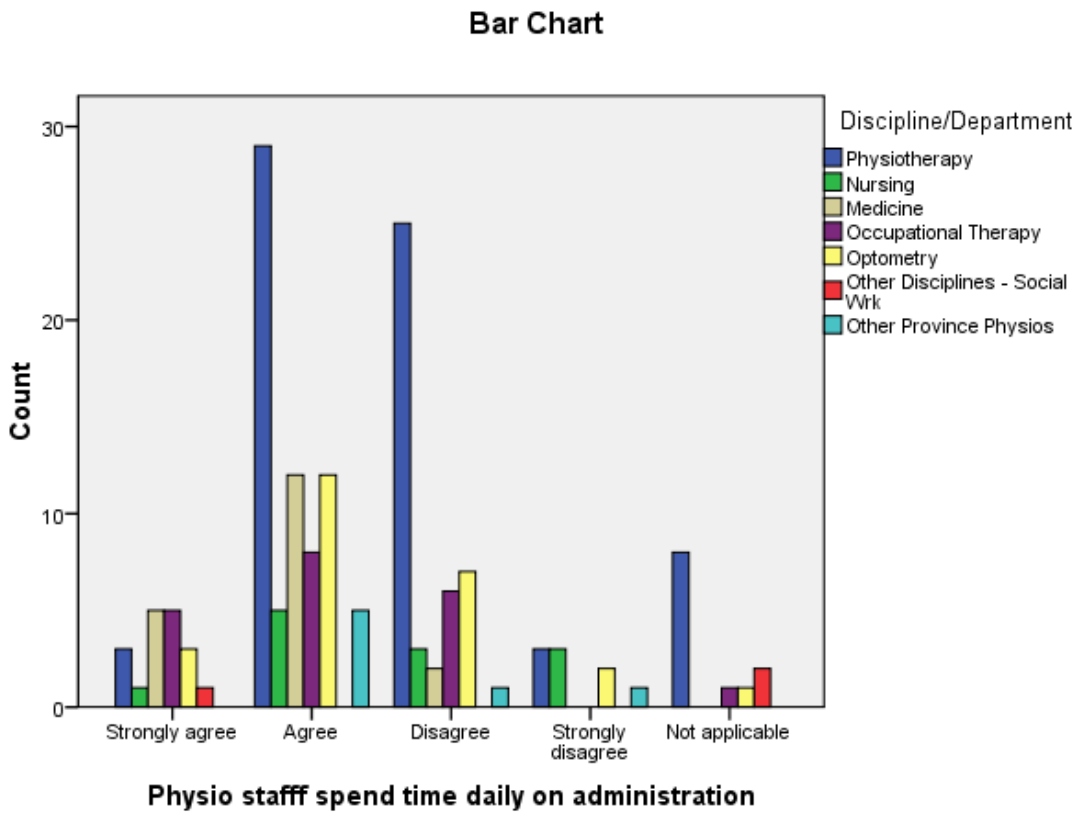
Figure 35: Job Satisfaction with Comprehensive PHC



6.5.5.14 Clinic Administration

The respondents from the various disciplines in Figure 36 indicated their responses to statements related to the theme 'time spent on clinic administration'. There was agreement and disagreement as to whether respondents spent a lot of time on daily administration at the clinics. This finding was statistically significant (p=0.001).

Figure 36: Clinic Administration



6.5.5.15 Hypothesis Testing

Chi-square tests were performed to determine whether there was a statistically significant difference in the number of respondents per option with respect to category (or statement) on integrated approaches to PHC delivery at a clinic level. The null hypothesis states that there is no difference between the expected frequencies for the options per category. The alternate hypothesis indicates that there is a difference. The results of the statements that indicated a statistically significant difference are presented in Table 65.

Table 65: Chi-Square Tests for Statements on Integrated PHC Approach

Integrated service enable patient to spend less time at clinic	.000
Further training not required	.000
Integrated service- staff will have time for quality service	.000
Educated to render PHC service	.000
Staff members use correct referral system	.000
Staff e.g. Physiotherapists treat comprehensively	.000
Difficult to trace patients for curative services	.000
No problems with staff co-operation	.000
With integrated service there is no supplies problem	.000
Established channels of communication	.000
Staff e.g. PTs direct patients to the right service	.000
Adequate training to render comprehensive services	.000
Enjoy working at clinic	.000
Channels of communication functioning well	.000
All staff e.g. PTs treat comprehensively	.000
Would like to do refresher courses on specific topics	.000
Misunderstandings exist wrt which service for what function	.000
More job satisfaction if render comprehensive service	.000
Staff e.g. PT spend time daily on administration	.000
In-service training needed in discipline- provide comprehensive service	.000
Space problems if services are integrated	.000
Fragmentation of PHC service between Local/Provincial Govt-delays	.000
Integration of services by mobile clinics is an excellent idea	.000
Drivers licence- part of Discipline (e.g. Physiotherapy) training	.000

All the above statements have p-values that are less than 0.05. This means that there is a significant difference between the observed and expected frequencies per statement. The statements with values greater than 0.05 (not shown) indicate that there are no significant difference between the observed and expected frequencies.

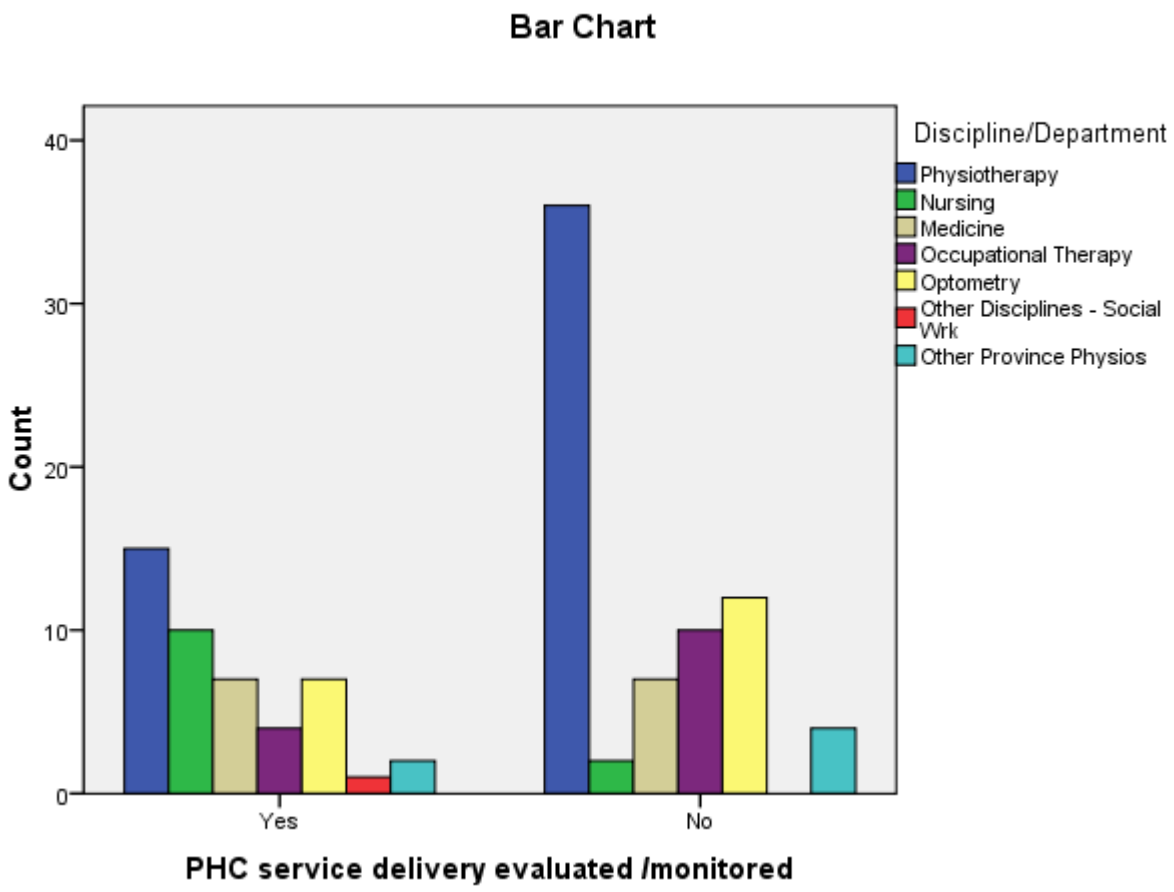
6.5.6 Evaluation and Monitoring of PHC Services

The majority of the students and staff (N=71) from the various disciplines indicated that there was no evaluation and monitoring of PHC services. Fifty percent (N=36) of the respondents were from the Discipline of Physiotherapy, as shown in Table 66 and Figure 37 below. This finding was statistically significant (p=0.021) with the Chi-Square test. Control and evaluation is an important public management function, as discussed in Chapter 2 as the adapted Public Management Model by Schwella (1996: 7). Therefore, compulsory implementation by all public managers is necessary to promote the effective delivery of PHC services.

Table 66: Evaluation and Monitoring of PHC Services

					Discipline/Department				
		Social Work	Nursing	Other Province Physios	Physio-therapy	Optometry	Medicine	Occupational Therapy	Total
PHC service delivery evaluated /monitored	Yes	1	10	2	15	7	7	4	46
	No	0	2	4	36	12	7	10	71
	Total	1	12	6	51	19	14	14	117

Figure 37: Evaluation and Monitoring of PHC Services



6.5.7 Ongoing Research in PHC Services

Ongoing research studies are an essential component in PHC in order to improve the delivery of health care services. Research in PHC is an important link to evaluation and monitoring of PHC delivery of services as part of a manager's function referred to above under the heading 'Evaluation and monitoring of PHC services' (in 6.5.6). Improving the quality of PHC services will only be possible if there is ongoing research, control and evaluation by the managers.

Figure 38: Ongoing Research in PHC Services

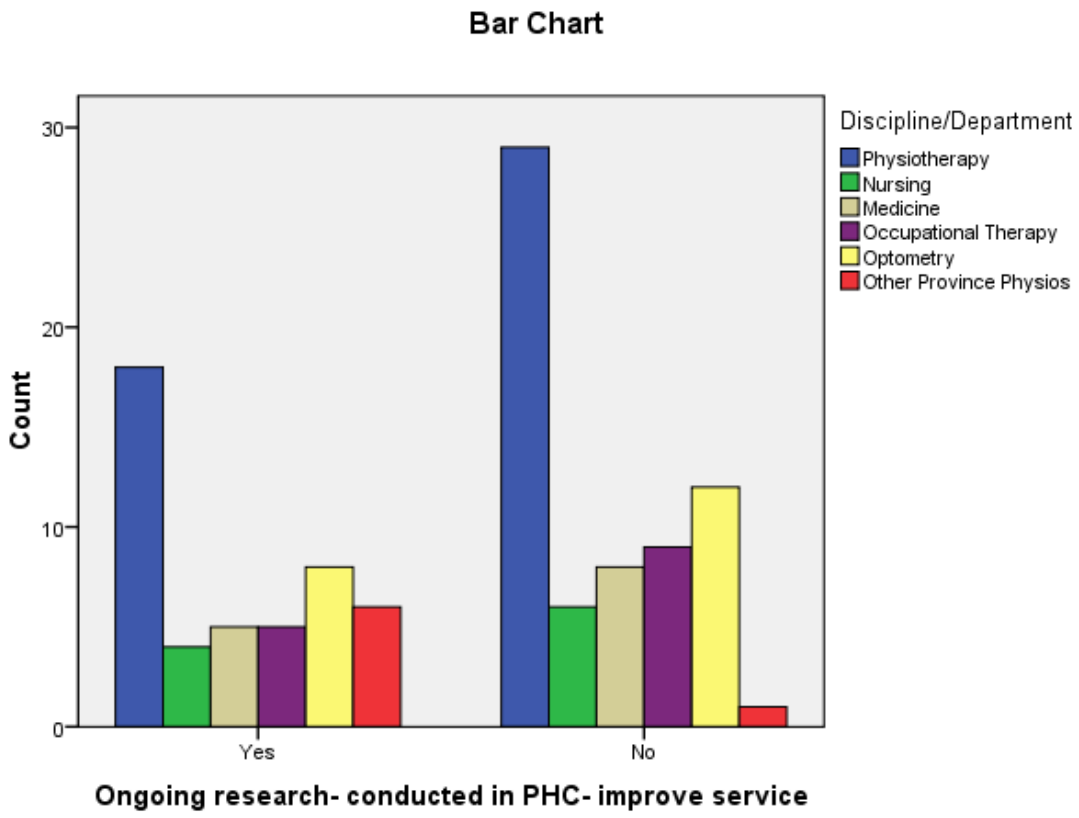


Figure 38 above indicates that most of the students and staff have responded that there was no ongoing research in PHC to improve the service delivery. This finding was similar to poor evaluation and monitoring of PHC services, as discussed earlier in Part B of the qualitative analysis.

6.5.8 Effective PPP in PHC Delivery

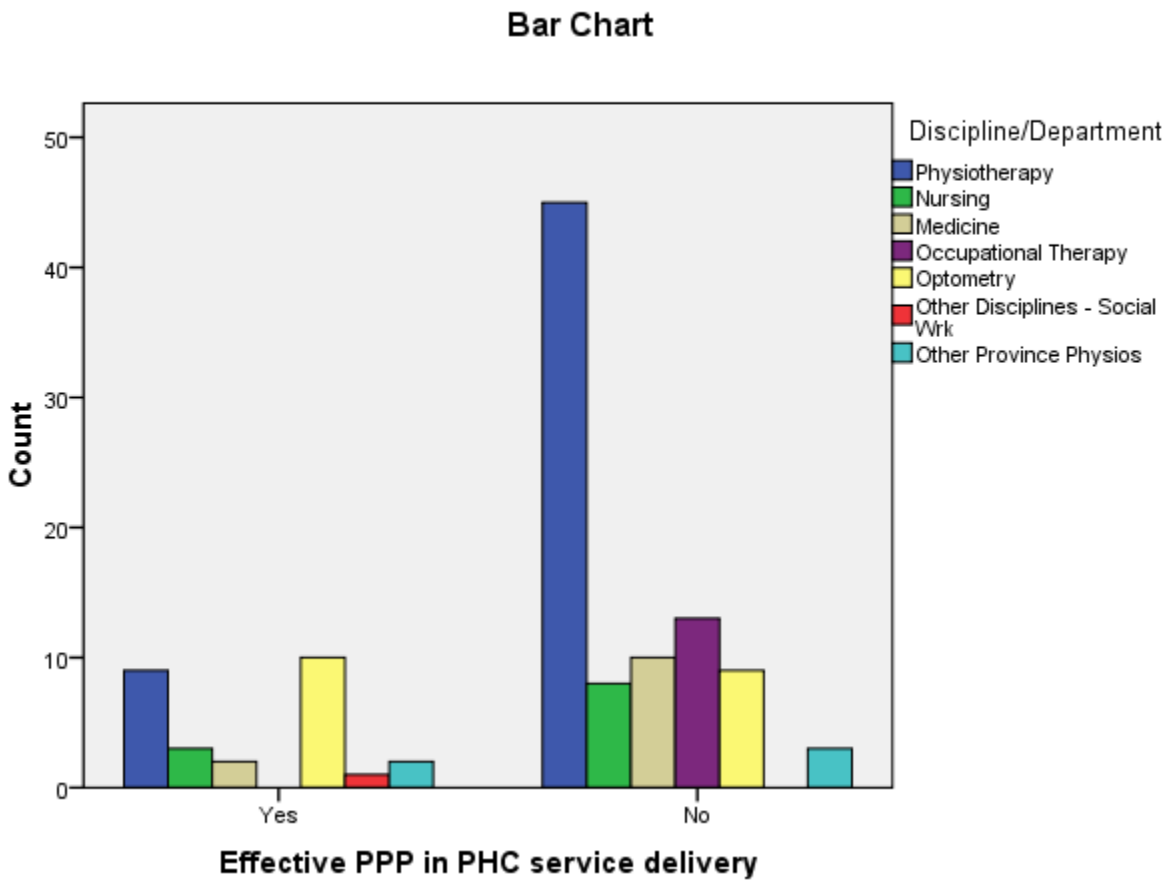
In total, the majority of the students and staff (N=88) from the various disciplines indicated that there was no effective PPP in the delivery of PHC services. A total of 50%

(N=45) of the respondents were from the Discipline of Physiotherapy, as shown in Table 67 and Figure 39 below. This finding was statistically significant (p=0.005).

Table 67: Effective PPP in PHC Delivery

		Social Work	Nursing	Optometry	Other Province Physios	Physio-therapy	Medicine	Occupational Therapy	Total
Effective PPP in PHC service delivery	Yes	1	3	10	2	9	2	0	27
	No	0	8	9	3	45	10	13	88
	Total	1	11	19	5	54	12	13	115

Figure 39: Effective PPP in PHC Delivery



6.6 SUMMARY AND CONCLUSION

The chapter dealt with the data analysis and interpretations of results which were described in relation to the questions raised in Chapter one.

Arising from the empirical evidence of the study, the findings have been discussed against the background of a broader framework of health care and PHC within the context of a public administration paradigm. Qualitative and quantitative analyses of the data under the relevant themes/headings present an integrated as well as a holistic view of

the study. Demographic data, the professional (general) and PHC experience together with policy issues, factors that may enhance or discourage the engagement in PHC, clinical training/delivery of PHC services and an integrated approach to PHC delivery at a clinical level were included.

Chapter Seven presents a detailed conclusion and recommendations.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

The study sought to establish a model for the promotion of a comprehensive primary health care service delivery in KwaZulu-Natal aligned to the National Health System in South Africa with special reference to the Discipline of Physiotherapy. The model emphasized an integrated approach involving all health care disciplines in training and clinical practice together with the various stakeholders, and key role players, as well as managers at the provincial and local government levels. The study explores beyond the Department of Health and local municipalities of health as the failure of providing quality PHC services to the people especially in rural communities.

An extensive literature review, conceptualizing health care and primary health care (PHC) within a Public Administration paradigm, was undertaken. In addition, theoretical perspectives on PHC and trends in PHC in relation to physiotherapy, on which the study was grounded, were included in Chapters Two, Three and Four.

The main aim of the study (as highlighted in Chapter One) was to explore how PHC is promoted in the health sector in KwaZulu-Natal (KZN) with special reference to physiotherapy. The objectives were to address the following:

1. Are physiotherapy students empowered during their clinical training in PHC service delivery?
2. Are physiotherapists empowered in the promotion of comprehensive PHC service delivery?
3. What are the barriers or limitations in the management of PHC service delivery?
4. What are the factors that enhance the promotion and management of comprehensive PHC?

5. Is there an alignment between clinical training and clinical practice in promoting PHC service delivery in physiotherapy as well as in the other disciplines?
6. What are the levels of PHC services in terms of affordability, acceptability, equitability and availability?
7. What are the models for promoting PHC services in clinical training and practice in KZN?

Information regarding all of the above-mentioned objectives was obtained and discussed in the preceding chapters. The chapter highlights a summary of conclusions and recommendations. The results of the research unfold a model in PHC for application, formulation of guidelines for the promotion of PHC in physiotherapy training and clinical practice.

7.2 SUMMARY OF RESEARCH FINDINGS AND CONCLUSIONS

A summary of the research findings addresses the questions posed in respect of the above-listed objectives from the analyses of the qualitative and quantitative data obtained from managers (provincial and district levels), Health Science Students and health care providers.

The implementation of a comprehensive PHC service delivery using a one-stop approach is lacking or non-existent in KwaZulu-Natal and shows no alignment to the National Health Plan and the Reconstruction and Development Plan (1994), as well as the White Paper for the Transformation of the Health System in South Africa (1997). A major challenge is that specialized personnel such as physiotherapists are not accessible to the people in the rural areas. Although physiotherapy students were empowered with theoretical knowledge on PHC, there was no structured clinical practice in place in rendering a comprehensive PHC service in the rural communities. Furthermore, only the Community Service Officers (new physiotherapy graduates) serving the compulsory one year community service render PHC services at the clinics. Other permanent physiotherapists are not delivering PHC services in the rural areas. It was found that, of

the 72 clinics in the Ethekweni District, had only four physiotherapists. Physiotherapists play a key role in the delivery of rehabilitation services, which is one of the main pillars of PHC services. The other services are the preventive, promotive and curative services. Consequently, reorientation of rehabilitation from institution-based to community oriented/based services are required during clinical training and clinical practice for the effective delivery of rehabilitation services.

Furthermore, a common thread that was elicited during the qualitative analysis was that each discipline operates within its own silo, without any consultation and inter-disciplinary collaboration, to the detriment of effective delivery of PHC services. It can be deduced that the different disciplines/ stakeholders do have objectives, which are not aligned to the vision and mission of the Department of Health. Primary health care service delivery was very fragmented and focused on discipline specific approaches occurring during clinical training and clinical practice. Duplication of primary health care between Provincial and Local Governments was reported by 46% of the managers, which is disturbing post 15 years of democracy in South Africa. The main objective of the National Health Plan and the RDP that is also encapsulated in the White Paper for the Transformation of the Health System (1997) was to redress the inequalities and fragmented health services.

Effective public-private partnerships (PPP) was a new concept and the majority of the managers were not acquainted with this type of service delivery. This finding was statistically significant ($p=0.031$). Equally, the majority of the staff and students from all the disciplines were in agreement that there was no effective PPP in the delivery of PHC services showing a significant difference ($p=0.005$). Managers need to empower themselves with this alternative delivery of PHC services, as there is a mismatch between government's resources against the enormous demands by the people, especially in rural communities.

Hypotheses tests indicated a significant relationship ($p=0.022$) between the discipline of the managers versus evaluation and monitoring of PHC services. However, a strong

negative relationship (r = -0.601) indicates that there is little or no ongoing research in PHC monitoring by the disciplines/ departments. Consequently, the important management functions of control of PHC service delivery is ineffective, which impacts on the quality of life resulting in poor economic and social development of all people. In addition, the majority of the respondents in the Discipline of Physiotherapy (staff and students) and from the other disciplines indicated that there was no evaluation and monitoring of PHC services. This finding showed a significant difference of p= 0.021.

Furthermore, the study indicates that the delivery of PHC services is not properly aligned to the eleven *Batho Pele* principles. Of importance, is the customer impact principle, which emphasizes the implementation of all the *Batho Pele* principles by all health care providers working in collaboration simultaneously improving PHC services in order to achieve an impact on the people (patients/customers). Multi-disciplinary team (MDT) work is a pre-requisite for ensuring better PHC services and assistance to improve the quality of life of all the citizens.

Leadership and strategic direction is the key to successful management of PHC service delivery. It is mandatory for all managers as leaders to lead by example, creating the right environment, which encourages creativity and innovation such as engaging in effective PPP to reduce the financial burden on government's limited/ scarce resources. Competent managers must empower officials reporting to them to work in tandem to plan and reach targets/goals. This principle overlaps with encouraging innovation and rewarding excellence where systems must be in place to recognise and reward staff for their contributions towards improved service delivery. These principles are also encapsulated in chapter 2 of 'The delivery to the people' guide, emphasizing strategic direction/ planning, implementing a PHC service delivery improvement programme, measuring performance and recognizing achievements.

Most of the physiotherapy staff lacked PHC training. This finding was statistically significant (p=0.000) and 48.7% of the Disciplines in Health Sciences indicated that the rural needs were not being addressed with regards to PHC service delivery, showing

statistical significance with p=0.018. Consequently, the study indicates that there is poor alignment of PHC service delivery by Health Science Disciplines at UKZN with the National Health System. In particular, only 10% of the respondents in the Physiotherapy Discipline indicated that there was substantial alignment between training and clinical practice, which was statistically significant (p=0.001). In addition, most disciplines indicated that the PHC service delivery was inadequate (p=0.001). Furthermore, the ANOVA statistical test indicated statistical significance for the low total and percentage score for PHC compliance/delivery per discipline (p=0.024).

The equity of staff representation for effective PHC service delivery in the rural areas must be addressed in order to promote effective community involvement or participation. Demographic background of specific relevance was IsiZulu as the home language, which will facilitate the understanding of the culture and eliminate language as a barrier to the promotion of effective PHC service delivery in the rural communities.

All of the Health Science students and staff indicated a high level of agreement with all the factors that encourage PHC engagement, namely, to promote prevention of diseases, disability and complications as well as enhance patient empowerment/education and functional independence. A similar trend was elicited for accessibility, affordability, equity and comprehensiveness of PHC services as being "good" (mean of 3 on the Likert scale). However, the practical implementation of addressing the needs of people in the rural areas differed. The literature review suggested that physiotherapists were perceived with a lower status if they worked in community or rural settings, which could be the reason for not wanting to engaging in PHC delivery despite the strong agreement with the factors that enhance PHC promotion.

The barriers to the promotion of PHC indicated financial resources (92%), which are the fine thread that underpins public management as the highest level of agreement among respondents. Travelling (85%), time constraints (81%), limited human resources (81%) and accessibility to PHC services (75%) were also notable barriers. Individual safety and

collaboration with other disciplines were equally notable barriers that need to be addressed in order to promote comprehensive PHC delivery of services.

An integrated approach to PHC delivery at a clinic level was analyzed using salient themes showing significant responses for an integrated service (p=0.000) results in quality/efficient services, further PHC training is necessary (p=0.038), poor use of correct referral procedures (p=0.000) and comprehensive PHC at clinics (p=0.036). The other themes related to fragmentation of PHC services between Provincial and Local Government caused delays (p=0.001), problems with respect to staff cooperation/ communication (p=0.000), job satisfaction at clinics was indicated as 'not applicable' by physiotherapists (p=0.000) and time spent on clinic administration (p=0.001). Hypothesis testing indicated a significant difference in the number of respondents per option with respect to each theme/ category (or statement) on integrated approaches to PHC delivery at clinic level.

7.3 RECOMMENDATIONS

The focus of the recommendations are two-fold, namely to:

i. The health sector with special reference to physiotherapy clinical training and practice in order to improve PHC service delivery; and
ii. Tertiary institutions with regard to undergraduate curriculum development and clinical training of all Health Science students.

The study is important and has implications for the National Health System in South Africa, offering government officials an insight into the complex challenges in PHC service delivery in KwaZulu-Natal.

It is critical that the physiotherapy profession addresses the perceived lower status conferred on those who work in community or rural settings. Clinical education and practice must empower physiotherapists with the appropriate knowledge and skill to

work in a variety of settings, especially rural areas as well as promoting the value of working in these settings. This requires a physiotherapist to adopt a PHC approach, which is flexible, responsive and innovative to develop services that are reflective of local needs, environments and available resources.

The implementation of PHC in rural areas in KwaZulu-Natal will require a realignment of the professional curriculum with the vision and mission of the Department of Health. University training of health care professionals, with special reference to the Discipline of Physiotherapy, should include PHC training in the core curriculum, emphasizing community development and PHC theory and skills. A PHC educational/conceptual framework, as indicated below, will provide the basis for inter-disciplinary linkage across allied health professions and, in rural areas, greater linkage with University Health Science Departments and Departments of Rural Health.

With the PHC approach, a stronger orientation towards rehabilitation is required balanced with an emphasis on health promotion and disease prevention, including prevention of complications as well as disability.

For quality PHC services and the development of CBR, multi-disciplinary, inter-agency and cross-sectoral collaboration is crucial. Physiotherapists can contribute to PHC programmes through a variety of roles.

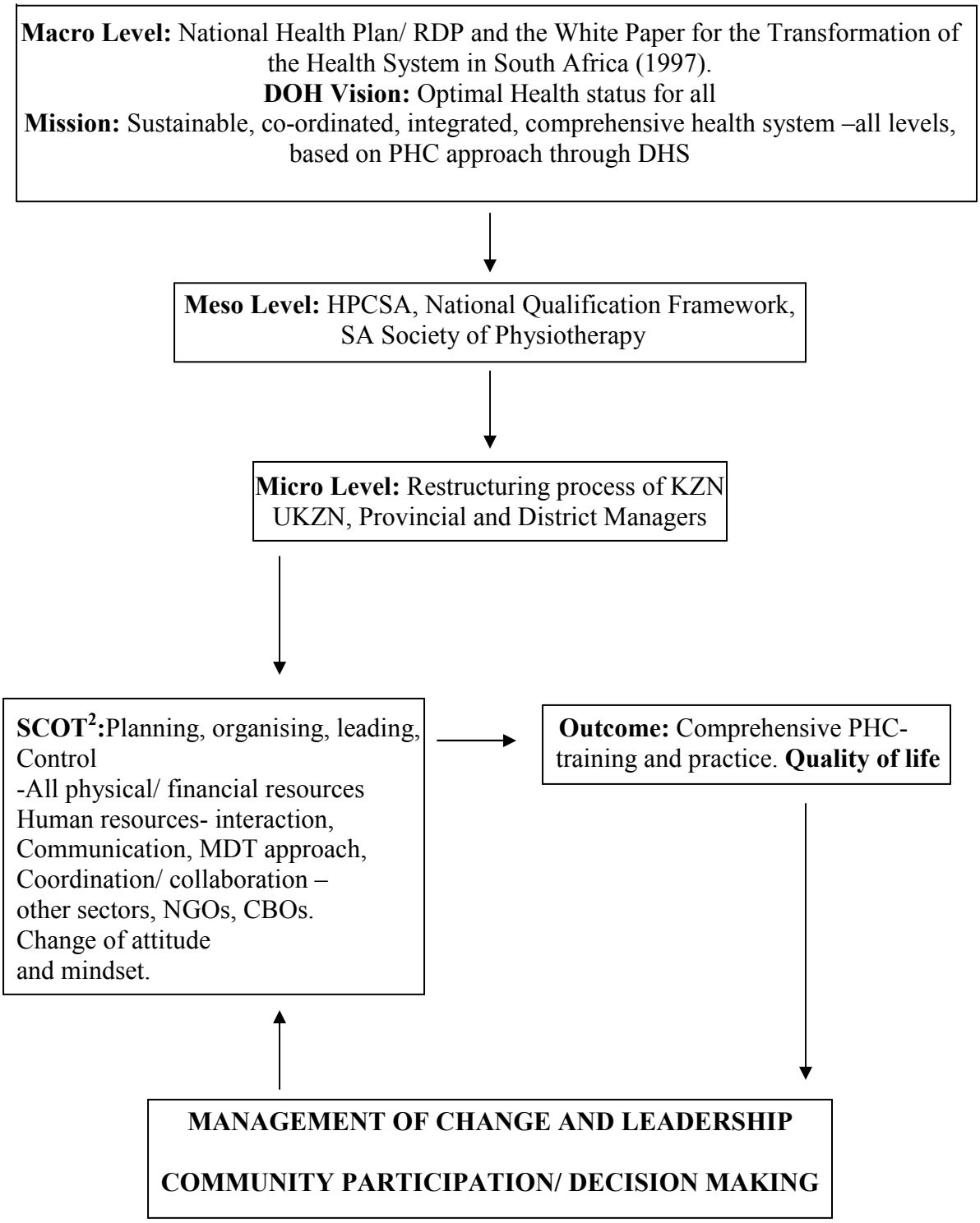
Maximizing the potential of that which is available, for example, the available resources for the majority of people in need, is essential. Clinical practice by Health Science students, especially in the Physiotherapy Discipline by incorporating PHC services in rural settings, will benefit the communities in need, as well as the students will gain invaluable experience in PHC. It is important to learn from the people in the communities, working with and building on what exists as well as encouraging community activity/involvement. Community change must be recognized as a fundamental goal. Training of community workers should take into account cultural differences and literacy levels of the community as well as continuous skills development

and networks to ensure ongoing support. Health care professionals must be skilled in passing on their knowledge and facilitating the role of community workers to do the same.

The Model, (Figure 40) proposed for the delivery of physiotherapy PHC services requires a major restructuring process at a micro level with all the Disciplines in the Faculty of Health Sciences in tandem with the KZN Provincial and District Managers/ Coordinators. This should be a social responsibility of all disciplines, stakeholders and key role players. The strategic direction to planning must be aligned with the vision and mission of the DOH at a macro level and the HPCSA together with the NQF at a meso level. The model emphasizes an integrated, comprehensive approach to PHC service delivery aligned to the biopsycho-social model encouraging collaboration and multidisciplinary as well as inter-sectoral collaboration. PHC service delivery must focus on preventive, promotive and rehabilitative services addressing the needs of people in rural areas shifting away from the curative institution-based medical model of health care.

A SCOT analysis in the study had identified the strengths, challenges, opportunities and threats to PHC service delivery in KZN. This will assist in devising a plan with targets and timeframes on how to confront the challenges, built on the strengths and opportunities. Sharing of good practices are important as well as a need for defined outputs, which are measurable as well as a reporting process/system. Ongoing monitoring and evaluation systems, for example, budget and service delivery must be in place so that the goals and outcomes are achieved. Strong leadership skills, as an integral component and key to the successful implementation of comprehensive PHC services, are necessary. Staff should be trained and developed appropriately at all levels if leadership skills are lacking, as well other skills, for example, administrative skills or how to cope with a diverse culture in order to improve PHC service delivery. Teamwork, motivational talks, taking pride in the nation, identifying enabling behaviours and enhancing them are essential.

FIGURE 40: MODEL FOR THE DELIVERY OF PHC SERVICES: PHYSIOTHERAPY



[2] **SCOT** refers to Strengths, Challenges, Opportunities and Threats

Public managers of the present and future should identify specific remedies as solutions to the complex and extensive management challenges, reflect on them and collectively confront these challenges. Some of these remedies include in-service training, strategic thinking, visionary and transforming leadership, promoting sound public relations, marketing and the application of specific management techniques, aids and processes, as highlighted in the public management model in Chapter 2.

Furthermore, government should provide the basic infrastructure, physical facilities, conducive working conditions and human resources, for example, space at the clinics, computers and medical supplies in order to enhance PHC service delivery. Incentives for staff, rewards, overtime pay and other benefits, for example, rural allowances, housing and car allowances should be provided. The weak links, duplication and fragmentation of services at the three spheres of government must be strengthened. The employment of therapists, including physiotherapists at provincial level only, must be solved, as municipal clinics do not provide any posts for rehabilitation services.

The promotion of PHC services at the undergraduate level will no doubt enhance the competence of all Health Science graduates during the one year of compulsory community service, thereby contributing to the quality of life of all citizens. In addition, it will be beneficial for student learning/growth in clinical experience and save government cost in employing specialized personnel. UKZN must address the problem of insurance cover for all Health Science students to engage in PHC services in the rural areas. Collectively, all Health Science students as well as staff must travel and work together as a multi-disciplinary team (MDT) for the effective delivery of comprehensive services, saving cost and enhancing safety. Thus, clinical training and practice will not be fragmented in promoting collaborative work.

Bridging the gap of all health care professionals, including those in academia that were not trained in PHC service delivery in the form of in-service training and CPD, must be compulsory and regulated by the Health Professionals Council of South Africa. Currently, all physiotherapists require 30 points annually of which a course in ethics is

mandatory. Health care professionals in the public sector must also serve in the rural areas on a rotation basis, as the community service officers are unable to provide an adequate service due to increased workloads and shortages of rehabilitation services at many rural clinics. A strategic plan has to unfold in the PHC clinics where all physiotherapists will acquire the opportunity to undergo the necessary training. Mentors for PHC training must be identified and CPD points can be allocated to them as well to those who complete their PHC training. The upgrading of these skills through postgraduate research in PHC will be beneficial. Different training models should be explored to empower physiotherapists and other health care professionals to render comprehensive PHC. A continuous training-needs analysis based on the PHC approach should be established so that relevant, up-to-date and well-planned programmes are offered to physiotherapists to render the required service.

The study can be used as a stepping-stone to the promotion and improvement of PHC service delivery in KZN as proposed in the Model. There is a dearth of ongoing research in the health sector on PHC service delivery. Thus, enormous potential for future research exists. The various health care disciplines should also conduct similar studies once PHC services in the rural communities are included to evaluate and monitor the level of service delivery of existing and future programmes. The study included a small cohort of subjects in the nursing and medical field. Hence, future research, with larger sample sizes, are recommended since these professions are in the forefront of PHC service delivery. Before instituting PHC services in any rural community, needs analyses are an essential priority so that delivery is compatible with the needs of the population. Consequently, research is compulsory and cannot be separated from PHC service delivery.

Managers play a pivotal role in initiating or strategically planning, organising or directing, leading and controlling the effective, economic, efficient and equitable delivery of PHC services aligned to the Constitution or needs of the country. In this regard, extensive research to identify the gaps in management skills and proactively correcting, training and developing all managers is mandatory. Another challenge that confronts managers, where action research is required, is organizational culture which refers to the

general atmosphere, character and work ethic within an organisation based on people's values that influences, attitudes as well as behaviour. Managers must be trained to manage diversity at the workplace. Measuring effectiveness, efficiency and productivity, using applied techniques such as total quality management (TQM), is equally important in monitoring policy implementation as stipulated in the White Paper for the Transformation of the Health System in South Africa (1997).

Action research, based on the PHC approach through the DHS, should be linked to all levels of care, that is, primary, secondary and tertiary. Moreover, referral systems should be effective. The management at a governmental level, namely, national, provincial and local, need to be unified, not fragmented and duplicated. Monitoring sustainability, co-ordination, integration of this comprehensive health system is a dynamic process with action research being an essential pre-requisite for competent, successful PHC service delivery aligned to *Batho Pele* principles in the White Paper on Transforming Public Service Delivery (1997).

The effective delivery of each of the pillars of PHC services, namely, preventive, promotive, rehabilitative and curative must be evaluated, monitored and researched according to outcomes, which are to maximize the quality of life of the people. Rehabilitation services must be developed and made more accessible to the majority of the population in the rural areas. In this regard, research on service delivery in collaboration with other sectors, for example, education, housing, environmental services, water and sanitation, is necessary for economic and social development in keeping with attaining the Millennium Development Goals by the year 2015, which also overlaps with the Declaration on Health Care for All (2001). Advocacy and mediator roles in negotiating for these services require training, development and ongoing research.

From an education perspective curriculum restructuring and design, incorporating a PHC approach to service delivery in preparation for the compulsory one year of community service is crucial, requiring further research. Consequently, restructuring of theory modules must include the PHC philosophy aligned to the legislative framework, models

of PHC and health promotion, strategies for implementation and the community-based rehabilitation model (in Chapters Two, Three and Four). Clinical education must emphasize the delivery of PHC services in rural areas, clinics, community centres and home-based care in order to shift way from the curative, hospital-based and biomedical model of health care.

Future research on the selection criteria of African students is necessary because of South Africa's historic legacy with regard to unequal educational opportunities and in relation to eliminating the language barrier for effective PHC. There was moderate to strong and significant correlation between high academic achievements in the language subjects at school with success in the physiotherapy studies (Nadasan, 2003:23). The relevance to effective PHC service delivery will be effective communication with the people in the rural areas as community participation/involvement in decision-making is an integral component. Furthermore, IsiZulu, as the home language, is a criterion for selecting physiotherapy or other Health Science students. This criterion will not only meet equity targets but also be a solution to the elimination of the language barrier. Another bonus is the cost effectiveness in PHC service delivery as the employment of language translators will not be necessary.

The White Paper for the Transformation of the Health System in South Africa (1997) also stipulates the inclusion of a compulsory IsiZulu module in the curriculum of all Health Science Disciplines. However, language was identified as a barrier, despite this inclusion. Therefore, research on the effectiveness of the IsiZulu module for PHC service delivery is important.

The public-private partnership is another avenue for research that requires exploring as an alternative method of service delivery as government resources are scarce and limited. In the Discipline of Physiotherapy, the South African Society of Physiotherapy, with its influence of mainly private practitioners, is an option for especially the delivery of rehabilitation services that are scarce in PHC delivery.

Collaboration, multi-disciplinary team work and community-based rehabilitation, as an essential pre-requisite to the comprehensive delivery of PHC services, need to be explored and researched. In addition, research into the training and effective PHC service delivery of community-based rehabilitation workers as well as physiotherapy assistants are important.

In conclusion, enormous capacity for research in PHC from management, educational and service delivery perspectives exist to create an impact on the quality of life of all the citizens of South Africa, in contributing to their economic and social development. All health care providers have a social responsibility to serve humanity. Health, economic and social development is inseparable and complement each other, especially in KwaZulu-Natal, as this province is stagnant in PHC services, especially in the Discipline of Physiotherapy. Managers and health care providers will confront many challenges in the delivery of PHC services arising from the political, social, economic and technological environments, which should not deter them or compromise service delivery but rather work collaboratively to find solutions.

Physiotherapists are specialists and play a pivotal role in the delivery of rehabilitation services, which are an important pillar of PHC services that impacts on achieving optimal functional independence as well as the quality of life of all individuals. The White Paper on an Integrated National Disability Strategy clearly indicates that rehabilitation services "have traditionally been neglected in South Africa" as these services tend to be fragmented and unco-ordinated with a lack of a comprehensive national inter-sectoral rehabilitation policy. The problem will continue to persist as radiographers and all therapists, including physiotherapists, embarked on a strike recently in KwaZulu-Natal due to discrepancy in the Occupation Specific Dispensation (OSD) as these health professionals are part of the Allied Health Professionals OSD group (The Mercury, 6 November, 2009:4). Physiotherapists have highlighted that the offer was less than half of that offered to pharmacists as they carry the strain of vacancies, which were not being filled due to many physiotherapists resigning to work in the private sector.

The study highlights and concurs with the findings of Fricke (2005:12) that is, in KwaZulu-Natal, all health care professionals are working in a 'traditional model of disciplinary parallelism' instead of working collaboratively towards shared goals, making collective decisions and sharing scarce resources and tasks responsibly. Health care planners, researchers, and providers can overcome barriers by making a concerted effort to communicate as well as negotiate with each other in order to establish the best practice for resource allocation. "Population health necessitates a global perspective on health care delivery and rehabilitation should be no exception" (Fricke, 2005). Intervention measures by the Southern Africa Capacity Initiative (SACI) strategy is strongly recommended to drastically improve the delivery of comprehensive PHC services in KZN and in South Africa so that the Millennium Development Goals can be achieved by the year 2015, as progress has been extremely slow, retarded or stagnant over the past 15 years.

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ANNEXURE A

QUESTIONNAIRE/ INTERVIEW: STAFF AND STUDENTS

(Where physiotherapy is stated, kindly insert your specific discipline for example, occupational therapy)

All information supplied will be strictly confidential.

Average time to complete Questionnaire /Interview: 30 minutes
Please return the questionnaire or email: nadasant@ukzn.ac.za within two weeks of its receipt.
Date: …….. Thank you.

Mrs T. Nadasan

Please complete this section of the Questionnaire /Interview with an "X" at the item that best describes your personal profile.

SECTION A: DEMOGRAPHIC DATA

Date:……..

Designation:…….

Discipline/ Department:…….

Years of experience/ level of study……..

1. Race

Black	1
White	2
Indian	3
Coloured	4
Other…….	5

2. Age in years

18-30	1
31-40	2
41-50	3
51-60	4
60-65	5
More than 65	6

3. Gender

Female	1
Male	2

4. Home language

IsiZulu	1
English	2
Afrikaans	3
Xhosa	4
Other, please state……	5

5. Where did you obtain your junior degree/ undergraduate and senior degree/ postgraduate professional training?

Province	**Junior degree/ undergraduate**	**Senior degree/ postgraduate**
KZN	1	1
Gauteng,	2	2
specify a)Wits, b)Medunsa, c)Pretoria	a, b, or c	a, b, or c
Cape town,	3	3
specify a)UWC, b)StellEnbosch, c)UCT	a, b, or c	a, b, or c
Bloemfontein	4	4
Other- please state……	5	5

SECTION B: PHYSIOTHERAPY/ PROFESSIONAL EXPERIENCE E.G. GENERAL, PRIMARY HEALTH CARE (PHC) EXPERIENCE AND POLICY ISSUES.

1. What do you understand by the term Primary Health Care (PHC)?
……..…..
……...

2. What is your understanding of the policy that governs PHC?
……
……

3. Did you undergo training in PHC?

Yes, at junior/ undergraduate level	2
Yes, at senior/ postgraduate level	1
No	0

4. If the answer is "yes" to question 3 above, please state the type/s and length of training in PHC.

Types of training	**Yes**	**No**	**Length of training in days/ weeks**
1. Course			
2. Seminar			
3. Workshop			
4. Undergraduate level			
5. Post-graduate level			
6. Other			

5. Did PHC form part of the curriculum for Physiotherapy or other professional training?

Yes	1
No	2

6. In which clinical areas/ blocks and level/s (e.g. Level 2, 3, 4) of your study were you involved with PHC?

Clinical area	**Level**	**Coding (eg. level 1= 1- *to be filled in by the researcher)**

7. Give details on your Physiotherapy or professional / general experience in PHC.

PHC Area/ site	**Indicate if urban, peri-urban or rural area**	**Indicate length of time in weeks, months or years**

8. In your view, was the clinical training empowering for the future with regard to PHC?

Yes	1
No	2

9.1. In your view, is the Physiotherapy department in your province addressing the needs of the people in the rural areas with regard to PHC?

Yes	1
No	2

9.2. Explain your answer to 9.1 above.

……
……
……

10. How would you rate your knowledge of the PHC Policy?

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

11. How would you rate your knowledge of the PHC principles?

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

I2. How would you rate your knowledge of the strategies for PHC implementation?

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

13. How would you rate your clinical experience in PHC implementation?

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

14. How would you rate the promotion of PHC in the Physiotherapy profession?

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

15. How would you rate the promotion of PHC in other professions? State the profession e.g. optometry, nursing, medicine etc
Profession ……

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

16. How would you rate the following in your discipline, for example, Physiotherapy:

Factor	**1- Excellent**	**2-Very good**	**3- Good**	**4- Fair**	**5- Poor**
Accessibility of PHC					
Affordability of PHC					
Equity of PHC services					
Needs of the rural patients being addressed?					
Comprehensive PHC					
Collaboration with other disciplines in the promotion of PHC.					

17. Comment on PHC in your discipline**.**

……
……
……

18. Comment on PHC in other professions.

……
……
……

19. Comment on PHC models in your discipline.

……
……
……

20. Give details on modes or approaches of preventative services.

……
……
……

21. Give details on modes or approaches of promotive services.

……
……

22. Give details on modes or approaches of curative services.

……
……

23. Give details on modes or approaches of rehabilitative services.

……
……

SECTION C: FACTORS THAT MAY ENCOURAGE OR DISCOURAGE YOU TO ENGAGE IN PHC IN PHYSIOTHERAPY.

Instructions: Cross ("X") the option/s that is/ are applicable to your situation.

1. What are the factors that may encourage you to engage in PHC?

Factors that encourage PHC engagement	**Yes**	**No**
1. To promote prevention of diseases		
2. To promote prevention of disability		
3. To promote prevention of complications of different disease processes		
4. To maintain functional ability		
5. To educate patients about diseases, healthy life –styles etc		
6. Empower patients to take responsibility for their functional independence		
7.Other- please specify……		

2. What are the limitations/ barriers to promotion of PHC in Physiotherapy?

Limitations/ barriers to promotion of PHC in Physiotherapy	**Yes**	**No**
1. Travelling		
2. Accessibility		
3. Individual safety		
4. Attitude of people to generally seek assistance in urban areas		
5. Limited financial resources		
6. Limited human resources		
7. Time constraints		
8. Education of the people to accept health personnel		
9. Inability to network/ collaborate with other disciplines engaged in PHC		
10. Other- please specify……		

3. In your view, how are these barriers overcome?

……
……
……
……
……

SECTION D: PHC CLINICAL TRAINING/ DELIVERY

Instruction: "X" each block using the scoring key as a guide for your answer.

Scoring Key
0 = none
1 = minimal clinical training/ delivery
2 = partial clinical training/ delivery
3 = significant clinical training/ delivery
4 = substantial clinical training/ delivery
N/A = If the question is **not applicable to your department,** briefly explain in the 'Remarks' column why PHC is not provided.

Questions	**0**	**1**	**2**	**3**	**4**	**N/A**	**Remarks**
1. PHC is being promoted in physiotherapy clinical training							
2. Clinical training in physiotherapy level three promotes PHC							
3. Clinical training in physiotherapy level four promotes PHC							
4. There is alignment between physiotherapy training and clinical practice in the promotion of primary health care in the health sector of KwaZulu Natal.							
5. Patient empowerment that provides education and encourages patient responsibility over rehabilitation and promotion of "good health" is a major priority in clinical practice.							
6. Clinical empowerment of physiotherapist's in the promotion of PHC is occurring in order to enhance service delivery in the health sector.							
7. Promotion of PHC in the training of medical doctors in the health sector in KwaZulu Natal.							
8. Promotion of PHC in the training of nurses in the health sector in KwaZulu-Natal.							
9. Promotion of PHC in the training of physiotherapists in the health sector in KwaZulu-Natal.							
10. PHC delivery is accessible to patients.							
11. PHC delivery is implemented in your discipline.							

Questions	0	1	2	3	4	N/A	Remarks
12. PHC delivery is adequate (sufficient) in your discipline.							
13. PHC delivery is appropriate (suitable) in your discipline.							
14. PHC delivery is equitable (fair and just) in your discipline.							
15) Community involvement/ participation in PHC delivery.							
Total: /60 Percentage:							

SECTION E: AN INTEGRATED APPROACH TO PHC DELIVERY AT A CLINIC LEVEL

Please read the following statements carefully and indicate the extent to which you agree or disagree by crossing ("X") the appropriate option:

No.	Statement	Strongly agree	Agree	Disagree	Strongly disagree	Not applicable
1	An integrated service will enable patients to spend less time at a clinic	1	2	3	4	5
2	I do not need any supplementary/ further training to enable me to render a comprehensive service	1	2	3	4	5
3	With an integrated service, I will have enough time to render a quality service to my patients	1	2	3	4	5
4	In terms of education and training, I feel fully equipped to render a comprehensive PHC service.	1	2	3	4	5
5	Staff members always make use of the correct referral procedures	1	2	3	4	5
6	All physiotherapy staff at a clinic are able to treat patients comprehensively	1	2	3	4	5
7	It is difficult to trace patients for curative services	1	2	3	4	5
8	There are no problems with respect to co-operation of staff	1	2	3	4	5
9	Should services be integrated at the clinic, problems with respect to supplies will not exist	1	2	3	4	5
10	There are well established channels of communication between services	1	2	3	4	5
11	Physiotherapy staff direct patients to the right service	1	2	3	4	5

No.	Statement	Strongly agree	Agree	Disagree	Strongly disagree	Not applicable
12	I received adequate training to render a comprehensive service	1	2	3	4	5
13	I enjoy working at a clinic	1	2	3	4	5
14	Channels of communication between services at a clinic must be functioning well	1	2	3	4	5
15	All physiotherapy staff must be able to treat patients comprehensively	1	2	3	4	5
16	I would like to do refresher courses on specific topics if I have to render a comprehensive service	1	2	3	4	5
17	Misunderstandings exist with respect to which service is responsible for what function at the clinic	1	2	3	4	5
18	I would have more job satisfaction if I could render a comprehensive service	1	2	3	4	5
19	Physiotherapy staff spend a lot of time daily on administration	1	2	3	4	5
20	In-service training is needed in your discipline in order to provide a comprehensive service at a clinic	1	2	3	4	5
21	There are space problems in the clinics if services are integrated	1	2	3	4	5
22	Fragmentation of PHC services between provincial and local government authorities causes delays	1	2	3	4	5
23	Integration of services rendered by mobile clinics is an excellent idea	1	2	3	4	5
24	Driver's licences should be part of all Optometry training courses	1	2	3	4	5

25. Is the delivery of PHC services evaluated and monitored?

Yes	No
1	2

Give details of the modes of evaluation.

……

……

26. How is the delivery of PHC services controlled?

……

……

27. Indicate your suggestions for the promotion of PHC in clinical training and clinical practice?

……
……

28. Are ongoing research studies being conducted in PHC in order to improve the service delivery?

Yes	No
1	2

Give details.

……
……

29. Are there effective public private partnerships in the delivery of PHC services?

Yes	No
1	2

Give details.

……
……

30. Are there any further comments regarding PHC strategic planning, organization, leadership, training and development and control that you would like to provide?

……
……
……
……
……
……

31. What are your recommendations for the future regarding PHC delivery in KZN?

……
……
……

32. What challenges confront PHC delivery in KZN?

……
……

33. What opportunities does PHC delivery offer in KZN?

……
……

Many thanks for your co-operation and kind assistance.

Mrs T. Nadasan
(Physiotherapy lecturer).

ANNEXURE B

QUESTIONNAIRE/ INTERVIEW SCHEDULE FOR STAFF/ MANAGERS AT PROVINCIAL AND LOCAL GOVERNMENT

All information supplied will be strictly confidential.
Average time to complete Questionnaire /Interview: 30 minutes

Please complete this section of the Questionnaire /Interview with an "X" at the item that best describes your personal profile.

A. COLLABORATION WITH OTHER HEALTH PROFESSIONALS INVOLVED IN PRIMARY HEALTH CARE (PHC) DELIVERY

1. What is your understanding of the policy that governs PHC?
……
……

2. Do you collaborate with other health professionals?

No	Occasionally	Regularly
1	2	3

3. What structures exist for such collaboration? Please specify:
……
……
……

4. Please indicate with which of the other health professionals you collaborate.

No	Services	Never	Occasionally	Regularly
4.1	Emergency health services	1	2	3
4.2	School nurses	1	2	3
4.3	Social workers	1	2	3
4.4	Occupational therapists	1	2	3
4.5	Physiotherapists	1	2	3
4.6	Pharmacists	1	2	3
4.7	Speech therapists	1	2	3
4.8	Other:…….	1	2	3

5. If you **do not** collaborate with other health professionals, please state the reasons for non-collaboration:
……
……
……

6. Are there effective public private partnerships in the delivery of PHC services?

Yes	No
1	2

Give details.

……

……

B. COMMUNITY INVOLVEMENT

6. Do you encourage community involvement/ participation in health care delivery?

No	Occasionally	Regularly
1	2	3

8. What are the indicators for community involvement/ participation in health care delivery? Please specify:

……

……

9. Please indicate involvement with the following structures:

No	Services	Never	Occasionally	Regularly
9.1	Community based organisations	1	2	3
9.2	NGO's	1	2	3
9.3	Trade Unions: Specify…….....	1	2	3
9.4	Health Forums	1	2	3
9.5	Other: Specify ……	1	2	3

10. If you do not encourage any community involvement in health care delivery, please state the reasons for non-involvement:

……

……

11.1. Is your environment conducive to rendering a comprehensive PHC service?

Yes	No
1	2

11.2. Explain your answer.

……

……

12. State the obstacles/ problems related to the delivery of a comprehensive PHC service.

……

……

……1

13.1. Duplication of PHC services exist between provincial and local government authorities.

Yes	No
1	2

13.2. How can you best find ways to identify fragmentation and duplication of PHC services between provincial and local government authorities?

……
……
……
……

13.3. Explain your answer to 13.1 and 13.2 above.

……
……
……
……

14. Is the delivery of PHC services evaluated and monitored?

Yes	No
1	2

Give details of the modes of evaluation.

……
……
……

15. How is the delivery of PHC services controlled?

……
……

16. Indicate your suggestions for the promotion of PHC in clinical training and clinical practice?

……
……
……

17. Comment on PHC models.

……
……
……

18. Are ongoing research studies being conducted in PHC in order to improve service delivery?

Yes	No
1	2

Give details.

……
……

19. What challenges confront PHC delivery in KZN?

……
……

20. What opportunities does PHC delivery offer in KZN?

……
……

21. Are there any further comments regarding PHC strategic planning, organization, leadership, training and development and control that you would like to provide?

……
……
……
……
……

22. What are your recommendations for the future regarding PHC delivery in KZN?

……
……

Many thanks for your co-operation and kind assistance.

Mrs T. Nadasan
(Physiotherapy lecturer).

ANNEXURE C

TEMPLATE FOR COVER LETTER FOR SURVEYS TO PROVIDE INFORMED CONSENT: 2007

UNIVERSITY OF KWAZULU-NATAL
SCHOOL OF PUBLIC ADMINISTRATION AND DEVELOPMENT MANAGEMENT

Dear Respondent,

Research Project
Researcher: Mrs T. Nadasan (Telephone number: 031 2607817/ 7939, Cell: 0844944880)
Supervisor: Professor Y. Penceliah (Office Telephone number: 031 2607756/ 7645)

I am Thaya Nadasan, a D.Admin student, in the School of Public Administration and Development Management at the University of Kwa Zulu-Natal. You are invited to participate in a research project entitled: Primary Health Care Delivery: A case study of Kwa Zulu-Natal with special reference to Physiotherapy. The objective of this study is to explore how primary health care (PHC) is promoted in the KZN health sector.

Through your participation, I hope to understand primary health care delivery. The results of the survey are intended to contribute to the health sector especially on physiotherapy clinical training and practice to improve PHC service delivery. In addition, recommendations can be made to tertiary institutions with regards to undergraduate physiotherapy curriculum development and clinical training of students.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence.
Confidentiality and anonymity of records identifying you as a participant will be maintained by the School of Public Administration and Development Management at UKZN.

The survey should take you about 30 minutes to complete. I hope you will take the time to complete this survey.

If you have any questions or concerns about completing the questionnaire or about being in this study, you may contact me at 031 2607817/ 7939, Cell: 0844944880 or my supervisor at 031 2607756/ 7645. This project has been approved by the Ethics Clearance Committee of The University of KwaZulu-Natal.

CONSENT

I have read and understand the above information. I understand that participation is voluntary and that I may withdraw at any stage of the interview.

Participant's signature_____ Date_____

Sincerely.

Researcher: Mrs T. Nadasan

ANNEXURE D

REQUEST FOR PERMISSION TO CONDUCT THE STUDY

18 November 2008

Medical Doctors and Health Professionals
Other Provinces/ International experience
South Africa

RE: Seeking Permission to conduct Post-Graduate Research

TOPIC: Primary Health Care (PHC) Delivery: A case study of KwaZulu Natal with particular reference to Physiotherapy.

Dear All

This study is being conducted in order to fulfill the requirements for a Doctoral Degree in the Faculty of Public Administration and Management at UKZN.

The purpose of the study is to elicit the extent of promotion of PHC in the health sector with particular reference to physiotherapy in clinical training and practice in KZN.

Since little research has been done about this topic in KZN, SOUTH AFRICA, the result of this study will benefit the health sector especially the physiotherapy profession by adding knowledge and assisting the KZN Province in improving their PHC services.

I am requesting your permission and kind assistance to participate in this study at as you will comprise part of the research sample. Thus general insight into PHC delivery in KZN and other provinces can be obtained.

The confidentiality of every participant will be ensured since no names will be recorded. Each participant has the right to withdraw from the study at any time.

Thank you for your co-operation and support.

Yours sincerely

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ANNEXURE E

DEPARTMENT OF HEALTH- LETTER OF APPROVAL

ANNEXURE F

OCCUPATIONAL THERAPY DEPARTMENT- LETTER OF APPROVAL

Mrs Nadasan
Discipline of Physiotherapy
Westville Campus

RE: PERMISSION REQUEST FOR DATA COLLECTION

Dear Mrs Nadasan

This serves to inform you that your request to access Occupational Therapy Staff and level four students has been approved.

All the best in your studies

Regards

Mrs T. Lingah
Deputy Head of School
Discipline of Occupational Therapy
lingaht@ukzn.ac.za
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ANNEXURE G

KWAZULU-NATAL DISTRICT AND LOCAL MUNICIPALITIES

ANNEXURE H

THE MERCURY ARTICLE ENTITLED: HEALTH WORKERS PICKET AGAIN

ANNEXURE I

THE TIMES ARTICLE: QUESTIONS OVER R1BN STATE OFFER TO DOCTORS

ANNEXURE J

ETHICAL CLEARANCE LETTER