

**“A MODEL FOR EFFECTIVELY EVALUATING AND MONITORING PRIMARY
HEALTH CARE SERVICES DELIVERY IN THE METRO
DISTRICT AT THE WESTERN CAPE , SOUTH AFRICA”**

BY

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DECLARATION

I Lumka Ntwanambi declare that;

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DEDICATION

This dissertation is dedicated to my late humble parents who are no longer from this world, Mrs Nokhawuntala Ntwanambi and Mr Nkanyamba Ntwanambi.

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. I am eternally grateful for your guidance, support and together with my colleagues (Apostolic Faith Mission) as well as our Almighty God; the completion of this dissertation would not have been possible without your Divine grace/intervention.

“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

Emanating from the apartheid years, residential areas, facilities, and financing of services were designated according to the race. The best facilities were provided to the ruling white minority which by percentage comprises just over 5% of the total population. The second best was given to the second-class citizens, Asians, and Coloureds (products of mixed racial marriages) they had a slightly lower service structure than the whites. The indigenous blacks (Africans / natives) had the lowest facilities and funding. By law, they were prohibited (needed special permission) to live in towns / urban settings, and they had areas designated according to their race. The advent of democracy resulted in the influx of many blacks to urban centres, moving to the previously designated areas. Even with the advent of democracy, the poor facilities have not changed much limited by the land available and the resultant overcrowding due to urban migration. The current demography (housing) of the Cape Metro is 20% whites who occupy 58% of the land, 37% who occupy 16% of the land, and coloureds and Asians 43% who occupy 26% of the land. The Greater Cape Town (Cape Metropolitan) is divided into districts, and the most crowded is the formerly native housing scheme officially referred to as the Metro District. Very few changes have taken place in the Metro District regardless of the continued influx of urban migrants. The clinicians are few and overworked as their numbers have not changed significantly in the last 28 years of democracy. Primary Health Care has deteriorated, and medical personnel are moving to work in private medical care or opening private practices. The focus of this research is to develop a model to meet the increasing demand and provide PHC and Health Care suitable for the urbanized Metro District Community. Recommendations emanating from the study are made to transform and meet the constitutional expectations of a quality PHC and HC for all the citizens of the country, but specifically the Metro District.

ABBREVIATIONS

CHS	<i>Community Health Services</i>
DHS	<i>District Health System</i>
DPASA	<i>Department of Public Service Administration</i>
EHP	<i>Environmental Health Practitioner</i>
EHS	<i>Environmental Health Services</i>
FM	<i>Framework Model</i>
GEAR	<i>Growth, Employment and Redistribution Strategy</i>
GIS	<i>Geographical Information System</i>
GP	<i>General Practitioners</i>
HBM	<i>Health Belief Model</i>
HFA	<i>Health For All</i>
HPCSA	<i>Health Professionals Council of South Africa</i>
HR	<i>Human Resource</i>
ICF	<i>International Classification Framework</i>
IDP	<i>Integrated Development Plan</i>
ILO	<i>International Labour Organisation</i>
IUHPE	<i>International Union for Health Promotion and Education</i>
ME	<i>Monitoring and Evaluation</i>
MHAs	<i>Metro-district Health Authorities</i>
MRC	<i>Medical Research Council</i>
NGOs	<i>Non-Governmental Organisations</i>
NHA	<i>National Health Act 61 (2003)</i>
NHIS	<i>National Health Information System</i>
NHS	<i>National Health System</i>
NQF	<i>National Qualifications Framework</i>
PB	<i>Public Health</i>
PC	<i>Primary Care</i>
PFMA	<i>Public Finance Management Act</i>
PGDS	<i>Provincial Growth and Development Strategy</i>
PHC	<i>Primary Health Care</i>
PHCRI	<i>Primary Health Care Research Institute</i>
PHCT	<i>Primary Health Care Team</i>
PSC	<i>Public Service Commission</i>
RDP	<i>Reconstruction and Development Programme</i>
SADC	<i>Southern African Development Community</i>
SC	<i>Secondary Care</i>
TC	<i>Tertiary Care</i>
UN	<i>United Nations</i>
UNDP	<i>United Nations Development Programme</i>
USSR	<i>Union of Soviet Socialist Republic</i>
WHO	<i>World Health Organization</i>

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CHAPTER 1

THE SCOPE OF THE STUDY

1.1 Introduction

Government hospitals are characterised by what is consistently referred to as long queues, poor service, and continued failure to meet customers' expectations. It is well-known and documented that the resources of the government are overstretched because of the levels of poverty in the country that attract poor and lowly-paid workers. Traditionally, all hospitals are established in residential areas to allow for easy access by the customers (Ravallion, 2013:258-265). With unemployment in the country at 47% (Van Aardt, 2012:54-68), depending on whose statistics you use, the country has a 61% poverty level. The United Nations estimates that the levels of poverty in South Africa impact other state functions, consequently, many other aspects of governance are impacted. The failure to provide citizens' expectations stands in stark contrast to the inscriptions in the constitution. (Koggalage; 2017:747-757) suggests that many questions go unanswered, considering the human rights expectations, the government's mandate, and the apparent neglect. These situations leave many questions including questioning the political will and the competency of the leadership. Some authors have indicated that chief among the reasons for not providing the correct services is the absence of the requisite skills, stemming from the government's inability to plan for appropriate health sector professionals (Akokuwebe;2017:200-217). Statistics in the country state that 80% of the health personnel work in the private sector which caters for only 20% of the population (Vidal-Carreras;2022:265).The remainder of the health professions (20%) work in the public hospitals which accounts for or caters for 80% of the population. This research seeks to design a model to assist in the provision of adequate and acceptable health services for the poor who cannot afford private health care (Lund, 2010:517-528). The effectiveness of any health care services starts with addressing the very basic Primary Health Care (PHC) which will impact positively on the citizens.

1.1.1 DEFINITION OF CONCEPTS

1. **Primary health care** – (PHC) essential health care is based on scientifically sound and socially acceptable methods and technology. In other words. PHC includes access to health services, environment and lifestyle, including amongst others, preventative measures intended to avoid the spread or increase of public health problems (Starfield, 2011:653-655).
2. **Service delivery** – (sometimes referred to as service delivery framework - SDF) is a set of principles, standards, policies and constraints to guide the designs, development, deployment, operation and retirement of services delivered by a service provider (Alexander, 2010:25-40).
3. **Monitoring** – the process of keeping track of all metrics and factors that impact the performance of task implementation processes (Mueller-Hirth, 2012, 649-670).
4. **Evaluating**- a systematic determination of a subject's merit, worth and significance, using criteria governed by a set of standards to assist an organization, program, design, or project (Bodenheimer, 2013:1881-1886).
5. **Strategic planning** – an organization's process of defining its strategy or direction and making decisions on allocating its resources to pursue this strategy and develop control mechanisms for guiding the implementation of the strategy (Rumelt,2011: 25-29).
6. **Customer service** - provision of service to customers before, during and after a purchase. Customer service concerns the organisation's ability to provide the required support, adequately and timeously (Staff, 2017:23-30).
7. **A patient** - any recipient of health care services most often ill or injured and in need of treatment by a physician, nurse, psychologist, dentist, veterinarian or health care provider ((Bodenheimer, 2013:1881-1886).
8. **An outpatient** – This is a patient who is not hospitalized or admitted into the hospital for less than 24 hours. An out-patient is a patient who does not need frequent care of the clinician during their stay or wait at the hospital (Kunders, 2014:221-222).
9. **Records management** - the collection, storing and retrieving of treatment records of the patients (both internal and external patients), storing is for the safekeeping of the data and information about the patient (Megill, 2015:20-33). Retrieving involves the ability of the system (hospital) to obtain the data from storage in the format in which it was entered.

1.2 BACKGROUND

Government structures worldwide always have a minister responsible for the health of the people, generally headed by a qualified medical practitioner. The World Health Organisation (WHO) is the umbrella body responsible for the global administration of health issues, as a specialised extension of the United Nations. The objective of the WHO according to the constitution is; " the attainment by all people of the highest possible level of health" (Hoffman & Rottingen, 2012:854-863). Access to health is a human right and generally stated as a "must have" for all citizens in a country, too often including non-citizens who may need health facilities. The global institution responsible for health (WHO) manages medical and nursing practices from time to time as expected according to existing knowledge. The organisation has codes of conduct and a constitution that governs its operations and responsibilities to the citizens of the world. According to the constitution of the WHO, the primary objectives are listed below.

Table 1.1 The role or objectives of the WHO

1	To act as the directing and coordinating authority on international health work;
2	To establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations as may be deemed appropriate;
3	To assist Governments, upon request, in strengthening health services;
4	To furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments;
5	To provide or assist in providing, upon the request of the United Nations, health services and facilities to special groups, such as the peoples of trust territories;
6	To establish and maintain such administrative and technical services as may be required, including epidemiological and statistical services;
7	To provide or assist in providing, upon the request of the United Nations, health services and facilities to special groups, such as the peoples of trust territories;
8	To establish and maintain such administrative and technical services as may be required, including epidemiological and statistical services;
9	To promote, in co-operation with other specialized agencies where necessary, the prevention of accidental injuries;
10	To promote, in cooperation with other specialized agencies where necessary, the improvement of nutrition, housing, sanitation, recreation, economic or working conditions and other aspects of environmental hygiene;

11	To stimulate and advance work to eradicate epidemic, endemic and other diseases;
12	To promote cooperation among scientific and professional groups that contribute to the advancement of health;
13	To propose conventions, agreements and regulations, and make recommendations concerning international health matters.

Source: own construction adopted from the WHO constitution

The WHO fulfills this objective through its functions as defined in its Constitution. As of 2012, the WHO has defined its role in public health as follows;

1. Providing leadership on matters critical to health and engaging in partnerships where joint action is needed;
2. Shaping the research agenda and stimulating the generation, translation, and dissemination of valuable knowledge;
3. Setting norms and standards and promoting and monitoring their implementation;
4. Articulating ethical and evidence-based policy options;
5. Providing technical support, catalyzing change, and building sustainable institutional capacity; and
6. Monitoring the health situation and assessing health trends.
7. CRVS (Civil Registration and Vital Statistics) to provide monitoring of vital events (birth, death, wedding, divorce).

1.3 PROBLEM STATEMENT

South Africa has a population upwards of 58 million, and the population growth rate has been exacerbated by numerous factors. The natural organic growth by birth, and the sudden flow of migrants from other parts of the continent and from Asia. The country does not have a well-developed economy and much of the economic growth is jobless resulting in high unemployment levels. The advent of democracy also allowed for an increased movement of people to urban centres, all in pursuit of a better quality of life and better living standards. Using the United Nations measure for poverty, it is estimated that 62% or more of people living in South Africa qualify to be classified as poor. Add to this a youth unemployment rate of 46% (depending on whose figures you use), all of whom are migrating to urban centres.

On the ground, the country has an unenviable status quo of 20% of the health or medical personnel caring for 80% of the population. Urban migration itself has resulted in Khayelitsha being the fifth (5th) largest informal settlement in the world. The research is focused on this settlement classified as part of the Cape Metropolitan in the Western Cape, characterized by long queues and high mortality rates. The research seeks to assist in the development of a device that will allow for effective monitoring, evaluating and controlling of the health service delivery in this area.

1.4 RESEARCH OBJECTIVES

A research objective is the researcher's expectations from the study or research project to be conducted. The objective is generally derived from and therefore aligned to the problem statement, the study gap for which new knowledge is needed. Generally, the research objective is divisible into two types, the primary research objective (the single main purpose) and the secondary research objectives (the breaking down of the primary research objective). The secondary research objectives are extracted from the primary research objective, or may be thought of as an elaboration of the primary research objectives. In this research these two will be used, and below is the elaboration of the different types of research objectives for this study.

1.4.1 Primary Research Objective

Develop a model for the effective monitoring and evaluation of primary health care at selected Metro District service points.

1.4.2 Secondary Research Objective

- i. Increase the programs and services that affect the healthy growth and development of PHC in the Metro District.
- ii. Boost participation of the public with government and community sectors to improve the health of their community.
- iii. Develop community satisfaction with the primary health care system.
- iv. Identify and advocate for healthy public policy within all sectors and levels of government.
- v. Support and encourage the implementation of provincial public health policies and direction.
- vi. To provide reasonable and timely access to primary health care services.
- vii. To apply the standards of accountability in professional practice.

1.5 RESEARCH QUESTION

The research question is the critical aspect of the survey in the process of gathering information for the research. The research seeks to provide the the answers to the problems and is therefore aligned to the problem statement through the research objectives. The research question is equally critical because it also directs or informs the researcher as to what literature is necessary for the research. Like the research objectives, it can be divided into two (2) parts, namely; main research question (from primary research objective) and sub-research questions (from secondary research objectives).

1.5.1 Main question;

What would be the most effective way of monitoring and controlling service delivery systems in the overcrowded Khayelitsha Township?

1.5.2 Sub-research questions

- i. What services and programs are needed to positively impact on the provision of Primary Health Care at the Metro District?
- ii. How can the government boost positive public participation to improve the Primary Health Care of their community?
- iii. What are the weaknesses in the government Primary Health Care system that need restructuring to meet scheduled health care service?
- iv. How can the health care system be structured to mitigate the constant failure to deliver the services required by the community?
- v. Where in the system is the possible strength that needs to be taken advantage of to increase and develop service delivery?

Many units and clinics in the region are crowded, but the Khayelitsha clinics are in a class of their own. Patients get to the queue as early as two in the morning (2 am) to stand in a queue from whence they will get service six (6 hrs) hours later at eight (8 am) in the morning. Too often, many patients may not be served, beyond a certain point, and they cannot afford to go to the private hospitals or queues. The type of problems and the situation prompted the researcher to find a solution, if possible, to this dilemma. The answer to this would most probably reside in the research to be conducted, the phenomenon is not fully understood and hence the need for the research. The research process would include among other things, deciding on an appropriate research design and research methodology. Include among other things, deciding on an appropriate research design and research methodology.

1.6 HYPOTHESES DEVELOPMENT

According to Jowah (2015:63), a hypothesis is a statement created by the researcher which can be tested statistically or indirectly rejected or confirmed. It should be a statement expressing the relationship between two or more measurable variables and stipulate the implications for testing the stated relations. A hypothesis is put forward as a starting point for research. Thus, for the current study, the following hypotheses were advanced:

1.6.1 First set of hypotheses:

H1. There is a relationship between data admission and effective monitoring and evaluation.

H2. There is a relationship between admission staff and effective monitoring and evaluation.

H3. There is a relationship between clinicians and effective monitoring and evaluation.

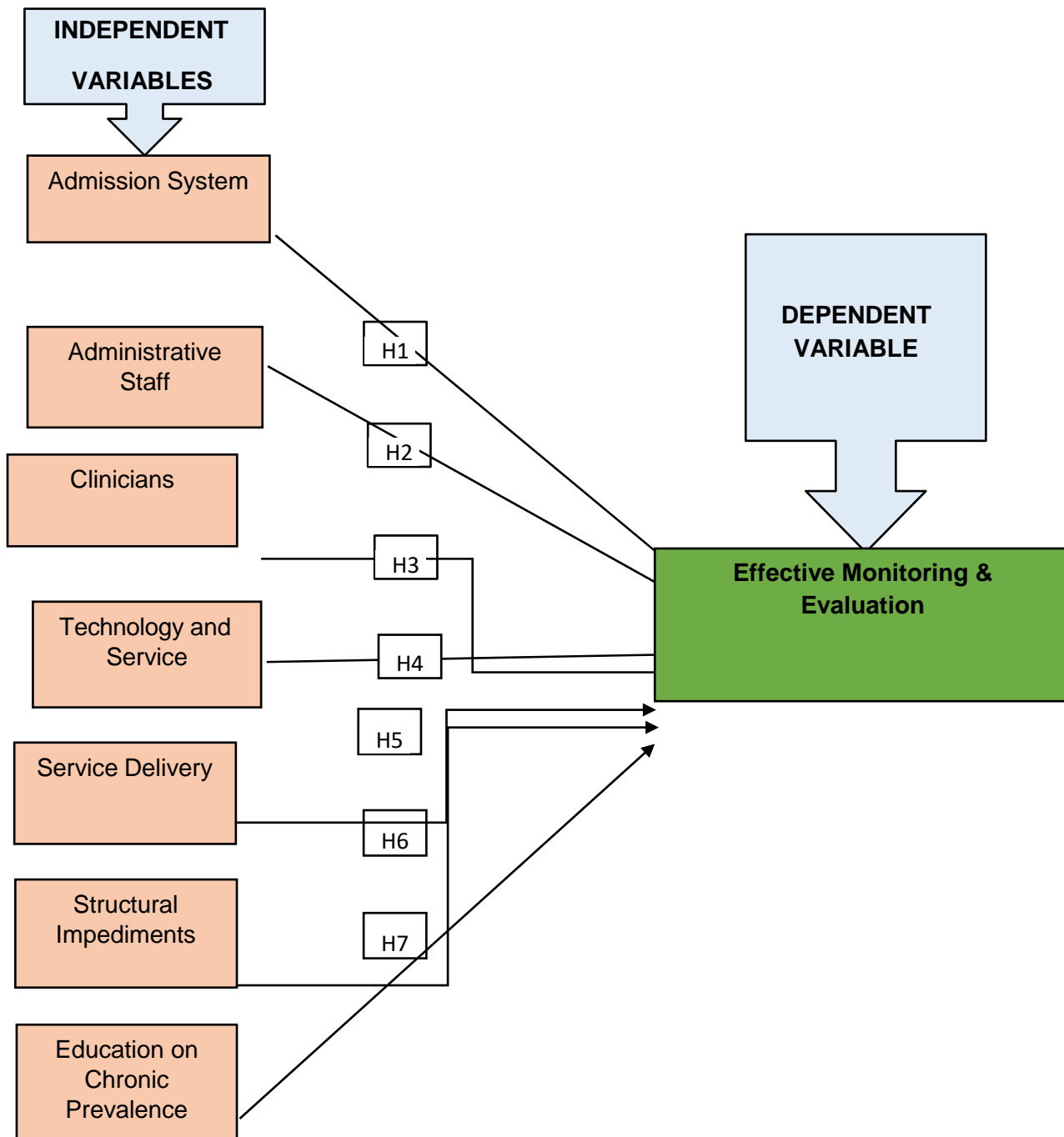
H4. There is a relationship between technology and service related to effective monitoring and evaluation.

H5. There is a relationship between service delivery and effective monitoring and evaluation.

H6. There is a relationship between structural impediments and effective monitoring and evaluation.

H7. There is a relationship between education and chronic prevalence and effective monitoring and evaluation.

Figure 1.1: Hypotheses development model



SOURCE: Author's Construction

1.7 Significance of the study

The current state of healthcare in the country, specifically in the Cape Metropolis is dire. A model must be designed to improve the efficiency of hospital services and help people before this erupts into service delivery protests. Effective intervention at the primary care level will reduce the need for costly hospitalization, projection suggests that up to 53% of current health care costs are a result on failures in the preventive function of PHC (Blustein, 2016:1742-7). In addition to the economic imperative, the current project offers a rare opportunity for clinicians in the Metro District to have their collective views on the challenges collated in a way that offers an opportunity for corrective actions to be taken. It was necessary to determine if the provision of primary healthcare services in the Metro District was adequately responsive to the health needs of the community.

1.8 Ethical consideration

The research deals with individuals who have rights that need to be respected. Ethical consideration is of critical importance to allow these people to exercise their rights, all those that are not prepared to answer the questions will be excused from the research. All the information gathered and the responses will be treated as personal information and thus kept confidential to protect the respondents. No unethical behaviour will be allowed toward the respondents during the survey (be it questions or activities). No one will be forced to take part in the study, therefore participation will be voluntary. The purpose and the reason for the study will be explained to participants. Anonymity and confidentiality will be ensured and no markings will be allowed on the instrument indicating or representing any form that could be used to identify the respondents. The researcher will also ensure that the environment is conducive and that the privacy of the respondent is respected.

1.9 Limitations of the study

The researcher was confronted with a few challenges while conducting the research; however, not to the extent of compromising the overall quality of data and information collected. The researcher worked at Community Services and Health (City Health) during the study, which made access to the participants and the documents' reviewing a challenge.

Nevertheless, the researcher made a few investigations about Primary Health Care Services to access some of the information as well as communicating with more staff members from the Western Cape. Another limitation was that the respondents had inadequate and incorrect knowledge concerning M&E. The researcher had to explain certain M&E concepts to some respondents to overcome this challenge despite the researcher having carefully selected the respondents in terms of their background.

1.10 RESEARCH METHODOLOGY

In view of the use or selection of the descriptive research design, the simultaneous use of both qualitative and quantitative research methodologies (mixed research methodologies) became necessary. The advantages of the use of mixed research methodologies were, as identified by Jowah (2015:88). This methodology has specific advantages that would assist tremendously in the understanding of the phenomenon under study.

1.10.1 Research design and research methodology

Jowah (2015:78) distinguishes between research design and research methodology. A research design is a road map that is to be followed during the research process that clearly identifies what should be done in the proper sequence, thus enabling the research to identify resources that may be necessary. Babbie and Mouton(2005) concur with this definition and postulate that the research design assists in determining many factors about the research, including among others, the time it takes, the target population, the sample to be used, and what is required for the research project. The research methodology on the contrary is in response to “how” and “what” will be attended to. Research methodology answers questions, for instance, how will you decide on the target population? How will you sample the population? Maree(2016: 36- 45) agrees with the preceding and expands on the importance of the research methodology. The methods used to obtain the results will impact both the validity and reliability of the research.

1.10.2 Classification of research designs

There are different types of research designs, and largely dependent on what the research is about, researchers decide on what design to use. In this study descriptive research design was chosen because of the nature of the study, there was a need to describe and understand the phenomenon before deciding on a model. Descriptive research is more formalised and structured with the variables clearly defined and identified. The research design seeks to answer questions like;

- i. What kind of study are you going to conduct?
- ii. What or how does a research design look like?
- iii. What design will best suit my research study?

Table 1.2 below lists some of the questions that guided in deciding on the design that was eventually used for the research project.

Table 1.2 Questions to be answer in the creation of a research design

What are we going to study/about?	How will we measure these variables?
Who is our population to be studied?	How will the sample be selected?
What will be the most ideal sample size?	What will we use to collect the data?
What ethical issues are important?	How will we analyse the data?
Who will make use of the data?	How will the findings be reported?

SOURCE: Jowah, 2015:79

Descriptive Research Design is a form of data and or information gathering that assists in describing the situation or phenomenon under study. According to Jowah (2015:88), some of the prominent applications of the descriptive research design are that:

- i. Describes events and allows for inferences or causal relationships between the variables under study
- ii. Reports on measures of central tendency using percentages, median, mode, mean, variation and or deviance from mean
- iii. Answers to research questions like; who, what, when, where, and how as this relates to the research problem.

It is important to note that the design has its own demerits, because it is heavily dependent on the use of techniques and tools to measure phenomenon, when qualitative research is used it may not be repeated with the same results, and the results (qualitative) may not assist in the confirmation of a hypothesis.

Even though the design has these weaknesses, the researcher was convinced that the merits outweighed the demerits. The merits or benefits of the design are, according to Jowah (2015:88) the descriptive research design is ideal for, among other things, that;

1. Is compatible with the simultaneous use of both qualitative and quantitative research without affecting the other method.
2. Assists in understanding better what the situation is like, and can be used as a pre-cursor in preparation for more quantitative research on the problem.
3. Assists in pointing out what variables should be, can be ideal or worth testing quantitatively.
4. Helps identify any limitations to the research on the subject allowing effectively developing a more focused study.
5. Can collect data that might assist in the generalisation of the findings and helps in the development of theories. In the researcher's judgement the advantages outweighed the disadvantages and hence the decision to use the descriptive research design. This assisted tremendously in getting both breadth and depth in and around the phenomenon.

1.10.3 Target population

The clinicians (hospital employees – medical personnel, pharmacists and administrator) are the target population because they experience this daily. Large numbers of patients line up for hours and the facilities are strained which indicated the need for a model to devise methods to reduce the pressure. Clinicians are “overloaded” with patients who have to wait in long queues for hours.

The target population in the study is the clinicians.

1.10.4 Sample

A sample is a subsection of a population under study, which bears all the characteristics of the population to be studied. In this study, the sample will involve two types of respondents, namely; the clinicians and the patients who make use of these facilities.

1.10.5 Sampling method

The 8 districts under the Cape Metropole each have an average of 10 clinics (service points) per district, giving a total of about 80 clinics. The average staff compliment per clinic is 40, this gives a total of 3200 employees (sample frame). All the districts formed part of the research, but a random sampling of clinics (per district) was used to identify a minimum of 50% (40) of the clinics in the Metropole (1600 employees will be available for random sampling). From each or at each point an average of 10 employees was interviewed – randomly sampled, except where necessary convenience sampling was used. An equal number of patients was interviewed at the same (randomly chosen) sites.

1.10 .6 Sample size

The district employs 400 clinicians and 100, which is 25% of the sample, were asked to participate. Boddy (2016:426-432) posits that 10% of a representative sample is good enough to allow for generalisations. This research has opted for 25% of the population, which is greater than the 10% recommended.

1.10.7 Data collection instrument

The researcher deemed it important that a standard instrument was used for the purpose although this was a mixed-method research approach. Elements of this study required quantitative results whilst other aspects addressed the attitudes, perceptions and other aspects difficult to quantify. The research instrument designed for this was divided into three parts, namely; **SECTION A** – Biography, **SECTION B** – Likert scale measuring attitudes and perceptions, **SECTION C** – Open-ended questions for discussion – qualitative research. The instrument was used for a pilot survey, and the document was reconstructed for required changes. A statistician was involved throughout the process to assist with the validity and reliability of the testing.

1.10.8 Data collection method

The researcher trained between 10-20 interviewers who participated in the data gathering process. The collection of data from the respondents was done directly on a one-to-one basis. This method was deemed necessary to cut down on low numbers of returned questionnaires which is a norm.

The presence of interviewers ensured that whosoever accepted a questionnaire would respond as the interviewers waited for the response on the spot. Besides, the interviewers were able to answer any questions of the respondents in respect of the questionnaire.

1.10.9 Data analysis method

The process involves reviewing and exploring the data and creating codes. To do this the researcher had to read through the data, examine the data line-by-line and develop the codes.

1.11 Literature review

The health system of any country is a chain of processes and the different stages are interrelated and interdependent. The processes may be classified into primary, secondary and tertiary health care systems.

1.11.1 Primary Care

The services that citizens receive when they have health problems constitute primary care. This primary care will involve, among other things, care from nurses, pharmacists, walk-in centres, opticians, and dentists. In most cases, primary care services are perceived to be community-based programmes that may also include general practitioners (GPs), local community-based (private or public) health centres, community clinics or home care (Bodenheimer, 2013:1881-1886). The care is focused on the person and not the community, the professionals in primary care are generalists not specialists in any particular disease area. The care involves the treating of common illnesses, managing chronic conditions and preventing future illnesses through education (Sommers, 2012:1697-98).

Most preventative measures would involve immunisation, health education, including child care at schools meant to screen and pre-empt illnesses. Primary care is coordinated by specialists in different levels and fields of care thus enabling holistic patient care. Primary care providers (PCP) play a critical role in reducing the pressure of critical illnesses on the higher secondary and tertiary levels of health care.

1.11.2 Secondary Care Specialists

Secondary health care is provided by specialists (second level), after primary health care, who are more knowledgeable about the illness. The special nature of a condition that the primary care level is unable to handle indicates the need for escalating a patient to a specialisation level (van Dijk, 2014:48-55). Specialists (secondary care) focus on either a specific system of the human body or they may focus on particular types of illness or even gender-specific ailments. Examples of these forms of treatment are, namely;

Table 1.3 Forms of treatment in Secondary Care

Cardiologists	Doctor with special training and skills in finding, treating and preventing diseases of the heart and blood vessels (Kong, 2013:347-54).
Endocrinologists	Medical practitioners qualified to diagnose and treat disorders of the endocrine glands and hormones (Nussey, 2005).
Oncologists	Medical practitioners qualified to diagnose and treat tumours (John, 2003:517-525).
Ophthalmologists	Physicians who specialize in the medical and surgical care of the eyes and visual system and the prevention of eye disease and injury (Thite, 2015:615-22).
Gynaecologists	Medical practice dealing with the health of the female reproductive systems (vagina, uterus, and ovaries) and the breasts (Jobe, 2020:391-399).
Paediatricians	Medical practitioners specializing in children and their diseases (Cyril, 2010:202-203).

SOURCE: Author's Construction

According to Sommers (2012:1697-98) people with a medical condition end up in secondary care where it may be possible to deal with what generalists at primary care are not able to.

Ordinarily, medical aid may not pay your medical expenses unless there is a referral, or the patient has been referred to the specialist by the general practitioner. This indicates the importance of primary health care (Stange, 2014:2755). Treatment at the PCP level involves the treatment of general illnesses and at the secondary level, it may be necessary to see different specialists. Out- patients going for primary or secondary care may need hospitalisation, which requires another level of care.

1.11.3 Tertiary Care and Hospitalization

Once a patient is hospitalized, it is expected that care at a higher level, as well as specialist care, will be needed, this is referred to as tertiary health care. Tertiary health care (THC) requires close monitoring of the patient with the use of highly specialized equipment and expertise (Haggerty, 2016:1219-21). This may be understood by pointing out the type of procedures that are performed in tertiary health care, namely;

Table.1. 4. Types of Procedure in Tertiary Care

Coronary artery bypass surgery	Option for selected groups of patients with significant narrowing and blockages of the heart arteries (Zhao,2017:924-936).
Renal or haemodialysis	Process of purifying the blood of a person whose kidneys are not working normally (Hashempur, 2013:101-12).
Plastic surgeries	Branch of surgeries concerned with improving the function or appearance of parts of the body through reconstructive or cosmetic medical procedures (Song, 2012:393).
Burn treatment	The treatment of burns depends on the depth, area and location of the burn. Burn depth is generally categorized as first, second or third-degree (Pećanac, 2013:263-7).
Neurosurgeries	The medical speciality concerned with the prevention, diagnosis, surgical treatment, and rehabilitation of disorders that affect any portion of the nervous system including the brain, spinal cord, peripheral nerves, and extra-cranial cerebrovascular system (Castillo, 2005:1482).

SOURCE: Author's Construction

Tertiary health care involves complex treatment and procedures and small local hospitals may not have these facilities and equipment. Patients with these complexities will therefore be referred to tertiary hospitals where better equipment and more specialised practitioners are found.

Cases beyond tertiary level may be considered quaternary and may involve experiments and tests on “lesser well- known diseases.”

Figure 1.2. The National Hospital for Neurology and Neurosurgery in London is an example of a Tertiary Care Centre.



SOURCE: Author's Construction

1.12 Primary health literature review

Primary Health Care is defined as an important feature of the health system. Over the years it has drawn attention to the needs of the many and has been a powerful instrument for making governments and their partners recognise that the provision of health care cannot be left to the professionals alone. Our focus on the services that were poor and also affect all clinicians in health systems, consistent with the messages of Primary Health Care. Many countries face new economic, institutional and social challenges (Bodenheimer, 2013:1881-1886). The study will be carrying out a review that will focus on the challenges to Primary Health Care in the changing context of international health. Workshops held in each WHO Region were used to gather the perceptions and experiences of health system managers, policymakers, and PHC professionals, in addition to NGOs and other international agencies.

The study will present a more in-depth analysis of trends in each region. Since Alma-Ata there have been dramatic changes in the pattern of disease, in demographic profiles, and in socio-economic environment which present new challenges to PHC (Starfield, 2011:653-655). There have been significant changes in how governments are interpreting their roles and this has implications for both policy development and globally driven health programmes.

The policy environment now includes the widespread presence of non-governmental Organizations (NGOs) as major stakeholders in health and health care. The delivery of a wide range of WHO's strategies is dependent on there being appropriate PHC capacity at a local level. Both the recommendations of the Commission on Macroeconomics and Health, and the Millennium Development Goals set out a future agenda that would see major new investments in health systems. It will be vitally important for WHO to offer guidance on the most effective health solutions including a contribution that can be expected from PHC "close to clinical services. It is unrealistic to expect the achievement of the Millennium Development Goals without an organized PHC. Models to deliver health services and policies will need to be adaptable and flexible to meet the rapidly changing population needs.

1.12.1 Primary health care

Increasingly, the scientific world continues to recognize the importance of preventative medicine and that most illnesses could be avoided (Starfield, 2011:653-655). Though this appears to be common sense, the average human being is reactive and depends largely on the use of medicines after the illness has overtaken them. Largely most of the illnesses that lead to chronic illnesses are government expenses involving \$2 trillion (R2 million) in medical care. These include among others, acute and chronic diseases. Acute illnesses are defined as conditions or diseases that are persistent or long-lasting in their effects or as diseases that develop over extended periods (Anderson & Horvath, 2004:263-270). Another commonly used definition for acute illness is an acute condition that is severe and sudden in onset (Graziadei, 2011:24-6).

These acute illnesses can be identified as including but not limited to those tabulated below:

Table 1.5. Common acute illnesses found in South African hospitals

Communicable	Non -communicable
Common Cold	Appendicitis
Pneumonia	Poisoning
Mumps	Trauma (due to automobile accidents, fires, etc.)
Measles	Fever
Pertusis	Typhoid

SOURCE: Author's Construction

As indicated in the table above the acute illnesses are generally curable and as such may not require protracted hospital visits. These assist in the reduction of hospital crowding, even though their occurrences seem to go unabated as they are caused by many other factors. Chronic illnesses have been discussed as diseases that develop slowly and persist for a long period, often for the remainder of the lifetime of the individual (Anderson, 2004:263-270). Chronic illnesses, according to the definitions, are mainly, if not exclusively, a result of improper lifestyles. High medication costs with a total loss of 7,000 untimely deaths are directly attributable to preventable diseases. These preventable illnesses can be divided into two major types, namely; chronic and acute. Acute illnesses, whilst they are not lifestyle illnesses, comprise numerous other preventable diseases as tabulated below:

Table 1 6. Common chronic illnesses found in South African hospitals

Communicable	Non -communicable
Lyme disease	Diabetes, osteoarthritis
Tuberculosis	Coronary heart disease
Herpes	Syphilis
AIDS	Cirrhosis of the liver due to alcoholism
Rheumatic fever following streptococcal infections	Hypertension

SOURCE: Author's Construction

Primary Health Care, or PHC, refers to "essential health care" that is based on "scientifically sound and socially acceptable methods and technology, which make universal health care accessible to all individuals and families in a community (Thite, 2015:615-22).

It is through full participation and at a cost that the community and the country can afford to maintain PHC at every stage of development in the spirit of self-reliance and self-determination.

In other words, Primary Health Care is an approach to health beyond the traditional health care system based on a health equity-producing social policy. Primary Health Care includes all areas that play a role in health, such as access to health services, environment and lifestyle. Thus, primary healthcare and public health measures, taken together, may be considered as the cornerstones of universal health systems (Bodenheimer, 2013:1881-1886). The World Health Organization (WHO) elaborates on the goals of Primary Health Care as defined by three major categories, "empowering people and communities, multi-sectorial policy and action; and primary care and essential public health functions as the core of integrated health services." Based on these definitions, Primary Health Care can not only help an individual after being diagnosed with a disease or disorder but actively prevent such issues by understanding the individual as a whole.

This ideal model of healthcare was adopted in the declaration of the International Conference on Primary Health Care held in Alma Ata, Kazakhstan in 1978 (known as the "Alma-Ata Declaration"), and became a core concept of the World Health Organization's goal of Health for all (Sommer, 2012:1697-98). The Alma-Ata Conference mobilized a "Primary Health Care movement" of professionals and institutions, governments and civil society organizations, researchers and grassroots organizations that undertook to tackle the "politically, socially and economically unacceptable" health inequalities in all countries.

1.13 Chapter classification

CHAPTER 1- The chapter outlines the introduction, background literature, problem statement, research objectives, research question, research methodology, data collection, data analysis, and the conclusion.

CHAPTER 2- The Importance of Monitoring and Evaluation Systems of Service Delivery in Primary Health Care. This chapter also shares an understanding of an M&E system in Primary Health Care Services.

CHAPTER 3- The legislative and policy promulgations, constitutional obligations and requirements.

CHAPTER 4- Health care system in Primary Health Care Service Delivery.

CHAPTER 5- Service delivery in Primary Health Care.

CHAPTER 6 -Structural and economic problems and policies.

CHAPTER 7- Models in other countries in Primary Health Care .

CHAPTER 8 - Conceptual models – model framework.

CHAPTER 9 – Research Methodology chapter.

CHAPTER 10- Data capturing, analysis and interpretation.

CHAPTER 11 -Summary of findings, objectives discussion, hypothesis verification, conclusion, and recommendations. Limitations and prospects for future study

1.14 Chapter summary

The chapter provided an overview of the study. PHC was highlighted as a challenge in the Metro District within the context of national policies and globalization. In addition, concepts were clarified, the research problem, aims, objectives, and critical questions regarding PHC in monitoring and evaluation as well as the limitations of the study were discussed. The study was informed by the articulated need for a clearer understanding of the range of challenges that exist in the monitoring and evaluation of Primary Health Care in the Metro District. The current study explored the factors that primary health care clinicians identified as possible reasons for the lower-than-expected successes in monitoring the services of Primary Health Care by the Management. Before engaging in that investigatory phase, a review of the literature was conducted to specifically identify the available knowledge within current literary sources. Although the challenges that exist in implementing primary health care are clearly understood, clinicians perceive the solutions for these as being under the control of policymakers and those with power within the organization.

CHAPTER 2 THE IMPORTANCE OF MONITORING AND EVALUATION SYSTEMS

2.1 Introduction

Governments all over the world are constantly pressured to show results, as a performance obligation for good governance, transparency and accountability. There has been a global change in public service management, forcing governments to be more accountable to the stakeholders and the public in particular. The growing need for accountability is seen as the main purpose of evaluation (Lehtonen, 2005:169). This has increased the importance of monitoring and evaluation and more importantly the shift from traditional implementation-based monitoring and evaluation to evidence-based or results-based monitoring. Global initiatives such as the Millennium Development Goals (MDGs) increasingly challenged governments to produce results before their expiration in 2015 by UN member states. These resolutions may also include the sensitivity to community demands for greater transparency of policymaking; the increasing influence of experts in policy and administration.

The increasing use of project management even in the basic tasks of administration; the declining legitimacy of public administrations, entailing the public's loss of faith in the government's ability to spend their taxes wisely; and the pressures to reduce public spending (Karver, Kenny, and Sumner; 2012:13). All these trends have strengthened utility for the public sector. In response to the needs of the stakeholders, governments developed and adopted performance management systems transforming the organizational culture, budgeting, human resources and monitoring and evaluation in the public service organisations. Governments are also slowly heeding the call for policies to be based on evidence of their success or lack of it (Goldman, Ganju, Drake, Gorman, Hogan, and Hyde, 2013:460). Performance measurement focuses on monitoring the results and outcomes of policies, without necessarily investigating the causal links between policies and outcomes, which leads to evaluation. Monitoring and Evaluation have been discussed as the process that helps improve performance and achieve results.

Their goal is to improve current and future management of outputs, outcomes and impact to assess the performance of projects, institutions and programs set up by governments, international organizations and NGOs. The process establishes links between the past, present and future actions (Rossi and Lipsey,2004:978). Monitoring and evaluation processes can be managed by the donors financing the assessed activities, by an independent branch of the implementing organization, by the project managers or implementing team themselves and/or by a private company (Mueller-Hirth, 2012:649-670). The credibility and objectivity of monitoring and evaluation reports depend mainly on the independence of the evaluators. Their expertise and independence are of major importance for the process to be successful.

Many international organizations such as the United Nations, USAID, the World Bank Group and the Organization of American States have been utilizing this process for many years. The process is also growing in popularity in the developing countries where the governments have created their own national monitoring and evaluation systems to assess the development projects, resource management and government activities or administration. The developed countries are using this process to assess their own development and cooperation agencies (Jacobs, 2010:36-44). Monitoring and evaluation can help you to work out the difference you make through your projects. Your organisation and partners can then go on and learn from this to improve your performance in future.

Table 2.1 below shows the monitoring and evaluation in the organization.

Table 2.1 below indicates what will be Monitored and Evaluated?

Organisation	Are you on track to achieve your mission? What is working well, what is not and why, and what could be done differently? Are there any challenges to address?
Funders	How the funds committed are used. Whether strategies to address needs are appropriate.
Clinicians	Provide information on how the project is affecting them and changing their work challenges. Provide critical information on their needs, abilities and capacities.

SOURCE: Author’s Construction

Table 2.1 shows the effective use of monitoring and evaluation in a system that includes the selection of the best evaluation methods, effective delivery, and the outcomes of performance that also include clinicians as well as employee improvement through identification of the weaknesses.

2.2 Defining monitoring and evaluation

Monitoring and evaluation are essential management functions that are interactive and mutually supportive. They help UNDP to ensure accountability in the use of resources entrusted to it. They also provide a clear basis for decision-making and offer practical lessons from experience to guide future development interventions. A monitoring and evaluation (M&E) plan also a document that helps to track and assess the results of the interventions throughout the life of a program. It is also a living document that should be referred to and updated on a regular basis. While the specifics of each program's M&E plan will look different, they should all follow the same basic structure and include the same key elements. An M&E plan will include some documents that may have been created during the program planning process, and some that will need to be created new. For example, elements such as the logic model or logical framework, theory of change, and monitoring indicators may have already been developed with input from key stakeholders and/or the program donor. The M&E plan takes those documents and develops a further plan for their implementation.

2.2.1 Monitoring

Monitoring is a continuous assessment that aims at providing all stakeholders with early detailed information on the progress or delay of the ongoing assessed activities. It is an oversight of the activity's implementation stage. Its purpose is to determine if the outputs, deliveries and schedules planned have been reached so that action can be taken to correct the deficiencies as quickly as possible (Anneck, 2008:28292835).

Good planning, combined with effective monitoring and evaluation, can play a major role in enhancing the effectiveness of development programs and projects. (Jacobs, 2010: 36-44) cited that good planning helps us to focus on the results that matter, while monitoring and evaluation help us learn from past successes and challenges and inform decision-making so that current and future initiatives are better able to improve people's lives and expand their choices.

2.2.2 Evaluation

An evaluation is a systematic and objective examination concerning the relevance, effectiveness, efficiency and impact of activities in the light of specified objectives. The idea in evaluating projects is to isolate errors, not to repeat them, and to underline and promote successful mechanisms for current and future projects (Crawford and Bryce, 2003:363-373). An important goal of evaluation is to provide recommendations and lessons to the project managers and implementation teams that have worked on the projects and for the ones that will implement and work on similar projects.

Evaluations are also indirectly a means to report to the donor about the activities implemented. It is a means to verify that the donated funds are being well managed and transparently spent (Bornstein, 2006:168-92). The evaluators are supposed to check and analyse the budget lines and to report the findings in their work. Monitoring and Evaluation are also useful in the Facilities (Hospitals), enabling the donors such as the WHO and UNICEF to know whether the funds provided are well utilized in purchasing drugs and equipment in the Hospitals. Evaluation can be classified into four types: ex-ante evaluation, mid-term evaluation, terminal evaluation, and ex-post evaluation.

2.2.3 Difference between monitoring and evaluation

The common ground for monitoring and evaluation is that they are both management tools. For monitoring, data and information collection for tracking progress according to the terms of reference is gathered periodically which is not the case in evaluations for which the data and information collection occurs during the evaluation.

Monitoring is a short term assessment and does not take into consideration the outcomes and impact, unlike the evaluation process which also assesses the outcomes and sometimes the longer-term impact (Lahey, 2013:45-56). This impact assessment occurs sometimes after the end of a project, even though it is rare because of its cost and of the difficulty to determine whether the project is responsible for the observed results. Evaluation is a systematic and objective process that is conducted on a monthly or yearly basis, unlike Monitoring which is a continuous assessment, providing stakeholders with early information. Monitoring checks on all the activities of the implementation stage, unlike Evaluation which entails information on whether the donated funds are well managed and transparently spent. Table 2.2 below shows the evaluation, types and purposes.

Table 2.2 Evaluation: types, timing and purposes

Evaluation type	Timing	Purpose
Ex-ante	Before the commencement of an intervention	To determine the necessity and conformity of an intervention.
Mid-term evaluation	At the mid-point of implementation	To examine the progress of an intervention
Terminal evaluation	Upon completion of the intervention	To review an intervention by focusing on its efficiency, effectiveness and sustainability and determine if follow-up is necessary or not
Routinely collects data on these indicators, compares actual results with targets	Explores unintended results	To clarify the details of an intervention and to establish indicators
Reports progress to managers and alert them to problems	Provides lessons that highlight significant accomplishment or programme potential and offer recommendations for improvement	To revise the original plan and/or operational structure

Ex-post evaluation	After completion of an intervention To review an intervention by focusing on its impact and sustainability.	To obtain lessons and recommendations for improving interventions
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SOURCE: Author's Construction

The table below, adapted from Kusek (2001:14-23), demonstrates the complementary roles that monitoring and evaluation play in monitoring and evaluation systems.

Table 2.3. Roles of Monitoring and Evaluation

Monitoring	Evaluation
Clarifies programme objectives	Analyses why intended objectives' results were or were not achieved
Links activities and their resources to objectives	Assesses specific causal resources to objectives' contributions of activities to results
Translates objectives into performance indicators and sets targets	Examines implementation process

SOURCE: Author's Construction

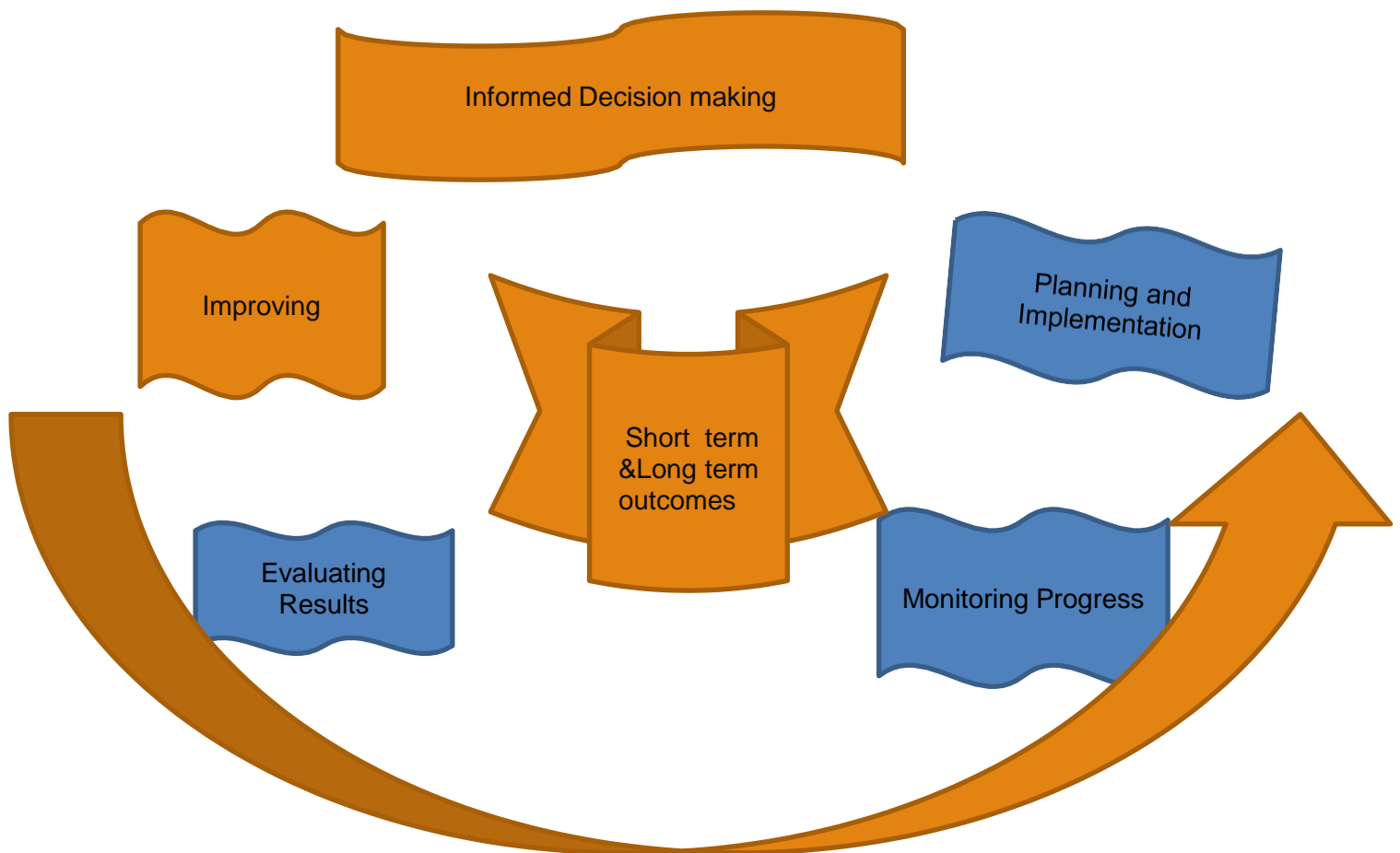
Table 2.3 indicates the essential roles of monitoring and evaluation in tracking and updating data as well as ensuring quality in the organization. This also includes the implementation of monitoring systems and the designing of monitoring tools.

2.3 Purpose of monitoring and evaluation

Monitoring and Evaluation are treated as tools to design results-based management; enhance transparency, support accountability relationships, and support evidence-based policymaking (Mackay, 2007:9-10). Continues to suggest that these uses of monitoring and evaluation place them at the centre of sound governance arrangements and make them necessary to achieve evidence-based policymaking, evidence-based management, and evidence-based accountability.

According to Lahey (2013:45-56), the purpose of monitoring and evaluation of activities is to provide government officials, managers, and civil society with better means for learning from past experience, improving service delivery, planning and allocating resources, and demonstrating results as part of accountability. The purpose of any evaluation is to provide information to decision-makers to enable them to make better decisions about projects, programmes or policies. Evaluation should help decision-makers to understand what is likely to happen, is happening or has happened because of an intervention and to identify ways to obtain more of the desired benefits. Monitoring and evaluation have an important purpose in public health institutions and are important in producing reliable and timely health information as well as to evaluate policy, set priorities, plan, and monitor the effectiveness and impacts of interventions. Figure 2.1 below shows the life cycle for monitoring and evaluation.

Figure 2.1 Shows the Monitoring and Evaluation Life Cycle



SOURCE: Author's construction

Figure 2.1 indicates the overview of monitoring and evaluation through the life cycle of the department. The Evaluation Life Cycle is a tool for understanding the task and functions that must be performed at the department and contains stages of design, implementation, monitoring and evaluation.

2.4 Programme monitoring and evaluation

Programme monitoring and evaluation in keeping with this study were necessary to further understand and improve the provision of early childhood development services as a programme. Monitoring and evaluation are essential components of best practices and well-informed programme designs hence it is relevant to also assess whether Primary Health Care as a programme has made provisions for adequate monitoring and evaluation (Jacobs, 2010:36-44). Programmes are monitored primarily for improved programme management and administration, accountability, and as an initial basis for assessing programme impacts. The importance of monitoring is described at length in the preceding sections. It generally captures the process of translating inputs to outputs. Programme monitoring focuses primarily on the achievement of intended programme-level outputs, such as the number of patients receiving poor service delivery from the clinicians (Annecke, 2008:2829- 2835). Effective monitoring of programme outputs is a critical aspect of evaluating programmes.

2.5 Components results based on monitoring and evaluation systems

The monitoring and evaluation system is a component of the interaction of stakeholders and processes that allows the monitoring and evaluation of a specific programme (Measure Evaluation, 2006). Identification of components of the monitoring and evaluation system and the mechanism of collaboration between components is fundamental in designing a relevant and reliable system. (Gorgens, 2009:7-9) cited that the components alone do not constitute a system but the interaction among the components, which enables the system to achieve the purpose for which it is designed.

The components of results-based monitoring and evaluation systems from various authors appear similar in broad terms. For instance, the UNDP focuses on outcome monitoring and outcome evaluation, components such as projects, programmes, partnerships, soft assistance, policy advice, policy dialogue, and advocacy and implementation strategies. Components of outcome evaluation include progress towards outcomes, factors contributing to the outcomes (substantive influences) and partnerships (Mackay, 2012:106-111). Similarly, the components have been identified as goals, outcomes, and outputs; defining targets and setting performance indicators; the importance of institutional arrangements and procedures for consultation and political validation; and the role of indicators in linking findings to results (Tambo,2011:585-90). The twelve components of a functional monitoring and evaluation system, classified into three groups in Table 2.4 below, show the components in an M & E system.

Table 2.4. Components of Monitoring and Evaluation system classified into three groups

Components relating to “people, partnerships and planning”	Structure and organizational alignment for M&E systems Human capacity for M&E systems M&E plans M&E work plans with cost and Advocacy, communication, and culture for M&E systems
Components relating to “collecting, capturing and verifying data”	Routine Monitoring Periodic surveys, Databases useful to M&E systems, Supportive supervision and data auditing and
Final component about “using data for decision making”	Using information to improve results

Source: Author’s Construction

Table 2.4 shows the framework comprised of three components; a diagram, measurement table, and a monitoring and evaluation plan.

2.5.1 Organizational Structures with monitoring and evaluation Functions

The adequate implementation of monitoring and evaluation at any level requires that there is a unit whose main purpose is to coordinate all the monitoring and evaluation functions on its level. While some entities prefer to have an internal organ to oversee their monitoring and evaluation functions, others prefer to outsource such services, (Crawford and Bryce, 2003:363-373). This component of monitoring and evaluation emphasizes the need for a monitoring and evaluation unit within the organization, elaborately defined roles, and adequate support for its roles. The organization's hierarchy and how other units within the organization are aligned to support the monitoring and evaluation functions within the organization also require consideration.

2.5.2 Human Capacity for monitoring and evaluation

Implementation of an effective monitoring and evaluation system requires not only that adequate staff should be employed in the monitoring and evaluation unit, but also that the staff within this unit should have the necessary monitoring and evaluation technical know-how and experience (Wimbush, 2000: 301-321). As such, this component emphasizes the need to have the necessary human resources that can run the monitoring and evaluation function by hiring employees who have adequate knowledge and experience in monitoring and evaluation implementation, while at the same time ensuring that the monitoring and evaluation capacity of these employees are continuously developed through training and other capacity-building initiatives to ensure that they keep up with current and emerging trends in the field.

2.5.3 Partnerships in managing monitoring and evaluation System

A prerequisite for successful monitoring and evaluation systems, whether at organizational or national levels, is the existence of monitoring and evaluation partnerships. Partnerships for monitoring and evaluation systems are for organizations because they complement the organization's monitoring and evaluation efforts in the monitoring and evaluation process and they act as a source of verification for whether monitoring and evaluation functions are aligned with intended objectives (Wimbush, 2000: 301-321).

They also serve auditing purposes where line ministries, technical working groups, communities and other stakeholders can compare monitoring and evaluation outputs with reported outputs.

2.5.4 Monitoring and evaluation Logical Framework

The monitoring and evaluation framework outlines the objectives, inputs, outputs and outcomes of the intended project and the indicators that will be used to measure all these. It also outlines the assumptions that the monitoring and evaluation system will adopt, (Mueller, 2012:649-670). The monitoring and evaluation framework is essential as it links the objectives with the process and enables the monitoring and evaluation expert to know what to measure and how to measure it.

2.5.5 Monitoring and evaluation Work Plan and costs

Closely related to the framework is the monitoring and evaluation work plan and costs. While the framework outlines objectives, inputs, outputs and outcomes of the intended project, the work plan outlines how the resources have been allocated , (Wimbush, 2000: 301-321). Monitoring and evaluation functions will be used to achieve the goals of monitoring and evaluation. The work plan shows how personnel, time, materials and money will be used to achieve the set monitoring and evaluation functions.

2.5.6 Communication, Advocacy and Culture for monitoring and evaluation

This refers to the presence of policies and strategies within the organization to promote monitoring and evaluation functions. Without continuous communication and advocacy initiatives within the organization to promote monitoring and evaluation, it is difficult to entrench a monitoring and evaluation culture within the organization. Such communication and strategies need to be supported by the organization's hierarchy. The existence of an organizational monitoring and evaluation policy, (Kusek and Rist, 2001:14-23) together with continuous use of the monitoring and evaluation system outputs on communication channels are some of the ways of improving communication, advocacy and culture for monitoring and evaluation.

2.5.7 Routine Programme Monitoring

Monitoring and evaluation consist of two major aspects: monitoring and evaluation. This component emphasizes the importance of monitoring. Monitoring refers to the continuous and routine data collection that takes place during project implementation. Data needs to be collected and reported continuously to show whether the project activities are driving towards meeting the set objectives,(Jacobs, 2010: 36-44). They also need to be integrated into the program activities for routine gathering and analysis.

2.5.8 Surveys and Surveillance

This involves mainly national-level monitoring and evaluation plans and entails how frequently relevant national surveys are conducted in the country. National surveys and surveillance need to be conducted frequently and used to evaluate the progress of related projects, (Lahey, 2013:45-56). For example, for HIV and AIDS national monitoring and evaluation plans, HIV-related surveys need to be carried out at least biannually and used to measure HIV indicators at the national level.

2.5.9 National and Sub-national databases

The data world is gradually becoming an open source. More and more entities are seeking data that are relevant for their purposes. The need for monitoring and evaluation systems to make data available can therefore not be over-emphasized, (Mueller, 2012:649-670). This implies that monitoring and evaluation systems need to develop strategies for submitting relevant, reliable, and valid data to national and subnational databases.

2.5.10 Supportive Supervision and Data Auditing

Every monitoring and evaluation system needs a plan for supervision and data auditing. Supportive supervision implies that an individual or organization can regularly supervise the monitoring and evaluation processes in such a way that the supervisor offers suggestions on ways of improvement. Data auditing implies that the data is subjected to verification to ensure its reliability and validity, (Lahey, 2013:4556). Supportive supervision is important since it ensures that the monitoring and evaluation process is run efficiently, while data auditing is crucial since all project decisions are based on the data collected.

2.5.11 Evaluation and Research

One aspect of monitoring and evaluation is research while the other is evaluation. Evaluation of projects is done at specific times, most often mid-term and at the end of the project. Evaluation is an important component of M&E as it establishes whether the project has met the desired objectives, (Kusek, 2001:14-23). It usually provides for organizational learning and sharing of successes with other stakeholders.

2.5.12 Data Dissemination and use

The information that is gathered during the project implementation phase needs to be used to inform future activities, either to reinforce the implemented strategy or to change it. Additionally, results of both monitoring and evaluation outputs need to be shared with relevant stakeholders for accountability purposes,(Jacobs, 2010: 36-44). Organizations must therefore ensure that there is an information dissemination plan either in the monitoring and evaluation plan, work plan or both.

2.6 Types of monitoring in monitoring and evaluation

Monitoring is the systematic and routine collection of data during project implementation to establish whether an intervention is moving towards the set objectives or project goals. In this case, data is collected throughout the life cycle of the project (Rist, 2001:14-23). The data collection tools are usually embedded into the project activities to ensure that the process is seamless. There are several types of monitoring and evaluation. The table below shows different types of monitoring.

Table 2.5 types of monitoring

Process monitoring,	Financial monitoring,
Technical monitoring,	Impact monitoring.
Assumption monitoring,	

Source Author's Construction

Table 2.5 above shows how monitoring has been grouped and will be discussed below;

2.6.1 Process monitoring and physical progress monitoring

In process monitoring, routine data is collected and analyzed to establish whether the project tasks and activities are leading towards the intended project results. It authenticates the progress of the project towards the intended results. This kind of monitoring measures the inputs, activities and outputs (Mueller, 2012:649-670). In other words, process monitoring answers the questions “what has been done so far, where, when and how has it been done?” Most of the data collected during project implementation usually serves this kind of monitoring.

2.6.2 Technical monitoring

Technical monitoring involves assessing the strategy used in project implementation to establish whether it is achieving the required results. It involves the technical aspects of the project such as the activities to be conducted. In a safe water project, for example, physical progress monitoring may show that there is little or no uptake of chlorination as a water treatment strategy (Kusek and Rist, 2001:14-23). Technical monitoring may establish that this could be a result of installing chlorine dispensers at the water source and women are so time-constrained that they have no time to line up to get chlorine from the dispensers. This may prompt a change of strategy where the project might opt for household distribution of bottled chlorine.

2.6.3 Assumption monitoring

Any project has its working assumptions which have to be clearly outlined in the project log frame. These assumptions are those factors that might determine project success or failure that the project has no control over. Assumption monitoring involves measuring these factors which are external to the project (Jacobs, 2010: 36-44). It is important to carry out assumption monitoring as it may help to explain the success or failure of a project. For example, a project that was promoting the use of contraceptives may realize that use of contraceptives has dropped.

The drop in use of the contraceptive could however be attributed to increased taxation on the importation of contraceptives in the country which makes them more expensive, rather than on project failure.

2.6.4 Financial Monitoring

Just like the name suggests, financial monitoring simply refers to monitoring project/ program expenditure and comparing them with the budgets prepared at the planning stage. The use of funds at the disposal of a program/project is crucial for ensuring that there are no excesses or wastages (Kusek and Rist, 2001:14-23). Financial monitoring is also important for accountability and reporting purposes, as well as for measuring financial efficiency (the maximization of outputs with minimal inputs).

2.6.5 Impact Monitoring

Impact monitoring is a type of monitoring that continually assesses the impact of project activities on the target population. Indeed, impacts are usually the long-term effects of a project. However, for projects with a long life span or programs, there emerges a need for measuring impact change to show whether the general conditions of the intended beneficiaries are improving or otherwise. In this case, the manager monitors impact through a pre-determined set of impact indicators (Wimbush, 2000:301-321). Monitoring both the positive and negative impacts, intended and unintended impacts of the program, becomes imperative. For example, in a Water and Sanitation program, there may be a need to monitor the change in the Under 5 Mortality in the program area over time. In this case, rather than being identified as an impact evaluation, this would be identified as impact monitoring.

2.7 Other types of evaluation

Knowledge of the different types of evaluation is imperative for an effective monitoring and evaluation system. Using these types of evaluations can help your program deliver better results and have a greater impact while reducing costs (Kusek, 2001:14-23). Choosing the best types of evaluation depends on the stage at which your development program is evaluated.

Each evaluation can help you make better decisions by giving you the right kind of data at the right time. The table below indicates the types of evaluation in service delivery.

Table 2.6 below shows other types of evaluation

Stage of project	Purpose	Types of evaluation
Conceptualization Phase	Helps prevent waste and identify potential areas of concern while increasing chances of success	Formative Evaluation
Implementation Phase	Optimizes the project, measures its ability to meet targets, and suggests improvements for improving efficiency.	Process Evaluation Outcome Evaluation Economic Evaluation
Project Closure Phase	Insights into the project's success and impact, and highlights potential improvements for subsequent projects	Impact Evaluation Summative Evaluation Goals-based Evaluation

SOURCE: Author's Construction

Table 2.6 shows that the best development project will conduct different types of evaluations, constantly looking to streamline their project or program at different stages and using different metrics.

2.8 . Importance of monitoring and evaluation

Although evaluations are often retrospective, their purpose is essentially forward-looking. Evaluation applies the lessons and recommendations to decisions about current and future programmes.

Evaluations can also be used to promote new projects, get support from governments, raise funds from public or private institutions, and inform the general public on the different activities (Wimbush,2000:301-321). It is also very important as the monitoring team recommends the school visited (e.g. K.H.S and G.S.G). The Paris Declaration on Aid Effectiveness in February 2005 and the follow-up meeting in Accra underlined the importance of the evaluation process and the ownership of its conduct by the projects' host countries. Many developing countries now have monitoring and evaluation systems and the tendency is growing.

2.9. Performance measurement

The credibility of findings and assessments depends to a large extent on how monitoring and evaluation are conducted. To assess performance, it is necessary to select, before the implementation of the project, indicators that will permit the rating of the targeted outputs and outcomes (Behn, 2003:586-606). According to the United Nations Development Programme (UNDP), an outcome indicator has two components: the baseline which is the situation before the programme or project begins, and the target which is the expected situation at the end of the project.

2.10. United Nations

The most important agencies of the United Nations have a monitoring and evaluation unit. All these agencies are supposed to follow the common standards of the United Nations Evaluation Group (UNEG). These norms concern the Institutional framework and management of the evaluation function, the competencies and ethics, and the way to conduct evaluations and present reports (design, process, team selection, implementation, reporting, and follow-up). This group also provides guidelines and relevant documentation to all evaluation organs that are part of the United Nations or not (Hanberger, 2006:17-22). Most agencies implementing projects and programmes, even if following the common UNEG standards, have their own handbook and guidelines on how to conduct monitoring and evaluation. Indeed, the UN agencies have different specializations and have different needs and ways of approaching monitoring and evaluation. The monitoring and evaluation branches of every UN agency are monitored and rated by the Joint Inspection Unit of the United Nations. Table 2.6 below shows the guiding principles of monitoring and evaluation.

Table 2.7. The guiding principles of Monitoring and Evaluation

Guiding principles of monitoring and evaluation	
Focused	Data collected should focus on the goals of the project and program.
Timely	Data should be collected and shared at the relevant time. If data is shared too late, it is useless.
Usable	Shared data should be easy for all stakeholders to use, for example, an online report that is easy to access and query rather than a written report.
Credible	All techniques for data collection, analysis and reporting should be credible and standardised. This helps to ensure that the results are accurate and can be used for a critical decision.
Ethical	All data should be collected and analyzed ethically. For example, if data is collected through surveys, make sure you get informed consent from each participant.

Source: Author's Construction

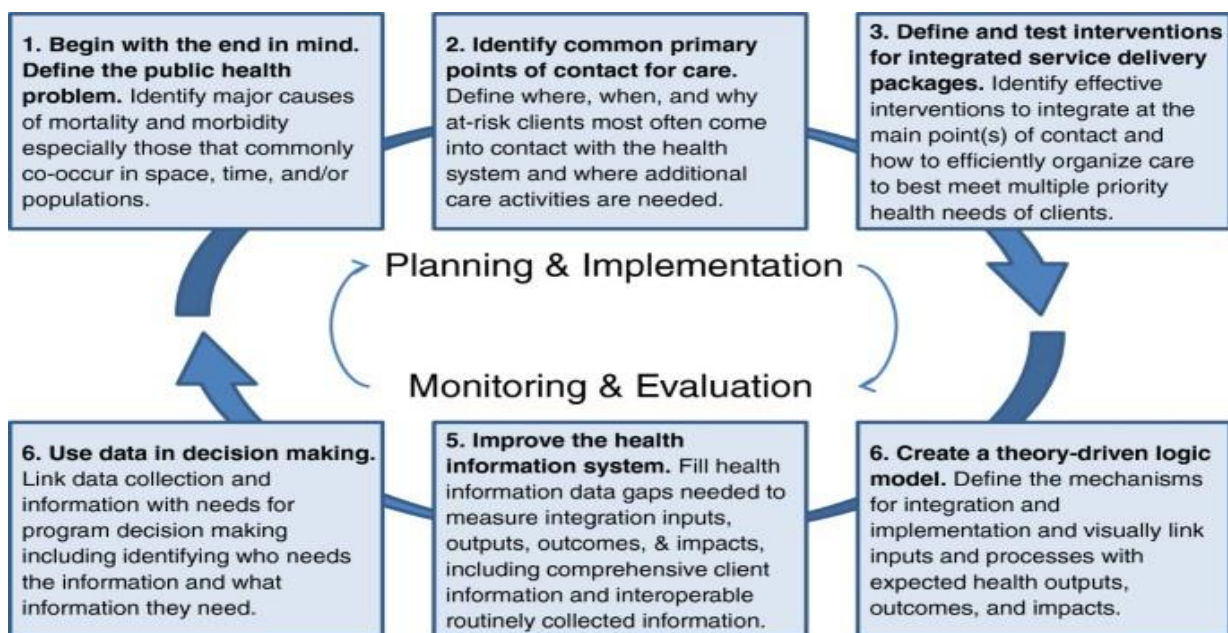
Table 2.7. Shows the guiding principle when linking information between monitoring and evaluation for regular and systematic assessment of the progress. It constitutes a discrete grouping of actions taken, or work performed, through which inputs are mobilized to produce specific outputs and outcomes.

2.11. Logic model

A logic model presents a picture of how your effort or initiative is supposed to work. It explains why your strategy is a good solution to the problem at hand. Effective logic models make an explicit, often visual, statement of the activities that will bring about change and the results you expect to see for the community and its people. A logic model keeps participants moving in the same direction by providing a common language and point of reference. More than an observer's tool, logic models become part of the work itself (McLaughlin, 2015:62–87). They energize and rally support for an initiative by declaring precisely what you are trying to accomplish and how.

Each mapping or modelling technique uses a slightly different approach, but they all rest on a foundation of logic - specifically, the logic of how change happens (Renger, 2002:493–503). By whatever name you call it, a logic model supports the work of health promotion and community development by charting the course of community transformation as it evolves. Like a road map, a logic model shows the route travelled (or steps taken) to reach a certain destination. A detailed model indicates precisely how each activity will lead to desired changes. Alternatively, a broader plan sketches the chosen routes and how far you will go. This road map aspect of a logic model reveals what causes what, and in what order (Frechtling, 2015:299-305). At various points on the map, you may need to stop and review your progress and make any necessary adjustments. Figure 2.2 below shows the Logic Model.

Figure 2.2. Logic Model in Primary Health Care



Source: Author's Construction

Figure 2.3 above indicates the Logic Model and expresses the thinking behind an initiative's plan. It explains why the program ought to work, why it can succeed where other attempts have failed. This is the "program theory" or "rationale" aspect of a logic model.

By defining the problem or opportunity and showing how intervention activities will respond to it, a Logic model makes the program planners' assumptions explicit (Renger, 2002:493–503). A Logic model ought to provide direction and clarity by presenting the big picture of change along with certain important details. Logic models have hypothesized descriptions of the chain of causes and effects leading to an outcome of interest (e.g. prevalence of cardiovascular diseases, annual traffic collision, etc). While they can be in a narrative form, Logic models usually take form in a graphical depiction of causal relationships between the various elements leading to the outcome (Stinchcomb, 2001: 47–65). However, the Logic model is more than the graphical depiction. It is also the theories, scientific evidence, assumptions and beliefs that support it and the various processes behind it.

Logic models are used by planners, funders, managers, and evaluators of programs and interventions to plan, communicate, implement and evaluate them. They are also employed by the health sciences community to organize and conduct literature reviews such as systematic reviews. Since they are used in various contexts and for different purposes, their typical components and levels vary. Complexity varies in the literature (compare, for example, the W.K. Kellogg Foundation presentation of a Logic model, mainly aimed for evaluation, and the numerous types of Logic models in the Intervention Mapping framework). In addition, depending on the purpose of the logic model, elements depicted and the relationships between them are more or less detailed.

2.12. History of logic models in monitoring and evaluation

Hanberger (2006:17-22) cited that encyclopedic articles traced Logic model underpinnings in the 1950s and mentioned that there was an increasing interest, usage and publications about the subject. Table 2.7 below shows the Logic model for change.

Table 2.8. Logic Model for change in monitoring and evaluation

Program: Primary Health Care Delivery Model			
Goal: Improve Delivery of Services, Monitor, Evaluate and Modelling			
INPUTS	ACTIVITIES	OUT PUTS	IMPACTS
What we invest	What we do	What we Reach	This project's long-term results
Clinicians Time Money Research Findings Resources	Meetings Training Quality Services Access to information Work with Media	Decision Makers Customers Clinical Profession als CBO's Participants	Knowledge Motivators Skills Opinions Aspirations

Source: Author's Construction

Table 2.8 identifies how intended change will be monitored and measured by using indicators, targets and baseline information.

2.13. Uses of Logic model

Logic models can be developed to help evaluators and implementers to better understand complex interventions such as the PCMH and the mechanisms through which they work. Together with other tools, a strong logic model can guide evaluation design, data collection, and analysis, and serve as a useful framework for interpreting results.

2.13.1 Program planning

One of the most important uses of the Logic model is for program planning. It is suggested to use the Logic model to focus on the intended outcomes of a particular program (McLaughlin, 2015:62–87).

The guiding questions change from "what is being done?" to "what needs to be done"? By placing the focus on ultimate outcomes or results, planners can think backwards through the Logic model to identify how best to achieve the desired results. Here it helps managers to 'plan with the end in mind', rather than just consider inputs (e.g. budgets, employees) or the tasks that must be done.

2.13.2. Evaluation

The Logic model is often used in government or not-for-profit organizations, where the mission and vision are not aimed at achieving a financial benefit (Frenchling, 2015:493-503). Traditionally, government programs were described only in terms of their budgets. It is easy to measure the amount of money spent on a program, but this is a poor indicator of outcomes. Likewise, it is relatively easy to measure the amount of work done but the workers may have just been 'spinning their wheels' without getting very far in terms of ultimate results or outcomes (Harmer, 2009: 246). However, the nature of outcomes varies. To measure the progress toward outcomes, some initiatives may require an ad hoc measurement instrument. In addition, in programs such as in education or social programs, outcomes are usually long-term and may require numerous intermediate changes to advance progressively toward the outcomes. Figure 2.5 below shows the process of evaluation.

Figure 2.3 the process of evaluation



Source: Author's Construction

Figure 2.3 clearly indicates the intended outcomes and the causal pathways leading to them. A program Logic model provides the basis upon which planners and evaluators can develop a measurement plan and adequate instruments.

Instead of only looking at the outcome progress, planners can open the "black box" and examine whether the intermediate outcomes are progressing as planned. In addition, the pathways of numerous outcomes are still largely misunderstood due to their complexity, their unpredictability and lack of scientific or practical evidence (Anderson, 2011:33-42). Therefore, with proper research design, one may not only assess the progress of intermediate outcomes but evaluate as well if the program theory of change is accurate, therefore a successful change of an intermediate outcome provokes the hypothesized subsequent effects in the causal pathway (Handler, 2001:1235–39). Finally, outcomes may easily be achieved through processes independent of the program and an evaluation of those outcomes would suggest program success when in fact external outputs were responsible for the outcomes.

Figure 2.4 below shows the Public Health Services, and how to include them in your community's public health infrastructure.

Figure 2.4. Public Health Services in the community



Source: Author's Construction

Figure 2.6 indicate the lack of improvement in quality improvement in the health care service delivery in the community. The decline in quality health care has caused the public to lose trust in the health care system.

2.14 Various types of logic models

This model is mostly used for planners, funders and managers who evaluate the programme and interventions to plan, communicate, implement and evaluate the process at the organization. The researcher used the Logic model and the template below when planning the current project (Frenchling, 2015: 493-503). The table below shows the various types of logic models.

Table 2.9 Various types of Logic models

Inputs	Activities	Outputs	Outcomes/impacts
what resources go into a program	what activities the program undertakes	what is produced through those activities	the changes or benefits that result from the program
e.g. money, staff, equipment	e.g. development of materials, training programs	e.g. number of booklets produced, workshops held, people trained	e.g. increased skills/knowledge/confidence, leading over the longer-term to promotion, new job, etc.

Source: Author's construction

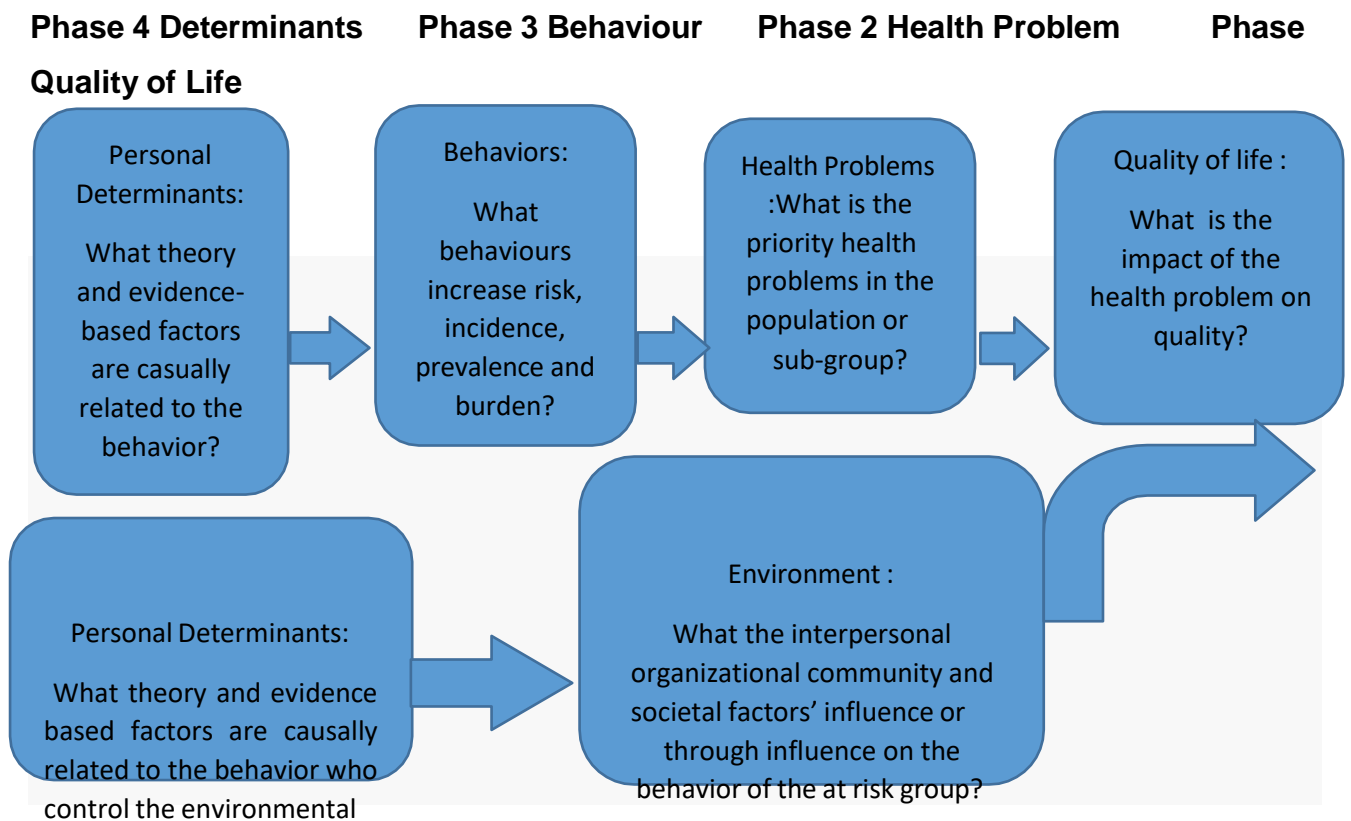
Table 2.9 shows the grouping of actions taken or work performed through which inputs are mobilized to produce specific outputs and outcomes. For example, many versions of Logic models set out a series of impacts, explaining in more detail the logic of how an intervention contributes to intended or observed results. Others often distinguish short-term, medium-term and long-term results, and between direct and indirect results.

2.14.1 Intervention mapping Logic models

Logic models that illustrate how an intervention is expected to produce desired outcomes are not only useful evaluation tools but also valuable planning tools that form the foundation for monitoring implementation. Logic models help evaluators and implementers to better understand complex interventions such as the PCMH and the mechanisms through which they work (Frenchling, 2015: 493-503).

In conjunction with other tools, a strong Logic model can guide evaluation design, data collection, and analysis, and serve as a useful framework for interpreting results. Figure 2.7 below shows the intervention of the Logic model.

Figure 2.5 Intervention of Logic model



Source: Author's Constructions

Figure 2.5 shows how an Intervention Mapping approach makes extensive use of the Logic model through the whole life-cycle of a health promotion program.

Evaluators use the Logic model of the intervention to design a proper evaluation plan to assess implementation, impact and efficiency (Hanberger, 2006:17-22). An advantage is that by describing work in this way, managers have an easier way to define the work and measure it. Performance measures can be drawn from any of the steps. One of the key insights of the Logic model is the importance of measuring the outcomes or results because it is quite possible to waste time and money by spinning the wheels on work activities or to produce outputs without achieving desired outcomes (Brandt, 2000:707-15). These outcomes (impacts, long-term results) are the only justification for doing the work in the first place. For commercial organizations, outcomes relate to profit. For not-for-profit or governmental organizations, outcomes relate to the successful achievement of mission or program goals. Table 2.10 below summarizes key differences between the paradigms that are typically used to train clinical and public health professionals.

Table 2.10. Public Health versus Medical Models of Professional Training

Public health model	Medical model
Primary focus on population	Primary focus on the individual
Public service ethic, tempered by concerns for the individual	Personal service ethic, Conditioned by awareness of social responsibilities
Emphasis on prevention and health promotion for the whole community	Emphasis on diagnosis, treatment, and care for the whole patient
Paradigm employs a spectrum of interventions aimed at the environment, human behaviour, lifestyle, and medical care	Paradigm places predominant emphasis on medical care

Source: Author's Construction

Table 2.10 above differentiates between the public health model and medical model and how to improve the health of the community which requires the joint effort of clinicians and public health specialists. These public and medical components are mutually reinforcing and deserve mutual respect.

2.15 . Chapter summary

The chapter reviewed past studies and the theoretical literature on monitoring and evaluation and offered an overview of what it entails and its application. Countries and governments are faced with growing pressure to place the focus on monitoring and evaluation to demonstrate the effectiveness of implemented policies, programmes and projects. The pressure emanates from various stakeholders, the beneficiaries, civil society, donors and the community at large (Pentland, 2009:93102). The other particular pressure comes from the expected achievements on the Millennium Development Goals (MDGs).

Greater focus was placed on examining the sense to which monitoring and evaluation provide an index for the performance of a program i.e. as tools to monitor how efficiently a programme is performing, for example, how productively inputs (money, time, equipment, personnel) were used in generating outputs (products, results and outcomes). Reviewed past studies revealed that monitoring and evaluation can ensure the most effective and efficient use of resources especially given that efficiency is synonymous with achieving objectives with the minimum expenditure of resources (Lahey, 2013:45-56). Ultimately, a result-based monitoring and evaluation system mobilises strategy, people, resources, processes and measurements in an enabling environment to achieve the performance goals of a monitoring and evaluation system with an ultimate goal of improving decision-making, transparency and accountability. It was illustrated that the Health system is complex thus an evidence-based approach is necessary. Whilst the system is not itself a way to simplify complexities, it represents a framework for ideal practices. Programme monitoring indicates whether the programme is functioning as intended or according to some appropriate standard through the documentation of key aspects of the programme performance (Jacobs, 2010: 36-44).

The information from the results-based monitoring and evaluation system is ideally expected to be used by programme implementers and decision-makers to improve the performance of the programme where needed (Echoka, 2013: 13-113). The system of monitoring and evaluating for Primary Health Care intervention should promote coordination and prevent fragmentation. Therefore, integration of the system with other primary health care delivery monitoring and evaluation systems would be ideal. The monitoring and evaluation system of the Primary Health Care programme should be able to monitor service utilization; the extent to which the intended target population receives the intended services; the programme organization; comparison of the plan to what is actually done; and monitoring programme outcomes to assess the status of programme participants after they have received a service (Jacobs, 2010:36-44). The next chapter outlines the general legislative and policy environment for monitoring and evaluation in the South African public sector and the policies within the DOH that govern the strategic direction of the Department.

CHAPTER 3
THE LEGISLATIVE AND POLICY PROMULGATIONS,
CONSTITUTIONAL OBLIGATIONS AND REQUIREMENTS FOR
MONITORING AND EVALUATION IN THE SOUTH AFRICAN PUBLIC
SECTOR.

3.1 Introduction

This chapter outlines the general legislative and policy environment for monitoring and evaluation in the South African public sector and the policies within the DOH governing the strategic direction of the department. It also presents the DOH's monitoring and evaluation framework as well as the monitoring and evaluation processes and systems.

3.2. Policy framework for monitoring and evaluation in SOUTH AFRICA

The South African public sector policy framework for monitoring and evaluation is entrenched in the Constitution of the Republic of South Africa, 1996 (108 of 1996) and the White Paper on Transforming Public Service Delivery, 1996 which is also referred to as the Batho Pele White Paper and the Public Finance Management Act(Act 1 of 1999) and PSC (2007:26). This highlights that it is essential for 'strong monitoring and evaluation systems to promote coordination and prevent fragmentation' (The Presidency, 2007:1). To enhance effectiveness in service delivery, the government is increasingly concentrating on improving monitoring and evaluation, which will lead to improvements in the quality of planning and implementation systems. The various specific monitoring and evaluation policies to fulfil this resolution are also discussed in subsequent sections of this chapter.

3.2.1 The Constitution of the Republic of South Africa, 1996.

The Constitution, 1996, stipulates that public administration should adhere to the following basic values and principles:

- i. Promoting and maintaining a high standard of professional ethics
- ii. Services provided impartially, fairly, equitably and without bias
- iii. Efficient, economic and effective use of resources
- iv. People's needs responded to and participation encouraged

- v. Accountable and transparent public administration
- vi. Good human resource management and career development practices must be cultivated
- vii. Development-orientated public administration

Chapter 10, section 195 on Basic Values and Principles Governing Public Administration states, “Transparency must be fostered by providing the public with timely, accessible and accurate information”. This is also found in the Promotion of Access to Information Act, 2000. Section 85 of the Constitution requires that the President exercises the executive authority, together with other Cabinet Members, in making policy decisions and ensures that the implementation of national policies is enforced. The critical role of the Presidency is the coordination, monitoring, evaluation and communication of government policies and programmes and accelerating integrated service delivery. Regarding the Bill of Rights and access to health care, the Constitution guides the substantive content of all laws and policies through its Bill of Rights, which it describes as “a cornerstone of democracy”. The Bill of Rights regulates the content of health laws and policies in two key ways:

- i. By recognising a range of fundamental rights that are relevant to the development and implementation of the health policy.
- ii. By setting out the state’s positive and negative duties concerning these rights. The courts directly enforce the Bill of Rights. They are increasingly having an impact on the way that health laws and policies are devised and put into practice.

3.2.2 Batho Pele White Paper, 1997

The Batho Pele White Paper requires national and provincial departments to develop a Performance Management System including the setting of service delivery indicators and measures of performance, DPSA (1997:10:23). Batho Pele principles give perspectives from which the government service delivery programmes could be evaluated. The principles are Consultation, Service Standards, Access, Courtesy, Information, Openness and Transparency, Redress and Value for Money.

3.2.3 Public Finance Management Act (Act 1 of 1999)

The PFMA promotes the efficient and effective management of state resources. It necessitates performance monitoring and reporting. The PFMA emphasises the need for accountability for results by focusing on outputs and responsibility, rather than just on procedural accountability which only ensures compliance with rules (Mkhize and Ajam, 2006:762). It links the use of resources (or inputs) to objectives (outputs and outcomes) and performance. This essentially entails moving from an input-based budgeting system to an output-based results-oriented system. This situates budgeting and financial management in a performance management context by outlining clear roles and responsibilities for each level of management, and by requiring that measurable objectives be specified for each main division within a departmental vote.

3.2.4 Treasury Regulations (2002)

Treasury Regulations 29.3.1 of 2002 on performance evaluation, requires that procedures for quarterly reporting must be established for the institution to facilitate effective performance monitoring, evaluation and corrective action.

3.2.5 Policy Framework for a Government-Wide Monitoring and Evaluation System (2007)

The National Cabinet of South Africa approved an implementation plan which has seen South Africa develop a Government-Wide Monitoring and Evaluation System (GWM&ES) in 2007. The GWM&ES policy framework, the overarching document for monitoring and evaluation in the South African Government, has three components: programme performance information; social, economic and demographic statistics; and evaluations (GWM&ES, 2007: 16).

Each component has its own policy framework to successfully implement a performance-based monitoring and evaluation system, the government measurement system called the National Treasury Framework for Managing Programme Performance Information, 2007 and Statistics South Africa's South African Statistics Quality Assurance Framework (SASQAF).

The GWM&ES is meant to promote good governance, accountability and service delivery. The main aim of the GWM&ES is to 'provide an integrated encompassing framework of monitoring and evaluation principles, practices and standards to be used throughout government' (Presidency, 2007:5). This includes all spheres of government so that a uniform system of monitoring and evaluation is formed. In compliance with the framework requirements, the government departments must align with the GWM&ES and structures for proper reporting on the expected deliverables by the government. This includes alignment across government department monitoring and evaluation systems;

The system's goals are: (GWMES 2007:7)

- i. Improved quality of performance information and analysis at the programme level (inputs, outputs and outcomes).
- ii. Improved monitoring and evaluation of outcomes and impact.
- iii. Sectoral and thematic evaluation reports.
- iv. Improved monitoring and evaluation of provincial outcomes and impact concerning Provincial Growth and Development Plans.
- v. Projects to improve monitoring and evaluation performance in selected institutions across government.
- vi. Capacity building initiatives to build capacity for monitoring and evaluation and foster a culture of governance and decision-making which responds to monitoring and evaluation findings.

3.2.6 National Treasury Framework for Managing Programme Performance Information (2007)

The aims of the National Framework for Managing Programme Performance are to “clarify standards for performance information and support regular audits of nonfinancial information where appropriate; improve the structures, systems and processes required to manage performance information; define roles and responsibilities for performance information and promote accountability to Parliament, provincial legislatures, municipal councils and the public through timely, accessible and accurate publication of performance information” (National Treasury, 2007:1). The National Treasury’s mandate is informed by sections 215 and 216 of the Constitution on budgets and control. According to the National Treasury (2007:5), the performance information reported in accountability documents helps to track government performance and to hold it accountable. Performance information is important for managers during the planning, budgeting and reporting cycle so that they can adopt a results-based approach to managing service delivery.

3.2.7 South African Statistical Quality Assessment Framework (SASQAF) 1st edition(2008) and 2nd edition (2010)

SASQAF “aims to promote quality maintenance within a decentralised system of statistics production” through the setting up of standards, criteria and practices that protect the integrity of gathered information (Presidency, 2007:14). The National Statistics System (NSS) has been characterized by capacity, quality and information gaps. SASQAF, both first and second editions (2008 and 2010, respectively), were published against this background, with the main purpose of providing quality statistical data that will give objective and accurate information that is fit for use in the assessment of achievements and challenges; in improving the capacity to produce and utilise the information for planning and monitoring purposes. All producers of statistics in the NSS must meet all data quality criteria so that statistics can qualify as the official statistics (Stats SA, 2010: 3).

The data are measured against eight dimensions of quality, namely, relevance, accuracy, timeliness, accessibility, interpretability, coherence, methodological soundness and integrity” (Stats SA, 2010:4). The eight dimensions are in line with the requirements of Statistics Act No 6 of 1999 which defines the purpose of official statistics as for assisting government departments and other organisations in planning, decision-making and monitoring (Stats SA; 2010: foreword). Various indicators apply within each dimension, defining the levels of expected, accepted or poor data quality for each indicator. These level categories are important in decision making.

3.2.8 Green Paper on National Performance (2009)

The presidency produced a document titled Improving Government Performance: Our Approach, which illustrates the approach and the process the government would follow in delivering on its mandate. To ensure the attainment of positive outcomes from government mandates and for accountability, the Medium-Term Strategic Framework -five-year plan (MTSF) identified ten priorities but to be fully effective five priorities that were included are rural development, health, education, safety and jobs (Presidency, 2009:3). This Green Paper details the process of achieving outcomes by identifying desired outcomes, defining output measures to be monitored, describing key activities to be completed and listing essential inputs, outputs, indicators, and activities. These outcomes would play a role in shaping policies and programmes, budgets and resource allocation. The delivery requirements are set out in a performance letter from the President to a Minister, group of Ministers or sector including the MECs. Report-back meetings with the President every six months will evaluate progress and provide guidance on how to overcome obstacles to delivery.

Reports will comment on all four aspects of the delivery chain of outcomes; outputs; activities; and inputs. Activities and inputs form the core of the performance agreement between the President, the Minister and the Sector (Presidency, 2009:78). The lessons emanating from the five priority areas will apply to the rest of the areas.

The performance management system of the Ministers by the President to evaluate any progress made, will increase accountability and in turn improve performance. The Presidency monitors and reports on the implementation of key government priorities and Government's Programme of Action against key development indicators (PSC, 2008: 14). The Presidency's report is dependent on data that it draws from various government departments which makes it important that the M&E systems in government departments can be relied upon.

3.2.9 Guide to the Outcomes Approach, 2010

The government has made significant progress in improving service delivery by increasing access to services and increasing expenditure on services. However, the expected outcomes have not been achieved to date. Achieving outcomes means making a measurable impact on the lives of South Africans. It is against this background that the government is increasing focus on an outcomes approach, also referred to as a results-based approach. The Presidency designed a guide for the outcomes approach, approved by the cabinet to describe the government performance monitoring and evaluation system and the management of the 12 defined outcomes. The outcomes approach explains what we expect to achieve, how we expect to achieve it and how we will know we are achieving it. The outcomes approach will assist to track progress, collect evidence, improve planning and implementation. An outcomes approach requires a logical link between what is done and what is achieved.

3.2.10 National Evaluation Policy Framework (NEPF), 2011

In November 2011, the Cabinet approved the National Evaluation Policy Framework (NEPF) which made provision for the establishment of a National Evaluation System (NES) and the development of the National Evaluation Plan (NEP) for South Africa. The NEPF provides a clear framework for implementing evaluation activities and serves as a valuable reference point in ensuring consistency of the approach, while also allowing individual departments to customise the system to suit their needs.

The NEP is produced annually in terms of the requirements of the NEPF the aim of the NEP discussed below;

- i. Policy or programme performance - providing feedback to managers;
- ii. Accountability for where public spending is going and the difference it is making;
- iii. Decision-making e.g. on what is working or not working; and
- iv. Increase knowledge about what works and what does not with regards to a public policy, plan, programme, or project.

The NEPF sets the approach and describes the evaluation system and how to make the system work. The NEPF describes the six types of evaluation promoted across government, which are diagnosis, synthesis, design evaluation, implementation evaluation and impact evaluation. The types of evaluation are based on the Logic model which connects inputs to activities, outputs, outcomes and impacts, which is also used in the Framework for Managing Programme Performance Information (NEPF, 2011:8-10). The NEPF promotes the institutionalisation of evaluations in government by providing the budget linked to planning. The results of evaluations should be used to inform planning and budgeting and lastly to assign the evaluation responsibility to a specific person (NEPF, 2011:15).

3.2.11 Performance Monitoring and Evaluation; Principles and Approach (2014)

According to the PSC News (2012:15) progress is being made in implementing the outcomes approach. However, the government acknowledges that there are gaps with regards to the institutionalisation of the monitoring and evaluation concept in government but this will effectively improve further, over time. The document on the principles and approach to performance monitoring and evaluation is intended to create a basis for a robust discussion on the strengthening of performance monitoring and evaluation practices in government and it makes use of some of the key principles from existing policies and guidelines for monitoring and evaluation (Govender, 2014: 8). It is expected that comments coming from this discussion document will inform the government on the appropriate route for the development of monitoring and evaluation policies and guidelines, and ultimately legislation.

The document proposes a set of basic principles and an approach to performance monitoring and evaluation that is intended to result in continuous improvement in government performance and increased accountability. It makes suggestions regarding the monitoring and evaluation practices that need to be implemented to achieve this and how to institutionalise them. The following section presents the policy environment that provides a guide for the Health Sector aligned to the policy and legislative frameworks from the national government.

3.3 Policies, Acts, Guidelines for monitoring and evaluation within the health sector

The strategic direction governing monitoring and evaluation for the Department of Health is shaped by the following Acts and policy frameworks. These undergird programmes and practices within the scope of the national health department and work to strengthen monitoring and evaluation systems. It is important to outline existing institutional arrangements to examine current mechanisms for improving outcomes for child health and monitoring performance in Gauteng province and the nation at large.

3.3.1 National Health Act, 2003

The National Health Act (Act 61 of 2003), sections 74 (1) and 74 (2) state “the national department must facilitate and co-ordinate the establishment, implementation and maintenance of a comprehensive national health system” and “the minister may prescribe categories or kinds of data for submission and collection and the manner and format in which and by whom the data must be compiled or collated and must be submitted to the national department.” Section 21 (9d) of the Act stipulates that the Director-General must identify national health goals and priorities and monitor the progress of their implementation. It was under the ambit of the National Health Act of 2003 that other campaigns and sub-documents were validated. For instance, the Department of Health was mandated to apply the Free Health Care Policy of 1994 which advocates for free health care for children younger than 6 years through its Comprehensive Primary Health Care Package. A preceding document, the White Paper on Health (1997) providing for free maternal and child health, an integrated nutritional strategy. On safe water and sanitation and communicable diseases was strengthened by the inauguration of the National Health Act, promoting child health through inter-sectoral collaboration.

3.3.2 The National Health System Priorities 2009-2014 (10 Point- Plan)

The 10-point plan is the strategic framework of the health sector for producing desired outcomes. It incorporates the 20 priority areas of the outcome-based Medium Term Strategic Framework (MTSF), as well as the MDGs. Out of the ten points, the most relevant for this study was number one and ten. Priority area one's activities include external reviews of the implementation of health sector policies, plans and programmes which will generate useful findings to inform planning and implementation. Internally, the impact of policy implementation will be reviewed through regular analysis of data from the District Health Information System (DHIS). Priority area ten focuses on research and development and refers to commissioning research studies and surveys to generate key information for health planning, health service delivery and monitoring.

3.3.3 District Health Management Information System (DHMIS) Policy 2011

The DHMIS defines the requirements and expectations to provide comprehensive, timely, reliable, and good-quality routine evidence for tracking and improving health service delivery. The strategic objectives of the policy are to strengthen monitoring and evaluation through standardization of data management activities and to clarify the main roles and responsibilities at each level for each category of staff to optimize completeness, quality, use, ownership, security and integrity of data (National Department of Health, 2011:16). Over and above the mentioned documents, GDOH's strategic direction is informed by the Millennium Development Goals; and the Western Cape Provincial Government Outcomes 2009-14 with outcome 2 as 'A long and healthy life for all South Africans'. The next section presents the GDOH monitoring and evaluation framework.

The framework was developed based on the documents discussed in the preceding sections of this chapter and it shows the extent of monitoring and evaluation promotion in GDOH. The section discusses the GDOH monitoring and evaluation system, processes, institutionalisation of monitoring and evaluation, and the challenges.

3.3.4 Institutionalization of monitoring and evaluation in the GDOH

The institutionalization of monitoring and evaluation within the GDOH framework focuses on organizational structure and human capacity. However, it is not limited to these aspects as it also addresses issues such as monitoring and evaluation culture and values in the organization, processes, standards, strategy and performance management. As such, the GDOH has incorporated monitoring and evaluation functions into management functions to continuously improve performance. This has been done through the establishment of the monitoring and evaluation directorate which is entrusted with monitoring and evaluation functions within the department (GDOH, 2010:24). The proposed organisational structure of the monitoring and evaluation Directorate consists of a staff complement and is headed by a Director. The Director is supported by a Health Management Team covering three functional areas namely: Monitoring, Evaluation and Data Quality. The monitoring and evaluation functions of the directorate are summarized in the table below:

Table 3.1 Functions for GDOH Monitoring and Evaluation Directorate (GDOH,2010:24)

Monitoring and Evaluation Function	Key Activities
Planning for M&E functions	5-year planning Annual performance plans Planning of institutional monitoring and evaluation processes
Monitoring	Monthly data capturing by project managers Monthly analysis of progress against operational plans and reporting Quarterly results monitoring
Evaluation	Five-year review Mid-term review Annual programme and departmental review Periodic internal and external evaluations Develop terms of reference, procure and manage service

Reporting	Quarterly and annual reporting on institutional and programme performance Annual evaluation report by the monitoring and evaluation Unit Follow up and implementation of monitoring and evaluation recommendations
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SOURCE: GDOH framework

Table 3.1 shows the district coordinators responsible for monitoring and evaluation activities within the Health Districts. The monitoring and evaluation functions of the directorate are summarized.

3.4 Chapter summary

The string of comprehensive institutional arrangements by the South African government has created an enabling environment for monitoring and evaluation of services delivery. The greater recognition of Primary Health Care, evident in the monitoring and evaluation framework, has been illustrated in all the legislative and policy frameworks and the location of monitoring and evaluation in the Presidency presented in this chapter. However, this helps in enlightening possible frameworks that can be institutionalised. Furthermore, health and primary health care by clinicians have been contextualised within the public administration and management framework. Health promotion models were also highlighted as one of the important pillars to be considered when clinicians provide services at a Primary Health Care level. Based on this background, chapters four, five and six will focus on Primary Health Care delivery by clinicians at a local, national and international level, concentrating on selected developed and developing countries. Thereafter, based on this background, the research design shall be developed in chapter seven.

CHAPTER 4

HEALTH CARE SYSTEM AND SERVICE DELIVERY IN PRIMARY HEALTH CARE

4.1 Introduction

Health care is defined as the improvement of health via the prevention, diagnosis, treatment, recovery of disease, illness, injury, and other physical and mental impairments in people. Factors to consider in terms of healthcare access include financial limitations (such as insurance coverage), geographic barriers and personal limitations (Johnson, 2012:444-452). Limitations to health care services negatively affect the use of medical services, the efficacy of treatments, and overall outcome .

Health care systems are organizations established to meet the health needs of targeted populations. According to the World Health Organization (WHO), a well-functioning health care system requires a financing mechanism (Hoewe, 2016:228250), a well-trained and adequately paid workforce, reliable information on which to base decisions and policies, and well-maintained health facilities to deliver quality medicines and technologies. An efficient health care system can contribute to a significant part of a country's economy, development, and industrialization. Health care is conventionally regarded as an important determinant in promoting the general physical and mental health and well-being of people around the world (Farandos, 2014:792-810). An example of this was the worldwide eradication of smallpox in 1980, declared by the WHO as the first disease in human history to be eliminated by deliberate health care interventions.

4.2 Health care delivery

While the definitions of the various types of health care vary depending on the different cultural, political, organizational and disciplinary perspectives, there appears to be some consensus that primary care constitutes the first element of a continuing health care process and may also include the provision of secondary and tertiary levels of care (Berwick, 2008:1182-1184). Health care can be defined as either public or private. The delivery of modern health care depends on groups of trained professionals and paraprofessionals coming together as interdisciplinary teams.

Table 4.1 below shows the health professional clinicians.

Health professional clinicians	
Medicine	Midwifery and allied health
Psychology	Along with many others such as public health practitioners
Nursing	Community health workers and assisting personnel
Dentistry	Curative and rehabilitative care services

SOURCE: Author's construction

Table 4.1 above shows how health care delivery has been grouped. Providing health care services means the timely use of personal health services to achieve the best possible health outcomes (Haggerty, 2016:1219-21). It includes work done in providing primary care, secondary care and tertiary care as well as in public health. Access to health care may vary across countries, communities, and individuals and is influenced by social and economic conditions as well as health policies (Christensen, 2011:61-80). Health care services have been classified into four categories and are discussed in table 4.2 below.

Table 4.2 Health Care Services Delivery Categories

Health Care services	Examples
Primary care,	Local Clinics and Private Health Professionals
Secondary care,	Public and Private Hospitals
Tertiary care,	Public and Private Hospitals
Quaternary care	Mostly in Private Hospitals

Soure: Own construction

4.2.1 Primary Health Care

Primary care refers to the work of health professionals who act as the first point of consultation for all patients within the health care system. Such a professional would usually be a primary care physician, such as a general practitioner or family physician. Another professional would be a licensed independent practitioner such as a physiotherapist, or a non-physician primary care provider such as a physician assistant or nurse practitioner (Dueweke, 2018:289–302). Depending on the locality of the health system organization the patient may see another health care professional first, such as a pharmacist or nurse. Depending on the nature of the health condition, patients may be referred for secondary or tertiary care.

Primary Health Care is essential health care that is based on scientifically sound and socially acceptable methods and technology, which make universal health care accessible to all individuals and families in a community. In the spirit of self-reliance and self-determination, the community and the country can afford to maintain the PHC at every stage of their development through their full participation at a cost. In other words, PHC is an approach to health beyond the traditional health care system that focuses on a health equity-producing social policy (Veillard, 2017:566– 71). Primary care is often used as the term for the health care services that play a role in the local community.

It can be provided in different settings, such as urgent care centres that provide same-day appointments or services on a walk-in basis. Primary care involves the widest scope of health care, including all ages of patients, patients of all socioeconomic and geographic origins, patients seeking to maintain optimal health, and patients with all types of acute and chronic physical, mental and social health issues, including multiple chronic diseases (Frenk, 2009:170–3). Consequently, a primary care practitioner must possess broad knowledge in many areas. Continuity is a key characteristic of primary care, as patients usually prefer to consult the same practitioner for routine check-ups, preventive care health education, and every time they require an initial consultation about a new health problem.

The International Classification of Primary Care is a standardized tool for understanding and analyzing information on interventions in primary care based on the reason for the patient's visit (Labonte, 2011:355-361). Primary care also includes many basic maternal and child health care services, such as family planning services and vaccinations. In the United States, the 2013 National Health Interview Survey found that skin disorders (42.7%), osteoarthritis and joint disorders (33.6%), back problems (23.9%), disorders of lipid metabolism (22.4%), and upper respiratory tract disease (22.1%, excluding asthma) were the most common reasons for accessing a physician.

In the United States, primary care physicians have started delivering primary care outside of the managed care (insurance-billing) system through direct primary care which is a subset of the more familiar concierge medicine. Physicians in this model bill patients directly for services, either on a pre-paid monthly, quarterly, or annual basis or bill them for each service in the office. Examples of direct primary care practices include Foundation Health in Colorado and Qliance in Washington (Graziadei, 2011:24-6). In the context of global population ageing, with increasing numbers of older adults at greater risk of chronic non-communicable diseases, a rapidly increasing demand for primary care services is expected in both developed and developing countries.

The World Health Organization considers the provision of essential primary care as an integral component of an inclusive primary health care strategy. Increasingly the scientific world continues to recognize the importance of preventative medicine and that most illnesses could be avoided (Starfield, 2011:653-655). Though this appears to be common sense, the average human being is reactive and depends largely on the use of medicines after the illness has overtaken them. Largely, most of the illnesses that lead to chronic illnesses cost governments approximately \$2 trillion in medical care.

Acute illnesses are defined as those illnesses, health conditions, or diseases that are persistent or otherwise long-lasting in their effects or diseases that develop over time (Anderson and Horvath, 2004:263-270). Another commonly used definition for acute illnesses is acute conditions that are severe and sudden in onset. As can be evidenced in the table above the acute illnesses are generally curable and as such may not require protracted hospital visits. These assist in the reduction of hospital crowding, even though their occurrences seem to go unabated as they are caused by many other factors.

Chronic illnesses have been discussed as diseases that develop slowly and persist for a long period, often for the remainder of the lifetime of the individual (Dueweke, 2018:289– 302).PHC includes all areas that play a role in health, such as access to health services, environment and lifestyle. Thus, primary healthcare and public health measures, taken together, may be considered the cornerstones of universal health systems (Bodenheimer, 2013:1881-1886). The World Health Organization(WHO), elaborates on the goals of PHC as defined by three major categories: empowering people and communities; multi-sectoral policy and action;and primary care and essential public health functions as the core of integrated health services. Based on these definitions, PHC can not only help an individual after being diagnosed with a disease or disorder but actively prevent such issues by understanding the individual as a whole (Taylor, 2003:17–20).

This ideal model of health care was adopted in the declaration of the International Conference on Primary Health Care held in Alma Ata, Kazakhstan in 1978 and became a core concept of the World Health Organization's goal of Health for all (Sommers, 2012:1697-98). The Alma-Ata Conference mobilized a Primary Health Care movement of professionals and institutions, governments and civil society organizations, researchers and grassroots organizations that undertook to tackle the politically, socially and economically unacceptable health inequalities in all countries. Many factors inspired Primary Health Care.

4.2.2 Secondary Care

Secondary health care involves referral to a specialist after primary health care. These are clinicians more knowledgeable about the illness. It is the special nature of a condition that results in the need for escalating a patient to a specialisation level indicating the inability of the primary care to solve the problem (van Dijk, 2014:4855). Secondary care includes acute care for necessary treatment for a short period for a brief but serious illness, injury, or other health condition. This care is often found in a hospital emergency department. Secondary care also includes skilled attendance during childbirth, intensive care, and medical imaging services.

The term secondary care is sometimes used synonymously with hospital care. However, many secondary care providers, such as psychiatrists, clinical psychologists, occupational therapists, and most dental specialties or not necessarily work in hospitals (Haggerty, 2003:1219–21). Some primary care services are delivered within hospitals. Depending on the organization and policies of the national health system, patients may be required to see a primary care provider for a referral before they can access secondary care. In countries that operate under a mixed market health care system, some physicians limit their practice to secondary care by requiring patients to see a primary care provider first. This restriction may be imposed under the terms of the payment agreements in private or group health insurance plans. In other cases, medical specialists may see patients without a referral, and patients may decide whether self-referral is preferred (Cook, 2000: 791–794).

In other countries, patient self-referral to a medical specialist for secondary care is rare as prior referral from another is considered necessary, regardless of whether the funding is from private insurance schemes or national health insurance. Allied health professionals, such as physical therapists, respiratory therapists, occupational therapists, speech therapists, and dietitians, also generally work in secondary care, accessed through either patient self-referral or physician referral (Haggerty, 2016:1219-21).

Specialists or secondary care focus on either a specific system of the human body or they may focus on particular types of illness or even gender-specific ailments.

According to Christensen (2011:61-80), people with a medical condition end up in secondary care where it may be possible to deal with what generalists at primary care cannot. Ordinarily, medical aid may not pay medical expenses unless the patient has been referred to the specialist by the general practitioner. This indicates the importance of primary health care (Stange, 2014:275-5). Since the treatment at PCP level involves the treatment of general illnesses, at secondary level it may be necessary to see different specialists. Out-patients going for primary or secondary care may need hospitalisation, which is another level of care.

4.2.3 Tertiary care and hospitalization

Tertiary care is specialized consultative health care, usually for inpatients and on referral from a primary or secondary health professional (Haggerty, 2016:1219- 21) in a facility that has personnel and facilities for advanced medical investigation and treatment, such as a tertiary referral hospital .

4.2.4 Quaternary care

The term quaternary care is sometimes used as an extension of tertiary care about advanced levels of medicine that are highly specialized and not widely accessed. Experimental medicine and some types of uncommon diagnostic or surgical procedures are considered quaternary care , (Haggerty, 2016:1219-21). These services are usually only offered in a limited number of regional or national health care centers .

4.3. Home and community care

Many types of health care interventions are delivered outside of health facilities. Community rehabilitation services can assist with mobility and independence after the loss of limbs or loss of function. This can include prostheses, orthotics, or wheelchairs. Many countries, especially in the west, are dealing with ageing populations, therefore, one of the priorities of the health care system is to help seniors live full, independent lives in the comfort of their own homes (Collins, 2013:30–8). There is an entire section of health care geared to helping seniors in day-to-day activities at home such as transportation to and from doctor's appointments along with many other activities that are essential for their health and well-being.

Although they provide home care for older adults cooperatively, family members and care workers may harbour diverging attitudes and values towards their joint efforts. Since statistics show that over 80 million Americans have taken time off of their primary employment to care for a loved one, many countries have started offering programs such as the Consumer Directed Personal Assistant Program to allow family members to take care of their loved ones without giving up their entire income (Campbell, 2000: 1611–25). With obesity in children rapidly becoming a major concern, health services often set up programs in schools aimed at educating children about nutritional eating habits, making physical education a requirement and teaching young adolescents to have a positive self-image. They include many interventions of public health interest as illustrated in Table 4.2 below.

Table 4.3 Interventions in Public Health

Services in Public Health	Services of professionals in residential and community
Food safety surveillance	Support of self-care and assisted living
Distribution of condoms	Home care and long-term care
Needle-exchange programs for the prevention of transmissible diseases	Treatment for substance use disorders among other types of health and social care services

SOURCE: Author's Construction

4.4 Ratings

Health care ratings are ratings or evaluations of health care used to evaluate the process of care and health care structures or outcomes of health care services (Friedberg, 2010:766–72). This information is translated into report cards that are generated by quality organizations, non-profit organisations, consumer groups, and the media. This evaluation of quality is based on measures explained in the table below.

Table. 4.4 Quality measure ratings

Evaluation of quality measure	
Hospital quality and physician quality	Quality for other health professionals
Health plan quality	Patient experience

SOURCE: Author's construction

4.5 Chapter summary

The Chapter highlighted the trends in health care service concerning primary, secondary, tertiary and quaternary care, both nationally and internationally. In addition, it focuses on the impact of Health Care on service delivery and the models adopted to address Primary Health Care delivery as well as the importance of Continuing Professional Development. In addition, Primary Health Care services encompassing preventative measures and the promotion of rehabilitative and curative services were highlighted in detail. Furthermore, potential barriers to an increased role of physiotherapy in a Primary Health Care setting and interdisciplinary collaboration were discussed by comparing the researcher's findings in the study with the literature.

CHAPTER 5 SERVICE DELIVERY IN PRIMARY HEALTH CARE

5.1 Introduction

In the United States health care, service excellence is the ability of the provider to consistently meet and manage patient expectations. Clinical excellence must be a priority for any health care system (Robert, 2004:129-133). However, the best health care systems combine professional (clinical) service excellence with outstanding personal service. Although health care in the United States is touted as the world's largest service industry, the quality of the service is infrequently discussed in the medical literature (Frotter, 2009:359-382). Thus, many questions regarding service excellence in health care largely remain unanswered. Service excellence has four elements as discussed in Table 5.1 below.

Table 5.1 Key elements of Service excellence

Service excellence key elements	
Delivering the promise of quality health care	Doing a more than adequate job
Providing a personal touch	Resolving problems well

SOURCE: Robert Johnson

To achieve these elements, health care institutions, in particular, must be concerned with reducing the drivers of dissatisfaction and providing exceptional health care (Moeller & Johannes, 2001: 45–49). According to the federal Agency for Health care Research and Quality, exceptional health care is defined as doing the right thing, at the right time, for the right person, and having the best quality result.

5.2 Methods to evaluate the quality of care

During the past decade, health care has been receiving increased attention not only because of unsustainable costs but also because of an emphasis on the improvement of the quality of care. Institutions are now attempting to measure and compare quality outcomes, as well as report them in both the consumer press and peer review literature to the delight of some and the consternation of others. Managers of health care delivery systems endeavour to provide the best possible care achievable. Inherent to this goal is the need for evaluation of the quality of the health services provided (Michelli, 2011:45-75). Measuring patient satisfaction is an indirect measure of quality, and can pose some difficult challenges to individuals attempting to assess quality.

One difficulty is that in health care it is difficult to assess a patient's outcome after receiving care compared to the outcome they would have had with a different provider. The most important problem is establishing a definition of satisfaction (Fenton, 2012: 405–411). Because the definition of satisfaction can vary from patient to patient, many institutions have created surveys asking patients to rate the quality of the services they have received. This method of evaluation is extremely subjective, and many factors unrelated to the quality of care (the topic of interest) can affect the results. For example, a review of 37 studies addressing different methods of satisfaction evaluation found that phone interviews increased the response rate by 30%.

Additionally, mailing surveys resulted in more criticism and less satisfaction. Some speculate that this is due to the anonymity and a lack of pressure for socially acceptable responses (Kimber, 2002:1-6). Mailing surveys also resulted in more variability in response than a phone survey with patients either feeling very satisfied or dissatisfied. Even the timing of the administration of the survey can have a major effect on the results. The literature on the studies in this area suggests that further research needs to be conducted on this topic (Crotts, 2005:54-68) also point out that if patients are not constrained by outside factors, the selection of health care facility is an objective measurement of satisfaction. When satisfaction is low, a service failure has occurred.

5.2.1 Service Failure

Every patient has a basic assumption that the health care services they seek and pay for, will meet their expectations. If these expectations are met, they are satisfied. Moreover, if these expectations are exceeded the patient is delighted, and much more likely to recommend the health care institution to friends and family members. However, when these expectations are not met the patient is much more likely to share this disappointment with more than just their immediate circle (Moeller , 2001: 45–49). Service failures are inevitable, but anticipating service failures can significantly affect patient satisfaction. A measure of a well-managed organization is whether they work hard to plan for, prevent, identify, and correct all service failures.

These steps are key because if patients experience a service failure early in their encounters with certain health care institutions, it is likely to weigh more heavily on their decisions to return to the health care institution (Warner, 2013:56-67).

More important, however, is whether the service failure is corrected because patients are not very tolerant of poor service recovery. According to Bowen (2005:203-211), this is true because patients are more angered by the belief that the system in which the service failure occurred remains unchanged than their dissatisfaction with the service itself. In other words, patients are put off by a health care organization that makes no efforts to correct its mistakes. Learning about the sources of service failures is not only important to the customer.

5.2.2 Patient Defection

Decreasing service failures and focusing on service excellence can decrease patient defection (leaving one health care institution for another). Having a solid service recovery plan when service failures do occur is key to ensuring an excellent health care experience for every patient (Michelli, 2011:45-75). Service failures resulting in patient defection do not only derail the goal of service excellence.

5.3 Programs focusing on service excellence in health care

Often there is a gap between what an organization wants to do and what the employees do, even though many institutions set up infrastructure to focus on service excellence (Kimber, 2002:1-6). To provide patients with the highest possible quality of clinical care, the National Institute of clinical excellence (NICE) was created. This program attempts to provide health professionals in the United Kingdom National Health Service (NHS) with the skills they need to provide high-quality cost-effective clinical care by focusing on Service Excellence. These efforts are not unique to the United Kingdom. In *Prescription for Excellence*, a detailed review of the steps the Ronald Reagan UCLA Medical Center has taken to provide service excellence in health care. Service excellence in health care has been found to have unintended adverse consequences.

Although higher patient satisfaction is associated with higher overall health care, prescription drug expenditures and mortality are increased (Kimber, 2002:1-6). Focus on patient satisfaction metrics has redistributed resources from medical care to patient amenities, such as valet parking, live music, custom-order room-service meals, and flat-screen televisions. Scripted interactions, designed to summarize key points in satisfaction questionnaires, make professionals feel robbed of their autonomy. (Fenton, 2012: 405–411). Treating patients as customers can lead to focusing on patients being happy, instead of being well. Service to the customer may take the provider from the typical customer service approach to striving to provide immediate customer gratification.

5.4 Chapter summary

South Africa's health care system is still facing numerous threats despite advances made in the post-apartheid era with the implementation of a National Health Plan in 1994. The adoption of the elements of the Alma-Ata conference in 1978 and the Batho Pele principles has not adequately served to improve the quality of primary health care services offered in South Africa.

This study emphasizes that the quality of Primary Health Care Service delivery services offered at Provincial and Local Government in the Metro district of the Western Cape needs revising and the standard of care offered needs improvement, with more focus on issues relating to process rather than structure. The tool or questionnaire (structured by the researcher) utilized in this study can be reconstructed and implemented into a scoring system for systematic monitoring and evaluation of Primary Health Care Service delivery offered at the Health Facilities. The chapter dealt with the literature review which defines primary health care as an essential form of health care made universally accessible to individuals and families in communities by means accessible to them, with their full participation at the cost that the community and the country can afford to maintain at every stage of development, in the spirit of self-reliance and self-determination.

Primary health care will form an integral part of the country's National health system, of which it will be the central focus, while the PHC approach will guide the overall social and economic development of the community. The literature review provides evidence that commitment to the goal of the HFA, and the PHC as the vehicle for achieving and improving health services is of primary concern to the clinician. Despite the realization that there were barriers to the clinicians assuming and maintaining key roles in the PHC, this was occurring in some countries.

CHAPTER 6
QUALITY HEALTH CARE SERVICES
AND SERVICE TO OTHER COUNTRIES

6.1 Introduction

Health care quality is the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes. Quality of care plays an important role in describing the iron triangle of health care relationships between quality, cost, and accessibility of health care within a community (Pope, 2000:50– 52). Researchers measure health care quality to identify problems caused by overuse, underuse, or misuse of health resources. Table 6.1 below shows the Institute of Medicine’s six domains.

Table 6.1 The six domains to measure quality in health care

Measures	quality of care in health
Safe	avoiding injuries to patients from care that is intended to help them
Effective	avoiding overuse and misuse of care
Patient -Centred	reducing waiting times and harmful delays for patients and providers
Timely	avoiding waste of equipment, supplies, ideas and energy
Efficient	avoiding waste of equipment, supplies, ideas and energy
Equitable	providing care that does not vary across intrinsic personal characteristics

SOURCE: Author’s Construction

While essential for determining the effectiveness of health services research interventions, measuring the quality of care poses some challenges due to the limited number of measurable outcomes. Structural measures describe the provider’s ability to provide high-quality care, process measures describe the actions taken to maintain or improve community health, and outcome measures describe the impact of a health care intervention (Jerod, 2011:559–568). Furthermore, due to strict regulations placed on health services research, data sources are not always complete.

Assessment of health care quality may occur on two different levels: that of the individual patient and that of populations. At the level of the individual patient, or micro-level, the assessment focuses on services at the point of delivery and the subsequent effects. At the population level or macro-level, assessments of health care quality include indicators such as life expectancy, infant mortality rates, incidence, and prevalence of certain health conditions. (Every, 2000: 461– 465). Quality assessments measure these indicators against an established standard. The measures can be difficult to define in health care.

6.2. Methods to assess and improve

The Donabedian model is a common framework for assessing health care quality and identifies three domains in which health care quality can be assessed: structure, process, and outcomes. All three domains are tightly linked and build on each other. Improvements in structure and process are often observed in outcomes (Chasin, 2011: 559–568). Some examples of process improvements are clinical practice guidelines, analysis of cost efficiency, and risk management, which consists of proactive steps to prevent medical errors.

Cost Efficiency or cost-effectiveness determines whether the benefits of service exceed the cost incurred to provide the service. A health care service is sometimes not cost-efficient due to either overutilization or underutilization. Overutilization, or overuse, occurs when the value of health care is diluted with wasted resources. Consequently, depriving someone else of the potential benefits from obtaining the service (Nordhaus, 2002:51-85). The costs or risks of treatment outweigh the benefits in overused health care. In contrast, underutilization, or underuse, occurs when the benefits of treatment outweigh the risks or costs, but it is not used. Critical Pathways are outcome-based and patient-centred case management tools that take on an interdisciplinary approach by facilitating coordination of care among multiple clinical departments and caregivers (Kunst, 2011: 412–9). Health care managers utilize critical pathways as a method to reduce variation in care, decrease resource utilization, and improve quality of care. Using critical pathways to reduce costs and errors improves quality by providing a systematic approach to assessing health care outcomes.

Reducing variations in practice patterns promotes improved collaboration among interdisciplinary players in the health care system.

6.2.1 Health professional perspective

The quality of the health care given by a health professional can be judged by its outcome, the technical performance of the care and by interpersonal relationships. The outcome is a change in patients’ health, such as a reduction in pain, relapses, or death rates (Chasin, 2011: 559–568). Large differences in outcomes can be measured for individual medical providers, and smaller differences can be measured by studying large groups, such as low- and high-volume doctors. Significant initiatives to improve health care quality outcomes have been undertaken that include clinical practice guidelines, cost efficiency, critical pathways, and risk management.

Table 6.2 below shows the outcomes of health quality.

Table 6.2 Health quality outcomes

Healthcare professional perspective quality outcomes	
clinical practice guidelines	risk management
cost-efficiency	critical pathways

Source Author construction

6.2.2. Patient perspective

Patient satisfaction surveys are the main qualitative measure of the patient’s perspective. Patients may not have the clinical judgement of physicians and often judge quality based on the practitioner's concern and demeanour, among other things. As a result, patient satisfaction surveys have become a somewhat controversial measure of quality care (Kunst, 2011: 412–9). Proponents argue that patient surveys can provide needed feedback to physicians to assist in improving their practice. In addition, patient satisfaction often correlates with patient involvement in decision-making and can improve patient-centred care. Patients' evaluation of care can identify opportunities for improvement in care, reducing costs, monitoring the performance of health plans, and provide a comparison across health care institutions (Lindsay, 2005:6-14). Opponents of patient satisfaction surveys are often unconvinced that the data is reliable, that the expense does not justify the costs, and that what is measured is not a good indicator of quality.

6.2.3. Technology and security perspective

Technology may also affect patients' perception of health care quality in a service points facilities both public and private use. A 2015 survey of cancer patients showed that those who had a more positive attitude towards the health information tools from their providers used the tools more and subsequently had a higher perceived care quality from their provider (Boerma, 201:67–79). The same survey also showed that those who believed that their provider acted more securely and had a lower level of privacy concern were more likely to have a positive attitude towards the health information tools from their providers and thus a higher perception of the care they received.

6.3. History in the United States

As early as the 19th century, health care quality improvement interventions were implemented to improve health care outcomes (Marjoua, 2012: 265–273). Health care quality improvement further developed in the 1900s, with notable improvements for the modern field of quality improvement taking place in the late 1960s. The Joint Commission on Accreditation of Hospitals was established in 1951 as an independent and non-profit organization that provided voluntary accreditation to hospitals that met minimum quality standards. The Joint Commission on Accreditation of Hospitals was formed by the combined forces of the American College of Physicians, the American College of Surgeons, the American Hospital Association, the American Medical Association, and the Canadian Medical Association.

In 1952, the ACS formally transferred its Hospital Standardization Program to the Joint Commission on Accreditation of Hospitals. The Joint Commission on Accreditation of Hospitals started charging a fee for surveys in 1964 (Birkmeyer, 2003: 2117–27). The National Academy of Sciences established the Institute of Medicine in 1970. The IOM, a non-profit and independent scientific advisor, was created to improve health on a national scale.

In 1990, the National Committee for Quality Assurance was entrusted to offer accreditation programs for managed care organizations. The National Committee for Quality Assurance was established as an independent non-profit organisation dedicated to improving health care quality through accreditation and performance measurement (Pope, 2000: 50–52). In 1991, Dr Don Berwick's non-profit Institute for Healthcare Improvement was founded.

Rather than only focusing on national health care quality improvement, Healthcare Improvement campaigned both nationally and worldwide. Directing the focus onto the patient as a consumer, the National Patient Safety Foundation was established in 1996. More recently, the focus of quality improvement has been on emerging health information technology. As a result, the formation of Patient-Centered Medical Homes started gaining popularity in 2007 (Marjoua, 2012: 265–273). Under Patient Centered Medical Homes, care among personal primary care physicians and specialists increases coordination and integration of care for the patient. Furthermore, technology was used to maintain personal health information and enhance quality and safety. Since 2007, various studies have demonstrated the wide array of benefits of Patient-Centered Medical Homes in health care quality improvement.

6.4. Organizations that determine quality in other countries

Organizations that work to set standards and measures for health care quality include Government health systems, private health systems, accreditation programs such as those for hospital accreditation, health associations, or those who wish to establish international health care accreditation, philanthropic foundations, and health research institutions (Mark, 2011: 559–568). These organizations seek to define the concept of quality in health care, measure that quality, and then encourage the regular measurement of quality to provide evidence that health interventions are effective.

6.4.1 In the United States

Multiple organizations have established measures to define quality since providers, patients and payers have different views and expectations of quality. This complex situation creates a challenge because most often the measures of quality are not comparable across organizations and there are issues of transferability and merging across systems. Consequently, while measuring healthcare quality, high-quality longitudinal studies provide a substantive framework from which health services researchers can work (Marjoua, 2012: 265–273). The Centers for Medicare and Medicaid Services design and collect quality evaluations, and manage the funding for the central government Medicare and Medicaid programs.

For broader quality control, the Centers for Medicare and Medicaid Services also created Hospital Compare, which is a large public reporting program that measures and also reports processes of care and outcomes for various health care interventions including heart failure, pneumonia, and acute myocardial infarction. The Agency for Health Care Research and Quality is a central government organization that collects public reports of health quality evaluation to increase the safety and quality of health care (Birkmeyer, 2003: 2117–27). The Agency for Health Care Research and Quality works together with the United States Department of Health and Human Services to ensure that evidence is understood and used by the medical communities to elevate the quality of care (Birkmeyer, 2003: 2117–27).

The Agency for Health Care Research and Quality works together with the United States Department of Health and Human Services to ensure that evidence is understood and used by the medical communities to elevate the quality of care. To fulfil its mission, the Agency for Health Care Research and Quality contracts with several sub-sites (Warner, 2013:56-67). The Centres for Medicare and Medicaid Services and the Agency for Health Care Research and Quality have collectively established the Hospital Consumer Assessment of Health Care Providers and Systems survey.

The Hospital Consumer Assessment of Health Care Providers and Systems survey collects uniform measures of patients' perspectives on various aspects of the care they receive in inpatient settings. The results are published on the Hospital Compare website, which may be used by health care organizations and researchers to improve the quality of their services. Purchasers, consumers, and researchers may also use the data to make informed business choices (Every, 2000: 461–465). The Joint Commission Accreditation for Health Care Organization is defined as a nonprofit organization that assesses quality at multiple levels by inspecting health care facilities for adherence to clinical guidelines, ensures compliance with rules and regulations for medical staff skills and qualifications, reviews medical records to evaluate care processes and search for medical errors, and inspects buildings for safety code violations (Warner, 2013:56-67). The Joint Commission Accreditation for Health Care Organization also provides feedback and opportunities for improvement, while simultaneously issuing citations for closures of facilities deemed non-compliant with set measures of quality standards.

6.4.2 In the United Kingdom

In the UK, health care is publicly funded and delivered through the National Health Service and quality is overseen by several different bodies. Monitor, a non-departmental public body sponsored by the Department of Health, is the sector regulator for health services in England. It works closely with the Care Quality Commission, a government-funded independent body responsible for overseeing the quality and safety of health and social care services in England, including hospitals, care homes, dental and GPs and other care services. The National Institute for Health Research has several infrastructure programmes supporting quality in health care, including the Collaborations for Leadership in Applied Health Research and Care (Chassin, 2011: 559–568). Medical professions in the UK have their own membership and regulatory associations.

These include the General Medical Council, the Nursing and Midwifery Council, the General Dental Council, and the Health and Care Professions Council. Other health care quality organizations include the Health Care Quality Improvement (Mays, 2000: 50–52). Several health think tanks, including the King's Fund, the Nuffield Trust and the Health Foundation offer analysis, resources and commentary around health care quality. In 2013, the Nuffield Trust and the Health Foundation launched Quality Watch, an independent research programme tracking how health care quality in England is changing in response to rising demand and limited funding.

6.4.3 In India

Health care quality efforts in India are beginning to gain strength. Some organizations involved in this work include the National Accreditation Board for Hospital and Health care providers, Patient Safety Alliance, ICHA and the National Health Systems Resource Center (Chassin, 2011: 559–568). The All India Institute of Medical Sciences also leads some of the health care quality work in India and the SEARO region.

6.5 Chapter summary

The literature review explored the theoretical perspectives on which the study is grounded. Primary Health Care was explained as derived from the Alma-Ata Declaration. The chapter has reviewed Primary Health Care in a general global context and in relation to the African Continent as well as focusing on South Africa. Information on the United Nations Millennium Development Goals, strategies for the implementation of Primary Health Care in public and private partnerships, and service delivery in Primary Health Care were also discussed. The next chapter discusses Primary Health Care and its relation to the service delivery profession from developing to developed countries.

CHAPTER 7 STRUCTURAL AND ECONOMIC PROBLEMS AND POLICIES IN PRIMARY HEALTH CARE SYSTEMS

7.1 Introduction

The WHO(2008), Primary healthcare (PHC) has been discussed as the fundamental health care based on practical, scientifically sound and universally acceptable methods and technology, which are available and accessible to all individuals and families in a community as the first level of care. Primary health care (PHC) services aim to decrease delays and increase access to the health care system, offering better health outcomes (Starfield, 2011:653-655) at a cost, through the full participation of the community and the country in the spirit of self-reliance and self-determination. In other words, PHC is an approach to health beyond the traditional health care system that focuses on health equity-producing social policy. PHC includes all areas that play a role in health, such as access to health services, environment and lifestyle, Thus, primary health care and public health measures, taken together, may be considered as the cornerstones of universal health systems (Pfeiffer, 2003:725-738). The World Health Organization elaborates on the goals of PHC as defined by three major categories, empowering people and communities, multi-sectoral policy and action and primary care and essential public health functions as the core of integrated health services.

Based on these definitions, PHC can not only help an individual after being diagnosed with a disease or disorder but actively prevent such issues by understanding the individual as a whole, (Bravemane, 2004:14). This ideal model of health care was adopted in the declaration of the International Conference on Primary Health Care held in Alma-Ata, Kazakhstan in 1978 (known as the "Alma-Ata Declaration"), and became a core concept of the World Health Organization's goal of Health for all (Socrates, 2002:709-732).

The Alma-Ata Conference mobilized a "Primary Health Care movement" of professionals and institutions, governments and civil society organizations, researchers and grassroots organizations that undertook to tackle the "politically, socially and economically unacceptable" health inequalities in all countries. Barefoot Doctors of China is one of the examples that inspire many factors in PHC.

7.2 Stages of PHC – generic Primary Health Care

According to (Starfield, 2011:653-655) Within the broader health system, there are various levels or domains of health care practice. They are often described as a pyramidal structure, with three or sometimes four tiers of health care representing increasing degrees of specialisation and technical sophistication, generally with increasing costs of care. The greatest number of patients are seen at the first level of primary care that is typically their first contact with the healthcare system, with diminishing numbers of patients seen as they are filtered out of this first level into higher levels of specialised care at secondary, tertiary and now even quaternary care. Health is a state of complete physical, mental and social well-being and not merely absence of disease or infirmity (WHO Definition of Health 1948). The state holds the responsibility for the health of its people. National Governments all over the world are striving to expand and improve their health care services. The current situation is urban-oriented, mostly curative in nature and accessible to a small part of population. The services should be acceptable to the community and there must be active involvement of the community. The health services must be effective, preventive, promotive and curative. The services should form an integral part of the country's health system.

7.2.1 Goal and Principles in Primary Health Care

According to Pfeiffer (2003:725 -738) asserts that the ultimate goal of primary health care is the attainment of better health services for all. It is for this reason that the World Health Organisation (WHO) has identified five key elements to achieving this goal.

- i. Reducing exclusion and social disparities in health (universal coverage reforms);
- ii. Organizing health services around people's needs and expectations (service delivery reforms);
- iii. Integrating health into all sectors (public policy reforms);
- iv. Pursuing collaborative models of policy dialogue (leadership reforms); and
- v. Increasing stakeholder participation.

Behind these elements lies a series of basic principles identified in the Alma-Ata Declaration that should be formulated in national policies to launch and sustain PHC as part of a comprehensive health system and in coordination with other sectors:

- i. Equitable distribution of health care – according to this principle, primary care and other services to meet the main health problems in a community must be provided equally to all individuals irrespective of their gender, age, caste, colour, urban/rural location, and social class.
- ii. Community participation –to make the fullest use of local, national and other available resources. Community participation was considered sustainable due to its grassroots nature and emphasis on self-sufficiency, as opposed to targeted (or vertical) approaches dependent on international development assistance.
- iii. Health resources development – comprehensive health care relies on an adequate number and distribution of trained physicians, nurses, allied health professions, community health workers and others working as a health team and supported at the local and referral levels.
- iv. Use of appropriate technology – medical technology should be provided that is accessible, affordable, feasible, and culturally acceptable to the community. Less appropriate examples of medical technology could include, in many settings, body scanners or heart-lung machines, which benefit only a small minority concentrated in urban areas.
- v. Multi-sectional approach – recognition that health cannot be improved by intervention within just the formal health sector; other sectors are equally important in promoting the health and self-reliance of communities.

7.2.2 Approaches in Primary Health Care

The primary health care approach has seen significant gains in health where applied even when adverse economic and political conditions prevail. Although the declaration made at the Alma-Ata conference was deemed to be convincing and plausible in specifying goals to PHC and achieving more effective strategies, it generated numerous criticisms and reactions worldwide. Many argued that the declaration did not have clear targets, was too broad, and was not attainable because of the costs and aid needed (Starfield, 2011:653-655). As a result, PHC approaches have evolved in different contexts to account for disparities in resources and local priority health problems; this is alternatively called the Selective Primary Health Care (SPHC) approach. It was based on a paper that was written by Julia Walsh and Kenneth S. Warren entitled Selective Primary Health Care, an Interim Strategy for Disease Control in Developing Countries (Bravemane, 2004:14).. This new framework advocated a more economically feasible approach to PHC by only targeting specific areas of health, and choosing the most effective treatment plan in terms of cost and effectiveness. One of the foremost examples of SPHC is "GOBI" (growth monitoring, oral rehydration, breastfeeding, and immunization), focusing on combating the main diseases in developing nations.

7.2.3 GOBI and GOBI-FFF

GOBI is a strategy consisting of (and an acronym for) four low-cost, high impact, knowledge mediated measures introduced as key to halving child mortality by James P. Grant at UNICEF in 1983. The measure is:

- i. Growth monitoring: the monitoring of how much infants grow within a period, to understand needs for better early nutrition.
- ii. Oral rehydration therapy: to combat dehydration associated with diarrhoea.
- iii. Breastfeeding
- iv. Immunization

Some additional measures were later introduced to the strategy (though food supplementation had been used by UNICEF since inception in 1946), leading to the acronym GOBI-FFF.

- i. Family planning (birth spacing)
- ii. Female education
- iii. Food supplementation: for example, iron and folic acid fortification/supplementation to prevent deficiencies in pregnant women. These strategies focus on severe population health problems in certain developing countries, where a few diseases are responsible for high rates of infant and child mortality (Starfield, 2011:653-655). Health care planning is used to see which diseases require the most attention and, subsequently, which intervention can be most effectively applied as part of primary care using a least-cost method. The targets and effects of selective PHC are specific and measurable. The approach aims to prevent most health and nutrition problems before they begin.

7.2.4 Primary Health Care and population ageing

Given global demographic trends, with the number of people aged 60 and over expected to double by 2025, PHC approaches have taken into account the need for countries to address the consequences of population ageing. In particular, in the future, the majority of older people will be living in developing countries that are often the least prepared to confront the challenges of rapidly ageing societies, including the high risk of having at least one chronic non –communicable disease, such as diabetes and osteoporosis (Starfield, 2011:653-655).

According to the WHO, dealing with this increasing burden requires health promotion and disease prevention intervention at the community level as well as disease management strategies within health care systems.

7.2.5 PHC and mental health

According to Bravemane (2004:14), some jurisdictions apply PHC principles in planning and managing their health care services for the detection, diagnosis and treatment of common mental health conditions at local clinics, and organizing the referral of more complicated mental health problems to more appropriate levels of mental health care. The Ministerial Conference, which took place in Alma-Ata, made the decision that measures should be taken to support mental health concerning primary health care. However, there was no such documentation of this event in the Alma-Ata Declaration.

These discrepancies caused an inability for proper funding and although worthy of being a part of the declaration, changing it would call for another conference (Starfield, 2011:653-655). Individuals with severe mental health disorders are found to live much shorter lives than those without, anywhere from ten to twenty-five-year reduction in life expectancy when compared to those without. Cardiovascular diseases in particular are one of the leading causes of death with individuals already suffering from severe mental health disorders (Pfeiffer, 2003:725-738). General health services such as PHC is one approach to integrating improved access to such health services that could help treat already existing mental health disorders as well as prevent other disorders that could arise simultaneously with the pre-existing condition.

7.3. Background and controversies

Primary health care in the context of global health, and from the standpoint of the most disadvantaged populations in low-income populations around the world, represents the undisputed long-term means to improve population health, yet it has been on the most neglected topic on the global health agenda. There are many reasons for this, which are explored in this paper, but the current renewed interest in primary health can be attributed to several converging trends noted in this paper. Some of the challenges are discussed below.

7.3.1 Barefoot Doctors

The "Barefoot Doctors" of China were an important inspiration for PHC because they illustrated the effectiveness of having a health care professional at the community level with community ties. Barefoot Doctors were a diverse array of village health workers who lived in rural areas and received basic health care training. They stressed rural rather than urban health care, and preventive rather than curative services (Marcos, 2004: 1864-1874). They also provided a combination of western and traditional medicines. The Barefoot Doctors had close community ties, were relatively low-cost, and perhaps most importantly they encouraged self-reliance through advocating prevention and hygiene practices. The program experienced a massive expansion of rural medical services in China, with the number of Barefoot Doctors increasing dramatically between the early 1960s and the Cultural Revolution (1964-1976).

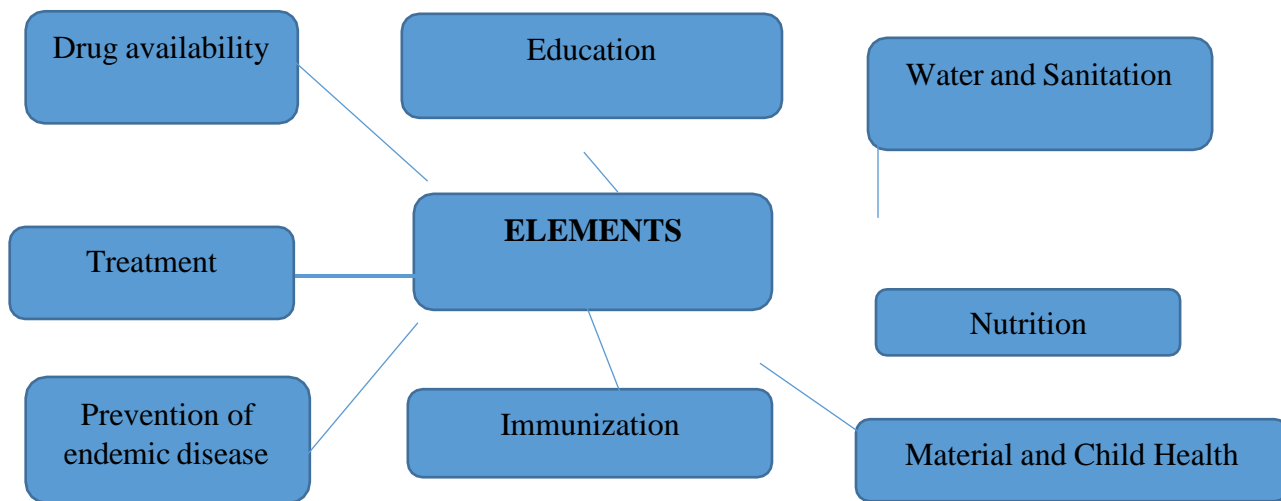
7.3.2 Criticisms

According to Pfeiffer (2003:725-738), although many countries were keen on the idea of primary health care after the Alma-Ata conference, the Declaration itself was criticized for being too “idealistic” and “having an unrealistic timetable”. More specific approaches to prevent and control diseases - based on evidence of prevalence, morbidity, mortality and feasibility of control (cost-effectiveness) – were subsequently proposed. The best-known model was the Selective PHC approach (described above). Selective PHC favoured short-term goals and targeted health investment, but it did not address the social causes of disease. As such, the SPHC approach has been criticized for not following Alma-Ata's core principle of everyone's entitlement to health care and health system development (Starfield, 2011:653-655). In Africa, the PHC system has been extended into isolated rural areas through the construction of health posts and centres that offer basic maternal-child health, immunization, nutrition, first aid, and referral services. Implementation of PHC is said to be affected after the introduction of structural adjustment programs by the World Bank.

7.4. Elements of PHC – universal / generic

Primary health care (PHC) is essential health care made universally accessible to individuals and acceptable to them, through full participation and at a cost the community and country can afford. It is an approach to health beyond the traditional health care system that focuses on health equity-producing social policy (Pfeiffer, 2003:725-738). Primary Health Care (PHC) has basic essential elements and objectives that help to attain better health services for all. Figure 7.1 below shows the elements of Primary Health Care.

Figure 7.1 The elements of Primary Health Care



Source: Author's construction

Figure 7.1 above shows the elements of Primary Health Care in universal Countries and howthey link their services.

7.5 Essential Elements of Primary Health Care (PHC):

- E-Education concerning prevailing health problems and the methods of preventing and controlling them
- L- Prevention and control of locally endemic diseases
- E- Immunization against major infectious diseases
- M- Maternal and child health care including FP
- E- Provision of essential drugs
- N- Promotion of food supply and proper nutrition
- T- Appropriate treatment of common diseases
- S -An adequate supply of safe water and basic sanitation

According to (Starfield, 2011:653-655), behind these elements lies a series of basic objectives that should be formulated in national policies to launch and sustain primary health care (PHC) as part of a comprehensive health system in coordination with other sectors:

- i. Improvement in the level of health care of the community.
- ii. Favourable population growth structure.
- iii.Reduction in the prevalence of preventable, communicable and other diseases.
- iv. Reduction in morbidity and mortality rates especially among infants and children.

- v. Extension of essential health services with priority given to the underserved sectors.
- vi. Improvement in basic sanitation.
- vii. Development of the capability of the community aimed at self-reliance.
- viii. Maximizing the contribution of the other sectors for the social and economic development of the community.
- ix. Equitable distribution of health care– according to this principle, primary care and other services to meet the main health problems in a community must be provided equally to all individuals irrespective of their gender, age, and caste, urban/rural and social class.
- x. Community participation-comprehensive health care relies on an adequate number and distribution of trained physicians, nurses, allied health professions, community health workers and others working as a health team and supported at the local and referral levels.
- xi. Multi-sectional approach-recognition that health cannot be improved by intervention within just the formal health sector; other sectors are equally important in promoting the health and self-reliance of communities.
- xii. Use of appropriate technology- medical technology should be provided that is accessible, affordable, feasible and culturally acceptable to the community.
- xiii. Maximizing the contribution of the other sectors for the social and economic development of the community.
- xiv. Equitable distribution of health care– according to this principle, primary care and other services to meet the main health problems in a community must be provided equally to all individuals irrespective of their gender, age, and caste, urban/rural and social class.
- xv. Community participation-comprehensive health care relies on an adequate number and distribution of trained physicians, nurses, allied health professions, community health workers and others working as a health team and supported at the local and referral levels.
- xvi. Multi-sectional approach-recognition that health cannot be improved by

intervention within just the formal health sector; other sectors are equally important in promoting the health and self-reliance of communities.

xvi. Use of appropriate technology- medical technology should be provided that is accessible, affordable, feasible and culturally acceptable.

7.6. Principles of Primary Health Care

Primary health care promotes health and wellness and seeks to prevent injuries and illness more than delivering health care services. This is about creating the conditions that help people to become and stay healthy and well. It outlined an action plan to “achieve health for all by the year 2000 and beyond (White, 2008:358-363). The following are guiding principles for primary health care:

- i. Accessibility -Making sure that primary care services are available, affordable and provided equally to all individuals irrespective of their gender, age, ethnicity or location. Clinicians and Patients believe that access to comprehensive, compassionate, family and community-centred health care is the right of all individuals regardless of their ability to pay.
- ii. Public or community participation - or involving all of the community’s resources in promoting health and addressing health problems at the grassroots level. We embrace this approach globally, knowing that it helps a community to take ownership of the health and wellness of its people.
- iii. Health promotion or helping a community to strengthen the socioeconomic conditions that contribute to good health. The Ottawa Charter defines the prerequisites for health as peace, shelter, education, food, income, sustainable resources, social justice and equity, the belief in treating the whole person and that means taking into consideration how and where they live and the everyday struggles they face.
- iv. Appropriate use of technology or using medical technologies that are affordable, feasible and culturally acceptable to individuals and the community. Integration of the most recent technology into our daily work to ensure the effective and efficient delivery of our services.
- v. Inter-sectoral collaboration or recognizing that any community’s health and

well-being do not depend solely on effective health care services. Governments, businesses and organizations in other sectors are equally important in promoting the health and self-reliance of communities. That is why the Metro district works in partnership with a diversity of community stakeholders to develop services that meet the unique needs of individual communities.

7.7 Identify pre-emptive stages in PHC

Non-communicable diseases (NCDs) are medical conditions or diseases which are non-infectious. NCDs are also known as chronic diseases and include cardiovascular diseases, diabetes mellitus, chronic respiratory diseases, cancers, and autoimmune diseases. The United Nations and the World Health Organization (WHO) have started initiatives to combat NCDs, which are becoming important health and economic burdens worldwide, including developing countries (White, 2013:215-529). The WHO reported that NCDs kill more than 36 million people each year, and nearly 80% of these deaths occur in low- and middle-income countries. For example, type 2 diabetes, once thought of as a disease of developed countries, is increasing at an alarming rate in many countries, especially in Asia. Type 2 diabetes currently affects more than 300 million globally. The term “diabetes tsunami” has been used, even in medical literature, because the rapid increase in the prevalence of the disease is like the force of an approaching tsunami (Pfeiffer, 2003:725-738). The reasons behind the diabetes tsunami in developing countries are not completely understood, but lifestyle changes are important contributing factors. The term “lifestyle diseases” has been used extensively in Japan and is included in the broader category of NCDs.

7.7.1 Importance of prenatal

During the winter of 1944–1945, near the end of World War II, the Allies were able to liberate the southern part of the Netherlands, but their efforts were suddenly halted because of operational failures.

The exiled Dutch government appealed to Dutch labourers to strike and the German administration retaliated by stopping food transport to the western

Netherlands. Some 4.5 million people were affected by the resulting famine and about 20,000 died during that time. Dutch medical scientists followed up on people born right before, during and after the famine (1944–1946), comparing their health with those not exposed to the famine (Forsen, 2000:176182).

7.8 Primary Health Care economic factors – preventative costs

South Africa has a lot of improvements to make in terms of the population's physical accessibility, financial protection and the acceptability of the current public health care system. The National Health Insurance offers hope to the disadvantaged but it will not be ready anytime soon, leaving the current health care arrangements with their vulnerabilities needing continued revamping (Nettle, 2013:2013-1343). The government may need to stop being reactive but proactive in addressing the inequality that is fueling the lack of access for the majority of the population.

7.9 Factors influencing access to health care in SOUTH AFRICA

The World Health Organisation constitution articulates 'the highest standard of health attainable as a fundamental right of every human being', with the right to health including access to timely, acceptable, and affordable health care of appropriate quality (Srinivasan, 2003:1446-1450). The WHO further states that the right to health is a fundamental part of our human rights and our understanding of life and dignity. Three sections in the South African constitution provide for the right to health care services.

These provisions include reproductive health, emergency services, basic health care for children and medical services for detained individuals and prisoners (South African National Constitutional Assembly, 1996. The South African legislative framework supports the quest for universal health coverage, or to be less ambitious, that of purely quality health care for all citizens. .

Examples include demography, health-seeking behaviour of individuals, the burden of disease, geographical set-up of the towns and rural areas, income, education, infrastructure and economic shifts (Zwarentein, 2011:342-2022).

Inequality is a major aspect of access to care and is measured mostly using income as a proxy. Some of the factors were listed and discussed below;

7.9.1 Population

Statistics South Africa (2016) estimated the 2016 mid-year population to be about 55.9 million, an increase from about 50.6 million in 2011. The public health sector is currently drowning under the increased burden of disease and the government acknowledges the need to re-engineer primary health care (Nettle, 2013:2013-1343). The increased migration has also contributed to the overburdened health system. A dissection of the current situation already shows an adult population riddled with a high burden of diseases, namely HIV/AIDs, tuberculosis (TB), non-communicable diseases, and injuries (Statistics South Africa, 2016). The ageing of the population noted in some parts of the country also has an impact on the disease burden, especially the non-communicable diseases which affects the older population. The HIV/AIDS prevalence of the total population for 2016 was estimated to be 12,7% and 18,9% for those aged 15-49. The infant mortality rate for 2016 was projected to be 33,7 per 1 000 live births whilst life expectancy was 59.7 for males and 65.1 for females (Statistics South Africa, 2016).

7.9.2 Equity

If there is to be equitable quality health care in the country, efficient measures need to be put in place which includes further strengthening of health and wellness promotion programmes as preventative measures. The number of people on social grants increased from about 2.5 million to about 16.6 million between 1997 and 2015, an increase of 564%. The dependency level is becoming shockingly high and needs to be managed very carefully (Venables, 2001:7843-7848). The Gini coefficient, a measure of income inequality, has not changed that much, with a slight increase from 0.6 to 0.679 between 1995 and 2009, then slightly declined to 0.63 in 2010 (World Bank, Development Research Group, 2016).

This reflects high levels of inequality which have been attributed to the high unemployment rate i.e. 26.7% ending June 2016 (Statistics South Africa, 2016). Private medical aids cater for only 16% of the population and the rest are the responsibility of the government.

7.9.3 Financing and financial protection

South Africa has been experiencing a low growth in Gross Domestic Product (GDP) since 2015. The government has been forced to seriously consider cost-containment measures, asking all departments to cut expenditures for the Medium Term

Expenditure Framework (MTEF) period 2016/17 to 2018/19. South Africa's credit rating as of June 2016 was Baa2 with a negative outlook. This is one level above junk status and there is a possibility of a downgrade if the economic growth continues to be 0.1% in 2016 and 1.0% in 2017 as projected by the International Monetary Fund (Nettle, 2013:2013-1343). The government health expenditure/GDP is estimated to be 4.2% and 4.1% for the private/GDP, totalling 8.3% above the required WHO recommendation (South African Department of Health, 2015).

7.9.4 Health Seeking Behaviour

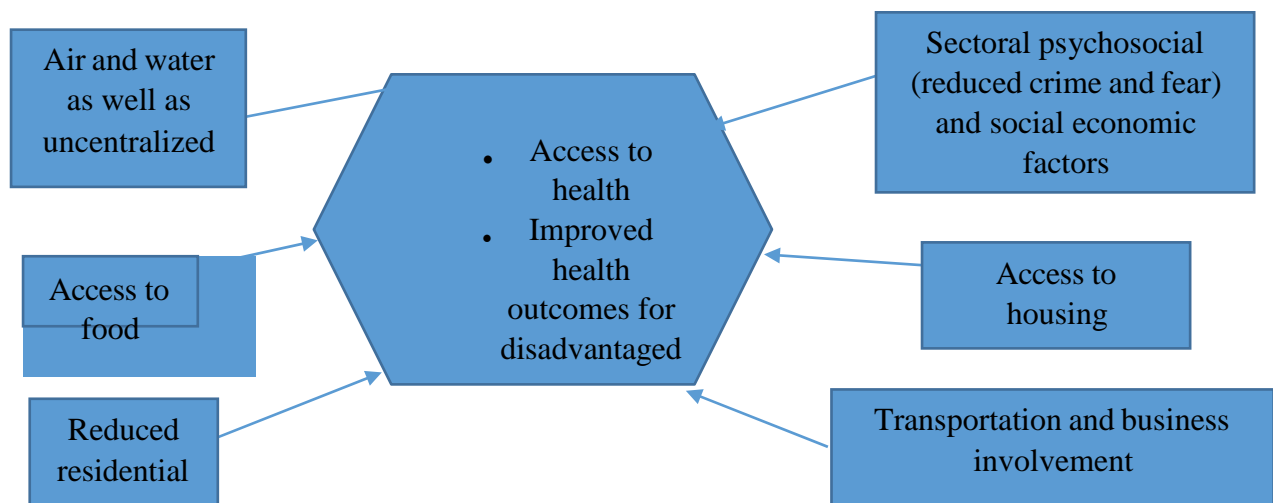
Despite the heavy efforts by the national and provincial departments of health to promote access to treatment, an individual's health-seeking behaviours is the major factor influencing access to health care (Venables, 2001:7843-7848). Health-seeking behaviours are influenced by education levels, cultural beliefs, gender, financial strain or personal perception of health centres. The health care environment has become more consumer-driven and several options of where to seek care are available, making it more important to have personal-centred services to attain increased patient satisfaction from the system and continued use of the facilities or services. The economic circumstances are poorer for rural community members in terms of not only the affordability of health care but also transportation money needed to seek treatment.

7.9.5 Infrastructure, Water and Sanitation

Housing and infrastructure have contributed immensely to the lack of access to health care. The link between poor housing infrastructure and poor health status is pronounced in the South African context (Zwarentein, 2011:342-2022).

Lack of access to proper housing has inevitably resulted in contributing to lack of access to health care. Such conditions widened the gap between the poor and the rich, leaving more indigent households dependent on the state for the provision of housing, water and sanitation. Figure 7.2 below shows the services they affect the public.

Figure 7.2. Built Environment Factors Affecting Public Health



Source: Adapted from Srinivasan, O’Fallon and Deary (2003)

Figure 7.2 above, adopted from the government’s continued efforts to bring water to the doorsteps of every household, is commendable as a way to circumvent water-related diseases such as diarrhoea which have found a place on the South African Health calendar i.e. from November to May (Western Cape Government, 2016). Diarrhoea is the second leading cause of death in children under 5, accounting for 14.9% in 2014. With all the efforts, climate change has had its unforeseen impact (Zwarentein, 2011:342-2022). In 2015, the Southern African region started experiencing a prolonged drought and water access was disrupted, even to those with household taps, thereby increasing the likelihood of diseases like diarrhoea. The public health sector needs to be ready at any point in time to focus on a particular season. Several studies allude to poor and inadequate housing leading to a multitude of health problems, namely asthma, depression, air pollution, obesity, substance abuse, and aggressive behaviour, an ingredient for non-accidental injuries. By extension, the access to health is diminished.

A major cause for concern is the increase in TB-related infections and deaths within South Africa.

7.9.6 Distance

Spatial planning in the urban and rural areas is far from similar. In areas like the Eastern Cape where the rural area is not well developed, health centres are very far apart, so are the referral centres. It is difficult to get an ambulance to a place on time due to the geographical terrain. The distance delay further complicates the issue of bringing health care to the rural population. A few seconds can determine life or death. Forty minutes is just too long. The same applies to other provinces' rural areas. Distances between clinics and hospitals leave much to be desired. While in the urban areas, the 2km rule between health centres has been well pronounced during urban planning, access to those centres is still poor and lack of finances, specifically transport costs, is mostly to blame (Forsen, 2000:176-182). Despite having social security in place, offered through the South Africa Social Security Agency grants and Unemployment Insurance Fund (UIF) for those unemployed, the amounts are meagre and cannot cover transport costs (Campbell, 2000:1611-2). In most cases resources are shifted from household use to transportation when a client is already in an emergency, affecting their health outcomes negatively.

7.10 Human life impact of PHC

Improving quality is at the heart of what they do (Campbell, 2000:1611-2). The approach is centred on improving the quality of care and services to our patients and aims to support transformational change through effective engagement, positive culture change and effective communication alongside a systematic understanding of services through data. The NHS Fife and Fife Council delegate a budget of approximately £470m to be managed by the Partnership. In addition, the Partnership will be responsible for the strategic planning of some acute hospital services which currently amount to a further £34m.

These services will continue to be managed by the Acute Services Division of the NHS Fife. Table 7.1 below indicates the FIFE social services.

Table 7.1 FIFE health and Social resources

Family Health Services/ Primary Care	General Practice, Prescribing, Pharmacy, Dental & Ophthalmic	34%
Care at Home	Local Authority Services provided by Fife Council and commissioned from other providers	19%
Community Services	Community Health Services, Local Authority Respite and Day Care	16%
Care Homes	Local Authority Services provide by Fife Council and commissioned from other providers	11%
Community Hospitals	Community Hospitals and associated services	10%
Prevention & Early Intervention	Public Health Nursing for Children and Adults	3%
Services Delegated but Not Managed (Operational Management and Budgetary Control Remain with NHS Fife)		
Acute Hospital Care	All acute services providing unplanned care e.g. medical wards and Accident and Emergency.	7%
Family Health Services/ Primary Care	General Practice, Prescribing, Pharmacy, Dental & Ophthalmic	34%
Care at Home	Local Authority Services provided by Fife Council and commissioned from other providers	19%
Community Services	Community Health Services, Local Authority Respite and Day Care	16%
Care Homes	Local Authority Services provide by Fife Council and commissioned from other providers	11%
Community Hospitals	Community Hospitals and associated services	10%
Prevention & Early Intervention	Public Health Nursing for Children and Adults	3%
Services Delegated but Not Managed (Operational Management and Budgetary Control Remain with NHS Fife)		
Acute Hospital Care	All acute services providing unplanned care e.g. medical wards and Accident and Emergency.	7%

Source :Adopted from NHS Fife, Health and Resources

Table 7.1 above shows the key areas of focus for the team for the delivery of the NHS Fife Clinical Strategy and the HSCP Strategic Plan alongside the financial efficiencies agreed within the Local Delivery Plan.

7.10.1 Quality Improvement

The Quality Improvement Team provides a formal approach to designing and redesigning service processes and systems that deliver health and care with better patient outcomes and lower cost, wherever this can be achieved, using a wide variety of QI tools and methods (Campbell, 2000:1611-2). The expertise of the team leading and managing change, project management, knowledge of quality improvement tools and techniques, developing organisational capability through training, coaching and mentoring data analysis, the measurement of improvement, and facilitation skills within the context of delivering patient-centred care are essential components of QI.

7.10.2 Strategic Planning and Performance

Strategic planning sets the longer-term direction of travel for the organisation, setting out what it is going to do to fulfil its purpose, achieve its vision and goals and abide by its values. This is essential to deliver quality, sustainable health care objectives over the coming years. Specific measurable milestones allow performance to be monitored against planning objectives (Bolsen, 2014:1-26). The Strategic Planning and Performance department can support you to develop your project plan in line with these key strategic documents, consider the impact of proposed changes and anticipated outcomes and translate your service objectives into actions. Data and information to underpin strategic decision making are key and measurable indicators of performance need to be identified at the outset and built into work plans.

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7.10.4 Clinical Governance

This team is here to support services with activities that promote good clinical decision-making, supported by establishing reporting processes and arrangements, and escalation processes, (Zhang, 2014:741-751).using a risk management approach and utilising continuous improvement methods to improve the quality and safety of care.

7.15.4. Economic cost of poor primary health care

The impact of cost-sharing on the quality and utilization of health services should be approached from both the provider and the community households. The combined analysis of the facilities and mortality data was matched with analysis of matching household data from the catchment communities. The results of the analyses indicated that the quality of primary health care had not improved. Attendance and hence utilization in health facilities has also decreased (Zhang, 2014:741-751). By implication, cost-sharing appears to have a negative impact on the provision of primary health care for many consultations fail because of poor management style. As long as quality primary health care is regularly available and accessible, economic activities at the household level will be smoothed.

Poor quality of primary health facilities will imply that sick people walk long distances in search of health care or wait long before attending care (Pavlic,2018:277-287). Counting the cost of health care in general, poverty increases people’s vulnerability to ill health. People from higher-income households were more likely to seek health care when ill than people from the poorest households. This suggests that people with the lowest household income prefer to wait as long as they can before incurring the costs associated with seeking health care. Such costs are considered in terms of time, money and dignity (Mackenbach, 2011: 412-419). The government is not yet able to fully finance all medical requirements at the primary level. At the moment, community contributions appear to be the only reliable and sustainable long-term financing option. Table 7.2 below represents the poor economic impact globally.

Table 7.2. Reasons for not seeking medical care

Stated reason	Percentage of non-poor stating (n = 248)	Percentage of poor stating (n = 80)	Percentage of all who didn't seek care (n = 60)
Minor illness	40.6	75	43.8
No one to accompany the sick	10.6		9.7
Could not afford to pay for medical services	3.8	12.5	4.5
Lack of money to pay for transport	24.4	6.3	22.7
Chronic diseases	8.7	6.3	8.5
Other reasons	11.9		10.8

Source: Author’s Construction

7.11 Current cost of primary health care

Primary health care (PHC) is widely recognised as a key component of all high performing health systems and is an essential foundation of universal health coverage. However, in many places worldwide, PHC does not meet the needs of the people who should be at its centre. Public funding is insufficient, access remains inequitable, and patients often have to pay out of pocket for services. Establishing the right financing arrangements is one crucially important way to support the development of people-centred PHC. The Lancet Global Health Commission on financing PHC presents new evidence on levels and patterns of global expenditure on PHC, analyses key technical and political economy challenges, identifies areas of proven or promising practice; and suggests actionable policies to support low-income and middle-income countries in raising, allocating, and channeling resources to support the delivery of effective, efficient, and equitable PHC. Some of the examples were discussed below.

7.11.1 Overall Cost of Service Delivery

According to Mackenbach (2011: 412-419), the Median costs of providing a package of services through clinicians at a sub-centre with a 95% confidence interval are presented in Table 12. 1. Overall it costs nearly INR 1.03 million (USD 19,381) per year to provide health services through Clinicians at sub-centres. The cost of human resources alone accounts for 58%, followed by drugs (18%), and capital (13%). Forty-one per cent of the cost incurred was for delivering preventive services, 36% for curative care, while the remaining 23% was used for providing primitive or other indirect services. Almost half of the cost was incurred for the provision of services as part of an outreach program, while 40% of the resources were spent on delivering services in out-patient settings (Sans-Corrales, 2006:308-316). Institutional deliveries, which was the only inpatient service offered at the sub-centres, accounted for 7% of the total cost. Table 7.3 below shows the cost of delivering health care services at the sub-centre level.

Table 7.3 Cost of delivering health care services

Cost	Median INR (USD)	2.5th Percentile (USD)	INR	97.5th Percentile INR(USD)
Human Resource	602737 (11308)	544835 (10222)		657212 (12330)
Equipment	3157 (59)	2711 (51)		3645 (68)
Drugs	189417 (3554)	159226 (2987)		225344 (4228)
Consumables	59199 (1111)	46457 (872)		74393 (1396)
Capital	138329 (2595)	97878 (1836)		48681 (913)
Overheads	5575 (105)	4128 (77)		183913 (3451)
IEC	3443 (65)	2394 (45)		4845 (91)
NRHM Funds	8204 (154)	6924 (130)		9451 (177)
Cash	22970	16319		33431
Benefits	(431)	(306)		(627)
Total	1033031 (19381)	880872 (16527)		1240914 (23282)

Source: Author's Construction

Table 7.1 above shows the cost of delivering health care services at the sub-centre level.

7.12. Government policy weaknesses

The South African government, through its apartheid policies, developed a health care system which was sustained through the years by the promulgation of racist legislation and the creation of institutions such as political and statutory bodies for the control of the health care professions and facilities (Collins, 2013: 30-38). These institutions and facilities were built and managed with the specific aim of sustaining racial segregation and discrimination in health care. The result has been a system that is highly fragmented, biased towards curative care and the private sector, inefficient and inequitable.

Teamwork has not been emphasised and the doctor has played a dominant role within the hierarchy. There has been little or no emphasis on health and its achievement and maintenance, but there has been great emphasis on medical care. The challenge facing South Africans is to design a comprehensive programme to redress social and economic injustices, eradicate poverty, reduce waste, increase efficiency, and promote greater control by communities and individuals over all aspects of their lives. In the health sector, this will involve the complete transformation of the national health care delivery system and all relevant institutions (Purdy, 2009:169-173). The health of all South Africans will be secured mainly through the achievement of equitable social and economic development (Kruk, 2010:904-911). The legacy of apartheid policies in South Africa has created large disparities between racial groups in terms of socio-economic status, occupation, education, housing, and health.

These policies have created a fragmented health system, which has resulted in inequitable access to health care. The inequities in health are reflected in the health status of the most vulnerable groups. Every person has the right to achieve optimal health, and the ANC is committed to the promotion of health, using the Primary Health Care Approach as the underlying philosophy for restructuring the health system. Primary Health Care will form an integral part, both of the country's health system, and the overall social and economic development of the community.

Central to the PHC approach is full community participation in the planning, provision, control and monitoring of services. Democratically elected representatives will play a major role in the structure of the health services (Rohde, 2008:950-961). Health problems have many and complex causes whose solution demands an inter-sectoral approach. Other sectors such as those providing clean water, sanitation, housing, etc. have a greater impact on health, than health services alone (Purdy, 2009:169-173). The health sector has an important advocacy role to play and therefore mechanisms will be developed to ensure that inter-sectoral activity takes place.

The health sector and health services must increase awareness that a healthy population is necessary for social and economic development. International population trends recognise that development strategies that improve the quality of life of the population, contribute to the decline in fertility. Contraception is a necessary, but insufficient factor in promoting fertility decline. Population programmes must maximise the capacity for individuals to fully develop their potential for social stability and economic growth (Rohde, 2008:950-961). The major aims will be improvements in women's legal, educational and employment status.

Within the health system, the health services provide the principal and most direct support to the communities. The foundation of the National Health System will be Community Health Centres (CHCs) providing comprehensive services including primitive, preventive, rehabilitative and curative care. Casualty and maternity services will be available as 24-hour services. Community health services will be part of a coordinated District Health System, which will be responsible for the management of all community health services in that district (Kruk, 2010:904-911). The basis of funding will continue to be from general tax revenue. It is strongly recommended that health services receive a higher proportion of this revenue, which should be increased to at least 4% of GDP (at least 13% of government expenditure). Additional revenue can be derived immediately by increasing the excise on tobacco, which will have the added benefit of reducing consumption (Purdy, 2009:169-173). Increased duties on alcohol may also be used to increase the revenue if further studies warrant the primary health care service delivery.

Free health care will be provided in the public sector for children under six, pregnant and nursing mothers, the elderly, the disabled and certain categories of the chronically ill. Preventive and primitive activities, school health services, antenatal and delivery services, contraceptive services, nutrition support, curative care for public health problems and community-based care will also be provided free of charge in the public sector. User fees for insured patients using public hospitals will be increased to ensure full cost recovery.

Facilities will be allowed to retain a proportion of the revenue generated to improve the quality of service delivered (Kruk, 2010:904-911). The state will play a more active role in encouraging efficiency and high-quality care in both the public and private sectors. Mechanisms such as licensing and compulsory public service for graduates will be investigated. Capitation, rather than fee-for-service as a method of remuneration will be encouraged. A Commission of Inquiry to look into the current crisis in the medical aid sector, and to consider alternatives such as a National Health Insurance, will be appointed (Koolman, 2006:177-182). Financial systems and techniques will be developed to ensure efficiency and effectiveness. Strategies that will be used include an effective resource allocation mechanism; the inclusion of financial plans in all plans and programmes; weighting of certain programmes; and performance budgeting systems. Priority programmes have been developed, to provide targets for implementing changes to the current health system. All targets should be seen as goals for progressive improvements and depend on the differential needs at provincial and local levels.

The principal priorities are maternal and child health, nutrition, the control of communicable diseases, and violence. Special attention will be given to vulnerable groups and this will include the development of programmes for women's health, occupational health, rural areas, mental health, chronic illness, rehabilitation, and the elderly (Verhaegh, 2014:1531-1539). In addition, the health priorities will also include health promotion, drugs policy, emergency care, substance abuse, environmental health, and oral health. A special emphasis on all health programmes and activities at all levels in the system will be given to health promotion.

7.13. Government failures in primary health care

High absenteeism, low quality in clinical care, low satisfaction levels with care, and rampant corruption plague primary health service. This leads to mistrust of the system and the rapid growth of private services. This study developed an analytical framework to understand the status of health care (Joseph, 2009:11-23).

Drawing on a model of public sector accountability it is argued that a weak voice and low accountability are the key binding constraints to effective delivery. The government is responsible for the failure of the country's health care system according to the South African Human Rights Commission (Koolman, 2006:177-182). The commission launched a report entitled "Public Inquiry: Access to Health Care

Services" on 16 April 2009 in Johannesburg. The report found that poverty is a major cause of ill-health and is also a key barrier to accessing health care services.

Government failure, in the context of public economics, is an economic inefficiency caused by government intervention if the inefficiency does not exist in a truly free market. It can be viewed in contrast to a market failure, which is an economic inefficiency that results from the free market itself and can potentially be corrected through government regulation (Joseph, 2009:11-23). The idea of government failure is associated with the policy argument that, even if particular markets may not meet the standard conditions of perfect competition required to ensure, government intervention may make matters worse rather than better. As with a market failure, a government failure is not a failure to bring a particular or favoured solution into existence but is rather a problem that prevents an efficient outcome (Aidt, 2003: 632652). The problem to be solved need not be a market failure; governments may act to create inefficiencies even when an efficient market solution is possible.

Examples of government failure include regulatory capture and (Koolman, 2006:177182). Government failure may arise because of unanticipated consequences of government intervention, or because an inefficient outcome is more politically feasible than a Pareto improvement to it. Government failure can be on both the demand and the supply side. Demand-side failures include preference-revelation problems and the illogic of voting and collective behaviour and supply-side failures largely result from principal-agent problems. The phrase "government failure" emerged as a term of art in the early 1960s with the rise of intellectual and political criticism of government regulations.

Building on the premise that the only legitimate rationale for government regulation was a market failure, economists advanced new theories arguing that government interventions in markets were costly and tend to fail. Government spending is also said to crowd out private spending by individuals (Aidt, 2003: 632-652). Regulatory arbitrage occurs when a regulated institution takes advantage of the difference between its real (or economic) risk and the regulatory position. Regulatory capture is the co-opting of regulatory agencies by members of or the entire regulated industry (Joseph, 2009:1123). Rent-seeking and rational ignorance are two of the mechanisms that allow this to happen. Regulatory risk is the risk faced by private-sector firms that regulatory changes will hurt their business.

7.14 Primary care a universal – countrywide system

Universal health coverage is a broad concept that has been implemented in several ways. The common denominator for all such programs is some form of government action aimed at extending access to health care as widely as possible and setting minimum standards (Hughes, 2007:999-1008). Most programs implement universal health care through legislation, regulation and taxation. Legislation and regulation direct what care must be provided, to whom, and on what basis. The logistics of universal health care vary by country. Some programs are paid for entirely out of tax revenues. In others, tax revenues are used either to fund insurance for the very poor or those needing long-term chronic care. In some cases such as the UK, government involvement also includes directly managing the health care system, but many countries use mixed public-private systems to deliver universal health care (Koolman, 2006:177-182). In most European countries, universal health care entails a government-regulated network of private insurance companies.

7.14.1 Countries with universal government-funded health systems

In this system, government-funded health care is available to all citizens regardless of their income or employment status (Carrin, 2005:45-64). Some countries may provide health care to non-citizen residents, while some may require them to buy private insurance.

7.14.2 Countries with universal public insurance systems

In these countries, workers have social insurance. Usually, the government withholds part of the wage, which is divided between employee and employer (Koolman, 2006:177-182). People who do not have a legal contract of employment and/or cannot register as unemployed may be ineligible for free health care.

7.14.3 Countries with universal public-private insurance systems.

In this system, some people receive health care via primary private insurance, while people who are ineligible for it (Hughes, 2007:999-1008), receive it from the government.

7.14.4 Countries with universal private health insurance systems

In this system, (Carrin, 2005:45-64) cited that the people receive health care via private insurance, usually through subsidies by the government for low-income citizens

7.14.5 Countries with non-universal insurance systems

In this system (Koolman, 2006:177-182) some citizens have private health insurance, some are eligible for subsidized public health care, while some are not insured at all .

7.15 . Comparisons between the health care systems in the UK

The National Health Service (NHS) has been providing publicly funded health care in the UK since 1948. Except for certain services, such as prescriptions and dentistry, the NHS was free at the point of use for any and every UK resident. Services offered range from emergency treatment to organ transplants to palliative care for the terminally ill. The NHS deals with over a million patients every 36 hours. To do this it employs more than 1.6 million people, putting it in the top five largest global workforces. The NHS has decades of experience to draw upon, an enormous budget, a relatively stable economy, and a managing government unhindered by a retrograde commitment to outdated ideology or a culture of nepotism, rent-seeking and graft. The same cannot be said about the ruling party in South Africa. Moreover, it seems probable, when all things are considered, that the government is overreaching with the NHI proposals. Although admirable, it is simply unfeasible that it will have the capacity to deliver on its promises and implement an effective, efficient and uniformly accessible single payer system, entirely publicly funded.

7.15.1 Differences-Telephone advisory services

Each NHS system has developed ways of offering access to non-emergency medical advice. People in England and Scotland can access these services by dialling the free to-call 111 number. Scotland's service is run by NHS24 (Nolte, 2016:977-1010). The telephone number for NHS Direct Wales/Galw Iechyd Cymru is 0845 4647, but this service intended to offer access through the 111 number from some point in 2015.

7.15.2 Best practice and cost-effectiveness

In England and Wales, the National Institute for Health and Clinical Excellence (NICE) sets guidelines for medical practitioners as to how various conditions should be treated and whether or not a particular treatment should be funded (Pfeiffer, 2003:725-738). These guidelines are established by panels of medical experts who specialize in the area being reviewed. In Scotland, the Scottish Medicines Consortium advises NHS Boards about all newly licensed medicines and formulations of existing medicines as well as the use of anti-microbials but does not assess vaccines, branded generics, non-prescription-only medicines (POMs), blood products and substitutes or diagnostic drugs. Some new drugs are available for prescription more quickly than in the rest of the United Kingdom. At times this has led to complaints.

7.15.3 Cost control

The National Audit Office reports annually on the summarized consolidated accounts of the NHS, and Audit Scotland performs the same function for NHS Scotland (Nolte, 2016:977-1010). Since January 2007, the NHS has been able to claim back the cost of treatment and ambulance services for those who have been paid personal injury compensation.

7.15.4 Prescribed drugs

In a sample of 13 developed countries, the UK was 9th in its population-weighted usage of medication in 14 classes in both 2009 and 2013. The drugs studied were selected on the basis that the conditions treated had high incidence, prevalence and/or mortality, caused significant long-term morbidity and incurred high levels of

expenditure and significant developments in prevention or treatment had been made in the last 10 years (Nolte, 2016:977-1010). Northern Ireland, Scotland and Wales no longer have Prescription charges. However, in England, a prescription charge of £8.60 is payable per item as of April 2017, though patients under 16 years old (16–18 years if still in full-time education) or over 60 years getting prescribed drugs are exempt from paying as are people with certain medical conditions, those on low incomes or in receipt of certain benefits, and those prescribed drugs for contraception (Claudia, (2015:977-1010).UK permanent residents in England do not pay the real cost of the medicines, therefore, for some prescribed medicines that can be bought over the counter without a prescription, for example, aspirin, it can be much cheaper to purchase these without a prescription. UK permanent residents in England who must pay can purchase a three-month Prescription Prepayment Certificate costing £29.10.

This saves the patient money when the patient needs three or more items in three months. There is also a 12-month PPC certificate costing £104.00 which saves patients money if 12 or more items are needed in 12 months (Wensing, 2004:353357). There are no prescription charges anywhere in the UK for medicines administered at a hospital, by a doctor, or at an NHS walk-in centre.

7.15.5 Role of private sector in public health care

From the birth of the NHS in 1948, private medicine has continued to exist, paid for partly by private insurance. Provision of private health care is acquired through private health insurance, funded as part of an employer-funded health care scheme or paid directly by the customer, though provision can be restricted for those with conditions such as poor service delivery in health facilities (Nolte, 2016:977-1010). In recent years, despite some evidence that a large proportion of the public opposed such involvement, the private sector has been used to increase NHS capacity. In addition, there is some relatively minor sector crossover between public and private provision making it possible for some NHS patients to be treated in private health care facilities and some NHS facilities are let out to the private sector for privately funded treatments or pre-and post-operative care.

However, since private hospitals tend to manage only routine operations and lack a level 3 critical care unit (or intensive therapy unit), unexpected emergencies may lead to the patient being transferred to an NHS hospital

When the Blair government expanded the role of the private sector within the NHS in England, the Scottish government reduced the role of the private sector within public health care in Scotland and planned legislation to prevent the possibility of private companies running GP practices in future (O'Sullivan, 2004:355-363).

Later, however, in an attempt to comply with the Scottish Treatment Time Guarantee, a 12-week target for inpatient waiting for treatment, NHS Lothian spent £11.3 million on private hospital treatment for NHS patients in 2013-14.

7.15.6 Funding and performance of health care since devolution

In January 2010 the Nuffield Trust published a comparative study of NHS performance in England and the devolved administrations since devolution, concluding that Scotland, Wales and Northern Ireland have had higher levels of funding per capita than England (Pfeiffer, 2003:725-738). With the latter having fewer doctors, nurses and managers per head of population, the English NHS is making better use of the resources by delivering relatively higher levels of activity, crude productivity of its staff, and lower waiting times.

However, the Nuffield Trust quickly issued a clarifying statement in which they admitted that the figures they used to make comparisons between Scotland and the rest of the United Kingdom were inaccurate due to the figure for medical staff in Scotland being overestimated by 27% (Lancet, 2015:977-1010). Using revised figures for medical staffing, Scotland's ranking relative to the other devolved nations on crude productivity for medical staff changed, but there was no change relative to England. The Nuffield Trust study was comprehensively criticized by the BMA which concluded "Whilst the paper raises issues which are genuinely worth debating in the context of devolution, these issues do not tell the full story, nor are they unambiguous to the disadvantage of the devolved countries".

The emphasis on policies that have been prioritized in England, such as maximum waiting times, will tend to reflect badly on countries that have prioritized spending increases in other areas including non-health areas (Claudia, 2015:977-1010). In April 2014 the Nuffield Trust produced a further comparative report "The four health systems of the UK: How do they compare?" which concluded that despite the widely publicized policy differences there was little sign that any one country was moving ahead of the others consistently across the available indicators of performance. It also complained that there was an increasingly limited set of comparable data on the four health systems of the UK which made comparison difficult (Lancet, 2015:977-1010).

In February 2016 the Organization for Economic Co-operation and Development published a review which concluded that the performance of the NHS in Wales was little different from the rest of the UK .

7.16 Government economic policies

According to Walter (2004: 13-126), Government economic policy refers to measures by which a government attempts to influence the economy. The national budget generally reflects the economic policy of a government, and it is partly through the budget that the government exercises its three principal methods of establishing control: the allocative function, the stabilization function, and the distributive function. Over time, there have been considerable changes in emphasis on these different economic functions of the budget. In the 19th century, government finance was primarily concerned with the allocative function.

The job of the government was to raise revenue as cheaply and efficiently as possible to perform the limited functions (Dunne, 2007:49-68). The economic policy of governments covers the systems for setting levels of taxation, government budgets, the money supply and interest rates as well as the labour market, national ownership, and many other areas of government interventions into the economy.

Most factors of economic policy can be divided into either fiscal policy, which deals with government actions regarding taxation and spending, or monetary policy, which deals with central banking actions regarding the money supply and interest rates (Edwards, 2005:473498).

Such policies are often influenced by international institutions like the International Monetary Fund or World Bank as well as political beliefs and the consequent policies of parties.

7.17 Current costs as a result of an inadequate PHC system

Primary Health Care provides whole-person care for health needs throughout the lifespan, not just for a set of specific diseases. Primary health care ensures that people receive comprehensive care ranging from promotion and prevention to treatment. Primary health care is rooted in a commitment to social justice and equity and the recognition of the fundamental right to the highest attainable standard of health (Stabile, 2013:643-652). Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing, medical care and necessary social services. The concept of primary health care has been repeatedly reinterpreted and redefined. In some contexts, it has referred to the provision of ambulatory or first-level personal health care services. In other contexts, primary health care has been understood as a set of priority health interventions for low-income populations. Others have understood primary health care as an essential component of human development, focusing on the economic, social and political aspects. According to (Cylus, 2015:1133-1144), renewing primary health care and placing it at the center efforts to improve health and wellbeing is critical for three reasons:

- i. Primary health care is well-positioned to respond to rapid economic, technological, and demographic changes, all of which impact health and well-being. A recent analysis found that approximately half of the gains in reducing child mortality from 1990 to 2010 were due to factors outside the health sector. A primary health care approach draws in a wide range of stakeholders to examine and change policies to address the social, economic, environmental and commercial determinants of health and well-being.
- ii. Primary health care has been proven to be a highly effective and efficient way to address the main causes and risks of poor health and well-being today, as well as handling the emerging challenges that threaten health and

well-being tomorrow. It has also been shown to be a good value investment, as there is evidence that quality primary health care reduces total health care costs and improves efficiency by reducing hospital admissions. Strengthening systems at the community and peripheral health facility level contributes to building resilience, which is critical for withstanding shocks to the health system.

- iii. Stronger primary health care is essential to achieving health-related Sustainable Development Goals and universal health coverage. It will contribute to the attainment of other goals beyond the health goal (SDG3), including those concerning poverty, hunger, education, gender equality, clean water and sanitation, work and economic growth, reducing inequality and climate action.

7.17.1 WHO response in Primary Health Care

The WHO recognizes the central role of primary health care for achieving health and well-being for all, at all ages (Zare, 2013:112-135). The WHO works with countries to:

- i. Identify priority areas for improving health and context-specific approaches that draw on the technical expertise across the WHO.
- ii. Support countries to develop inclusive policies in country leadership and health systems based on primary health care which promote health equity and work towards achieving Sustainable Development Goals and universal health coverage.
- iii. Address the wider inequity and social determinants of health through multispectral action.

7.17.2 Countries are spending more on Primary health care

Governments provide an average of 51% of a country's health spending, while more than 35% of health spending per country comes from out-of-pocket expenses. One consequence of this is that 100 million people are pushed into extreme poverty each year.

The report highlights a trend of increasing domestic public funding for health in low- and middle-income countries and declining external funding in middle-income countries. Reliance on out-of-pocket expenses is declining around the world, albeit slowly (Mason, 2005:18-23). Increased domestic spending is essential for achieving universal health coverage and health-related Sustainable Development Goals. But health spending is not a cost, it is an investment in poverty reduction, jobs, productivity, inclusive economic growth, and a healthier, safer and fairer society.

Spending on health is growing faster than the rest of the global economy, accounting for 10% of global gross domestic product (GDP). A new report on global health expenditure from the World Health Organization (WHO) reveals a swift upward trajectory in global health spending, which is particularly noticeable in low- and middle-income countries where health spending is growing on average 6% annually compared with 4% in high-income countries (Frech, 2001:1-128). Health spending is made up of government expenditure, out-of-pocket expenses and sources such as voluntary health insurance, employer-provided health programmes, and activities by non-governmental organizations.

In middle-income countries, government health expenditure per capita has doubled since the year 2000. On average, governments spend US\$60 per person on health in lower-middle-income countries and close to US\$270 per person in upper-middle-income countries (Stabile, 2013:643-652). When government spending on health increases, people are less likely to fall into poverty seeking health services. However, government spending only reduces inequities in access when allocations are carefully planned to ensure that the entire population can obtain primary health care.

In low- and middle-income countries, new data suggest that more than half of health spending is devoted to primary health care. Yet less than 40% of all spending on primary health care comes from governments (Mason, 2005:18-23). As domestic spending increased, the proportion of funding provided by external aid has dropped to less than 1% of global health expenditure.

While the report clearly illustrates the transition of middle-income countries to domestic funding of health systems, external aid remains essential to many countries, particularly low-income countries (Zare, 2013:112-135). The new WHO report points to ways that policymakers, health professionals and citizens alike can continue to strengthen health systems.

7.17.3 Universal health coverage (UHC)

UHC means that all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care.

UHC enables everyone to access the services that address the most significant causes of disease and death and ensures that the quality of those services is good enough to improve the health of the people who receive them (Zare, 2013:112-135). Protecting people from the financial consequences of paying for health services out of their own pockets reduces the risk that people will be pushed into poverty because unexpected illness requires them to use up their life savings, sell assets, or borrow – destroying their futures and often those of their children. Achieving Universal Health Coverage is one of the targets the nations of the world set when adopting the Sustainable Development Goals in 2015 (Wensing, 2004:353-357). Countries that progress towards Universal Health Coverage will make progress towards the other health-related targets, and towards the other goals.

7.18 Current trajectory of poor Primary Health Care

The lack of primary health care integration has been identified as one of the main limits to programs' efficacy in low- and middle-income countries. This is especially relevant to the Millennium Development Goals, whose health objectives were not attained in many countries in their term in 2015,(Lancet, 2016 387-391). While global health scholars and decision-makers are unanimous in calling for integration the objective here is to go further and contribute to its promotion by presenting the most important challenges to be met for its achievement;

- i. Firstly, developing a crosswise approach to implementation that is operational and effective;
- ii. Secondly, creating synergy between national programs and interventions driven by non-State actors.

7.18.2 Leaving no one behind

Substantial inequities in access to affordable quality health care remain both within and between countries. Vulnerable populations face greater morbidity and premature mortality from easily preventable and treatable causes. Such inequities also threaten human security (Macinko, 2009:150-71). Strong primary health care systems are effective in reducing inequities of access by providing local services and facilitating continuous, comprehensive, and coordinated care.

Strengthening primary health care systems to reduce inequities requires action on many fronts, but two are particularly important for governments. Domestic financing and development aid should emphasize investments in essential services that can be provided at the community level and by basic healthworkers (Stabile, 2013:643-652). Making essential medicines universally affordable and available is critical. Although substantial progress has been achieved, this was often accomplished by building parallel financing and delivery systems. G20 and development partners should bring about a renewed focus on strengthening primary care systems within global disease control programmes. Population ageing and the growing burden of non-communicable diseases pose new challenges to national health systems (Wensing, 2004:353-357). The preoccupation with infectious diseases and reproductive health has shaped the organization of primary care systems in many countries. Older people, however, are more likely to have non-communicable diseases that require sustained care.

This includes having an agreed set of standardized, publicly available migration indicators that source and destination countries collect. The productivity of migrant workers is tied to their health, and, therefore, benefits the host country to invest in their health. In addition, the documented migrant labour workforce contributes to the host economies through taxation.

Many migrant workers take on jobs that have poor work environments, placing them at a higher health risk, but they may not have access to care because of government policy, lack of citizenship, or clarity on legal status (Zare, 2013:112-135). Migrant workers should be offered similar access to health and social security benefits as local workers. Their health benefits should, as far as possible, be coordinated by both source and destination countries.

7.18.2. Harnessing innovation judiciously

Technological innovations in health care (pharmaceuticals, diagnostics, devices, etc) and information and communication technologies could substantially change the way health services are provided. Markets on their own are unlikely to produce innovations that increase access to safe and affordable services at scale and on a sustainable basis (Stabile, 2013:643-652). Governments can contribute by creating a regulatory environment that supports research and development, encourages equitable access to technologies and medicines, and protects the public against unintended harms. UHC2030, a global partnership has established a private sector constituency to explore ways that non-state organizations can contribute to efforts to meet health care needs at scale and the implications for government action.

G20 should encourage and support this (Pautt, 2013:1011-1022). One important area of innovation is in information and communications technologies, which hold enormous potential for increasing access to health information and care. Bilateral development agencies and international philanthropies have invested in several successful pilots, and some large companies are investing heavily in the development of digital health services, but these have had limited effect on access to health services.

7.18.3 Coordinated international cooperation for UHC

The use of the same metrics would make cross-country data on monitoring UHC directly comparable, but this does not always happen, mostly because of variable technical competence and non-standardized approaches in data collection.

The SDG target on universal health coverage sets out two specific indicators to monitor progress in coverage of essential health services and financial protection (Lancet, 2016: 387-391). The methods and country data requirements of these indicators are already defined, and the current priority is to develop a common operational protocol that can be shared between countries, especially those in resource-limited settings so that all member states can produce directly comparable statistics.

A globally shared mechanism of technical support, sufficiently contextualized to allow for between-country differences in data availability, including data disaggregation to capture equity perspectives and other variabilities, should be established (Stabile, 2013: 643-652). Acting on the UHC agenda at the country level requires difficult decisions. Policymakers must decide which services to expand, who to include as beneficiaries or service providers, and how to shift from out-of-pocket payment towards prepayment, and in what order, with a commitment to fairness and consideration of social needs and political realities. These policies and their implementation should be based on evidence and social values and be developed with public participation to ensure accountability.

7.19 Current government model of Primary Health Care and weaknesses

Members of the primary care team will include GPs, nurses/midwives, health care assistants, home helps, physiotherapists, occupational therapists, social workers and administrative personnel (Green, 2001: 2021-2025). A wider primary care network of other primary care professionals such as speech and language therapists, community pharmacists, dieticians, community welfare officers, dentists, chiropodists and psychologists will also provide services for the enrolled population of each primary care team.

The population to be served by a team is determined by encouraging GPs to join together their existing lists of enrolled individuals and families, within certain geographic considerations (Brealey, 2000: 1141-1143). This geographic focus strengthens the capacity of the primary care team to adopt population health approaches to service provision.

Teams are based in single locations where possible and will be easily accessible. Individuals will be encouraged to enroll with a primary care team and with an individual doctor within the team. Many services were not provided on an extended hours basis and out-of-hours cover for defined services will be greatly enhanced. There will be an increased emphasis on prevention and rehabilitation as well as the traditional focus on diagnosis and treatment. Liaison between primary and secondary care services will be improved. The primary care team will have better access to hospital services (Kinnersley, 2000:1043-1048). Discharge planning will also be improved, with the development of individual care plans and the identification of key workers for individuals when appropriate. Integration between primary care and specialist services in the community will be strengthened. The introduction of a team-based approach to primary care will have advantages for users and providers.

7.19.1 The Primary Care model in action

The current model of primary care does not represent a change in emphasis from secondary care to more appropriate primary care services that provide a single point of entry to all health and personal social services. Such a fundamental change requires major investment in human resources, physical infrastructure and information and communications technology. It also requires commitment and support from the various providers (Powel, 2000:24-25). The model described sets out the principles for progress but does not purport to address all of the detailed issues that will need to be worked through in the implementation phases. The primary care model was initially phased in through implementation projects located around the country (Arksey and O'Malley, 2005:19-32). This model was refined and developed by agreement and ongoing evaluation in partnership with all stakeholders. Locations need to be built upon existing infrastructure where possible to ensure their success and allow the development of a wider network of primary care providers for the primary care teams. Various models of teamwork were applied in the implementation projects and participation was voluntary.

The current model requires new ways of working for providers who deliver the range of primary care services available in the community (Ostrom, 2014:267-306). The level of integration and enhancement required will need to be supported through investment in physical infrastructure to provide a coordinated, user-friendly, inter-dependent range of services in a suitable location and physical environment.

The model is dependent on adequate information and communications technology infrastructure and on the ability and willingness of all parties to utilise available technologies (Arksey and O'Malley, 2005:19-32). There are also major human resource implications that dictate the pace of investment. In the short term, reliance is on existing human resources to get implementation projects up and running, with the expansion of numbers weighing in more heavily in the longer term.

7.19.2 Primary Care team

Primary care will be centred on the needs of individuals and groups of people and will match their needs with the competencies required to meet them. Some of the essential competencies will include assessment, diagnosis, therapy, nursing, midwifery, prevention, health education, counselling, administration, management, social services, referral and rehabilitation (Damschroder, 2009:4-50). A group of primary care providers will come together to form an interdisciplinary team, known as the primary care team (Powel, 2000:24-25). These teams will serve small population groups of approximately 3,000-7,000 people, depending on whether a region is rural or urban. Among other factors, the number and ratio of team members will depend on needs assessment, location and population size. In the long term, approximately 6001,000 primary care teams will be required nationally, based on a population of 3.8 million. Teams will include appropriate levels of administrative support.

A wider network of additional professionals will be formed to provide the therapy services required by several core primary care teams. Figure 2 illustrates the proposed membership and interaction between the core primary care team and the wider network of primary care providers (Venning, 2000:1048-1053).

The diagram is for illustrative purposes only. In practice, there may be more or less than three primary care teams working with the wider primary care network. The ultimate arrangement will be determined by needs assessment and the geographical spread of the enrolled population. The nurse or midwife functions include advanced nurse practitioner, clinical nurse specialist, public health nursing, midwifery, mental health, practice nurse and general nursing competencies (Damschroder, 2009:4-50). The optimal number and ratio of physiotherapists, occupational therapists and social workers required for the primary care team will depend on needs assessment and the geographic location of the team. Some clinicians may work with more than one core primary care team. The primary care team is set out in Table 7.3 below. The numbers of various team members presented are for illustrative purposes only and need to be considered in-depth in the process.

Table 7.4 Primary care team

Primary care team	Number envisaged 4
General practitioner 4.0	4.0
Health care assistant 3	3.0
Home helps 3.0	3.0
Nurse/midwife 5.0	5.0
Occupational therapist 0.5 – 1.0	0.5-1.0
Social worker 0.5	0.5
Receptionist/clerical officer 4.0	5.0

Source: Author's Construction

7.19.3 Primary care network

It is envisaged that a wider network of health and social care professionals will be formed who will work with several primary care teams. Each primary care team will have access to a range of health and social care professionals who will provide services for members of their enrolled population group (Venning, 2000:1048-1053). Members of the network will work with more than one primary care team.

Formal communication processes will be established between the core primary care team and the wider network of professionals. Named members of the primary care network will be designated to work with specific primary care teams. The proposed membership of the wider network is set out in Table 7.5 below.

Table 7.5 Primary care network

Chiroprapist	Psychologist
Community welfare officer	Speech and language therapist
Dentist	Dietician

Source: Author's Construction

7.19.4 Capacity of primary care team

The interdisciplinary team approach will help to develop the capacity of services at the primary care level. The wide skill mix within the team will allow a more appropriate distribution of workload between members of the team. This will allow each team member to work to his or her maximum professional capacity (Venning, 2000:1048-1053). It will also allow team members to spend more time on areas such as preventive work and continuing professional development. Additionally, this will allow support to be given to inter-referral between primary care providers such as GPs which can also enhance the capacity of primary care. This approach to primary care will facilitate communication between team members which will greatly reduce the time currently spent trying to contact other primary care providers.

7.19.5 Information and communications technology

Appropriate electronic communications and electronic record systems are central to the operation of both the primary care team and the wider network of professionals. There will be considerable investment in information and communications technology infrastructure (Green, 2001:2021-2025). This will include the development of an electronic health record based on a unique client number. Patient information will remain confidential and will only be available to those team members who need it.

Many of the issues relating to information and communications technology will be addressed in the forthcoming National Health Information Strategy and the ongoing General Practice Information Technology project.

7.19.6 Enrolment with primary care team

GPs and other professionals keep records of patients who utilize their services. However, it is recognized that these systems may be inadequate for key functions such as comprehensive call and recall as required for screening and immunization. In this regard, practice registers are an essential component of high-quality primary care (Starfield, 2002:201-218). The Health Strategy 2001 envisages a system whereby people are invited to actively enroll. All individuals are encouraged to enroll with one primary care team, and with a particular GP within the team where appropriate for an individual's needs, a key worker will be identified enrolment will be voluntary.

7.19.7 Access to primary care team

Individuals will be able to self-refer to any given member of the primary care team or network as appropriate. There will also be a system of triage and referral at the point of access available for those who wish to use it. This will ensure that people can be linked with the most appropriate professional for their needs (Starfield, 2005:97-107). Access to primary care services, particularly out-of-hours, will be improved for all, following the introduction of this new model of primary care. Services will be more flexible to accommodate those who work during the day. This system will build on the strengths of the current cooperative model for GPs (Stevens, 2002:51-573). The hours during which all of the basic primary care services are provided will be increased, with several essential services on a 24-hour basis. An improved range of services will also be provided at weekends.

7.19.8 Broad focus for primary care services

The primary care team works with local populations and other agencies to identify health and social needs. It also provides appropriate responses including the range of general medical services in addition to the generalist aspects of services for mental health, elderly care, drug misuse, disabilities, family support and child health.

This necessitates the inclusion of personal social services staff in the teams (Stevens, 2002:51-573). Population health services can be strengthened and expanded to ensure widespread uptake of initiatives such as screening, immunization and early intervention.

Primary care teams can be facilitated and funded to develop and expand cross-sectoral activities which can promote and protect (Starfield, 2002:201-218). The health of people and families enrolled with them using, for example, school and community-based health education, counselling, and classes, links to local area action plans to provide integrated information and services, as well as links to community development projects.

7.19.9 Co-ordination of primary care and specialist services

The primary care team will liaise with specialist teams in the community to improve the integration of care. Community-based specialist teams are already in existence in the community for many specific care groups (Stevens, 2002:51-573). The primary care team will integrate with these community-based specialist teams in ways similar to how the primary care team will integrate with the specialist institutional services, e.g. acute hospitals. The benefit to users is that they are facilitated, through a single point of contact, in accessing whatever specialist services they require.

7.19.10 Location of primary care teams

Though not essential, primary care team members should ideally be located on the same site or in very close proximity. The exact location will reflect local circumstances and the availability of appropriate pre-existing facilities. The role of public-private partnerships and other options will be explored as an alternative when premises are being sought to house the primary care teams (Green, 2001:20212025). Facilities for some of the professionals operating in the wider network should be made available in the primary care premises. The nature of work carried out by some team members, such as public health nurses, home helps and health care assistants, dictates that a number of services will be delivered to people in a home setting.

The goal should be to establish lines of communication and mechanisms for integration that lead to more efficient and seamless service to the individual and the community.

7.19. 11 Advantages for professionals

Advantages for professionals involved in a primary care team will include improved access to other team members. Direct access to diagnostic facilities, secondary care services, and infrastructural and information technology supports will also be improved upon. The introduction of a properly resourced primary care team with its skill mix will ensure that many health professionals will have more time to engage in preventive activities and continuous personal and professional development (Stevens, 2002:51-573). With the introduction of extended hours, working hours for many team members will become more flexible.

This model of primary care will also mean less stress and improved morale for the health care professionals involved. Career structures will be enhanced for all members of the primary care team.

7.19.12 Advantages for the health system

Primary care, planned and organised on this basis, could lessen the current reliance on specialist services and the hospital system (particularly accident, emergency and out-patient services) .Based on available evidence, would have the potential to reduce the requirement for specialist services, reduce hospitalisation rates, reduce lengths of stay for those who are hospitalised, promote more rational prescribing, and improve efficiency.

7.20 Strengths and weaknesses of the current system

Developments in primary care should build upon and add to the very significant strengths of the current system. GPs, public health nurses and other professionals have historically provided primary care (Kvamme, 2001:33-39). They have provided a critical front-line service that has acted as a gatekeeper for many secondary elements of the broad range of health and personal social services.

In many cases, and for long periods, it has been the commitment of such professionals in the absence of an appropriate infrastructure for primary care which has ensured that the public has been able to avail of a personal, local, accessible and timely service with which they have been satisfied. Professional bodies such as the Irish College of General Practitioners, the Institute of Community Nursing, the Practice Nurses Association, the Commission on Nursing, and many others have developed initiatives to improve the quality of primary care services delivered to the public (Stevens, 2002:51-573). There has also been a strong tradition of community and voluntary involvement in primary care service provision in such programmes, like meals on wheels.

Primary care infrastructure however remains poorly developed. Typical treatment services predominate and availability of other elements, e.g. social services, occupational therapy, physiotherapy, counselling, home help, etc. has been limited. Non-medical services are also provided during limited hours, except on a planned essential needs basis. General practitioners and other primary care staff often work in isolation and communication between the different primary care service providers is not optimal (Kvamme, 2001:33-39). This leads to public services that are poorly integrated and do not comprehensively meet the needs of individuals and communities in an appropriate primary care setting.

Eligibility arrangements are also not clear except for the choice of a general practitioner information and communications technology are very underdeveloped. The potential of ICT to inform the public and to significantly impact service delivery, especially the sharing of information between practitioners and continuity of care plans for patients across programmes of care, needs to be realised. A comprehensive international evidence base is now available to assist in policy, planning and improvement of clinical care through the development of quality standards and accreditation in primary care. It also demonstrates that the public can be better informed about health and health services and that professionals can benefit in the areas of education and skills development (Green, 2001:2021-2025). The current capacity of primary care is insufficient to meet the evolving needs of the population.

Changes in demography, a reorientation towards prevention and health promotion, and shifting the focus from secondary care towards primary care increase the burden already facing community services. Commitment to change at many levels is required to meet the challenges and build the appropriate capacity in the future.

7.21 Chapter summary

Whenever seriously addressed as a matter of health policy, Primary Health and Primary Health Care is considered essential and sustainable cornerstones in building a sustainable health system for the 21st century. However, despite a virtual global consensus that these are the most critical components, there is a considerable imbalance in the priority accorded to them in health policy and higher education in most countries. There are numerous reasons for this, ranging from the dominance of an outmoded industrial view of health services development that favours specialized biotechnologies over a better understanding of health determinants that could lead to improved prevention strategies, to the motivations behind particular career choices, influenced as these often are by consideration of remuneration, lifestyle and personal prestige. It is, therefore, important for policymakers and health leaders in all countries to identify the needed roles from a health systems standpoint, plan for a more integrated approach, and to adjust strategic incentives to achieve the changes that are so clearly needed. It is imperative to design training, recognition and reward systems that recognize contributions that meet the real needs of people and society as a whole. This requires reemphasizing PHC and PH and attracting professionals to them as broad disciplines in their own right with a body of science and skills. These disciplines are the cornerstones of sustainable health systems, and this should be reflected in the health policies and professional education systems of all nations wishing to achieve a health system that is effective, equitable, efficient, and affordable.

CHAPTER 8

MODELS IN OTHER COUNTRIES IN PRIMARY HEALTH CARE SERVICES

8.1 Introduction

Worldwide primary care is associated with enhanced access to health services, better health outcomes, and a decrease in hospitalization and emergency department visits. Primary care can also help counteract the negative effect of poor economic conditions on health (Lancet, 2009:170-173). Traditional primary care focuses on personal health care services and continuity of care. The curative, “disease model” of the 1970s, which is still common today in many countries, is changing rapidly. Ageing, population growth, a rising burden of chronic, non-communicable diseases and multi-morbidity, and technological advances are driving the transformation of primary care. These demographic and epidemiological shifts require primary care to focus on prevention and quality of life and encourage a proactive population management approach that targets individuals and groups that are most affected by the structural determinants of health.

To do this effectively requires linking with public health (Shaikh, 2006:142-144). Proactive primary care means that radical changes need to be made to the current model of service, which include integrating key public health functions and interventions into primary care services (Starfield, 2004:1129-33). In her definition of primary care, she indicated the need to move to a health model that provides “the first level of contact with the health system to promote health, prevent illness, care for common illnesses, and manage ongoing health problems”. With this comprehensive and holistic approach, over 95% of patient contact with the health service would take place in primary care (Shaikh, 2006:142-144). It can therefore be argued that primary care is the backbone of any effective health system that aims for better population health. In settings where primary care has been effectively deployed and supported with adequate training and resources, family physicians only refer around 5% of patients from consultations to secondary care. Patient satisfaction is high and at a decidedly low cost to the health system.

The evidence is very clear, a health system that is not primary care-led is weak and expensive. Indeed, countries more oriented to primary care have populations with better health and services that are delivered at a lower cost.

8.2 Public Health

Public health, which has been described in some countries as public health medicine, or community medicine, is a multidisciplinary speciality, defined as “the science and art of preventing disease, prolonging life and promoting health through the organized efforts of society (Freeman, 2012:33-39). The multifaceted functions of public health provide the necessary tools to improve health through health promotion, protection and disease prevention at population and individual levels. Not all public health functions however can be delivered at the primary care level. In the WHO European Region, the five core essential public health operations are:

- i. Surveillance
- ii. Monitoring preparedness for response
- iii. Health protection
- iv. Health promotion
- v. Disease prevention

There is enormous potential for primary care to take a more proactive role in contributing to tackling some of these essential public health operations, especially promoting health and disease prevention. Public health guidance from the United Kingdom’s National Institute for Health and Care Excellence advises primary care professionals such as family physicians to opportunistically and proactively carry out activities such as short interventions to identify, reduce and prevent problematic use, abuse and dependence on alcohol, tobacco and illicit drugs, among others (Lancet, 2009:170-173). However, in the case of smoking, for example, primary care professionals tend only to respond to requests for help with giving up smoking rather than proactively engaging with existing smokers. Such reactive approaches to health must become more proactive ones.

Evidence of the benefits of health promotion within primary care is growing, and primary care and public health professionals and academics are working together to expand the evidence base with a particular interest in return on investment.

8.2.1 Public Health and Primary Care, the value of two natural allies

A health system is partly the product of a country's culture and the way people are willing to fund it to ensure equity and fairness. There is no perfect health system, each has strengths and weaknesses. However, the most effective systems are those able to secure the health of the whole population. This cannot be attained without universal health coverage achieved through effective comprehensive primary care focusing not only on disease, but also on health, and how to improve it (Shaikh, 2006:142-144). A strong proactive public health function, therefore, is required within primary care to protect the health of the population and the individual, promote health, and prevent disease (White, 2008:358-363). Proactive primary care saves lives, reduces the burden of disease and improves the quality of life. It is also an important means to improve productivity and provide a seamless service.

Considerable overlap occurs in roles, responsibilities and functions between public health and primary care, especially in the protection and promotion of health, and disease and injury prevention. There are numerous possible scenarios of integration . One envisages full integration, where the structures, processes, and delivery of care for both public health and primary care are the responsibility of the same entity (Hall, 2003:17-20). A second is based on two separate organizational structures, where professionals work together and share the same aim and objectives.

A third sees integration fostered by continuity of information and communication channels, supported by routine coordination mechanisms (Shaikh, 2006:142-144). In any scenario, we need to take into account the fact that both primary care and public health services are in high demand and under-resourced.

Mechanisms for integration, therefore, should look for mutual benefits and efficiency gains as well as opportunities to increase available resources for mutual benefit. However, the evidence clearly shows that both primary care and public health would improve if their respective strengths were augmented through partnership and integration.

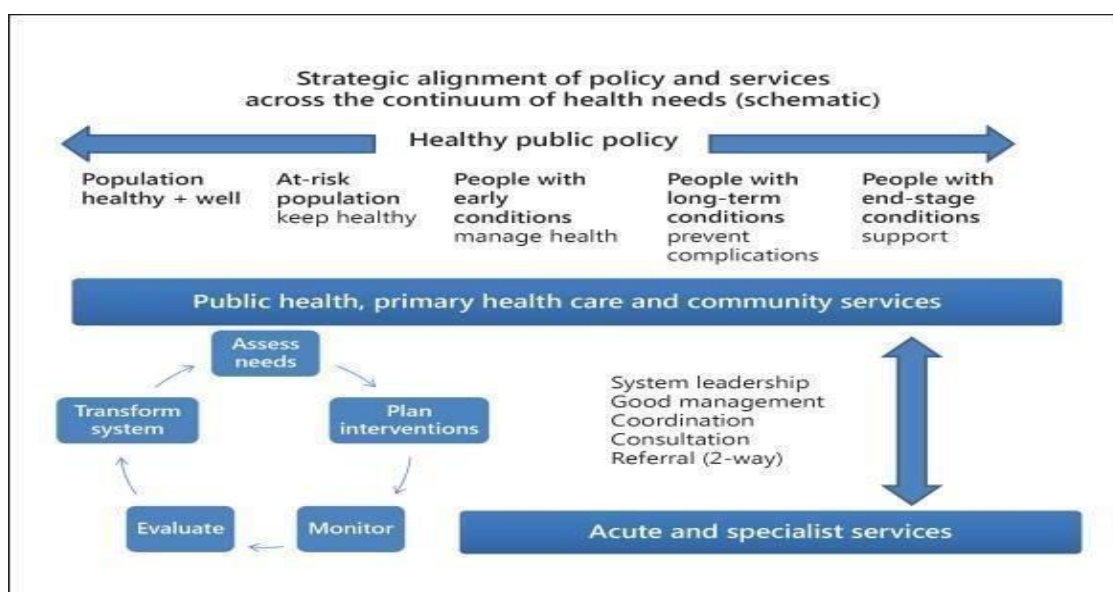
The real challenge to any health system is how to strengthen the relationship between public health and primary care to synergistically enhance both functions. Countries such as Brazil, Canada, and the United Kingdom provide some excellent examples of strong relationships between these two specialities (Hall, 2003:17-20). Public health achieves this through assessing health needs, defining priorities, providing evidence of effectiveness, developing strategies for population-wide interventions in promoting health, protecting health, preventing disease and injury, and evaluating health impacts (White, 2008:358-363). Primary care focuses on personal and family care interacting with the person holistically. Through such personal and continuous care, primary care can implement public health strategies for a healthy lifestyle, early intervention to tackle risk factors and health protection. With the decline of infectious disease and increase in lifestyle-related diseases and conditions, integration of public health and primary care is vital to reduce the burden of chronic conditions on communities, reduce the costs to the health system and improve health equity.

In many settings, primary care teams have moved beyond individual-level work to assess and tackle structural determinants of disease at the local population level, for instance, housing, transport, and the availability of fruit and vegetables (White,2013:515-529). Primary care holds extensive information about the health profile of the local community, and professionals often develop a deep understanding of local social issues that drive illness. By proactively analyzing the leading causes of ill health at the practice population level, primary care can generate unique public health insights. Public Health, Primary Health Care and community services should provide the crosscutting framework for all health and health-related services operating across the spectrum from primary prevention to long-term care and end-stage conditions (White, 2008:358-363).

This in turn must be integrated and coordinated with the critically necessary acute and specialist care system. Although this perspective is both logical and well-grounded, the reality is different in most settings, and there is room for improvement everywhere. Indeed, there is a need to integrate health care with Primary Health and Primary Health Care:

- i. To assess population health needs, set priorities, to plan and implement programs that will better meet the needs of the population, keeping in mind that interventions from across the spectrum are critical to the achievement of desirable health outcomes;
 - ii. Healthy public policies, environmental and occupational health protection, health promotion, clinical interventions, and integrative strategies to guide the development of Primary Health and Primary Health Care strategies as well as more specialized and supportive care, all of which should be designed to respect the core principles of universality and sustainability.
- Figure 8.1 below shows the community risk services in Public Health and Primary Care

Figure 8.1 Public Health and Primary Care (PH & PC)



Source: Author's Construction

8.3 Models and experience of integrating public health and primary care

According to White (2013:515-529), the evidence generated for this paper highlighted five primary care strategies and operational changes needed to integrate public health actions into primary care.

- i. Targeting health improvement actions and resources to the most disadvantaged areas.
- ii. Building capacity in primary care to deliver proactive promotion and preventive care.
- iii. Working beyond basic, essential and limited packages of care to a full range of services needed for first contact with the health system.
- iv. Providing early interventions to prevent escalation of health care needs.
- v. Taking a broader perspective so that care for individuals is framed in the context of population outcomes (e.g. equity and social cohesion).

The literature provides several possible models to integrate public health into primary care within the five strategic directions mentioned above. Six models were identified as possible means of achieving integration. These are based on adaptability to health systems to achieve the best possible results through integration. These models could be implemented individually or in combination.

8.3.1 Public health professionals integrated into primary care

In this model, there is no suggestion of full integration of public health and primary care, but an integration of some public health professionals into primary care teams. The Islamic Republic of Iran has adopted such a model in rural primary care for the past 35 years, although it has not been extended to urban areas. One of the aims of the primary care network in the Islamic Republic of Iran was to integrate malaria control, family planning, school health and environmental health with primary care services (Shaikh. 2006:142144). Brazil has also integrated many of the public health functions into primary care through community health workers. This is in line with the WHO recommendations on the role of health workers.

These workers are involved directly with families in supporting chronic disease management, triaging conditions like anaemia or dehydration, managing disease-specific programmes (tuberculosis), providing sexual health advice, delivering pre-and postnatal care, including breastfeeding assistance and child development assessment, providing cancer screening, supporting immunization programmes, monitoring infectious disease, and providing health promotion advice.

In South Africa, community health workers are being trained in new skills to screen for cardiovascular risks and diabetes, complementing their traditional role in addressing HIV and malaria (White, 2013:515-529). In the United States of America, there are many initiatives to use community health networks, where public health agencies and primary care providers work with local communities to address local needs. These needs are mainly public health in nature and not related to medical services (Shaikh, 2006:142-144). Placing a public health physician within a practice may not be the best approach to transfer public health knowledge; however, issues important to the practice lend themselves to such an intervention with potential long-term benefits for public health and primary care and the population they serve (Lancet; 2009:170-173). Time constraints limit the ability of family physicians to comply with preventive services recommendations. A study exploring the ability of a family physician to provide the recommended preventive services to a patient panel of 2500 people found that 7.4 hours per working day were required just to provide the preventive services.

8.3.2 Public health services and primary care providers working together

These two services remain as separate organizations but work on a shared vision and agreed on objectives to improve health. Primary care professionals provide personal public health interventions to complement population-level interventions carried out by public health practitioners (Shaikh, 2006:142-144). Such collaborative work is popular in the United States with many examples from New York to improve the health of the city's residents, Florida to increase uptake of influenza vaccination, Michigan to tackle diabetes and North Carolina to improve the health outcomes of low-income mothers and infants, to list just a few.

Such approaches may help improve communication and minimize separated insular thinking but may not reduce costs substantially or pool resources and they may be influenced by the changing roles of the personnel. Some countries have adopted similar models of cooperation to tackle specific areas of health concerns as the simplest approach to bring the two services together without organizational change (White, 2013:515-529). For example, in Australia and Canada, the two services collaborate to address chronic disease prevention. In the Netherlands, cooperation between public health and primary care has demonstrated success in preventing cardiovascular diseases.

8.3.3 Comprehensive and proactive benefit packages that include public health

The United States Medicare system recognized that preventive interventions at a personal care level within primary care save money and provide an additional benefit to health services. Medicare provides a range of public health (preventive) services within primary care. Burton and colleagues investigated whether adding preventive services to the health service benefits of older Medicare beneficiaries would affect the utilization and costs of Medicare (Shaikh, 2006:142-144). There appeared to be a modest health benefit with no negative effect on cost. This triggered a discussion to extend Medicare benefits to include a general preventive visit from primary care clinicians, thus moving from essential to comprehensive services (White, 2008:358-363). A yearly preventive visit was not sufficient to result in a statistically significant reduction in smoking and alcohol use; however, there may be moderate benefits from preventive visits, especially if prevention occurs more regularly. Medicare now provides a range of preventive public health services within their primary care programme. Similar packages, with or without copayments, have been introduced in some European and low- and middle-income countries.

8.3.4 Primary care services within public health settings

In countries where primary care does not provide universal coverage and especially those operating largely under the private sector (the United States, for example), public health agencies, such as the low .

Department of Public Health, have undertaken a role as a health provider for a specific population or as a last resort for the socially disadvantaged. Such a model tends to develop through opportunity rather than by design and addresses only the particular needs of specific groups, not the entire population. Such a model should be the exception and not the rule (Shaikh, 2006:142- 144). Strengthening public health with universal health coverage and access to all, irrespective of ability to pay, should be the aim of all modern health systems.

8.3.5 Building public health incentives in primary care

The United Kingdom is one of the countries with longstanding experience of incentives for health. Over its 70-year history, the United Kingdom's National Health Service has introduced various changes and incentives to promote the health of the population through general practice, improve the quality of services and target certain conditions and populations. Before the National Health Service introduced the Quality and Outcome Framework, there were various experiences of the use of incentives for general practice (Shaikh, 2006:142-144). These incentives led to an increase in immunization rates, cervical screening, breast cancer screening and many public health interventions. In 2004, the Quality and Outcome Framework was introduced as part of the new general medical service contract, which includes incentive schemes for general practices that reward them for how well they care for patients and provide good-quality promotion and preventative care services. The indicators of the quality and outcome framework are targets, which, if reached, result in extra payments to the practice (Lancet, 2009:170-173). Estonia is another country that has introduced a bonus scheme based on quality to incentivize the inclusion of public health functions within primary care.

8.3.6 Multidisciplinary training of primary care staff in public health

With accumulating evidence of the value of public health interventions in primary care, the importance of providing person-centred care, tackling the growing number of chronic conditions, and encouraging positive and healthy lifestyles in individuals and communities, many primary care doctors and nurses in many countries are undertaking training in public health (Martin, 2012:327-346).

In the United Kingdom, some family physicians are developing a special interest in public health through formal training programmes described as “GPs with special interest”. Such a model of integration may be the best for effectively integrating these two services to improve the population’s health. Similar models have been developed in the United States.

Many members of the primary care team shy away from delivering effective public health services as they lack the skills needed. A new training curriculum is needed that provides a wide range of skills related to the prevention of ill health and maintenance of public health (Martin, 2012:327-346). Additional training in public health is of great value to the skills of doctors and nurses in family practice. Short courses in interventional public health may be of additional value to the service and enhance the capacity of family doctors and primary care teams. Public health training should be extended to all members of the primary care team. However, to provide comprehensive primary care in an integrated health system, primary care teams need at least 0.7 family physicians per 1000 population, and the coverage should be 100% of the population within one system (or under one umbrella), free at the point of care (Lancet, 2009:170-173). The Declaration of Alma-Ata stated a slogan “health for all” 40 years ago. Through integration alone, we can close the gap between primary care and public health and move closer to that goal.

8.4 Health care in SOUTH AFRICA

In South Africa, private and public health systems exist in parallel. The public system serves the vast majority of the population but is chronically underfunded and understaffed. The wealthiest 20% of the population use the private system and are far better served. In 2005, South Africa spent 8.7% of GDP on health care or US\$437 per capita. Of that, approximately 42% was government expenditure. About 79% of doctors work in the private sector. South Africa has the highest levels of obesity in sub-Saharan Africa (Mogotlane, 2003:6-9). Kwa Mai Mai in Johannesburg is a market dedicated to traditional medicine.

The first hospital in South Africa, a temporary tent to care for sick sailors of the Dutch East India Company (the Company) afflicted by diseases such as typhoid and scurvy, was started at the Cape of Good Hope in 1652. A permanent hospital was completed in 1656. Initially, convalescent soldiers provided to others whatever care they could, but around 1700 the first Binnenmoeder (Dutch for matron) and Siekenvader (male nurse/supervisor) were appointed to ensure cleanliness in the hospital and to supervise bedside attendants.

The Company subsequently employed Sworn Midwives from Holland, who practised midwifery and also trained and examined local women who wished to become midwives (Mogotlane, 2003:6-9). Some of the early trainees at the Cape were freed Malay and coloured slaves. From 1807, other hospitals were built to meet the increasing demand for health care. The first hospitals in the Eastern Cape were founded in Port Elizabeth, King Williamstown, Grahamstown and Queenstown.

8.4.1 Missionary hospitals

Roman Catholic Nuns of the Assumption Order were the first members of a religious order to arrive in South Africa. In 1874, two Nightingale nurses, Anglican Sisterhoods, the Community of St Michael and All Angels arrived from England. The discovery of diamonds in Kimberley led to an explosion of immigrants, which, coupled with the "generally squalid conditions" around mines, encouraged the spread of diseases such as dysentery, typhoid, and malaria.

Following negotiations with the Anglican Order of St Michael, Sister Henrietta Stockdale and other members were assigned to the Carnarvon hospital in 1877 (Mogotlane, 2003:6-9). Sister Stockdale had studied nursing and taught the nurses at Carnarvon what she knew; these nurses would move to other hospitals in Barberton, Pretoria, Queenstown and Cape Town, where they, in turn, trained others in nursing (Ruud, 2009:29-34). This laid the foundation for professional nursing in South Africa. Sister Stockdale was also responsible for the nursing clauses in the Cape of Good Hope Medical and Pharmacy Act of 1891, the world's first regulations requiring state registration of nurses. Most mission hospitals have become public hospitals in contemporary South Africa.

8.4.2. The 20th revolution nursing

The Anglo-Boer War and World War 1 severely strained health care provision in South Africa. Formal training for black nurses began at Lovedale in 1902. In the first half of the 20th century, nursing was not considered appropriate for Indian women but some males did become registered nurses or orderlies (Mogotlane, 2003:6-9). In 1912, the South African military recognized the importance of military nursing in the Defense Act. In 1913, the first nursing journal, The South African Nursing Record, was published. In 1914, The South African Trained Nurses' Association, the first organisation for nurses, was formed. In 1944, the first Nursing Act was promulgated. In 1935, the first diploma courses to enable nurses to train as tutors were introduced at the University of Witwatersrand and the University of Cape Town. The establishment of independent states and homelands in South Africa also created independent Nursing Councils, and Nursing Associations for the Transkei, Bophuthatswana, Venda, and Ciskei (Britnell, 2015:75). Under the post-Apartheid dispensation, these were all merged to form one organisation, the Democratic Nursing Organisation of South Africa.

8.5 . Health infrastructure

According to National Health Care in 2011 and 2012 the Facilities Baseline Audit, assessed infrastructure, access, and availability of essential equipment and medicines (38). It found that almost all PHC facilities in the country were accessible by road (96%), while access via taxi was also high (87%). However, access to facilities by public transport is more limited with 58% of facilities accessible by bus and 9% by train, adding considerably to the cost of access, especially in rural areas at EC and other provinces (38). The PHC standard treatment guidelines and essential medicines list, now in their fifth iteration (39), determine the procurement and prescribing of medicines. Despite these regulatory measures, the National Health Facilities Audit found that only 23% of PHC facilities had all tracer medicines available as stipulated in the national Essential Medicines List. This contrasts with the national stock-out rate of 24% reported through the official District Health Information System in 2014. Some of the examples are discussed below.

8.5.1 Staffing

In 2013, it was estimated that vacancy rates for doctors were 56% and for nurses 46%. Half the population lives in rural areas, but only 3% of newly qualified doctors take jobs there (Ruud, 2009:29-34). All medical training takes place in the public sector but 70% of doctors go into the private sector. 10% of medical staff are qualified in other countries. Medical student numbers increased by 34% between 2000 and 2012.

8.5.2 Hospitals

There are more than 400 public hospitals and more than 200 private hospitals. The provincial health departments manage the larger regional hospitals directly. Smaller hospitals and primary care clinics are managed at the district level. The National Department of Health manages the 10 major teaching hospitals directly. The Chris Hani Baragwanath Hospital is the third-largest hospital in the world and it is located in Johannesburg (WHO, 2017:103-107). The technology of automated teller machines has been developed into pharmacy dispensing units, which have been installed in six sites (as of November 2018) and dispense chronic medication for illnesses such as HIV, hypertension, and diabetes for patients who do not need to see a clinician.

8.5.3 Health care provision in the post-war period

Following the end of the Second World War, South Africa saw a rapid growth in the coverage of private medical providers, with this development mainly benefiting the predominantly middle-class white population. From 1945 to 1960, the percentage of whites covered by health insurance grew from 48% to 80% of the population. Virtually the entire white population had shifted away from the free health services provided by the government by 1960, with 95% of non-whites remaining reliant upon the public sector for treatment. Membership of health insurance schemes became effectively compulsory for white South Africans due to membership of such schemes being a condition of employment, together with the fact that virtually all whites were formally employed (Mogotlane, 2003:6-9).

Pensioner members of many health insurance schemes received the same medical benefits as other members of these schemes, but free of costs. Since coming to power in 1994, the African National Congress (ANC) has implemented a number of measures to combat health inequalities in South Africa (Ruud, 2009:29-34). These have included the introduction of free health care in 1994 for all children under the age of six together with pregnant and breastfeeding women making use of public sector health facilities (extended to all those using primary level public sector health care services in 1996) and the extension of free hospital care (in 2003) to children older than six with moderate and severe disabilities.

8.5.4 National health insurance

The current government is working to establish a national health insurance (NHI) system out of concerns for discrepancies within the national health care system, such as unequal access to health care amongst different socio-economic groups. Although the details and outline of the proposal have yet to be released, it seeks to find ways to make health care more available to those who currently cannot afford it or whose situation prevents them from attaining the services they need. There is a discrepancy between money spent in the private sector which serves the wealthy and that spent in the public sector which serves about 84% of the population. About 16% of the population have private health insurance (Mogotlane, 2003:6-9). The total public funding for health care in 2012/3 was R21 billion. The NHI scheme is expected to require expenditures of about R336 billion,

The NHI proposed that there should be a single National Health Insurance Fund (NHIF) for health insurance. This fund is expected to draw its revenue from general taxes and some sort of health insurance contribution. The proposed fund is supposed to work as a way to purchase and provide health care to all South African residents without detracting from other social services.

Those receiving health care from both the public and private sectors will be mandated to contribute through taxes to the NHIF. The ANC hopes that the NHI plan will work to pay for health care costs for those who cannot pay for it themselves. Some doubt the NHI and oppose its fundamental techniques (Ruud, 2009:29-34). For example, many believe that the NHI will put a burden on the upper-class to pay for all lower-class health care. Currently, the vast majority of health care funds come from individual contributions coming from upper-class patients paying directly for health care in the private sector (Britnell, 2015:75). The NHI proposes that health care fund revenues be shifted from these individual contributions to general tax revenue. Because the NHI aims to provide free health care to all South Africans, the new system is expected to bring an end to the financial burden facing public sector patients.

8.5.5 Refugees and asylum seekers

The South African Constitution guarantees everyone "access to health care services" and states that "no one may be refused emergency medical treatment". Hence, all South African residents, including refugees and asylum seekers, are entitled to access to health care services. A Department of Health directive stated that all refugees and asylum seekers without the need for a permit or a South African identity document – should have access to free anti-retroviral treatment at all public health care providers (Ruud, 2009:29-34). The Refugee Act entitles migrants to full legal protection under the Bill of Rights as well as the same basic health care services that inhabitants of South Africa receive (Setia, 2012: 156-156). Although infectious diseases "as prescribed from time to time" does bar entry, grant of temporary and permanent residence permits, according to the Immigration Act, does not include infection with HIV and therefore migrants cannot be declined entry or medical treatment based on their HIV status.

8.6. A model for other countries (THAILAND)

In 1964 Thailand had one of the highest rates of population increase at 3.32%. In 1990 that figure had dropped to 1.24%, qualifying Thailand as one of the most successful countries in implementing family planning programs (Doty, 2009:11711183). Between 1970-1990, the contraceptive prevalence rate rose from 15% to 75%. During this time, the infant mortality rate dropped from 80/1000 to 35/1000 live births. This was accompanied by an increase in the quality of life and health of the Thai people. The National Family Planning Program was strengthened by:

- i. Public information campaigns that promoted 2-child families and contraceptive use;
- ii. Increased service delivery of all 7 contraceptive methods through 8000 government health outlets;
- iii. Paramedical training increased the number of health care providers by training nurses to handle IUD insertion and post-partum sterilization, midwives were taught to give injections and insert IUDs, and village volunteers were trained in prescribing pills and condoms; and
- iv. Coordination programs that allowed all related government ministries and 6 private associations to work together.

The result of this effort is a 40-fold return on every dollar spent on family planning. Without these programs, the Thai population was estimated to be 67 million instead of 54 million. This resulted in savings in social and economic development planning as well as educational expenditures. Income from rice exports was created, which would have had to feed the extra 13 million births that were avoided by the program between 1970-1989 (Haggerty, 2007:336-3440). The program still has a great deal of work to accomplish. Thailand's population is projected to grow to 63.5 million by 2000. The number of women of reproductive age is currently 14 million which means that 28 million people must be reached and encouraged to delay their 1st child and space their 2nd child further.

The goal is to have 77% of married women using contraception by 1996. This is especially true of the women in the 15-25 age group, 50% of whom currently use contraceptives (White, 2008:358-363). The sterilization rate must also be increased from 30% to 40% for women with 2 children.

8.6.1 Primary Health Care Progression Model

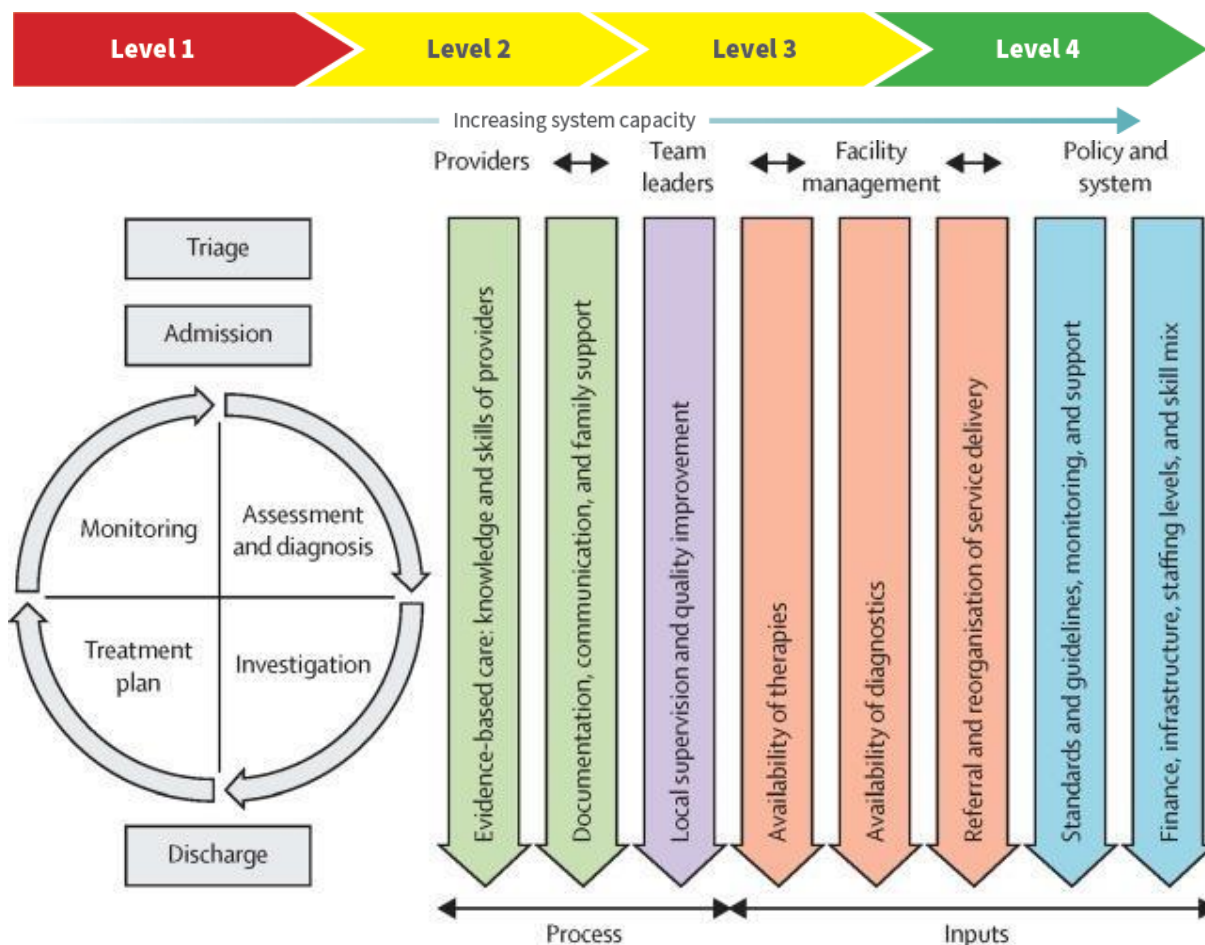
The Primary Health Care Progression Model has been discussed as a mixed methods assessment tool used to populate the Capacity pillar of the Vital Signs Profile. The “capacity” of a Primary Health Care (PHC) system refers to the foundational properties of the system that enable it to deliver a high-quality PHC (Jackson, 2008:51-60). The Capacity pillar of the Vital Signs Profile provides information that can answer questions like, “does your system have the policies, infrastructure and other physical and human resources to deliver primary health care?” and “Are the fundamentals of PHC service delivery such as a strong population, health management, and effective facility management in place.

Primary Health Care Progression Model assessment aimed to systematically measure core primary health care capacities – like governance, inputs, and population health management – that were insufficiently measured by existing quantitative, globally comparable data sources (Berwick, 2008:1182-1184). Therefore, the PHC Progression Model is designed to capitalize on the wealth of information, evidence, and data that is often available in countries but rarely captured in a way that generates useful information for decision-makers or is accessible to external audiences.

The goal of the PHC Progression Model assessment is to bring together stakeholders who have complementary knowledge of primary health care functioning in a country to yield an objective, comparable assessment of PHC capacity. The PHC Progression Model is made up of 33 measures. Each measure focuses on a specific primary health care system, input, or service delivery element and is assessed using a rubric that assigns the level of performance for that measure to one of four categories, ranging from Level 1 (low) to Level 4 (high). Increasing Levels describe increasingly high capacity and states of performance.

Figure 8.2 below shows the PHC-Assessment Guide graphics-fig 1 levels.png.

Figure 8.2 PHC-Assessment Guide graphics-fig 1 levels.png



Source: Author's Construction :

Results of the 33 measures of the PHC Progression Model are summarized as three scores on the Vital Signs Profile, as shown above.

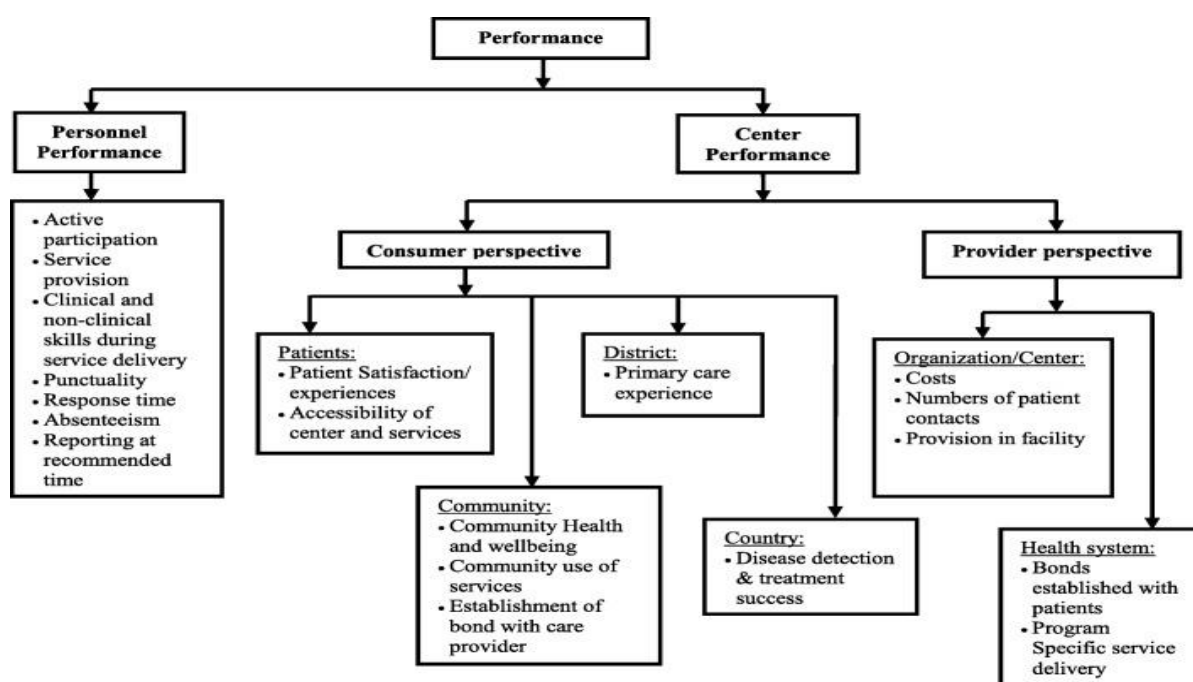
8.6.2 Assessment for the PHC Progression Model

PHC Progression Model assessments are designed to be participatory and bring together diverse stakeholders who have complementary knowledge of primary health care functioning in a country (Jackson, 2008:51-60). The assessment is implemented by a team of technical experts and policymakers, often including stakeholders from the Ministry of Health, development partners, civil society organizations, and nongovernmental organizations. The PHC Progression Model assessment involves three phases: Plan, Assess, and Finalize.

The assessment includes an extensive document review and extraction, a review of existing quantitative data, and the completion of key-informant interviews; it does not involve collecting new quantitative data or conducting health facility assessments (Berwick, 2008:1182-1184). The PHC Progression Model is scored by the in-country assessment team and results are validated by PHCPI to ensure that findings are evidence-based and comparable to other countries.

Results of the 33 measures of the PHC Progression Model are summarized as three scores on the Vital Signs Profile, as shown above.

Figure 8.3 PHC Progression Model



Source :Author construction

8.6.3 Countries that have completed a PHC Progression Model

- i. The process of implementing a PHC Progression Model Assessment made the identification of strengths and gaps glaringly obvious.
- ii. Completion of an assessment resulted in new learnings about PHC, even for stakeholders who are deeply embedded in the system. Often, these learnings challenged pre-existing expectations of strengths and weaknesses.

- iii. The assessment process provides a unique opportunity to holistically understand PHC capacities in a way that is difficult – if not impossible – to do otherwise.
- iv. Completion of the assessment encouraged a joint review process involving multiple sectors and ministries and facilitated the identification of key determinants for strengthening PHC.
- v. The PHC Progression Model results support a coordinated effort to determine what metrics and areas to focus on for improving the PHC and can help create accountability for PHC spending.

8.7 Primary health care models and suitability for provision of e-services

We present an overview of the most frequently distributed types of primary health care models of delivery across different countries and cultural environments. We summarise and describe the most important definitions, principles of classification, attributes, necessary conditions, organization, and key performance indicators for the functioning of the primary health care systems. We review and explore the suitability of different PHC models for the provision of electronic (e-) services (Jackson, 2008:51-60). The health care systems of the future need to focus on prevention, screening and early diagnosis rather than the later stages of the care cycle (Berwick, 2008:1182-1184). The 20th-century paradigm of hospital-based care must be reformed to reflect economic and demographic realities. Health systems based on a strong primary health care system are more effective and efficient than those centered on specialty and tertiary care. For instance, various national and provincial commissions on health care in Canada concluded that strengthening and expanding primary health care will meet the need for prompt access to comprehensive evidence-based services.

Major initiatives have also been undertaken in New Zealand and the United Kingdom to strengthen primary health care (Hanna, 2008: 52-58). As health systems worldwide engage in evaluation efforts to assess the impacts of primary health care renewal initiatives, there is a critical need to provide evaluation frameworks and tools to facilitate these efforts.

In the USA, for instance, the integrated community model is the most generally desirable form when all performance characteristics are taken into account. The survey found that across the multiple dimensions of care, the United States stands out for its relatively poor performance. Except for preventive measures, the US primary care system ranked either last or significantly lower than the leaders on almost all dimensions of patient-centred care access, coordination, and physician-patient experiences (Hanna, 2008: 52-58). Shortly, the main problems of most current PHC models may be summarised as three main issues, namely, access to care, interactions, and relationships within the primary care practice.

In 2003, the US Institute of Medicine recommended that "all health professionals should be educated to deliver patient-centred care as members of an interdisciplinary team, emphasizing evidence-based practise, quality improvement approaches, and informatics" (Jackson, 2008:51-60). At the same time, the policy of better health care for Europe was formulated. Notably, eHealth is an integral component of the EU's i2010 policy framework which seeks to promote an open and competitive digital economy. One of the three EU i2010's pillars is to foster inclusion, better public services and quality of life through the development and implantation of a novel, better ICTs. The modern digital world, using novel ICTs, has dramatically changed the potential for obtaining and using new information. For instance, one of the challenges of the ICT research under the EU FP7 has focused on two very important specific aspects:

- i. Personalised monitoring and point-of-care diagnosis and
- ii. Patient safety and risk assessment (EU Commission, 2006, 2008b).

The objectives of our present study were to:

- i. Summarise and review main types of primary health care (PHC) models;
- ii. Describe, assess and classify their most important principles, attributes and key performance indicators; and
- iii. Explore minimum necessary conditions (e.g., EHR, ICT tools, etc.) and suitability of the PHC models for introduction and provision of e-services.

8.8 Primary health care (PHC) systems and models

The present study addressed a very important, currently debated problem of the introduction and development of various e-services in the routine practice of different primary health care delivery systems (Touati, 2009:375-401). The current policies, research and development agendas in e-Health and ICT in health care in different countries widely promote the introduction and development of e-services across all levels of health care provision. While we consider the primary health care level as one of the most important and badly needed targets for such innovative approaches, we would suggest that without a proper overview and a systematic analysis of existing models of PHC delivery and their relative suitability, any such tasks and policy measures are hardly achievable.

It forms an integral part of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact for individuals, the family and the community with the national health system, bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process (Labonte, 2008:58-67). Not all PHC delivery systems contain all aspects of comprehensive primary health care; this definition may be used not to exclude but to include those models that display at least one or more of these aspects as listed above (Touati, 2009:375-401). The five main functions of a PHC delivery system are as follows (with modifications):

- i. Provision of care at first contact with the healthcare system;
- ii. Continuity of care;
- iii. Coordination of care;
- iv. Comprehensiveness of care (including prevention and health promotion);
- v. Gate-keeping role to the upper levels of the healthcare system.

What models of primary health care delivery exist? We use here the term, "model, to represent it in a summary form and describe complex relations within the real world. A model is always a simplified framework of the real world, because it is designed to highlight only selected properties of a system and their inter-relationships.

The term model here is used to capture the fundamental structure of primary health care delivery and its organisational structure and relationships. It describes the principal interactions between the service components and includes information about the organisation, distribution and utilisation of resources within the system (Cumming, 2007:46-55). In summarised findings by Canadian researchers who examined the organizational structure of 28 distinct models of primary health care delivery in a large number of industrialized nations, four main (archetypal) organizational models were derived:

- i. Professional contact model (care by GPs solo or in groups; little/no association with other health care professionals; fee-for-service; IT is for internal use only; no formal attention to continuity; no formal integration of services with other providers; dominant model in the United States, Canada and Belgium);
- ii. Professional coordination model (care by GPs and nurses; capitation or capitation plus fee-for-service; formal attention to continuity; IT integrates with other sources of health care service; nurse liaison helps integrate health care services; dominant model in UK, Denmark, The Netherlands and United States (HMO staff model));
- iii. Integrated community care model (population care provided by health care centres linked with IT to other providers serving the same population; continuity assured by a team; availability of care at all times; the full scope of care assured; can be found in some provinces in Canada); and
- iv. Non-integrated community care model (health care centre focus and the full range of services, but no IT or other mechanisms to integrate services with other providers; services not available at all times; no formal mechanism to ensure continuity; found in some provinces in Canada).

For instance, more recently classified primary care models fall into two categories:

- i. The traditional models; and the newer models (e.g., GP vs. PCT - primary care teams in Sweden/UK; community-based primary care – polyclinics; group-visit models; alternative - telephone care, remote telemedicine, etc.).
- ii. Another good summary of primary care models (PC-models-web, 2010) concludes with a new vision of primary care focused on the health of populations.

Integration of services and practitioners, continuity of care and a focus on health promotion and disease prevention would all be supported by new facilities and funding mechanisms. Patient navigators and advocates, along with case management and discharge planning, would be keeping people healthy and helping them manage their own care. It is suggested that investments in primary care working towards this vision will yield savings in the long term (Touati, 2009:375-401). The comparison of the four primary care models from Canada has shown clearly that the type of primary care practice is important.

8.9 Principles, attributes and key performance indicators (kpi) of PHC models

Population (public) health is an approach that aims to improve the health of the entire population or sub-groups within the population and to reduce health inequalities among population groups. Based on this approach, most health strategies in various countries define the core principles of primary health care models as equity, people-centeredness, quality and collective management, accountability as well as introducing other important principles that relate to the main functions of primary health care, in particular, first-point contact, continuity of care and the utilisation of a holistic, complex approach not only to ensure universal coverage but also to maintain and improve population health (Touati, 2009:375-401). To be properly described and studied, the most important attributes of the PHC delivery models should be considered. The main PHC attributes have been presented with their definitions in Table 8.1 (Haggerty, 2007:336-344). Certainly, this list may not be exhaustive and other attributes, more or less specific, can be added (e.g., cultural environments, quality-of-life constructs, etc.).

Table 8.1 Main primary health care attributes and their definitions

Clinical practice attributes	Structural dimensions	Person oriented dimensions	Community oriented dimensions	System performance
First-contact accessibility:	Clinical information management	Advocacy	Client/community participation	Accountability
Accessibility-accommodation	Multidisciplinary team	Continuity relational	Equity	Availability
Comprehensiveness of services	System integration	Cultural sensitivity	Inter-sectoral team	Efficiency/productivity
Informational continuity		Family-centred care	Population orientation	
Management continuity		Interpersonal communication		
Technical quality of clinical care		Respectfulness		

Source: Author's Construction

For instance, several other dimensions were identified that could not be termed “attributes”, but they emerged as important aspects of PHC delivery models. One such aspect is patient enablement, a patient’s sense of self-efficacy in being better able to understand and manage a health condition as a result of the clinician’s behaviour during the visit. As is satisfaction, patient enablement is considered to be an outcome rather than an attribute of care and is elicited only in visit-based questionnaires. Another is trust, which is most likely an outcome rather than an attribute of the care process (Brazil, 2005:1-10). Cost may be a barrier to accessibility but if universal access to medical services is the aim, such cost barriers are theoretically minimal. Although derived on a Canadian basis, these definitions seem robust internationally.

For example, the attributes (Table 1) compare well to the 6 characteristics identified by the Institute of Medicine (IOM) of a health system that meets the patient's needs: safe, effective, patient-centred, timely, efficient, and equitable. At the same time, PHC delivery models are assessed by their outputs and or key performance indicators.

The output is the direct product or service as a result of the interaction between patients and PHC providers, that is, the volume, type and quality of services provided and received, for instance, the use of PHC services by the entire population, and by subgroups stratified by age, sex, geographic area and morbidity level. For example, the proportion of the population using PHC services within their local health area provides a measure of self-sufficiency as mentioned above (Brazil, 2005:1-10). Types of PHC services include physician visits for specific conditions or specific types of visits, including preventive, episodic, chronic and palliative care. Information is available from both administrative and survey data for measures such as annual check-ups, screening tests, physician visits for mental health conditions, and use of other health services.

Administrative data sources quantify the number and type of visits covered through publicly funded services, while survey data describe physician and other health provider use both from the patient and provider perspective (Laverack, 255-262). As an example of KPI, we can illustrate 6 performance characteristics of the abovementioned 4 main (archetypal) organisational PHC models. Table 8.2 below shows the performance of Primary care models.

Table 8.2 Performance characteristics of primary care models

PHC Model	Effectiveness	Productivity	Accessibility	Continuity	Quality	Responsiveness
Professional contact	4	4	1	3	3	1
Professional coordinated	3	2	1	4	3	1
Integrated community	1	1	3	1	1	3
Non-integrated community	2	2	4	2	2	3

Source: Author's Construction

Most likely, the highest performance metrics have been observed in integrated primary care provided by health care teams. Innovative home health solutions (mainly in the USA) may be a better answer for patients with specific, mostly chronic diseases, clinicians and the bottom line.

In this sense, especially when scientific research is involved for health care integrity and consistency, one can easily refer to both the hospital and the community setting investigation as “applied clinical research” (Kazi, 2003:803-818). This notion is novel and has not been used widely across the different settings, however, the current tendency is for it to be adopted in clinical practice worldwide (Greenhalgh, 2009: 391416). In conclusion, most of the current health care models in Australia, Canada, France, Germany, Netherlands, Sweden, and the UK suggested an added value from adopting an integrated health care model incorporating international health care practices; it also proposed a wider availability of primary care services through teams.

8.10 Necessary conditions and suitability of PHC models for e-services provision

E-services, a business concept developed by Hewlett Packard (HP), was the idea that the World Wide Web was moving beyond e-business and e-commerce into a new phase where many services could be provided for a business or consumer using the Web. Some e-services, such as remote bulk printing, may be done at a Web site; other e-services, such as news updates to subscribers, may be sent to your computer (USA) (White, 2008:358-363). Other e-services will be done in the background without the customer's immediate knowledge. HP defines e-services as "modular, nimble, electronic services that perform work, achieve tasks or complete transactions". Therefore, any application program or information resource is a potential e-service and Internet service providers (ISPs) and other companies are logical distributors or access points for such services (Kazi, 2003:803-818). The e-services concept also sees services being built into "cars, network devices, and virtually anything that has a microchip in it".

HP's vision is that IT departments will increasingly address their needs in a modular way so that individual modules can potentially be addressed by some e-service (Greenhalgh, 2009:391-416). In health care, however, and in primary health care, in particular, any business model for e-services should promote cooperation and effective/efficient interoperability based on the core relationships between organizational strategy, primary and support processes, and technological infrastructure.

Beyond Internet, the potential of cell phone communications, portable devices and electronic instrumentation in the development of eHealth services for patient monitoring and follow-up, together with advances in sensor technology, wireless communications and pervasive computing technologies will be able to facilitate the development of new tools and models of services to support independent living and enhanced quality of life (Baum, 2001:202-206). A useful example from Spain on telemedicine (more as an organisational formula rather than as a technology per se), together with enabling assistive technologies, embedded computing, and wearable devices, has shown how physiological parameters and other data can be retrieved in real-time and delivered to the medical personnel (Kazi, 2003:803-818). Similarly, the adoption of a glycaemia test sent by the Internet for monitoring diabetic patients in their homes (i.e. community level) requires a new approach and marketing strategies by the provider (Baum, 2001:202-206).

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It is a clear sign of the expanding needs and newly developing markets that will certainly require not only new ways of thinking but also specific approaches for the provision of primary care to populations.

The PHC physicians provide the foundation of health care systems in most countries and are the main figures that ensure access, connect care and endorse continuity of care for the patients and their families. At the same time, the ageing populations, increasing prevalence of chronic disease and widening abilities to deliver complex care outside the hospitals have prompted international efforts to redesign primary health care to improve outcomes and efficiency.

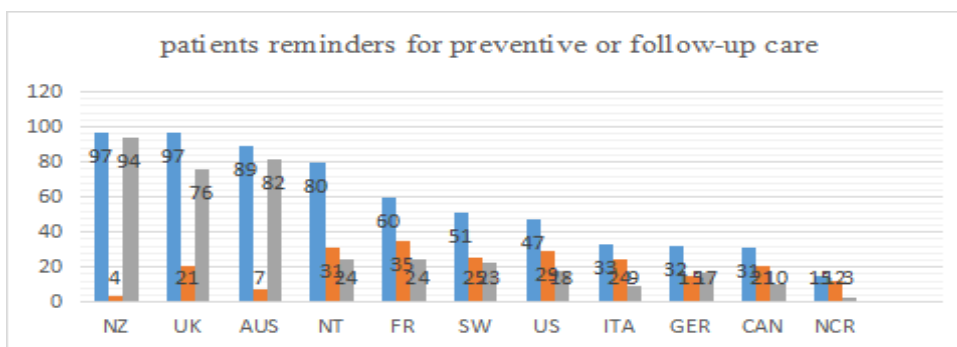
A recent international survey, funded by the Commonwealth Fund investigated PHC physicians across countries (Haggerty, 2007:336-344). One of the most important aspects of this survey was the current status of ICT in health care provision at the PHC level. The survey addressed 14 computerized functions of PHC practice, including basic electronic medical (health) records (EHRs), namely electronic ordering of medications and tests, computer access to test results and medication lists, computer alerts/prompts, and decision support; computerized reminder systems for the prevention and follow-up care computerized ability to list patients by diagnosis, laboratory results, and medications; and electronic entry of notes and medical histories (Greenhalgh, 2009: 391-416). To evaluate multifunctional capacity, a summary variable counting the number of functions was created and it categorised systems as low (0–3), middle (4–8), or high (9–14). The survey found a striking spread across countries in the adoption of EHRs and the range of electronic functions.

For instance, in Australia, Italy, the Netherlands, New Zealand, Sweden, and the United Kingdom, EHRs are nearly universal, and >50% of the practices reported at least nine of the surveyed functions (Kazi, 2003:803-818). The physicians in Canada, the United States and France lag behind in basic EHRs as well as multifunctional support. Even though EHR use is nearly universal in Norway, its functional capacity is low as is that of Germany. The figure below shows the ICT communication in PHC in different countries including basic electronic medical (health) records (EHRs), namely electronic ordering of medications and tests.

Computer access to test results and medication lists, computer alerts/prompts, and decision support; computerized reminder systems for the prevention and follow-up care. The computerized ability to list patients by diagnosis, laboratory results, and medications; and electronic entry of notes and medical histories (Greenhalgh, 2009: 391-416). To evaluate multifunctional capacity, a summary variable counting the number of functions was created and it categorised systems as low (0–3), middle (4–8), or high (9–14). The survey found a striking spread across countries in the adoption of EHRs and the range of electronic functions.

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Figure 8.3 ICT communications in primary health care in different countries



Source: Author's Construction

At the same time, there was a large variation in the responses indicating different emphasis on building capacity. For example, among the seven countries with near-universal EHRs, the majority of physicians reported electronic access to laboratory results, yet fewer than half of Dutch, Norwegian and U.K. doctors can order tests electronically. Across countries, most doctors with EHRs reported electronic clinical notes, routine electronic prescribing, and computerized alerts about potential problems with drug doses or interactions USA (White, 2008:358-363).

In particular, decision support appears generally less well developed. In contrast, the U.S. multifunctional capacity remains concentrated in larger practices, for example, one-half of the U.S. practices with high-function capacity was associated with integrated care systems such as Kaiser in the USA or NHS. In summary, only 46% of U.S. doctors use electronic medical (health) records compared with over 90% of doctors in Australia, Italy, the Netherlands, New Zealand, Norway, Sweden and the UK (Cumming, 2007:46-55). A specific example of successful application of ICT support in PHC delivery is the introduction and development of targeted programmes and initiatives for better health education, promotion and health monitoring. Mainly at a regional level, such programmes can surely profit from further expansion and wider implementation, on a worldwide scale. One such programme is the ICT support for self-monitoring and glucose control in primary care in diabetic patients.

For instance, the National Service Framework standards 3-6 in the UK relate to working with individuals and their support networks to support self-care, however, the diabetics are not maximising the benefit of self-monitoring or the lifestyle changes required to slow the disease development and minimise its further complications with, for example, over-usage of glucose monitoring without adequate knowledge of how to use the information to improve glucose control (Baum, 2001:202-206). In particular, as measured in the Quality & Outcomes Framework (QOF) in general practice, the rates of blood glucose control in primary care increased from 65% in 2007-2008 to 68% in 2010-2011.

8.11. Chapter summary

A proactive primary care approach has a crucial role in promoting healthier lifestyles through every contact with the public. Primary care professionals should make every contact count to make a healthy life a priority. Shifting to prevention could alter the shape of the workforce, with more people delivering early intervention and public health services rather than interventions for acute illness. These models that have been described provide good opportunities to radically change health services to deliver a truly comprehensive service that can help achieve universal health coverage.

Recent Evidence on the main types of Primary Health Care delivery models across different countries and cultural environments were explored as well as their suitability for the provision of e-services and other types of computerised communications with patients. Notably, the main prerequisites for successful provision of e-services to the patient within the system of Primary Health Care delivery are the highest possible level of integration of primary care, possibly with an enhanced primary care team; a multidisciplinary approach; medical records; and the introduction, maintenance and update of computer decision support systems and tools.

CHAPTER 9 CONCEPTUAL MODELS AND MODEL FRAMEWORK IN PRIMARY HEALTHCARE

9.1 Introduction

PHC developed a Conceptual Framework that describes important components of a strong PHC system. It is intended to guide what should be measured, inform and drive efforts to improve PHC. The Framework is based on evidence about the key characteristics and determinants of strong PHC systems, building on existing frameworks for health system performance (Coulson, 2005:36). The PHC Conceptual Framework includes the key inputs, service delivery processes, and goals of an effective PHC system. It flows from left to right, similar to other input-process-output outcome logic models. A focus on service delivery processes sets the PHC Conceptual Framework apart from previous frameworks (von Schrader, 2002:270277). The following areas of the Framework will be the focus of efforts to develop practical new ways for countries to measure primary health care service delivery.

- i. Access - Do patients have affordable, timely access to primary health care that is geographically convenient?
- ii. Availability of effective primary health care services - Are primary health care facilities functioning, with workers who are motivated, competent, and equipped to provide quality services?
- iii. People-centred care - Does the system offer the well-established key functions of primary health care including, first contact accessibility (from the user perspective), coordination, comprehensiveness, continuity, and safety?
- iv. Organization and Management - Does the system appropriately organize and manage important elements of primary health care delivery, including team-based care, supportive supervision, population health management, and the use of information systems that aid in monitoring services and continually improve quality?

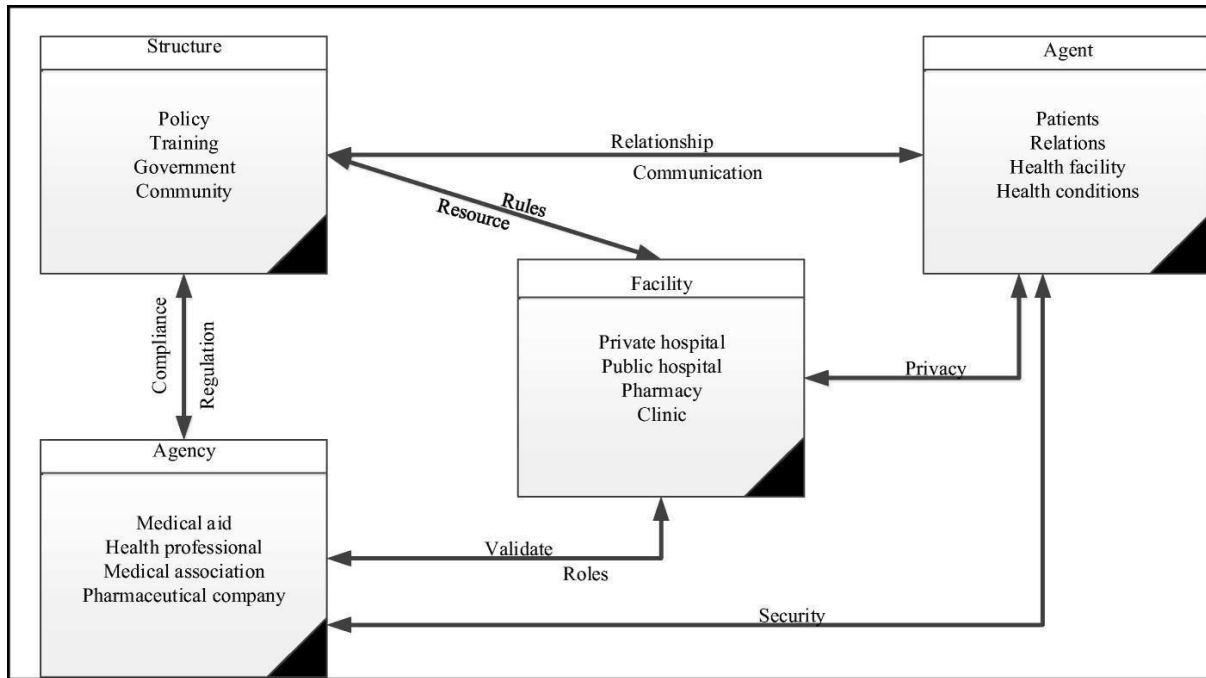
This Conceptual Framework defines what is important to measure, and it also helps us to identify where important data is missing (Arksey, 2005:19-32). PHCPI will address these knowledge gaps by partnering with countries, donors and development partners to develop new indicators and data collection tools that can be useful for countries working to improve the performance of their primary health care system.

9.2 Conceptual framework in Primary Health Care

In this chapter, the researcher describes a framework to conceptualize the structure, organization and performance of primary care. The framework blends organizational theory with existing concepts of service delivery and clinical care and can be used as a template for the systematic evaluation of primary care (Arksey, 2005:19-32). Work has been oriented towards primary care, defined here as 'that level of a health service system that provides entry into the system for all new needs and problems, provides person-focused care over time, provides care for all but very uncommon or unusual conditions and co-ordinates or integrates care provided elsewhere by others. Although the broader concept of primary health care, with its additional focus on education, community empowerment and population health has been acknowledged, this research study focused on primary care and its delivery (Peters, 2015:141-146). The strategy Theory can be useful in gaining an understanding of how technical and non-technical agents interact with each other.

This is illuminated by the relationships and interdependence between the agents. Thus, an agency such as health professionals and medical associations exist through the rules, which they created. The framework consists of four main components, namely structure, agency, facility, and agent. The components are interrelated in the process of providing and receiving healthcare services, through which huge volumes and various types of data are generated. The data are often reused in the course of service delivery. Figure 9.1 below shows the Conceptual framework in primary health care service delivery.

Figure 9.1. Conceptual framework for primary health care



Source: Authors construction

Figure 9.1 above shows the structure, agency, facility, and the organization the PHC should be delivered to all the countries. The interrelationship and interconnection between the components as shown in the Figure above are discussed, as presented below. In South Africa, health care workers are required to be registered with the Health Care Professional Council of South Africa (HCPCSA) in order to practice or work in the healthcare sector. If one is not registered, regardless of whether they have a qualification or not, they are not allowed to practice or provide health services to the community. This rule determines whether one is able to practice or not

9.3 Structural Environment

The structural domain includes the organizational and environmental features likely to influence primary care service delivery. This domain is divided into three main components: the health care system, defined as the policies, stakeholders (e.g. public agencies and professional associations) .

Factors at the system level that can influence primary care organizations and providers; the practice context, defined as the factors at the community level that can influence the organization of the practice and the delivery of care; and organization of the practice, defined as the structures and processes at the practice level (Damschroder, 2009:4-50). These structural attributes align with the individual and collective capacity to provide services.

9.4 Health care system

The health care system or institutional and resource environments revolves largely around the influence of government bodies and professional associations. These institutions define the broad parameters guiding primary care service delivery (Damschroder, 2009:4--50). Government bodies exert influence through the provision of material and financial resources (e.g. payment methods, support for information technology) and specified governance structures and legal frameworks (e.g. contracts specifying a mandatory basket of services and activity reports). Although there have been extensive studies on the relationships between physician remuneration methods and the delivery of primary care services, the issue of governance has received far less attention (Peters, 2015:141-146). Even in highly organized health care systems, governance remains under the guardianship of professional associations. Their activities in defining codes of practice exert a powerful influence over the work of primary care practitioners. Both government and professional bodies promote specific visions and values about what should be considered 'good' delivery and quality clinical care (Damschroder, 2009:4-50). Cohesiveness between the goals, resources, values and governance structures can influence how well primary care organizations and providers respond to system-level leadership.

9.5 Practice context

Studies comparing the work of primary care practitioners in different geographical settings provide solid evidence that context variables can have a profound influence on medical practices (Andersen, 2007: 187-190). The primary care practice context comprises the characteristics of the surrounding communities, the availability of other medical resources and whether or not the practice organization is part of a network with other services in the area (Damschroder, 2009:4-50). Although autonomous practice organizations from the same model share a number of core characteristics, each set may be influenced by widely differing local factors.

9.6 Organization of the practice

The last component of the structural environment relates to individual practices and the internal factors that might affect performance (Andersen, 2007:187-190). 'Health and human resources' relate primarily to the group composition and 'internal' demography specific to each practice. It refers to the aggregate characteristics of team members, such as age, sex, professional background and skill mix, as a potential determinant of organizational structure and performance. For example, studies have shown that factors such as the ability of practice staff to participate in decision-making, influence the delivery of preventive services in primary care settings. The incorporation of the category 'office infrastructure' recognizes the potential of different material and technical elements (Arksey, 2005:19-32). Finally, 'organizational structure and dynamics' refers to how team members coordinate and collaborate to perform key tasks.

There is accumulating evidence that professional collaboration in primary care organizations influences the delivery and quality of services. We included the culture of the organization under the umbrella of 'organizational structure and dynamics' as a bridging concept between how work is carried out versus how it should be carried out (Cioffi, 2004:186-192). Organizational culture is recognized as an important factor influencing the cost and quality of health care.

9.7 Performance of Primary Care

The performance domain is divided into two main components: health care service delivery (Cioffi, 2004:186-192), defined as how health care services are delivered and technical quality of clinical care, defined as the degree to which clinical procedures reflect current research evidence and/or meet commonly accepted standards for technical content or skill.

9.8 Health care service delivery

According to Lancet (2009:170-173), we acknowledge the importance of four unique features of primary care service delivery: access, continuity, integration and comprehensiveness. Each is provided with a separate subcomponent in the framework. Similarly, we recognize the fundamental importance of the patient provider relationship (through the concepts of patient-provider communication, awareness of the whole person and the family and broader appreciation of the patient's culture). Our inclusion of a separate element of trust reflects the increasing acknowledgement of its role in, e.g., promoting patient satisfaction and adherence to clinical advice. The importance of relational continuity in improved preventive care, reduced hospital admissions and reduced costs, is recognized, as is the importance of informational continuity in a complex health care system (Arksey, 2005:19- 32). Recent evidence links integration of primary care with positive health outcomes and its role in facilitating the positive effects of other components of primary care. In our framework, service integration has two elements, coordination and collaboration (White, 2015:103-116). The former is the ability of a practice or provider to coordinate and synthesize care received from external sources, such as specialists and other health care providers from non-health sectors.

In contrast, collaboration has to do with a similar process of linkages between different providers within a health care organization. Comprehensiveness remains a critical issue for primary care, especially in light of recent evidence of a decline in services offered by primary care physicians with accompanying reductions in the delivery of whole-person and holistic care (Arksey, 2005:19-32). We recognize that the core feature of comprehensive primary care is its ability to ensure the tailoring

of services to health care needs. Our definition comes from the perspective of patient need for services and recognizes the importance of representing the twin elements of services offered and services provided (Damschroder, 2009:450). Finally, we include a separate subcomponent of provider satisfaction, which in recent studies has been linked to performance.

9.9 Technical quality of clinical care

The technical quality of the clinical care component has four subcomponents: health promotion and primary prevention, secondary prevention, care of chronic conditions, and care of acute conditions. Although not an exhaustive list of activities performed in primary care, these broad categories reflect the traditional scope of clinical primary care. Clearly, within these subcomponents are numerous discrete clinical activities (Arksey, 2005:19-32). Tasks associated with some clinical areas cover several sub-components. For example, mental illness can be both acute (as in an acute psychosis) and chronic (as in the ongoing care of a patient with schizophrenia (Dam Schroder, 2009:4-50). Conceptual frameworks are by their nature artificial. Our framework for primary care builds on four decades of work in health service evaluation. We have sought to blend evolving perspectives of organizational theory with established concepts of service delivery and clinical care (Cioffi, 2004:186-192).

The framework has been developed at a time when many researchers and policymakers remain focused on detecting variations in adherence to evidence-based guidelines, politicians are preoccupied with access to care, and the quality movement is concentrating on safety. Notwithstanding the importance of these specific dimensions of quality, primary care demands examination through the lens of system theory (Arksey, 2005:19- 32).

Our framework highlights the importance of incorporating an emerging understanding of the influence of organizational factors on variations in health care service delivery.

9.10. Models and frameworks in primary health care services

Originating from the different research studies mentioned in previous chapters, a number of models and frameworks for implementation have been developed. There was a lack of consistency in the literature about the way the terms ‘model’ and ‘framework’ are used. The terms conceptual model and conceptual framework, however, can be used synonymously, and refer to “a set of abstract and general concepts and propositions that integrate those concepts into a meaningful configuration” (Arksey, 2005:19-32). Some of the most widely used models and frameworks are presented here, and whether they are called models or frameworks depends on how their original developers named them. The models or frameworks described have inspired the synthesized model presented in the chapter on a Theoretical Framework (Damschroder, 2009:4-50). Table 9.1 below provides an overview of the models and frameworks described in the text and indicates the models and frameworks frequently applied in Primary Health Care Systems. The table below shows the models in Primary Health Care Services.

Table.9 .1 Models and frameworks frequently applied in Primary Health Care Systems

Model/framework	Model type	Description	Developers /source
Diffusion of innovation theory	Conceptual model (theory)	Diffusion of innovations is the process by which an innovation is communicated through certain channels over time among the members of a social system	Rogers 1962
The PARIHS framework	Conceptual Model	Implementation success (IS) function, nature and type of evidence (E), qualities (C), & the way the the process is facilitated (F)	Rycroft-Malone et al. 2002

Source: Author’s Construction

9.11. Theoretical framework

This chapter contains a description of the theoretical models used for the planning, performance, evaluation and analysis of the present study. It begins with Rogers' (2003) theory of the innovation-decision process, which was used to create one of the two strategies (explicit strategy) used for the implementation of the CLT. The REAIM framework (2011), which was applied to evaluate the implementation, is described; its application in the study is presented in the Methods chapter. A synthesized implementation model, based on the implementation models and frameworks described earlier, was developed for discussion of the findings of the study, and will be presented in this section (Arksey, 2005:19-32). Finally, a description of the theoretical aspects of sustainability is also provided.

9.12. The re-aim framework

The RE-AIM framework was originally developed for the evaluation of public health interventions and assesses outcome in five dimensions: Reach, Efficacy, Adoption, Implementation, and Maintenance. These dimensions occur at multiple levels, individual, clinic or organizational, and they also interact to determine the impact of a program or a policy. Both participants and settings can be included in the evaluation, and Reach and Representativeness are considered important (Damschroder, 2009:450). The Reach and Efficacy dimensions are suggested to be assessed at the individual level, Adoption and Implementation at the organizational level and Maintenance at both individual and organizational levels. Today the framework is presented as a way to enhance the quality, speed, and public health impact of efforts to translate research into practice (RE-AIM 2011). Applied in this field, the term Effectiveness is used rather than Efficacy, and the importance of evaluation at both the individual and organizational level is stressed.

9.13 The primary care Amplification model

The Primary Care Amplification Model has the potential to harness general practice-led innovation, improving equity, access and breadth of local health care. The strong focus on partnership and 'value-add' to the contribution of surrounding practices allows the model to 'amplify' its effect across a geographical area and to co-exist comfortably with surrounding practices, avoiding territorialism and conflict.

Its impact on health outcomes is yet to be fully assessed, although the ICDMS has produced positive outcomes to date. This model is consistent with developing international government reforms and policy initiatives, and reflects aspects of primary care reform that are in existence in other countries – particularly the development of GPs specialising in particular areas and receiving referrals from other GPs and the collocation of specialists with generalists. The framework model is discussed below;

9.13.1 Introduction

The Primary Care Amplification Model harnesses the collective strengths of community general practices to deliver on the reform agenda described above. Importantly, this model builds on the existing local infrastructure, rather than destabilizing it. This model builds primary care capacity by uniting local general practices around a central 'beacon' practice, similar to the federated model of primary care, endorsed by the Royal College of General Practitioners in the UK (Hawkers, 2008:1158-1160). The 'beacon' practice supports and extends the capacity of local general practices in areas of local population clinical need, undergraduate and postgraduate teaching (medical, nursing and allied health), relevant local clinical research, and improved integration with local, secondary, tertiary and other state-funded health care (Jackson, 2008:57-60). Central to the Primary Care Amplification Model is the provision of the core elements of general practice and primary care, namely, first contact, continuous, comprehensive and coordinated care provided to populations undifferentiated by gender, disease, or organ system.

The Amplification Model features four additional key characteristics – an ethos of supporting primary care within and external to the practice; an expanded clinical model of care; a governance approach that meets the specific needs of the community it serves; and a technical and physical infrastructure to deliver the expanded scope of practice (Hawkers, 2008:1158-1160). It is these characteristics that enable a 'beacon' practice to realize its potential. Enshrined within IPC's strategic plan and vision is a focus on primary care support, both internal and external to the practice.

IPC staff and patients are all valued partners within the practice and their feedback is encouraged. Annual performance appraisal for all staff reflects an organizational commitment to career development. Additionally, time is allocated for staff to collectively review the practice mission, and to provide input into discussions about the strategic direction of the practice. IPC GPs are salaried (Jackson, 2008:57-60). GP time is divided between direct patient contact (80%), teaching (10%) and research (10%). Via the UQ Master of Medicine (General Practice) program, IPC GPs have undertaken fully-funded advanced skilling in diabetes care, primary eye care, sports medicine, and mental health.

Practice nurses are currently undertaking an in-house advanced skilling education and training program in pediatric assessment and care. These training activities enable all staff to have expanded clinical roles, thereby increasing job satisfaction (Hawkers, 2008:1158-1160). The practice's strategic plan requires it to support local services in areas of important population need, identify key service gaps for the local community, and promote useful local education and research activities involving local practices. Delivery on this strategic plan is ensured through an annual review process and continuous quality improvement.

9.13.2 Clinical Model of Care

In addition to the clinical care delivered on-site (McDonald, 2001:75-82), IPC has undertaken two pilot projects to develop and evaluate innovative service delivery models, with a particular focus on local population health priorities.

9.13.3 Governance/partnerships

The governance arrangements, billing procedures, and staffing mix for each 'beacon' practice must be responsive to the partnerships involved, the practice's strategic objectives, the needs of the local population and practitioners it supports, and the national regulatory and payment frameworks. Development of 'beacon' practices may involve partnerships between organisations as diverse as government and non-government organisations (NGOs), local health services, and even a satellite town development group as is occurring across our developing sites (Jackson, 2008:57-60).

Importantly, GPs practising in the 'beacon' practice do not have to forgo their existing practices but can either bring that practice into the 'beacon' practice model or participate in the 'beacon' practice part-time, often developing and utilizing advanced skills. IPC's governance model is a not-for-profit company with a Board of seven directors – two UQ and two QH nominees, a community representative and two independent directors. IPC works closely with key primary care organisations in the area, including the local Division of General Practice and QH-funded Community and Primary Health Services.

9.13.4 Technological and physical infrastructure

The 'beacon' practice, by definition, needs the technological and physical infrastructure to host a broad clinical team, teach, support research, and provide a central meeting point for local primary care activity (Jeacocke, 2008:54-56). The physical environment is essential for staff and patient satisfaction. IPC's physical infrastructure is a high quality, fit-for-purpose environment that includes consulting rooms, operation/procedure bays, and a large waiting area with inter-linking sections to allow efficient workflow across the multi-disciplinary team. There will be a large and well equipped meeting or training room with up-to-date audiovisual equipment (McDonald, 2001:75-82). IPC uses a multi-site information management and technology platform for all clinical and practise management functions. In recognition of the value of the patient's time and to improve access, there is an on-site publicly funded pathology service and a radiology service within close walking distance.

9.13.5 Challenges

The establishment of 'beacon' practices carries significant challenges. Chief amongst them is the need to develop:

- i. A clear and shared vision;
- ii. A strategic fit with the governance partners;
- iii. A skilled and supportive executive/clinician leadership; and

The strong focus on partnership and 'value-add' to the contribution of surrounding practices allows the model to 'amplify' its effect across a geographical area and to coexist comfortably with surrounding practices, avoiding territorialism and conflict (Lewis, 2004:75-82). Its impact on health outcomes is yet to be fully assessed, although the ICDMS has produced positive outcomes to date. This model is consistent with developing international government reforms and policy initiatives and reflects aspects of primary care reform that are in existence in other countries particularly the development of GPs specialising in particular areas and receiving referrals from other GPs (eg. GPwSIs in the UK), and the co-location of specialists with generalists (eg. shifted outpatient clinics in the UK; multi-specialty private practices in the USA).

Engagement with the local general practice and primary care community. Additionally, significant investment in change management is required to bring about the necessary changes in service delivery and practice culture. Strategies and processes to enable staff and external stakeholders to recognize and address these challenges must be key features of the planning phase to avoid conflict, poor communication, frustration, and difficulty achieving community outcomes as the practice develops (Marley, 2007:84-87). The IPC team has drawn on experience from significant previous work in addressing the Primary Care Amplification Model has the potential to harness general-practice-led innovation, improving equity, access and breadth of local health care.

Our model provides a mechanism for integrating, rather than competing with local service delivery and supporting and assisting capacity within local general practices (Lewis, 2004:75-82). It can enhance the scope of local primary care to provide the service delivery innovation increasingly expected of it, and address the significant training and research challenges for a growing and diversifying health workforce. Our model demonstrates the potential for organised general-practice-led primary care to take up the reform mantle without losing an established infrastructure and community relationship built painstakingly over decades.

9.14. Donabedian model

The Donabedian model is a conceptual model that provides a framework for examining health services and evaluating the quality of health care. According to the model, information on the quality of care can be drawn from three categories: “structure,” “process,” and “outcomes.” Structure describes the context in which care is delivered, including hospital buildings, staff, financing, and equipment (Caravon, 2006:50-58). Process denotes the transactions between patients and providers throughout the delivery of health care. Finally, outcomes refer to the effects of health care on the health status of patients and populations. Avedis Donabedian, a physician and health services researcher at the University of Michigan, developed the original model in 1966. While there are other Quality of Care Frameworks, including the World Health Organization (WHO), Recommended Quality of Care Framework and the Bamako Initiative, the Donabedian Model continues to be the dominant paradigm for assessing the quality of health care.

9.14.1 Dimensions of care

The model is most often represented by a chain of three boxes containing structure, process, and outcome connected by unidirectional arrows in that order. These boxes represent three types of information that may be collected to draw inferences about the quality of care in a given system (Caravon, 2006:50-58) and constitute an introduction to quality assurance in health care.

9.14.2 Structure

The structure includes all of the factors that affect the context in which care is delivered. This includes the physical facility, equipment and human resources, as well as organizational characteristics such as staff training and payment methods (Sunol, 2000:451-454). These factors control how providers and patients in a health care system act and are measures of the average quality of care within a facility or system. The structure is often easy to observe and measure and it may be the upstream cause of problems identified in the process.

9.14.3 Process

The process is the sum of all actions that make up health care. These commonly include diagnosis, treatment, preventive care, and patient education but may be expanded to include actions taken by the patients or their families (Sunol, 2000:451454). Processes can be further classified as technical processes, how care is delivered, or interpersonal processes, which all encompass how care is delivered. According to Donabedian (2005:691-729), the measurement of the process is nearly equivalent to the measurement of quality of care because the process contains all acts of health care delivery. Information about the process can be obtained from medical records, interviews with patients and practitioners, or direct observations of health care visits.

9.14.4 Outcome

The outcome contains all the effects of health care on patients or populations, including changes to health status, behaviour, or knowledge as well as patient satisfaction and health-related quality of life (White, 2015:103-116). Outcomes are sometimes seen as the most important indicators of quality because improving patient health status is the primary goal of health care. However, accurately measuring outcomes that can be attributed exclusively to health care is very difficult. Drawing connections between process and outcomes often requires large sample populations, adjustments by case mix, and long-term follow-ups as outcomes may take considerable time to become observable. Although widely recognized and applied in many health care-related fields, the Donabedian Model (Donabedian, 2005:691-729) was developed to assess the quality of care in clinical practice. The model does not have an implicit definition of quality care so that it can be applied to problems of broad or narrow scope. Donabedian notes that each of the three domains has advantages and disadvantages that necessitate researchers to draw connections between them to create a chain of causation that is conceptually useful for understanding systems as well as designing experiments and interventions.

9.14.5 Applications

Donabedian developed his quality of care framework to be flexible enough for application in diverse health care settings and among various levels within a delivery system. At its most basic level, the framework can be used to modify structures and processes within a health care delivery unit, such as a small group practice or ambulatory care centre, to improve patient flow or information exchange. For instance, health administrators in a small physician practice may be interested in improving their treatment coordination process through enhanced communication of laboratory results from the laboratory to the provider to streamline patient care (Donabedian, 2005:691-729). According to Kominski (2007:187-190) the process for information exchange, in this case, the transfer of laboratory results to the attending physician, depends on the structure for receiving and interpreting results.

The structure could involve an electronic health record that a laboratorian fills out with laboratory results for use by the physician to complete a diagnosis. To improve this process, a health care administrator may look at the structure and decide to purchase an information technology solution of pop-up alerts for actionable laboratory results to incorporate into the EHR. The process could be modified through a change in the standard protocol of determining how and when an alert is released and who is responsible for each step in the process (Donabedian, 2005:691-729). The outcomes to evaluate the efficacy of this quality improvement solution might include patient satisfaction, timeliness of diagnosis, or clinical outcomes. In addition to examining quality within a health care delivery unit, the Donabedian model applies to the structure and process for treating certain diseases and conditions to improve the quality of chronic disease management. For example, systemic lupus erythematosus is a condition with significant morbidity and mortality and substantial disparities exist in outcomes among rheumatic diseases (White, 2015:103-116). The propensity for SLE care to be fragmented and poorly coordinated, as well as evidence that health care system factors associated with improved SLE outcomes are modifiable, points to an opportunity for process improvement through changes in preventive care, monitoring, and effective self-care.

A researcher may develop evidence within these areas to analyze the relationship between structure and process to outcomes in SLE care to find solutions to improve outcomes (Caravon, 2006:50-58). An analysis of the SLE care structure may reveal an association between access to care, financing and quality outcomes. An analysis of the process may look at hospital and physician speciality in SLE care and how it relates to SLE mortality in hospitals or the effect on outcomes by including additional QI indicators to the diagnosis and treatment of SLE. To assess these changes in structure and process, evidence garnered from changes in mortality, disease damage, and health-related quality of life would be used to validate structure-process changes.

Donabedian's model can also be applied to a large health system to measure overall quality and align improvement work across a hospital, group practice or a large integrated health system to improve quality and outcomes for a population. In 2007, the US Institute for Health Care Improvement proposed "whole system measures" that address structure, process, and outcomes of care (Smith, 2006:50-58). These indicators supply health care leaders with data to evaluate the organization's performance to design strategic QI planning. The indicators are limited to 13 non-disease-specific measures that provide system-level indications of quality, applicable to both inpatient and outpatient settings and across the continuum of care. In addition to informing the QI plan, these measures can be used to evaluate the quality of the system's care over time, how it performs relative to stated strategic planning goals, and how it performs compared to similar organizations.

9.14.6 Criticisms and adaptations

While the Donabedian model continues to serve as a touchstone framework in health services research, potential limitations have been suggested by other researchers, and, in some cases, adaptations of the model have been proposed. The sequential progression from structure to process to the outcome has been described by some as too linear a framework and consequently has a limited utility for recognizing how the three domains influence and interact with each other (Alvarado, 2006:50-58).

The model has also been criticized for failing to incorporate antecedent characteristics (e.g. patient characteristics, environmental factors) which are important precursors to evaluating quality care suggest that these factors are vital to fully understanding the true effectiveness of new strategies or modifications within the care process (Rice, 2007:187-190). According to Coyle and Battles, patient factors include genetics, socio- demographics, health habits, beliefs and attitudes, and preferences. Environmental factors include patients' cultural, social, political, personal, and physical characteristics, as well as factors related to the health profession itself.

9.14.7 History

Avedis Donabedian first described the three elements of the Donabedian Model in his 1966 article, "Evaluating the Quality of Medical Care" (White, 2015:103-116). As a preface to his analysis of methodologies used in health services research, Donabedian identified the three dimensions that can be utilized to assess the quality of care that would later become the core divisions of the Donabedian Model. "Evaluating the Quality of Medical Care" became one of the most frequently cited public health-related articles of the 20th century, and the Donabedian Model gained widespread acceptance. In his book, Donabedian once again defines the structure, process, and outcome, and clarifies that these categories should not be mistaken for attributes of quality, but rather they are the classifications for the types of information that can be obtained to infer whether the quality of care is poor, fair, or good (Smith, 2006:50-58). Furthermore, he states that to make inferences about quality, there needs to be an established relationship between the three categories and that this relationship between categories is a probability rather than a certainty.

9.15 Social-ecological model

In the social ecological model, the personal characteristics are important determinants of health behaviors, however, multi-dimensional approaches that consider social and physical environments must be utilized to gain a broader picture.

FIGURE 9.2 Social ecological model of health

The Social Ecological Model of Health



Adapted from McLeroy et al.

9.15.1 Introduction

Socio-ecological models were developed to further the understanding of the dynamic interrelations among various personal and environmental factors. Socioecological models were introduced to urban studies by sociologists associated with the Chicago School after the First World War as a reaction to the narrow scope of most research conducted by developmental psychologists (Ostrom, 2014:267-539). These models bridge the gap between behavioural theories that focus on small settings and anthropological theories. Introduced as a conceptual model in the 1970s, formalized as a theory in the 1980s, and continually revised by Bronfenbrenner until he died in 2005, Urie Bronfenbrenner's Ecological Framework for Human Development applies socioecological models to human development. In his initial theory (Bronfenbrenner, 2000:115-125) Bronfenbrenner postulated that to understand human development, the entire ecological system in which growth occurs needs to be taken into account. In subsequent revisions, Bronfenbrenner acknowledged the relevance of biological and genetic aspects of the person in human development.

At the core of Bronfenbrenner's ecological model is the child's biological and psychological makeup, based on individual and genetic developmental history. This makeup continues to be affected and modified by the child's immediate physical and social environment (microsystem) as well as interactions among the systems within the environment (mesosystems). Other broader social, political and economic conditions (exosystem) influence the structure and availability of microsystems and how they affect the child. Finally, social, political, and economic conditions are themselves influenced by the general beliefs and attitudes (macrosystems) shared by members of the society.

9.15.2 Systems thinking and socioecological models

A system can be defined as a comparatively bounded structure consisting of interacting, interrelated, or interdependent elements that form a whole. Systems thinking argues that the only way to fully understand something or an occurrence is to understand the parts in relation to the whole (Ostrom, 2014:267-539). Thus, systems thinking, which is the process of understanding how things influence one another within a whole, is central to ecological models. Generally, a system is a community situated within an environment. Examples of systems are health systems, education systems, food systems, and economic systems.

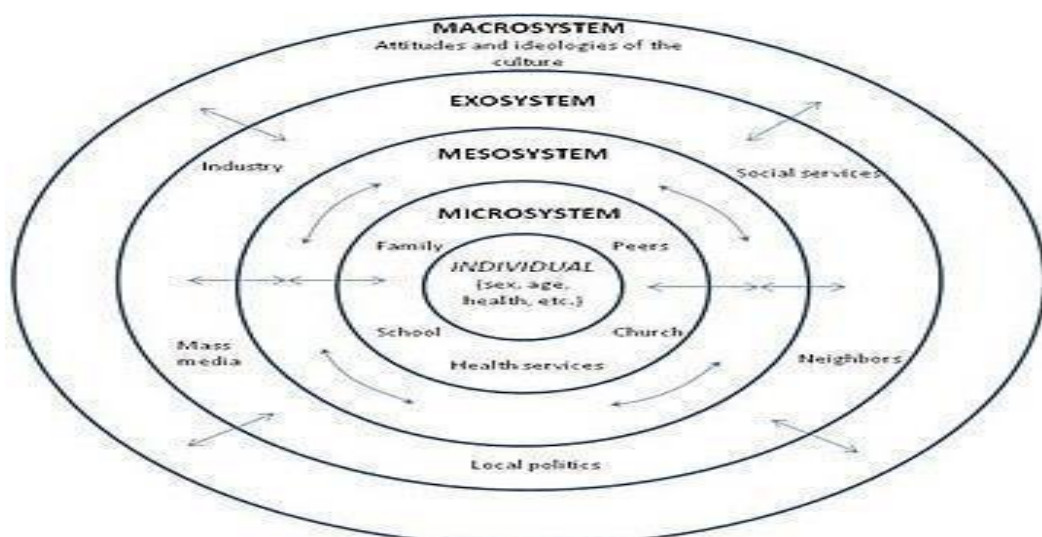
Drawing from natural ecosystems which are defined as the network of interactions among organisms and between organisms and their environment, social ecology is a framework or set of theoretical principles for understanding the dynamic interrelations among various personal and environmental factors (White, 2015:103-116). Social ecology pays explicit attention to the social, institutional, and cultural contexts of people-environment relations. This perspective emphasizes the multiple dimensions, levels and complexity of human situations.

Social ecology also incorporates concepts such as interdependence and homeostasis from systems theory to characterize reciprocal and dynamic person-environment transactions (White, 2015:103-116). Individuals are key agents in ecological systems.

From an ecological perspective, the individual is both a postulate (a basic entity whose existence is taken for granted) and a unit of measurement. As a postulate, an individual has several characteristics. Firstly, he requires access to an environment, upon which he/she is dependent for knowledge. Secondly, he is interdependent with other humans; that is, he is always part of a population and cannot exist otherwise.

Thirdly, he is time-bound or has a finite life cycle. Fourth, he has an innate tendency to preserve and expand life. Fifth, he has the capacity for behavioural variability. Social-ecological models are thus applicable to the processes and conditions that govern the lifelong course of human development in the actual environment in which human beings live (Ostrom, 2014:267-539). Urie Bronfenbrenner's Ecological Framework for Human Development is considered to be the most recognized and utilized social-ecological model. Ecological systems theory considers a child's development within the context of the systems of relationship that form his or her environment (White,2015:103-116). Bronfenbrenner's ecological framework for human development

Figure 9.2 An ecological framework for human development



Source: Author's Construction

The illustration of Bronfenbrenner's ecological framework for human development indicates that the individual's environment is influenced by each nested layer consisting of interconnected structures. Bronfenbrenner's ecological framework for human development was first introduced in the 1970s as a conceptual model and became a theoretical model in the 1980s (Bronfenbrenner and Morris, 2006:793-828). Two distinct phases of the theory can be identified. Bronfenbrenner stated that "it is useful to distinguish two periods: the first ending with the publication of the *Ecology of Human Development* (1979), and the second characterized by a series of papers that called the original model into question".

Bronfenbrenner's initial theory illustrated the importance of place to aspects of the context, and in the revision, he engaged in self-criticism for discounting the role a person plays in his or her own development while focusing too much on the context. Although revised, altered, and extended, the heart of Bronfenbrenner's theory remains the ecological-stressing person-context interrelatedness (Bronfenbrenner and Morris, 2006:793-828). The Bronfenbrenner ecological model examines human development by studying how human beings create the specific environments in which they live. In other words, human beings develop according to their environment; this can include society as a whole and the period in which they live, which will impact behaviour and development. This views behaviour and development as a symbiotic relationship, which is why this is also known as the "bio ecological" model.

9.15.3 Ecological systems theory

In his original theory, Bronfenbrenner postulated that to understand human development, the entire ecological system in which growth occurs needs to be taken into account. This system is composed of five socially organized subsystems that support and guide human development. Each system depends on the contextual nature of the person's life and offers an ever-growing diversity of options and sources of growth. Furthermore, within and between each system are bi-directional influences (Ostrom, 2014:267-539).

These bidirectional influences imply that relationships have an impact in two directions, both away from the individual and towards the individual. Because we potentially have access to these subsystems we can have more social knowledge, an increased set of possibilities for learning problem-solving, and access to new dimensions of self-exploration.

9.15.4 Microsystem

The microsystem is the layer closest to the child and contains the structures with which the child has direct contact. The microsystem encompasses the relationships and interactions a child has with his or her immediate surroundings such as family, school, neighbourhood, or childcare environments (Ostrom, 2014:267-539). At the microsystem level, bi-directional influences are strongest and have the greatest impact on the child. However, interactions at outer levels can still impact the inner structures. This core environment stands as the child's venue for initially learning about the world. As the child's most intimate learning setting, it offers him or her a reference point for the world. The microsystem may provide the nurturing centerpiece for the child or become a haunting set of memories. The real power in this initial set of interrelations with family for the child is what they experience in terms of developing trust and mutuality with their significant people. The family is the child's early microsystem for learning how to live (Ostrom, 2014:267-539). The caring relations between child and parents (or other caregivers) can help to influence a healthy personality. For example, the attachment behaviors of parents offer children their first trust-building experience.

9.15.5 Mesosystem

The mesosystem moves us beyond the dyad or two-party relation. Mesosystems connect two or more systems in which the child, parent, and family live (Bronfenbrenner and Morris, 2006:793-828). Mesosystems provide the connection between the structures of the child's microsystem. For example, the connection between the child's teacher and his parents, and between his church and his neighborhood, each represent mesosystems.

9.15.6 Exosystem

The exosystem defines the larger social system in which the child does not directly function. The structures in this layer impact the child's development by interacting with some structure in his/her microsystem. Parent workplace schedules or community-based family resources are examples. Children may not be directly involved at this level, but they do feel the positive or negative force involved with the interaction with their microsystem. The main exosystems that indirectly influence youth through their family, include school and peers, parents' workplace, family social networks and neighbourhood community contexts, local politics and industry (Ostrom, 2014:267-539). Exosystems can be empowering or have a negative effect. Furthermore, absence from a system makes it no less powerful in life. For example, many children realize the stress of their parents' workplaces without ever physically being in these places.

9.15.7 Macrosystem

The macrosystem is composed of cultural values, customs and laws. It refers to the overall patterns of ideology and organization that characterize a given society or social group. Macro systems can be used to describe the cultural or social context of various societal groups such as social classes, ethnic groups, or religious affiliates (Bronfenbrenner and Morris, 2006:793-828). This layer is the outermost layer in the child's environment. The effects of larger principles defined by the macro system have a cascading influence throughout the interactions of all other layers. The macro system influences what, how, when and where we carry out our relations. For example, a program like "Women, Infants, and Children" may positively impact a young mother through health care, vitamins, and other educational resources. It may empower her life so that she, in turn, is more effective and caring with her newborn. In this example, without an umbrella of beliefs, services, and support for families, children and their parents are open to great harm and deterioration. In a sense, the macrosystem that surrounds us helps us to hold together the many threads of our lives.

9.15.8 Chronosystem

The chronosystem encompasses the dimension of time as it relates to a child's environment. Elements within this system can be either external, such as the timing of a parent's death, or internal, such as the physiological changes that occur with the ageing of a child (Bronfenbrenner and Morris, 2006:793-828). Family dynamics need to be framed in the historical context as they occur within each system. Specifically, the powerful influence that historical influences in the macrosystem have on how families can respond to different stressors. Bronfenbrenner suggests that, in many cases, families respond to different stressors within the societal parameters existent in their lives.

9.15.9 Process person context time model

According to Williams and Swick (2006:371-378), Bronfenbrenner's most significant departure from his original theory is the inclusion of processes of human development. Processes, according to Bronfenbrenner, explain the connection between some aspect of the context or some aspect of the individual and an outcome of interest. The full, revised theory deals with the interaction among processes, person, context and time, and is labelled the Process–Person–Context– Time model (PPCT). Two interdependent propositions define the properties of the model. Furthermore, contrary to the original model, the Process–Person–Context– Time model is more suitable for scientific investigation.

According to Bronfenbrenner, processes play a crucial role in development and proximal processes are fundamental to the theory. They constitute the engines of development because it is by engaging in activities and interactions that individuals come to make sense of their world, understand their place in it, and both play their part in changing the prevailing order while fitting into the existing one (McLaren, 2005:6-14). The nature of proximal processes varies according to aspects of the individual and of the context—both spatially and temporally. As explained in the second of the two central propositions, the social continuities and changes occur over time through the life course and the historical period during which the person lives. Effects of proximal processes are thus more powerful than those of the environmental contexts in which they occur.

Regarding the Person, Bronfenbrenner acknowledges the relevance of biological and genetic aspects of the person. However, he devoted more attention to the personal characteristics that individuals bring with them into any social situation. He divided these characteristics into three types; demand, resource, and force characteristics (Lindsay, 2005:6-14). Demand characteristics are those that act as an immediate stimulus to another person, such as age, gender, skin colour, and physical appearance. These types of characteristics may influence initial interactions because of the expectations formed at the onset of interaction. Resource characteristics are those that relate partly to mental and emotional resources such as past experiences, skills, and intelligence, and also to social and material resources. Finally, force characteristics are those that have to do with differences in temperament, motivation, and persistence.

According to Williams and Swick (2006:371-378), two children may have equal resource characteristics, but their developmental trajectories will be quite different if one is motivated to succeed and persists in tasks and the other is not motivated and does not persist. As such, Bronfenbrenner provided a clearer view of individuals' roles in changing their context. The change can be relative, from more active to most active. The context, or environment, involves four of the five interrelated systems of the original theory: the microsystem, the mesosystem, the exosystem, and the macrosystem.

The final element of the PPCT model is time. Time plays a crucial role in human development. In the same way that both context and individual factors are divided into sub-factors or sub-systems, Bronfenbrenner and Morris wrote about time as constituting micro-time, meso-time, and macro-time (White, 2015:103-116). Time and timing are equally important because all aspects of the PPCT model can be thought of in terms of relative constancy and change.

9.15.10 Applications

According to Williams and Swick (2006:371-378), the application of social-ecological theories and models focus on several goals: To explain the person-environment interaction, to improve people-environment transactions, to nurture human growth and development in particular environments, and to improve environments so that they support the expression of individual systems' dispositions. Some examples are:

- i. Political and economic policies that support the importance of parents' roles in their children's development such as Head Start or Women Infants and Children programs.
- ii. Fostering of societal attitudes that value work done on behalf of children at all levels: parents, teachers, extended family, mentors, work supervisors, and legislators.
- iii. In community health promotion: identifying high-impact leverage points and intermediaries within organizations that can facilitate the successful implementation of health-promoting interventions, combining person-focused and environmentally based components within comprehensive health promotion programs, and measuring the scope and sustainability of intervention outcomes over prolonged periods. The basis of intervention programs is to address issues such as bullying, obesity, overeating and physical activity.
- iv. Interventions that use the social-ecological model as a framework include mass media campaigns, social marketing, and skills development.
- v. In economics: economics, human habits, and cultural characteristics are shaped by geography. In economics, the output is a function of natural resources, human resources, capital resources, and technology. The environment (macrosystem) considerably dictates the lifestyle of the individual and the economy of the country. For instance, if the region is mountainous or arid and there is little land for agriculture, the country typically will not prosper as much as another country that has greater resources.
- vi. In risk communication: used to assist the researcher to analyze the timing of when information is received and identify the receivers and stakeholders. This situation is an environmental influence that may be very far-reaching. The individual's

education level, understanding, and affluence may dictate what information he or she receives and processes and through which medium.

vii. In personal health: to prevent illnesses, a person should avoid an environment in which they may be more susceptible to contracting a virus or where their immune system would be weakened. This also includes possibly removing oneself from a potentially dangerous environment or avoiding a sick coworker. On the other hand, some environments are particularly conducive to health benefits. Surrounding oneself with physically fit people will potentially act as a motivator to become more active, diet, or work out at the gym. The government banning trans-fat may have a positive top-down effect on the health of all individuals in that state or country. In human nutrition: used as a model for nutrition research and interventions. The social-ecological model looks at multiple levels of influence on specific health behaviours.

viii. In public health: drawing upon this model to address the health of a nation's population is viewed as critically important to the strategic alignment of policy and services across the continuum of population health needs, including the design of effective health promotion, disease prevention and control strategies.

Thus, in the development of universal health care systems, it is appropriate to recognize "Health in All Policies" as the overarching policy framework, with public health, primary health care and community services as the cross-cutting framework for all health and health-related services operating across the spectrum from primary prevention to long-term care and end-stage conditions. Although this perspective is both logical and well-grounded, the reality is different in most settings, and there is room for improvement everywhere. In politics, the act of politics is making decisions. A decision may be required of an individual, organization, community, or country.

9.16 Reliability measure in a framework model

A test is seen as being reliable when it can be used by a number of different researchers under stable conditions, with consistent results and the results not varying. Reliability reflects consistency and replicability over time. Furthermore, reliability is seen as the degree to which a test is free from measurement errors,

since the more measurement errors occur the less reliable the test (Heale, 2015:6667).

In the same way, (Bajpai,2014:112-115) ask how far the same test would produce the same results if it was administered to the same children under the same conditions. This helps the researcher and educator make comparisons that are reliable. The more errors found in an assessment the greater its unreliability, and vice versa. Reliability is a very important factor in assessment, and is presented as an aspect contributing to validity and not opposed to validity. Inter-Item Correlations is a descriptive information about the correlation of each item with the sum of all remaining items.

In Table 9.2 below, there are 7 correlations computed: the correlation between the first item and the sum of the other 6 items, the correlation between the second item and the sum of the other 6 items, the correlation between the third item and the sum of the other 6 items, and so forth. In Summary Item Statistics in Table 1; the first number listed, 0.48 is the mean of these 7 correlations; the second number, 0.224, is the lowest of the 7; the third number, 0.853 is the largest. The mean of the inter-item correlations is 0.48 suggesting that the items in “shortfalls in the admission system” section are reasonably homogenous.

Table 9.2 Reliability measures in “shortfalls in the admission system”

Summary Item Statistics							
	Mean	Min	Max	Range	Max / Min	Variance	N of Items
Item Means	3.936	3.538	4.108	0.57	1.161	0.043	7
Item Variances	1.016	0.833	1.383	0.55	1.66	0.031	7
Inter-Item Correlations	0.48	0.224	0.853	0.629	3.803	0.044	7

Reliability Statistics

<u>Cronbach's Alpha</u>	<u>Cronbach's Alpha Based on Standardized Items</u>	<u>N of Items</u>
0.863	0.866	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Admin staff does not start work in time causing long queues	24.02	21.098	0.56	0.677	0.853
There are few admission points causing long patient queues	23.78	21.094	0.609	0.795	0.847
Too many patients come every day and admin can't cope	23.46	21.372	0.546	0.701	0.855
Changing the patient admin system will make the queues short	23.45	20.308	0.751	0.755	0.829
The length of queues is because the nurses are generally slow	23.54	20.079	0.697	0.826	0.834
Employing more admin personnel will not change the queue	23.54	19.964	0.707	0.889	0.833

We used the Cronbach's alpha tests to see if multiple question Likert scale surveys are reliable. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. It should also be noted that an alpha of 0.8 is probably a reasonable goal. According to (Noble, 2017: 5415-5429), the following rules of thumb on the internal consistency should be considered in the table below. Internal consistency or reliability associated with the scale in "shortfalls in the admission system" section is 0.866. This implies that there is good internal consistency in responses based on "shortfalls in the admission system" section. Deleting any item, except item would decrease internal consistency. Deleting "Changing the patient admin system will make the queues short" would significantly increase the Cronbach's Alpha from 0.866 to 0.829.

Table 9.4: Reliability measures in “human resource compliment – admin”

Summary

Item

Statistics

	<u>Mean</u>	<u>Min</u>	<u>Max</u>				
Range	Max/ Min	Variance	N of Items				
Item Means	3.962	3.75	4.105	0.355	1.095	0.015	7
Item							
	0.945	0.837	1.077	0.239	1.286	0.005	7
Variances							
Inter-Item	0.507	0.296	0.858	0.562	2.902	0.035	7
Correlations							

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.877	0.878	7

Item -Total Statistics

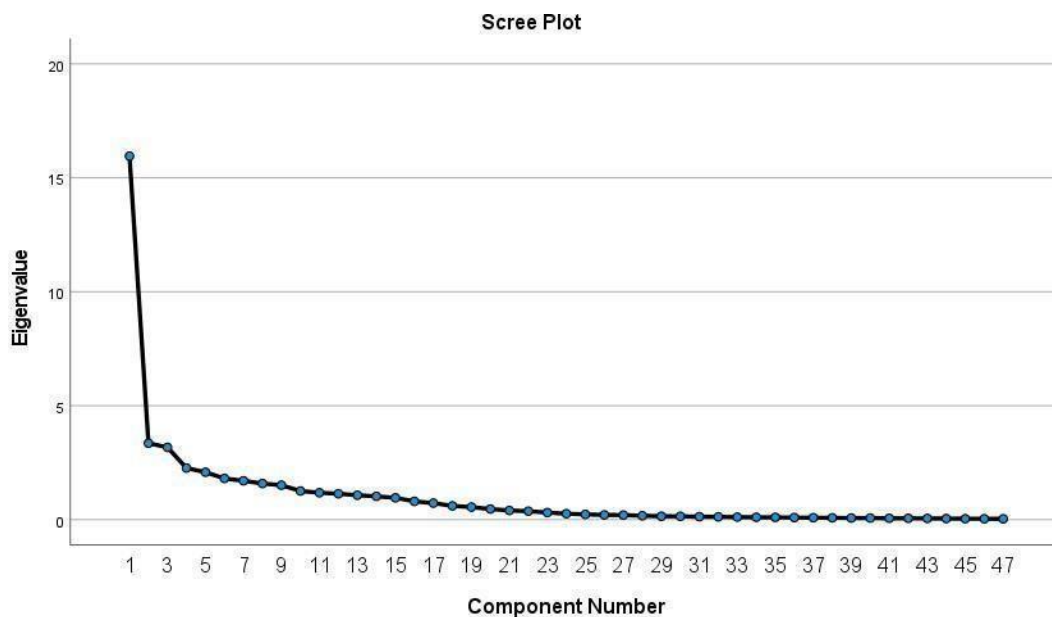
	Scale Mean if Deleted	Scale Variance if Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Deleted
More administrators are needed to improve service	23.98	20.458	0.604	0.776	0.867
There is need to change the patient admission process	23.87	20.492	0.645	0.846	0.862

Delays in serving is because of too many patients come	23.63	20.335	0.633	0.733	0.863
Restructuring will improve 23.71 service with same compliment		19.682	0.704	0.752	0.854
There are issues with managers' worker motivation ethics	23.8	19.298	0.733	0.81	0.85
The more administrators there is the faster the service	23.73	19.67	0.709	0.847	0.853
Administrators do not have proper training for the tasks	23.68	20.065	0.596	0.714	0.869

Source: Authors Construction

According to the Scree plot, there are 3 components extracted based on Eigen values greater than 3.

Figure 9.4 Components Scree Plot



Source: Authors Construction

Using the Pattern Matrix table, we can see from the first component that the following variables in the table below have a very low variation, and seem to represent one construct or element.

Table 9.5 Items that represent the same construct in component

	FACTOR ANALYSIS COMPONENT	
SAME CONSTRUCT	Government must use technology to help service delivery	0.678
	More state of the art equipment is needed for every centre	0.674
	An interlink for all health workers site improves service	0.669
	Extension of space to separate illnesses according to type	0.662
SAME CONSTRUCT	Clinicians redo the same patient assessment over again	0.637
	Reception space is too small to allow for effective service	0.637
	Clients are referred to some hospitals because of facilities	0.636
	There are issues with managers' worker motivation ethics	0.633
	Employing more admin personnel will not change the queue	0.63
	Too many patients are given to pharmacists at short notice	0.622
	There's a shortage of requisite equipment at many centres	0.621
	The more administrators there is the faster the service	0.619
	Government doesn't invest in technology for efficiency	0.615
SAME CONSTRUCT	Doctors are overworked and they are too few for patients	0.61
	More nurses makes more patients to be attended to faster	0.606
	Computerisation of patients' details speeds up services	0.603
	Pharmacists are very slow in processing the medicines	0.599
	Government must teach practice of lifestyle disorders	0.598
	Administrators do not have proper training for the tasks	0.596
	The length of queues is because the nurses are generally slow	0.59
	Changing the patient admin system will make the queues short	0.587
	Restructuring will improve service with same compliment	0.587
	Government enforce physical education in all schooling	0.587
	There are no comfortable waiting rooms for the patients	0.586

Source: Authors Construction

Table 9.6 Reliability measures in “human resource compliment – clinicians”

Summary

Item Statistics

	Mean	Min	Max	Range	Max / Min	Var	N of Items
Item Means	3.988	3.845	4.058	0.212	1.055	0.007	7
Item Variances	0.854	0.67	1.067	0.397	1.593	0.017	7
Inter-Item Correlations	0.477	0.185	0.897	0.712	4.861	0.056	7

**Reliability
Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.865	0.864	7

**Item-Total
Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The number of nurses on duty is always too small	24.07	18.844	0.44	0.733	0.871
The nurses always appear overworked and don't cope	24.02	18.611	0.541	0.826	0.858

The doctors do not show urgency for the sick patients	23.86	17.765	0.596	0.723	0.851
Doctors are overworked and they are too few for patients	23.9	16.794	0.778	0.798	0.827
Pharmacists are very slow in processing the medicines	23.91	16.533	0.711	0.836	0.834
Too many patients are given to pharmacists at short notice	23.89	16.424	0.741	0.918	0.83
More pharmacy staff may speed the dispensing process	23.86	16.502	0.659	0.851	0.843

Source: Authors Construction

Table 9.7 Reliability measures in “technology and service”

Summary Item Statistics						N of
	Mean	Min	Max	Range	Max / Min	Var

	Items						
Item Means	3.852	3.248	4.133	0.885	1.273	0.116	7
Item Variances	0.831	0.647	1.072	0.426	1.658	0.016	7
Inter-Item	0.442	0.15	0.833	0.682	5.54	0.05	7

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.844	0.847	7

Item-Total Statistics

	Scale Mean if Correlation Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Government doesn't invest in technology for efficiency	23.72	15.823	0.625	0.737	0.818
The use of computers makes no difference to delivery	23.48	16.025	0.593	0.809	0.823
The current software makes a great difference in service	22.92	16.42	0.494	0.664	0.838
There is need for continuous training in technology use	22.83	15.866	0.701		

Table 9.8 Reliability measures in “factors impacting service delivery”

Reliability

Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
<u>0.885</u>	<u>0.886</u>	<u>7</u>

Summary Item Statistics

		Min	Max	Range	Max / Min	N of Items
Item Means	3.931	3.773	4.015	0.242	1.064	0.007
Item Variances	0.929	0.798	1.156	0.358	1.449	0.013
Inter-Item Correlations	0.526	0.311	0.864	0.554	2.783	0.037

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Files are misplaced forcing loss of patients' history	23.74	20.979	0.6	0.778	0.877
Folder duplication increases workload for administrators	23.64	20.942	0.634	0.836	0.873

Folder duplication takes the space in the filing rooms	23.51	20.441	0.647	0.716	0.872
Clinicians redo the same patient assessment over again	23.5	19.794	0.748	0.767	0.859
An interlink for all health workers site improves service	23.57	19.549	0.751	0.822	0.859
Government must use technology to help service delivery	23.57	19.629	0.732	0.883	0.861
Reception space is too small to allow for effective service	23.56	19.801	0.624	0.779	0.876

Source: Authors Construction

9.17 Chapter summary

A comprehensive conceptual framework is fundamental to the valid evaluation of primary care. This framework adds a new perspective to a complex field. A greater understanding of the structural domain provides opportunities for informed system change. Former experience suggests a lag between the articulation of concepts of quality and the development of valid instruments and political determination to allow robust measurement of health care systems. Our framework challenges researchers to develop instruments and analytical techniques to understand those areas of the framework for which tools have yet to be developed. The framework provides policymakers with a more comprehensive view of primary care quality and, in combination with relevant evaluation methods, assists in decision-making about health resource allocation and quality improvements.

CHAPTER 10

RESEARCH DESIGN AND THE RESEARCH METHODOLOGY OF THE STUDY

10.1 Introduction

This chapter covers the research methodology by distinguishing the research design from the research methodology and then exploring how these interrelated functions were carried out during the survey. The population, sampling techniques, population size, data collection and analysis are all covered in greater detail.

10.2 Research design and Research methodology

Jawah (2015:78) distinguishes between research design and research methodology. Research design is defined as a road map that is to be followed during the research process. This clearly identifies what should be done in the proper sequence thus enabling the research to identify resources that may be necessary. Babbie and Mouton, (2005) concur with this definition and postulate that the research design assists in determining many factors about the research, including among others, the time it takes, the target population, the sample to be used, and essentially answers to the question: What is required for the research project?

The research methodology on the contrary is in response to “how” and the “whats” will be attended to. Research methodology answers the questions, chief among them, for instance, how will you decide on the target population? How will you sample the population? Maree (2016: 36 -42) agrees with the preceding and expands on the importance of the research methodology as the make or do. The methods used to carry out the results will impact both the validity and reliability of the research. A comparison or contrast of the differences between research design and research methodology is illustrated below in Table 10.1

Table 10.1. Research design the research design and methodology.

Research design	Research methodology
Strategic master plan	Operational or execution plan
Emphasises the road to be walked	Emphasises how the walking is done
Emphasis on what results are expected	Emphasis on tools/techniques for results
Guided by research problem/question	Guided by the tasks and work packages
Focuses on rationality of research	Focuses on procedures and processes
Focuses on “what should be done?”	Focuses on “how should it be done?”

Source: Jowah (2015:69)

10.2.1 Target population

Every individual is likely to have been sick at some time, spent time in a medical facility, or received an injection, be it immunisation, or any form of medical care. There are different places and service points for medical care, including private medical practitioners in hospitals and surgeries. The majority of people, however, cannot afford the fees charged by private practitioners, most of whom use public (government) health facilities. The target population for this study is all the people who use public health facilities (both as employees or patients) which include clinics and hospitals.

10.2.2 Sample

A sample is a subsection of a population under study, which bears all the characteristics of the population to be studied. In this study, the sample will involve two types of respondents, namely, the clinicians and the patients who make use of these facilities.

10.2.3 Sampling method

There are 8 districts under the Cape Metropolis with an average of 10 clinics (service points) per district, giving a total of about 80 clinics. The average staff complement per clinic is 40, this gives a total of 3200 employees (sample frame). All the districts were part of the research, but a random sampling of clinics (per every district) was used to identify a minimum of 50% (40) of the clinics in the Metropole (1600 employees were available for random sampling). From each or at each point, an average of 10 employees was interviewed – randomly sampled, except where necessary convenience sampling was used. An equal number of patients were interviewed at the same (randomly chosen) sites.

10.2.4 Sample size

A total of 400 employees (25%), a quarter of the total staff complement, were interviewed. Per every site, as indicated above, the same number of patients were interviewed at the same sites. The number of patients who participated was considered to possibly exceed the stipulated minimum sample size for the patient respondents.

10.2.5 Data collection instrument

The researcher deemed it important that a standard instrument be used for the purpose although this was a mixed research study. There were elements of this study that required quantitative results whilst other aspects focused more on the attitudes, perceptions and other aspects difficult to quantify. The research instrument designed for this was divided into three parts, namely; **SECTION A** – Biography, **SECTION B** – Likert scale measuring attitudes and perceptions, **SECTION C** – Open-ended questions for discussion – qualitative research. The instrument was used for a pilot survey, and the document was reconstructed according to the required changes. A statistician was involved throughout the process to assist with validity and reliability testing.

10.2.6 Data collection method

The researcher trained between 10-20 interviewers that participated in the data-gathering process.

The collection of data was done directly with the respondents on a one-on-one basis. This method is deemed necessary to cut down on the low numbers of returned questionnaires which is a norm. The presence of interviewers ensured that whosoever accepted a questionnaire would respond as the interviewers waited for the response on the spot. Besides, the interviewers were able to answer any questions that were asked by the respondents in respect of the questionnaire.

10.2.7 Data analysis method

The data collected was edited, cleaned and coded before it was captured in the SPSS for analysis. The system was chosen because the university has those facilities and the programme is generally user friendly. The processed data was converted to diagrams (illustrations) and interpreted to provide comparison and understanding of the variables under study.

10.3 Chapter summary

The study had numerous challenges in that the researcher and those assisting did not have control over the sampling, specifically because of the unpredictable nature of the research objects. However, the number of clinicians interviewed was increased, a benefit of availability and many clinicians. The large sample collected gave a degree of reliability and validity to this research to the extent that it was fairly easy to make generalisations of the findings. Various steps for research methodology were adopted for this study which is outlined in this chapter and is evident in the next chapter. The problem statement and the research questions were adequately dealt with in the findings as detailed in the next chapter. The next chapter presents the summarized findings by descriptive analysis followed by the discussion of the primary findings in keeping with the objectives. Below is the issues that the researcher has found to the respondents.

Table 10 .2 Issues concerning research participants

Collecting Information	Before collecting information one needs to consider the relevance of the information and its usefulness.
Seeking consent	Respondents or participants must be capable of giving consent, and sufficient information must be given to the respondents so that they can make reasonable decisions.
Providing incentives	It is ethical for a researcher to give incentives to respondents, as some people do not participate in research without incentives.
Seeking sensitive information	Some people regard certain information as sensitive and thus may be reluctant to respond.
Causing harm	When a researcher is collecting data from participants, he or she needs to assess if there might be any harm caused to the respondents in any way.
Maintaining confidentiality	Sharing information about the participants for purposes other than research is considered unethical.
Seeking consent	Respondents or participants must be capable of giving consent, and sufficient information must be given to the respondents so that they can make reasonable decisions.
Providing incentives	It is ethical for a researcher to give incentives to respondents, as some people do not participate In research without incentives.
Seeking sensitive information	Some people regard certain information as sensitive and thus may be reluctant to respond.
Causing harm	When a researcher is collecting data from participants, he or she needs to assess if there might be any harm caused to the respondents in any way.
Maintaining confidentiality	Sharing information about the participants for purposes other than research is considered unethical.

Source: construction from Kumar (2005:212-213)

CHAPTER 11 DATA ANALYSIS AND INTERPRETATION

11.1 Introduction

This chapter analyses and discusses the findings of the research which are illustrated as graphs, bar charts, pie charts and tables. The primary objective of the research was to design a model for effectively evaluating and monitoring primary health care service delivery. The setting for the research should be understood from the economic as well as the social aspect of the communities and clinicians in the Cape Metropole. There are different types of centres, starting where the patient is accepted by the clinicians in the earlier stages who then passes them on to hospitals for any complicated issues. At the service points, clinicians were complaining of shortages of resources, training and poor management style.

11.2 The empirical effective model and objectives

Our study showed that delivery of primary health care services was very poor, from the lower level contact with health care professionals at the primary health care level in the study area. The main barriers mentioned by clinicians were lack of resources, poor management style and poor infrastructure development. Clinicians were poorly trained in the management and delivery of quality services. Lack of supervision by the district and provincial health managers together with poor dissemination of guidelines was found to be a contributing factor to the lack of clinicians' knowledge at the service points within the study area. Clinicians mentioned the following points: the need to involve missionary schools, the government should enforce physical education in all schooling, the education system should introduce health science, and government should incorporate the practice of lifestyle disorders.

11.3 Data analysis

According to Freedman (2004:4), data analysis is a process undertaken to convert the raw data into usable information by converting the data and illustrating it in diagrams from which the relationships between the variables are identified. The collected data was edited, cleaned, coded and then captured onto an Excel spreadsheet from whence charts (bar, pie) graphs, histograms and frequency distribution tables were constructed. The following is a detailed report on the relationships identified between the variables.

11.4 The method used to report

The reporting format has been deliberately structured to provide specific information for specific questions in the order in which they appear in the research instrument. The need for adopting this method was specifically to avoid overshadowing other questions and responses in the reporting. The intention was that all the high points would therefore be covered under conclusions and recommendations which appear in the last chapter. The format, therefore, involved the question or statement to be ranked, as it appeared in the research instrument, followed by a response on a question-by-question basis. Since the questionnaire was divided into three sections namely; section A – Biography, Section B- Likert scale and Section C – open-ended questions, this format was followed in the reporting. The findings were reported under responses with each response followed by an illustration as constructed from the research data.

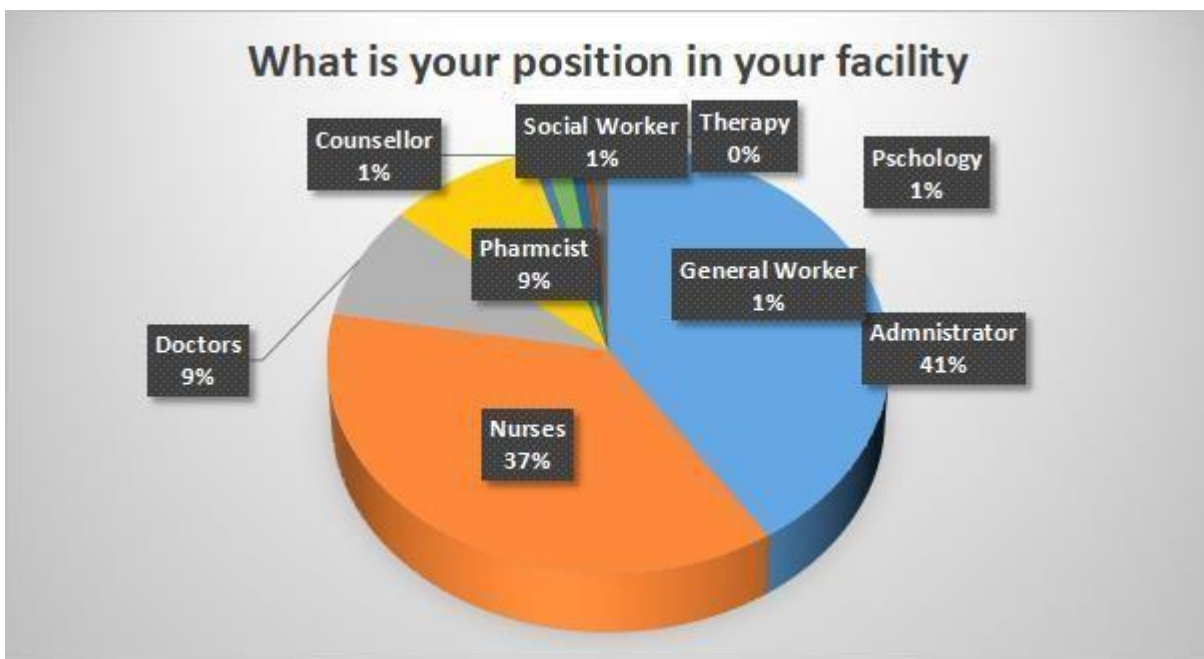
11.4.1 Section A: Biography

This section focused on the biographical information used to qualify the respondents and determine those that may not be ideal for the research. This section dealt specifically with the biography of the respondents, primarily to investigate the suitability of the candidates for the survey. The target was the working position in the health facility. The section, therefore, sought to establish the suitability of such candidates for this survey.

Question 1: What is your position in the health care facility?

Response: As shown in Figure 11.1 below, the majority of the respondents are administrators that make up 41 % of the staff at the hospital. This was very surprising considering the large administrative backlog within the health care system. This is followed by 37 % who are nurses, these provide support at the hospital. The 9% of the staff who completed the questionnaires are pharmacists while the 8% are doctors. The low percentage of key personnel required in the health facilities was quite alarming. The representation of counsellors, social workers, therapy staff and psychology staff was 1 % each. This shows the amount of focus on support staff.

Figure 11. 1 Position in health Facility

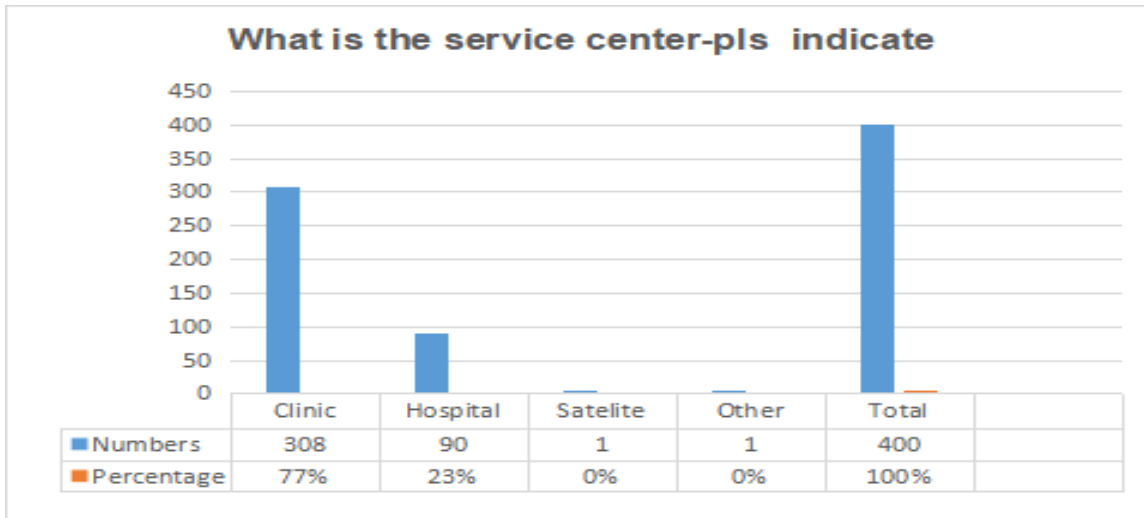


Source: Author's construction

Question 2: What is your service centre

Response: As depicted by Figure 11.2 below it can be noted that 77% of the staff who service the health care system are based at clinics whilst 23 % are at hospitals. This is in line with the socio-economic profile report done in 2016 of the Metropolis which indicated that Cape Town has 81 fixed clinics, 26 mobile/ satellite clinics, 42 community day centres and 8 district hospitals.

Figure 11. 2 Service Centre

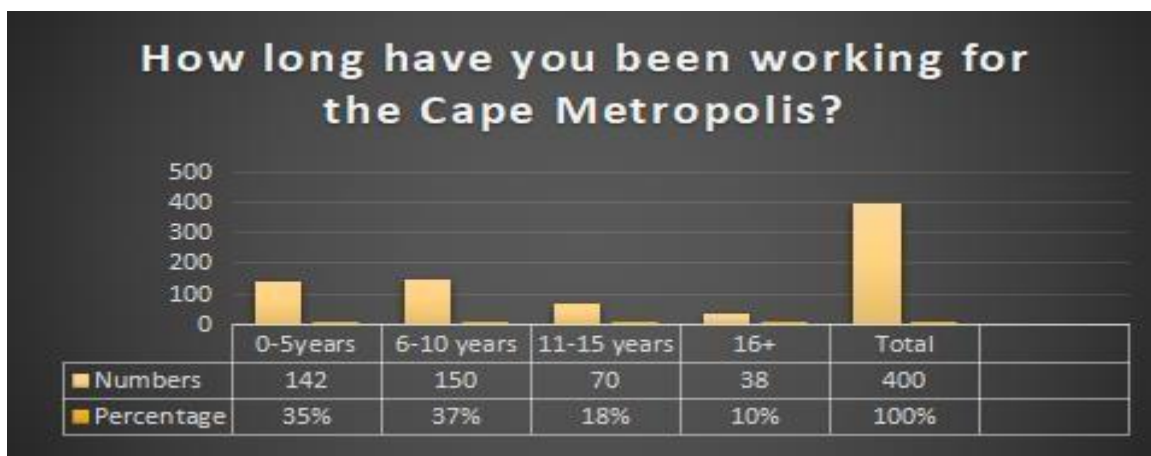


Source: Author’s construction

Question 3: How long have you been working for Cape Metropolis Health Care?

Response: Figure 11.3 indicates that 10% of the employees have been working for the Cape Metropolis Health Care system for 16 years and above, 18% have been employed for 11-15 years while 37% have been employed for 6- 10 years and 35 % have been employed for 0-5 years. This indicates that the Cape Metropolis Health Care system seems to have a low retention rate of employees as the years of experience increase.

Figure 11.3 Years you have been working?

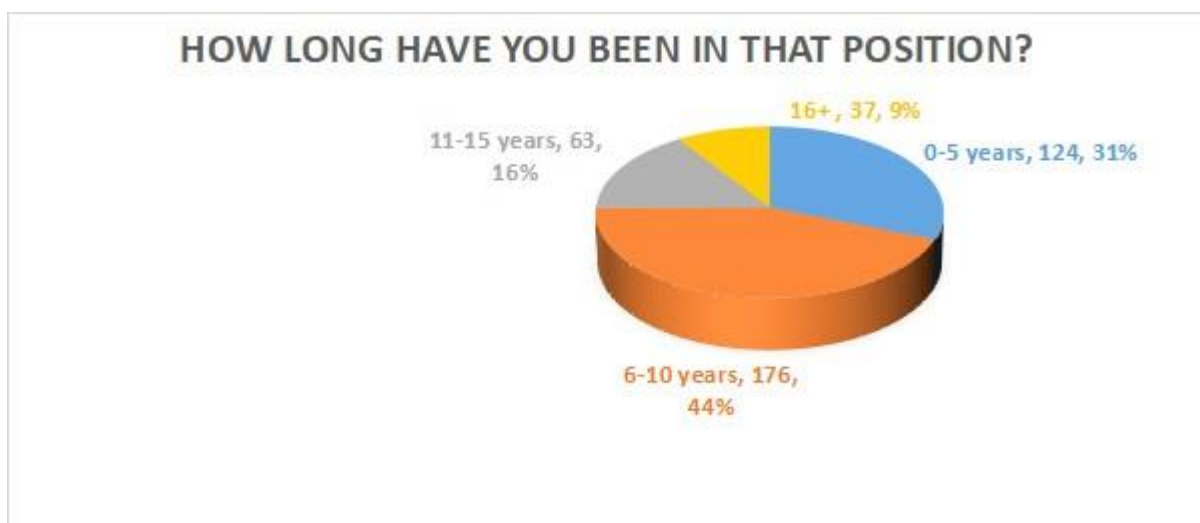


Source: Author’s construction

Question 4: How long have you been in that position?

Response: The pie chart in Figure 11.4 shows that the majority of the respondents (44%) have been in the same position for 6-10 years, this is followed by 31% which are respondents who have been in the health care system for 0-5 years. 16 % of the respondents have been employed for 11-15 years, while 9% have been in the same position for 16+ years. In general, this indicates that people will likely stay in the same position for years before they move, which may indicate stability although it may also be a bottleneck for those who want to grow and escalate through the structures.

Figure 11.4 Years you have been in a position?



Source: Author's construction

Question 5: What is your qualification?

Response: Figure 11.5 indicates the qualifications of the respondents. The majority of the respondents (37%) have a diploma that is rated on the National Qualifications Framework at NQF level 6. This is followed by 35 % who own degrees. This accounts for 72% of the employees servicing the Cape health care system and shows that this is an educated workforce. This 17% of the respondents had matric rated at NQF level 4, while 11% have other qualifications.

Figure 11.5 Qualifications of the respondents

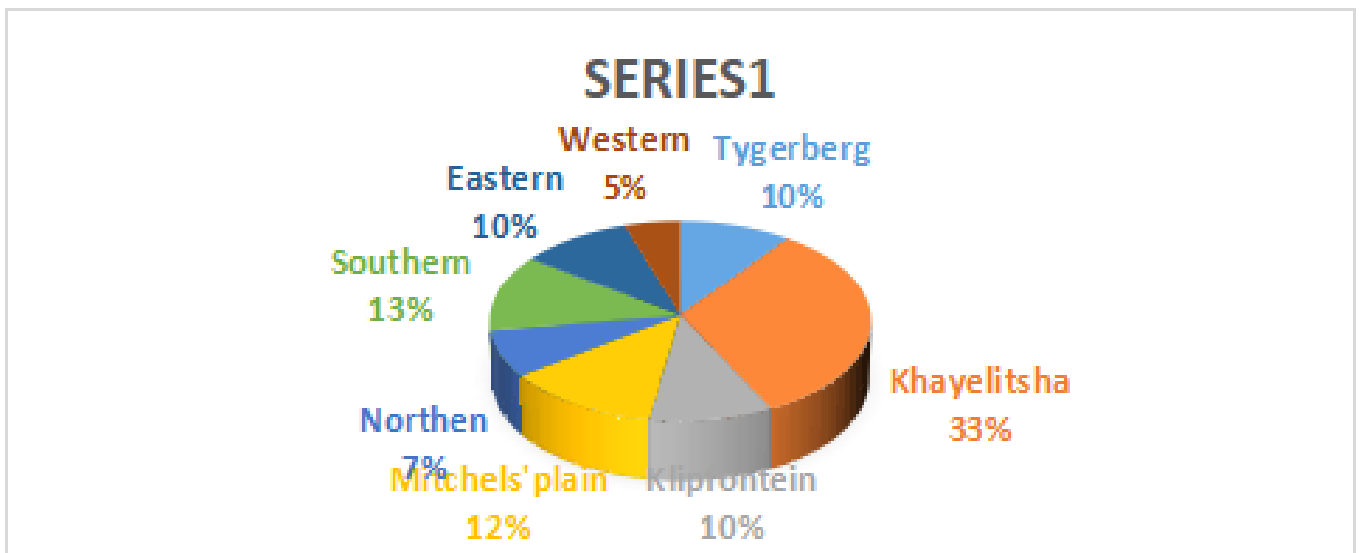


Source: Author's construction

Question 6: What district facility are you working from?

Response: Figure 11.6 shows the geographical distribution of the respondents. The majority of the respondents are in the Khayelitsha area which is 32%, this is followed by 13% that are in the Southern suburbs. 12 % of the respondents are stationed in Mitchell's Plain area while 10% of the respondents are based in Klipfontein, Tygerberg and Eastern suburbs respectively, and 8 % in the Northern suburbs. Only 5% of the respondents are based in the Western part of the Cape Metropolis.

Figure 11.6 District Facility of the responded



Source: Author's construction

11.4.2 Section B: (Likert scale)

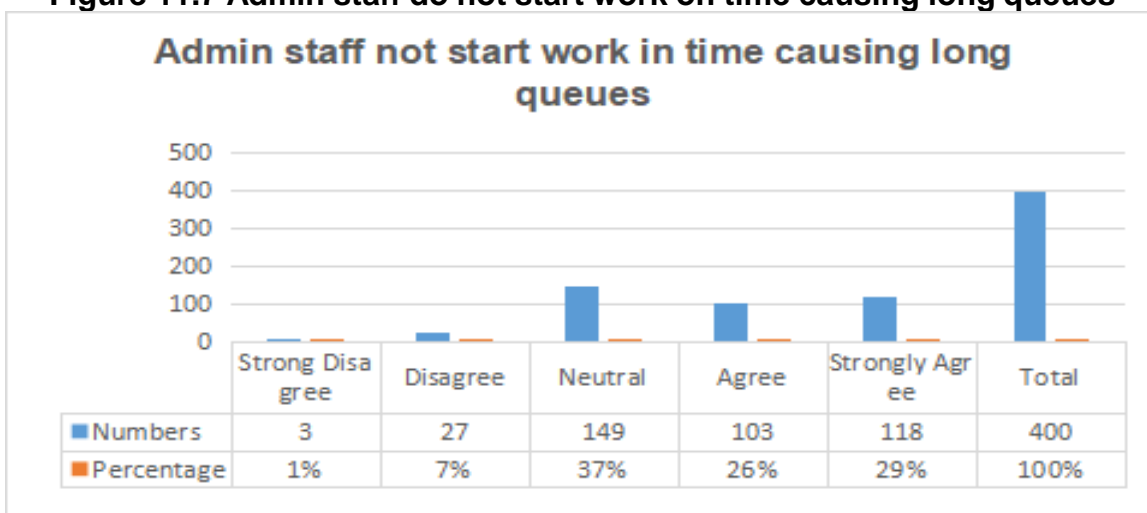
Pre-statements or prescribed statements were constructed based on the literature review on an effective model for primary health care services. These statements were to be ranked by the respondents on a 1-5 scale; 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. This section was divided into sections and the statements that were ranked focused on the specific areas and subjects for which evaluations were required.

SHORTFALLS IN THE ADMISSION SYSTEM

Statement 1: Admin staff do not start work on time causing long queues

Response: Figure 11.7 below illustrates the majority of the respondents with (37%) Neutral, followed by (29%) of the respondents who Strongly Agree, followed by (26%) who Agree, followed by (7%) who Disagree. The other (1%) of the respondents who Strongly disagree confirmed that if the administrators start working on time, the queues will be shorter or more manageable.

Figure 11.7 Admin staff do not start work on time causing long queues



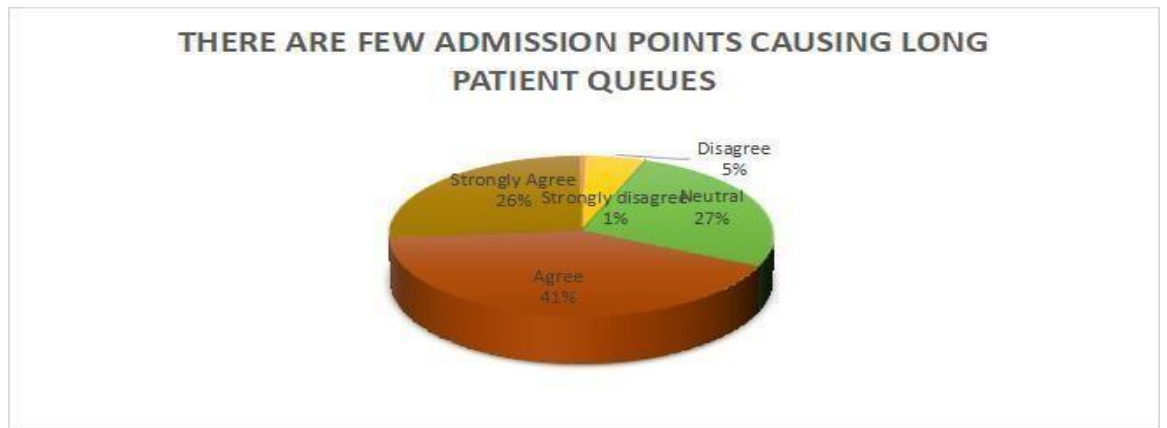
Source: Author's construction

Statement 2: Few admission points are causing long patient queues

Response: Figure 11.8 indicates that 41% agree that few admission points are causing long patients and queues. 26% of the respondents strongly agree that few admission points are causing the queues in the health care system. The other 27% of the respondents are neutral. The other 5% disagree that the admission points are the

reasons for the long queues. The other 1% of the respondents strongly disagree that queues are due to the few admission points.

The figure 11.8 Few admission points are causing long patient queues

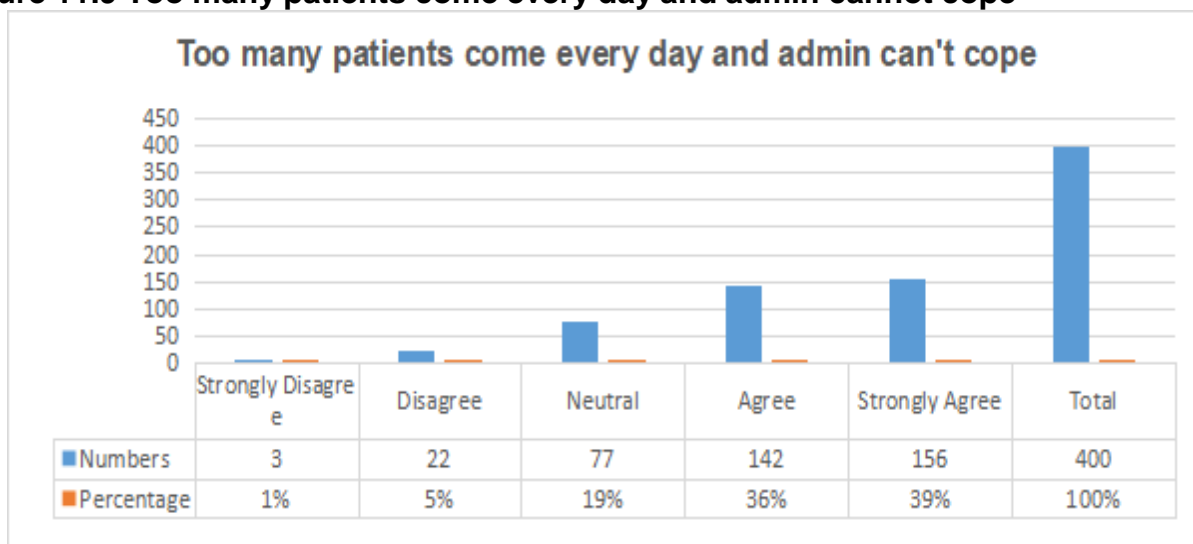


Source: Author's construction

Statement 3: Too many patients come every day and admin cannot cope

Response: Figure 11.9 below indicates that 39 % of the respondents strongly agree that too many patients come to the health care facilities daily. The other 36% agree that there are too many patients every day. The other 19% of the respondents were neutral on this statement. The other 5% of the respondents disagree that they cannot cope with the turnout of the students. The other 1% also strongly disagree that they do not cope because of the turnout of patients daily

Figure 11.9 Too many patients come every day and admin cannot cope

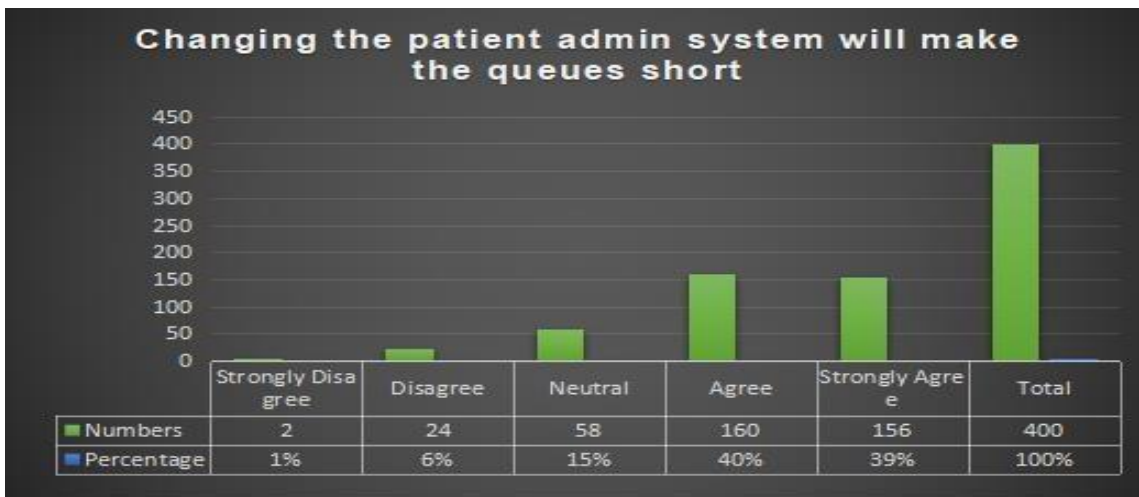


Source: Author's construction

Statement 4: Changing the patient admin system will make the queues short

Response: Figure 11.10 indicates that 39% are strongly of the opinion that changing the admin system will make the queues shorter. The other 40% also agree that changing the system will reduce the queues. The other 15% did not want to comment on the above and remained neutral. The other 6% disagree that the admin system will reduce the queues. The other 1% of the respondents strongly disagree that changing the admin system will reduce the queues.

Figure 11.10 Changing the patient admin system will make the queus

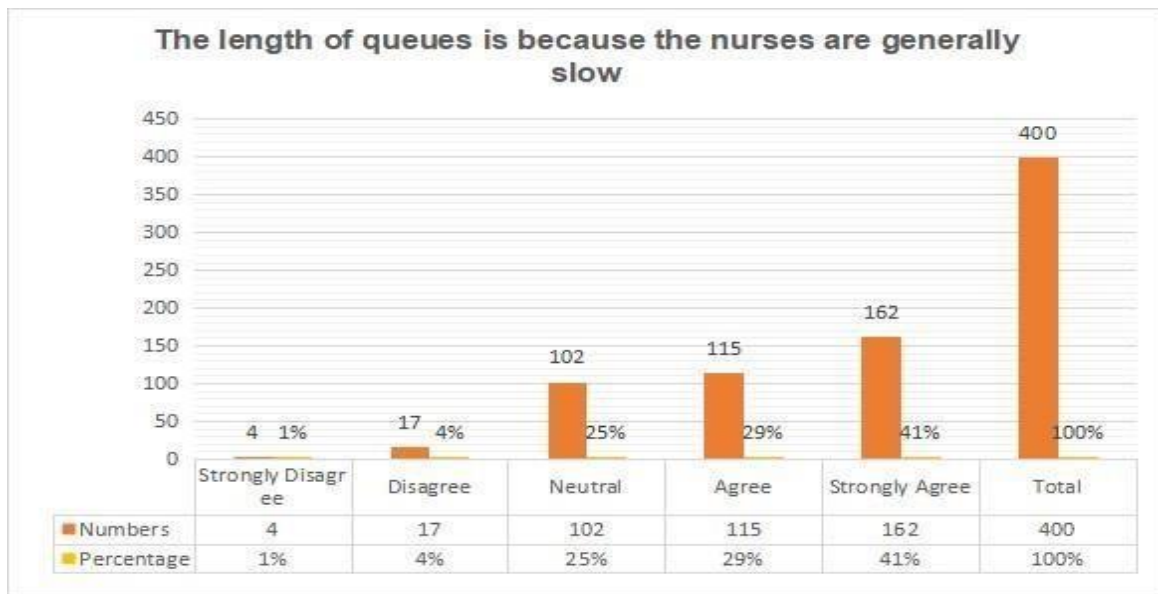


Source: Author's construction

Statement 5: The length of queues is because the nurses are generally slow

Response: Figure 11.11 shows that the 41% of the respondents strongly agree that the nurses are generally slow. The other 29% also agree nurses are slow and that makes the queues long. The other 25% of the respondents are silent on the matter, while the other 4% of the respondents do not think that the nurses are slow. The other 1% of the respondents strongly disagree with the statement above.

Figure 11.11 The length of queues is because the nurses are generally slow

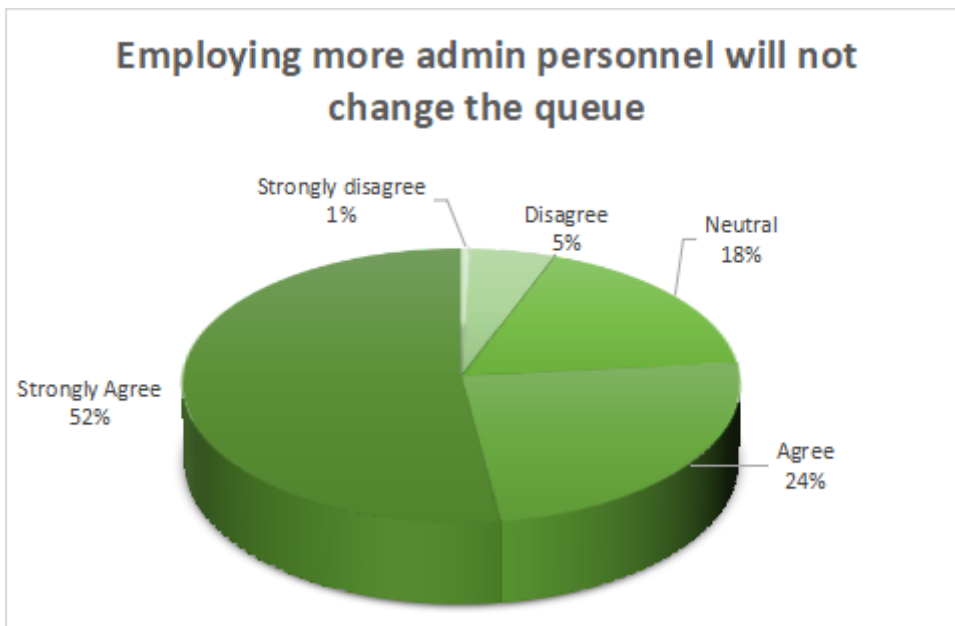


Source: Author's construction

Statement 6: Employing more admin personnel will not change the queues.

Response: Figure 11.12 indicates that 52% of the respondents strongly agree that employing more admin personnel will cause a change in the queues at the health facilities, while 24% also agree that more admin personnel would have a direct impact on the queues. This reflects the response from 76% of the respondents. The other 18% of the respondents have remained silent on the statement above. The other 5% disagree with the statement while 1% strongly disagree that employing more admin personnel will change the queue.

Figure 11.12 Employing more admin personnel will not change the queues.

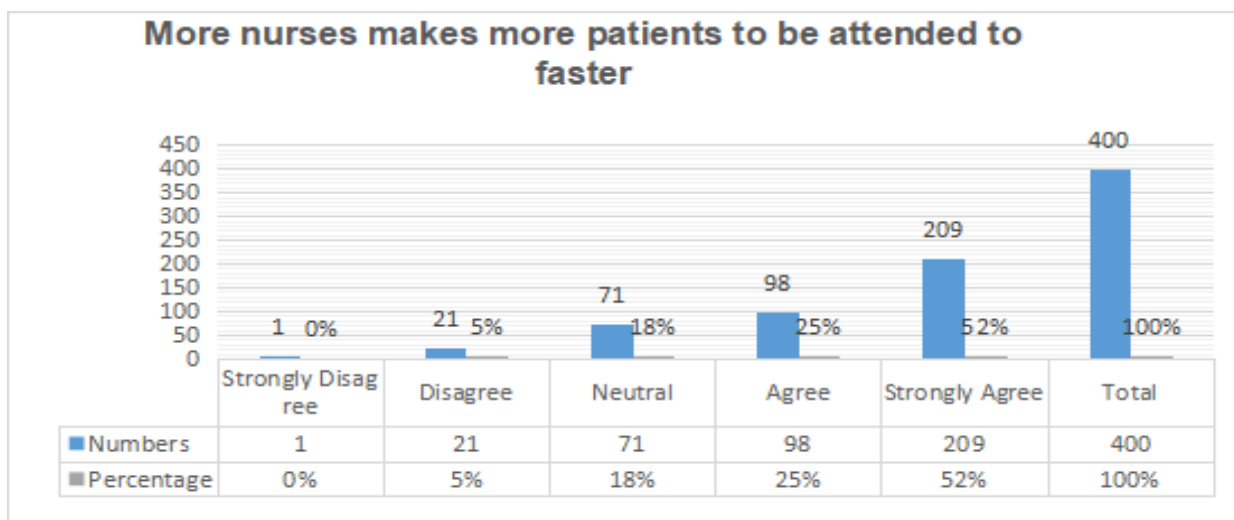


Source: Author's construction

Statement 7: More nurses enable more patients to be attended to faster

Response: Figure 11.13 indicates that 52% of the respondents believe that an increase in the number of nurses will lead to an increase in the service offering rate. This is followed by 25% of the respondents who agree that increasing the labour force with nurses will lead to improved services and 18% who were neutral about this statement. The other 5% of the respondents disagree with the notion highlighted in Figure 8.13.

Figure 11.13 More nurses enable more patients to be attended to faster



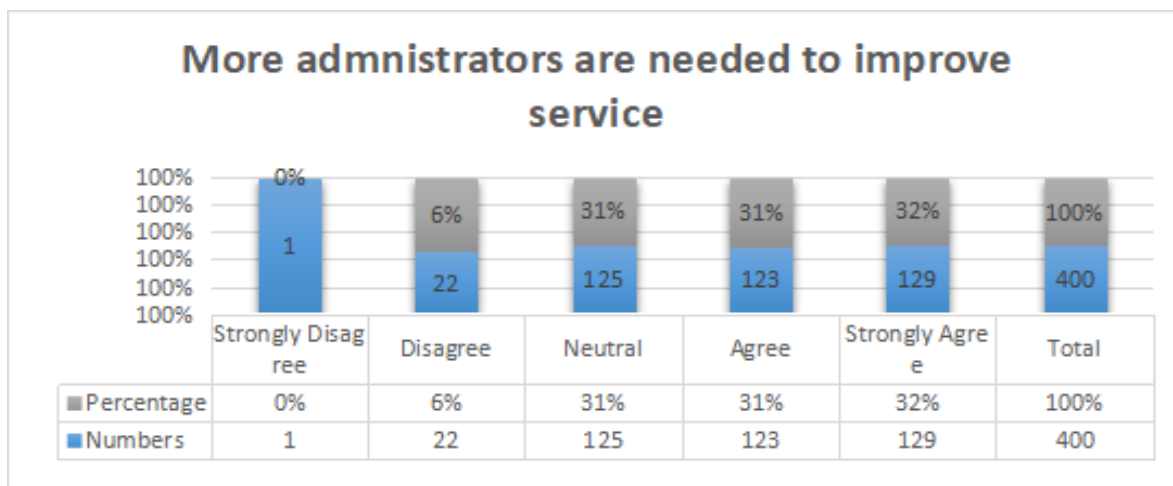
Source: Author's construction

HUMAN RESOURCE COMPLIMENT – ADMIN

Statement 8: More administrators are needed to improve service

Response: Figure 11.14 indicates that 32% of the respondents believe that more administrators are needed to improve service delivery in the health care facilities, while 31% also agree that although these are health facilities, administrators would affect the improvement of the quality of services. The other 31 % of the respondents abstained from this question, while 6 % disagree that the administrators have any effect on the improvement of service in the health institutions.

Figure 11.14 More administrators are needed to improve service

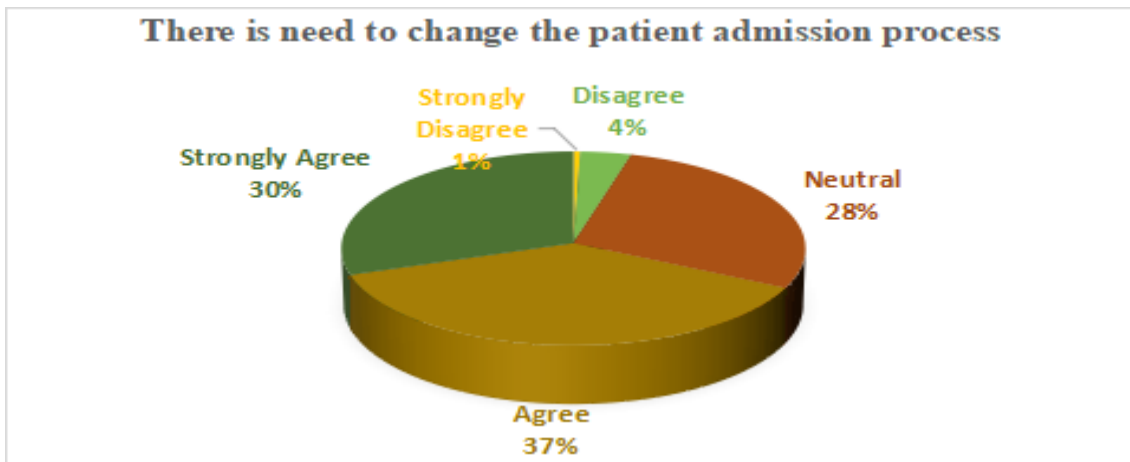


Source: Author's construction

Statement 9: There is a need to change the patient admission process

Response: As indicated above in Figure 11.15, 30 % of the respondents are of the view that there is a need to modify the current admission process of the patients, while 37% of the respondents also agree that there is a need to change the current process of admitting patients. The other 28% were neutral on this matter. The other 4% disagree and believe that the current system must stay as-is. 1% of the respondents also strongly disagree that the system should change.

Figure 11.15 There is a need to change the patient admission process

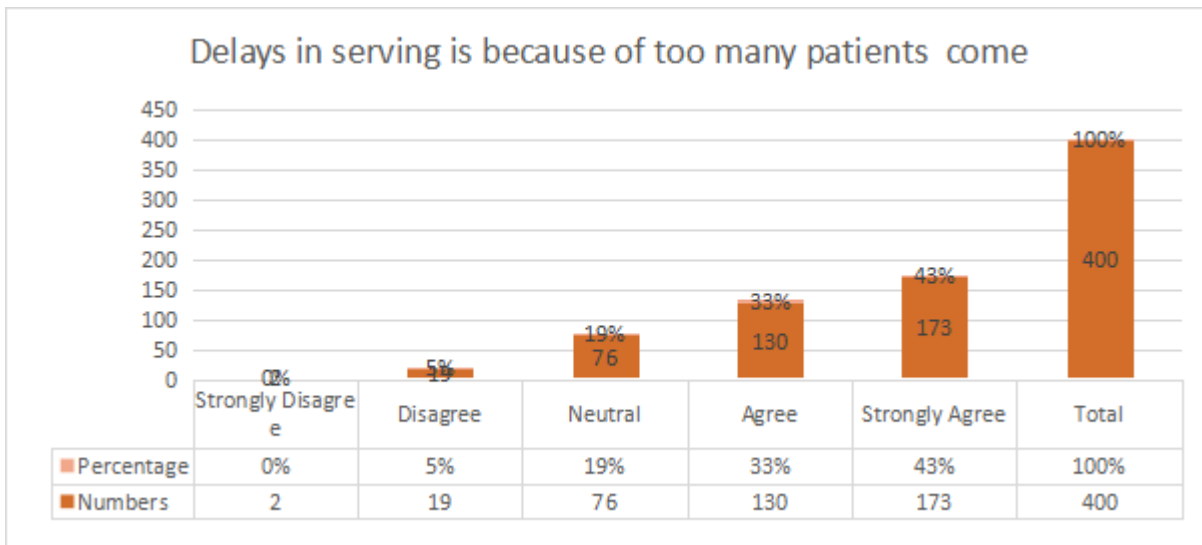


Source: Author's construction

Statement 10: Delays in service are because too many patients come to the facilities

Response: The above Figure 11.16 indicates that 43% of the respondents strongly agree that there are too many patients that are coming to the health care facilities. The other 33% agree that there are too many patients visiting the health care facilities totaling 76% which is more than three-quarters of the respondents who believe that too many patients are visiting the health care facilities. The other 19% of the respondents are neutral on this view and 5% totally disagree with the above statement.

Figure 11.16 Delays in service are because too many patients come to the facilities



Source: Author’s construction

Statement 11: Restructuring will improve service with the same compliment

Response: Figure 11.17 indicates the feedback given regarding restructuring as a mechanism to improve the service with the same compliment. The other 45% of the respondents strongly agree that this is a mechanism that will improve the given change. The other 33% of the respondents agree that this will give positive results while the other 17 % are neutral on the matter. The other 5% of the respondents disagree and do not think that restructuring will affect the service if the compliments are the same.

Figure 11.17 Re-structuring will improve service with the same compliment

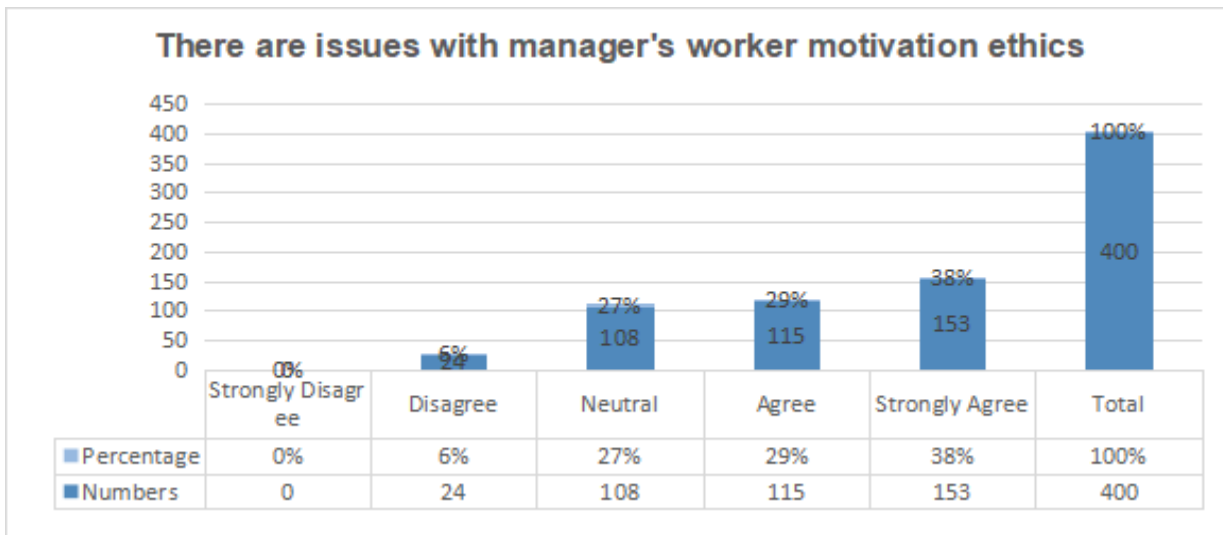


Source: Author’s construction

Statement 12: There are issues with managers’ worker motivation ethics

Response: According to Figure 11.18, 38% of the respondents strongly agree that they have issues with manager’s worker motivation ethics, while the other 29% of the respondents have indicated that they also have issues with manager worker motivation ethics. The other 27% of the respondents are neutral, while the 6% of the respondents disagree that they have issues with their managers.

Figure 11.18 There are issues with managers’ worker motivation ethics

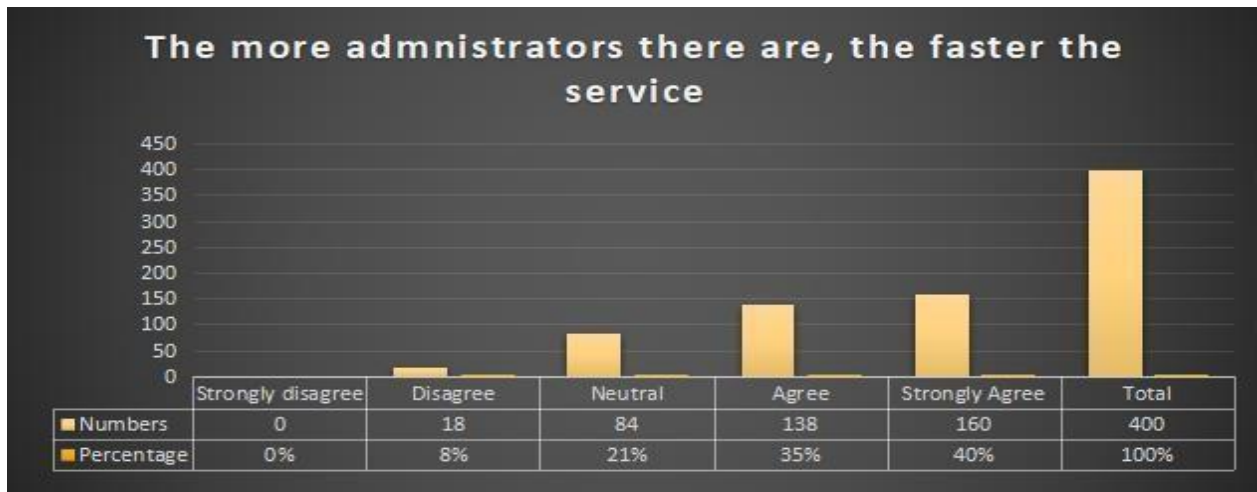


Source: Author’s construction

Statement 13: The more administrators there are, the faster the service

Response: Figure 11.19 indicates that 40% of the respondents believe that more administrators will result in an increase in the rate of service at the health care facilities. The other 35% of the respondents agree as well. Combined, this represents three-quarters of the total population and indicates that there is a strong need for more administrators at the various health care facilities. The other 21% of the respondents abstained and remained neutral, while the other 8% of the respondents disagreed that the administrators will have an impact on the speed of service.

Figure 11.19 The more administrators there are, the faster the service

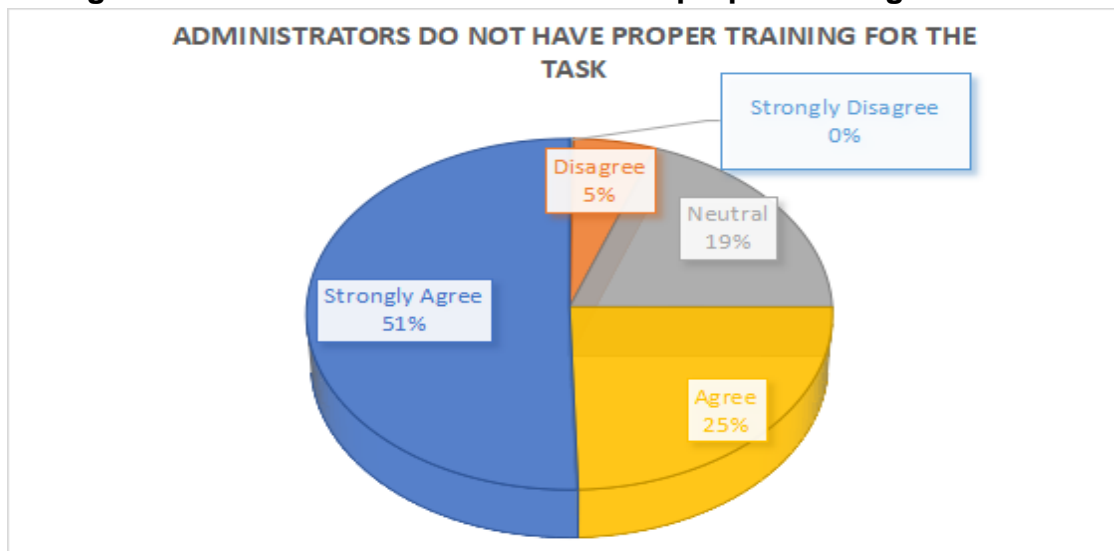


Source: Author’s construction

Statement 14: Administrators do not have proper training for the tasks

Response: According to Figure 11.20, 51% of the respondents believe that the administrators are not competent to carry out the tasks required at the health care facilities. The other 25% of the respondents also agree that the administrators lack the required skills for the task at hand. The other 19% of the respondents remained neutral, whilst 5% disagreed with the statement. None of the respondents strongly disagreed.

Figure 11.20 Administrators do not have proper training for the tasks



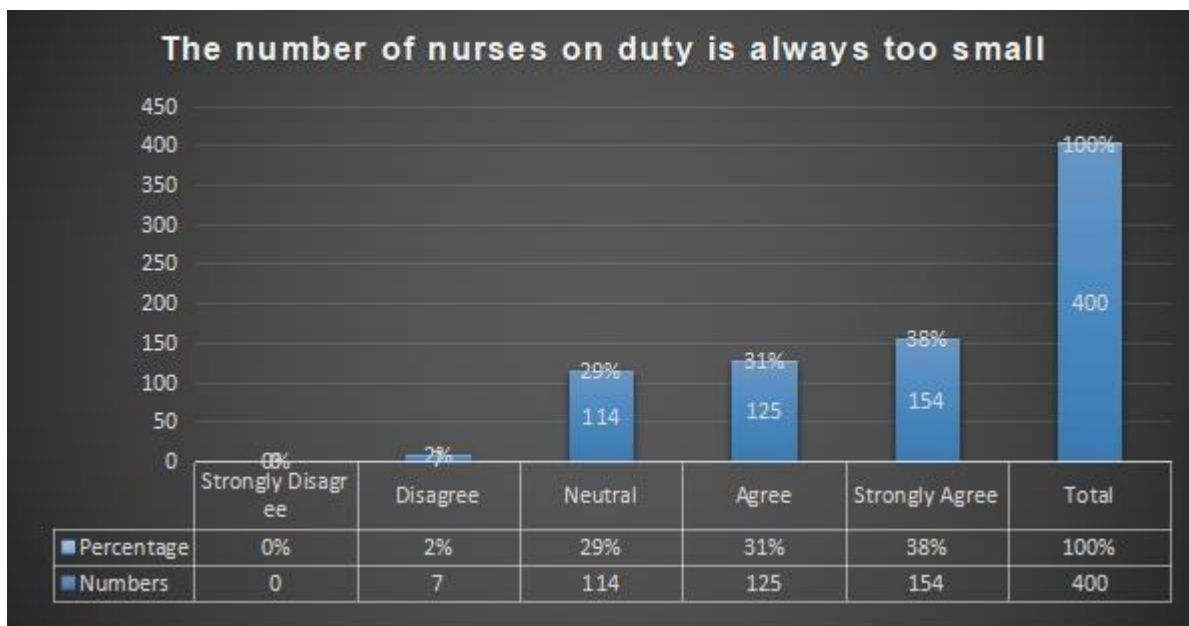
Source: Author’s construction

HUMAN RESOURCE COMPLIMENTS - CLINICIANS

Statement 15: The number of nurses on duty is always too small

Response: According to Figure 11.21 below, 38% of the respondents strongly agree that there are always too few nurses on duty. The other 31% of the respondents are also of the opinion that the nurses are never enough. The other 29% of the respondents had nothing to say regarding this. The other 2% disagree that there are too few nurses on duty. None of the respondents strongly disagreed with the notion.

Figure 11.21 The number of nurses on duty is always too small

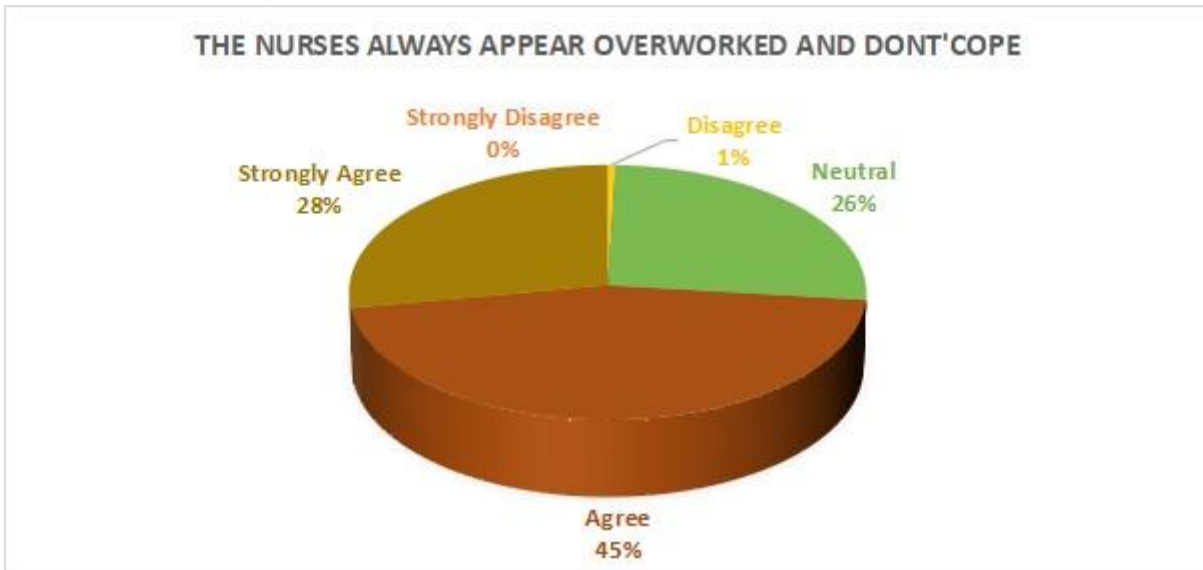


Source: Author's construction

Statement 16: The nurses always appear overworked and do not cope

Response: Figure 11.22 depicts the respondents' feedback regarding the nurses showing fatigue. The other 28% of the respondents strongly agree that nurses appear overworked, that they are tired and do not cope. While 45% of the respondents agree with the notion that nurses are overworked. 6% of the respondents are neutral on the matter and 1% disagree with the statement.

Figure 11.22 The nurses always appear overworked and do not cope

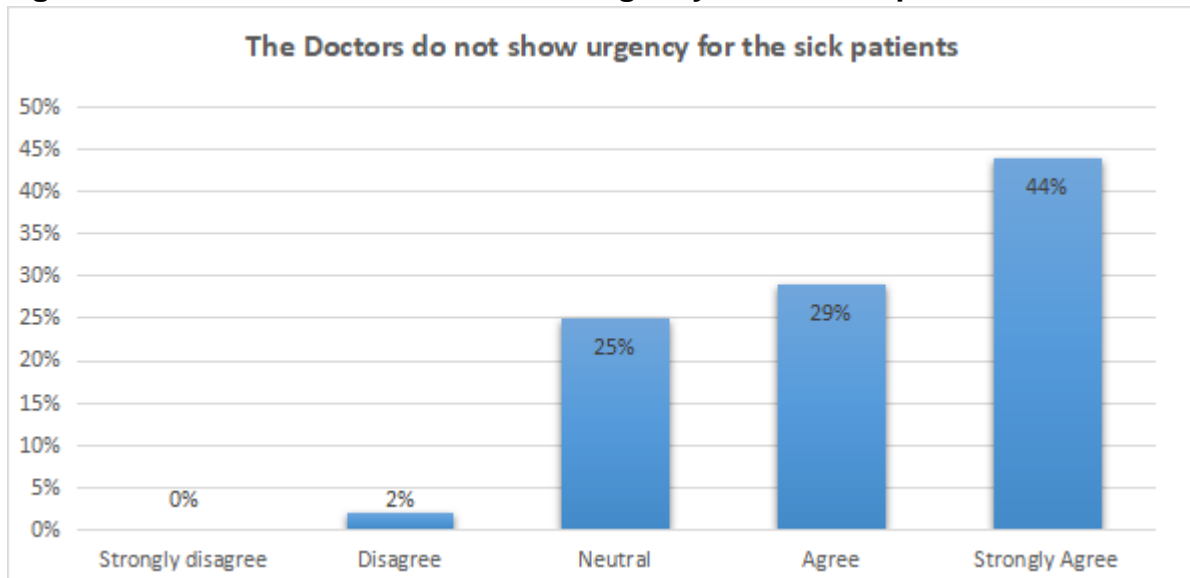


Source: Author's construction

Statement 17: The doctors do not show urgency for the sick patients

Response: According to Figure 11.23 44% of the respondents have indicated that the doctors do not show urgency when dealing with sick patients and 29% of the respondents also agree with the notion. 25% of the respondents are neutral. 2% disagree and believe that doctors show urgency for sick patients. 0% strongly disagree.

Figure 11.23 The doctors do not show urgency for the sick patients

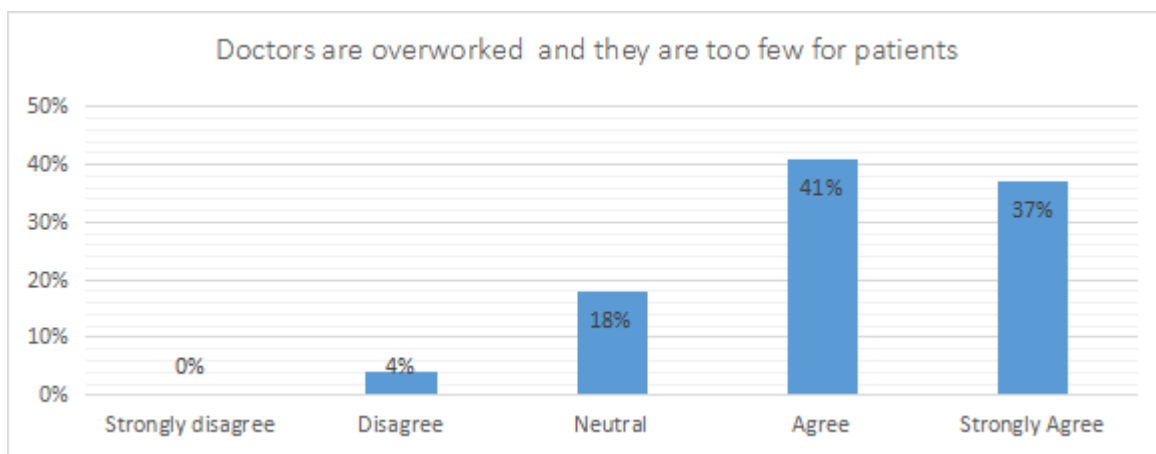


Source: Author's construction

Statement 18: Doctors are overworked and they are too few for the patients

Response: Figure 11.24 indicates that 37 % of the respondents strongly agree with the statement that doctors are overworked and too few are available. The other 41% of the respondents agree that the doctors are overworked and the number of patients is too high. The 18% of the respondents are neutral, whilst 4% do not think that the doctors are too few and are overworked.

Figure 11.24 Doctors are overworked and they are too few for the patients

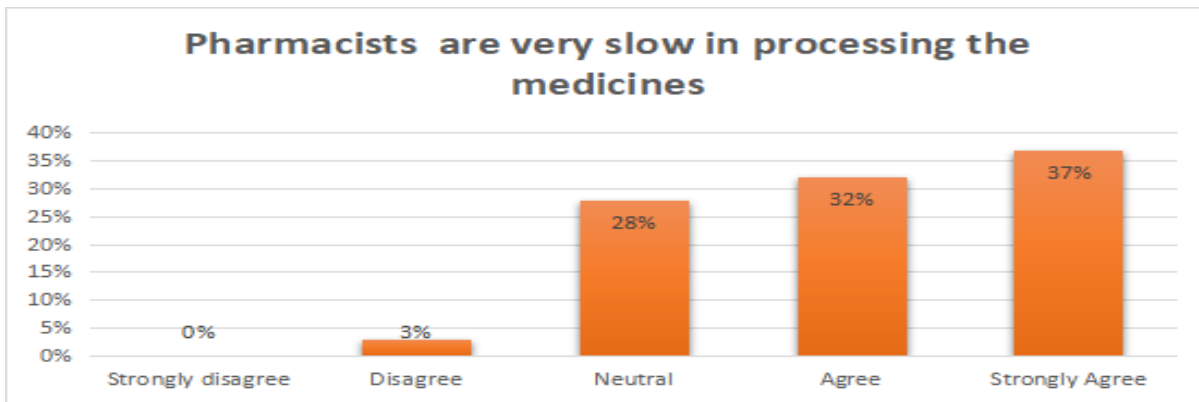


Source: Author’s construction

Statement 19: Pharmacists are very slow in processing the medicines

Response: Figure 11.25 depicts the responses given regarding the rate at which the pharmacists process the medication needed by patients. The 37 % of the respondents strongly agree that pharmacists are very slow in processing the medicines. The 32% agree as well that the pharmacists are slow. The 28% of the respondents are neutral. The 3% disagree that pharmacists are slow.

Figure 11.25 Pharmacists are very slow in processing the medicines

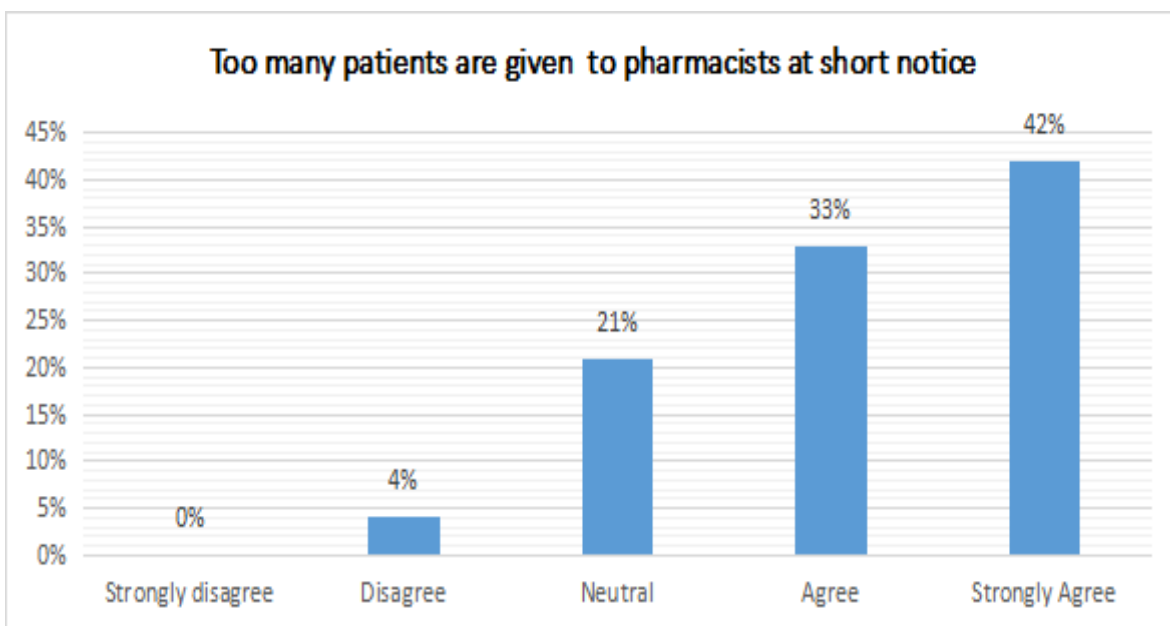


Source: Author's construction

Statement 20: Too many patients are given to pharmacists at short notice

Response: According to Figure 11.26, 42% of the respondents strongly agree that pharmacists receive a large number of patients that they must service within a short period. 33% of the respondents agreed that pharmacists cannot serve the patients while 21% of the respondents were neutral. 4% of the respondents disagree that there are too many patients that require medication within short notice.

Figure 11.26 Too many patients are given to pharmacists at short notice

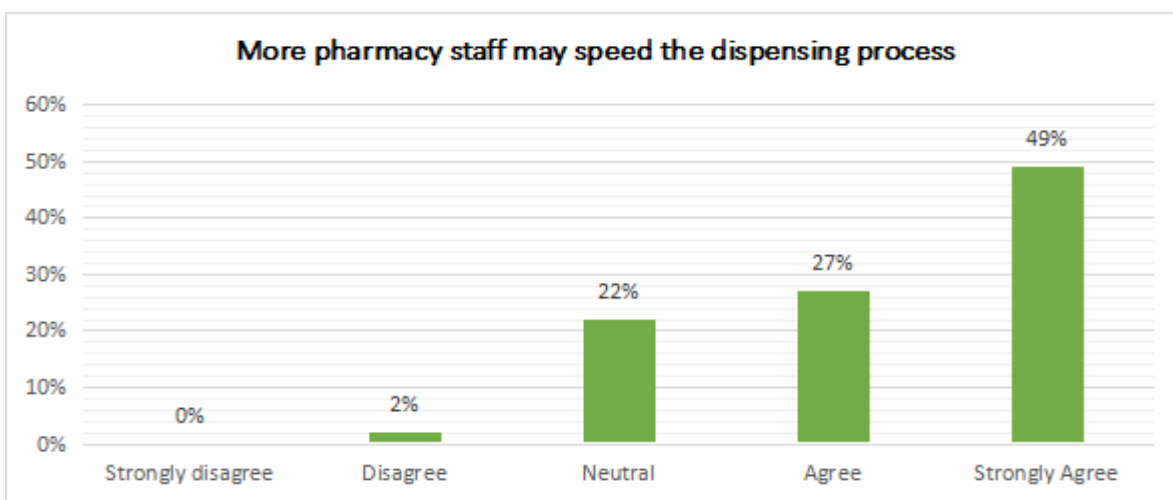


Source: Author's construction

Statement 21: More pharmacy staff may speed the dispensing process

Response: According to Figure 11.27, almost half of the respondents (49%) strongly agree that more pharmaceutical staff are needed at the health service centres. The 27% agree that more pharmacy staff are needed to increase the speed of dispensing the process. The 22% of the respondents remained neutral on the matter. The 2% of the respondents believe that more pharmacy staff will not have an impact on the process.

Figure 11.27 More pharmacy staff may speed the dispensing process



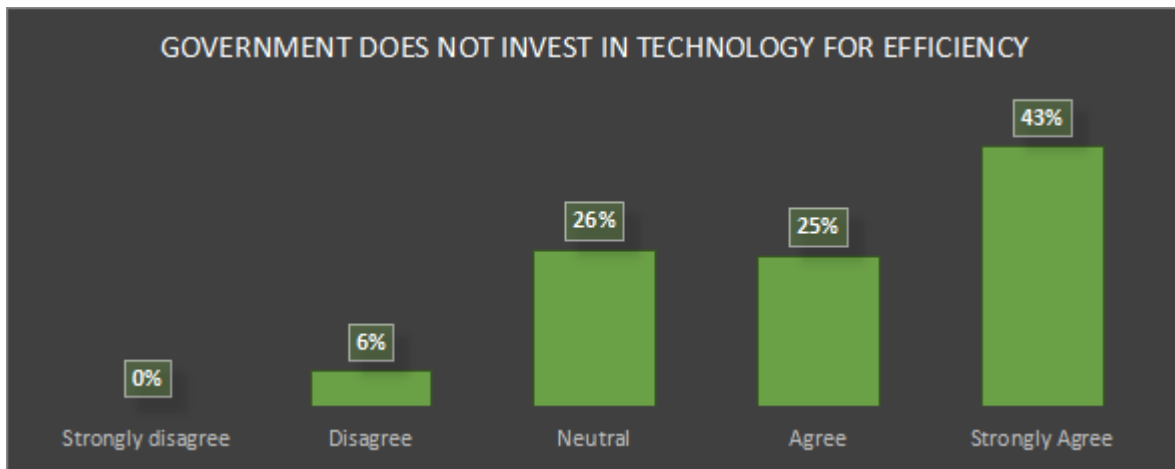
Source: Author’s construction

TECHNOLOGY AND SERVICE

Statement 22: Government does not invest in technology for efficiency

Response: According to Figure 11.28 almost half of the respondents (43%) strongly agree that government must invest more in training staff to use technology at the health service centres. The other 25% agree that more staff are needed to increase the speed of using technology. The other 26% of the respondents remained neutral on the matter. The other 6% of the respondents believe that the use of technology will not increase the service.

Figure 11.28 Government does not invest in technology for efficiency

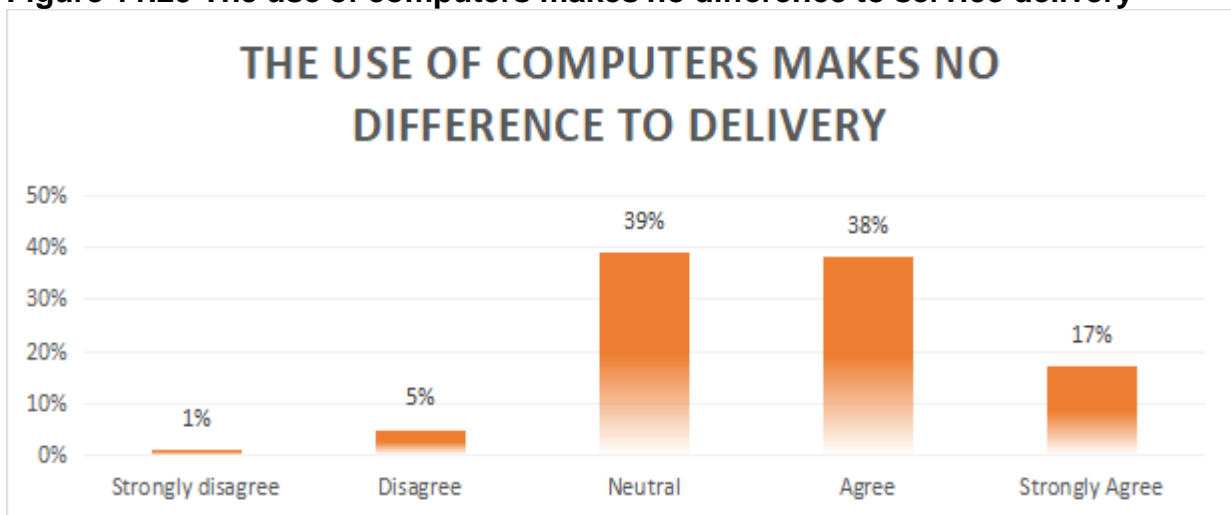


Source: Author's construction

Statement 23: The use of computers makes no difference to service delivery

Response: According to Figure 11.29, 17% of the respondents strongly agree that the use of computers will make no difference to service delivery, whilst 38% of the respondents agree that the use of computers makes no difference. This amounts to 55%, which means that more than half do not see the need for investment in technology. The other 39% of the respondents abstained and remained neutral. 5% of the respondents disagreed with the statement, whilst 1% strongly disagreed.

Figure 11.29 The use of computers makes no difference to service delivery

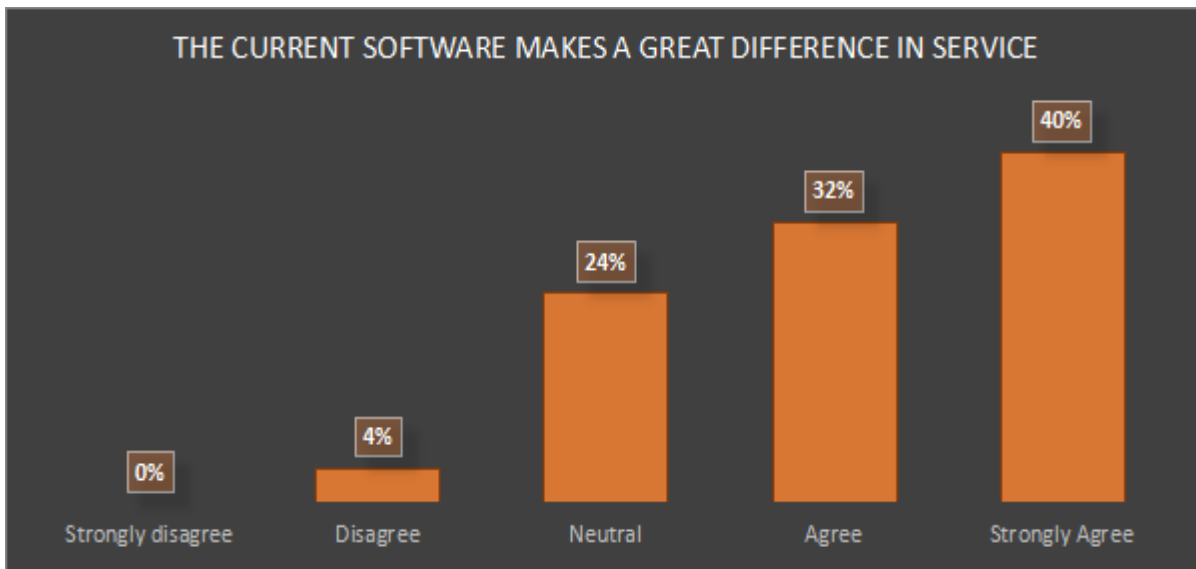


Source: Author's construction

Statement 24: The current software makes a great difference in service

Response: Figure 11.30 depicts that 40% of the respondents strongly agree that the current software makes a difference in the service at the service centres. 32% of the respondents agree that the software goes a long way in making a difference in providing a service. 24% of the respondents remained neutral. The other 4 % of the respondents disagreed with the statement that the current software makes a great difference in service.

Figure 11.30 The current software makes a great difference in service

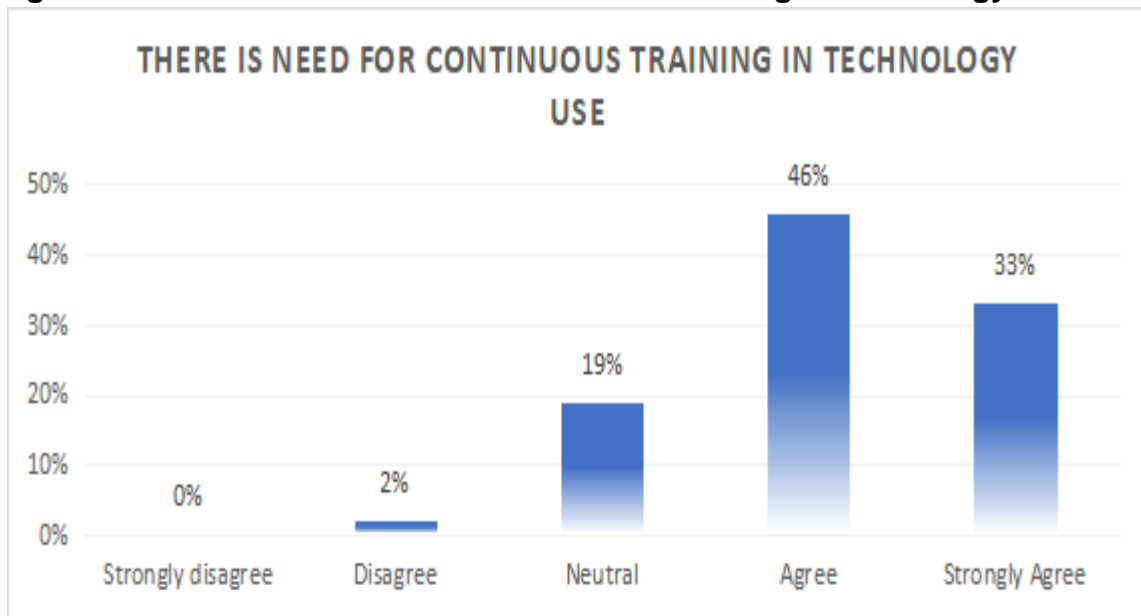


Source: Author's construction

Statement 25: There is a need for continuous training in technology use

Response: Figure 11.31 depicts that 33% of the respondents strongly agree that there is a need for continuous training. 46% of the respondents agree that there is a need for technology training. The other 19 % of the respondents remained neutral, whilst 2% of the respondents disagreed with the statement that there is a need for continuous training in technology.

Figure 11.31: There is a need for continuous training in technology use

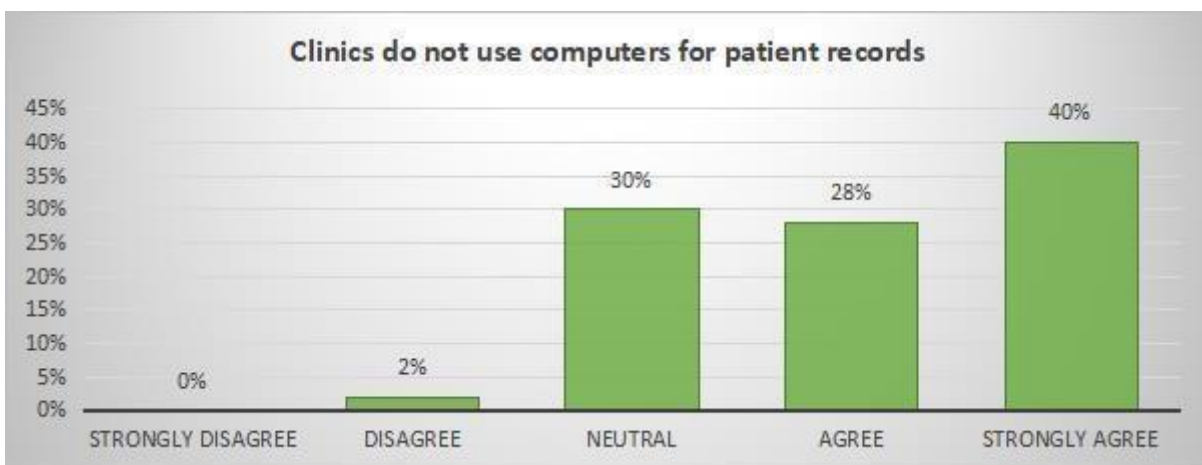


Source: Author's construction

Statement 26: Clinics do not use computers for patient records

Response: According to Figure 11.32, 40% of the respondents strongly agree that clinics do not use computers for patient records. The other 28% of the respondents agree that there is no use of computers for patient records. The other 30% of the respondents remained neutral whilst, 2% of the respondents disagreed with the statement that clinics do not use computers for patient records.

Figure 11.32 Clinics do not use computers for patient records

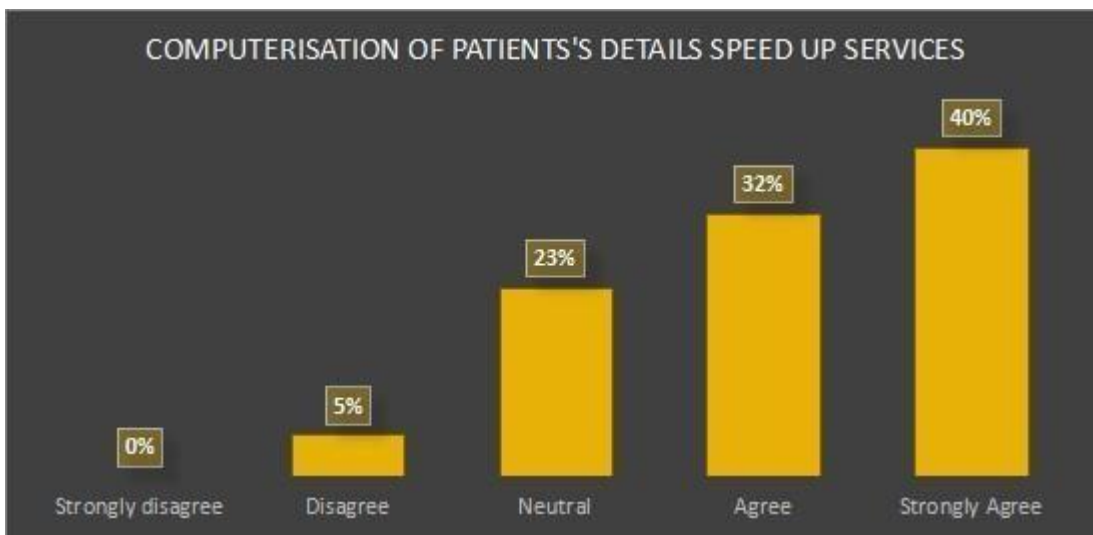


Source: Author's construction

Statement 27: Computerization of patients’ details speeds up services

Response: According to Figure 11.33, 40% of the respondents strongly agree that computerisation of patient details will speed up the services. The other 32% of the respondents agree that upgrading the filing system to an online system will increase the service. The other 23% of the respondents abstained from answering this question. The other 5% of the respondents disagreed with the statement that computerisation of the patient’s details will not speed up the case.

Figure 11.33 Computerization of patients’ details speeds up services

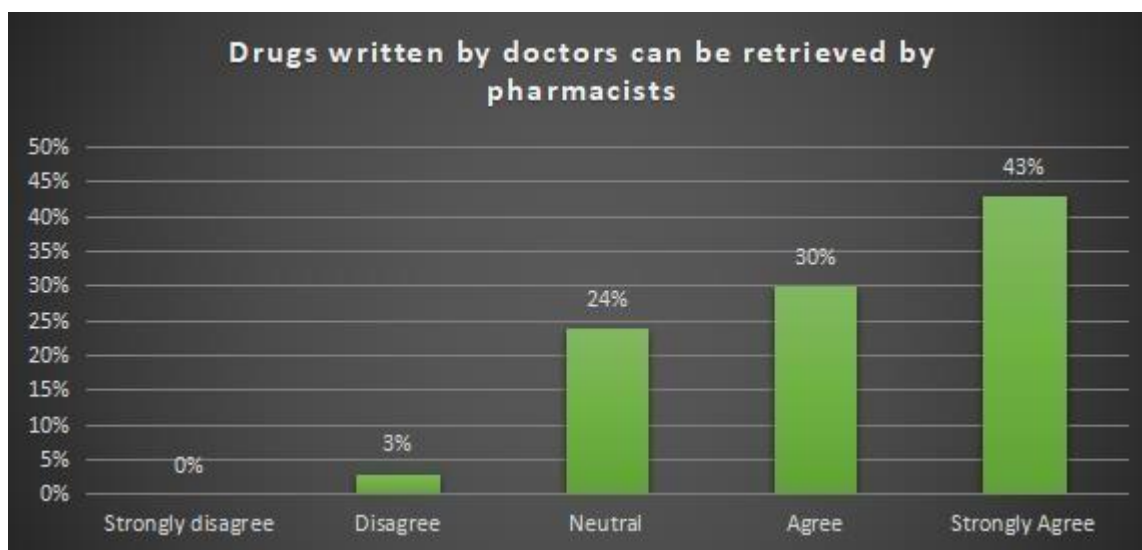


Source: Author’s construction

Statement 28: Drugs written by doctors can be retrieved by pharmacists

Response; According to Figure 11.34, 43% of the respondents strongly agree that the drugs that are prescribed by the pharmacist are available at the pharmacy. The other 30% of the respondents agree that the prescribed medicine is available by the pharmacist. The other 24% of the respondents are neutral. The other 3% of the respondents disagreed with the statement that medicine is available. None of the respondents strongly disagreed with the statement.

Figure 11.34 Drugs written by doctors can be retrieved by pharmacists



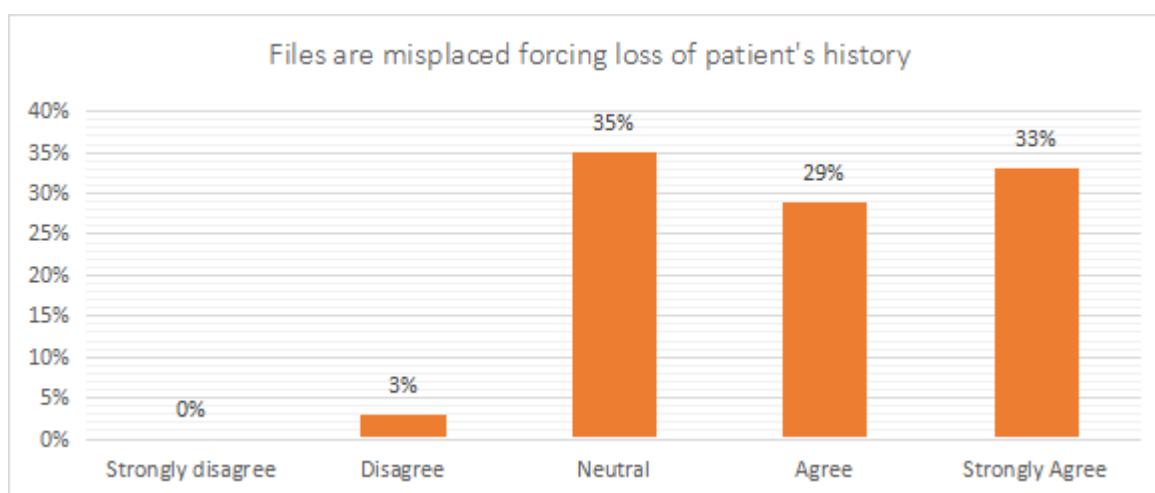
Source: Author's construction

FACTORS IMPACTING SERVICE DELIVERY

Statement 29: Files are misplaced forcing the loss of patients' history

Response: Figure 11.35 illustrates that 35% of the respondents remain neutral about files that are misplaced and the history of the patient not available. The other 33% of the respondents strongly agree that the patient history is no longer available. The other 29% of the respondents agree. The other 3% of the respondents disagreed with the statement that the files are unavailable. None of the respondents strongly disagreed with the statement.

Figure 11.35 Files are misplaced forcing the loss of patients' history

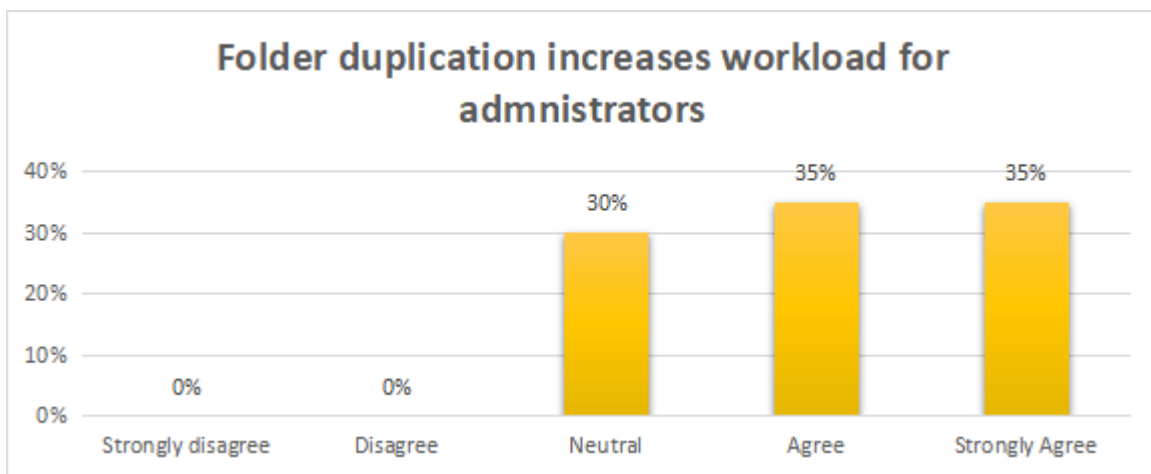


Source: Author's construction

Statement 30: Folder duplication increases the workload for administrators

Response: According to Figure 11.36, folder duplication increases the workload for administrators. The other 35% of the respondents strongly agree that the duplication of folders increases the workload of administrators. The other 35% of the respondents agree with the statement as well. This combined accounts for 70% of the respondents who believe that folder duplication causes increased workload. The other 30% of the respondents have remained neutral on the matter.

Figure 11.36 Folder duplication increases the workload for administrators

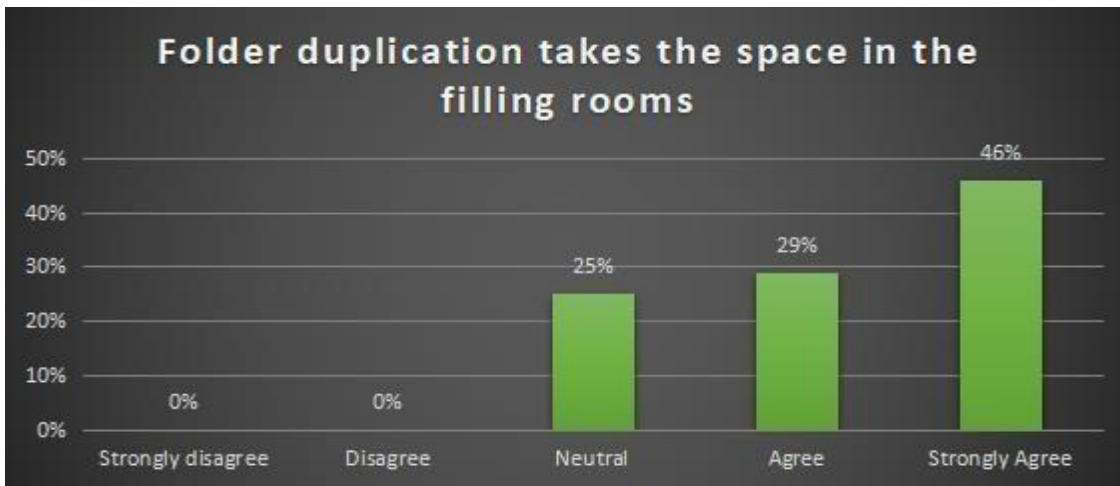


Source: Author’s construction

Statement 31: Folder duplication takes the space in the filing rooms

Response: According to Figure 11.37, folder duplication takes up space in the filing rooms. 46% of the respondents strongly agree that the duplication of folders takes up space in the filing rooms at the service centres. The other 29% of the respondents agree with the statement as well. The other 25% of the respondents have remained neutral on the matter. None of the respondents disagree or strongly disagree with this statement.

Figure 11.37 Folder duplication takes the space in the filing rooms

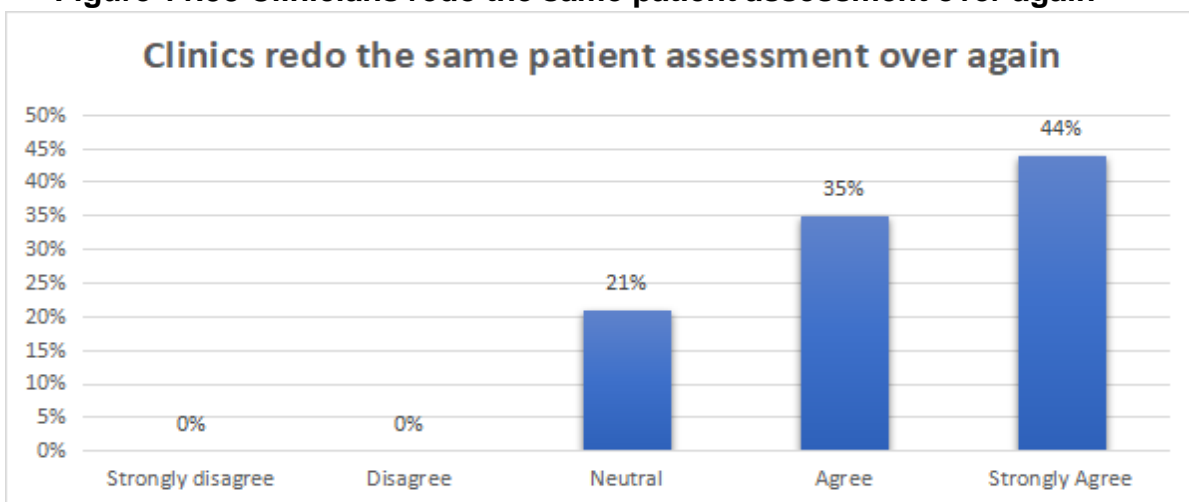


Source: Author's construction

Statement 32: Clinicians redo the same patient assessment over again

Response: According to Figure 11.38, 44 % of the respondents strongly agree that the clinics redo the same patient assessment over again. The other 35% of the respondents agree with the statement that clinics redo the assessment of the same. Thus, 79% of the respondents alluded to the fact that there is a repetition of tasks which may therefore cause delays and waste time. The other 21% of the respondents have remained neutral on the matter. None of the respondents disagree or strongly disagree with this statement.

Figure 11.38 Clinicians redo the same patient assessment over again

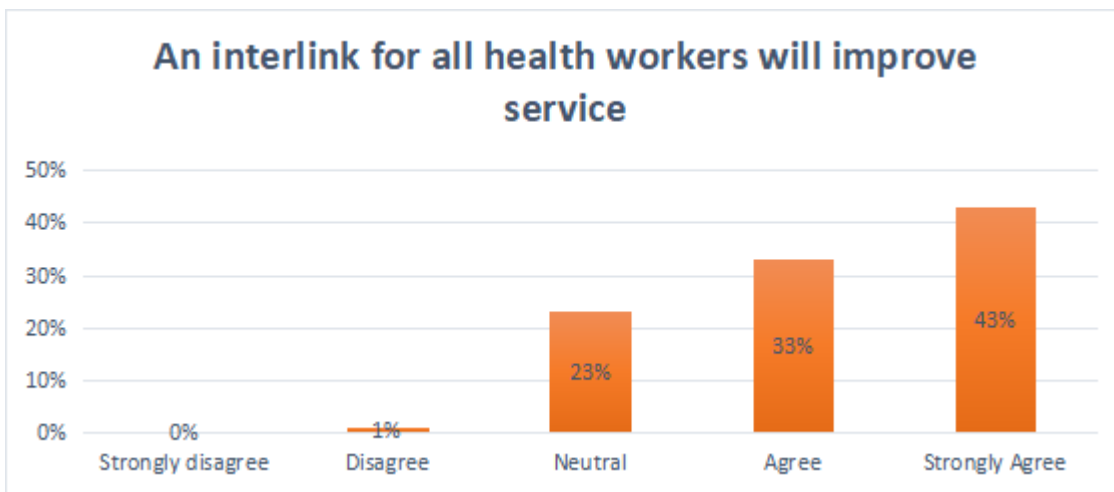


Source Author Construction

Statement 33: An interlink for all health workers will improve service

Response; According to Figure 11.39, 43% of the respondents strongly agree that an interlink for all the health workers will improve service. The other 33% of the respondents agree with the statement. This accounts for three-quarters of the respondents, thus the majority are in favour of a collaborative effort. The other 23% of the respondents abstained and maintained a neutral stance on the matter. The other 1% of the respondents disagree or strongly disagree with this statement.

Figure 11.39 An interlink for all health workers will improve service

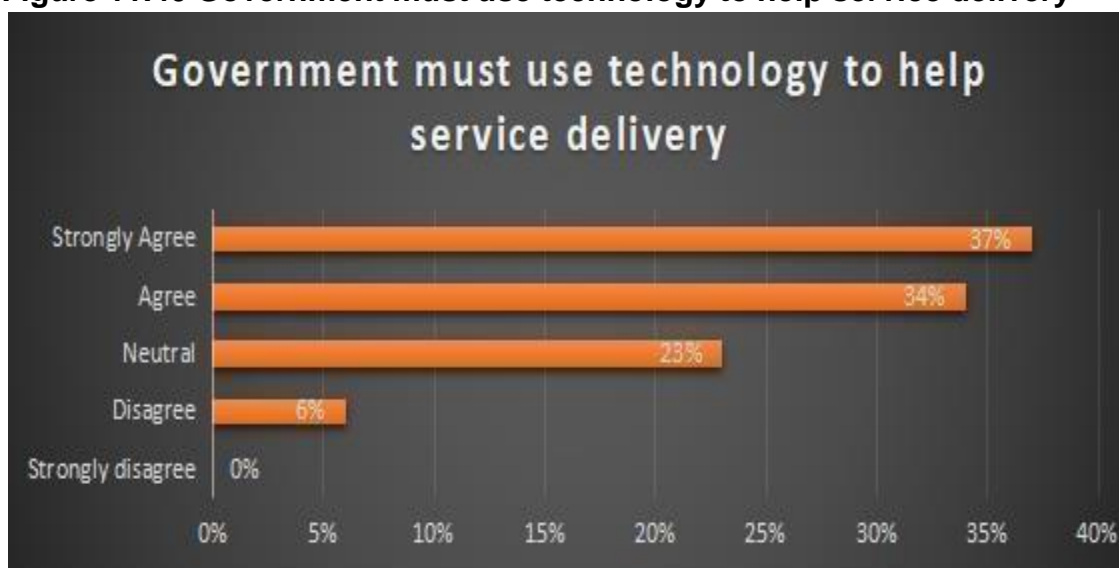


Source: Author’s construction

Statement 34: Government must use technology to help service delivery

Response: Figure 11.40 indicates the responses given with regards to the government instituting technological changes to improve service delivery. The other 37% of the respondents strongly agree, while 34% also agree and thus a majority are of the view that if the government introduces technology there will be an improvement in services. The other 23% of the respondents abstained and maintained a neutral stance on the matter. The other 6% of the respondents disagree that the introduction of technology will improve service, whilst none of the respondents strongly disagreed.

Figure 11.40 Government must use technology to help service delivery

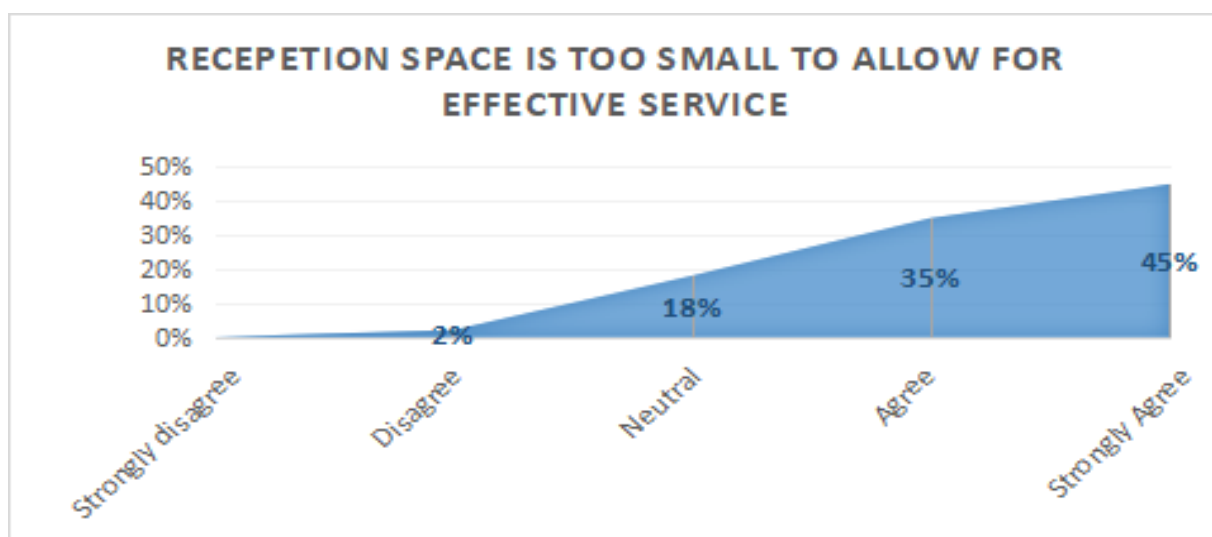


Source: Author's construction

Statement 35: Reception space is too small to allow for effective service

Response: According to Figure 11.41, 45% of the respondents strongly agree that the reception space in the health care facilities is too small. 35% of the respondents agree that the space is not sufficient. The other 18% of the respondents abstained and maintained a neutral stance on the matter. The other 2% of the respondents disagree that the reception space is too small, whilst 0% of them strongly disagreed.

Figure 11.41 Reception space is too small to allow for effective service



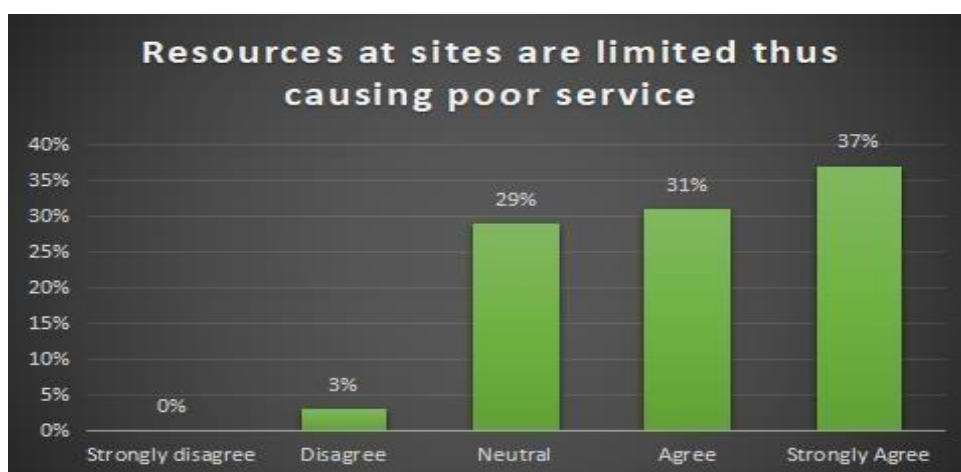
Source: Author's construction

STRUCTURAL IMPEDIMENTS

Statement 36: Resources at sites are limited thus causing poor service

Response: Figure 11.42 shows the responses given regarding the resources available and their contribution to the quality of service at the health care service centres. To note is that a majority of the respondents (68%) believe that resources are limited. The other 37% strongly agree and 31% agree that the resources are limited. The other 29% of the respondents are neutral. 3% of the respondents disagree that the resources are limited, whilst 0% of them strongly disagreed

Figure 11 .42 Resources at sites are limited thus causing poor service

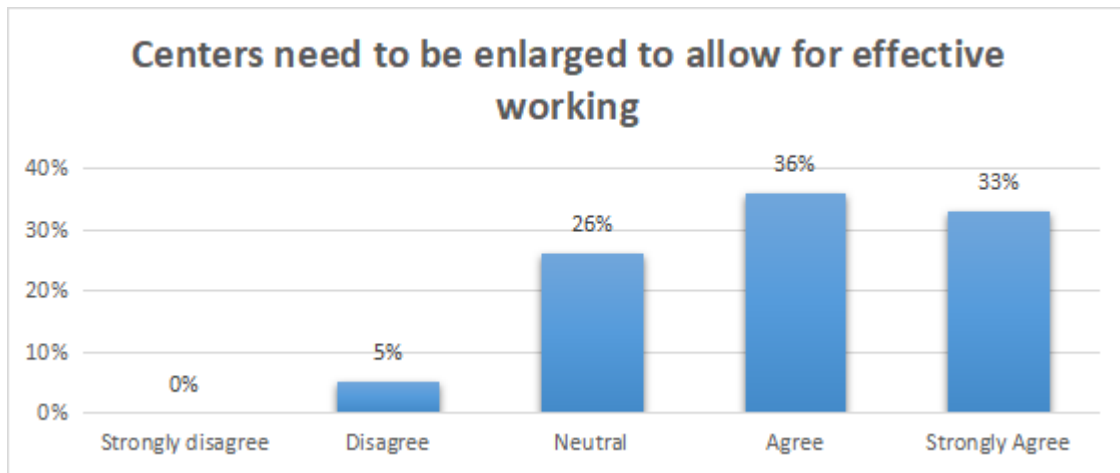


Source: Author's construction

Statement 37: Centres need to be enlarged to allow for effective working

Response: According to Figure 11.43, 36% agree that there is a need for centres to be enlarged to allow effective working, 33% strongly agree, while 26% of the respondents are neutral. The other 5% of the respondents disagree that there is a need for the service centres to be enlarged, whilst 0% of them strongly disagreed.

Figure 11.43 Centres need to be enlarged to allow for effective working

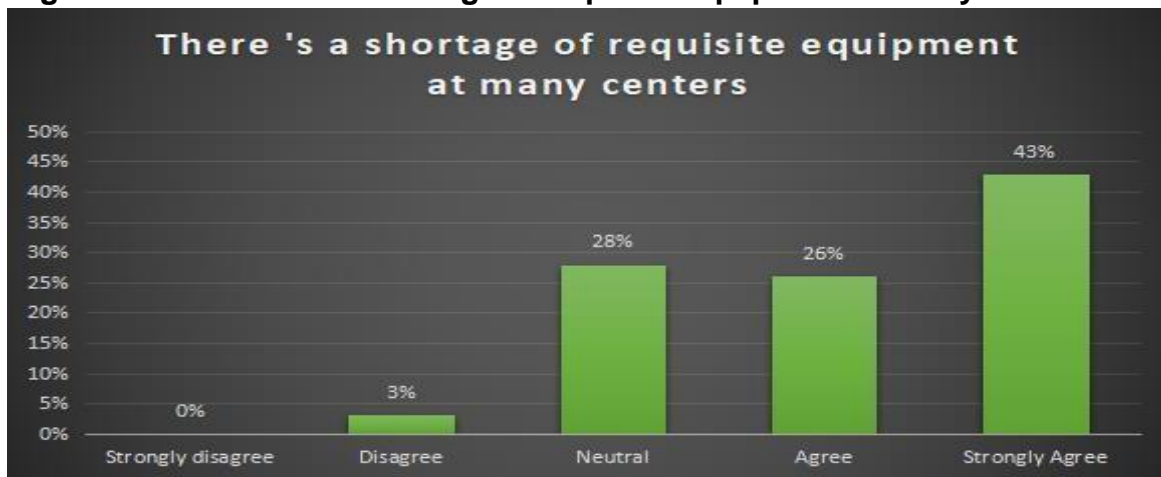


Source: Author's construction

Statement 38: There's a shortage of requisite equipment at many centres

Response; According to Figure 11.44, 43% strongly agree that there is a shortage of much-needed equipment at many centres to execute tasks. The other 26% of the respondents agree that there is a lack of equipment at many centres. The other 28% did not want to respond to this notion. 3% of the respondents disagree that there is a shortage, whilst 0% of them strongly disagreed.

Figure 11.44 There's a shortage of requisite equipment at many centres

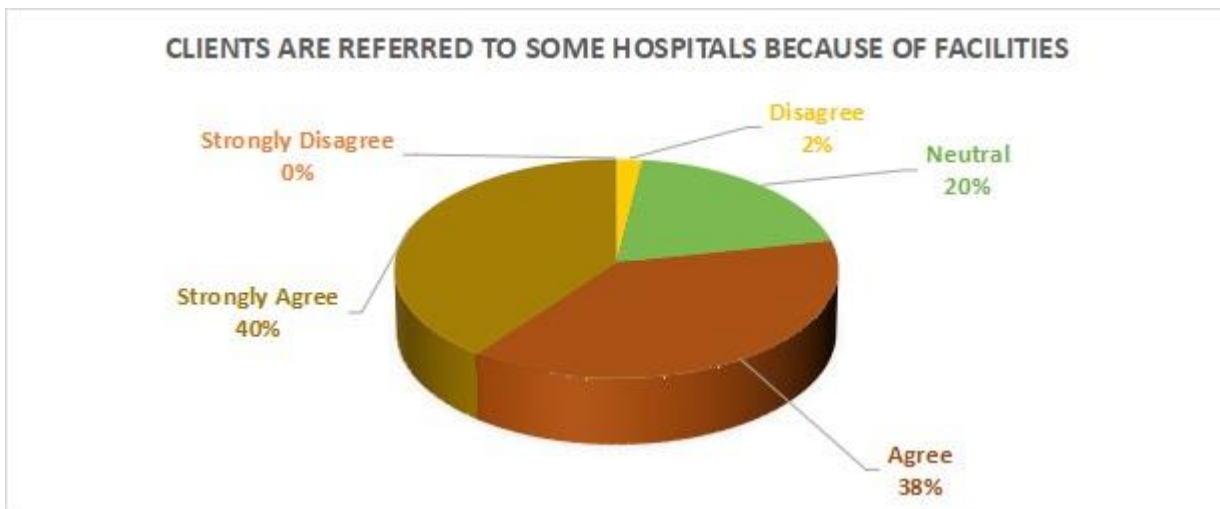


Source: Author's construction

Statement 39: Clients are referred to some hospitals because of facilities

Response: According to Figure 11.45, 40% strongly agree that clients are referred to some hospitals where there are suitable facilities. The other 38% of the respondents agree that clients are referred to hospitals because some service centres do not have the facilities. The other 20% adopted a neutral stance. The other 2% of the respondents disagree that clients are referred to some hospitals because of facilities.

Figure 11.45 Clients are referred to some hospitals because of facilities

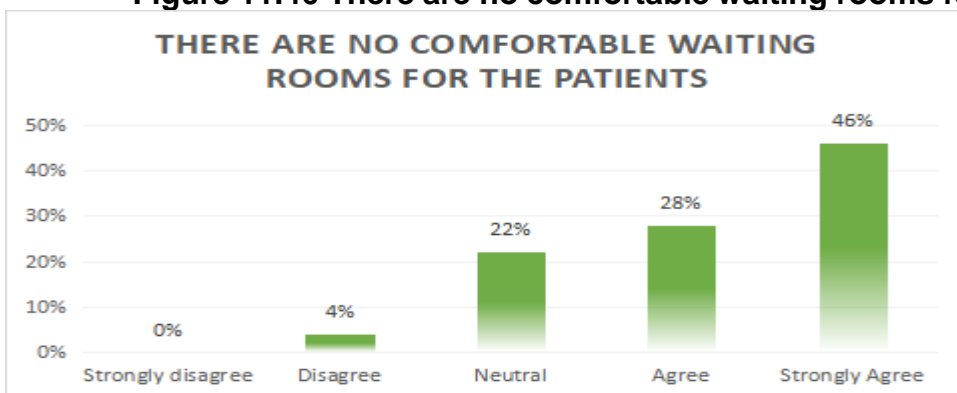


Source: Author's construction

Statement 40: There are no comfortable waiting rooms for the patients

Response: According to Figure 11.46, 46% strongly agree that the waiting rooms are not conducive for clients to wait. 28% of the respondents agree that the waiting rooms are not comfortable. The other 22% remained neutral, whilst 4% of the respondents disagreed that the waiting rooms were not comfortable.

Figure 11.46 There are no comfortable waiting rooms for the patients

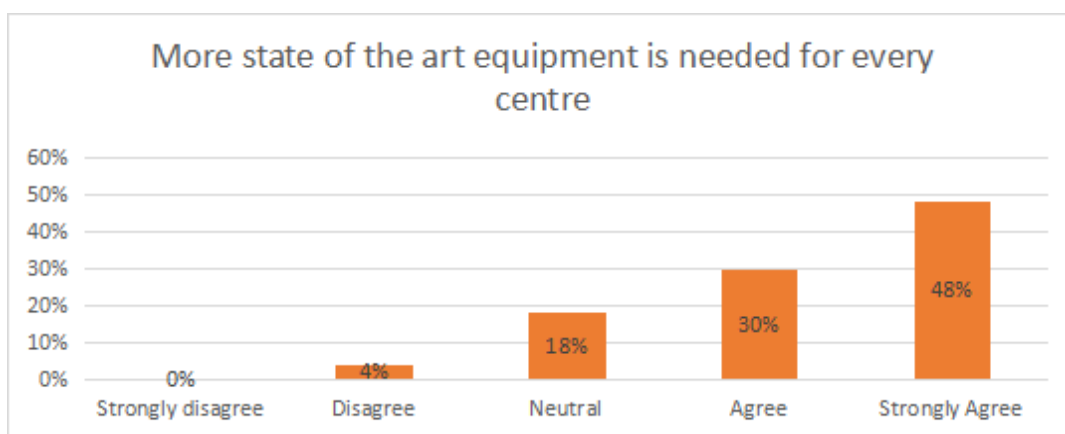


Source: Author's construction

Statement 41: More state of the art equipment is needed for every centre

Response: Figure 11.47 indicates that 48% of the respondents strongly agree that there is a need for an upgrade and provision of state of the art equipment. The other 30% also agree with this notion which gives a total of 78% in favour of better equipment. 18% of the respondents are neutral in this matter and 4% of the respondents believe that the facilities available are sufficient.

Figure 11.47 More state of the art equipment is needed for every centre

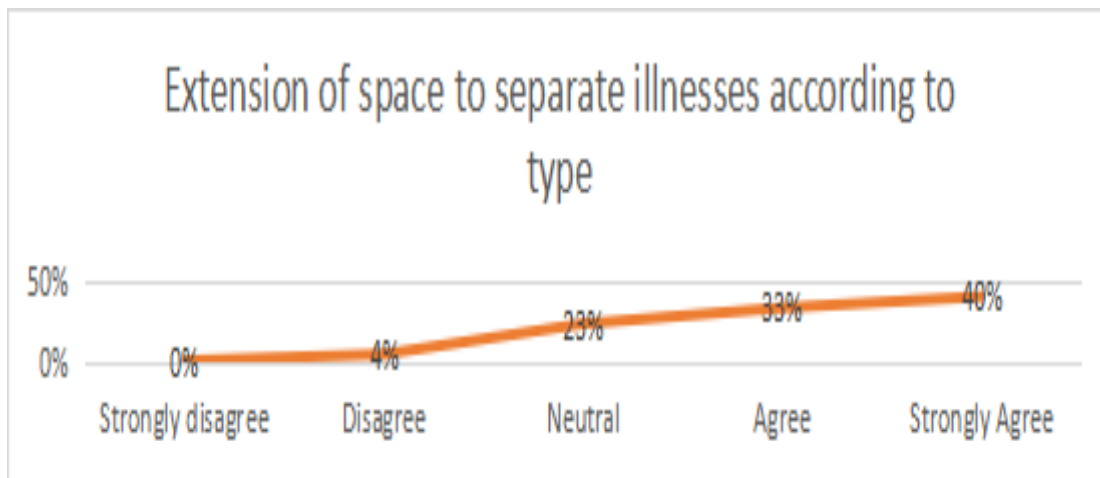


Source: Author's construction

Statement 42: Extension of space to separate illnesses according to type

Response: As shown in Figure 11.48, 40 % of the respondents strongly agree that there is a need to expand to be able to separate patients by illness type. 33% of the respondents also agree that this is a need. The other 23% of the respondents remained neutral and 4% disagreed that there is a need for expansion to other parts of the service centres to accommodate such an arrangement.

Figure 11.48 Extension of space to separate illnesses according to type

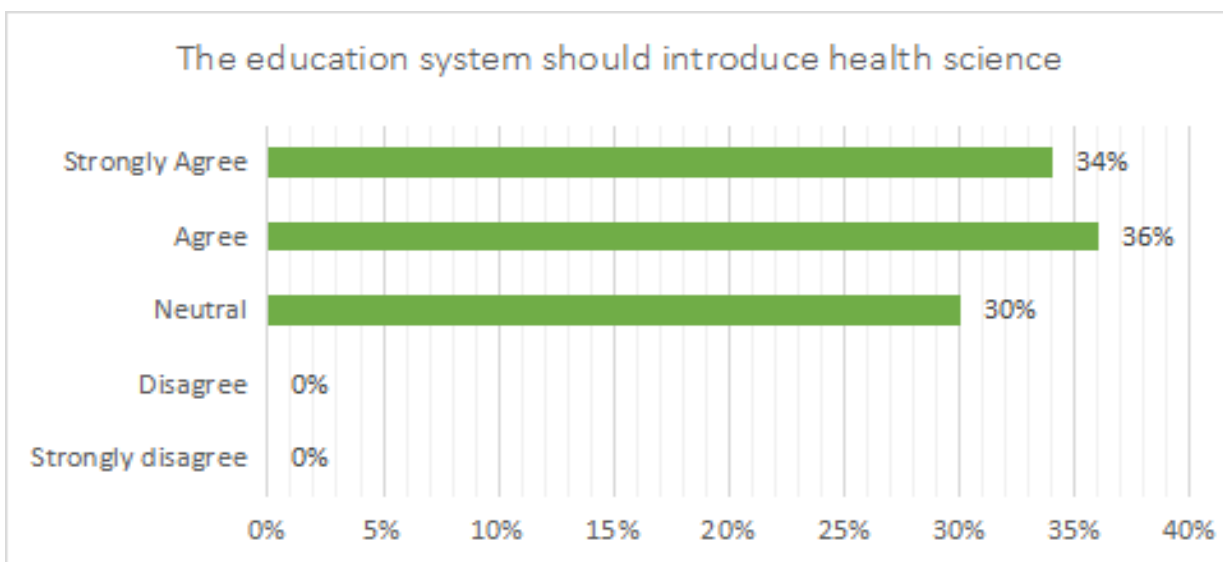


Source: Author's construction

Statement 43: The education system should introduce health sciences

Response: Figure 11.49 displays that the respondents are in favour of health science being introduced into the education system since 70% of the respondents are in support of this idea, while 30% of the respondents remained neutral and none disagreed or strongly disagreed with the notion.

Figure 11.49 The education system should introduce health sciences

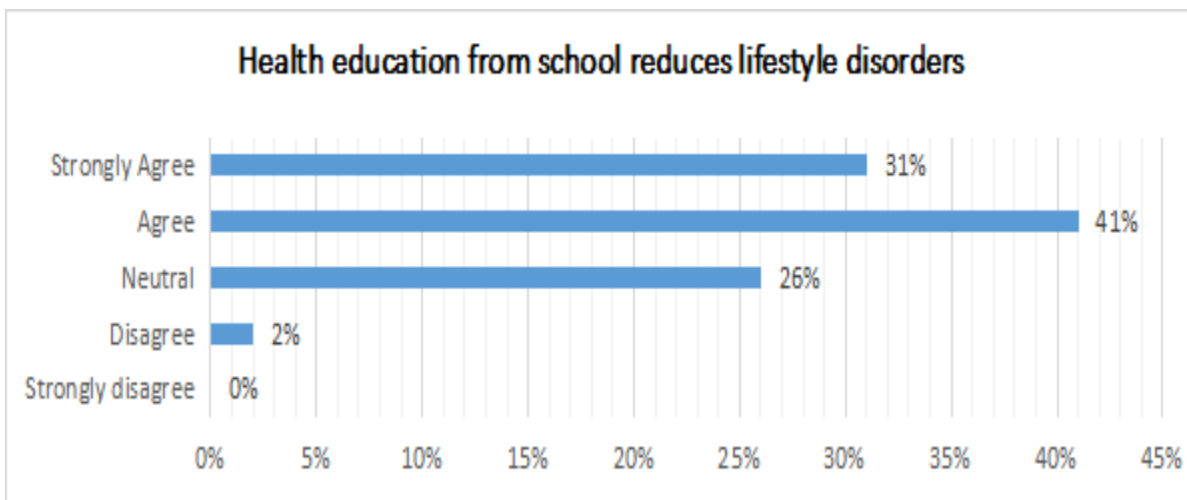


Source: Author's construction

Statement 44: Health education at school reduces lifestyle disorders

Response: Figure 11.50 indicates responses given with regards to how health education can be a tool to reduce lifestyle disorders. From a combined total of 72% of the respondents, 31% strongly agree, while 41% agree in support of this statement. The other 26% of the respondents remained neutral. The other 2% of the respondents disagree that there is a need to educate people on health whilst 0% strongly disagreed.

Figure 11.50 Health education at school reduces lifestyle disorders

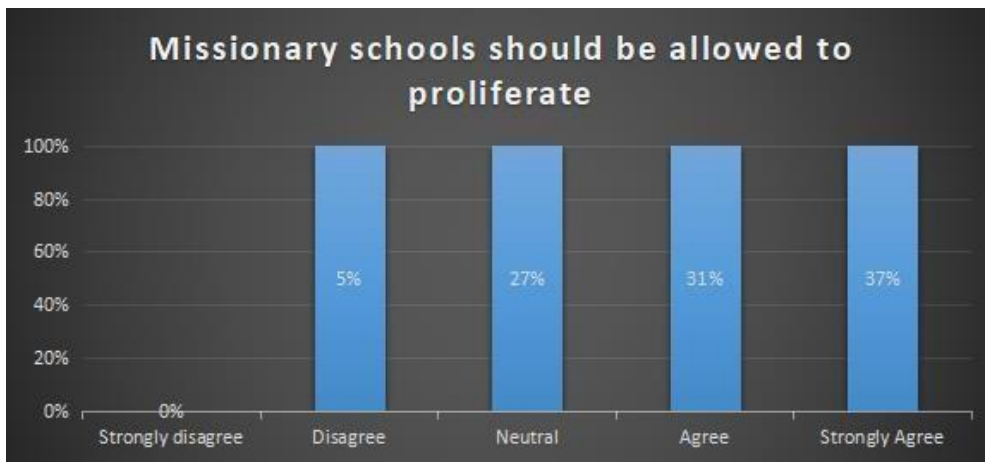


Source: Author’s construction

Statement 45: Missionary schools should be allowed to proliferate

Response: According to Figure 11.51, 37% strongly agree that missionary schools should be allowed to proliferate and 31 % are in favour of this. The other 27% of the respondents remained neutral about the statement. The other 5% disagree that missionary schools should be allowed to proliferate.

Figure 11.51 Missionary schools should be allowed to proliferate

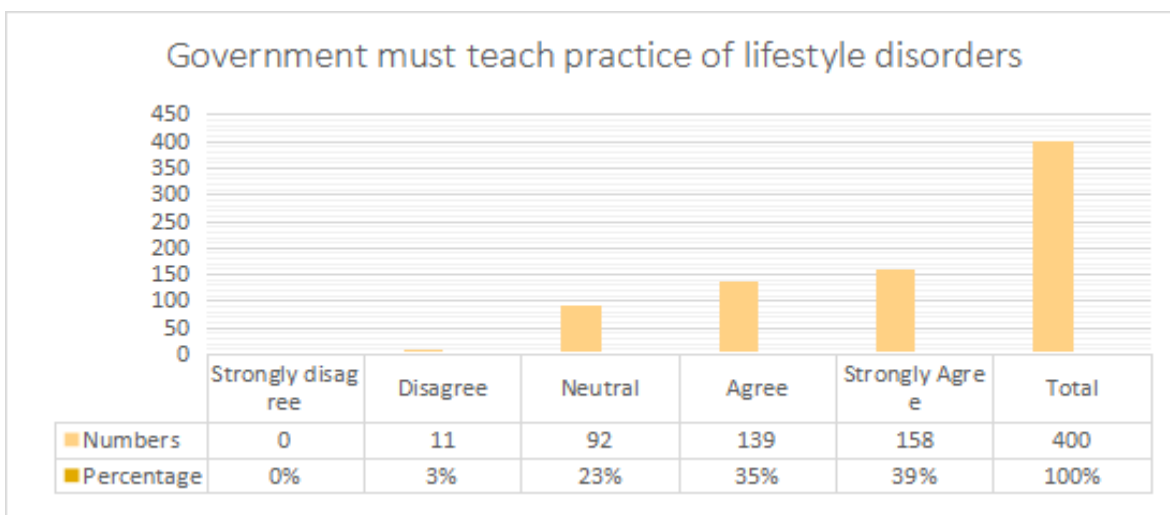


Source: Author’s construction

Statement 46: Government must teach the practice of lifestyle disorders

Response: According to Figure 11.52, 39% strongly agree that government must teach the practice of lifestyle disorders, while 35% of the respondents also agree. The other 23% of the respondents abstained from answering this. The other 3% disagree that government must teach the practice of lifestyle disorders. 0% strongly disagreed that the government must teach the practice of lifestyle disorders.

Figure 11.52 Government must teach the practice of lifestyle disorders

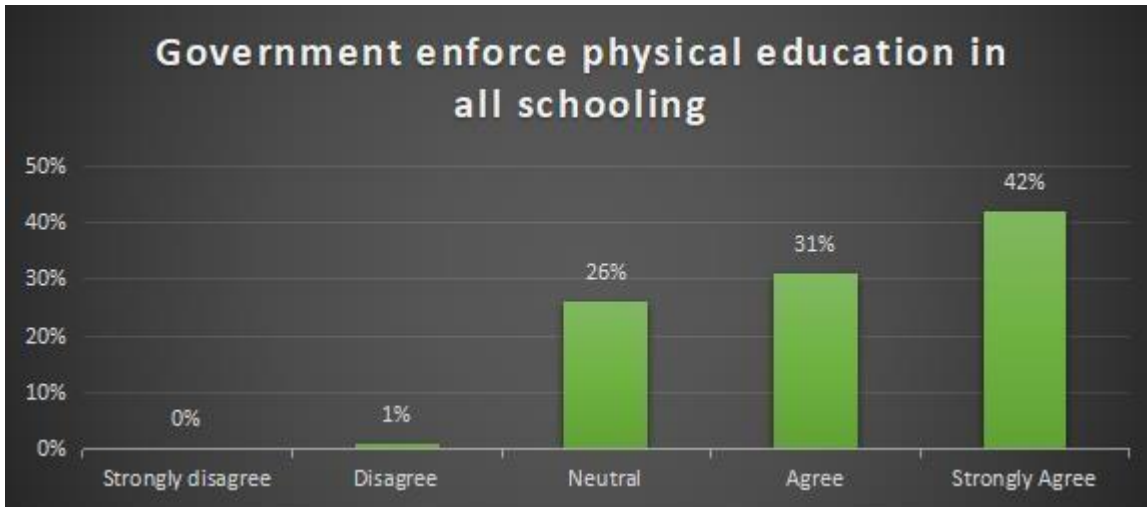


Source: Author’s construction

Statement 47: Government must enforce physical education in all schooling

Response: Figure 11.53 indicates that 42% of respondents believe that government should enforce physical education in all schooling. The other 31% of the respondents also agree with this. The other 26 % remained neutral and 1% of the respondents disagree that the government should enforce physical education in schools.

Figure 11 .53 Government must enforce physical education in all schooling



Source: Author's construction

11. 5 Chapter summary

The findings are somewhat disturbing because of the high percentages of respondents deciding not to share their opinions on what was thought to be simple but important issues. The Likert scale responses were fairly close between those agreeing and those disagreeing, making “marked generalisations” difficult. The analysis of the monitoring and evaluation system, the information reporting processes currently used in the Cape Metropolis, and the examination of the implementation of the Primary Health Care model was illustrated in the main sub-divisions or themes. The study set out to determine the awareness of the Primary Health Care model regarding monitoring and evaluation. This analysis further sought to examine whether the Primary Health Care Monitoring and Evaluation processes were clarified to programme managers for optimum Primary Health Care performance management. The current results showed that the greater majority of respondents were not aware of the Primary Health Care model and Monitoring and Evaluation processes and they were more likely to report that reporting of information was clear. Yet, the majority of Primary Health Care programme managers were more likely to be dissatisfied with the Primary Health Care Monitoring and Evaluation results that ultimately affect programming decisions. As a basis for evaluating practices for monitoring and evaluation within the Cape Metropolis Primary Health Care, the study consulted the relevant primary, secondary and tertiary care stakeholders. The document analysis highlighted a number of idealised channels to be followed when conducting M&E, such as the need for Monitoring and Evaluation capacity building and scheduling time-frames for the implementation of various activities of Monitoring and Evaluation programmes, yet poor compliance issues continue to hinder the success of otherwise well-designed programmes such as those involving Primary Health Care.

CHAPTER 12
SUMMARY OF FINDINGS, DISCUSSION OF OBJECTIVES, HYPOTHESIS
VERIFICATION, CONCLUSION , RECOMMENDATIONS, LIMITATIONS AND
PROSPECTS FOR FUTURE STUDY

12.1 Introduction

The study process started with the construction of the proposal which was the result of an extensive literature review. The first chapter included the introduction of the subject and the literature reviewed to develop a study gap that became the problem statement. Thereafter the research objectives and research questions were developed to guide in looking for a solution to the problem posed by the problem statement. The target population, sample and sampling methods were discussed and the methods of data collection and classification were settled. The second chapter looked at the importance of monitoring and evaluation in Primary Health Care services delivery. Chapter three addressed the legislative and policy promulgations, constitutional obligations and requirements. Chapter 4 addressed structural and economic problems and policies. Chapter 5 looked at models in other countries. Chapter 6 focuses on conceptual models. Chapter 7 addressed the research design, methodology, target population, sample frame, sampling procedure, sample size, the research instrument, questionnaire, data collection, data analysis, data collection methods, and data analysis. Chapter 8 provided details by interpreting the findings as illustrated in the different diagrams constructed to show the relationships between the variables under study. Chapter 9 explained the conceptual models and model framework in primary health care services at the Metro district. Chapter 10, Research Design and the Research Methodology, showed how the research study was conducted and how the data was collected. Chapter 11 addressed how the data was analysed and interpreted. The current chapter (chapter 12) addresses a summary of the findings from the research, conclusions reached in view of the findings, as well as limitations and recommendations.

12.2 The findings

This chapter identifies the significant findings and provides conclusions and recommendations for the reader. The study shows that the first contact with the clinician was at the primary health care level. After the data was collected, cleaned, edited, and coded, it was captured onto a software programme that helped with the construction of the illustrations. These illustrations were interpreted and reported. The results report is summarised below:

12.2.1 SECTION A – BIOGRAPHY

QUESTION 1: What is your position in the health care facility?

Conclusion: The study established that the majority of the respondents were administrators, which translated to the observation that administrators make up a high percentage (about forty per cent – 40%) of the total primary health care service in the metropole. This was observed despite indications that there is an administrative backlog in many primary health care facilities. It can therefore be concluded that performance management seems to be weak in the primary health facilities within the Cape metropole.

Recommendation: Based on the stated conclusion above, it is recommended that performance management be strengthened across all positions within health care facilities. In addition, to have adequate and well-qualified staff for all positions, performance monitoring should be used to ensure high performance. Fourth Industrial Revolution technologies such as artificial intelligence systems are recommended to improve performance management. It is also recommended that more medical staff, as opposed to administrators, should be recruited in the health facilities.

QUESTION 2: What is your service centre?

Conclusion: Clinic staff represent the bulk (about seventy-seven per cent -77%) of the health care workforce when compared to hospitals. This could be because there are more clinics than hospitals in the geographical area where the study was undertaken.

Recommendation: While it is recommended that more hospitals should be constructed to adequately serve the health needs of South Africans, greater focus should be directed to clinics as they represent a larger share of the health system in the Metropole as well as in South Africa at large.

QUESTION 3: How long have you been working for Cape Metropolis Health Care?

Conclusion: The Cape Metropolis Health Care system seems to have a low retention rate of employees as the years of experience increase. The study found evidence of high staff turnover within the Cape Metropolis Health Care.

Recommendation: It is recommended that more research should be undertaken to establish the reasons for the high staff turnover within the Cape Metropolis health Care. Furthermore, it is recommended that efforts should be made to ensure the retention of experienced staff at the health facilities in Cape Town.

QUESTION 4: How long have you been in that position?

Conclusion: The majority of the respondents have been holding their positions for 610 years showing that vertical movements arising from promotions were limited within the health facilities that participated in the study. In other words, retention of job positions was high.

Recommendation: The educational facilities should consider performance management initiatives that promote vertical job mobility through promotions and job advancements. One way to encourage this is through an emphasis on the development of personal development plans (PDPs) as well as career advancements. Furthermore, vertical job mobility should be considered as a possible way to increase service delivery as it can be a factor in improving the motivation and engagement of employees.

QUESTION 5: What is your qualification?

Conclusion: The majority of the employees in the health facilities were qualified personnel who held either a degree or a diploma. This shows that the concern for service delivery could be related to other factors and not qualifications.

Recommendation: It can be recommended that research should be undertaken among the employees in the health care facilities to establish the cause of poor service delivery when it appears as if all employees are adequately qualified to perform their job responsibilities adequately. In some cases, on-the-job training could be an important intervention that can be recommended for the employees in the health facilities.

QUESTION 6: What district facility are you working from?

Conclusion: The study demonstrated that the distribution of health facilities is not uniform; some districts such as Khayelitsha have significantly more health facilities than others. It appears that the distribution of health facilities is based on the population of a district. While this could be important in ensuring service delivery, there is a need to consider population growth changes so that the number of health facilities can be increased to accommodate the population.

Recommendation: The Government is recommended to construct more health facilities in all districts that are lagging as this might be important to improve service delivery.

12.2.2 SECTION B (LIKERT SCALE)

Prescribed statements were constructed based on the literature review on defaulting of chronic patients. These statements were ranked by the respondents on the Likert scale. The respondents ranked the statements provided to them on a scale of 1-5, 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The findings of the Likert scale have been grouped (as they appeared in the questionnaire) under sub-topics and reported as such.

SHORTFALLS IN THE ADMISSION SYSTEM

STATEMENT 1: Admin staff does not start work in time causing long queues

Conclusion: Respondents were largely neutral on the assertion that Admin staff does not start work on time thereby causing queues. There was also an inclination to strongly agree and agree with the assertion. This indicates a need to strengthen managerial effectiveness in running the health facilities.

Recommendation: It is recommended that Admin staff should lead by example and start work on time to reduce queues. The top management of the health facilities is encouraged to devise strict log-in and log-out systems to ensure timekeeping and queue management. Where possible, it is recommended that top management should use artificial intelligence technologies to monitor work starting and end times.

STATEMENT 2: Few admission points are causing long patient queues

Conclusion: Evidence suggests that there are few admission points at the health facilities and this results in long queues. Many respondents agreed with the statement above.

Recommendation: The top management of the health facilities that contributed to this study should increase the admission points to reduce long queues. The increase in administration points could also imply changes in the construction models of health facilities to ensure that more access points are opened. The use of electronic systems to facilitate quick data capturing and processing is also encouraged.

STATEMENT 3: Too many patients come every day and admin cannot cope

Conclusion: There was strong agreement that too many patients come every day and the administration cannot cope with all of them adequately.

Recommendation: The study recommends that further research should be undertaken to establish the reasons for having too many patients at the health facilities to be able to find ways of dealing with the problem.

Too many patients at the health facility necessitate the recommendation to increase the available health facilities or to find other suitable methods of handling a large number of patients. In addition, there is also a need for the Ministry of Health to arrange a campaign to encourage healthy habits in the population.

STATEMENT 4: Changing the patient admin system will make the queues shorter

Conclusion: There was strong agreement that the patient administration system should be changed to make the queues shorter. In other words, the respondents were of the perception that the administration system could be ineffective and ought to be transformed to reduce patient queues.

Recommendation: The top managers of the health facility are recommended to make an inquiry of their patient administration and management systems with the view of finding ways to improve them. Where appropriate the health facilities are encouraged to adopt technologies and appropriate electronic systems that promote effective patient management.

STATEMENT 5: The length of queues is because the nurses are generally slow

Conclusion: The respondents strongly indicated that the nurses are slow in providing services to patients. This could be a major reason for service delivery complaints among patients.

Recommendation: It is recommended that research should be undertaken on the reasons for slow performance among the nurses. There could be a need to train nurses in speed service systems. Research should also be undertaken to establish bottlenecks in nurses' speed followed by the need to eliminate hurdles and bottlenecks within the nursing job.

STATEMENT 6: Employing more admin personnel will not change the queue

Conclusion: There was a general perception among respondents that employing more admin personnel will cause a change in the queues at the health facilities.

Recommendation: Top management in the health facilities can be recommended to do staff rationalisation exercises to assess the nature of the jobs, responsibilities and the number of staff that have been employed. The health facilities are recommended to assess the need for employing more admin personnel within the health facilities.

STATEMENT 7: More nurses ensure that more patients are attended to faster

Conclusion: There was strong agreement that more nurses will be required to ensure that patients are attended to faster. This conclusion resonates with other conclusions that have been made earlier to the effect that service delivery problems are a result of human deficiencies that should be addressed.

Recommendation: The top management of the health facilities that participated in the study are recommended to consider increasing the staff complement in health facilities. This can only be based on research into the nature of the administration systems to find evidence for supporting the assertion that more nurses would improve service delivery.

HUMAN RESOURCE COMPLIMENT – ADMIN

STATEMENT 8: More administrators are needed to improve service

Conclusion: There was a general perception among respondents that more administrators are needed to improve the service delivery in the health care facilities.

Recommendation: Research should be undertaken on the need for employing more administrators to improve service delivery. An assessment should also be undertaken on the appropriate alternative between the use of technology to improve service delivery in comparison to the recruitment of more administrators.

STATEMENT 9: There is a need to change the patient admission process

Conclusion: The majority of the respondents lack satisfaction with the existing patient admission process and seem to hold the view that the patient admission process should be changed.

Recommendation: Top management of the health facilities should explore technological systems for transforming the current patient admission system. The use of health electronic systems and artificial intelligence is also recommended.

STATEMENT 10: Delays in serving is because of too many patient visits

Conclusion: The majority of the respondents held the opinion that too many patients visited their health facilities resulting in delays and service delivery inadequacies. This conclusion supports earlier conclusions that there were long queues in many health facilities.

Recommendation: As recommended earlier, there is a need to consider the construction of more health facilities closer to the communities so that people have wider choices in selecting health care facilities.

STATEMENT 11: Restructuring will improve service with the same compliment

Conclusion: The respondents saw a need for restructuring the operations and systems of the health facilities. This shows that there is a general impression that the current operations and systems within the health facilities require wide re-orientation.

Recommendation: It is recommended that more research should be undertaken to establish whether the current service delivery challenges being faced by health facilities are of such magnitude that restructuring is the most appropriate option.

STATEMENT 12: There are issues with managers' worker motivation and ethics

Conclusion: Respondents strongly felt that the motivation of managers is poor. In addition, it appears that there is a general impression that work ethics is not good among the managers and other workers at the health facilities.

Recommendation: The health facilities are encouraged to strengthen their human resources department so that they can implement strong strategies aimed at improving the motivation of employees as well as to ensure that employees at the health facilities value ethical behaviour. It is also recommended that managers at the health facilities should attend staff development programmes where ethical leadership and work ethics should form a greater part of the course.

STATEMENT 13: The more administrators there are, the faster the service

Conclusion: There was a general perception that more administrators would lead to faster service within the health facilities.

Recommendation: As recommended earlier, the health facilities should consider the need to increase the staff complement or the adoption of electronic practices that make service delivery faster and that also increase the effectiveness of service provided.

STATEMENT 14: Administrators do not have the proper training for the tasks

Conclusion: Evidence from the study suggests that respondents believed that the administrators at the health facilities lack the competency to carry out the tasks required at the health care facilities.

Recommendation: It is recommended that further studies should be undertaken to confirm the statement and establish whether there is a lack of competency as well as the reasons for lack of competence. Health facilities are encouraged to conduct regular surveys and periodic inquiries into the competency levels of administrators and ensure on the job training and regular staff development initiatives.

HUMAN RESOURCE COMPLIMENT – CLINICIANS

STATEMENT 15: The number of nurses on duty is always too small

Conclusion: Respondents generally felt that the number of nurses on duty was always inadequate and too small to meet the service needs of patients.

Recommendation: It is recommended that task and job analysis should be conducted across the health facilities to establish whether fewer nurses are working at any time to establish whether the conclusion that the number of nurses is always too small is valid. Where possible unnecessary work should be eliminated and more nurses should be recruited.

STATEMENT 16: The nurses always appear overworked and do not cope

Conclusion: There was general agreement that nurses always appeared overworked and do not cope with the service delivery requirements.

Recommendation: An enquiry should be conducted into the energy levels of staff at the health facilities to establish the energy levels from person to person as well as the changes in energy levels as the time of day progresses. In some cases, leadership and service delivery training programmes should be organised.

STATEMENT 17: The doctors do not show urgency for the sick patients

Conclusion: Most respondents believed that doctors at the health facilities did not show any urgency in their execution of duties.

Recommendation: It is recommended that focused research should be conducted to establish the perceptions of doctors concerning their working environment as well as working conditions to raise their sense of urgency. There is a need to establish a conducive psychological environment under which doctors operate so that the right strategies to improve their sense of urgency can be established.

STATEMENT 18: Doctors are overworked and they are too few for the patients

Conclusion: A large number of the respondents agreed that the doctors were overworked and the number of patients that they serve is too high. Addressing the number of patients attended to at the health facilities seems to be a critical element among the health facilities.

Recommendation: The government as the most critical stakeholder entrusted with ensuring the health of citizens is recommended to involve other stakeholders. Such stakeholders can include those from other government departments, the private sector and also non-governmental organisations. The aim should be to ensure that the workload of all health facilities is optimised.

STATEMENT 19: Pharmacists are very slow in processing the medicines

Conclusion: The majority of the respondents felt that pharmacists at their health facilities were slow in processing medicines. In other words, respondents indicated a general dissatisfaction with the work rate of pharmacists at the health facilities that were interacted with in this research.

Recommendation: It can be recommended that further research is required to establish the reason why the pharmacists were generally slow in processing medicines. The reasons could be at individual, team or organisational level. Pharmacists are generally recommended to work faster as a way of improving service delivery in health facilities.

STATEMENT 20: Too many patients are given to pharmacists at short notice

Conclusion: The study established that the pharmacists were overwhelmed since there was strong agreement that too many patients are referred to pharmacists at short notices.

Recommendation: It is recommended that the number of pharmacists in the health facilities should be increased. It is also recommended that more health facilities should be constructed to reduce the number of patients requesting medicines at any particular pharmacy.

STATEMENT 21: More pharmacy staff may speed up the dispensing process

Conclusion: There was general agreement that more pharmacy staff have to be recruited to increase the speed of the medicine dispensing process.

Recommendation: This study recommended that more research should be undertaken on the possibility of increasing the number of pharmacists in health facilities. The health facilities should consider this against the possibility of re-modelling the medicine dispensation process to make it more efficient.

TECHNOLOGY AND SERVICE

STATEMENT 22: Government does not invest in technology for efficiency

Conclusion: There were strong indications from this study that the South African government has a low investment in the adoption of health technologies to improve health service delivery.

Recommendation: The government is recommended to increase its investment in recent technologies especially when considering recent rhetoric on the Fourth Industrial Revolution which is characterised by wide adoption of technologies. In addition, institutions that train health staff are also recommended to include health technology courses for graduates.

STATEMENT 23: The use of computers makes no difference to service delivery

Conclusion: The majority of the respondents were neutral on the statement that the use of computers makes no difference to service delivery. The second most popular response was an agreement with the assertion. It appears that participants felt that the service problems faced by the health institutions were predominantly human problems that could only be solved through people solutions.

Recommendation: Health facilities are recommended to pursue high-performance human resource practices. The human resources department should be strengthened and capacitated to allow for solving the problem in the dimensions of the human resource to service delivery among the health facilities.

STATEMENT 24: The current software makes a great difference in service delivery

Conclusion: There was agreement among respondents that software packages that were in use at the health facilities at the time of this study seem to be making a great difference in service delivery.

Recommendation: It is recommended that more investment should be channeled to the acquisition and development of software and technologies that are relevant for improving service delivery in institutions.

STATEMENT 25: There is a need for continuous training in technology use

Conclusion: Respondents agreed that there is a need for continuous training among staff in technology use. This conclusion seems to be consistent with the argument that technological changes have been rapid and unpredictable nowadays.

Recommendation: It is recommended that the health facilities should create a position of 'Technology officer' within the health facilities. The main role and duty of the technology officer will be to analyse technological trends and lead training on technology matters to ensure that staff at the health facilities are skilled in the use of the most recent technologies.

STATEMENT 26: Clinicians do not use computers for patient records

Conclusion: Respondents generally agreed that most clinics do not use electronic health management systems facilitated by computers. This could lead to the conclusion that employees in most health facilities have a wrong perception of the role of computers. They seem to still adhere to traditional and manual systems which are slow and at times inadequate.

Recommendation: The health facilities are recommended to foster attitude changes to ensure that technology use is positively welcomed by respondents in the health facilities.

The health facilities are encouraged to campaign for the use of technology. A change agent may be employed to ensure the acceptance of technology use among the health facilities.

STATEMENT 27: Computerization of patients' details speeds up services

Conclusion: Most respondents strongly agreed that computerisation of patient details will speed up the services.

Recommendation: Health facilities are recommended to computerise the management of patient details as this will increase speed in the medical processes conducted at the health facilities.

STATEMENT 28: Drugs prescribed by doctors can be retrieved by pharmacists

Conclusion: The availability of drugs at the health facilities did not appear to be a problem as most of the respondents agreed that pharmacists could retrieve and provide drugs prescribed by doctors.

Recommendation: The health facilities are recommended to focus on human-based antecedents of poor service.

FACTORS IMPACTING SERVICE DELIVERY

STATEMENT 29: Files are misplaced causing loss of patients' history

Conclusion: Respondents remained neutral on the assertion that files are often misplaced resulting in loss of information. Respondents strongly agreed that sometimes patients' medical history is lost leading to poor service delivery.

Recommendation: It is recommended that health facilities should upgrade online file management systems to increase service delivery by ensuring that patient history does not get lost.

STATEMENT 30: Folder duplication increases the workload for administrators

Conclusion: A significant number of respondents were neutral on the above assertion while the second most prominent perception was that the assertion is true.

Recommendation: The health facilities are recommended to improve their folder management processes in a way that reduces folder duplication to ensure that there is optimum workload among administrators.

STATEMENT 31: Folder duplication takes the space in the filing rooms

Conclusion: There were strong indications that folder duplication took up a lot of space in the folder room.

Recommendation: The conclusion above necessitates the recommendation that health facilities should adopt electronic file management systems that do not require space. Health facilities should implement smart file management techniques by fully embracing information technology and electronic management systems.

STATEMENT 32: Clinicians redo the same patient assessment over again

Conclusion: There is a repetition of work at the health facilities which affects service delivery and increases customer complaints.

Recommendation: The health facilities are encouraged to do a thorough task analysis that enables repetition tasks to be identified and strategies to be devised to avoid task repetition within the health facilities.

STATEMENT 33: An interlink for all health workers on the site to improve service

Conclusion: There was strong agreement that the health facilities need a centralised system that interlinks all health workers on the site to improve service delivery.

Recommendation: The health facilities are recommended to conduct a cost-benefit analysis for the cost versus the benefits of the centralised system.

STATEMENT 34: Government must use technology to help service delivery

Conclusion: There was a strong indication that the government must use technology to improve service delivery.

Recommendation: The government is recommended to adopt technology for all health facilities in the country.

STATEMENT 35: Reception space is too small to allow for effective service

Conclusion: There was general agreement that the reception areas are too small to allow for effective service delivery within the health facilities.

Recommendation: The government is encouraged to remodel its health facilities in a way that also ensures that the reception space is large enough to accommodate all patients for effective service delivery.

STRUCTURAL IMPEDIMENTS

STATEMENT 36: Resources at sites are limited thus causing poor service

Conclusion: The study provided evidence that resources at the health facilities are limited and this results in poor service delivery.

Recommendation: The government is recommended to ensure that the budget for the health ministry covers the procurement of adequate resources so that poor service due to limited resources is reduced.

STATEMENT 37: Centres need to be enlarged to allow for effective working

Conclusion: Most respondents agreed that health centres should be enlarged to promote effective working.

Recommendation: The government is encouraged to consider directing its infrastructural development initiatives towards the development, expansion and enlargement of health facilities so that they adequately cover many people.

STATEMENT 38: There is a shortage of requisite equipment at many centres

Conclusion: The fact that 43% of the respondents strongly agree that there is a shortage of much-needed equipment at many centres for the execution of tasks and 26% of the respondents agree that there is a lack of equipment at many centres, shows that there is an equipment crisis among health facilities.

Recommendation: The government is encouraged to foster the procurement of adequate and appropriate equipment for all health facilities as a way of improving service delivery.

STATEMENT 39: Clients are referred to certain hospitals because of facilities

Conclusion: The assertion that patients are sometimes referred to certain hospitals owing to a lack of adequate facilities was well supported in the study.

Recommendation: It is recommended that members of the community should partner with the government in terms of sources, facilities and equipment relevant to improve the quality of services in the health facilities. Some of the facilities can be provided by members of the community to improve the situation.

STATEMENT 40: There are no comfortable waiting rooms for the patients

Conclusion: There was strong agreement that the waiting rooms are not enough for all the patients that visit the health facilities.

Recommendation: It is recommended that members of the community should form groups that are capable of combining resources to partner with the government in the development of more waiting rooms in health facilities.

STATEMENT 41: More state of the art equipment is needed for every centre

Conclusion: The results of the study indicated that there is a need for more advanced equipment in the health facilities to improve service delivery.

Recommendation: It is recommended that the government should inquire into possible ways of revolutionising the health system in the country and ensuring that all equipment is updated and that modern technology is acquired.

STATEMENT 42: Extension of space to separate illnesses according to type

Conclusion: Respondents strongly agreed that there is a need to expand the health facilities to separate patients by illness type.

Recommendation: It is recommended that health facility planners should foster enlarged institutions that are more specific to diseases and promote a specialised health provision system that is strongly based on illness type.

IMPACT OF EDUCATION ON CHRONIC PREVALENCE

STATEMENT 43: The education system should introduce health sciences

Conclusion: A significant number of the respondents agreed that the education system should be broadened to include health sciences.

Recommendation: The government is recommended to inquire into the current education system to establish its inadequacies in respect of health sciences.

The enquiry should guide the government on whether to broaden current education science courses or to introduce new education science programmes in the education system.

STATEMENT 44: Health education at school reduces lifestyle disorders

Conclusion: The general position held by respondents was that health education in schools would reduce lifestyle disorders.

Recommendation: It is recommended that government should broaden the existing health education system to ensure that it attends to the most prevalent lifestyle disorders affecting South Africans in general.

STATEMENT 45: Missionary schools should be allowed to proliferate

Conclusion: Respondents generally agreed that missionary schools should proliferate within the South African education system.

Recommendation: The government is recommended to liberalise the education system in a way that promotes private and non-governmental parties to participate in the education system. This ensures that a large pool of resources can be available for deepening the education system.

STATEMENT 46: Government must teach the practice of lifestyle disorders

Conclusion: The responses provided by participants generally showed strong agreement with the statement that the government must enforce the teaching of lifestyle disorders among the population. This could be essential in reducing the need for medical services among members of the community.

Recommendation: The government is recommended to advocate for the inclusion of lifestyle disorders within the education curriculum to promote a health-conscious population and reduce the pressure in health facilities.

STATEMENT 47: Government to enforce physical education in all schooling

Conclusion: Respondents strongly agreed that physical education should be enforced in schools as part of the education system to promote fitness and healthy living in the population.

Recommendation: The government is recommended to institute a Commission of Inquiry into the education system which is oriented to the promotion of health and fitness. The Commission of Enquiry should specifically consider the possibility of introducing compulsory physical education in schools.

12.2.3 OPEN-ENDED QUESTIONS

A section on open-ended questions was deliberately provided to allow for the views and opinions of the respondents in regards to certain aspects of this research. The respondents were requested to indicate the knowledge they had about how the system works and how their records are kept. Furthermore, they were requested to express their opinions of the policies, service delivery and management of the primary health care services. The responses to all these were grouped and are reported below. There was no particular screening of the information and everything that was said was recorded.

REQUEST 1. State below in your own words and in point form possible problems for improving service delivery in Primary Health Care at service points.

- i. Outsourcing people who are sincere and passionate about customer service.
- ii. Disciplining unprofessional clinicians.
- iii. Maintaining a records filing system.
- iv. Closely monitoring customer service delivery and clinicians performance.
- v. Training clinicians in respectively dealing with how to treat patients.
- vi. School to play a role in educating about lifestyle.
- vii. Computerised data systems are not accessible to all clinicians.
- viii. Communities are not aware of referral pathways and appointment systems and need to be more informed.
- ix. Clinicians seem demotivated to perform their duties.

REQUEST 2. State below things you think should be done or changed to monitor and evaluate poor service delivery in Primary Health Care.

- i. Communities to be educated about referral pathways to prevent influx.
- ii. Schools to be part of educating children about lifestyle disorder
- iii. Clinicians to be trained on client-centred services
- iv. Make the environment conducive for clinicians to go the extra mile.
- v. Patients to be empowered by information that will enable them to own up to their health and ease the burden on clinicians
- vi. Management should be hands-on, close monitoring requires daily interactions with both clinicians and patients.
- vii. Obtaining daily feedback from patients.
- viii. Working for ways to prevent patient dissatisfaction.
- ix. Fostering attitude change so that clinicians understand that patients are customers.
- x. Embracing the attitude that patients must always be regarded and treated as high end retail customers as they are entitled to it.

REQUEST 3. Please list here any other issues you may want to highlight, put them in point form

- i. Clinicians need to be regularly reminded that they are not doing patients a favour by being here.
- ii. Poor management style -Health Management Teams need to be upgraded and old management teams removed.
- iii. Clinicians' attitudes to be improved.
- iv. Taking pride in your work.
- v. Maintaining high standards of cleanliness all around.
- vi. Poor changing of working areas (consulting, dressing, etc.).
- vii. Policy and procedures are not clear at all (poor).
- viii. Lack of communication between clinicians and HMT.
- ix. Improved work equipment to make it easy for clinicians.
- x. Bursaries are provided to all clinicians.

12.3 Chapter summary

The overall conclusion is many clinicians are well-informed or simply abide by the principles. In general, the main findings of the research suggest that Primary Health Care has been a key feature of the health sector transformation in South Africa. Policies and legislation that were promulgated and implemented since 1994 have succeeded in ending racial discrimination and prejudice in health service provision but failed to turn around the inequality legacy. While the public health sector in South Africa has been drained of financial and human resources, the literature revealed that the private health sector has seen massive increases in funding. These experiences permeated the public health sector including the Primary Health Care services. This scenario contributed negatively to lowering the quality of Primary Health Care services in all health care facilities. The solution to these experiences requires national intervention.

12.4 Recommendations

Based on the key challenges and issues arising (in the previous chapters), the following main recommendations are made:

In terms of improving quality health care services, the national government should take responsibility in this regard. It should invest more financial and human resources in Primary Health Care services. Necessary medicines should be made available, the government does not invest in technology for efficiency and should use technology to help service delivery. In addition to the Primary Health Care Centre, a Secondary and Tertiary hospital needs to be built to accommodate the growing population of the Cape Metropolis. In terms of shortages of administrators, nurses, doctors, pharmacists and clinicians, it is recommended that retired nurses are recruited back to serve in Primary Health Care centres.

Secondly, colleges for training nurses that were closed since 1996 are to be reopened. Thirdly, bursaries and incentives for students who want to become PHC nurses must be made available to encourage them. Fourthly, Studies and training for PHC nurses must be done at the college level and not at the university level. Primary Health Care nurses should be paid better salaries.

In terms of doctors and pharmacists, more financial resources need to be allocated towards training new doctors and pharmacists. Bursaries and other monetary incentives need to be made available for studying in these fields. Those who graduated in these fields should be remunerated better to retain them in the primary health care service. This endeavour will solve the problem of long queues. Centres need to be enlarged to allow for effective working. Health workers sites need to be interlinked to improve service, the government should enforce physical education in all schools, teach the practice of lifestyle disorders, the education system should introduce health sciences, and more state of the art equipment is needed for every centre. Students should sign a contract stipulating the number of years they are obliged to work in the public health service. Students should be taught about the importance of serving in Public Service.

In terms of community involvement, achieving health is dependent on the involvement of all sectors of the public to ensure sustainable growth and development. Communities should be encouraged to participate in improving their own health the health of the community through participating in structures such as health forums, health committees and on a personal basis through local engagements. Community radio stations should also be utilised to encourage community participation in health issues. Members of health forums and health committees, should be trained in health issues and management for them to play a meaningful role. Feedback should be given to communities by these elected representatives.

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**ANNEXURES :
APPENDICES A**

REQUEST FOR PERMISSION TO CONDUCT THE STUDY

18 January 2019

Clinicians and Health Professionals

Metro- District

Western Cape

RE: Seeking Permission to conduct Post-Graduate Research

TOPIC: A Model For Effectively Evaluating And Monitoring Primary Health Care Services Delivery In The Cape Metropolis In The Western Cape.

Dear All

This study is being conducted in order to fulfil the requirements for a Doctoral Degree in the Faculty of Public Administration and Management at CPUT. The purpose of the study is to elicit the extent of promotion of PHC in the health sector with particular reference to Monitoring and Evaluation in clinicians practice in Metropole. Since little research has been done about this topic in Metro District, Western Cape, the result of this study will benefit the health sector especially the Clinicians profession by adding knowledge and assisting the Metropole 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 Metro District and other provinces can be obtained. 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 Metropole 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

The Researcher: Lumka Ntwanambi .The Supervisor: Dr L.E Jowah

Tel: 021 400 5871

Cell: 0724612482 Email: lumkantwanambi@gmail.com

Email: jowahl@cput.ac.za

APPENDICES B:

CONSENT LETTER



CITY OF CAPE TOWN CITY HEALTH ISIXEKO SASEKAPA

STAD KAAPSTA D Dr Helene Visser
Manager: Specialised Health

T: 02 1 400 3981 F: 021 421 4894 M: 083 298 87 18
E: Helene.Visser@cityofcape.gov.za

2020-09-11

Re: Research Request: A Model For Effectively Evaluating And Monitoring Primary Health Care Services Delivery In The Cape Metropolis In The Western Cape (663141) (ID No: 10559)

Dear Ms L. Ntwanambi,

Your research has been approved as per your research request.

Khayelitsha Sub District: Town Two Clinic

Contact People: Dr V de Azevedo (Sub District Manager)

Tel: (021) 360-1258/ 083 629 3344

Mrs S Patel Abrahams (Head: PHC & Programmes) Tel:
(021) 360-1153/084 405 8065

Please note the following:

1. All individual employees and or patients' information obtained must be kept confidential.
2. Access to the clinics / service points must be arranged with the relevant Managers such that normal activities are not disrupted.
3. A copy of the final report must be sent to the City Health Head Office, P O Box 2815 Cape Town 8001, within 6 months of its completion and feedback must also be given to the clinics involved.
4. Your project has been given an ID Number (10559) . Please use this in any future correspondence with us.
5. No monetary incentives to be paid to clients on the City Health premises.

Thank you for your co-operation and please contact me if you require any further information or assistance.

Yours sincerely

DR G H VISSER
MANAGER: SPECIALISED HEALTH

cc. Mrs Alexander & Mrs Titus Dr
Jennings

CIVIC CENTRE IZIKO LOLLUNTU BURGERSENTRUM
CAPE TOWN 8001 P O BOX 2815 CAPE TOWN 8000

Making progress possible. Together.

APPENDICES C:

ETHICS APPROVAL



P.O. Box 1906 Bellville 7535 South Africa Tel: +27 21 4603291 Email: fbmsethics@cput.ac.za
Symphony Road Bellville 7535

Office of the Chairperson Research Ethics Committee	FACULTY: BUSINESS AND MANAGEMENT SCIENCES
--	--

The Faculty's Research Ethics Committee (FREC) on **20 October 2020**, ethics **Approval** was granted to **Lumka Ntwanambi (209212012)** for a research activity **D Tech: Public Management** at Cape Peninsula University of Technology.

Title of dissertation/thesis/project:	Model for Effectively Evaluating and Monitoring Primary Health Care Services Delivery in the Cape Metropolis
---------------------------------------	---

Comments:

Decision: APPROVED

A handwritten signature in black ink, appearing to be "Lumka Ntwanambi", written over a horizontal line.

9 November 2020

Date

APPENDICES D:

GRAMMARIAN'S CERTIFICATE

GRAMMARIAN'S CERTIFICATE

This is to certify that the undersigned has reviewed and went through all the pages of the thesis entitled: "**A MODEL FOR EFFECTIVELY EVALUATING AND MONITORING PRIMARY HEALTH CARE SERVICES DELIVERY IN THE METRO DISTRICT AT THE WESTERN CAPE**" by Ms Lumka Ntwanambi, for the degree, D Tech in Public Management, at the Cape Peninsula University of Technology, as against the set of structural rules that govern the composition of sentences, phrases, and words in the English language.

A handwritten signature in black ink, appearing to read 'R. Basson', is written over a faint, circular official stamp.

Signed:

MS RA Basson (Research Psy) Email:renedabasson@gmail.com Cell: 0769332281

APPENDICES E:

QUESTIONNAIRE

<p>A Model For Effectively Evaluating And Monitoring Primary Health Care Services Delivery In The Cape Metropolis In The Western Cape</p>
<p>This is an academic exercise, and please understand that this is a voluntary exercise, you are free to withdraw participation at any stage. The information is confidential; no authorities will be given any of the information coming from this survey. Your privacy is secured.</p>

SECTION A: What is your position in the healthcare facility?

Administrator	Nurse	Doctor	Pharmacist
---------------	-------	--------	------------

If other please indicate in space provided

.....

What is your service centre – please indicate in boxes below

Clinic	Satellite	Hospital	Other
--------	-----------	----------	-------

If other please indicate in space provided

.....

How long have you been working for the Cape Metropolis Healthcare?

0-5 years	6-10 years	11-15 years	16+ plus
-----------	------------	-------------	----------

How long have you been in that position?

0-5 years	6-10 years	11-15 years	16+ plus
-----------	------------	-------------	----------

What is your qualification?

Matric	Diploma	Degree	Other
--------	---------	--------	-------

If other please indicate in space provided

.....

What district facility are you working from – physical location?

Eastern district	Southern district	Khayelitsha district	Tygerberg district
Western district	Northern district	Klipfontein district	Mitchell’s plain

10.If other please indicate

11. Any information about your working conditions you would want to share?

.....

.....

.....

.....

.....

.....

.....

SECTION B

This section is the Likert scale section intended to measure perceptions about the work environment in which the clinicians work. A scale with a range of 1-5 [1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree and 5 = strongly disagree

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	SHORTFALLS IN THE ADMISSION SYSTEM					
1	Admin staff does not start work in time causing long queues	1	2	3	4	5
2	There are few admission points causing long patient queues	1	2	3	4	5
3	Too many patients come every day and admin can't cope	1	2	3	4	5
4	Changing the patient admin system will make the queues short	1	2	3	4	5
5	The length of queues is because the nurses are generally slow	1	2	3	4	5
6	Employing more admin personnel will not change the queue	1	2	3	4	5
7	More nurses makes more patients to be attended to faster	1	2	3	4	5
	HUMAN RESOURCE COMPLIMENT - admin	0	0	0	0	0
8	More administrators are needed to improve service	1	2	3	4	5

9	There is need to change the patient admission process	1	2	3	4	5
10	Delays in serving is because of too many patients come	1	2	3	4	5
11	Restructuring will improve service with same compliment	1	2	3	4	5
12	There are issues with managers' worker motivation ethics	1	2	3	4	5
13	The more administrators there is the faster the service	1	2	3	4	5
14	Administrators do not have proper training for the tasks	1	2	3	4	5
	HUMAN RESOURCE COMPLIMENT - clinicians	0	0	0	0	0
15	The number of nurses on duty is always too small	1	2	3	4	5
16	The nurses always appear overworked and don't cope	1	2	3	4	5
17	The doctors do not show urgency for the sick patients	1	2	3	4	5
18	Doctors are overworked and they are too few for patients	1	2	3	4	5
19	Pharmacists are very slow in processing the medicines	1	2	3	4	5
20	Too many patients are given to pharmacists at short notice	1	2	3	4	5
21	More pharmacy staff may speed the dispensing process	1	2	3	4	5

	TECHNOLOGY AND SERVICE	0	0	0	0	0
22	Government doesn't invest in technology for efficiency	1	2	3	4	5
23	The use of computers makes no difference to delivery	1	2	3	4	5
24	The current software makes a great difference in service	1	2	3	4	5
25	There is need for continuous training in technology use	1	2	3	4	5
26	Clinicians don't use computers for patient records	1	2	3	4	5
27	Computerisation of patients' details speeds up services	1	2	3	4	5
28	Drugs written by doctors can be retrieved by pharmacists	1	2	3	4	5
	FACTORS IMPACTING SERVICE DELIVERY	0	0	0	0	0
29	Files are misplaced forcing loss of patients' history	1	2	3	4	5

30	Folder duplication increases workload for administrators	1	2	3	4	5
31	Folder duplication takes the space in the filing rooms	1	2	3	4	5
32	Clinicians redo the same patient assessment over again	1	2	3	4	5
33	An interlink for all health workers site improves service	1	2	3	4	5
34	Government must use technology to help service delivery	1	2	3	4	5
35	Reception space is too small to allow for effective service	1	2	3	4	5
	STRUCTURAL IMPEDIMENTS	0	0	0	0	0
36	Resources at sites are limited thus causing poor service	1	2	3	4	5
37	Centres need to be enlarged to allow for effective working	1	2	3	4	5
38	There's a shortage of requisite equipment at many centres	1	2	3	4	5
39	Clients are referred to some hospitals because of facilities	1	2	3	4	5
40	There are no comfortable waiting rooms for the patients	1	2	3	4	5
41	More state of the art equipment is needed for every centre	1	2	3	4	5
42	Extension of space to separate illnesses according to type	1	2	3	4	5
	IMPACT OF EDUCATION ON CHRONIC PREVALENCE					
43	The education system should introduce health sciences	1	2	3	4	5
44	Health education from school reduces lifestyle disorders	1	2	3	4	5
45	Missionary schools should be allowed to proliferate	1	2	3	4	5
46	Government must teach practice of lifestyle disorders	1	2	3	4	5
47	Government enforce physical education in all schooling	1	2	3	4	5

Thank you for your cooperation.

Lumka Ntwanambi 0817101359

Lumka.Ntwanambi@capetown.gov.za/lumkantwanambi@gmail.com

CAPE PENINSULA UNIVERSITY OF TECHNOLOGY

Supervisor: Dr L.E Jowah Co-Supervisor: Prof P.Green

APPENDIX F:

PLAGIARISM REPORT

A MODEL TO EFFECTIVELY
ASSESS AND MONITOR THE
PROVISION OF PRIMARY
HEALTH CARE SERVICES IN THE
WESTERN CAPE
UNDERGROUND DISTRICT

by Lumka Ntwanambi

Submission date: 10-Mar-2022 09:33AM (UTC+0200)

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