

**The provision of Primary Health Care in marginalized rural communities:  
Comparative case studies of Zombodze (Swaziland) and Nkanyisweni (e-  
Thekwini Municipality, South Africa)**

**by**

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## DECLARATION

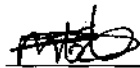
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The provision of primary health care in marginalized rural communities: comparative cases studies of Zombodze (Swaziland) and Nkanyisweni (e-Thekwini Municipality, South Africa), is the result of my own research and it has not been submitted in part or in full for any other degree or to any other University.



MR M.C Mbambo

08/01/2007

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## ABSTRACT

The provision of health in communities and their inhabitants are very important for economic and social development. The aim of this study was to investigate the provision of primary health care in marginalized rural communities using comparative case studies of Zombodze (Swaziland) and Nkanyisweni (e-Thekwini Municipality, South Africa). Multiple methods, strategies and techniques were employed in this study to determine the health situation of the inhabitants, the availability of health services and the choices available for the communities with regard to health care.

Primary health care services were available in both these communities and their accessibility, amongst other things, was dependant on the distance relative to the community health centre as well as certain financial resources required for medication. Many inhabitants in these communities travelled long distances to the health centers. Unemployment has led to much insecurity in the affected families, and due to such elements a certain proportion of households in these communities engaged in subsistence farming to supplement their food resources. Due to the lack of formal employment people are slowly getting involved in the informal sector to earn a living and to support their families. The results show that on average the people in Nkanyisweni earn well above the poverty line, which is more than a R7.00 per day. Community health workers in both communities were appointed on a voluntary basis and their qualifications were never taken into cognisance. This might be attributable to the lack of people with community health skills. Most people in the communities suffered from common communicable diseases, such as coughs and colds, only a few inhabitants reported having serious illnesses which required specialized care which was beyond the capacity of the clinics, based on their mandatory and legislative role in health care.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AIDS</b>	<b>Acquired Immunity Deficiency Syndrome</b>
<b>ANC</b>	<b>African National Congress</b>
<b>ARV</b>	<b>Antiretroviral</b>
<b>CBD</b>	<b>Central Business District</b>
<b>CHWs</b>	<b>Community Health Workers</b>
<b>DFL</b>	<b>Doctors For Life</b>
<b>GEAR</b>	<b>Growth Employment and Redistribution</b>
<b>HIV</b>	<b>Human Immune Deficiency Virus</b>
<b>HST</b>	<b>Health Systems Trust</b>
<b>IMF</b>	<b>International Monetary Fund</b>
<b>ISRDS</b>	<b>Integrated Sustainable Rural Development Strategy</b>
<b>PHC</b>	<b>Primary Health Care</b>
<b>MMDs</b>	<b>Modern Medical Doctors</b>
<b>MSF</b>	<b>Médecins Sans Frontières</b>
<b>RDF</b>	<b>Rural Development Framework</b>
<b>RSA</b>	<b>Republic of South Africa</b>
<b>SADC</b>	<b>Southern African Development Community</b>
<b>SIREMIFOP:</b>	<b>Swaziland Institute of Research in Traditional Medicine, Medicinal and Indigenous Food Plants</b>
<b>TMPs:</b>	<b>Traditional Medical Practitioners</b>
<b>WHO:</b>	<b>World Health Organization</b>
<b>UNICEF:-</b>	<b>United Nations Children's Education Fund</b>
<b>US:</b>	<b>United States</b>
<b>USAID:-</b>	<b>United State Agency for International Development</b>

# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction

Many people will be puzzled as to why it is necessary to engage in health services research within the discipline of geography. It is not due to the assumption that people within the discipline have lost touch with its core, geographers have for a long time been involved in health services research. For the purpose of this research, geography as a discipline is defined as: the study of the spatial relations between people and their environment which includes their impact on the environment and factors that influence their decision in their daily pursuit of life (Castree, 2003). If the latter definition is put into use and supplemented with the one by Peet (1998) that defines geography as the study of space, this will mean everything that happens within the definitive 'space', exists for geographers' exploration and study. This includes the subsection of geography called the Geography of Health which specifically deals with such issues as provision, location and adequacy of health services.

The researcher's comprehension of these subsections dealing with health services is that their differences lie within the questions that drive the research undertaken in these sub-disciplines. Epidemiological enquiries are more concerned about questions like: who is affected? When is that person affected? And where? Geographers in relation to health problems ask: what services are provided? to whom are they provided? and how? This continues to cover the illnesses that are prevalent in communities. According to Meade, Florin and Gesler (1988) geographic variation in health has long been studied under such interdisciplinary rubrics as geographic pathology, medical ecology, medical topography, geographical epidemiology, geomedicine.

Worldwide, the pervasiveness of poverty and poor delivery of basic services in rural areas of developing countries continues to constrain development efforts. The prevalence

of rural poverty provides major challenges to governments, organizations of civil society and developmental agencies. The failure of many rural development projects during the last three decades has led those involved to consider in more detail the factors that undermined successful outcomes. Prime among these are the issues of inadequate local capacity and the excessive centralization of decision-making (National Department of Provincial and Local Government, 2000).

The assertion that rural development projects failed, might also be due to the fact that they ignored important aspects of human development such as health, as health is perceived to play a role in development. There are many views on the issue of health and development. Some believe that the focus should be more on what are positive impacts of development on health e.g. (Hossain, Bhuiya, Khan and Uhaa: 2004). Others prefer looking at this issue from a perspective of better health for development e.g. (Amoako, 2001). Despite the complexities this issue might present, it is thus evident that this is a matter of concern and there is a great need for research to be conducted to determine specifically the role of health in development.

Primary Health Care (PHC) as the focus of this research, as adopted in the Alma Ata Declaration (1978) is aimed at providing health care to the lowest level of the community and is desired to be the closest health services to the community. The Alma Ata conference amongst other things focused on the inequalities in the health status of people, the people's right to participate in the implementation of their health care and the importance of economic and social development in health. Primary Health Care has eight basic elements which should be included in any PHC programme. These elements are;

- Health education;
- Adequate food supply and promotion of good nutrition;
- Safe water and basic sanitation;

- Maternal childcare, including birth planning;
- Immunization against the major infectious diseases;
- Appropriate treatment of common diseases and injuries;
- Provision of essential drugs.(WHO/UNICEF, 1978)

According to Oxfam (1995) health is a critical factor in development, ill health affects productivity, and at the same time poverty causes ill health, setting up a vicious cycle of increasing poverty and sickness. The ability of people to make a living is viewed as dependent on their capacities, their skills, knowledge, resources and health. WHO (1997) asserts that the supply of adequate quantities of safe water and access to adequate sanitation facilities are two of the most significant environmental determinants of health. WHO estimates that 90% of the diarrhoea disease burden is related to lack of access to clean water, poor sanitation and contaminated food. Water and sanitation is also one of the components of PHC which plays a pivotal role in the improvement of a community's environmental health status. One of the objectives of this research is to look at the availability of such services in the community so as to assess whether the provision of PHC within rural communities takes into cognizance the basic elements of PHC.

Serkkola (1995) asserts that in the developing countries, the majority of the population live within the influence of various co-existing medical systems. Because of this, he states that the patient and his/her family can use different treatment methods for the same illness. This is called medical pluralism or a pluralistic medical system. This is also true in the case of South Africa and Swaziland where, one finds that there are traditional medical practitioners co-existing with modern medical doctors. Being aware of the hardships that rural people face due to their situational location relative to health services, it is important to determine the factors that influence the local communities use of either traditional or modern medicine and to also uncover which one they utilize the most and what influences such utilization patterns.

According to the National Rural Health Association (1999) based in the U.S, rural areas in the United States have a much more limited supply of primary care practitioners and other health care providers. In addition, low population density makes it difficult to deliver services targeted to persons with special health needs. Residents of more remote areas are less likely to have coverage. The uninsured are also more likely to go without or postpone health care, resulting in their illnesses becoming more critical and more costly to treat. The challenges or constraints that rural people face in accessing and utilizing PHC services varies greatly and is due to the characteristics of the population and their culture and traditions. King (1998) asserts that community participation in health care is the active involvement of people who live together in some form of social organization and cohesion, in the planning, operation and control of PHC by using local, national and other resources. The PHC health model as discussed at Alma Ata (1978) regarded the role of community in the provision of health as an important element, if such a model is to succeed and meet its objective of health for all (WHO/UNICEF, 1978).

## **1.2. Significance of the study**

Much research has been done within the auspices of rural service delivery which at some point included the provision of health services. Most studies have been concerned with services like roads, housing, and schools. However, studies on health are mostly focused on health problems within urban areas. This study intends to contribute to the advancement of knowledge within the Geography of Health. It will also look at the biases of the health policies of South Africa and Swaziland with regard to their urban alignment and will articulate the importance of having separate health strategies for rural and urban communities. This study attempts to provide insights into the constraints of providing rural health care and that of accessing health care by the locals, and lastly it will make recommendations based on the findings of the study. In the light of the above the following aim and objectives have been tendered.



**1.3. Aim** To investigate the provision of PHC in marginalized rural communities using the case studies of Zombodze (Swaziland) and Nkanyisweni (South Africa).

#### **1.4. Objectives**

- To examine the socio-economic status of respondents in the Zombodze and Nkanyisweni Communities.

The aim of this objective is to establish the rate of employment and unemployment, educational level, gender of the respondents and the income levels of the people in these communities. This would enable the researcher to determine the link between the socio-economic status of the people and their access to PHC.

- To determine the constraints that rural people are faced with in accessing PHC.

In everyday life people are faced with different challenges which in turn influence their decisions and choices. South Africa and Swaziland are governed by different government systems, it is important to establish what constraints the rural people are faced with in trying to access PHC, and compare similarities and difference between the constraints faced by the rural people of Swaziland and South Africa. To meet this objective questions such as: how do you get to the clinic/hospital? Does the community have community health workers? How many kilometres do you travel to the clinic? will be asked.

- To assess the nutritional status of the people of Zombodze and Nkanyisweni.

The level of required nutrients or the lack of availability of nutrients in the food people consume, has an impact on their health status. Nutrition is an important component of PHC. This objective tries to determine the types of food people consume and their nutritional level which could later be linked to the prevalence of certain diseases. Issues such as access to food, number of meals per day and sources of protein will be the focus.

- To investigate the availability and accessibility of water and sanitation in these communities.

The focus of this objective was to determine the availability and adequacy of water and sanitation in the community. These services are also examined in terms of accessibility

(time, distance and cost). Questions such as: what is the household's source of water? How many kilometres do you travel to fetch water? How would you rate the current water service? What type of toilets does the household utilize? will be asked

- To examine the use of traditional medicine by rural inhabitants.

It is assumed in this research that due to cultural practices and financial reasons, many rural people tend to use traditional healers and medicines to cure their illness. This objective attempted to assess the frequency of use and the number of persons reliant on traditional medicine. The role of traditional healers in rural health care is also investigated.

- To examine the availability, accessibility and adequacy of PHC facilities.

This objective examined the number of PHC centres available in these communities, how accessible these services are to the rural people and whether they are adequate, by looking at the location, and their numbers relative to the number of people within the community. To meet this objective the questionnaire will include questions such as: how many clinics/health posts does the community have? How many kilometres do people travel to PHC centres?

- To investigate the health status of residents in these communities.

The number of illness and diseases that are prevalent in the community will enable the researcher to determine the health status of the people. It is also important to look at the availability of essential drugs, and the local strategies put into place to deal with such diseases. For example, whether there are any health education programmes in these communities. To meet this objective the questions will be directed to health staff at various centres.

- To forward suggestions and recommendations based on empirical data obtained.

## **1.5. Research questions**

1. What is the socio-economic status of the people in the case studies of Zombodze and Nkanyisweni?
2. What difficulties or constraints face rural people in trying to access PHC? What type of PHC is available in the community? Is it accessible to all people in the communities? Is it adequate? Do the PHC centres in the community have the essential drugs and treatment necessary?
3. What is the nutritional status of the people in Zombodze and Nkanyisweni? Does the food they eat have the required minimum nutrients value? What influences their choice of foods?
4. Is the community provided with water and sanitation? What methods are used to provide water and sanitation? Is water and sanitation accessible to all people in the community?
5. How many people use traditional medicines? What is the role of traditional healers in the two communities? Is traditional medicine used because of its cultural significance or its recognition in curing illnesses or for financial reasons?
6. What is the role of local government in providing PHC? What are challenges that local government faces in providing PHC in these communities?
7. What illnesses and diseases are prevalent in the communities?

## **1.6. Chapter sequence**

### **Chapter 1: Introduction**

This chapter provides the background and the aim and objectives of the study and research questions.

### **Chapter 2: Literature Review**

This chapter provide literature that informs conducting this study and related health issues. It analyses health approaches issues and discusses policies that inform the provision of health in both countries under study.

### **Chapter 3: Conceptual Framework**

This chapter deals with and addresses concepts that exist in the understanding of health and health care and it also provides a critical analysis of health approaches and gives possible solutions relevant to the African health environment

### **Chapter 4: Methodology**

This section provides a thorough overview of the methods, approaches and techniques that were used in designing and collecting data from this study. It also provides the justification of the methods that were employed.

### **Chapter 5: Data Interpretation, Analysis and Discussion**

This chapter interprets, analyzes and provides a discussion of the result of the study, it also identifies patterns and discusses probable causes of the identified trends and patterns in the data sets.

### **Chapter 6: Evaluation, Recommendations and Conclusions**

This section evaluates the results of the study and provides recommendations based on empirical or theoretical findings of the study. It also serves as a conclusion for the overall study.

## **1.7. Conclusion**

This chapter has discussed the empirical basis for this study and it has also outlined the aim and objectives of the study. Based on the understanding that aims and objectives cannot be met without a clear research enquiry, the research questions have been included in this chapter to serve as principles upon which the field enquiries will be based. Health is a major challenge in both democratic and monarchic governments, in both First and Third world countries. This study was undertaken as a transnational boundaries research (comparing the provision of PHC in two communities, one in Swaziland (Zombodze) and the other in KwaZulu-Natal (Nkanyisweni).

## **CHAPTER TWO LITERATURE REVIEW**

### **2.1. Introduction**

This chapter is based on the belief that any academic work is neither immune nor distinct from other people's ideas and perceptions about life and things that constitute life in itself. It is the purpose of this chapter to highlight some of the theoretical developments around the issue of primary health care, and factors that constitute this health model. Amongst other things the focus will be on the concept of illness, disease and different health systems that are present and utilized in rural communities, people's participation in health care and the financial factors and elements that are important in the provision of healthcare (i.e. health economics). It is almost 27 years since the Alma Ata declaration, and almost five years after the 2000 health for all deadline, the signatory nations have set for themselves. Thus, it is important to look at progress in the world in terms of health care provision and the prevalence of disease.

### **2.2. Health, disease and Illness**

The provision of primary health care deals with the health services of the people in the community, the diseases that are prevalent, so that essential drugs should be provided to treat opportunistic diseases that affect the daily lives and health status of the people in local communities. It is, therefore, deemed important and of great significance to define health, disease and illness and to also highlight some of the links that exists between such health variables.

According to the WHO constitution (1948) health is a state of complete physical, mental and social well-being and not merely the absence of diseases or infirmity. The Institute for International Medical Education (2002) defines disease as any departure from health in which a patient suffers; it can be defined as a disorder of bodily function or destructive processes in organs, organ systems or in an organism with recognizable signs and

symptoms. The words diseases, illness and sickness are often used interchangeably, but are not synonymous. Rather, disease relates to a physiological or psychological dysfunction whereas illness is the subjective state of a patient who feels unwell. Sickness encompasses a state of social dysfunction, such as the role that the individual assumes when ill. Illness means any sickness or diseases first manifesting itself and requiring medical attention.

Jones (1991) asserts that health and illness do not exist in isolation but within a specific, socio-political, cultural and interactive context. Lupton (1994) asserts that illness refers to the experiential aspects of bodily disorder and socio-cultural factors play an important part in shaping and influencing the way in which these disorders are perceived and explained. To further clarify this Lupton (1994) state that fevers fall into different category from chills or colds. They are now viewed as being caused by the weather but are seen as resulting from the presence of germs and bugs that are airborne and invisible and enter the body, thus causing fever.

### **2.3. Health and Development**

There are many views on this issue of health and development, some authors like (Hossain *et al*, 2004) believe the focus should be more on what are positive impacts of development on health, while others like (Amoako, 2001) prefer looking at this issue from a perspective of better health for development, despite the complexities this issue might present. It is evident that it is a matter of concern and there is a great need for arguments and views to be presented showing how individual scholars or academics view health and development based on their academic disciplines (e.g. geography). Before these views are presented it is important to give definitions of both these concepts.

For the purpose of this section the aforementioned definition of health by the World Health Organization's Constitution will apply in this context of health and development.

According to Bracht (1999) development is the transition from one state to the other, which involves benchmarking, setting up policy frameworks that are responsive and relevant and including a participatory approach. If Bracht's (1994) definition was to be applied in the context of health and development, this would mean that to improve health it will be a necessity for all governments concerned to set up policies that are aimed at developing and improving the state of the service, through the participation of communities in identifying their health needs. This is conversant with the PHC principles. The development of the people can hardly be achieved without their incorporation in planning, implementation and management. The provision of PHC is one aspect of community development where a need to involve community members is important, hence the PHC principle of community participation.

Jack (1999) a World Bank Institute Economist, asserts that as countries develop economically, the structure of economic and social organizations changes and that at first the industrial sector tends to grow at the expense of the agricultural sector that is in terms of employment and value and subsequently the service sector increases its share of the economy. He then asserts that as the population becomes more urbanized, traditional social structures may become less important, and the distribution of income may change. The effects of these changes on health according to him are ambiguous and the nature of health problems may change, but the effect on the overall health status of the population is difficult to ascertain. To show how this ambiguity presents itself in an industrial society he uses an example of a shift from agricultural to industrial production, and he states that this shift may lead to the reduction of the incidence of some infectious disease found primarily in rural areas, such as schistosomiasis but this decrease may be associated with an increase in diseases related to pollution including lung cancer (Jack, 1999).

According to Oxfam (1995) health is a critical factor in development. Ill health affects productivity, and at the same time poverty causes ill health, thus setting up a vicious

cycle of increasing poverty and sickness. The ability of people to make a living is viewed as dependent on their capacities, their skills, knowledge, resources and health. Oxfam (1995) then continues to assert that, unhealthy people may be unable to take advantage of the benefits of development, such as education or training and that their ability to absorb new information may be hindered. One of the important contributions which is applicable in the context of South Africa is that, for the maintaining of good health, social justice and equity are prerequisites for the attainment of the aforementioned goals of good health. South Africa as a Constitutional Democracy and Swaziland as an absolute Monarchy both house people of different cultures, races, religions and languages. In the light of this, it is important that social justice and equity is promoted, and the right to health as ascribed in the constitution of RSA and in health policies of Swaziland are attained without any racial or cultural bias.

### **2.3.1 Globalization and Health**

Globalization has become both a slogan and a useful historical and analytical concept. To some it is an inescapable and primarily benign process of global economic integration, in which countries increasingly drop border restrictions on the flow of capital, goods and services (Labonte, Meeus, Sanders and Schrecker, 2004). According to Labonte et al., (2004) in its simplest sense globalization is a constellation of processes by which nations, businesses and people are becoming more connected and interdependent across the globe through increased economic integration and communication exchange, cultural diffusion and travel.

Fort (2004) states that the impact of globalization on health can be understood by the identification of certain elements which are composites of globalization which either have a negative or positive impact on health and its development. According to Labonte et al., (2004) the question of how globalization affects health depends on the historical context of particular countries, specifically their political, social and economic traditions.



The local factors such as level of economic development, environmental resources and human capital also have an impact on health. The process through which globalization operates is evident in imposed macroeconomic policies and one category consists of Structural Adjustments Programmes (SAP).

The major and critical issue that has been highlighted in the above paragraph on the imposition of macroeconomic policies by developed countries and their agencies to less developed countries. Shaffer and Brenner (2004) points out that this has had, and will continue to have a negative impact on the health policy environments of the developing countries, since a policy is a government's way of translating the planned action or inaction. This means that elites or economic development advocates from the well established economies to a greater extent shape and clarify the direction for local policies, which in their conception is not based on the social wellbeing of the inhabitants of such countries. The main aim is economic gains of the transnational operations associated with such nations.

According to Walt (2000) globalization is both an opportunity and a threat, we need to examine both aspects and decide what we can do. The shape and form of globalization is contestable, and open to local and global political challenge, there should be research and discussions about globalization's threat to health and taking advantage of the opportunities (Walt, 2000). Lee (2004) states that it would be overly simplistic and inaccurate to describe globalization as either "good" or "bad" for health. For example, spatial change is leading to increased migration of people throughout the world. For high-income countries, the debate surrounding globalization and health tends to focus on the perceived threat, from low and middle-income countries, of acquiring certain acute and epidemic infections, such as HIV/AIDS, tuberculosis, plague and, more recently, severe acute respiratory syndrome (SARS)(Lee, 2004).

### **2.3.2. Inequalities and Health**

Gwatkin (2000) states that the interest of the international community in health inequalities has varied greatly in recent years. It was high from around the 1970's and 1980's. It was then displaced by greater concern for health systems efficiency and sustainability. More recently the interest in equality, equity, and the health of the poor has begun to rise (Gwatkin, 2000). According to Braveman and Gruskin (2003) equity means social justice or fairness, it is an ethical concept grounded in principles of distributive justice. Equity in health can be and has widely been defined as the absence of socially unjust or unfair health disparities. Calman (1997) asserts that, equality, on the other hand, is about comparisons between the level of health, or the ability to obtain access to health care, of individuals and communities. Some inequalities may be unavoidable, and therefore, generally not considered unfair, while others might be avoided and so considered inequitable. Natural, biological and genetic variations may have unavoidable health inequalities related to them. Lifestyle and behaviour patterns chosen by individuals can also result in inequalities in health, for example, cigarette smoking. However, lifestyle and behaviour that is not freely chosen, and that results in poorer health, might be considered as avoidable and thus inequitable (Calman, 1997).

According to Whitehead (1992) these differences or variations in health can be measured from standard health statistics. However, not all of these differences can be described as inequities. The term inequity has a moral and ethical dimension. It refers to differences which are unnecessary and avoidable but, in addition, are also considered unfair and unjust. In order to describe a certain situation as inequitable, the cause has to be examined and judged to be unfair in the context of what is going on in the rest of society (Whitehead, 1992).

According to Clarke (1998) both epidemiological studies and social research clearly demonstrate the existence of associations between social position and health and illness. While the existence of inequalities in health is well documented, readily acknowledged

and relatively disputed the same cannot be said of the causes of these inequalities. When it comes to explaining the differential distribution of mortality and morbidity rates a number of causal explanations have been advanced. Murray, Gakidou and Frenk (1999) asserts that inequalities in health, both between and within populations, are a major public concern that demands attention. For example, life expectancy at birth of native American males in some counties of the USA is 56 years, while that of Asian American women in other counties is above 95 years. Variation across individuals in health can be attributed at the simplest level to four factors: chance, genes, the environment (broadly defined to include all physical and social factors), and the interaction between genes and the environment (Murray et al., 1999).

Gwatkin (2000) asserts that any strategy to overcome these inequalities will undoubtedly want to accord the highest priority to overall poverty alleviation through broad-based social and economic development. It will also require an impressive degree of political will, including the firm determination on the part of the national and international leaders to stand up to the interest of the 'haves' in order to advance the interest of the 'have nots'. Such considerations argue for health professionals being prepared to enter the political forum on behalf of social and economic equity, rather than limiting themselves to work within the health sector. Woodward and Kawachi (2000) state that it is well known that good health is not evenly shared. They use an example of a study conducted in the UK where an independent inquiry into inequalities in health, found that if all men aged 20-64 had the same mortality rate as those in the top two social classes, they would be approximately 17 000 fewer deaths in that country every year.

Based on these views it is theoretically and empirically evident that a lot of factors contribute to the differences in health status or access to health and such inequalities cannot be alleviated based on one scholastic view, since different scholastic backgrounds

have different viewpoints about that which are major elements which causes such inequalities.

#### **2.4. Health Economics**

The financial implications of any health strategy are important because they measure the efficiency and effectiveness of the health services. Before discussion and deliberation on the history of PHC it is important that the economics of health care provision is discussed. Getzen (1997) asserts that a question like, how much a nation should spend on health care? is the central public policy issue of health economics. It cannot be determined once and for all, but must be decided over and over again each year as conditions and opportunities change. The determination of how much people spend is known as the consumption function. He adds that if all possible uses of income are included, including savings, then people must spend exactly as much as they earn. He additionally states that a 10% increase in income should be matched exactly by the 10% increase in spending.

Linked to the above statements Phillips (2005) states posit that, it is evident that economics or rather financial factors have a huge impact on the provision of health services. Such an impact can be traced from the problem identification in the health policy making process, whereby it is important to align the aims and objectives of the policy on health service provision according to the economic parameters. It would be a futile exercise to draft a policy which will hardly be economically implementable. Economics, therefore, provides the policy makers within the health sector with guidelines with regard to what can be done, at what cost and to what extent.

According to Valtonen (1994) government revenues are heavily dependent on the world's market prices of primary products, oil, and foreign debt servicing. He states that the worsening economic situation has decreased the potential to finance the public sector,

including health care. The problem that he cites is that public financing in Africa is worst, due to the fact that countries within the continent, are still servicing their foreign debt. Valtonen (1994) stipulates that developing countries do not only lack capital funds, they increasingly face difficulties with recurrent funding of the existing health care, and many countries have found it increasingly impossible to meet recurrent costs from their budgets, since as producers of primary products they have been subjected to the vulgarities of the physical environment, and fluctuations in world prices.

Getzen (1997) argues that reaching consensus about how much to spend becomes more complicated when there are two types or more of people who are to receive care. Suppose one group is relatively healthy, and could have a high level of health even if no money was spent on them, while another group begins at a disadvantage and even with maximal effort would still remain less healthy (Getzen, 1997). According to Beattie (1998) this is true of South Africa, where there are people who are provided with the best health care (private) while others (mostly poor) have no choice, but to settle for public health care. The South African government on its meagre health budget relative to health needs, is expected to fund private health institutions, and also channel some of its funds to the public health institutions. In Swaziland private health institutions are non-existent due to the country's political system which does not permit such institutions to operate in the country. In South Africa, in terms of revenue the private institutions have more money than their public counterparts, because lots of funds are provided through medical aid, which irrespective of whether one gets sick or not monthly premiums should be paid. The issue of private institutional subsidization is promoted by the South African GEAR policy, which mandates the government to make the environment conducive for a free market economy: the task of the government on this issue thus becomes that of an enabler rather than that of a provider of basic services (Beattie, 1998).

The drugs that are both essential in the operations of the private and public sector are controlled/provided by the private pharmaceutical companies, whose pricing methods are based on the competitive rates of the global/ market economy (Cook, 2005). WHO (2002c) noted in its country strategy that, Swaziland depends on South Africa for the provision of many pharmaceutical drugs and their government becomes burdened by the levies that need to be paid for imported goods. These drugs become easily accessible to people in the private health sector and are beyond reach of the poor people especially those in rural areas. It is due to this that Paley (2001) points out that this is the reason why there is a great need for active social movements who will lobby the government to improve health service provision to the poorest communities in developing countries.

Jack (1999) asserts that the government, in its role as a benevolent planner, can regulate the quality and price of drugs to promote and protect consumer well-being. One problem that he cites is that when government regulates and prices drugs in order to protect consumers, this might lead to broader control of personnel and governments engaging in corrupt activities. According to McPake, Kumaranayake and Normand (2002) economic analyses on health care is often undertaken with the view to helping governments and other agencies better achieve the goals of their health policies.

In capitalist environments with its economic demands, governments are faced with difficult policy objectives whose implementation is determined by the availability of funds and the extent to which such objectives try to achieve the goals of service provision within the health services (Jessop, 1997). In the light of the above challenge, using the health economics perspectives helps in trying to evaluate the economic viability of the choices that translate in the decisions of government about what should be done? How? and to what extent? with reference to health services provision (Getzen, 1997). According to Henderson (2002) health care spending whether measured in U.S. per capita dollars or as a percentage of GDP, is significantly higher in the United States than in any other

country. Germany, France and Canada are ranked second, third and fourth, while per capita spending in the United Kingdom is barely one third of the US. Ensor and Witter (2001) state that developed countries have a stable macro-economy and structure of employment. There are also effective channels to protect the vulnerable from the costs of illness and a fair degree of market stability. In developing countries there is a decrease in government's share of health expenditure and costs are increasingly being borne by individuals and households. In the SADC region, South Africa accounted for 65% of the regions GDP, which shows the economic differences which might affect health expenditure (Ensor and Witter, 2001).

The above paragraph emphasizes further the impact the economic state of the country has on its ability to provide services. With the variation of differences among the developed nations growing with regard to health care spending; it becomes worse if one were to compare the developed and the developing countries. Swaziland and South Africa as lower-middle income economies are faced with difficulties when it comes to translating their 'will' to provide equitable health services or products into policy actions. Since it is not only the will that counts when it comes to addressing country specific needs, it is important to have what governments pronounce in press conferences turned to directive policy documents with a capacity to successfully implement them (LaFond, 1995).

#### **2.4.1 Pharmaceutical Industries**

This industry does not only produce drugs, but it also constantly engages itself in research and development of new products, which are then patented, to protect them from competition and intellectual property infringing companies. They play a huge role in the availability of drugs, within the health system, their quality and their accessibility, to both the government and individual users (Moynihan et al., 2002). According to Getzen (1997) the pharmaceutical industry consists of many small companies, each producing only one or two products, and there are approximately thirty large global corporations

that have broader product lines. He states that similar to health care services, funding for pharmaceutical products comes from a variety of sources, including: patients, employers and private insurance, and federal and state governments.

Ravenscraft and Long (2000) postulate that competition within this sector can be fierce, to the extent that it affects the quality of the drugs they produce, because many companies might compete while providing the same product to a small market. The people who are hard hit in this process are people who consume these medical drugs, especially the rural and urban poor. Abraham (2002) argues that, this is a situation which accords the intrusion of government, to protect the local people and restore human integrity within the nation through legislation and policies that regulate operations of pharmaceutical companies.

## **2.5. Health and Health Care in Africa**

Castro-Leal et al., (2000) state that health care is understood as a basic service that is essential in any fight against poverty. In almost all African countries, health care personnel particularly physicians are concentrated in urban areas, where they provide tertiary level care and are comparatively scarce in rural areas. They continue to assert that, although resources and services are heavily focused on specialized care, the main causes of illness and death in most countries is preventable and easily treated diseases such as acute respiratory illness, diarrhoea and malaria.

Kalipeni (2000) states that after independence, governments in the region have attempted to provide biomedicine to everyone, focusing on hospitals, dispensaries and medical schools centred in urban areas to the neglect of rural areas. Biomedical health facilities have typically been based in urban settings beyond the reach of many rural inhabitants. This leads to a situation where rural dwellers have to travel long distances to access health services.



According to Creese et al., (2002) HIV/AIDS accounts for about 20% of all Deaths and Disability-Adjusted Life-Years (DALYs) lost in Africa, which makes it the biggest single component of the continent's disease burden. The epidemic has reduced life expectancy in the worst affected countries by more than 10 years, and its social and economic consequences have been devastating. In spite of the raging AIDS epidemic, recent research in the field of health care in sub-Saharan Africa indicates that major improvements in health have been achieved in some countries since independence (Boerma, 1994). Statistics such as increases in life expectancy, decline in maternal mortality, wide spread immunization programmes have been offered as a success in a fight against disease in a number of Southern African countries, notably Malawi, Zimbabwe, Botswana and South Africa (Kalipeni, 2000).

Castro-Leal et al., (2000) posits that health care is a normal good, which means household spending on health and the use of facilities increases with income. They also state that within the region, the richest groups use publicly subsidized health care, with the exception of South Africa. Moreover, in Africa, the reallocation of public expenditure is not sufficient. Policies must be based on a sound understanding of the factors that govern household decisions about health care and of the means by which subsidized services can lead to better outcomes for the poor.

### **2.5.1 Health and Health Care in South Africa**

Hoffman et al., (1997) states that the apartheid policies of the Nationalist Government of South Africa have resulted in the health services of South Africa being inequitably distributed among various sectors of the population. This has led to primary care services particularly those in the rural and peri-urban areas being undeveloped. According to Petersen (2000) the transition from apartheid rule to a new democracy in South Africa has been accompanied by the vision of a national health care system based on the

principles of universal primary health care. This vision is now firmly in place in the form of the White Paper for the Transformation of the Health System in South Africa (1997).

Pelser et al., (2004) assert that in the transformation of the South African health system, two strategies stand out as the linchpins of the new health dispensation. One is a pronounced shift towards PHC, the other is the introduction of the District Health System (DHS). The combination of these two is known as the district based PHC system.

According to Redelinghuys and Van Rensburg (2004) the health and disease patterns of South Africans are the result of general social developments that have affected most societies of the world. However, these profiles were also shaped profoundly by social and political processes unique to the South African context. Pelser et al (2004) are of the opinion that the prevalence of HIV/AIDS in South Africa is a major challenge not only to human development, but it also impacts on future economic growth prospects of the nation and numerous sectors will be affected by AIDS related illnesses or deaths.

The complexity of the overall disease burden in the country places South Africa in an unfortunate position of having to divide precious and scarce health care resources among a widely varying clientele and population with very different and often contrasting health care needs (Redelinghuys and Van Rensburg, 2004). Bradshaw et al (2003) states that, the mortality profile of South Africa reflects a quadruple burden of disease experienced by the country, with HIV/AIDS, chronic diseases, poverty related conditions and injuries all contributing substantially to the number of deaths

Benatar (2004) state that varied paradoxes and contrasts that characterize health and human life in the world manifest in South Africa in a unique combination. He suggests that the achievement of improved health of the population will be less dependent on new discoveries or technological advances than on achieving greater social justice through

moral progress. This means that ethical considerations of our actions within the health services should be striving towards equitable health care provision.

### **2.5.2 Health and Health Care in Swaziland**

The provision of health care in this country is based on the principle of primary health care, which were adopted and incorporated into the health service in 1983. Prior to 1983, health care provision focused on curative measures provided by hospitals in urban areas. Access, therefore, was problematic for the rural dwellers who comprised 85% of the population. This situation gave rise to the Primary Health Care Strategy of 1983, which sought better provision and increased accessibility within the country's rural areas. Health services have now been decentralised throughout the four regions of the country (Dlamini, 2003).

Whiteside et al., (2003) assert that the health care sector in Swaziland has to deal with the increased illnesses associated with AIDS. Over the years there have been reports of growing numbers of beds being occupied by HIV positive patients. The burden for the public sector increases as people exhaust their resources and are unable to access care. HIV/AIDS remains one of the major challenges to Swaziland's socio-economic development. The epidemic has continued to spread relentlessly in all parts of the country (USAID, 2005).

According to the WHO (2005), in 2004, the three most common causes of diseases, representing 50% of outpatient visits, were Acute Respiratory Infections (ARI), diarrhoeal and skin disorders. For the same period, diarrhoeal disorders were the leading cause of mortality followed by TB, AIDS, pneumonia and malaria. Among children under five and infants, diarrhoea, ARI, tuberculosis and malaria were the main causes of mortality.

The public health system of Swaziland is functioning at a reasonable level although it needs support to respond to emerging demands. The primary level is composed of 153 clinics focusing on outpatient services to the community supplemented by outreach services conducted by health workers once a month. Around 2,000 Rural Health Motivators, based in both urban and rural areas, complement these services by providing advice and care to the communities (WHO, 2005).

## **2.6. History of Primary Health Care (PHC)**

According to Dennill (1999a) the concept of PHC developed in the 1940's and 1950's, when several governments of different countries agreed to rationalize their highly technical approach to health care and to broaden their coverage by providing better basic services, that impact positively on health. This was concretized during the Alma Ata declaration. LaFond (1995) asserts that PHC can be differentiated into two components, (i.e. Selective Primary Health Care and Comprehensive Primary Health Care). SPHC focuses on diseases that

- have the highest prevalence and morbidity
- have the highest risk of mortality
- have the greatest possibility of control in terms of cost and effectivity of the intervention

CPHC considers that health is not merely the absence of disease, but it is viewed as follows:

- Health is defined in a holistic sense
- Health is concerned with equity
- Multisectoral approaches are key to obtaining good health
- Community involvement is critical.

### **2.6.1. Alma-Ata declaration**

Dennill (1999) asserts that by the 1970's health care throughout the world was in turmoil, with fragmented health systems. The trend was towards expensive treatment for a few ill people rather than promotive and basic health care for many. These inequalities were found in both developed and developing countries. In response to the international sense of despair at inadequate health care, an International Conference on Primary Health Care was jointly sponsored by the WHO and UNICEF. On September 06-12 1978 in Alma-Ata, the capital of the then Soviet Republic of Kazakstan, 600 representatives of 150 member states of the WHO assembled so that they might discuss what could be achieved for 200 million people who had no access to adequate health care. The prescription to be debated was a new approach to PHC, the means through which the attainment of WHO's health for all goal, by the year 2000 was going to be possible. According to Navarro (1984), the year the declaration document was published (1978), the following situation existed:

- Over 800 million people in the world lived in absolute poverty, with one-third of all deaths occurring in children under 5 years. In the less developed countries approximately 11 million children under 5 years of age died every year of hunger, malnutrition and infectious diseases.
- Approximately 80% of the population in the less developed capitalist countries did not have access to personal health services, with worse environmental health services, due to lack of sanitation.

According to Ahmad, Lopez and Inoue (2000) the earlier UNICEF Review, covering the period from 1960-90 yielded an estimate of 11 million childhood deaths in 83 developing countries during 1992. The most recent review covering the period 1960-96, produced an estimate of 10.9 million childhood deaths in 94 developing countries during 1996. Ahmad et al., (2000) lastly state that the numbers are not directly comparable but they suggest reduction in overall mortality among the children under the age of 5.

The definition of PHC as determined at Alma-Ata is, "Primary health care was essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country could afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both 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 of individuals, the family and 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" (WHO/UNICEF, 1978).

## **2.7. Principles and Components of PHC**

The following are the principles of the PHC model

- equitable distribution of resources;
- community participation; and an active involvement of the community in decisions about health and health services;
- appropriate technology, acceptable and relevant to the conditions in which it will be used;
- inter-sectoral cooperation, because health is affected by policies in many other sectors such as agriculture, education, and housing;
- promotion of health and prevention of disease should be emphasized while not excluding curative care.

The following were listed in the Alma-Ata declaration as the essential or minimum components of the PHC:

- health education;
- adequate food supply and promotion of good nutrition;

- safe water and basic sanitation;
- maternal childcare, including birth planning;
- immunization against the major infectious diseases;
- appropriate treatment of common diseases and injuries;
- provision of essential drugs.

According to Swanepoel (1999) poverty, poor physical and social conditions, such as lack of adequate access to safe water, poor housing and sanitation, have impacted negatively on the health status of a large proportion of the population of South Africa. The above mentioned principles should be the guiding objects for any country that wants to adopt the PHC health model into their health service systems, and they should be upheld by anyone within the health sector.

## **2.8. The African Situation of PHC**

According to WHO (2003a) in the African Region, most health care reforms have resulted in health policy frameworks that are based on the concept of primary health care, although implementation has taken different forms. In general, multicultural collaboration has been limited. Financing constraints have also impacted on the level of technical support to peripheral staff and on the development of referral and communication systems. Although output indicators for selected disease-control programmes have improved, the impact on equity, access to care and health status is limited. Efforts are being made in some countries to enhance participation of the rural community and a sense of ownership. Strengthening the district level continues to be a complementary strategy for reinforcing primary health care, thereby improving access of the poor to services (WHO, 2003a).

Dennill (1999a) asserts that in the 1960's and the 1970's there was economic growth, which was accompanied by a modest expansion of health care, both geographically and

technologically. However, since then, political instability and conflict in many areas as well as a global economic recession, frequent droughts and the AIDS pandemic, have all had negative effects on the health status of Africans. To deal with the deteriorating health standards of the African inhabitants, in September 1987 the African leaders organized the Bamako Initiative, to recover health care cost in sub-Saharan Africa, and this plan was endorsed by the Organisation of African Unity. The objective of this initiative was to strengthen and improve health services as well as produce a health system that functioned adequately, especially at district and local levels.

This initiative was followed by the Accra initiative; this was an international forum on health which was held in December 1991 in Accra, Ghana, to look at economic development and ways to break the cycle of poverty and inequality. In this initiative it was agreed that countries in the region should develop and implement development strategies to improve the continent's poor health environment by creating health opportunities and access to knowledge and skills. It was believed that after the success of such strategies, the health status of the community would improve (Dennill, 1999a).

## **2.9. PHC in South Africa and Swaziland**

### **2.9.1. South Africa**

Dennill (1999b) asserts that the South African health systems has evolved from different origins; the main contributors being Western medicine and the various African cultures with their traditional tribal medicine. The main existence for the health department is to ensure access for everyone to good quality health care. To achieve this, the government must create, monitor and change when necessary the framework or system in which health is promoted and the way health care is delivered, and to also be a major provider of services. According to Dennill (1999a) a committee on PHC in 1986 produced a document with strategies or plans to implement PHC in South Africa. The strategies determined were as follows:



- to make information concerning the prevailing health problems and the methods of prevention and controlling them, available to the population;
- to promote the provision of food and proper nutrition;
- to ensure an adequate supply of safe water and basic sanitation;
- to ensure the provision of maternal and child services;
- to ensure immunization against major infectious diseases;
- to prevent and control local endemic diseases;
- to appropriately treat common diseases and injuries and
- to ensure the provision of essential medicines.

These strategies are in-line with the components and principles of the Alma Ata Declaration, as envisaged in the WHO PHC document, which function as guidelines for every country planning to implement the PHC model. The South African Health policy document (1997) affirms the government's commitment towards the provision of PHC through the District Health System. It sets a lot of functions that need to be performed at a district level in order to have an efficient PHC model. Amongst others it encapsulates the provision of health promotion services, monitoring and evaluating health and health services and acknowledging the role that could be played by the private sector in the national health system.

According to Dennill (1999b) the changes planned for the health services in 1994 were primary health care based, and aimed to decentralize services with the emphasis placed on community care. Some of the changes that were brought by the new democratic government were the formulation of the Primary Health Care package (2000) by the National Department of Health. This package provides basic guidelines which must be observed by any personnel in the health services sector, with specific reference to Primary Health Care. It looks at issues that range from the patients charter to the equipment that should be made available in such centres. According to this document

access to clinics should be measured by the proportion of people living within 5kms of the clinic. The issue of reproductive health is also mentioned and guidelines of providing such services are stipulated. This package revives the clinic from being viewed only as an immunization centre, since a lot of services are now expected to be provided at this level. This model may have failed due to the impracticality of the proposed 5km radius; it would have been hard for the government to implement such a costly model. The other probable cause of its failure might have been its emphasis on immunization and ignoring other important aspects of PHC (Dennill, 1999b).

### **2.9.2. Swaziland**

Swaziland adopted a primary health care strategy in 1983. Prior to this the health care system was largely urban based and curatively biased. As a result it catered for a small population. The introduction of the PHC strategy and the provision of preventative and promotive services have received much attention and is strongly encouraged in rural areas, which were largely neglected by the curative strategy. Consequently, the Ministry of Health has come up with a comprehensive health facilities hierarchy which is being implemented throughout the country. Preventative services are designed to prevent disease and illness before they occur thus reducing the need for curative services. To achieve the preventative strategy the Ministry of Health has devised a number of projects which are now being implemented. The Health Education Unit and the Rural Health Motivators (i.e. Village Health Workers) are the main agents for achieving the Preventative Services Strategy. The Rural Health Motivators are community based health care providers and there is one per 25 to 30 households. Health Education covers the following:

- environmental health
- immunisation
- control of diarrhoeal diseases

- acute respiratory infection control
- maternal health and family planning
- promotion of young child feeding and growth monitoring
- aids prevention and control
- tuberculosis control programme, and
- other public health programmes

In order to accomplish its mission of health for all by the year 2000, the Ministry tried to reach everyone by establishing health facilities all over the country, encouraging community participation in the provision of health facilities and care, co-ordinating the efforts by the private sector and church organizations to provide health facilities and care, as well as incorporating traditional health care with modern methods (National Dept. Of Health, 2002).

#### **2.10. Rural service delivery**

Green (1999) perceives the issue of health provision as determined by health planning. He states that health planning falls into two broad types: activity planning and allocative planning, the former refers to setting of timetables which can be monitored and schedules for the implementation of pre-set activities. The latter refers to the decisions on how resources should be spent. He continues to assert that planning helps in working towards devising strategies on how to deliver on some of the health objectives.

According to Friedman (2003) many of the challenges to social service delivery in rural areas are similar to those faced in central cities and metropolitan areas. Other social service delivery challenges are more formidable in rural locations. For example, ensuring access to affordable and adequate child care and convenient and reliable transportation is especially difficult in geographically isolated areas. Encouraging economic development in these areas is also a challenge (Pindus, 2001). Rural communities often lack the

infrastructure needed to attract businesses, and the expenses associated with development can be high; both factors limit job opportunities. Less commercial development and lower per capita incomes limit local tax revenue in rural areas which may mean fewer resources for social services (Friedman, 2003).

Much of what is said by Friedman (2003) is true, but one cannot help noticing cases within her deliberations where certain information has been suppressed. It is true that rural communities find it hard to attract businesses because of their lack of infrastructure. It is the authors view that infrastructural development in urban areas was not solely financed by “out of pocket” contributions made by urban inhabitants but provided by the state together with the private sector. It is, therefore, fallacious to talk of rural lack of infrastructure as if it based on the rural peoples lack of contribution, without acknowledging that most development projects and programmes of governments were mostly focused at improving the general welfare of the urban communities and its infrastructure.

Liberals might argue that great infrastructural development in urban areas is due to the fact that urban dwellers pay tax (in a form of rates), which their rural counterparts do not do. However, most urban areas owe their development to the huge labour supply of rural areas whose population are paid meagre salaries prohibiting them from opportunities to venture into economic activities apart from selling their labour.

Friedman (2003) also argues that the costs per capita associated with service delivery tend to be higher in rural areas because of their lower population density. With the current decline in state revenue, state agencies are re-examining their priorities in service provision. As state agencies strive to provide the most comprehensive support in the most cost-effective manner, low-income residents of rural communities bear the brunt of diminished services.

### **2.11. Rural health services**

Serkkola (1994) asserts that in the developing countries, the majority of the population live within the influence of various co-existing medical systems. Because of this, he states that the patient and his/her family can use different treatment methods for the same illness; this is called medical pluralism or a pluralistic medical system. This is also true in the case of South Africa and Swaziland where, one finds that there are traditional medical practitioners coexisting with modern medical doctors (King, 1999). The role of traditional medical practitioners in health, especially rural health will be discussed later on in this review.

Friedman (2003) asserts that access to reliable and affordable child care is another challenge for rural families. She sees this as due to the limited number of skilled and available childcare providers. Her view is that childcare centres are widely scattered, meaning they are far beyond reach of rural inhabitants due to distance, and concludes that center-based care is typically not an option for rural communities. Building a training infrastructure that includes basic training on child safety and development as a support initiative to existing care is advocated as a possible alternative. Ormond, Walin and Goldenson (2000) state that the demographic and socio-economic profile common to rural communities also influences the demands placed on the health care system. Rural areas in general have greater concentrations of elderly people than do urban areas. An older population is more likely to have chronic health care needs, which can place a heavy burden on communities that may already face provider shortages, and older people may be less able to travel to obtain health care services. According to the National Rural Health Association (1999), which is based in the United States, rural areas have a more limited supply of primary care practitioners and other health care providers. In addition, low population density makes it difficult to deliver services targeted to persons with special health needs. Residents of more remote areas are less likely to have coverage. The

uninsured are also more likely to go without or postpone health care, resulting in their illnesses becoming more critical and more costly to treat.

The RDF (1997) asserts that diseases of poverty, such as infectious, maternal, infant illness and mortality are all too common in rural areas of developing countries. A high number of rural children die of easily preventable illnesses; all of these conditions could have been eliminated if proper health services had been provided. The Integrated Sustainable Rural Development Strategy (ISRDS, 2000), does not give in-depth discussions and acknowledgement of the health problems in rural areas, unlike its counterpart the Rural Development Framework, the ISRDS mentions the prevalence of HIV/AIDS infected rural people, and mandates the relevant state departments to devise strategies to deal with this pandemic in South Africa.

#### **2.12. Politics and Health Care**

According to Hague and Harrop (2001) politics is the activity by which groups reach binding collective decisions through attempting to reconcile differences among their members. When applied in the context of health care this would include understanding the politics of the health policy process which entails understanding major institutions involved in the political process, how these key players interact and the ways in which health policy decision-making can be influenced and how individual decisions of political actors ultimately are translated into policy choices.

Politics does not only influence the formulation of health policies in the country. The issue of government health expenditure is not solely an economic factor but it is also politically influenced. The political environment plays a pivotal role in the state of health and welfare of the people. In a country where there are civil wars, such environments can be regarded as hostile, and it could lead to the loss of health personnel. For example Ntuli reported in 2000, on the 17th December in the Sunday Times that Zimbabwe has lost

more than 4000 doctors and nurses due to the rigid political landscape of that country, that meant fewer personnel to deal with the daily influx of patients. In South Africa, a country where huge gaps exist between salaries within the public and private sector, politicians can be caught up in a situation where they have vested interest in health companies which they are supposed to regulate. If these politicians get their way and such transactions take place it becomes difficult for government to regulate the health sector, especially the private. Within the political environment especially during the eve of elections, the quality of health care and how it should be provided becomes issues of power contestations, which in turn inform the direction the health policies of the campaigning parties should take by looking at the health needs of the people (Ntuli, 2000).

### **2.13. Health Education**

Swanepoel (1999) defines health education as any intentional activity which is designed to achieve health or illness related learning, (i.e. some relatively permanent change in an individual's capability or disposition). Effective health education may thus produce changes in knowledge and understanding or ways of thinking. It may influence, or clarify values and it may bring about shifts in beliefs and attitudes as well as facilitate the acquisition of skills. It may even effect changes in behaviour or lifestyle.

According to Oxfam (1995) the aims of health education are to encourage and enable people to make informed decisions about their own health and behaviour; to take effective joint action for a healthier physical and social environment, to gain control of their health and to increase their influence over the content and quality of their health services. Additionally, it stipulates that effective health education depends on the skills of health workers and the methods they use, which in turn are influenced by their own training. It also pledges people entrusted with initiating health education to understand that, since it is aimed at influencing people's behaviour, it must take into account the

audience's perceptions, beliefs, and practices about health (Oxfam, 1995). Swanepoel (1997) asserts that health education programmes are planned opportunities for people to learn about health and to undertake voluntary changes in their behaviour with regard to health. Such programmes may include providing information, exploring attitudes and values, making health decisions and acquiring skills to enable behavioural change to take place.

According to Oxfam (1995) there are three main approaches to health education, they are not mutually exclusive, and health education is usually more effective if it draws on a range of approaches and methods:

- Working directly with people – health workers advise at clinics or during home visits, have public meetings and discussions, campaigning and pressure groups, practical demonstrations, and conduct health education work in schools and other institutions.
- Working with teaching aids – printed material, posters, films, slides, videos, murals, and flip-charts are among the most widely used. Training courses may include methods of preparing these, in combination with other activities.
- Working with the mass media – radio, audio cassettes, television, video, newspapers and billboards. This is often attractive, partly because it is perceived to be modern; it can be particularly appropriate where there is a widespread access to mass communication systems.

The first two methods could be effective for rural health education in South Africa and Swaziland, especially the first one, because it promotes community participation in health topics through discussions. The third could succeed to a certain level in urban areas, but if rural people are the target it would never meet its desired goals. Most of the rural populations have limited access to television and newspapers and billboards are always



hanging within the cities and the surrounding urban communities. Few make it to rural communities, if ever.

Swanepoel (1999) identified six areas of competencies in health that can be applied to health education programmes, namely, managing, planning and evaluation; communication; educating; marketing and publicizing; facilitating and networking and influencing policy and practice. She further asserts that the community health nurse, in the role of health educator, needs a high level of competence in communication and education.

#### **2.14. Public Policy**

Public policy is the sum of government activities, whether acting directly or through agents, as it has influence on the lives of others (particularly citizens). It can also be viewed as a projected programme consisting of desired objectives and means to achieve them. There are also different levels of public policy: there are policy choices which involve decisions about policy directions; policy outputs are where policy choices are put into action and lastly there is a level of policy impacts that involves looking at the effects of policy choices and policy outputs (Reinicke, 1998; Hill and Hupe, 2002). According to Shannon (1995) a public policy is a law or other action legitimized by government officials, including legislators and judges, and involves decisions regarding the allocation of resources to accomplish a stated goal or purpose. Public policy is a response to demands made by an assortment of organizations and individuals. An important characteristic of public policy is that it includes outputs and what must be actually evaluated.

Shannon (1995) asserts that the public policy process with regard to health is usually highly interactive and includes the following elements:

- **Problem identification:** defines the nature of health care issues and who is affected.
- **Formulation:** utilizes epidemiologic data and studies, expert discussions, anecdotes, public opinion and published viewpoints.
- **Implementation:** is the change directed by rules and regulations, or an allocation of resources that follows a policy mandate.
- **Evaluation:** assesses the outcomes, including both costs and effects, of policy implementation and determines the degree to which the results of the programme matched the anticipated goal.

The support of policy makers, health professionals, and the public for policies that impact public health is influenced, in part, by the strength of the scientific evidence presented (Shannon, 1995).

#### **2.14.1. Health Policy**

Health policy is defined as a set of decisions or commitments to pursue courses of action aimed at achieving defined goals of improving health. Policies usually state or imply the values that underpin the policy position. They may also specify the source of funding that can be applied to planning and implementation of policy and to relevant institutions to be involved in this process. The above assertion when applied relative to health, would mean that health policy is a strategic document with identifiable health problems and strategic positions on how they are/should be addressed in the near future, also taking into consideration the financial implications of such envisaged strategies, in consultation with relevant stakeholders (Hamdan and Defever, 2003).

The issue of people's participation in health policy making becomes a very critical and hugely contested phenomenon, since this study relates to the provision of health services in the rural communities. Singh (2006) points out that with regard to the rural and urban

differences, one finds a situation where the people who participate in greater numbers in such policies are people who reside in urban areas. Such a pattern is informed by the differentials that are brought by the differences in economic abilities, access to information and other resources. It, therefore, becomes important to advocate for the initiation of strategic operations that will ensure that the rural people take advantage of their constitutional right to take part in the processes that are about issues and which will affect their lives. Buse, Drager, Fustukian and Lee (2002) asserts that policy content concerns the substance of actual policies. It ultimately reflects what health issues are given priority by decision makers and equally important, what issues are not. It concerns the universe of possible options for addressing issues that make it to the policy agenda, the agreed goals to be pursued through them, and the means by which they are to be achieved.

According to Dennill (1999c) health policy making is the function of the country's health department and the implementation of policies is a function of the provinces, states or regions. Shannon(1995) states that health policy is not only developed, implemented and evaluated in an interactive process but one that is enigmatic, and responsive to scientific, political, and market forces. Governmental public health is dependent on epidemiology to provide a basis for sound decision making. In addition he states that providers and producers of health care as well as health care advocates are major contributors to the policy process (Dennill, 1999c).

#### **2.15. White Paper on the Transformation of Health services in RSA (1997)**

This white paper serves as a directive to how health services should be provided in the country, has outlined various services that should be provided, and the type of health personnel that is deemed capacitated to deal with such services; to mention but a few. Health education is envisaged to be provided by PHC nurses and health educators,

immunization by PHC nurses, nutrition/dietetic services to be provided by nutritionist and dieticians (RSA Health Policy, 1997).

There are also a number of commitments made in this policy document, such as the goal to provide for an increase in the average number of public PHC consultations per person from a low baseline of 1,8 in 1992/93 to 2,8 by the end of the century (2000) and to 3,5 over the following five years. Priority will be given to the most underserved areas and the intention is to bring the provision of PHC services for the poorer two thirds of the population up to the level of that for the better off one third by the year 2000 (White Paper on Health, 1997). As the target year has passed it remains to be seen, at to whether such a goal is met.

There are numerous elements that are envisaged as important in the provision of health care. Prime amongst these is the issue of community participation, environmental health factors which includes the issue of water and sanitation. It also acknowledges the factor of promoting private and public health service provision, but states that most services should be provided by the public sector, and also alludes that there is a dire need for the training of community health workers and health managers (National Department of Health, 1997).

#### **2.16. National Environmental Health Policy of Swaziland (NEHP) (2002)**

This policy document became the guiding document with regard to health care provision in the Kingdom of Swaziland since the National Health Policy was tabled in cabinet for approval. This policy is still being scrutinized by government officials and its status is reported as a document still awaiting approval. This policy document has identified problems like the "brain drain" within the country's health sector from which a large number of health professionals are leaving for better paying jobs in other countries. This policy is based on the principles of Primary Health Care. It stipulates that the

Government will ensure that there are special environmental health intervention measures in respect of the peri-urban and urban, rural population and special groups such as children and workers in farming, mining, factories, hospitals and others who justify such measures.

It also acknowledges the role training and research could play in environmental health. It addresses issues like water and sanitation; liquid and solid waste management; occupational health and safety; occupational epidemiology; vector and vermin control; pesticides control; toxicology; control of dangerous and hazardous chemical substances; control of dangerous radioactive materials and articles; food hygiene and safety; meat hygiene; milk, dairy and dairy products; community participation and hygiene education; environmental health impact assessments; risk assessment; sport health activities; air pollution; noise pollution; water pollution; healthy housing; environmental health manpower development and management; education of public on environmental health issues; mental hygiene; emergency preparedness and response and cemeteries and burial places. In terms of the implementation of the policy, it is envisaged in this document that the Ministry of Health and Social Welfare should develop effective strategies and action oriented plans, in line with activities already identified, in the organizational structures for the environmental health cadres for monitoring and evaluating the implementation of this policy; and that the Ministry must also consider specific strategies that will enable it to carry it functions. These include capacity building, working with existing structures of the Ministry, information education and communication, intersectoral collaboration, management of information systems and use of national government and traditional leaders. Lastly it stipulates that The Environmental Health Policy requires political will, support and participation of all the leaders in the Chiefdoms and Tinkhundla (local governments) (National Dept. Of Health, 2002).

## **2.17. Nutrition and Health**

The type of food that people eat is predetermined by their cultural and regional location with respect to climate and also financial factors. The most deciding factor in what people in Africa consume, relative, to those in the Oceanic region or Latin America can mostly be attributed to cultural and climatic significance (Fieldhouse, 1995). In the light of all of the above, whether one eats beans or papaya, it is important that people consume food that has the necessary and required nutritional quantities. The lack of certain food elements in ones physiological system can lead to numerous nutritional deficiencies which causes ill health, or disease. According to Oxfam (1995), people become malnourished if they have too little to eat, their diets are wrongly balanced and they suffer prolonged illness and infection. Malnutrition usually results from a combination of these factors, since malnutrition affects the incidence, severity, and duration of infections. While infections predispose a person to malnutrition, malnourished mothers may produce low-birth weight babies, who are in turn more vulnerable to illness.

Morley (1994) postulates that, in urban areas, malnutrition occurs mostly in the families of low socio-economic status and whose home are broken and are likely to exist on just one staple food. In rural areas of poor countries malnutrition is endemic and often seasonal. This is related to a period of the year when food for the whole family is in short supply and the children's limited food intake is diminished by frequent infections such as measles. Oxfam (1995) points out that there are numerous types of malnutrition; there is protein energy malnutrition which is a consequence of inadequate food intake. It presents itself in two forms, (i.e. marasmus and kwashiorkor). The former describes the state of a child who is severely undernourished and whose weight falls below 60 percent of the expected weight for age, and the latter's main feature is oedema (swelling), especially of the child's legs and feet and around the eyes. The most common deficiencies are those of vitamin A, iron and iodine, vitamin C deficiency (scurvy), vitamin B1 deficiency (beriberi) and niacin deficiency (pellagra).

According to Meade, Florin and Gesler (1988) the interaction between nutrition and disease is two-way. In themselves deficiencies of minerals and vitamins constitute diseases, but malnutrition also makes the body more susceptible to disease. Antibodies are not produced quickly or abundantly, tissues heal slowly, bones are more easily broken and membranes become permeable. A malnourished person is more likely to get sick. Meade et al., (1988) asserts that beyond any environmental influences on food supply, looms the power of cultural preference, prescription, and prohibition. Swine would fit in well with Middle Eastern agriculture, but there are religious injunctions against eating pork.

According to Morley (1994) malnutrition is essentially a problem of poverty and its prevention is the responsibility of politicians and those concerned with improving socio-economic conditions. Food handouts by medical centres are not appropriate. The responsibility of the health worker is to evaluate the state of nutrition in a population and to try and ensure that all children grow regularly and adequately. To see that children grow regularly, some system of monitoring is essential and, in an attempt to make this possible, growth charts have been widely recommended by international organizations like WHO, UNICEF and Save the Children Fund.

### **2.18. Environmental Health**

Environmental health is defined as; those aspects of human health, including quality of life, that are determined by chemical, physical, biological, social and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling and preventing those factors in the environment that can potentially affect adversely the health of present and future generation (WHO, 1990). Environmental health as an important element of PHC can be used to advocate for the availability and accessibility of water and sanitation services, since lack of clean water is an environmental health risk (Kebbede, 2004).

Oxfam (1995) states that environmental and public health is concerned with the management of aspects of the human environment which affect human health. These include domestic water supply, human waste disposal, solid waste and wastewater (sullage) disposal, drainage and housing. The primary aim of environmental health interventions is to reduce the spread of communicable diseases that are transmitted through water, faeces, and by insect and rodent vectors. As envisaged in the National Health Act of South Africa (2003) sub-section (c)(ii) there should be a promotion and the protection of the people's right to an environment that is not harmful to their health and well-being. This shows the role played by the state of the environment on the health status of the people.

According to WHO (2005), environmental health risks happen in various settings. Health problems associated with indoor smoke from solid fuels most often occur in poor rural settings and underserved urban areas, usually in cold climates where windows and doors of houses are shut to preserve heat. Smith, Carvalan and Kjellstrom (1999) estimates that 25-33% of the global burden of disease can be attributed to environmental risk factors and state that children under 5 years of age seem to bear the largest environmental burden, and the portion of disease due to environmental risks seems to decrease with economic development. WHO (2004) states that each year, outdoor air pollution causes an estimated 800 000 deaths from lung cancer, cardiovascular and respiratory diseases worldwide. It also increases the incidence of chronic bronchitis and acute respiratory illness, exacerbates asthma and coronary disease, and impairs lung function.

Northbridge, Stover, Rosenthal and Sherardl (2003) argue that most environmental health risks factors within countries are distributed along, class, racial or ethnic lines and environmental injustice refers to such patterns within the environment. Credit for drawing attention to the unequal burden of environmental exposures borne by communities of colour and impoverished places goes to the grassroots activists, largely women, who first



raised concerns about potential health effects. According to Roche, 1994 (cited in Wisner and Adams, 2002) political turbulence in many regions of the world has also increased the numbers of refugees and displaced persons fleeing complex emergencies and disasters, who often congregate in large camps where environmental health measures are insufficient. Their vital needs are urgent and massive. This leads to aid agencies being increasingly forced to challenge the orthodox distinctions between development and relief in the attribution of roles among government and nongovernmental organizations. Evident from the above statements is that certain environmental health risks factors cannot be addressed by a single institution. Inter or intra-governmental co-ordination can play an important role in ensuring that such matters are addressed in a multi-disciplinary manner (Wisner and Adams, 2002).

### **2.19. Public Health**

Public health is an aspect of health services concerned with threats to the overall health of a community based on population health analysis. It generally includes surveillance and control of infectious disease and promotion of healthy behaviors among members of the community (Schneider, 2005). McMichael and Beaglehole (2000) define public health as the art and science of preventing disease, promoting health, and extending life through the organized efforts of society. Beaglehole and Bonita (2004) points out that all definitions of public health have in common the idea that public health is defined in terms of its aim to reduce disease and maintain and promote health of the whole population rather than by theoretical framework or a specific body of knowledge.

The following are essential elements of modern public health theory and practice (Beaglehole and Bonita, 2004):

- the emphasis on collective responsibility for health and the prime role of the state in protecting and promoting public's health;

- a focus on whole populations;
- an emphasis on prevention, especially a population strategy for primary prevention;
- a concern for the underlying socio-economic determinants of health and disease, as well as the more proximal risk factors;
- a multi-disciplinary basis which incorporates quantitative and qualitative methods as appropriate and,
- partnerships with populations served (Beaglehole and Bonita, 2004).

Brush, Green, Gaffney, Kattwinkel and French (2005) assert that ensuring that critical public health research findings result in real benefit for the health of the public can be a challenge. McMichael and Beaglehole (2000) state that the scope of contemporary public-health analysis must, therefore, encompass two larger-scale dimensions. First, the reduction of social and health inequalities and secondly, striving for health sustaining environments, to deal with the advent and consequences of globalization on population health. To deal with the impact of globalization leading to the failure of the market to distribute health benefits to people who need them, Reich (2002) stipulates that partnerships between public and private organizations are often seen as offering an innovative method with a good chance of producing the desired outcomes, but warns of the problems that are often brought by such partnerships.

Public health faces numerous challenges, amongst them is the prevalence of HIV/AIDS and the lack of funds to keep up with rapid technological developments within health services, especially in the developing countries. According to Beaglehole and Bonita (2004) a major challenge facing public health is to sustain and extend the health gains that have been made over the last half century and to ensure that setbacks are reversed.

## **2.20. Water and Sanitation**

The issue of water supply cannot be distinctively discussed without looking at the different types of water sources. According to Oxfam (1995) the first step in designing or improving any water supply is the selection of a suitable source. Water that is available in streams, rivers, lakes and marshes is called surface water and water that has penetrated into the ground and, in some hilly and mountainous locations, emerges as springs, or water that can be lifted from wells or boreholes, is called groundwater. It also asserts that in general, surface water is very likely to be contaminated, and should always be considered unsafe without treatment. The minimum daily water requirement for drinking and cooking is 3-5 litres per person. In addition it asserts that WHO recommends a domestic supply of at least 15-20 litres for all other uses, including hand-washing, bathing, clothes-washing and domestic hygiene (Oxfam, 1995).

When South Africa's first non-racial democratic government took power in April 1994, the country's population was just over 40 million people. Of these, 15.2 million (12 million of whom lived in rural areas) lacked access to a basic water supply and 20.5 million lacked basic sanitation (Muller, 2004).

According to the Rural Development Framework (1997) water is essential for improving both health and the standard of living of rural populations and for the development of the land and other enterprises. Sanitation covers the control of public water supplies, excreta and wastewater disposal; refuse disposal, control of vectors of disease, housing conditions, atmospheric conditions and the safety of the working environment. Hygiene disposal of wastes should be the underlying objective of sanitation programmes (National Dept. of Land Affairs, 1997).

According to WHO (2003c) around 1.1 billion people globally do not have access to improved water supply sources whereas 2.4 billion people do not have access to any type

of improved sanitation facility. About 2 million people die every year due to diarrhoeal diseases; most of them are children less than 5 years of age. The most affected are the populations in developing countries, living in extreme conditions of poverty, normally peri-urban dwellers or rural inhabitants. Among the main problems which are responsible for this situation are: lack of priority given to the sector, lack of financial resources, lack of sustainability of water supply and sanitation services, poor hygiene behaviours, and inadequate sanitation in public places including hospitals, health centres and schools. Providing access to sufficient quantities of safe water, the provision of facilities for a sanitary disposal of excreta, and introducing sound hygiene behaviours are of capital importance to reduce the burden of disease caused by these risk factors (WHO, 2003c). Water supplies and sanitation are vital components of PHC. Contaminated water and poor hygiene are the major causes of diarrhoeal diseases, which are highly prevalent among poor people living in crowded conditions with inadequate facilities (Oxfam, 1995).

Adams (1999) asserts that 80% of all diseases in the world are associated with unsafe water or poor environmental hygiene. The improvement of water supply, sanitation, sewerage and waste disposal are among the most efficient means of controlling environmental health hazards together with measures in controlling use of chemicals and improvement of hygienic practices. Water supply may be improved by various means which all depend on environmental conditions. In humid environments there are usually several options available (surface water, ground water, rainwater harvesting), whereas in arid areas there might be only one option, and even this may be far away.

Adams (1999) states, that the benefits of sanitation are seen as mainly potential and hypothetical. It may be that the improvement of sanitation reduces health risks and in the long run, the environmental costs of neglected sanitation and waste treatment becomes higher than those accrued through active development of sanitation sewerage. Therefore,

the households and municipalities tend to neglect the development of sanitation especially in cases where there are several other productive development needs.

## **2.21. Water and Sanitation policies**

### **2.21.1. South Africa**

- **Water Supply and Sanitation White Paper (1994)**

The policy document serve as a directive as to who, how and why resources should be provided as envisaged in the White Paper. The White Paper on water supply and sanitation, deals with issues of access to water and sanitation. It does not include quality assessment measures of such services. However, it acknowledges the importance of such elements in water and sanitation provision. It mandates the Department of Water Affairs and Forestry to formulate other policies that will include aspects of water quality assessment and the necessary procedures. According to this policy document, there should be a provision of 25 litres of water per person per day, which is 5 litres more than what the WHO recommends. This paper notes the need for the Department of Housing and Department of Water Affairs and Forestry to work with other departments in the provision of sanitation. It states that the sanitation policy should be conversant with that of housing. This policy document states that the management and implementation of sanitation services lies with the local government/local authority. Water is recognized as a basic human right, the suppliers of water are urged to ensure that if ever there is a cut in water supply, it should not take longer than a week to fix (National Department of Water Affairs and Forestry, 1994).

- **National Sanitation Policy (1996)**

This Policy might be viewed as a continuation of the Water Supply and Sanitation White paper. It looks at the issues that were deemed important in the Water Supply and Sanitation White Paper and it addresses some of the issues that were not discussed in

detail in the afore-mentioned policy document. This paper was prepared with an interdepartmental approach to issues. It involved 6 ministries, ranging from Water Affairs, to Housing, Education, Constitutional Affairs and Provincial Affairs and Health. This policy document aims to improve the health and quality of life of the whole population, based on the fact that improved sanitation leads to a reduction of the incidence of diseases. The impact of improperly managed sanitation systems on the environment are acknowledged especially, their impact on water, since water contamination through defaecation can cause deadly gastrointestinal infections.

The role of community participation in sanitation projects is also alluded to, and the need for programmes that would ensure that women and children are able to participate is seen as a necessity in this policy. The main responsibility for providing household sanitation rests with the family or household. The role of local government is to help make this possible, or to carry out those functions which can be done more efficiently at a community level. Local government responsibilities in respect of sanitation include:

- provision of communal infrastructure (planning, programming, and financing);
  - operation and maintenance of infrastructure;
  - communication with consumers (agreeing with standards, setting tariffs, collecting revenues);
  - maintenance of public health (health education, pollution prevention and control);
  - promotion of development (facilitating community involvement);
  - setting basic minimum standards and levels of service; and
  - monitoring and evaluation.
- **National Water Act (36 of 98)**

The purpose of this Act is to ensure that water resources are protected, conserved, managed and controlled in ways that take into account amongst other factors: meeting the needs of future and present generations and the facilitation of social and economic

development. In terms of section 52(1), the Minister of Water Affairs and Forestry, in concurrence with the Minister of Finance, might establish a pricing strategy for charges for any water use within the framework of existing relevant government policy. The issue of water pricing is also envisaged in the Water Services Act (108 of 97). The provision is also made for the formation of water user associations and local water committees.

### **2.21.2 Swaziland**

- **National Environmental Health Policy (2002)**

According to this policy document, low levels of coverage for water supply and sanitation are of great concern and require priority attention. In the wake of the cholera epidemic (2000), provision of water is needed to reduce the burden of time devoted to carrying water by rural women and children, and limiting water-and excreta-related diseases that have very high prevalence rates in the country. Since water and sanitation are deemed as important determinants of environmental health, this policy document deals with the issues of water supply and sanitation with the aim of improving the environmental health status of local people. Community participation in health care is also mentioned in this policy document. The committee was formed as a forum through which people's needs and concerns about health were heard (National Department of Health, 2002).

- **Draft National Water Policy (2000)**

In the preamble of this policy, water is regarded as an important resource in the lives of the people of Swaziland and it needs to be carefully managed and efficiently utilized. It is clearly stipulated in this policy that everyone has a right of access to safe and clean water for basic human needs. The use of water for basic human needs shall take precedence over all other uses of water. The Government recognizes their social obligation to ensure

and protect the right of all people to water for basic human needs but shall not be obliged to supply water to private farms.

All people are entitled to a minimum of 30 litres of safe and clean water per capita per day at a cartage distance of not more than 200 metres. In water development infrastructure, priority is given to properly settled communities. The daily policy mandated minimum entitlement of water in Swaziland is 5 litres more than the South African case which is 25 litres and is 10 litres more than the daily entitlement recommended by WHO. This policy mandates the formation of associations and water sector institutions, for the co-ordination of stakeholder participation and decentralizing responsibilities for water resource management.

- **Water Act (7 of 2003)**

This legislation document firstly envisaged the formation of a National Water Authority whose responsibility is to review the water master plan and also advise the Minister on the appointment of the persons to serve on the Joint Water Commission. Water permits and rights are also covered in this Act. According to section 34 subsection (1) of this Act, any water found naturally in Swaziland is hereby declared as a natural resource; subsection (2) states that there shall be no private right of property on any water found naturally in Swaziland. In a nutshell, the Swaziland Water Act no 7 of 2003 deals with structural issues, permit applications and managerial issues. It also deals with strategic points of responsibility allocation to certain Kingdom associations, committees and boards with regard to what their functions are; the formation of relevant water institutions that would ensure that this Act is respected and adhered to by the citizens and the Government. Moreover, it also deals with the procedural protocols that need to be followed if certain organizations need to be provided with water for their primary objects.



## **2.22. HIV/AIDS and Primary Health Care**

According to Oxfam (1995) the Acquired Immune Deficiency Syndrome (AIDS) is a disease caused by the Human Immune Deficiency Virus (HIV). HIV and AIDS have far-reaching social and economic consequences for individuals and their families, for local communities, and for states. The brunt of HIV/AIDS is felt in developing countries, particularly sub-Saharan Africa, but also in many parts of Latin America, the Caribbean, and Asia, where already overloaded health services are being stretched to breaking point. Tarantola and Mann (1994) assert that AIDS was discovered in 1981 and since then the HIV/AIDS pandemic continues to expand relentlessly and its magnitude has increased over hundredfold. WHO (2003b) state that 42 million people are currently living with HIV/AIDS. Expanding access to antiretroviral treatment for those who urgently need it is one of the most pressing challenges in international health. Providing treatment is essential to alleviate suffering and to mitigate the devastating impact of the epidemic.

According to WHO (2003b) Southern Africa is the epicentre of the worldwide AIDS pandemic. South Africa has over five million people living with HIV/AIDS, more than any other country. A comprehensive response to HIV/AIDS, including preventing new infections, preventing mother-to-child transmission, prophylaxis and treatment of opportunistic infections, dignified end-of-life care and, critically, antiretroviral therapy – is needed to adequately tackle the epidemic. USAID (2005) assert that the Swaziland HIV/AIDS prevalence rate of 38.6 percent is second in the world only to Botswana's rate. The epidemic has affected the small Kingdom in dramatic ways. Approximately 50,000 children have lost one or both parents as a direct result of AIDS, and 60 percent of hospital admissions are due to HIV/AIDS-related illnesses. The majority of deaths occur among young people aged 15–49, the nation's most productive population segment.

### **2.22.1 Transmission of HIV**

The comprehension of how this disease is transmitted plays a huge role in devising strategies of how to prevent and cure it and also identifying risks factors that might lead to HIV/AIDS infection. According to WHO (1993) and Oxfam (1995) HIV/AIDS transmission only involves semen, vaginal fluids, and blood. HIV is sensitive to heat, to dryness, and to the sun. It does not spread easily from person to person and is not transmitted through hand shaking, kissing, coughing or sneezing, sharing of eating utensils or communal toilet facilities.

The roles of primary health care centres become a mammoth task when it comes to the issue of this pandemic. As a health model PHC deals with curative and preventative measures of diseases that affect local communities within which they operate. It is important that the essential drugs are made available for treating the infected portion of the population. HIV/AIDS can be transmitted in different ways, there is sexual transmission which is the most common, secondly there are blood transfusions which normally occur, when one gets in contact with infected blood, infected needles, and syringes (Oxfam, 1995).

### **2.22.2 Antiretroviral Therapy and Primary Health Care**

According to WHO (2003) in April 2000, in collaboration with the Provincial Administration of the Western Cape in South Africa, Médecins Sans Frontières(MSF) (doctors without borders) set up three HIV/AIDS dedicated clinics within Khayelitsha's primary health care centres. In May 2001, the HIV/AIDS clinics began to offer ARV treatment to people in an advanced stage of HIV infection. The Khayelitsha ARV treatment project was initiated to demonstrate that treating HIV/AIDS with antiretroviral drugs in a primary health care setting and in a resource-limited environment is feasible and replicable. In addition, it aimed to prove that developing countries can provide affordable HIV/AIDS care with low-cost ARV drugs. USAID (2005) states that in

Swaziland, through the assistance of the US government a lot of antenatal clinics have been set up, to deal with the increasing numbers of pregnant mothers suffering from HIV/AIDS. A lot of progress has been made in providing treatment which prevents mother to child transmission.

WHO (2003b) asserts that the clinics are located within community health centres in Khayelitsha. They provide a comprehensive package of AIDS services that include counselling, support, prophylaxis, treatment of opportunistic infections, ARV treatment and referrals where necessary. The staff in each clinic initially consisted of one physician, one professional nurse and one lay counsellor. One nurse and one counsellor have since joined the clinic teams, to accommodate the increasing number of patients and to develop a nurse-based service model much more suitable to the reality of health services in Africa. The three clinics currently serve over 1800 HIV clients per month. Clients attend with different regularity according to their clinical stage. Lastly WHO (2003b) stipulated that the implementation of a comprehensive HIV/AIDS programme with antiretroviral therapy in a rural area brings unique challenges, most notably infrastructure constraints and limited human resources. Using the experience of Khayelitsha and that of other Médecins Sans Frontières (MSF) programmes elsewhere in rural Africa, MSF is currently developing a model of implementation of HIV/AIDS care, including ARV treatment, in a rural area of the Eastern Cape Province (WHO, 2003b).

### **2.23. Community Participation in Health and Health Care**

According to King (1999) community participation in health care delivery is more than a basic requirement for the attainment of optimal health of the community. As a process of interaction between people to achieve specific goals, it not only gives them the right and opportunity to be involved in decisions that affect their future existence, but also ensures the successful development of the community as a whole. Swantz (1994) asserts that the logic of community participation in health care derives from two basic principles; health

as total well-being, not only of individuals but of communities and health care as the responsibility of people themselves, not only of professionals trained for the purpose. The concept of community participation in the delivery of health services must not only be acknowledged for its value with regard to the prevention of disease and the promotion of health. The role it plays in the empowerment of communities and the elimination of social inequalities is also of paramount importance (King, 1999).

Swantz (1994) stipulates that since the Alma Ata, the concept of Primary Health Care (PHC) has been common currency at least in the health rhetoric. An essential part of it is that a community takes responsibility for its own health. Consequently, issues outside the field of medicine, such as people's economic state, intra-household distribution of income and division of labour are decisive factors in determining the state of health. King (1999) states that community participation in health can be described as the active involvement of people who live together in some form of social organization and cohesion, in planning, operation and control of primary health care, by using local, national and other resources. Community participation in health care simply means that people in the community share in the responsibility of caring for their own health, in creating and preserving a healthy environment, in preventing any factors that could threaten people's health from getting a foothold in that community, and in doing their part for the maintenance of health in general. Making a community participate in predetermined measures is not worthy of being called participation. Planning for social health services and development has often been a top down and administrative practice (Swantz, 1994).

There are three characteristics to note in the concept of community participation, i.e. participation must be active, people have the right and responsibility to exercise power over decisions that affect their lives, and there must be mechanisms available to allow the implementation of the decisions made by the community. No discussion on community

participation can be complete without the discussion of the concept of community development. Community participation, or involvement, is a vital part of community development. It can also be said that community development is a natural result of community participation (King, 1995).

Zackus and Lysack (1998) state that the organization and delivery of health services are also reported to benefit from community participation. They argue that health services are provided at a lower cost, and more resources can be added to the system. It is believed that resources will be directed to the so called 'felt needs' (i.e. needs as defined by the community) of those in the community, and that health activities will be carried out more appropriately when the community is given greater control. The community should, therefore understand that not participating will have a negative impact on what is done in the community as opposed to that which should be done.

#### **2.24. Traditional Medicine and Primary Health Care**

RCAP (1996) and WHO (2003) define traditional medicine as health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being. According to Oxfam (1995) the WHO estimates that 80% of the world's population rely entirely on traditional, alternative or 'informal' health care, either from choice or because there are no formal health facilities available to them. Formal or 'modern' medicine may be the last of many treatments sought by sick people. For example, in Nepal, government and NGO health posts are underused because people prefer indigenous *dhamis* (Indian spiritualist) and *jhankris* (traditional non medical Indian doctors). Serkkola (1994) asserts that in the developing countries, the majority of the population live within the influence of various co-existing medical systems and they live in a situation where a patient and

his/her family can use different treatment methods for the same illness. This is called medical pluralism or a pluralistic medical system.

The Alma Ata Declaration expressed support for traditional medicines, and the WHO Traditional Medicine Programme helps to co-ordinate research and encourage governments to support traditional systems. For WHO and other agencies, an attraction for the incorporation of traditional medical practitioners was the vast labour reservoir of traditional healers who could become primary health workers with only a little formal training. The different forms of traditional health care, can be divided into four broad categories:

- Formal traditions: such as Ayurved, Siddha, Unani, homeopathy, and acupuncture, which usually have written systems and a systematic training for professional practitioners.
- Folk medicine and healing: home cures or cures performed by traditional healers. People may become healers through inheritance, apprenticeship or religious experience. Some healers may specialize in, for example, midwifery, bone-setting, herbal medicine or healing through spirit possession.
- Eclectic market medicine: traders sell a range of substances from tetracycline capsules and bottles of tonics to amulets and herbs. These may be helpful, harmless, or dangerous, particularly if the modern drugs sold are out of date, inappropriate, and sold in single but unmeasured doses, without guidance on their use.
- Internationalized treatments and healing: also known as complementary medicine, such as homeopathy, acupuncture, shiatsu, herbalism, and any form of therapy which becomes professionalized internationally (Oxfam, 1995 and WHO, 2003).

### **2.24.1. Integration of Traditional Medicine into PHC**

This is a widely contested health reform issue in the world. A lot of medical practitioners do not believe it is a good idea to incorporate traditional medical systems into primary health care, whose provision is led by western medicine practitioners (WHO, 2000b). According to Doctors for Life (DFL, 1998) the incorporation of traditional medicine into the health system of South Africa would mean compromising the quality of health care. This is implied in their statement that primary health care should be quality health care not primitive health care. This shows the disregard the DFL has for indigenous knowledge systems and practices informed by such a knowledge system. The DFL continues to argue that medical aid schemes cannot be expected to pay for medicines of unknown content. For example, they have information about a traditional healer in the Gauteng area that was reported to be selling the following concoction for R500: a piece of baboon meat, and burnt car tire crushed to powder, mixed with a few herbs. The contents of medicines for poor marital relationships have been found to contain pubic hair, dirt from under the armpits, the dirt between the toes of patients, sexual secretions (from both the traditional healer and his female patient) together with various herbs (DFL,1998).

DFL (1998) assert that it is generally claimed that African traditional medicine covers 80% or more of our populations. A scientifically sound survey recently done in a very rural area amongst the Venda people in the Northern Province showed that only 37, 8% of the general population preferred the traditional healer. This is in stark contrast with the regular sweeping statement about a much higher coverage. From the above assertions it is clear that the DFL are against the incorporation of African traditional health systems into the modern, currently reputable western health system. There are lots of fallacies in the DFL premise conveying its position with regard to this highly contested health issue. Firstly, to form a basis for their rejection of the incorporation of TMPs into the health system, they speak of one case whereby a lot of despicable concoctions were found in the

content of medicines sold to the people. It shows the DLF's lack of cogent reasoning, because even their premise is questionable in a sense that, one case does not represent all the views and practices of traditional healers. Unless a survey is conducted to thoroughly evaluate such practices and identify patterns that seem to be detrimental to the health of the people the TMPs believe to be curing, then, such claims cannot be entertained.

Secondly, their rejection of the worldwide belief and understanding that more people utilize traditional medicine than modern western medicine, by using the case of a study conducted in Venda, which showed that only 37.8% of the general population preferred traditional healers, In this argument, firstly, the bases of their argument is inappropriate, because using a single case study to reject claims based on more than one region of the world is questionable. A single case study conducted in a community in Venda, does not qualify to be the basis for defying a claim based on substantial worldwide research (WHO, 2002). Traditional Medicine Strategy is a result of sound global research uncovering the wide use of traditional medicine world-wide.

Clarke (1998) asserts that there are currently 90 traditional healers working within the framework of the Valley Trust, in KwaZulu-Natal treating patients with traditional methods if they feel this is appropriate, or referring them to the clinic doctors if necessary. The patients report back to the traditional healers after consultation at the clinics. The incorporation of TMPs into PHC is also supported by the World Health Organization. This was confirmed in 2002, when WHO drafted a traditional medicine strategy, that encourages governments, states or countries to form policies conversant with this strategy, especially those countries where traditional medicine is popular.

According to Mufamadi (2001) there are many cultural practices which people are ignorant of because they have been led to believe that African culture is not valid and lacks civilization. Implicit in this assertion is that, it is due to this ignorance that certain



health professionals are against the incorporation of traditional medical systems into PHC. Other reasons might be due to the fact that, some feel that their profession is undermined if they have to work with people without formal education, while the doctors spend many years of training.

According to Makhubu (2003) traditional medicine has always been used extensively in Swaziland. Most people consult both TMPs and modern clinics in times of illness. Yet, hardly any meaningful exchange has existed among TMPs, modern medical practitioners and scientists. There has also been little interest in medicinal plant research in Swaziland. Recently, conservation of germplasm has received greater international attention with the emergence of biodiversity issues. Swaziland has established a National Environmental Authority that is charged with overseeing environmental conservation matters related to biodiversity. The Swaziland Institute for Research in Traditional Medicine, Medicinal and Indigenous Food Plants (SIREMIFOP) aims at addressing the use of traditional medicine and its alignment with modern health by emphasizing the conservation of plant biodiversity for the purpose of the cultivation of indigenous medicinal and food plants. The approach that has been adopted by this research centre is inline with the sustainability principles. It is trying to ensure that in future the medicinal plants are available for future generations (Makhubu, 2003).

## **2.25. Conclusion**

This chapter has reviewed the theoretical developments surrounding the concept, of primary health care, from its historical development at the 1978 Alma Ata conference, to the examples of the countries that are signatories of this declaration, and it has also looked at their health policy developments concerning primary health care and its provision. It is evident in the literature that primary health care as a model is supposed to be provided at the lowest tier of the community. The people within the communities where PHC is provided, must fully participate in the planning and implementation stages

of PHC. It is also implicit in the literature that despite support by world health bodies for traditional medicine use and its integration into primary health care many governments are reluctant, because modern western practitioners are against such a structural policy move. Unless all the stakeholders reach an agreement, and also fully participate in the integration of these two health systems, this highly contested issue will negatively impact on the health services provided to the public by the health professionals, and the relevant services providers in the health sector.

## **CHAPTER THREE**

### **CONCEPTUAL FRAMEWORK**

#### **3.1. Introduction**

The primary focus of this chapter is to discuss the various approaches that are used in the study of health and health care within the discipline of geography. These approaches are namely; biomedical approach, social science perspective, humanistic approach and the political economy approach. Lastly the perspective that is used in this study will be discussed. According to Moodley (2002) health and health care can only be understood using a multi-theoretical/multi conceptual approach.

#### **3.2. Biomedical approach to health**

The biomedical model, according to Hall (1990) is a conceptual framework which doctors hold or subscribe to, and it forms the base or context within which they define sickness and health and also how they should go about maintaining the health of the population. The biomedical model obviously promotes cure but the conceptual image it promote is more fundamental. Its projects the idea of the human body as a machine, this image of the body as the machine conjure up an assembly of parts, all meshing with each other, each essential to the performance of the machine (Hall, 1990).

This model focuses on the physical processes, such as the pathology, the biochemistry and the physiology of a disease (Lyng, 1990). Wade and Halligan (2004) argue that the biomedical model of illness, which has dominated health care for the past century, cannot fully explain all forms of illness. This failure stems partly from three assumptions: Firstly that all illness has a single underlying cause, secondly disease (pathology) is always the single cause and lastly the removal or attenuation of the disease will return a person back to health. They do acknowledge the relevance of the biomedical model for many disease based illnesses. It has intuitive appeal and supports a wealth of biological findings.

However, it embraces reductionism and combines several closely related sets of beliefs (Wade and Halligan, 2004). These can be summarized as follows;

- all illnesses and all symptoms and signs arise from an underlying abnormality within the body referred to as disease;
- all diseases give rise to symptoms, eventually if not initially, and although other factors may influence the consequences of the disease, they are not related to its development and manifestation;
- health is the absence of disease;
- mental phenomena, such as emotional disturbance or delusions, are separate from and not related to other disturbances of bodily function;
- the patient is a victim of circumstance with little or no responsibility with treatment; and
- the patient is a passive recipient of treatment, although co-operation with treatment is expected (Wade and Halligan, 2004).

Evident in the above submissions are that medical practitioners, as they base their understanding of health, illness and disease on the biomedical model, tend to disassociate the body (person) from the socio-cultural, and economic context within which it exists. This leads to a situation where it seeks the answers for illnesses or diseases only in the body and ignores the influence and impact of the surrounding environment. Hall (1990) asserts that doctors are taught to diagnose the problem and then proceed with treatment. There is little or nothing in their training to provoke an interest in the reasons for illness. Hall (1990) in rejecting certain elements of the biomedical model, such as its focus on the body with disregard for the environment, suggests that medicine or health professionals would understand better the issues of health, illness and diseases if they incorporate the role and impact of the environment on health. He advocates the inclusion of the environmental dimension in understanding of disease and illness, and holds a belief that

certain illnesses are caused by the state of the environment within which the people reside not only dysfunctionalities in the body.

Moodley (2002) states that this perspective asserts that health is largely dependent upon the quality of health care services and delivery and that if health care services and delivery do not operate at an adequate optimum capacity, then it follows that health will suffer.

### **3.2.1. Biomedical model and traditional African cultures**

The biomedical model as it has been developed in the west, its interpretation, views and analysis of health is informed by its culture which is different from traditional African cultures. It focuses on the individual while in African culture the focus, when a person is ill, is the individual, family and community. Based on these differences, the healing process in these cultures takes different approaches. In traditional African culture a healing process of a sick individual starts in the cleansing of his/her household to rid it off, what might be the cause of illness, secondly all family members are given preventative mixtures of healing herbs to prevent infection, and lastly the person is then taken to the healer's home for treatment (Weil, 1997).

The holistic approach of health is embraced in healing the sick in traditional African cultures, while the mechanistic view of the biomedical model focuses on the disease that affects people. Because of the historical and socio-political processes the biomedical approach has developed much in terms of improving health, while the traditional health system has little or none to show. This can be attributed partially to colonialism, which has disenfranchised a lot of indigenous people across the globe (Johnson, 1992).

### **3.3. Political economy approach to health**

Political economy is derived from two major disciplines, politics and economics. Politics deals with power, authority, public life, governance, the state and conflict resolution. Politics has been defined as all those activities and institutions that relate to the making of authoritative decisions for society. Economics has been described as a way of thinking, provision of goods, institution of private property, or institutional realities of the market economy. Political economy goes beyond simple economics, it deals with ways in which politics determines or influences economic activities, or, how economic circumstances and institutions determine or influence political institutions and processes (Okuonzi, 2003). According to Woods (2000) the term political economy is used to describe a number of different things in political science and international relations, from the application of rational individualism to debates over policy with an economic dimension.

Politics is about power relations and economics about distribution of resources, when the political economy perspective is applied to the study of health care, one will have to look at the socio-economic conditions of individuals, their communities and even countries to understand health, illness and diseases. Doyal and Pennell (1981) state that the way health and illness are defined, as well as the material reality of disease and death will vary according to the social and economic environment in which they occur, and they warn that this does not suggest the total abandonment of the physical and chemical laws governing disease mechanisms, but that they must be seen to operate within a social and economic context which is constantly changing.

Okuonzi (2003) asserts that it was at the time of reorganizing the world political economic order at the end of the 1970s that the PHC concept was conceived. However, while the political economy was being propelled by the forces for greater economic growth and prosperity, PHC was being shaped by weaknesses of the global political economy. These weaknesses were the increasing poverty amidst prosperity; inequity

between and within nations; and worsening social and health conditions of the poorer countries. In the above account, it is evident that the political economy approach to health care to a certain instance advocates for the decentralization of health services to ensure greater accessibility to the broader population through the PHC model. The world governments saw the ineffectiveness of a centralized health care model, because of the cost to the government in terms of maintenance and subsidy and to the population in terms of accessibility. It also shows that within this approach, a broader international and local analysis is applied in understanding health issues (Okunzi, 2003).

Illich (1976) a well known critic of medicine argues that depression, infection, disability, dysfunction, and other specific iatrogenic diseases now cause more suffering than all accidents from traffic or industry. Beyond this, medical practice sponsors sickness by the reinforcement of a morbid society which not only industrially preserves its defectives but breeds the therapist's client in a cybernetic way. Finally, the so-called health-professions have an indirect sickening power, a structurally health-denying effect. He also states that the impact of medicine on health can be apprehended by what he calls iatrogenesis of medicine which he differentiates into three types, namely clinical, social and cultural.

- clinical iatrogenesis – comprises all clinical conditions for which remedies, physicians, or hospitals are pathogens or sickening agents. This includes the undesirable side-effects of approved, mistaken, callous or contra-indicated technical contact with the medical system, when pain, illness and death result from medical care.
- social iatrogenesis – when health policies reinforce an industrial organization that generates ill health, medical practice sponsors sickness by reinforcing a morbid society that encourages people to become consumers of curative, preventative, industrial and environmental medicine.
- structural iatrogenesis – through emphasizing technological relief from symptoms, the social environment is deprived of conditions that give individuals,

families and neighbourhoods the autonomy of understanding and coping with their circumstances and feelings.

According to Gerhardt (1995) Illich is not concerned with capitalism, but with the destructive processes of industrialization, by criticizing the role professionals play in undermining individual autonomy, and calls for the recognition of the value to society of the interpretations of pain and suffering which accompany illness and death.

Doyal and Pennell (1981) argue that the dominant economic system (capitalism) has played a huge role in deteriorating health standards of populations, through the creation of industries, whose demand for labour exposed those employed to environments which led to them suffering industrial diseases. They do acknowledge the improvement brought by the system in improvement in standards of physical health as measured by indices such as life expectancy and mortality rates. They further state that the abolition of scarcity in medical provision is necessary but not a sufficient condition for achieving effective health care.

This approach is not a substitute for the biomedical model, but it provides another perspective in understanding health, illness and disease. It emerged from the identification of the limitations of the biomedical model in understanding health and illness/diseases, and aims to provide a window through which people's illness is understood from the impact of living and working conditions to the patterns of social and economic relationships and international forces which inform the exchange of medical knowledge, its technologies and supply. Moodley (2002) states that this perspective urges one to look at national and international imperatives that shape the existing environment and future intervention options and priorities. It is significant since it stresses the need to concentrate on power dimensions associated with health and health care.

The solution that is provided by Doyal and Pennell (1981) is the initiation of the socialist health service, which will ensure that the more technical aspects of medicine cannot be



separated from the social relations involved in its production. It would not only provide equal access to medical care but would also have to address itself seriously to such problems as how to demystify medical knowledge and how to break down barriers of authority and status both among health workers themselves and also between workers and consumers. In conclusion they state that consequently health itself has come to be defined in terms of accumulation and, as we have seen, health objectives will not be pursued if they conflict with profit, as ultimately they must.

### **3.4. Humanistic approach**

#### **3.4.1 Empowerment perspective**

The word empowerment has been broadly defined as an enabling process through which individuals or communities take control of their lives and their environment, and specify that patient empowerment in the health care context means to promote autonomous self-regulation so that the individual's potential for health and wellness is maximised. Patient empowerment begins with information and education and includes seeking out information about one's own illness or condition, and actively participating in treatment decisions (Lau, 2002). This approach puts the patient at the center of health care; every person is believed to have a valuable insight to their health and is thus accorded an opportunity to make decisions about their own health.

Lau (2002) posits that the key elements of empowerment are knowledge, behavioural skills, and self-responsibility. To ensure the success of patient empowerment, enhancement of the working partnership between patients and health care professionals is important and he further states that patient empowerment is intended to enable patients to make judgments about their own illness and to be fully responsible members of the health care team. Patients are seen as experts of their illness and health care professionals as experts on the medical conditions and management of resources.

According to Moodley (2002) the other critical component of the empowerment perspective is the recognition of the rights-based aspect. Here, the underlying premise is that everyone has a right to basic public health services and to determine how they are provided.

The empowerment perspective is a good approach, since it gives patients the autonomy which they are deprived by the biomedical model and also regards people as an integral part of the health care system. It is limited on the basis that in advancing such empowerment, it does not take account of the diverse and ever changing context within which people make decisions and factors or elements that might shape their views and opinions, thus affecting or impacting negatively on their decisions (Lau, 2002).

### **3.5. Social Science Perspective**

The social system in a community relevant to health consists of at least three elements: physical structure, social structure and social cohesion. A community's physical structure has both direct influences on health through exposure to risks and indirect effects through the creation or neglect of health-inducing environments. Social structures in a community are reflected in such things as its meeting places, mechanisms for income redistribution and opportunities for exchange and interaction. This, too, has both direct effects on health, ensuring the availability of basic prerequisites for health, and indirect effects, facilitating collective problem solving or collective identity. Finally, social cohesion is very much the product of the adequacy of physical and social structure in a community, together with such things as the cultural or social homogeneity of a community (Lomas, 1998).

According to Gillespie and Gerhardt (1995) the social model of health sets out a perspective which attempts to find the root causes of disease outside the body: the social production of ill health and disease. This perspective seeks to identify those factors which

will undermine or destroy the health of the individual, and which can be found in social life. Fitzpatrick (1982) states that it needs to be appreciated that culture, understood as a connected pattern of language and beliefs, enters into the very nature of illness. He further states that an important conceptual distinction is frequently made in this context between disease and illness.

Gillespie and Gerhardt (1995) posit that the social sciences find that the concepts of health, disease and illness have far greater complexity than that suggested by the medical model. They note that considerations has to be given to the social, cultural, political, economic factors which influence the environment within which good health may be enhanced or hindered.

In the light of the above submissions it is worth noting that health within the social sciences does not exclude the very person that is a carrier of disease or illness, rather an environment within which the patient lives, his/her historical background are important factors in determining health of the individual. Social scientists like Henry and Stephens (1977) have criticized the biomedical approach to health on the bases that illness is viewed as an isolated occurrence from the lives and experiences of patients and physicians. Although symptoms and illness occur in people who live within socio-cultural frameworks of belief and action, these contexts tend to be ignored by the biomedical approach.

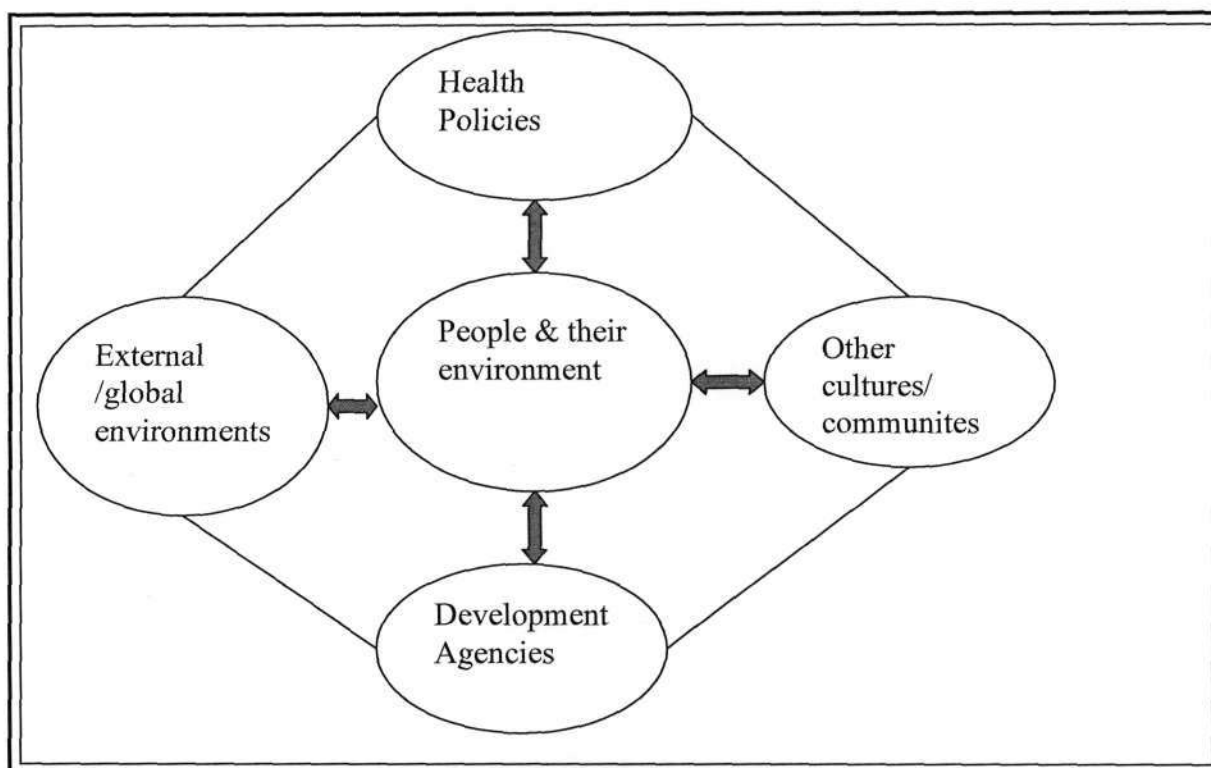
The social science perspective embraces the processes that shape or form part of people's experiences and ways in which they deal with problems, which arise within their environment. It also acknowledges that people's knowledge of illness and how they define it is an important element of understanding health, since within such a context, there exists a traditional health model based on the peoples, historical and cultural

interactions with health, disease and illness and the means on how to restore health or lead healthy lives (Gillespie and Gerhardt, 1995).

Williams and Popay (1994) note that the biomedical model lacks an understating of the experiences of those who have diseases: and this reflects the perceived lack of relevance of such experiences to the framing of medical tasks. This tends to be the limitation of this model, while the social science perspective acknowledges and sees the importance of such experiences in understating health, disease and illness.

### **3.6. Afro-contextual approach to health: an African health perspective**

This perspective is a theoretical viewpoint on health, disease and illness within the African community/ communities. It is called Afro-contextual, because it seeks to embrace all elements either negative or positive in African existence together with external forces that impact both negatively and positively such an Afro-contextual setting, with an acknowledgement also of it ability to do the latter in reverse. This perspective revolves around five characteristics, namely; people and their environment, other cultures or communities (neighbours), external/ global environments, health policy and development agencies. There is a two way interaction between these characteristics, but the central point of this perspective is the people and their immediate environment. It also arises from the identification of the limitations of the dominant approaches or models dealing with health issues in modern society, and the identification that it context is by reference not applicable to an African situation is a primary challenge. Below is a graphical model of this approach;



**Figure 3.1 Afro-contextual approach to health<sup>1</sup>**

This approach is based on the understanding that decision making about health and health care in communities is not only affected by the individual’s immediate environment or availability of resources. It maintains that, there are numerous elements that play a role in making up the health system within the African environment.

Figure 3.1 illustrates the working relationships between the identified elements. This model puts the people and their environment in the center of understanding disease and illness and other factors that have an impact on their health. It acknowledges the impact on health, of elements beyond the individual’s environment and the interconnectedness between people, the external environments, health policies and other cultures and the role of development agencies in African health. The biomedical model will fall within the axis

<sup>1</sup> Adapted from the ideas of Schiele (2000), Mikel (2001) and Airhihenbuwa (1995).

of other cultures, as it is historically not an African developed method, but is used based on illnesses suffered (Schiele, 2000).

These elements are perceived as having a two-way impact on each other, for example people are viewed as affected by the global health environment and that they also influence it processes, with respect to global health policies. It advocates the inclusion of culturally based traditional medicinal expertise in the interpretation of health and illnesses within rural communities.

### **3.7. Conclusion**

This chapter has shown that health can be viewed differently by people, such views or perspectives are either grounded on culture or ones interaction with different worldly elements. All the discussed approaches are just ways of looking at health and some build from the limitations of others and none are provided as substitutes for existing dominant models.

The Afro-contextual model as developed by the researcher based the ideas of other scholars, informs the understanding of the processes that impact and shape health within the African setting. It is an attempt to provide ways through which researchers can view the African health situation, for there exists a lot of interwoven factors which make it up. The five characteristics can be used as the starting point to understanding health in African settings, but does not suggest that such an understanding must be limited to only these characteristics. This perspective acknowledges the existence of rural communities and their role in defining health through the rules of nature as informed by their cultural experiences.

The biomedical perspective focuses attention on individual human behaviour in public health while the social science perspective has broadened the individualistic medical

view but has included a small part dealing with individual beliefs and practices into public health. Basic health care and essential health research needs a multi-faceted approach that combines epidemiological, social, biomedical as well as the political economy perspective (Moodley, 2002).

## **CHAPTER FOUR METHODOLOGY**

### **4.1 Introduction**

This chapter introduces the research approaches (qualitative and quantitative) that have been used in this research study and the data collection strategies that have been applied as informed by the aforementioned approaches. It will also discuss the data analysis methods that have been chosen to analyze this data in trying to answer the research questions that have been posed by the researcher in the first chapter. For the purpose of this chapter it is also important to explain why certain methods have been chosen and how errors have been managed in using the various techniques and strategies.

This research study is both a descriptive and explanatory, in the sense that it aims to describe the health situation in two communities under study and after understanding the problems and the current situation it seeks to address the questions as to why things occur in these communities. It will explain those which are mandated by the research questions and objectives of this study.

### **4.2. Research approaches**

The research data collection and analysis methods are informed by both qualitative and quantitative research methods. This is accounted for by two facts, firstly the nature of the study and its research questions cannot be answered by only utilizing one of the aforementioned approaches. Secondly since this study is carried out within the auspices of the discipline of geography which looks at both the natural (physical) and social (human) aspect of life, there is traditionally an overlapping tendency of research techniques between the two sections of geography. Qualitative methods reveal certain aspects that do not come out clearly in quantitative data analysis.



These two approaches are hardly inseparable within the field of geography because, qualitative approaches ensure that a geographer understands the case under study according to a respondent's view of it, and the quantitative techniques gives such claims representative significance through statistical analysis (Aitkin and Valentine, 2006).

#### **4.3. Research methods**

Qualitative field research, survey research and participant observation are the basis of the data collection methods in this study. According to Babbie (2004) surveys may be used for descriptive, explanatory and exploratory purposes. They are chiefly used in studies that have individual people as the units of analysis, although this method can be used for other units of analysis, such as groups or interactions and some individual persons must serve as respondents or informants. Denscombe (2004) asserts that surveys come in a wide variety of forms, and are used by researchers who can have very different disciplinary backgrounds. They are: postal questionnaires, face to face and telephone interviews, documents and observations. Yates (2004) posits that there are three important aspects to the overall design of survey research namely; measurement, sampling and questionnaire design.

Qualitative field research enables researchers to observe social life in its natural habitat, that is, to go where the action is and watch. This type of research can produce a richer understanding of many social phenomena than can be achieved through other research methods (Babbie, 2004). Participant observation is the method in which the observer participates in the daily life of the people under study, either openly in the role of the researcher or covertly in some disguised role, observing things that happen, listening to what is said and questioning some people over some length of time (Becker and Geer cited in Denscombe: 2004:8).

#### **4.3.1. Participant observation**

This technique was not the primary method of data collection, but it was used to confirm certain answers that the researcher thought needed thorough investigation. The researcher spent two weeks in both communities, living in the community. This method helped in ensuring that the researcher obtained trust from the community members by participating in certain household activities. According to Denscombe (2004) there are versions of participant observation in which the participation element is rather different. Participation, in this sense, means 'being there' and 'in the middle of action'. One possibility here is that the researcher's role as an observer is still kept secret.

#### **4.3.2. Background of the study areas**

The areas that were chosen for this study are Nkanyiweni and Zombodze, the first is in South Africa and the second in Swaziland. Both these countries are within the SADC region and they are classified as lower-middle income countries that would provide rich data with regard to primary health care, based on their historical connectedness with regard to the fact that they were both colonies of Britain. It was, therefore, assumed that the British approach to health shaped their health models.

##### **4.3.2.1. Nkanyisweni**

This community is found in the province of KwaZulu-Natal, and it is within the boundaries of the e-Thekwini Municipality, and situated on the south western part of the Durban CBD. It is situated approximately 34 kilometres away from the CBD and it forms part of the Umbumbulu region. Its traditional authority head is Chief Makhanya and on its southern part there are communities ruled by the Maphumulo clan. The nearest town is Winkelspruit which is approximately 13 kilometres away. Its voting district number is ward 96 and it is under the local governance of the ANC councillor.

#### 4.3.2.2. Zombodze

This community is situated in the southern part of Swaziland. Zombodze lies in the upper Middleveld in the Shiselweni region. It is located approximately 15 kilometres away from the regional capital (Nhlangano). Historically Zombodze (south) was the first royal house of Swaziland, this is where King Ngwane settled after being chased away by the Ndwandwe clan of Zululand. The clan settled at Mhlosheni and then Zombodze, where Ngwane ruled under threat of the Ndwandwe attacks. Modern day Zombodze is now governed through the local traditional authority system and is under the rule of Chief Thwala. The majority of its inhabitants are subsistence farmers.

**Figure 4.1: Map of Swaziland**

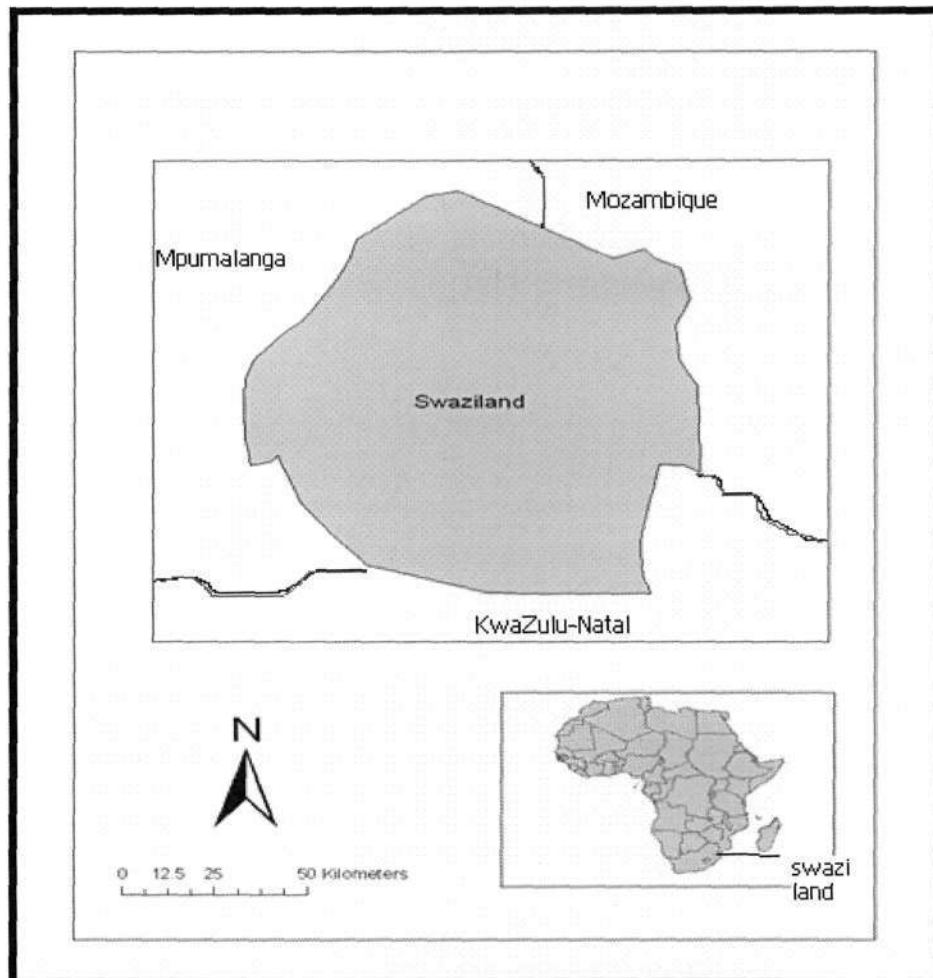
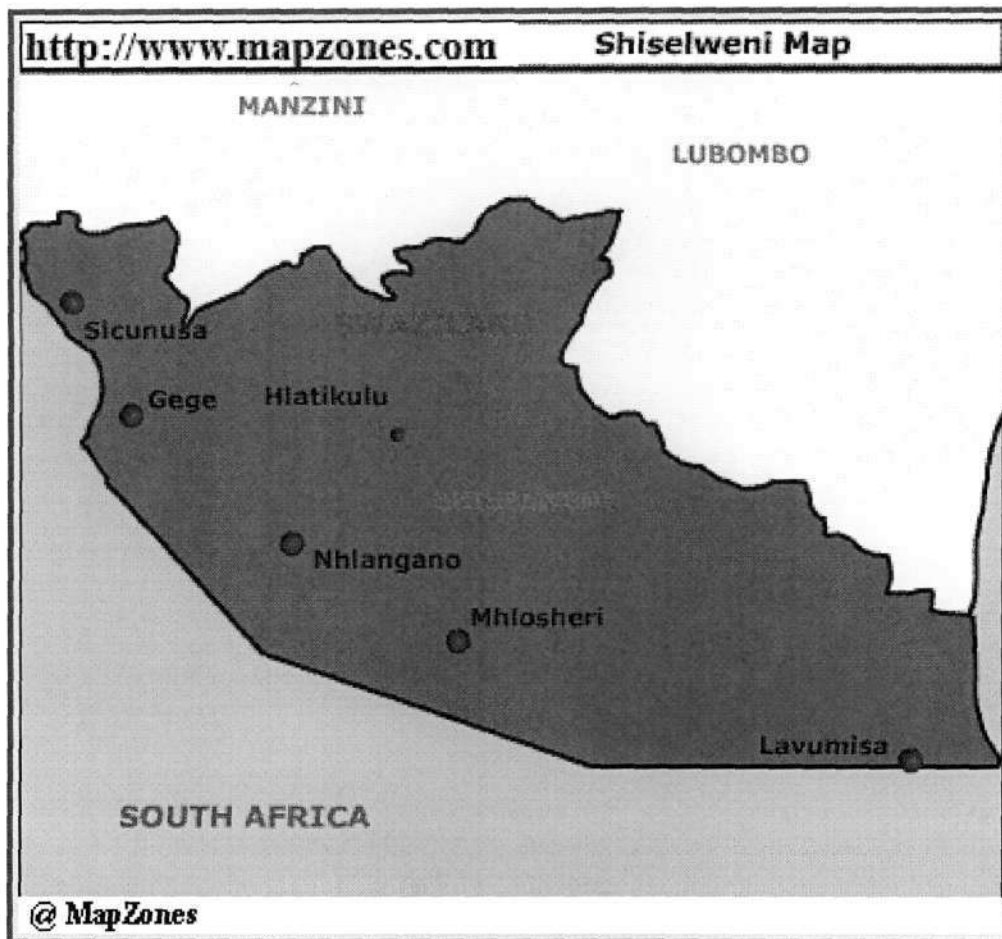


Figure 4.2: Map of Shiselweni

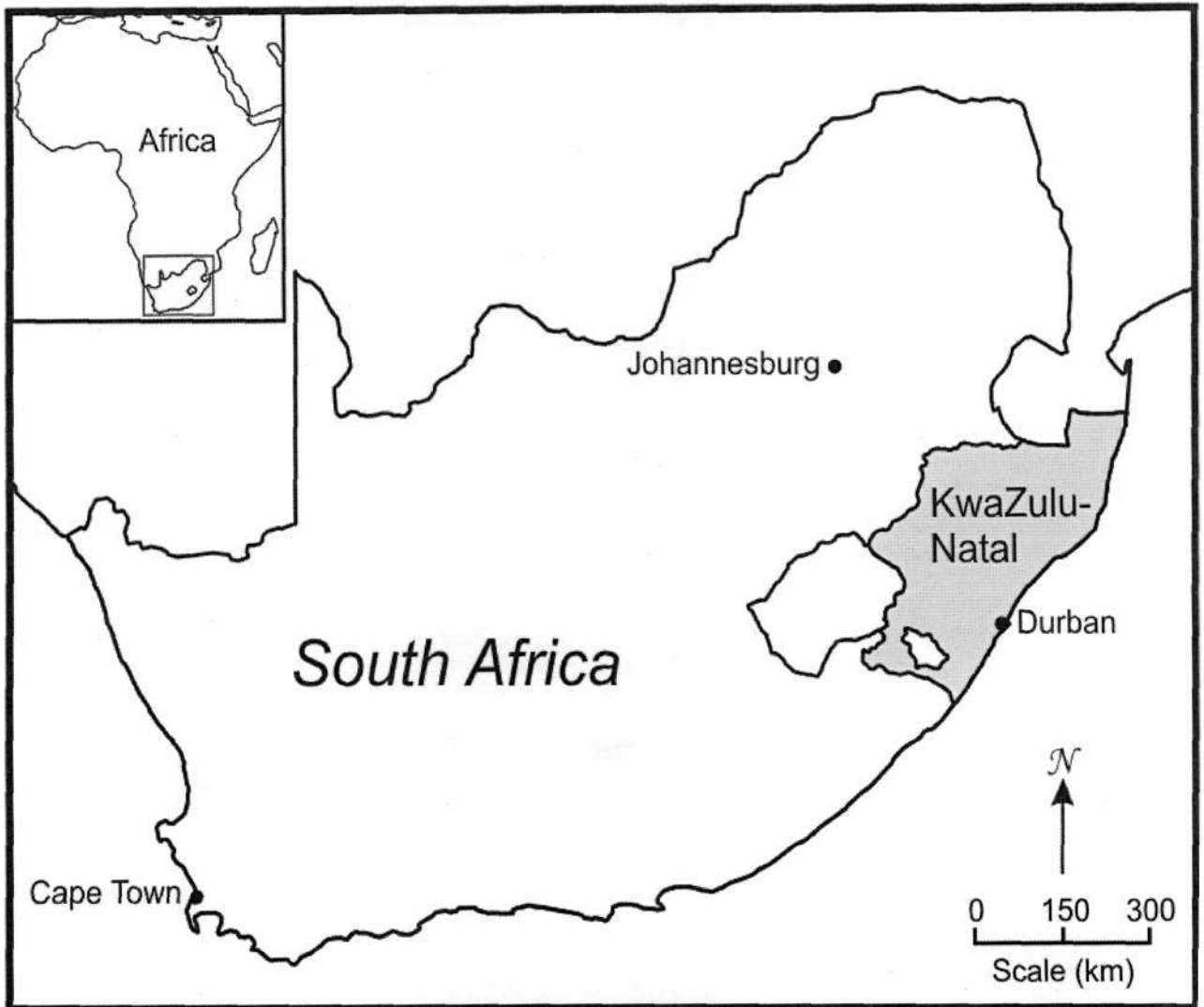


**Figure 4.3: Aerial photo of Zombodze**



Andreas de Neergaard, 2005: Department of Agricultural Sciences, Copenhagen University

Figure 4.4: South Africa



**Figure 4.5: KwaZulu-Natal**

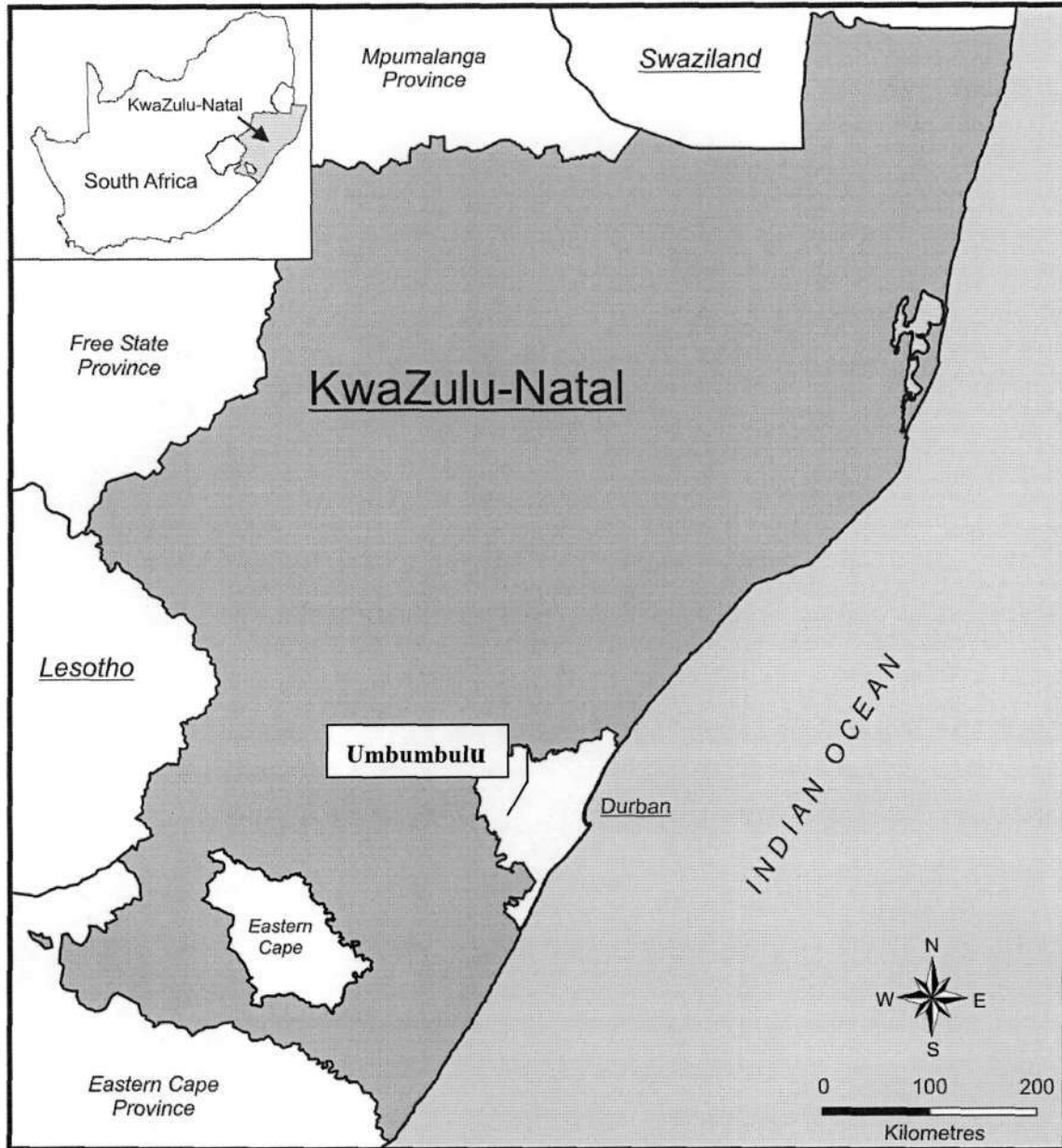
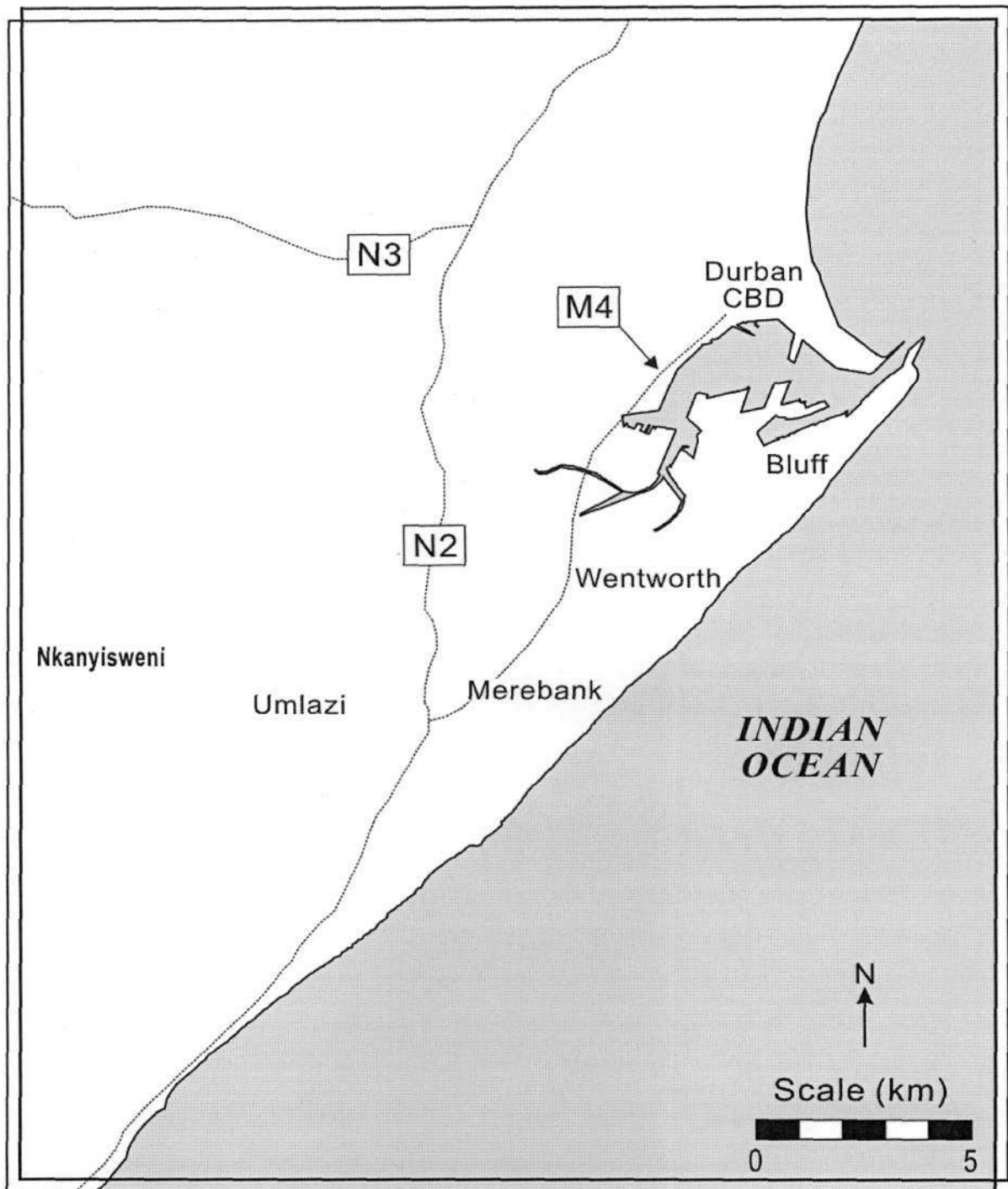
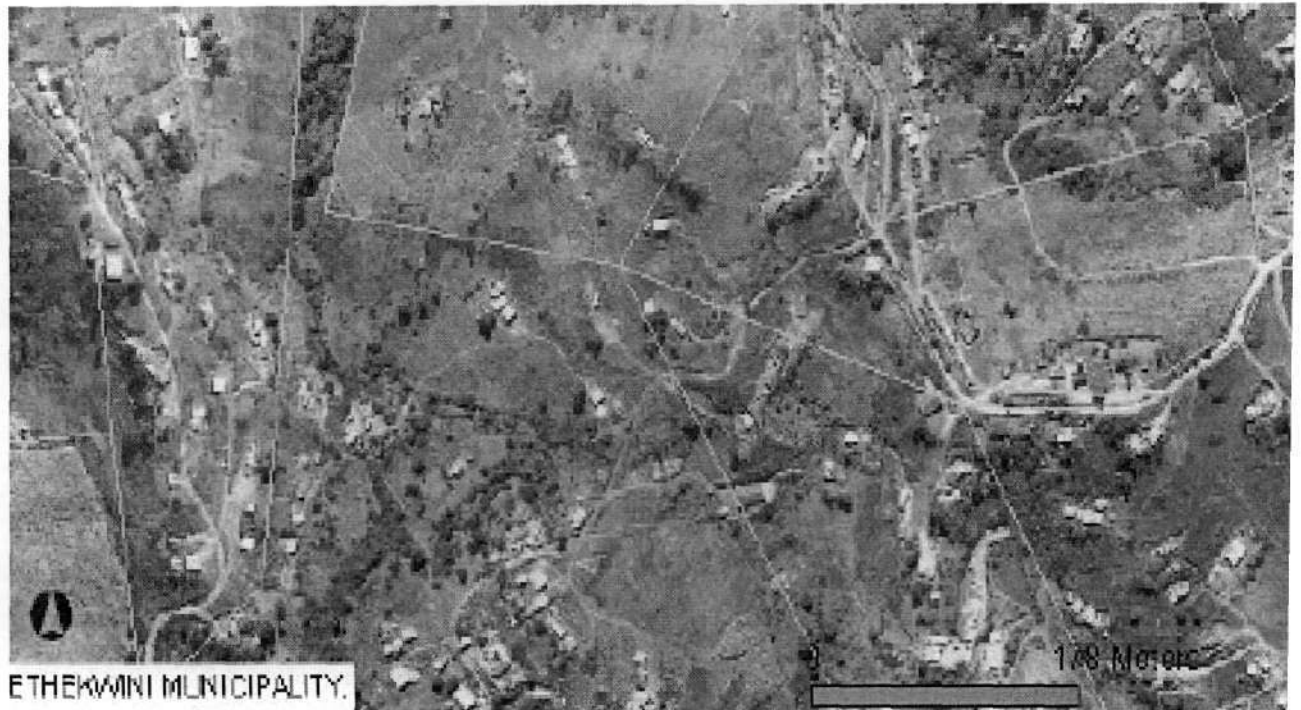


Figure 4.6: Section of e-Thekwini Municipality





**Figure 4.7: Nkanyisweni**



**Source: Durban.gov.za (Jan/2006)**

#### **4.3.3. Population and sampling**

The respondents that participated in this study were selected from approximately 403 household which consists of 187 households from Nkanyisweni and 216 households in Zombodze. The community of Zombodze and Nkanyisweni are the sampling frames from which the samples of the study have been drawn. According to Babbie (2004) a sampling frame is the list or quasi list of elements from which a probability sample is selected, and if the sample is to be representative of the population, it is essential that the sampling frame include all members of the population. The sample of 100 households is about 25 per cent of the total population in each community.

According to Babbie (2004:110) the population for a study is that group of people about whom we want to draw a conclusion. This is based on the fact that it is impossible to

study the whole population that interests us. In every case a sample is drawn from the sampling frame.

#### **4.3.4. Sampling procedure**

To choose the sample for this study, the rules of probability were adhered to and the probability sampling technique that was used was the simple random sampling. Wysocki (2004) posits that probability sampling is designed to allow a determination of how likely the members of the sample are to be representative of the population from which they are drawn. According to Neuman (2003) a simple random sampling method is a probability sampling technique where a researcher creates or chooses a sampling frame and then selects cases using a purely random process. Yates (2004) states that sampling is used to ensure that the results the researcher gains are representative of the set of cases one has chosen to study. He further states that sampling can be viewed as a selection from a wider population. According to Yates (2004) there are two combined purposes of sampling. First, it is very unlikely that one could question or observe all the possible cases which relates to one's research question. Secondly, and given the first condition, sampling is used to ensure that the results the researcher gains are representative and informative of the larger group.

To identify the fifty (50) households that were chosen from each community, the researcher used an orthophoto map to number all the households. It was also taken into consideration that within a rural setting there might be a mix of individual households and homesteads. To ensure that there was no overrepresentation of certain families, a homestead was given one number similar to that of individual households. After the households were numbered, a random table of numbers was used to select a desired sample size of fifty (50) households from each community. Babbie (2004:190) states that in random sampling, selection of each element has an equal chance of selection, independent of any of the events in the selection process.

#### **4.3.5. Justification of the sampling procedure and method**

The use of the orthophoto map in identifying the study population has advantages and disadvantages. The disadvantage is that in some instances the orthophoto might have been taken prior to new developments in the community e.g. the researcher might find that there are new households that have been built which are not on the map. This will lead to a sample being unrepresentative since it would have omitted certain households in the community. To overcome this disadvantage the researcher used a recent orthophoto map. The researcher also went to the communities under study to check whether there were new developments that might affect the representativeness of the sample. The use of the orthophoto in a rural community also helps because most, if not all households are not numbered and it would have been time consuming to go on foot and number each and every house before identifying a sample for the study. The use of the orthophoto was both time saving and accurate in identifying households.

The random sampling techniques was used because of its ability to enable the researcher to avoid biases, because of its emphasis on a representative sample and the detachment of the researcher's views/influences on which households were selected for the study. Representativeness according to Babbie (2004) is that quality of a sample having the same distribution of characteristics as the population from which it was drawn.

#### **4.3.6. Instruments for data collection**

This study is informed by both the qualitative and quantitative approaches, the questionnaire was used as an instrument to collect data for this study. According to Denscombe (2004) for a questionnaire to qualify as a research instrument it should be designed to collect information that could be used subsequently as data for analysis must consist of a written list of questions and gather information by asking people directly about points concerned with the research. According to Babbie (2004) questionnaires are used in connection with many modes of observation, although structured questionnaires

are essential to and most directly associated with survey research, they are also widely used in experiments, field research and other data collection activities.

#### **4.3.6.1. Questionnaire design**

According to Yates (2004) there are many ways in which one can design questions to be used in a survey. The choice of topics and the content comes from the theory, hypothesis, measures and sample design. The phrasing of the questions and the overall structure of the questionnaire depend upon the means of administering a questionnaire: interactively using either face-to-face or telephone interviews or self-completion by the respondents themselves. He also states that there are essentially two types of survey questions: open and closed. Open ended questions give the respondent free range to answer (e.g. what do you think should be done to improve the health facilities of the community?) And closed questions provide the respondent with a limited number of options from which to choose the answer (e.g. how many clinics does the community have? One, two or other).

The questionnaire in this study was administered using the face-to-face interview techniques and it was designed based on the aim and objectives and research questions of this study. According to Denscombe (2004) the information from the questionnaire tends to fall into two broad categories namely: facts and opinions and it is important that in all stages of using questionnaires the researcher is clear about whether the information sought is to do with facts or opinions. He defines factual information as that which does not require much in the way of judgement on the part of the respondents. It requires respondents to reveal honestly and accurate information like age, marital status and address, whereas opinions deal with attitudes, views and beliefs of the respondents (Denscombe, 2004). The questionnaire for this study was separated into five (5) sections namely: socio-economic status, community health services, water and sanitation, household health status and nutrition.

- Socio-economic status – this section consists of questions from gender, age cohort, marital status, level of education, household monthly income and the number of people in each household. The aim of these questions was to understand the social and economic standing of each household and to give the researcher some idea about the relationship between socio-economic characteristics and health status.
- Community health services – this section consisted of questions ranging from the number of clinics in the community, the distance they travel to the clinic to their use of either traditional or modern health practitioners when they are ill.
- Water and sanitation – the aim of this section was to understand the sources of water for the community and the types of toilets that are used by households in both communities. Water and sanitation also forms an integral part of the primary health care model and that is why it was deemed important for the purpose of this study to assess its current status in the community.
- Household health status – this section was included to ensure that the researcher could uncover and understand the diseases and illnesses that are prevalent in the communities, and whether they get adequate medication, the number of times such medication is provided to them by the clinic per month relative to their requirements.
- Nutrition – this section was aimed to understand the types of food that the household members or respondents usually consume, and its relationship to disease and illness in the community. Also to understand what influences the household's choice of food. Nutrition is also an important element of PHC.

#### **4.3.7. Data analysis plan**

The data for this study was analyzed using qualitative and quantitative data analysis techniques. According to Babbie (2004) qualitative analysis is a method of examining social research data without converting it into a numerical format, whereas quantitative analysis is the technique whereby the researcher converts data to numerical form and subjects it to statistical analysis. In this study the section of the data that was analyzed using qualitative data analysis techniques is the data collected during participant observation and questions, that dealt with the views and beliefs of the community. Quantitative data analysis techniques were used to analyze data from open-ended questions.

##### **4.3.7.1 Data preparation and presentation**

To prepare the data for analysis, all the coded questions were loaded into the Statistical Package for Social Sciences (SPSS) for analysis. This software also enabled the researcher to undertake cross-tabulations of certain variables to fully understand how they related. Non-parametric tests, univariate, bivariate and multivariate analysis were also done with the aid of this software. According to Yates (2004) the choice of statistical test a researcher uses is mainly determined by the type of data that one has; one may design an experiment or survey with the intention of using a certain test or tests. Babbie (2004) argues that all data are initially qualitative; they must be quantified to permit statistical analysis and that some data, such as age and income are intrinsically numerical.

According to Babbie (2004) univariate analysis involves describing a case in terms of a single variable, while bivariate analyses focuses on relationships between variables, rather comparisons of groups. Multivariate analysis is a method of analyzing the simultaneous relationship among several variables. It can also be used to understand the relationship between two variables more fully.

The Microsoft Excel software was used to ensure clear graphic presentation of the data. The data is presented in the form of graphs, tables and also photos showing the researcher conducting interviews in the field.

#### **4.3.8. Measurement of the quality of data/instruments**

The researcher saw it as important to measure or test how precise, accurate and reliable or valid are the instruments for data collection and the data collected through the use of such instruments. This dealt with the questions asked in the questionnaire and how they specifically uncover that which they aspire to measure or uncover. In the measurement of the precision of certain questions in the questionnaire and the data they collected, for example the age of the respondents in the study was asked in terms of categories.

Based on the understanding that the average age of the respondents cannot be presented as 25-34; it is more precise to say that the average age of the group is 27 years. To deal with such a problem the researcher recorded the exact age of the respondents while also ensuring such data is captured categorically for descriptive purposes. According to Babbie (2004:140) exact precision is not always desired, it depends on the nature of the study. He also states that precision and accuracy are obviously important qualities in research measurement.

To test or measure the reliability of the question of uncovering the prevalent diseases in the community, the researcher looked at how each envisaged question could be reliable delivering such information. The researcher first opted for asking the clinic or primary health care staffers about the types of diseases they usually treat in the community; this was used as opposed to getting the direct information from the respondents, that is to ask them who suffers from the following serious illnesses (diabetes, high blood pressure) and the people in the history of the family who have suffered such illnesses. Asking the clinic staffers was deemed reliable since many people would either use traditional medicines or

opt for not going to the clinic, such peoples illnesses would not have been uncovered. But the method enabled the researcher in the identification of disease and illnesses patterns.

According to Babbie (2004:141) reliability is the method that suggests that the same data would have been collected each time in repeated observations of the same phenomenon. He also cites that reliability is a concern every time a single observer is the source of data, because we have no certain guard against the impact of that observer's objectivity. This means that reliability does not only rest on the quality of the instruments used, but the researchers also have an impact on the reliability and unreliability of the data.

The questionnaire of this study was assessed on its validity, based on two elements of validity out of the four existent elements, that is face validity and content validity. According to Babbie (2004:144) face validity is that quality of the indicator that makes it seem a reasonable measure of some variable. That the frequency of church attendance is some indication of a person's religiosity seems to make sense without a lot of explanation. It has face validity. In the research questionnaire for this study, the inclusion of age, gender, income, employment status and educational status seem to be valid indicators of the socio-economic status that is without looking at the implications of each in abstraction. To assess content validity of the questionnaire, the researcher looked at the questionnaire as a whole in trying to understand the provision of primary health care. According to Babbie (2004) content validity refers to how a measure covers the range of meanings included in the concept. The questionnaire included the section on community health services, household health status, nutrition and water and sanitation. The exclusion of any of the aforementioned sections would have had an impact on the content validity of the questionnaire, since all the above mentioned sections are informed by the elements of primary health care, so its assessment should include understanding the practicalities of all such elements.



#### **4.4. Ethical considerations of the study**

The ethics that were important to be taken into consideration in this research are those of the communities under study. It is also the requirement of the institution for higher research degrees to get ethical clearance before a student or researcher collects data or carries out fieldwork. The application for ethical clearance was forwarded by the researcher, and after the committee looked at the proposal ethical clearance was granted to carry out the study. According to Babbie (2004), since social research takes place in a social context, it is important to take into account many ethical and political considerations alongside scientific ones in designing research. He also states that it is important that anyone involved in social scientific research be aware of the general agreements shared by researchers about what is proper and improper in the conduct of scientific research, hence the application for ethical clearance to the university research committee. There are three key ethical issues that were considered in this study, namely gaining access to participants, informed consent and the right to privacy. Yates (2004) defines the aforementioned ethical issues as follows:

- Gaining access – this means how do you gain access to the participants. This has a major impact on respondent's responses to questions. To gain access for the study the researcher negotiated entry with the traditional authorities, who in-turn informed the members of the community about the study.
- Informed consent – this is about how much one tells the respondents about the research, it also includes issues of voluntary participation to the study, and that respondents can withdraw at any stage of the interview. With regard to this, the respondents for this study were informed of the aim of the study and their expectant role in ensuring its success and their choice to either be part or not part of the study.

- Right to privacy – this includes issues of confidentiality and anonymity, to ensure that data collected would not be passed on to third parties with the identification as to who said what. For example with regard to the issue of household income, many households are reluctant to answer this question since they believe they might be targets of thugs and criminals if such information fell into wrong hands. To deal with this, the researcher ensured that people were aware that the data collected would only be used for academic purposes and nobody would have access to it and it would be treated with confidentiality. According to Babbie (2004) social researchers have an ethical obligation to the community of researchers as well as communities under study to report results fully and accurately as well as disclosing errors, limitations and other shortcomings in the study.

#### **4.5. Limitations of the study**

In conducting this study the researcher faced many challenges which had an impact on certain areas of the research. Firstly, during the interviews, respondents talked about things that were not within the scope of this research. This led to a situation where it took about 45 minutes to finish interviews. Secondly the researcher aimed at conducting focus group discussions to get an in-depth understanding of certain issues in the community; this did not happen based on the time and organizational constraints the researcher faced in the field. Lastly, the question about the integration of traditional medical practitioners and modern medical practitioners with respect to Swaziland was not asked with reference to national policy, since there is no policy in place addressing this issue. It led to a situation where it has to be asked in relation to the world health body (WHO) since it informs local policies with regard to health. The actual wording of the questions did not change.

#### **4.6. Conclusion**

The application of research methods in the field is not as it is stipulated in text, since there is a struggle to reconcile theories with reality. The fieldwork is where a researcher comes to terms with the realities of data collection and the practicalities of certain methods. This chapter has described the methods and procedures that were followed in collecting data and conducting this research. It also provided the advantages of using the strategies that were used and their disadvantages. A variety of issues ranging from questionnaire design, ethical considerations of the study and its limitations have been discussed. The chapter also committed itself to providing the justification for the research procedures and in acknowledging the limitations of this study.

## CHAPTER FIVE DATA ANALYSIS, DESCRIPTION AND RESULTS

### 5.1. Introduction

This chapter will present the analysis of the data that was collected for the study. It will also try and statistically show whether the differences between some variables occurred by chance or the distribution is justifiable. Since this is a comparative study both data sets will be presented to illustrate the similarities and differences between Nkanyisweni and Zombodze and an attempt to explain the situation.

### 5.2. Socio-economic status of the communities

**Table 5.1: Sex of respondents**

Gender	Nkanyisweni (%)S=50	Zombodze (%)S=50	Overall %
Female	72	58	65
Male	28	42	35

Table 5.1 shows the distribution by sex of respondents. Sixty-five percent of both communities were female, while males constituted 35% of the total population. There were more females in Nkanyisweni (72%) than in Zombodze (58%). The proportion of males was smaller in both communities (28% and 42% respectively).

The gender profiles of the regions within which these communities are found do account for the differences in gender, even though it is not as extreme as indicated in the result of this study especially in the case of Nkanyisweni which falls within the boundaries of the e-Thekwini municipality. In this municipality the females are the majority (52%) as opposed to the 48 percent of males as reported by the 2001 Census. In the Shisweleni region where Zombodze is situated females account for 59% of the population and males equal 41 percent of the population.

**Table 5.2: Marital status**

Marital status	Nkanyisweni (%)N=50	Zombodze (%)=N50	Overall %
Single	52	40	46
Married	36	52	44
Widowed	12	8	10

Forty-six percent of the respondents were single, while 44% married and widows comprised 10 %. In viewing the community data separately it is evident that there were more single and widowed persons in Nkanyisweni than in Zombodze (Table 5.2). Married persons formed the majority in Zombodze.

These are differentials in the data sets with regard to marital status, in Nkanyisweni the majority of the respondents were single, while in Zombodze the majority are married. In Zombodze it is evident that the distribution in terms of gender is almost one on one and that might account for the majority being married as opposed to Nkanyisweni, but other factors like employment status might also have an impact on the marital status of the inhabitants. The ratio in terms of the number of males per female might also have an influence; in Nkanyisweni the female to male ratio is 1:2.5 which means for every man there are almost three women and in Zombodze the ratio is 1:08 about one to one.

**Table 5.3: Age groups of respondents**

AGE	Nkanyisweni (%) S=50	Zombodze (%) S=50
25-44	70	60
45-55	30	40

Table 5.3 shows that in both communities the majority of respondents fall within the age group of 25-44, with 70% of the respondents in Nkanyisweni within this age group and in Zombodze 60% of the people fall within the parameters of this category, with a

proportional difference of 10%. Thirty and forty percent of respondents reported to be within the age group of 45 years and above in Nkanyisweni and Zombodze, respectively.

It is evident, based on the above statistics, that both communities have a young population. This means that the majority of females within this study fall within the child-bearing age, which might lead to a significant growth of population in the near future. The average age of the respondents in Nkanyisweni was 35 years and for the respondents in Zombodze it was 39 years.

**Figure 5.1: Employment status of the respondents**

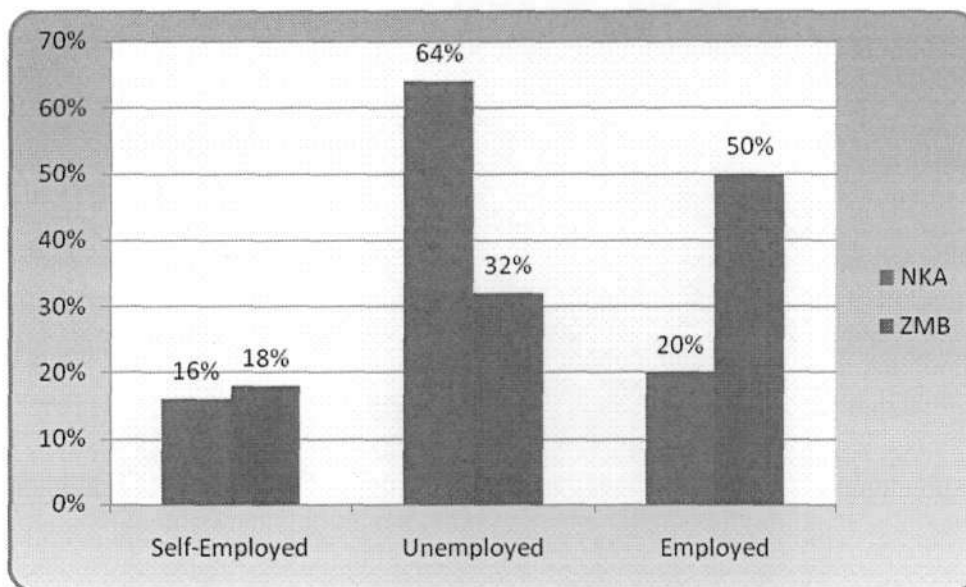


Figure 5.1 above shows the employment results of both communities. This figure reveals that 50% of the respondents in Zombodze are employed and about 18% are self-employed and lastly 32% of the respondents reported to be unemployed. It is evident from the above data that the majority of the inhabitants of Zombodze are involved in income generating activities, either in the informal (self-employed) or formal sector. In Nkanyisweni the majority, which equals 64% of the respondents were unemployed with

16% stating that they are self-employed and only 20% of the respondents reported that they were employed.

The unemployed in both communities reported that they sometimes get temporary employment which lasts about 3 weeks to 2 months. Such incidences expose the rural communities or their inhabitants to employment opportunities which do not offer any job securities or income security, like certain ventures undertaken by the self-employed inhabitants. For example some reported to be selling food to the school pupils during lunch breaks and others sold surplus crops (mostly maize) from subsistence production. Both these activities may be regarded as seasonal employment opportunities, because households do not sell maize between April and November for those who sell foodstuffs in schools. When schools are on vacation they are required to come up with different income generating strategies. The SADC regional Human Development Report (2000) identified high unemployment rates between 30% and 40%. In Zombodze the employment figure is within the SADC range of unemployment, whereas in Nkanyisweni, unemployment is above the regional average.

**Table 5.4: Level of education of the respondents**

Level of education	Nkanyisweni (%) S=50	Zombodze (%) S=50
No formal education	14	18
Primary	14	24
Secondary	52	46
Tertiary	20	12

The table above illustrates the educational status of the respondents. In Nkanyisweni 14% of the respondents have no formal schooling and 14% have a primary education. The majority of the respondents (52%) had secondary education and 20 % tertiary education. Forty-six percent of respondents in Zombodze have secondary education, while 18% and

24% have no formal education and primary education, respectively. Only 12 percent have a tertiary education (Table 5.4).

Education as one of the indicators of development needs to be distributed equitably and also be accessible to all those who require such a service, especially in pluralistic societies like South Africa and Swaziland. Education is listed second on the UN Millennium Development Goals list (2000). This shows how important literacy is to communities, regions, countries and the world, since it ensures that information, knowledge and expertise can be passed on without other individuals having difficulty in accessing or understanding such information irrespective of whether it is passed on verbally or in writing.

**Table 5.5: Household income**

Income levels	Nkanyisweni (%) S=50	Zombodze (%) S=50	Total %
<R499	-	14	7
R500-999	60	50	55
R1000-1499	18	20	19
R1500-1999	14	16	15
R2000-2499	2	-	1
R2500+	6	-	3

NKA  $\chi$ =R1062.90 ZMB  $\chi$ =R928.78

Table 5.5 depicts that overall, 55% of the households earn between R500-999 while the minority (3%) earns R2500 and more. Sixty percent of the respondents in Nkanyisweni have a monthly household income between R500 and R999. Eighteen percent earn between R1000 and R1499 with 14% of the households reporting that they earn between R1500-1999 and 2% and 6% earning between R2000-2499 and over R2500. The reason why the majority of the households monthly income fall within the range of R500-999 is because most of the people in this category are supported by old age pensions valued at R780 per beneficiary. The average monthly income of the Nkanyisweni community is



R1062.90. In Zombodze 14% of the sampled households earn less than R499 and half the respondents earn between R500 and R999. Minor proportions of 20% earn between R1000-R1499 and R1500 and R1999 (16%).

Similar to Nkanyisweni, the majority of the sampled household members have household incomes is between R500 and R999; most of them are recipients of old age pension from the State (22%). This is due to the fact that some have stayed in Pongola which borders the south western part of Zombodze and have South African Identity Documents. This makes them eligible for an old age pension from South Africa. The average household income of Zombodze is R928.78. On average the people of Nkanyisweni earn R133.82 more compared to the inhabitant of Zombodze.

**Table 5.6: Number of household members**

Sex	Nkanyisweni	%	Zombodze	%
Females	133	56	174	55
Males	102	44	142	45
<b>Total</b>	<b>235</b>	<b>100</b>	<b>315</b>	<b>100</b>

Table 5.6 above shows the total number of the household members that participated in the sampled population. In Nkanyisweni there were a total of 235 members in the households, about 102 of these were reported to be males and females equalled 133. In Zombodze the total number of household members was 315 and male constitute 142 persons and females 174. The average number of members or people per household in Nkanyisweni was 4.7 and it was 6.3 in Zombodze. Proportionally there are 1.30 females in Nkanyisweni for every male and in Zombodze the ratio is that for every male there are 1.22 females.

### 5.3. Community Health Services

**Table 5.7: The mode of travel to the clinic**

<b>Mode</b>	<b>Nkanyisweni (%) S=50</b>	<b>Zombodze (%) S=50</b>
By foot	36	82
Public transport	64	18

According to respondents in both communities there was only one clinic in their area. In Nkanyisweni, respondents (36%) stated that they travelled on foot to get to the clinic and 64% used public transport. In Zombodze, the majority of the respondents (82%) said they travelled on foot to the clinic. A minority (18%) reported that they used public transport. The reason why the majority of the inhabitants of Nkanyisweni use public transport is because clinics used are in the surrounding communities, namely, Adams Mission, Illovo and Winkelspruit. When the researcher probed as to why they preferred other clinics than their own, the reasons given were:

- Free PHC at the Winkelspruit and Illovo clinics;
- Clinics in other centres open 7 days a week while district clinic opened only once or twice a week; and
- Volunteers who do not have proper training in local clinic

**Figure 5.2: Distance travelled to the clinic**

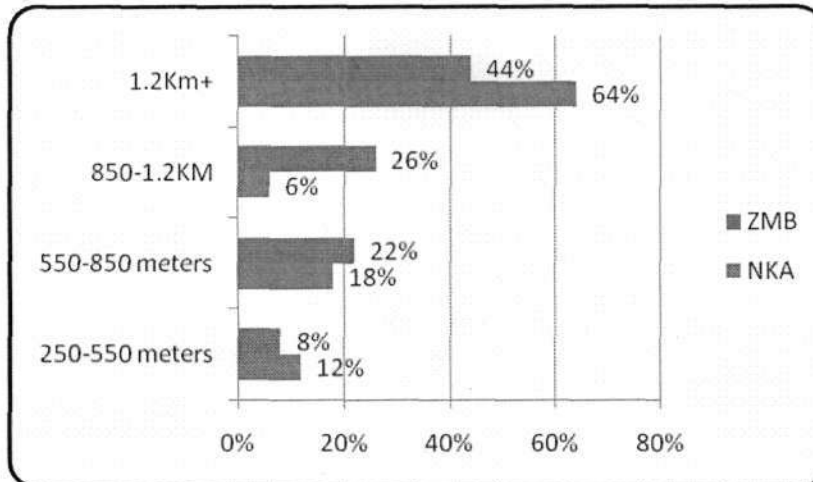
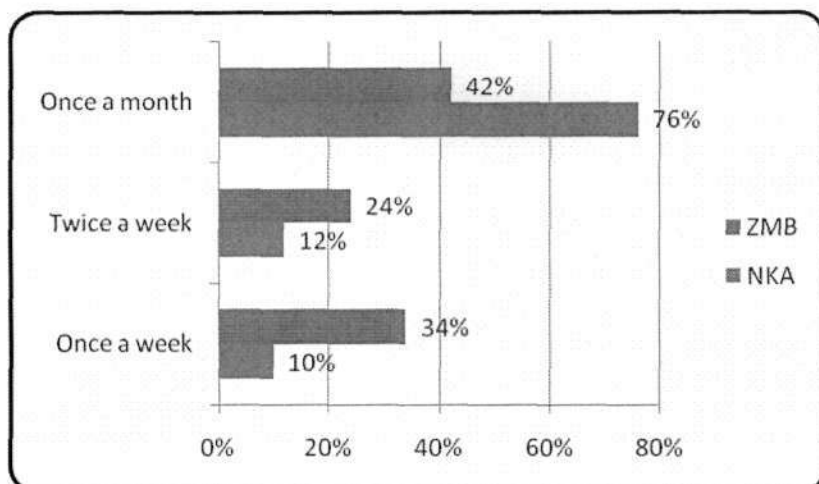


Figure 5.2 indicates the distance the respondents travelled to clinics. The majority of the people in Nkanyisweni (64%) travelled 1.2 kilometres and more to the clinic, 6% travelled between 800 metres and 1.2 kilometres and 18% and 12% travelled 550-800 metres and 250-550 metres, respectively.

Forty-four percent of respondents in Zombodze stated that they travelled 1.2 kilometres and more to the clinic, 26% travelled a distance between 800 metres and 1.2 kilometres, while 22% travelled between 550 metres and 800 metres to the clinic and 8% reported that they travel a distance between 250 and 550 metres. The average distanced travelled by the inhabitants of Nkanyisweni and Zombodze is 3.5 kilometres and 2.3 kilometres, respectively. People from the sample of Nkanyisweni thus travels 1.2 kilometres more compared to those in Zombodze, due to them moving outside their area to use clinics. The literature also points out that the challenges or constraints that rural people are faced with in accessing and utilizing PHC services varies greatly and is due to the characteristics of the population and their culture and traditions (NRHA, 1999).

**Figure 5.3: Community Health Workers and Frequency of Visits**



Community health workers form an integral part of PHC as they provide home based care to the ill and those people who can't travel to the clinics but are in need of health care. In Nkanyisweni people reported that they have two community health workers while Zombodze stated that they have three. The above figure shows the frequency of community health workers visits to the areas. It illustrates that in Nkanyisweni, 78% of the respondents are visited once a month by CHWs, 10% stated once a week and 12% twice a week. In Zombodze 42% are visited once a month by CHWs while 34% reported that they are visited once a week and 24% stated that CHWs come twice a week (Figure 5.3).

The variations in the number of visits per households according to CHWs from both communities were attributed to the fact that when they go to the households and discover that there is someone who is in need of urgent medical attention, they tend to visit those people more often, since they have to deliver their medication on a weekly basis and they visit others to ensure that their health is in good condition and teach them about basic nutritional foods. The CHWs of Zombodze and Nkanyisweni differ in their operations when it comes to the issue of handling medication or treatment ointments. The CHWs in Zombodze reported that they carry medication on their way to households in their

community regardless of whether they know anyone who is in need of such medication or not, while CHWs in Nkanyisweni stated that they don't take medications to the households until they found out who was sick/ill. This means that the CHWs in Zombodze are proactive in dealing with the community illness, while those in Nkanyisweni can be referred to as reactive. This can also be traced back to the national policies on the dispensing of medicines and associated drugs. In South Africa the law forbids the dispensing of medication without a license which the CHWs are not eligible to acquire; Swaziland on the other hand does not have stringent laws with regard to this issue.

**Table 5.8: The availability and use of Traditional Medical Practitioner (TMP) services**

Responses	Nkanyisweni (%)	Zombodze (%)
TMPs 1st	8	16
MMDs 1st	54	60
Depends on illness	38	24

The respondents in both communities stated that community had TMPs such as: *Izinyanga* (traditional healer) *izangoma* (traditional spiritualist/diviners) and *abathandazi* (religious spiritual healers), stated that these persons were present. The people in Nkanyisweni reported that there were three diviners, one traditional healer and four religious spiritual healers. In Zombodze they reported that they have three diviners, two traditional healers and no religious spiritual healers.

Table 5.8 shows the result of whom the respondents consult first when they are ill. In Nkanyisweni, 8% of the people stated that they consult the TMPs first when they are ill, 54% reported that they consult MMDs first and 38% stated it depends on the nature of illness. They stated that there are illnesses that the MMDs do not comprehend and such

illnesses are better understood and treated by TMPs. In Zombodze 16% of the respondents stated that they consult TMPs first, while 60% consult MMDs first and 24% stated that it depends on the nature of illness.

**Table 5.9: Integration of TMPs to the Modern health system**

Integration	Nkanyisweni (%) S=50	Zombodze (%) S=50
Yes	78	44
No	22	34
Don't Know	-	22

In both communities the majority of the respondents believed that the integration of both health models will improve the health and health services of the community, with 78% and 44% in favour of this move in Nkanyisweni and Zombodze, respectively. Twenty-two percent of the respondents in Nkanyisweni stated that they don't think such a move would improve health care.

In Zombodze 34% were of the opinion that such a move would not improve health and 22% don't know what impact such a move would have on the health and health services of the community. The proportion of the people who stated that they don't think such a move would improve health, were concerned about the knowledge of TMPs and their operation procedures and stated that it was contrary to their Christian beliefs to use traditional medicines.

**Table 5.10: Rating of community health services and views on how it can be improved**

Ratings	Nkanyisweni (%) S=50	Zombodze (%) S=50
Good	16	14
Moderate	34	54
Bad	<b>38</b>	8
Very bad	12	24

Table 5.9 above reveals the rating of community health services by respondents in both Zombodze and Nkanyisweni. In Nkanyisweni, the majority (38%) rated their health services as bad, while in Zombodze the majority (54%) rated theirs as moderate and only a minority constituting 8% rated health services as bad. Thirty-four percent of the respondents in Nkanyisweni rated health services as moderate, while 16% rated them as good and in Zombodze 14% of the respondents rated them as good. Twelve percent and 24% of the respondents rated health services as very poor in Nkanyisweni and Zombodze, respectively.

In Nkanyisweni the respondents stated that to improve health care, firstly the clinic should be open at least 5 times a week. Secondly, they said there is a need for the government or municipality to provide employment opportunities. Lastly, some stated that the elders should be provided with special health care, since some of them do not or can't walk to the clinics. In Zombodze people also cited the issue of employment as important in improving health; they also stated that the CHWs should be provided with a variety of medication.

The above views and opinions of the communities show that people think that their health can be better improved if people were to be provided with work. This shows how the community understands the role played by socio-economic elements in their health status.

In addition, one could also note their holistic understanding of health. They don't view it as only a medical issue but they also acknowledge the impact of other elements in the environment within which they live or exist.

#### 5.4. Water and Sanitation

**Table 5.11: Primary water sources**

<b>Water Source</b>	<b>Nkanyisweni (%) S=50</b>	<b>Zombodze (%) S=50</b>
Household's tap	84	-
From Neighbour	16	-
Boreholes	-	48
Springs	-	30
Communal tap	-	22
<b>Harvest water</b>		
Yes	100	78
No	-	22

The table above (5.11) shows that in Nkanyisweni 84% of the respondents use tap water in the households and 16% stated that they buy it from their neighbours. In Zombodze 48% of the respondents use water from the boreholes, while 30% use spring water and 22% get their water from communal taps.

This table reveals that all the inhabitants of Nkanyisweni have access to piped water either directly or provided in a communal manner by their neighbours who only require 50 cents per 25 litres. In Zombodze, people rely heavily on easily contaminated water, that is, for most households springs and boreholes are their main source of water. The people in Zombodze also noted water as one of their biggest problems since their sources are unreliable and unpredictable. In both communities the majority which constitutes 100% in Nkanyisweni and 78% in Zombodze stated that they do harvest rain water, with only 22% in Zombodze saying they do not.



**Table 5.12: Distance travelled to fetch water**

Distance	Nkanyisweni (%) S=50	Zombodze (%) S=50
<250 metres	88	
250-550 metres	6	12
550-850 metres	6	20
850-1.2 Km	-	32
1.2 Km+	-	36

NKA  $\bar{x}$ = 21 metres    ZMB  $\bar{x}$ = 950 metres

Table 5.12 reveals the results of the distance travelled by the inhabitants of both communities to fetch or collect water. In Nkanyisweni 88% of the respondents travel less than 250 metres to fetch water, while 12% travel between 250 and 850 metres. In Zombodze, 12% of the respondents travel between 250 - 550 meters, while 20% and 32% travels a distance of 550 to 850 metres and 850 metres to 1.2 kilometres respectively, with the majority (36%) travelling 1.2 kilometres and more. The reason why the majority of the inhabitants in Nkanyisweni travel less than 250 metres to fetch water is due to the fact that they get piped water from e-Thekwini municipality and they have taps within their households or in their yards. The rest of the respondents buy water from their neighbours. In Zombodze most of the people have to travel long distances to collect water, based on the distance between their households and the water sources. On average the inhabitants of Nkanyisweni travel approximately 21 metres and in Zombodze people travel approximately 950 metres.

**Table 5.13: Daily water usage in litres**

Litres	Nkanyisweni (%) S=50	Zombodze (%) S=50
50-75	44	24
75-100	32	36
100-125	18	24
125+	6	16

Table 5.13 above reveals the daily water usage by households. In Nkanyisweni 44% of the sampled households reported that they use between 50 and 75 litres daily, while 32%

use between 75 and 100 litres with 18% using between 100 and 125 litres daily. Only 6% utilize 125 litres and above. In Zombodze, 24% of the households use between 50 and 75 litres of water daily, with 36% using between 75 and 100 litres and 24% and 16% utilizing between 100 and 125 litres and 125 litres and above, respectively.

When looking closely at the above statistics for sampled households of Zombodze daily water usage in comparison to that of the distance travelled (Table 5.13) to collect water, one observes that the inhabitants of Zombodze dedicate a lot of their time collecting water for household consumption as opposed to the inhabitants of Nkanyisweni. The average daily water usage in litres for households in Nkanyisweni is 95 litres and for Zombodze it is 105.75 litres. The long distance travelled coupled with Zombodze's unpurified water sources might make some people susceptible to illnesses such as diarrhoea (quality of water) and back pains because of distance travelled fetching water.

**Table 5.14: People responsible for collecting water**

	<b>Nkanyisweni (%) S=50</b>	<b>Zombodze (%) S=50</b>
Women/girls	14	44
Men/boys	8	22
Whole family	78	34

Table 5.14 above shows that in Nkanyisweni fetching or the collection of water is a joint family responsibility, 78% of the of the sampled households attested to this. Fourteen percent stated that it was women's/girl's responsibility and 6% reported that it was the responsibility of men/boys. In Zombodze, in contrast, the majority (44%) reported that the collection of water was the responsibility of women/girls, while 22% stated that it was the responsibility of men/ boys and 34% reported, it to be the responsibility of all family members.

Table 5.14 above reveals that contrary to common/ general understanding of water collection being a female responsibility, in Nkanyisweni this responsibility was shared amongst family members and in Zombodze there was a large proportion of households who reported that water collection was both a male and family responsibility.

**Table 5.15: Rating of current water services**

Ratings	Nkanyisweni (%) S=50	Zombodze (%) S=50
Excellent	20	-
Good	44	10
Moderate	16	52
Bad	20	38

Table 5.15 above shows the results of how the inhabitants of both communities rated their water services. In Nkanyisweni, 20% of the respondents rated their water services as excellent, 44% as good while 16% and 20% rated it as moderate and bad, respectively.

In Zombodze 10% rated the community water services as good, while 52% rated it as moderate with 38% rating it bad. In Nkanyisweni, the reason why certain respondents rated the water service as bad, is due to the fact that they are not notified before water cut-offs and the municipality does not provide them with alternative water sources such as the delivery of water by a *water-kan*. The habitants of Zombodze were highly dissatisfied with their water services, because in certain instances cows have been drinking from the same water sources, especially springs that they used. This might lead to using water which is contaminated.

**Figure 5.4: Types of toilets used by households**

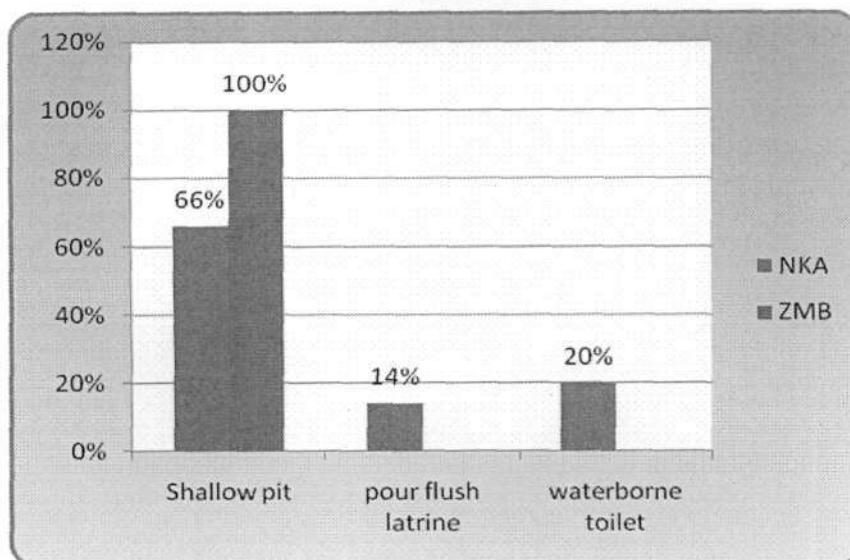


Figure 5.4 above reveals the results of the types of toilets utilized by both communities. In Nkanyisweni the majority (66%) of sampled households stated that they use open pit latrines, while 14% uses pour flush latrines and 24% uses waterborne toilets. All the households in Zombodze use open pit latrines. The above chart reveals that despite a large proportion of people of Nkanyisweni having access to piped water and having a sewage system less than a kilometre away, most households use open pit latrines.

**Table 5.16: Distance between the household and dumpsite**

Distance	Nkanyisweni (%) S=50	Zombodze (%) S=50
<50 metres	42	22
50-75 metres	40	46
75-100 metres	12	24
100-125	6	8

Table 5.16 above reveals that 6% of the households dumpsites or pits in Nkanyisweni are between 100 and 125 metres away, 12% are between 75 and 100 metres while 40% are between 50 and 75 metres away from households' with the majority (42%) being less than 50 metres. In Zombodze, 8% of the households' dump sites are situated between 100 and 125 metres, 24% are situated between 75 and 100 metres while the majority (46%)

are situated between 50 and 75 metres away and, 22% are situated less than 50 metres away from households. The average distance between households and their dumpsites in Nkanyisweni is approximately 38 metres and in Zombodze, 45 metres. If the dumpsite is very close to the household it has negative environmental health impacts. Firstly, a lot of bacteria causing ill health breeds in waste site. Secondly, rodents and mice can be found in such areas. Both of the aforementioned disease carriers can easily get to the household and transmit directly or indirectly diseases such as leptospirosis and salmonellosis.

**Table 5.17: Rating of community sanitation services**

Rating	Nkanyisweni(%) S=50	Zombodze(%) S=50
Moderate	14	30
Bad	76	38
Very Mad	10	32

Table 5.17 shows the rating of sanitation services by both communities. The majority of respondents in both communities (Nkanyisweni 76%) and (Zombodze 38%) rated these services as bad. In Nkanyisweni 14% and 10% rated them as moderate and very bad, respectively. While in Zombodze 30% rated them as moderate and 32% rated them as very bad.

### 5.5. Household Health Profile

**Table 5.18: Presence of smokers in the households**

Response	Nkanyisweni(%) S=50	Zombodze(%) S=50
Yes	16	10
No	84	90

The majority of households in both communities do not have members who smoke. In Nkanyisweni only 16% reported to have smokers in their households and only 10% reported as such in Zombodze. Since nicotine in cigarettes is reportedly dangerous to the

person who smokes and those around him/her, it should be noted that based on the small proportion of smokers in both communities there is a low risk of suffering from illnesses related to passive smoke inhalation from the family members of smokers. On average, the sampled households in Nkanyisweni have 0.16 smokers in their households while Zombodze has about 0.10 smokers.

**Table 5.19: Ailments suffered by household members**

Illness	Nkanyisweni (%) S=50	Zombodze (%) S=50
Coughs/Colds	56	60
High blood pressure	22	12
Diabetes	12	6
Asthma	4	-
Sinus	6	10
Epilepsy	-	12

Table 5.19 reveals that 56% and 60% of household members in Nkanyisweni and Zombodze suffer from coughs/colds, respectively. High blood pressure incidences are high in Nkanyisweni (22%) as opposed to Zombodze (12%). Twelve percent in Nkanyisweni reported suffering from diabetes while this group constituted only 6% in Zombodze. There are high incidences of sinus in Zombodze (10%) compared to Nkanyisweni (6%), while only 4% reported suffering from asthma in Nkanyisweni and 12% suffer from epilepsy in Zombodze. From the above descriptive statistics it is evident that most people in both sampled communities suffer from seasonal, common ailments such as coughs/colds. This might be due to the fact that data in these communities was collected during season changes, and in Zombodze it is also highly probable that the smoke generated by fires for cooking, and heating in the households is a cause of such coughs and colds. Evident also in the aforementioned (Table 5.19), is that there are inhabitants in Zombodze who suffer from a highly critical ailment such as epilepsy.

**Figure 5.5: Proportion of people getting treatment**

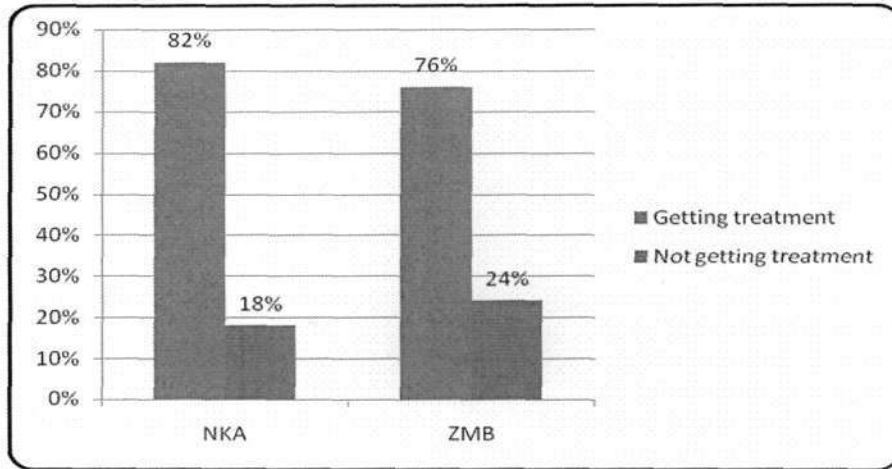
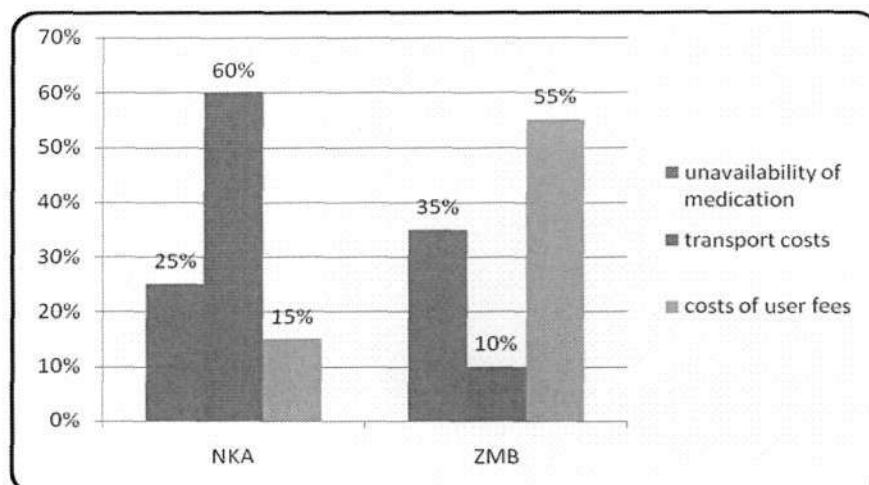


Figure 5.5 above indicates the proportion of inhabitants that have access to treatment and those who are not getting it. Eighty-two percent and 76% of sampled household members in Nkanyisweni and Zombodze, respectively, stated that they do get treatment. Moreover, 18 % (Nkanyisweni) and 24 % (Zombodze) stated they don't get treatment for their ailments.

In both communities people suffering from diabetes, asthma, sinus and high blood pressure stated that they collect their medication once a month and those suffering from coughs only got theirs once, that is, on the day they report sick to the clinic. They stated that it only took one visit to the clinic to treat the coughs and colds. The people who suffered from epilepsy stated that they also don't get any medication from Modern Medical Practitioners but instead they use the services of the Traditional Medical Practitioners since they believe such illnesses are linked to ancestry or witchcraft within the community.

**Figure 5.6: Difficulties faced by respondents in accessing treatment**



The figure above reveals the responses concerning the difficulties the respondents of both communities faced in getting treatment for their ailments. Twenty-five and 35% of the respondents in Nkanyisweni and Zombodze, respectively, stated that the unavailability of medication hindered their access to treatment. In Nkanyisweni, the majority (60%) cited transport cost as a barrier to their access to treatment, while a minority (10%) cited this as a difficulty in Zombodze. The majority of respondents in Zombodze (55%) stated that the cost of user fees is a difficulty, while 15% of respondents in Nkanyisweni cited this as a problem.

Big differences exist in both communities with respect to costs of user fees and transport. User fees are high on the sampled Zombodze population list of difficulties whereas in Nkanyisweni transport was reported as a major challenge. This might be due to the fact that people in Nkanyisweni spend a lot of money on transport in their quest to access free PHC services in neighbouring communities. In Zombodze people pay user fees, thus leading them to complain about the high cost of treatment/consultation.



**Figure 5.7: Sources of medication in both case studies**

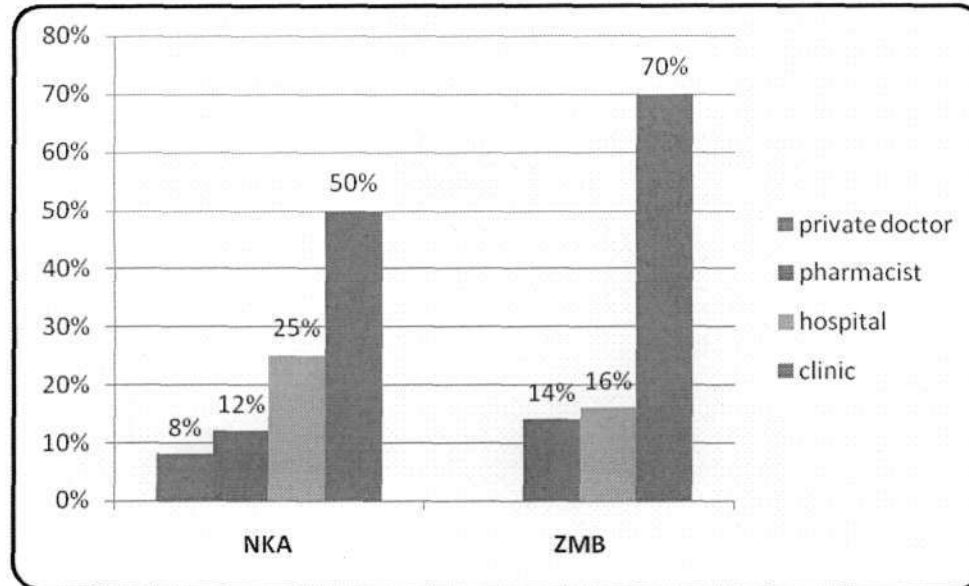


Figure 5.7 above illustrates the results of the respondent's sources of medication. The majority of respondents in both communities (Nkanyisweni 50%) and (Zombodze 70%) get their medication from clinics. Twenty-five percent and 16% of respondents in Nkanyisweni and Zombodze, respectively, stated that they get their medication from the hospitals. Pharmacist services were reportedly utilized by 14% of respondents in Zombodze and 12% in Nkanyisweni. Only a minority (8%) from Nkanyisweni stated that they get their medications from private doctors.

The above figure revealed the possible places where rural inhabitants of Nkanyisweni and Zombodze can go to for their medication needs, but it was also evident that certain sectors are used when all the preferred options have been explored, for example going to the pharmacist. The main reason stated for this was that medication in pharmacies is costly. In Nkanyisweni few of sampled population, who also constitute a small proportion, had access to private health care.

**Figure 5.8: Boiling of household water as a preventative health measure**

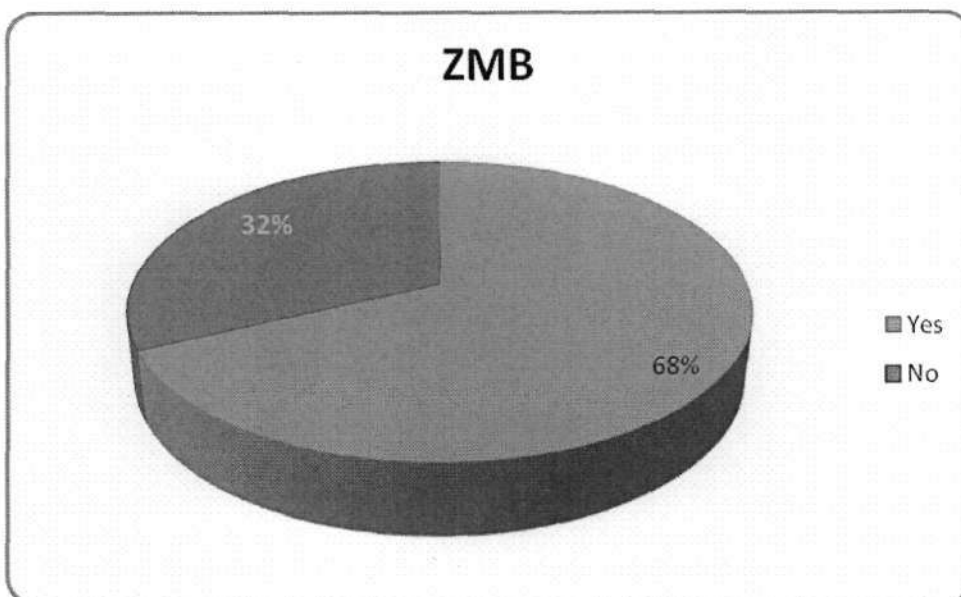


Figure 5.8 above illustrates the respondents whose households boil water before use. The above figure only shows the result of the people of Zombodze since all the inhabitants of Nkanyisweni use tap water. In Zombodze, 68% of the respondents reported that they don't boil water in their households, while only 32% stated that they boil water before consumption. What is evident in this is that few people take precautionary measures to ensure that they rid water of harmful bacteria, especially since most people in Zombodze rely on either water from springs or boreholes which can easily be contaminated and it is important to boil water before household consumption.

**Table 5.20: General health rating of respondents**

Ratings	Nkanyisweni (%)	Zombodze (%)
Excellent	16	12
Good	20	24
Moderate	44	56
Bad	10	8
Don't know	10	-

In Nkanyisweni 16% of the respondents rated their health as excellent, while 20% gave a rating of good. The majority (44%) rated their health as moderate and 10% rated their health as bad and 10% stated that they don't know. In Zombodze 12% rated their health as excellent and 24% as good, whilst the majority (56%) gave a moderate rating and 8% a bad rating. It evident that respondents having a variety of choices when it comes to the issue of medication sources, but despite this there is still a lot of challenges that have to be addressed within these communities to improve the general health of the inhabitants (e.g. making available the necessary medication, erecting of better sanitation services and the improvement of water supplies especially in Zombodze).

## 5.6. Nutrition

**Figure 5.9: household's access to food resources**

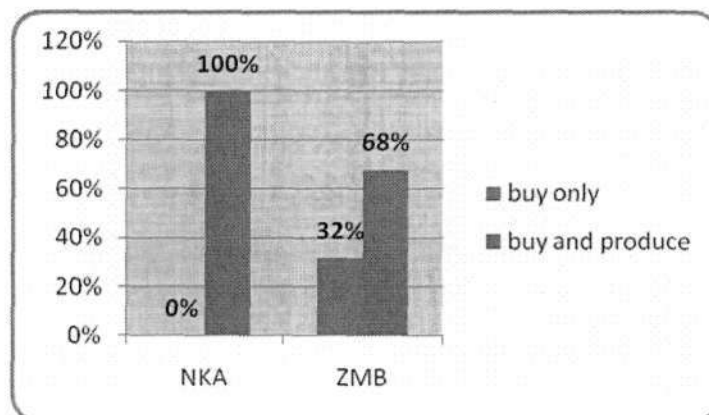


Figure 5.9 shows the results of households' sources of food in both communities. In Nkanyisweni 32% of the respondents buy household food resources and 68% stated that

they both buy and produce food. In Zombodze, all respondents (100%) stated that they buy and produce food. This shows that people in Zombodze are still highly dependent on subsistence farming for food resources, while in Nkanyisweni few people still participate in the agricultural sector. This might be due to the fact that most people in Zombodze have large areas of fertile land for crops like maize and soya beans, while in Nkanyisweni there is a large urban influence since this community is situated within the Metropolitan of Durban where the majority no longer practice agriculture, nor do they have large fields.

**Figure 5.10 Proportional contribution of either bought or produced food**

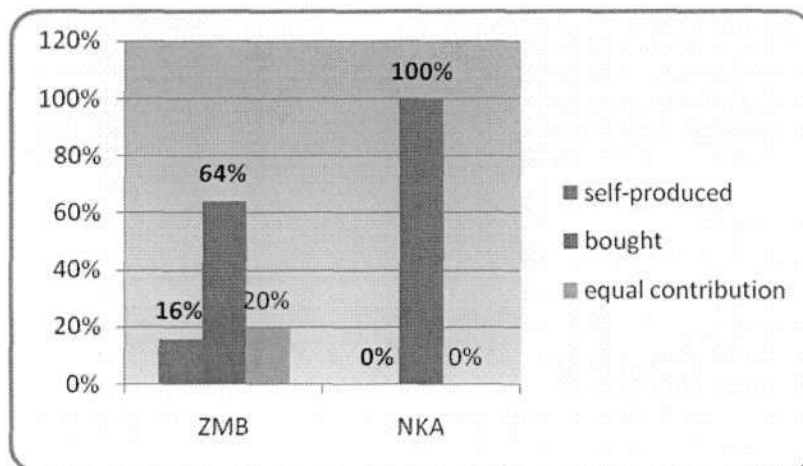


Figure 5.10 above shows the results of the contribution of each food source amongst the respondents. In Nkanyisweni, all the respondents stated that bought food resources contribute immensely to their household food resources, whilst 64% in Zombodze attested to this. Twenty percent of the respondents in Zombodze stated that there is an equal contribution towards food resources from both bought and self-produced food. Only 16% stated that it is self-produced food that contributes greatly to their household food resources.

**Table 5.21: Meals consumed by households per day**

Number of meals	Nkanyisweni (%) N=50	Zombodze (%) N=50
Breakfast and supper	32	44
Breakfast, lunch and supper	68	56

Thirty-two percent of respondents in Nkanyisweni stated that they consume two meals per day which is breakfast and supper. In Zombodze, 44% of the respondents consume two meals per day. The majority (68%) of the respondents in Nkanyisweni reported to be consuming three meals per day with 56% of respondents in this category in Zombodze. The inhabitants of both communities understand the importance of breakfast since all households reported it to be part of their meal. The proportion of respondents who reportedly consume breakfast and supper only, is due to the fact that most of them stipulated that they don't consume a specially prepared meal for lunch (as with breakfast & supper) even though they do consume something between the morning and evening meals. This also gives us the understanding of the inhabitants conception of lunch. (i.e., people in these communities conceive lunch as a meal that is specially prepared for consumption in a stipulated lunch time).

**Table 5.22 Consumption of carbohydrates rich food stuffs**

	ZMB %	NKA %	ZMB %	NKA %	ZMB %	NKA %	ZMB %	NKA %
Type of Food	Always		Often		Sometimes		Rare	
Apples/any fruits	-	28	12	36	42	36	46	-
Bread	48	20	14	34	22	30	16	16
Beans(red)	26	70	16	20	12	6	46	4
Whole wheat	-	6	14	6	12	10	74	78
Sugar	60	88	22	6	18	6	-	-
Honey	-	-	8	-	16	10	76	90

ZMB=Zombodze, NKA=Nkanyisweni

Always =6 times a week or more

Often = 4 times a week

Sometimes=3 times a week

Rare=once in two weeks

The households' consumption of carbohydrates rich food and the frequency of consumption is indicated in Table 5.22. It reveals that high on the Nkanyisweni respondents list of consumption is sugar with 88% of the people stating that they

consume it six times or more per week with tea or coffee, second on the list is red beans which is consumed by 70% of the respondents for the same number of times as sugar and third and fourth is fruit and bread, with the former reportedly consumed by 36% for about 4 times a week and the latter consumed by 34% four times a week.

The foodstuffs that are least consumed by the majority of the respondents in Nkanyisweni are honey and whole wheat, which were reported to be consumed once in two weeks by 90% and 78% of the respondents, respectively. In Zombodze the first on their list of carbohydrates consumption is sugar which is consumed by 60% of the respondents 6 times or more a week with bread being consumed by 48% of the respondents 6 times or more per week. The least consumed food stuff in Zombodze is honey which is consumed by 76% of the respondents once in two weeks, with 74% consuming whole wheat bread once in two weeks, while 46% consume beans and apples or fruit once in two weeks. It is evident from the Table 5.22 that both communities rarely consume or never consume whole wheat bread and honey, and that sugar is consumed on a daily basis in both communities.

Carbohydrates are good for health. They are vital for proper gut function and are an important fuel for the brain and active muscles. Neither starch nor sugars, has been found to have any special role in the development of serious diseases such as diabetes. It is now evident that diets high in carbohydrate, as compared with those high in fat, reduce the likelihood of developing obesity. Starch and sugars have not been found to have different effects on weight control. In fact high sugar consumers have been found to be slimmer than low sugar consumers (Liu, 2003).

The Food and Agricultural Organization (FAO and WHO, 1998) state that when carbohydrate consumption levels are at or above 75% of total energy there could be

significant adverse effects on nutritional status by the exclusion of adequate quantities of protein, fat and other essential nutrients

**Table 5.23: Consumption of food stuff rich in fat**

	ZMB %	NKA %	ZMB %	NKA %	ZMB %	NKA %	ZMB %	NKA %
Type of Food	Always		Often		Sometimes		Rare	
Beef	-	40	30	32	24	28	46	-
Chicken	42	66	18	34	30	-	10	-
Milk	20	70	18	8	26	10	36	12
Butter	26	68	22	12	28	20	24	-
Cheese	-	18	-	14	16	26	84	42
Cooking oil	64	92	36	-	-	-	-	8

ZMB=Zombodze, NKA=Nkanyisweni

Always =6 times a week or more

Often = 4 times a week

Sometimes =3 times a week

Rare =once in two weeks

In Nkanyisweni, high on the consumption list in the category of food rich in fats was cooking oil which is reportedly consumed by 92% of the respondents six or more times a week, this is followed by milk which is consumed largely by 70% of the respondents and chicken which is consumed by 66% of the respondents. The least fat rich food stuffs consumed in Nkanyisweni is cheese which is reportedly consumed once in two weeks by 42% of the respondents.

In Zombodze, food stuff high on the households consumption list was cooking oil which is consumed by 64% of the respondents six times or more per week, which is followed by chicken which is consumed by 42% of the respondents for six times or more per week and the least consumed food stuff is cheese which is consumed once in two weeks by 84% of the respondents, followed by beef which is consumed once in two weeks by 46% of the respondents. In Table 5.23 it is important to note the similarities in the food consumption patterns of both communities. It also reveal that in both communities people

prepare their food using cooking oil and their preferred curry will in most instances be chicken and cheese is the least consumed food stuff in both these communities.

These similarities might be informed by their traditional preferences. Secondly, this might be due to the accessibility of these foodstuffs compared to others, especially if one looks at the price of beef compared to that of chicken and also because some keep their own chicken. On average chicken is cheaper or costs less than beef. The incident of cheese as a least consumed food stuffs might be based on two elements, firstly it is expensive and secondly, that most rural inhabitants are not exposed or use to this type of food.

Detailed research much of it done at Harvard University shows that the total amount of fat in the diet, whether high or low, isn't really linked with disease. What really matters is the type of fat in the diet. Bad fats increase the risk of certain diseases and good fats lower the risk (Hu, Manson and Willet, 2001).

**Table 5.24: Consumption of food stuffs rich in protein.**

	ZMB %	NKA %	ZMB %	NKA %	ZMB %	NKA %	ZMB %	NKA %
Type of Food	Always		Often		Sometimes		Rare	
Fish	20	24	20	36	30	24	30	16
Soya beans	22	-	48	-	30	14	-	86
Eggs	-	50	12	30	28	12	60	8
Peanuts	-		4	20	22	32	74	48
Rice	64	74	22	10	14	16	-	-

ZMD=Zombodze, NKA=Nkanyisweni

Always =6 times a week or more  
 Often = 4 times a week  
 Sometimes =3 times a week  
 Rare = once in two weeks



Protein rich food in Nkanyisweni is consumed by 74% of household members six times or more per week while in Zombodze it is consumed by 64% of the households for six times or more per week. In Nkanyisweni this is followed by eggs which are consumed by 50% of the inhabitants while in Zombodze it is followed by the highly rich in protein legume soya beans, which is consumed by 48% of the respondents four times per week. The least consumed food stuff in Nkanyisweni is soya beans which is least consumed (86%) of the respondents while in Zombodze peanuts are the least consumed food stuff (74%) of the inhabitants (Table 5.24).

According to Anderson and Moore (2004) in humans, the protein content of a food or meal is also a factor in the short-term reduction of food intake. A stronger short term condition of being full effect of protein, compared with that of fat and carbohydrate, has been shown by the delay in time at which food is requested after a protein load. These high protein diets have been criticized on the prediction that they will have adverse effects on calcium balance, the progression of cardiovascular disease and on renal and liver function, none of which have been proven so far.

**Table 5.25: Relationship between Gender and Level of education in Nkanyisweni**

		LEV.EDUCATION				Total
		no formal schooling	primary	secondary	tertiary	
GENDER	Female	14%	12%	34%	12%	<b>72%</b>
	Male	0	2%	18%	8%	<b>28%</b>
<b>Total</b>		<b>14%</b>	<b>14%</b>	<b>52%</b>	<b>20%</b>	<b>100%</b>

The above table shows the differences between males and females with regard to education in Nkanyisweni. What is evident in the above Table 5.25 is that women are the only group that has no formal education with 14 % of the respondents in this category. Women are also the majority when one looks at those who have accessed higher

education, women constitute 12% of respondents who have tertiary or were studying in higher education institutions at the time of the study, while males only contribute 8% of the respondents who had or were in higher education institutions.

Table 5.25 it shows that based on the fact that women are the majority in the total population of the study, it is also observable that they become the majority in all sectors, from being the majority with primary, secondary and also tertiary education.

Based on the above assertions one would therefore deduce that such statistics are a true reflection of the sampled population, since those who are the majority demographically are also largely represented in all sectors.

**Table 5.26: Relationship between Gender and Level of education in Zombodze**

		LEV. EDUCATION				Total
		no formal schooling	primary	secondary	tertiary	
GENDER	Female	12%	16%	26%	4%	58
	Male	6%	8%	20%	8%	42
Total		16%	24%	46%	12%	50

Table 5.26 reveal the results in differences of males and females relative to education in Zombodze. It is evident based on observable statistics above that 12 % of females have no formal education as opposed to 6% of males from the total sampled population. Women are also the majority with primary and secondary education; they constitute 16% and 26% respectively of the sampled population of respondents while males are the majority with higher education where they constitute 67% of the 6 people with higher education as opposed to only 33% of females. Similarly to Nkanyisweni, women are the

majority in the sampled population of the study and their wide representation in all levels of education is not demographically representative.

**Table 5.27: Relationships between Employment and Education in Nkanyisweni**

		EMPLOYMENT			Total
		Unemployed	employed	self-employed	
<b>LEV.EDUC</b>	no formal schooling	14%	0	0	14%
	primary	12%	2%	0	14%
	secondary	30%	10%	12%	52%
	tertiary	8%	8%	4%	20%
<b>Total</b>		<b>64%</b>	<b>20%</b>	<b>16%</b>	<b>100</b>

Table 5.27 shows the results of the differentials in terms of employment and the level of education of the respondents in Nkanyisweni. Fourteen percent of the respondents had no formal education and they were also unemployed, while out of the 20% of the people with higher education 12% were employed, with 8% and 4% of this proportion having formal employment and self employment, respectively. Almost half of the unemployed 64% had secondary education, twelve percent had primary education and 8% were still studying in higher education institutions.

Table 5.27 shows that even though there are difficulties of finding employment for the segment of the population who had access to formal education, it evident that education has put them in a better position to open their businesses as opposed to those people without any formal education, as evident with 16% of the respondents active in the informal economy sector.

**Table 5.28: Relationships between Employment and Education in Zombodze**

		EMPLOYMENT			Total
		Unemployed	employed	self-employed	
<b>LEV.EDUC</b>	no formal schooling	14%	4%	0	18%
	primary	22%	2%	0	24%
	secondary	14%	16%	16%	46%
	tertiary	0	10%	2%	12%
<b>Total</b>		<b>50%</b>	<b>32%</b>	<b>18%</b>	<b>100</b>

Table 5.28 above reveal the results of the relationship and differences between employment and education in Zombodze. Eighteen percent of the respondents had no formal education and contrary to the situation of Nkanyisweni, 23% of these people were employed. The majority of the respondents who were employed (16%) had secondary education. It is also evident from Table 5.28 that out of the 12% of the respondents with higher education, eighty percent were employed, while 20% were involved in self-employment activities. Similarly to the case of Nkanyisweni, people who participated in the informal economy through self-employment had formal education.

**Table 5.29 Relationship between Age and Illnesses in Nkanyisweni**

		Types of illnesses prevalent in the community					Total
		Coughs/cold	high blood pressure	diabetes mellitus	asthma	sinus	
<b>AGE</b>	15-24	8%	0	0	0	0	8%
	25-34	22%	0	0	2%	2%	26%
	35-44	12%	12%	6%	0	0	30%
	45+	14%	10%	6%	2%	4%	36%
<b>Total</b>		<b>56%</b>	<b>22%</b>	<b>12%</b>	<b>4%</b>	<b>6%</b>	<b>100</b>

Table 5.29 shows the relationship between age and the types of illnesses that are prevalent in the community. It evident based on observable statistics above that coughs/cold affect all age groups, the age group between 25-34 constituting 47% of the

affected 56% of the respondents. Illnesses such as high blood pressure and diabetes affected people within the age group of 35 years to 45 years and above. Twelve percent of the respondents within the age of 35-44 had high pressure, while 10% of people age 45 and above had the same illness. It is evident from Table 5.29 that as people grow older, they become susceptible to many illnesses. Based on the observable statistics above the age group from 45 years and above were affected by all illnesses prevalent in the community, while the younger age group (15-24) only reported to be affected by coughs/cold.

**Table 5.30: Relationship between age and illnesses in Zombodze**

		Types of illnesses prevalent in the community					Total
		Coughs/cold	high blood pressure	diabetes mellitus	sinus	epilepsy	
AGE	15-24	12%	0	0	2%	0	14%
	25-34	8%	4%	0	6%	0	18%
	35-44	22%	0	0	0	4%	26%
	45+	18%	8%	6%	2%	8%	42%
Total		60%	12%	6%	10%	12%	100

Table 5.30 above shows the relationship between age groups and the illnesses that are prevalent in Zombodze. People in the age group of 35-44 formed the majority of those affected by coughs/cold, they constituted 73% of the total number of respondents affected by coughs/cold. Eight percent of the respondents aged 45 and above had epilepsy, whereas, 4% of the respondents aged between 35-44 were affected by the same illness. Similarly to the case in Nkanyisweni, it is also evident from Table 5.30 that older people(age 45+) in Zombodze are also susceptible to all the illness that were identified as prevalent in the community, with the young people aged between 15-24 affected by coughs/cold(12%) and a small proportion (2%) affected by sinus.

**Table 5.31: Relationship between Income and Illnesses in Nkanyisweni**

Income	Coughs/cold	high blood pressure	diabetes mellitus	asthma	sinus	Total
R500-999	38%	0	0	2%	0	40%
R1000-1499	10%	0	0	0	0	10%
R1500-1999	2%	2%	0	2%	6%	12%
R2000-2499	2%	6%	6%	0	0	14%
2500+	4%	14%	6%	0	0	24%
<b>Total</b>	<b>56%</b>	<b>22</b>	<b>12%</b>	<b>8%</b>	<b>12%</b>	<b>100</b>

The table above shows the differences in the respondents of Nkanyisweni with respect to illnesses and their income. It evident from Table 5.31 that people who were highly affected by coughs/cold (38%) fall within the income range of R500-999 and the high earning group of R2500+ constituted 7% of the total number of people affected by coughs/colds. High blood pressure and diabetes affected people earning between R1500-2500+, 14% of the people earning from R2500 and above had high blood pressure. This shows that people who earn less in Nkanyisweni are more likely to suffer from illnesses such as coughs/colds and the high earners are more likely to suffer from high blood pressure.

**Table 5.32: Relationship between Income and Illnesses in Zombodze**

Income	Coughs/cold	high blood pressure	diabetes mellitus	asthma	epilepsy	Total
<R499	4%	0	0	4%	4%	12%
R500-999	32%	0	0	2%	6%	40%
R1000-1499	12%	6%	0	4%	0	22%
R1500-1999	12%	6%	6%	0	2%	26%
<b>Total</b>	<b>60%</b>	<b>12%</b>	<b>6%</b>	<b>10%</b>	<b>12%</b>	<b>50</b>

Table 5.32 above reveal the result of the relationship between income and illnesses that are prevalent in Zombodze. The people earning between R500-999 constituted 53% of the total number of respondents affected by coughs/colds and the highest earners (R1500-999) constituted 20% of the group of people affected by the aforementioned illness. Fifty percent of people affected by epilepsy earned between R500-999. Similar to

Nkanyisweni, it is evident from Table 5.32 that high blood pressure and diabetes affected people earning between R1000-1999, none of the low income groups were reported as suffering from these illnesses.

There are similar patterns between Zombodze and Nkanyisweni with respect to illnesses and income, in both communities people who are highly affected by coughs/colds are those earning between R500-999 and the high earners are affected by illnesses such as diabetes and high blood pressure.

### **5.7. Summary of results**

The main finding of this study is that the primary health care centres in these communities lack managerial capacity, which leads to them not having the essential drugs for dispensing to the ill inhabitants they are supposed to service. This study has also uncovered that a significant number of people use traditional medicine depending on the kind of ailments they suffer from. This leads one to deduce that primary health centres are inefficient in addressing the health needs of the community within which they operate.

Women have been found as the gender mostly visible in all sectors of society, they constitute the majority of the highly educated segment of their communities, but there are also concerns about their large numbers in the illiterate group. The study also uncovered that most women are employed in the formal sector as compared to their male counterpart who tend to dominate the informal sector. It is also evident that in the income ranges even though women dominate, in the upper income groups men tend to be in great numbers. This issue of woman being underrepresented is a global pattern which is steadily changing, because one finds that women are employed in greater numbers but

employers are still reluctant to include them in high paying and decision making positions.

The study has also revealed that most women are still within the child reproductive age, which might lead to an increase in the population of these communities, leading to a lot of pressure on the health resources which in a certain extent are not coping with the current demand from the present population. It is also evident in this study that most people consume food stuffs which are highly diverse and might have significant nutritional impact on their health; the people of Zombodze have been observed as the people with a high protein intake as opposed to their Nkanyisweni counterparts. It has also been uncovered that most people in both communities get married at an older age, and that women are the majority of people who have lost their partners, leaving a large proportion of female headed households.

The study further revealed that people in Zombodze still practice subsistence farming and it is also evident that in Zombodze food produced for subsistence contribute immensely in their household food resources, while in Nkanyisweni a huge contribution to their food resources is made by bought food stuffs. The study has also found that people in Nkanyisweni tend to travel longer distances to access health centres, which is due to the fact that based on the ineffectiveness of their local clinic they are forced to utilize clinics from surrounding communities which raises costs of their health care by paying expensive transport fees. This shows the difficulties faced by rural inhabitants in trying to access health care centres.

A certain proportion of individuals in both communities reported that they use traditional medicine, but such usage is dependant on the nature of illness. There are illnesses in the community that the community members thought or believed to occur because of ancestral causes. In some people utilizing traditional medical practitioner services are



thought of as going to witches and therefore the traditional healer is the preferred practitioner to consult in order to cure such illnesses.

The results of the study on a socioeconomic front showed that based on the monthly income average of R1062.60 for Nkanyisweni and R928.78 for Zombodze, and also taking into consideration the average number of people per household which is 4.7 and 6.3 for Nkanyisweni and Zombodze, respectively, people in Nkanyisweni survive from R226.09 a month per person while people in Zombodze live on R147.43 per person per month. This in turn translates to R7.54 when divided by 30 days in a month for people in Nkanyisweni and R4.91 in Zombodze per day per person. Based on the Dollar to Rands or Emalangeni Exchange rate of E/R7.32/\$ people of Nkanyisweni survive on slightly more than a U.S. dollar per day while their Zombodze counterparts survive on less than a U.S. dollar a day.

The study found that in the both communities the majority of inhabitants still use open pit latrine toilet systems. In Zombodze most people use water from boreholes (48%) and springs (30%), whereas in Nkanyisweni the majority of people used tap water supplied by the municipality. People in Zombodze travelled longer distances to fetch water as opposed to those on Nkanyisweni and this signals a dire need to provide treated tap water to the community of Zombodze.

## **5.8. Conclusion**

This chapter has described the findings and results of the study by statistical analysis of the data which was collected for the study. It has also provided the probable explanations of why certain things turned out the way they did and certain elements that account for the observed similarities and differences in both communities under study. It has also shown how the differentials in the total demographics of the sampled population have led to such differences surfacing in most segments of the study. It has also been observed that

certain differences are dictated by the proportional size of each group in the sampling frame. This means that the number of respondents in term of gender have an impact on certain differences that were revealed by the study.

## **CHAPTER SIX**

### **EVALUATION, RECOMMENDATIONS AND CONCLUSION**

#### **6.1. Introduction**

The primary objective of this chapter is to evaluate the findings from the empirical analysis with regard to the conceptual framework and literature review, and to reflect on the objectives that were set for this study. It also seeks to suggest some recommendations on the rural health service delivery issue. Specifically in terms of the case studies and generally with regard to developing countries.

#### **6.2. Evaluating objectives of the study relative to the results**

The objectives of this study pertaining to rural health services delivery, specifically PHC, will each be discussed sequentially to evaluate whether they have been fully or partially met.

The first objective was to examine the socio-economic status of the inhabitants of Nkanyisweni and Zombodze. Numerous variables were measured to examine the socio-economic status of both communities. The results of the study show many differences and similarities with regard to the same objectives amongst the population under study, which also helped the researcher to understand the elements behind certain behaviours within the community, e.g. spending on food and income ranges. This objective has been fully met since a lot of factors ranging from education, employment to the number of people in household have been uncovered and their implications explained. The key findings in the study are that, educational levels do to a certain extent have an influence on the type of jobs that people are doing and that income variations amongst groups in each or between communities understudy are reflective of the current global trends where a few people earn better salaries while the majority earn meagre salaries. Nkanyisweni had 6% of respondents earning from R2500 and above, while the majority had incomes ranging from <R499-2499. In Zombodze the majority had incomes ranging from <R499-

1499, while 16% had incomes from R1500-1999. Phillips (2005) posits that, it is evident that economics or rather financial factors have a huge impact on the provision of health services, the implications of this on a community or household scale is that, the income determines what types of health care services the individual can access.

The second objective was to determine the constraints faced by the inhabitants of these communities to access PHC. The key constraints that were uncovered in this study were that a considerable amount of people still travel long distances to access health care centers, coupled with high transport costs, which was cited by 60% of the respondents from Nkanyisweni and user fees as stated by 55% of the respondents in Zombodze. This objective was partially met based on the fact that certain questions that were asked in order to measure the people's constraints did not reflect well as good indicators on this issue. Hanson, Ranson, Oliveria-Cruz and Mills (2003) state that there are a range of constraints to expanding access to health services: as well as an absolute lack of resources, access to health interventions is hindered by problems of demand, weak service delivery systems, policies at the health and cross-sectoral levels, and constraints related to governance, corruption and geography. It is implicit in this assertion that, to understand the challenges of accessing health care goes beyond the distance and time inhabitants travelled. Benatar (2004) points out that inequitable provision of health as a major constraint to the improvement of the health of the South African population, leads to gap in health status. Whiteside et al (2003) states that, a constraint in accessing health care in Swaziland is the increase in the illnesses associated with AIDS, thus putting more burden on the public sector as people exhaust their resources and are unable to access care.

The third objective was to assess the nutritional status of the people in these communities; there were lot of difficulties that were identified in assessing this variable based on the researchers' limited knowledge of nutritional science. Despite the latter

limitation, the key factors that stood out of the findings relative to this objective was that, in both communities a majority of inhabitants consume 3 meals per day (Zombodze 56%) and (Nkanyisweni 65%). In relation to this Oxfam (1995) states that, people become malnourished if they have too little to eat, their diets are wrongly balanced and they suffer prolonged illness and infection. It was also uncovered that people in these communities consume foodstuffs diverse in nutrients, with the people in Zombodze having a high nutritional intake of proteins and people in Nkanyisweni having high carbonhydrates content. Meade et al., (1988) point out that, the interaction between nutrition and disease is two-way. In themselves, deficiencies of minerals and vitamins constitute diseases, but malnutrition also makes the body more susceptible to disease. The implication of this statement is that, if people consume foodstuff unbalanced in nutrients they become susceptible to illnesses, since nutrients play a huge role in defending the immune system against diseases. There were no ailments uncovered in these communities which might be linked to nutritional deficiencies.

The fourth objective was to assess the availability and accessibility of water and sanitation in both communities under study. This objective was fully met as it is evident in the results on this issue. It was uncovered that 84% of respondents in Nkanyisweni had access to tapped water, while the majority of respondents in Zombodze had access to water from boreholes. Despite these figures there were numerous water and sanitation elements uncovered in these communities, such as different types of water sources and methods of waste disposal. Many challenges that certain household are faced with in trying to access water and sanitation were uncovered. The key challenges the communities faced in accessing water and sanitation is that the majority of people either use shallow pit latrines or pour flush toilet systems. The dumping sites they utilized were in most instances close to the households (between 50-75 metres) and people in Zombodze had to travel long distances to access water with a household water demand of 105.75 litres. According to WHO (2003c) around 1.1 billion people globally do not have

access to improved water supply sources whereas 2.4 billion people do not have access to any type of improved sanitation facility. The community of Zombodze falls within both axis of this statement since they lack piped water sources and their sanitation is very poor. The Nkanyisweni community has an improved water service supply and coupled with a poor sanitation system, since most people still use environmentally hazardous toilets systems.

Adams (1999) stated that, 80% of all diseases in the world are associated with unsafe water or poor environmental hygiene. Even though there were no illnesses revealed by the study that were linked to environmental hazards, looking at the statistics in both communities with respect to water and sanitation it evident that people are at risk at contracting diseases that arises from unsafe environments especially caused by the use of open pit-latrines systems. Oxfam (1995) emphasized that water and sanitation are vital components of PHC and state that, contaminated water and poor hygiene are the major causes of diarrhoeal diseases, which are highly prevalent among poor people living in crowded conditions with inadequate facilities. This implies a greater need for improved water and sanitation for the betterment of the health status of the people in the communities. The Rural Development Framework (1997) points out that water and sanitation are essential for both health and the standard of living of rural populations and for the development of the land and other enterprises.

The fifth objective was to examine the use of traditional medicine as an alternative source of health. This objective was met but not within the context of traditional medicine being an alternative, but in a sense of it being a health system which supplements the modern bio-medical approach to health care. The key findings in this study relative to this objective was that, a majority of traditional medicine users stated that their use depends on the nature of illness, with 38% falling in this group in Nkanyisweni and 24% in Zombodze. A considerable amount of people also supported the integration of TMPs to

the modern health system. According to Makhubu (2003) traditional medicine has always been used extensively in Swaziland. People consult both TMPs and modern clinics in times of illness. Mufamadi (2001) using information from studies conducted in Limpopo(South Africa), states that the majority of rural people still utilize the services of traditional practitioners because of the belief that certain illnesses are linked to ancestral spirits, a domain beyond western medicine conceptions of disease and illness. This is also accounted for by Oxfam (1995) who quoted a study conducted by the World Health Organization which revealed that, an estimated 80% of the worlds population rely entirely on traditional, alternative or 'informal' health care, either from choice or because there are no formal health facilities available to them.

The results revealed in this study are also not much divergent of the global trends relative to the use of the traditional forms of medicine. There are numerous factors that lead people to use traditional medicine especially in developing countries. Serkkola (1994) states that one of these factors might be due to the fact that the majority of the population live within the influence of various co-existing medical systems and they live in a situation where a patient and his/her family can use different treatment methods for the same illness. It is for this reason that people in the study revealed that their usage of traditional medicine depends on the illness. Traditional medicine in the communities was used for illnesses like epilepsy, boosting the immune system and STI/STD's which are conceived to be results of evil spirits.

The sixth objective of the study was to examine the availability, accessibility and adequacy of PHC in Nkanyisweni and Zombodze. This objective was partially met since a lot of questions that were informed by this objective yielded results about availability of the essential drugs in a PHC centre, which raised many questions about the adequacy of the PHC centres in these communities. The key accessibility and availability issues here were the number of days and hours the clinic opened in Nkanyisweni. Additionally, the

clinics in both communities did not have essential drugs as prescribed in the PHC components. The essential drugs lists of both South Africa and Swaziland requires PHC centres to have medications ranging from dental and oral conditions, gastro-intestinal conditions, nutritional and blood conditions, to mention but a few.

Green (1999) noted planning as an important factor in health provision, which enables the authorities involved to make decisions on how to spend the resources available. The implication this has for this study is that, firstly the health ministries or districts either do not have skilled health personnel to address the health provision challenges or the structures put in place for health care provision are not well coordinated to achieve their set goals or objectives. Community participation in both communities was inactive as per prescriptions of the PHC principles; the envisaged participation in the principles is whereby members of the community become actively involved in making decisions about health and health care. People in both communities participated in the provision of health care as community health workers, a role for which they were trained in Zombodze. The CHWs worked voluntary bases in Nkanyisweni. This is something which Swantz (1994) warns against when he states that, community participation in health care derives from two basic principles; health must be seen as a total well-being, of both community and individuals not only of professionals trained for the purpose. King (1999) points out that community participation in health care delivery is more than a basic requirement for the attainment of optimal health of the community, rather it is a process that ensures the successful development of the community as a whole.

The seventh objective of the study was to investigate the health status of the inhabitants of Nkanyisweni and Zombodze, which amongst other things was aimed at understanding the health behaviour of the inhabitants based on their engagement on lifestyle practices that are detrimental to their health. This objective was also partially met, since many issues which would have made it possible for a thorough investigation of the inhabitant's



health were not included based on the reasons concerning the academic scope and limitation of the study. The key factors that were uncovered here was that, ailments like coughd/colds, sinus, diabetes and high blood pressure were common ailments in both communities. According to Jenkinson (1999) measuring 'health status' remains heavily contested technically, methodologically fraught, very expensive and very hard to operationalise even in ideal research sites. The health status of the people in Nkanyisweni is good, since inhabitants had access to safe water and more people had access to better sanitation. In Zombodze the health of the inhabitants is threatened by many environmental health hazards (e.g. unsafe water, lack of proper sanitation services) and the strain caused by travelling long distances to access water sources might also lead to certain individuals suffering from back pains in future.

### **6.2.1 Evaluating the Afro-contextual approach to health**

The Afro-contextual approach as a model that seeks to provide an understanding of health care based on the afro-centric outlook of things. If it were applied as a primary theoretical technique in the current study, this approach attempted to uncover health information relative to the social context of health and do little justice on biomedical components which are also important in the understanding of disease and health. This study has drawn insights from the biomedical model of health, political economy of health and the afro-contextual approach. The Afro-contextual approach provided a lens for this study to view health in rural communities in relation to their cultural understanding of disease and illnesses. This is based on the understanding that culture informs and shapes the experiences of individuals and a lot of indigenous knowledge is passed through this institution, that include the traditional conception of health issues. The biomedical model provided a biological or physiological perspective on health, disease and illness and made it possible to trace the history of HIV/AIDS, explaining it prevalence and clarifying other health issues. The political economy provided a

perspective that enabled the researcher to look at issues like the politics of health provisions, the economics of health and filled knowledge gaps left by other models or approaches.

Wade and Halligan (2004) argue that, the biomedical model of illness cannot fully explain all forms of illnesses. The implication that this has for the Afro-contextual model is that, it also cannot explain all forms of illnesses and it has also been noted that it leaves out the biological components of illnesses. This, therefore, means all models as they rest on different disciplinary contexts cannot fully give an understanding of health on their own; rather an integration of these can help a step further in answering certain health questions. The Afro-contextual approach to health is workable within the social components of understanding health care in an African setting. Doyal and Pennell (1981) state that the way health and illness are defined, as well as the material reality of disease and death will vary according to the social and economic environment in which they occur, and they warn that this does not suggest the total abandonment of the physical and chemical laws governing disease mechanisms.

### **6.3. Recommendations of the study**

- The use of traditional medicine must be regulated either by the state or traditional healers associations. Secondly, people should also be encouraged to utilize the services provided by the practitioners in this sector to ensure that there is diversification of health options for the communities.
- The local municipalities especially in South Africa where the role of PHC provision is to be shifted to them must be provided with skilled personnel to ensure the effective management of community health affairs and the implementation of local policies that recognize the limitations poised by different operating local environments.

- With regard to the opening times of the community clinic in Nkanyisweni the local councillors must ensure that such a centre becomes operational based on the stipulations of the country's policies governing the daily operations of primary health care centres and hospitals. If the problem is that of human resources, they must lobby the district municipality to help in acquiring people who could ensure the effective and adequate provision of health care to rural communities.
- The local authorities in Zombodze must strive towards ensuring that people in this area get piped water, or communal taps to ensure that the residents have access to clean water which will avoid the incidence of having people suffering from waterborne diseases.
- To deal with the issue of illiteracy since this is an integral part of the Millennium Development Goals which both countries ascribe to, the relevant authorities must try to start community based Adult Based Education and Training (ABET) initiatives specifically aimed at providing education for rural people. This will also make it accessible to the rural people since it would then be decentralized. This would be a positive step towards the achievement of rural development.
- The community health workers in Nkanyisweni were appointed on a voluntary basis and none had been trained to provide such services, whereas in Zombodze they were trained. To avoid the negative impact this might have on the health of communities involved, the CHWs in Nkanyisweni must be trained specifically for providing home-based care so as to ensure that they understand the basic requirements of providing home-based care and the ethical conduct expected in such tasks, since in certain instances they might come across HIV/Aids infected

people. In this regard high ethical standards are required with special reference to confidentiality.

- There must be quarterly reviews of the performance of PHC centres to ensure that the problems that are faced by either communities or health personnel can be addressed and rural health service delivery improved. This task would be better carried out by the district municipalities together with local authorities of the PHC centres involved, thus instilling the culture of co-operative governance which is important in the successful operations of the PHC model.
- To improve the provision of primary health care the emphasis on community participation must not be overlooked and mechanisms must be devised to ensure that people do actively participate in shaping the PHC model in line with the people's needs, values and cultures.
- The local, district, provincial and national government must not be reactionary in solving the health problems of rural people. There must be functional monitoring and evaluation units to ensure proper service delivery within communities. They must also look beyond the bio-medical approach when assessing the health needs of the people. This will in turn open new opportunities and alternatives in dealing with health problems.

#### **6.4. Recommendations for future research**

The following are the recommendations for future research on the provision of primary health care in rural communities:

- A comparative regional study on the challenges of primary health care provision in rural communities within the SADC, which must be done either by the African

Union (AU) or the SADC. This would help in uncovering similar challenges and different country solutions, which in turn must inform regional health policy.

- A study on the prospects and challenges of traditional medicine within the dominant western health system, should be done to uncover valuable insights of disease and illness epidemiology within the African cultural context, to draw information on possible effective measures of integration (Airhihenbuwa, 2001).
- A study on the possibility of formulating a country wide rural primary health care provision framework that will seek to understand the implications of a single health policy in different environments (urban and rural).

### **6.5. Conclusion**

This study was an investigation of the provision of primary health care in marginalized rural communities. This study has fully and partially met some of its objectives. A lot of issues that inform the provision of primary health care have been discussed in the literature of the study and a lot of differing and similar arguments about certain conceptual issues and the highly contested issue of integrating traditional medicine and modern medicine have been discussed.

It is evident from this study that the provision of health is not an issue that can be defined as the sole responsibility of government because there are a lot of issues that become elementary composites of PHC which are not controlled by the state, (e.g. the provision of health and health care requires medications, high-tech health machinery which is not produced by the state). The state therefore, regulates the acquisition of services and products, it does not produce. The literature has also revealed that without sound policies which will inform what government must do or must not do in respect to health provision and spending, the goals of health for all might not be attained. South Africa has a White Paper on Health Care (1997) and other related policies. This is also the case in Swaziland

with it National Environmental Health Policy (2002). The literature has revealed the importance of having the political will to ensure that certain projects are implemented. This should not be overshadowed by the role played by the people who are capacitated in their respective sectors to deliver on such objectives, because some policies are good on paper but hardly implementable because of the lack of capacity in respective departments.

The participation of communities in the provision of health within their communities cannot be overemphasized, since this is an integral part of the PHC model. It can also be linked with political will, because in certain instances people don't want to participate in projects where they were not the integral part of the elements which brought such projects to life.

Based on the empirical findings of this study, it is evident that despite progress in health care in general in terms of availability of PHC centres, some are still faced with difficulty where certain essential drugs are still not available as it is with the case in Nkanyisweni and Zombodze. People end up going directly to the hospitals to which they are supposed to be referred by clinics, thus putting a lot of pressure on the hospitals who serve a wider population. The findings also reveal that the principle of community participation was not fully exercised in the community in terms of PHC provision, but it was only evident in the case of CHWs in Swaziland who voluntarily made themselves available for serving the community.

It, therefore, becomes clear that the running of the equitable and efficient PHC model can not be achieved if the people in charge of the provision of such a service do not want to operate within the scope and ambit of the prescribed guidelines of setting up an effective primary health care model. This amongst other things requires personnel who understand the PHC principles and objectives and must have the capacity to work towards the

attainment of the goal of providing health care that is central to the needs of the communities within which they operate.

The plurality with respect to culture and health beliefs pose a big challenge to the health personnel that are expected to work in these diverse communities. By employing a conservative approach in such instances whereas the environment requires different operational measures, can lead to less successful health care provision, which is out of touch with the needs of the people.

The general conclusion that can be drawn from this study is that the provision of primary health care in rural communities lags far behind urban areas. This might be due to their location relative to service centres, or the complexity of the policy making process. The other factor that might account for this is that few of the rural inhabitants participate in the policy process. The fact that most communities are dispersed, poses another challenge to the health departments, since the provision of clinics is based on a certain number of people within a specific radius. It thus becomes evident that the health departments alone cannot solve the health problems of the community, since primary health care requires, as one of its elements certain services that do not fall within the scope and ambit of the health Ministry (e.g. water and housing). Interdepartmental co-ordination is, therefore, important in order to provide a healthy environment to protect the general health of the public. There is also a need for a strengthened collaboration between South Africa and Swaziland with respect to the promotion of better health within the SADC region that should be encouraged by the geographical position of these countries. This envisaged collaboration on health will ensure that disease outbreak in one of these countries are curbed faster before they proliferate to higher proportions thus having an impact on neighbouring country citizens. This will require sharing of health knowledge and information.

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## APPENDIX: QUESTIONNAIRE

 <p><b>UNIVERSITY OF KWAZULU-NATAL</b></p>	<p><b>QUESTIONNAIRE FOR PRIMARY HEALTH CARE PROVISION IN ZOMBODZE(SWAZILAND) AND NKANYISWENI(SOUTH AFRICA) 2004-2006 (WESTVILLE CAMPUS)</b></p>
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### SECTION A: SOCIO-ECONOMIC STATUS

#### A1. Gender

<i>Female</i>	1
Male	2

#### A2. Age Group

<i>&lt;5</i>	<i>5-14</i>	<i>15-24</i>	<i>25-34</i>	<i>35-44</i>	<i>45+</i>
1	2	3	4	5	6

#### A3. Marital status

<i>Single</i>	<i>Married</i>	<i>Divorced</i>	<i>Widowed</i>
1	2	3	4

#### A4. Employment status

<i>Unemployed</i>	<i>Employed</i>	<i>Self-employed</i>
1	2	3

#### A5. Level of education

<i>No formal schooling</i>	<i>Primary</i>	<i>Secondary</i>	<i>Tertiary</i>
1	2	3	4

#### A6. Income

<i>&lt;R499</i>	<i>R500-999</i>	<i>R1000-1499</i>	<i>R1500-1999</i>	<i>R2000-2499</i>	<i>R2500+</i>
1	2	3	4	5	6

#### A.7 Number of household members

<i>Female</i>	<i>Male</i>	<i>Total</i>

### SECTION B: COMMUNITY HEALTH SERVICES

#### B1. How many clinics does the community have?

<i>None</i>	<i>One</i>	<i>Two</i>	<i>Above two</i>
1	2	3	4

#### B2. How do you get to the clinic?

<i>By foot</i>	<i>Private car</i>	<i>Public transport</i>
1	2	3

B3. How many kilometres/metres do you travel to the clinic?

<i>&lt;250m</i>	<i>250-550m</i>	<i>550-800m</i>	<i>800-1.052km</i>	<i>1.052km</i>
1	2	3	4	5

B4. Does the community have Community health workers (CHW)?

<i>Yes</i>	<i>1</i>
No	2

B5. If yes how often do they come to the community or household?

<i>Once a week</i>	<i>Twice a week</i>	<i>Three times a week</i>	<i>Once a month</i>	<i>Other(specify)</i>
1	2	3	4	5

B6. Do you have Traditional Medical Practitioners (TMPs) (i.e.izangoma, Izinyanga) in the community?

<i>Yes</i>	<i>1</i>
No	2

B7. When you are ill do you consult the TMPs first or the Modern Medical Practitioners (MMDs)?

<i>TMPs 1<sup>st</sup></i>	<i>1</i>
MMDs 1st	2
Depends on the nature of illness	3

B9. What are your views on the integration of Traditional Medical Practitioners to the National Health Services?

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B10. Do you think the integration of TMPs and MMDs will improve services provided by both health models?

<i>Yes</i>	<i>1</i>
No	2
I don't know	3

B11. How would you rate the current health services in the community?

<i>Excellent</i>	<i>Good</i>	<i>Moderate</i>	<i>Bad</i>	<i>Very poor</i>
1	2	3	4	5

B12. What do you think should be done to improve health care in the area/community?

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## SECTION C: WATER AND SANITATION

### Water

C1. What are the households' sources of water?

<i>River</i>	<i>Tap water</i>	<i>Springs</i>	<i>Streams</i>	<i>Boreholes</i>	<i>Com. Tap</i>	<i>Other</i>
1	2	3	4	5	6	7

C2. Do you harvest water as an alternative water source?

<i>Yes</i>	<i>1</i>
No	2

C3. How many metres/ kilometres do you travel to fetch water?

<i>&lt;250m</i>	<i>250-550m</i>	<i>550-800m</i>	<i>800-1.052km</i>	<i>1.052km</i>
1	2	3	4	5

C4. Estimation of daily water use in litres

<i>&lt;50 litres</i>	<i>50-75 litres</i>	<i>75-100 litres</i>	<i>100-125 litres</i>	<i>125 litres +</i>
1	2	3	4	5

C5. How do you store water?

\_\_\_\_\_

C6. Who fetches water?

<i>Women/girls</i>	<i>Men/boys</i>	<i>Whole family</i>
1	2	3

C7. How would you rate the current water services?

<i>Excellent</i>	<i>Good</i>	<i>Moderate</i>	<i>Bad</i>	<i>Very bad</i>
1	2	3	4	5

C8. What do you think should be done to improve the water services in the community?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## SANITATION AND WASTE DISPOSAL

C9. What type of toilets does the household utilize?

<i>Shallow pit</i>	<i>1</i>
Simple pit latrine	2
Borehole latrine	3
Ventilated pit latrine	4
Septic tank	5
Pour flush latrine	6
Waterborne toilets	7
Other (specify)	8

C10. How do you dispose off domestic waste?

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C11. Distance between household and its dump site

<i>&lt;50 metres</i>	<i>50-75 metres</i>	<i>75-100m</i>	<i>100-125m</i>	<i>125-150m</i>	<i>150m+</i>
1	2	3	4	5	6

C12. How would you rate the current sanitation systems?

<i>Excellent</i>	<i>Good</i>	<i>Moderate</i>	<i>Bad</i>	<i>Very Bad</i>
1	2	3	4	5

C13. What do you think should be done to improve sanitation services?

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#### SECTION D: HOUSEHOLDS' HEALTH PROFILE

D1. Do you or anyone in your household smoke?

<i>Yes</i>	<i>1</i>
No	2

D2. If yes how many and how often?

<i>Number of smokers</i>	<i>code</i>	<i>Frequency per day</i>	<i>Code</i>
<i>One</i>	1	Once per day	1
Two	2	Two times per day	2
Three and above	3	Three times	3
		Three and above	4

D3. Do you or any household member(s) suffer from the following ailments (tick)?

<i>Coughing/colds</i>	<i>1</i>
Fever	2
High Blood Pressure	3
Diabetes	4
Asthma	5
Sinus	6
Epilepsy	7
Other (specify)	8

D4. Are you /they getting any treatment and how frequent?

<i>Response</i>	<i>Code</i>	<i>Explain frequency</i>
Yes	1	
No	2	Not / applicable

D5. Where do you get treatment?

<i>Community clinic</i>	<i>1</i>
Hospital	2
Private doctor	3
Pharmacists	4

D6. What difficulties do you face in getting treatment?

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D7. Do you boil household water as a health preventative measure?

<i>Yes</i>	<i>1</i>
No	2

D8. In general what would you say about your health?

<i>excellent</i>	<i>1</i>
Good	2
Fair	3
Poor	4
don't know	5

## SECTION E: NUTRITION

E1. How do you access food?

<i>Produce</i>	<i>Buy</i>	<i>both</i>
1	2	3

E2. If you produce and buy food. Which contribute most to your food resources?

<i>Self-produced</i>	<i>Bought</i>	<i>Equal contribution</i>
1	2	3

E3. Do you eat breakfast everyday?

<i>Always</i>	<i>Often</i>	<i>Sometimes</i>	<i>Never</i>
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1	2	3	4
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E4. How many meals do you have per day?

<b>Only one</b>	<b>1</b>
Breakfast and supper(2)	2
Lunch and supper(2)	3
Breakfast, lunch and supper(3)	4
None	5

E5. Which of these sources of carbohydrate do you consume and how often?

<b>Apple</b>	<b>Always <input type="checkbox"/> often <input type="checkbox"/> sometimes <input type="checkbox"/> never <input type="checkbox"/></b>
Bread	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Green beans	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Whole wheat bread	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Sugar	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Honey	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>

E6. Which of these sources of fats do you consume and how often?

<b>Beef*</b>	<b>Always <input type="checkbox"/> often <input type="checkbox"/> sometimes <input type="checkbox"/> never <input type="checkbox"/></b>
Chicken*	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Milk*	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Butter	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Cheese	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Cooking oil	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>

E7. Which of these sources of proteins do you consume and how often?

<b>Fish</b>	<b>Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/></b>
Soya beans	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Eggs	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Peanuts	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>
Rice	Always <input type="checkbox"/> often <input type="checkbox"/> rarely <input type="checkbox"/> never <input type="checkbox"/>