

**THE GEOGRAPHY OF HEALTH
IN THE DURBAN METROPOLITAN
AREA**

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DECLARATION

The Registrar Academic
University of Durban-Westville

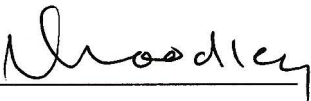
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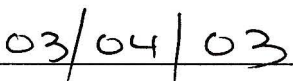
Dear Madam

I, Vadivelu Moodley, Registration Number 7004183, hereby declare that the thesis entitled:

“The Geography of Health in the Durban Metropolitan Area”

is the result of my own research and has not been submitted in part or full for any other degree or to any other University.


V Moodley


Date

DEDICATION

TO

**THE SUPREME POWER
WHO GAVE ME THE STRENGTH
AND KEEPS ME WELL.**

AND

**ALL THOSE WHO ARE POOR,
DISADVANTAGED AND ILL IN SOCIETY.
MAY YOU GET WELL
AND HAVE AN IMPROVED QUALITY OF LIFE.**

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ABSTRACT

In presenting a Geography of Health of the Durban Metropolitan Area, the researcher has chosen a conceptual framework within which to sharply challenge the definition of health in a perfunctory/ functionalist way. Thus, the Geography of Health is, at the outset, locationally positioned in a socio-economic and environmental context of society. This argument is developed through a multi-conceptual approach that leads the thesis into building a framework with the central arching principles of biomedicine, social and humanistic philosophy in three randomly selected informal settlement contexts. The specific focus of this approach is on the growing poverty and homelessness, the inadequate health delivery system and the relationship between disease, physical, social and residential environments and structural inequalities. Thus, this study is embedded in numerous related contexts, the most important of which is the spatial/ geographical and the social context in which health and health care is seen in relation to the nature of society and everyday life.

To some extent this research endeavour is concerned with health and health care issues amongst specific categories of people within marginalized communities rather than some homogenous, non-existent category called "poor people". The key questions raised in the study relate thus to several variables that impact informal dwellers with the specific objective of determining socio-economic profiles, housing and environmental circumstances; the location and nature of health services; health status of people; the ways in which people conceptualise and prioritise health and the need for and possibility of community involvement in health and health care. In dealing with the above issues, a multi-faceted methodological approach allowed for the generation of 155 tabulations from the quantitative empirical data to be triangulated with the qualitative data produced through focus group interviews and also with the secondary data obtained.

The most significant finding emerging from the study was the fact that the relationship between health and abject poverty is bi-directional. Respondents identified numerous factors that affected their health, the most important of which was poverty in respect of poor dwellings, lack of basic services, access to certain health services and the prevalence of disease. It is hardly surprising that a biomedical perspective largely prefaced the respondent's understanding of health. This can be attributed to locational factors but more specifically to the overriding socialising influence of biomedicine in South African society. In the focus group interviews with informal dwellers, the ranking exercises demonstrated that high health risks emerge from multiple and complex factors related to personal, economic, social, environmental and political factors.

It is the contention of this thesis that health status improvement and the reduction of health risks of disadvantaged individuals and communities needs a multi-pronged approach with multiple solutions drawing on resources from international, national and local agencies and organisations. Finally, the study concludes by presenting an extensive pool of more concrete systematic and holistic interventions that would not only improve the quality of public health care, but also redefine the Geography of Health in South Africa. These, it is argued are seldom attainable in the short term as it is a continuous process underpinned by priorities, possibilities and planning.

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LIST OF ACRONYMS

AIDS:	Acquired Immunodeficiency Syndrome
ANC:	African National Congress
CBO:	Community Based Organisation
COMM.1:	Community One
COMM.2:	Community Two
COMM.3:	Community Three
CPHC:	Comprehensive Primary Health Care
DHA:	District Health Authority
DNHPD:	Department of National Health and Population Development
DHS:	District Health System
EDL:	Essential Drugs List
GEAR:	Growth Employment and Redistribution
GIS:	Geographical Information Systems
GNP:	Gross National Product
HIV:	Human Immunodeficiency Virus
IMR:	Infant Mortality Rate
INP:	Integrated Nutritional Programme
KZN:	KwaZulu-Natal
NGO:	Non Governmental Organisation
OFS:	Orange Free State
PHC:	Primary Health Care
QOL:	Quality of Life
RDP:	Reconstruction and Development Programme
SAIRR:	South African Institute of Race Relations
STG:	Standard Treatment Guidelines
WHO:	World Health Organisation

CHAPTER ONE

INTRODUCTION

1.1 THE GEOGRAPHY OF HEALTH IN THE DURBAN METROPOLITAN AREA (DMA)

1.2 PREAMBLE

South Africa's long struggle for democracy is over and the period of transformation is in progress. Though democratic elections were held, true democracy entails progressive transformation of social structures and is a process that continues long after elections. Although mistakes will be made, there is the commitment by the South African State for equity in key areas such as health, education as well as land, resources and wealth distribution. However, the application of the principle of equity in the South African context will be a major problem with major difficulties being encountered in terms of effective allocation decisions primarily linked to limited resources.

When considering that human rights have been violated and people have been exploited for such a long period under the apartheid regime, it is crucial that the present State focuses its attention on health and health care issues as the health of the nation has suffered for a long time. Health issues are deemed by many as a springboard for planning, development and social change (Ashton, 1992; Baldwin-Ragaven et al, 1999; Ebrahim and Ranken, 1988; Lee and Mills, 1983; Zere, 2000; WHO, 2000).

Beneath the rhetoric of community participation programs and policies, the approach to health care is still top down which makes it limiting and restrictive. What is needed is to trace the societal causes of poor health and work towards collective solutions. People must be helped to achieve well being and self-determination through participatory, equity-orientated approaches for a healthier society.

Health issues provide an opportunity to promote justice and development. The most important component of the primary health care strategy outlined in Alma-Ata in 1978 was the "political will" for implementation by developing countries. The South African State has begun with lofty goals and costly assumptions on what good health care would require. There is need for more modest approaches which are low cost and sustainable. A type of health care that responds to the needs of most people will be the most effective approach.

Although the post-1994 ANC government has consistently affirmed their support for social justice and the reallocation of resources, they have been almost equally consistent in their assertion that the State's resources are finite and that these resources should be supplemented by private sector resource provision. This has important implications for the geography of health care with the growth of private health care and the balance between public and private health care.

Spatial and social inequality are common features of both the pre-1994 and post-1994 era. However, the processes generating these inequalities are vastly different. Before 1994, the State's apartheid policies were in force. This has changed dramatically after 1994 with the reconstruction and development policies and subsequent changes, which involved ideological shifts in debates about how best to provide health and health care in a transforming South Africa.

Changes in the thinking on health and health care are not a national or local phenomenon. Current debates by social scientists at an international level indicate that there has been a shift from medical to health concerns in society (Kearns, 1997; Moon, 1995). This is illustrated succinctly by Kearns (1997: 271) who states that:

As citizens and geographers we are both participants in, and observers of, turbulent times. In the health sector, we witness people disillusioned with a commercial re-orientation, which sees patients re-cast as customers. In modest ways, we witness a striving to reclaim health as a quality rather than a commodity - something less medicalized and more connected to everyday experiences.

The South African health reform program is aimed at redressing inequalities in access to and improving the quality of health care services and facilities to the previously disadvantaged. The 1997-health care policy in South Africa is part of a broader program of reconstruction and development. The intention is to redress the racially biased health policies of the past by developing a long-term national health reform program. The health reform program is designed as a process through which historically disadvantaged groups such as poor women, people living in informal settlements and rural people will improve the quality of their lives (Dept. of Health-White Paper, 1997). Thus, health reform is viewed as one of the key means for positively changing people's lives. The health reform program has identified specific beneficiaries that are to be targeted in particular projects. The targeting of specific groups is partly a result of the government taking into consideration the fact that there are limited resources that have to be effectively and efficiently utilised.

The present study is embedded in numerous related contexts, some of which have been mentioned above. Generally though, the most important context on which the study is based is the spatial/ geographical. Secondly, there is the social context in which health and health care is seen in relation to the nature of the society and everyday life. It is important to understand what people think about their health and the health care they receive, that is, a users' view on how health impinges on everyday life. In this regard, the way in which health care provision and organisation lead to different perceptions and levels of satisfaction or dissatisfaction by people are essential considerations. These different contexts are useful when examining health and health care. They provide the framework in which health and health care may be described and explained. Without a contextual approach, the real importance of where people live, the location of facilities and the relationships between residence and facility may be undermined. It is impossible to understand the nature of health or its geography without focusing on the geography of the city, of the society and health care providers. Any geography requires a "contextual approach" and the geography of health and health care in the city provides such a framework (Eyles, 1986: 4). In the light of the above, the following additional motivation for this study is provided.

1.3 MOTIVATION FOR THE STUDY

South Africa is a heterogeneous society with inequalities, class conflict and social segregation due to past institutional and planning policies. The apartheid ideology has resulted in an uneven distribution of services, unequal funding of segregated facilities and grossly inadequate access to health services for the disadvantaged majority. Although South Africa has a longer, more documented history of western medical care than the rest of Sub-Saharan Africa, available data on health care services is highly skewed (Packard, 1989; Head, 1996). The lack of information regarding the Black community who are in the majority in South Africa make it impossible to estimate with any accuracy or even to trace with any assurance of reliability changes in health conditions and health services that have taken place over the years (Marks and Anderson, 1988). To a large extent this situation prevails currently.

The adequate provision and quality of health care in South Africa are critical to productivity and overall quality of life of South Africans. Health conditions within a household are central to its socio-economic stability and continuity. During apartheid, a diversity of health care systems co-existed uneasily and inequitably. This scenario persists even today. The health care structures for Whites, both private and public, flourished under widespread support from the existing government while the Black health care sector, both state and traditional, was neglected and became increasingly impoverished. This fundamental inequality created the basis for high rates of health problems among the Black populace. Due to the varying degrees of health care systems and institutions in South Africa, ranging from State services to western private medical care as well as traditional practices, coupled with various social dimensions (gender, location, class, religion, ethnicity) that affects access to health care services, there is definitely a need for the transformation of apartheid geographies and landscapes linked to health and health care provision in South Africa.

The determinants of health are multi-factorial. Health problems have a political, social, cultural and economic as well as biophysical dimension and cannot simply be described as the provision of hospital and medical services. Like most complex

phenomena involving human beings, health problems defy compartmentalised thinking and segmented solutions, since they are products of myriad interactions within the total environment (Bowling, 1997; Hunter, 1974). Hence, the need for a holistic approach that takes into account the different factors that influence health.

Equity of health services in South Africa will only be achieved by a drastic restructuring of existing structures and institutions. The ultimate goal is to equip public and private sector decision-makers with the necessary knowledge that highlights the inequalities in our society. Consequently, such knowledge will help facilitate rational decisions, on socially and spatially related issues, to rectify the situation, thereby improving the quality of life of the majority in South Africa.

An endeavour to solve health care problems in South Africa will require innovative and creative solutions, which are based on equity, efficiency, quality and accessibility. Users must have a say in and control over the type of services that are provided for them (Davies and Kelly, 1993; Kaplan et al, 1995). As South Africa embarks on a post-apartheid transitory phase, there is need to focus on development problems at all levels and scales in the light of the geographical implications of changes in public policy. Studies such as the above, using a developmental framework within the context of Medical Geography are rare in South Africa, leading to the theoretical and practical basis for health development being inadequate. There is, therefore, an urgent need for studies of this nature to be undertaken. Generally, there is a lack of a clearly articulated vision to effectively address inequalities within health care programs and projects. Although the broad goal of equality is stated, the failure to follow this through with policies that inform planning, implementation, monitoring and budgetary matters are becoming increasingly apparent. Therefore, it is imperative that policy-makers undertake an in-depth situational analysis of how power works at the different levels. Only when these dynamics are understood, can effective mechanisms to address health concerns of the urban poor be developed.

This study is to some extent also concerned with specific categories of people within marginalized communities rather than some homogenous, non-existent category

called “poor people”. This category is misleading as significant social differentiation exists within poor communities and households. Thus, who among the poor are targeted and benefit from health care provision needs to be critically analysed to determine if particular groups are benefiting and if others remain marginalized in terms of health and health care. Some of the factors that need to be considered when attempting to understand social differentiation amongst the poor are gender, access to health benefits, proximity to health care services and facilities, marital status, number of dependants, age, and, access to formal employment and/ or wage labour. Furthermore, a range of factors such as race, class, ethnicity, religious affiliation, location and historical experience affect social differentiation.

Meer (1997) asserts that the assumption of homogeneity is partly as a result of policy-makers trying to simplify reality in their attempts to offer legalistic, technicist or economic solutions. In essence, this is an attempt to find "one-size-fits-all" solutions in highly complex environments. This is a problematic approach to conceptualising poor communities and households. The diversity among and within households and communities must be recognised and considered when planning and implementing health care projects.

Together with understanding and appreciating the importance of social differentiation, it is necessary to articulate common problems in a sensitive way. In this regard, the realisation that for most poor people in urban South Africa the lack of legitimate access and rights to health care and healthy environments is significant. This study is, in particular, concerned with poor African people residing in urban informal settlements in the Durban Metropolitan Area (DMA) who have historically been dispossessed.

1.4 AIM AND OBJECTIVES

1.4.1 AIM: This research endeavour investigates health and health care issues amongst informal dwellers in the Central Sub-Structure of Metropolitan Durban. More specifically, the following objectives are tendered. These are:

1.4.2 OBJECTIVES:

1. to undertake a literature review to identify issues in health and health care with specific reference to the needs of a transforming South Africa;
2. to select disadvantaged communities and determine the socio-economic profiles, housing and environmental circumstances of these communities;
3. to investigate the location and nature of health services for the disadvantaged communities under study;
4. to assess the health status of the communities in the study areas;
5. to determine the ways in which people conceptualise and prioritise health and link to health their major complaints, problems, needs and frustrations;
6. to evaluate the existence, need for and possibility of community involvement in health and health care;
7. to forward suggestions and recommendations for the development of strategies by communities and State departments for the improvement of health and health care to improve the quality of life of residents in informal areas.

1.5 THE DURBAN METROPOLITAN AREA

Within the province of KwaZulu-Natal (KZN), on the East Coast of South Africa, lies the Durban Metropolitan Area (DMA) (Fig.1.1). The Durban Metropolis is a bustling, subtropical city. The eastern boundary of the DMA is the Indian Ocean whilst the southern boundary is the Umkomaas River and the northern boundary, the Tongaat River. The western boundary goes as far as Cato Ridge (Fig. 1.2). The population of the DMA is 2.3 million and the land area is 2 300 square kilometres (Durban Unicity, 1999). According to the previous racial classification, the population of the DMA comprises of 61% African, 23% Indian, 12% White and 4% Coloured. The population is youthful with people under 20 years comprising 37% of the population of the city (STATSSA, 1996).

The built environment comprises of well-serviced core areas to large-scale informal settlements on the urban peripheries (Roberts, 1996). One quarter of the population of the DMA (565, 177) resides in informal settlements (Urban Strategy Department,

Figure 1.1: Location of the Durban Metropolitan Area in South Africa

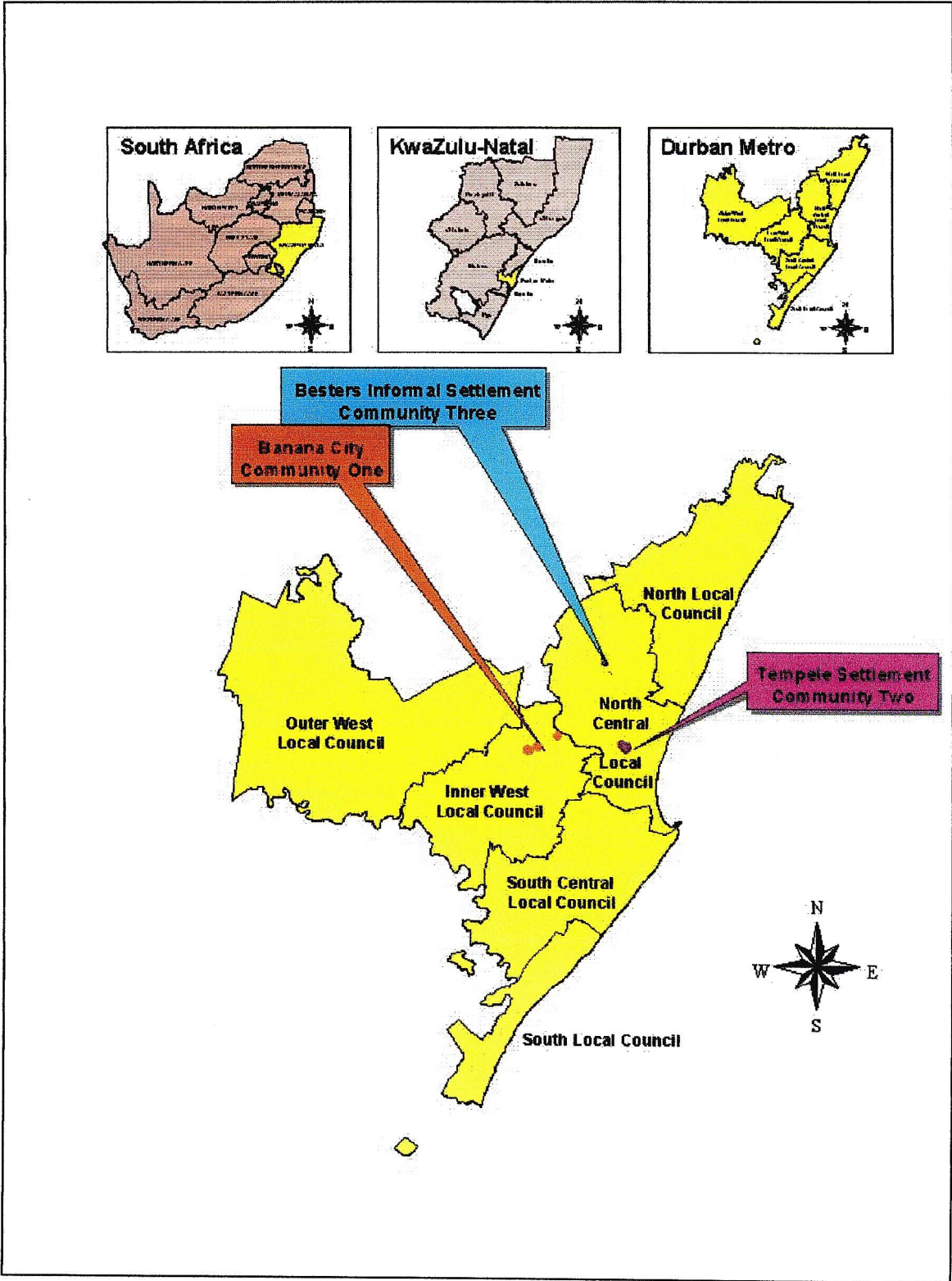
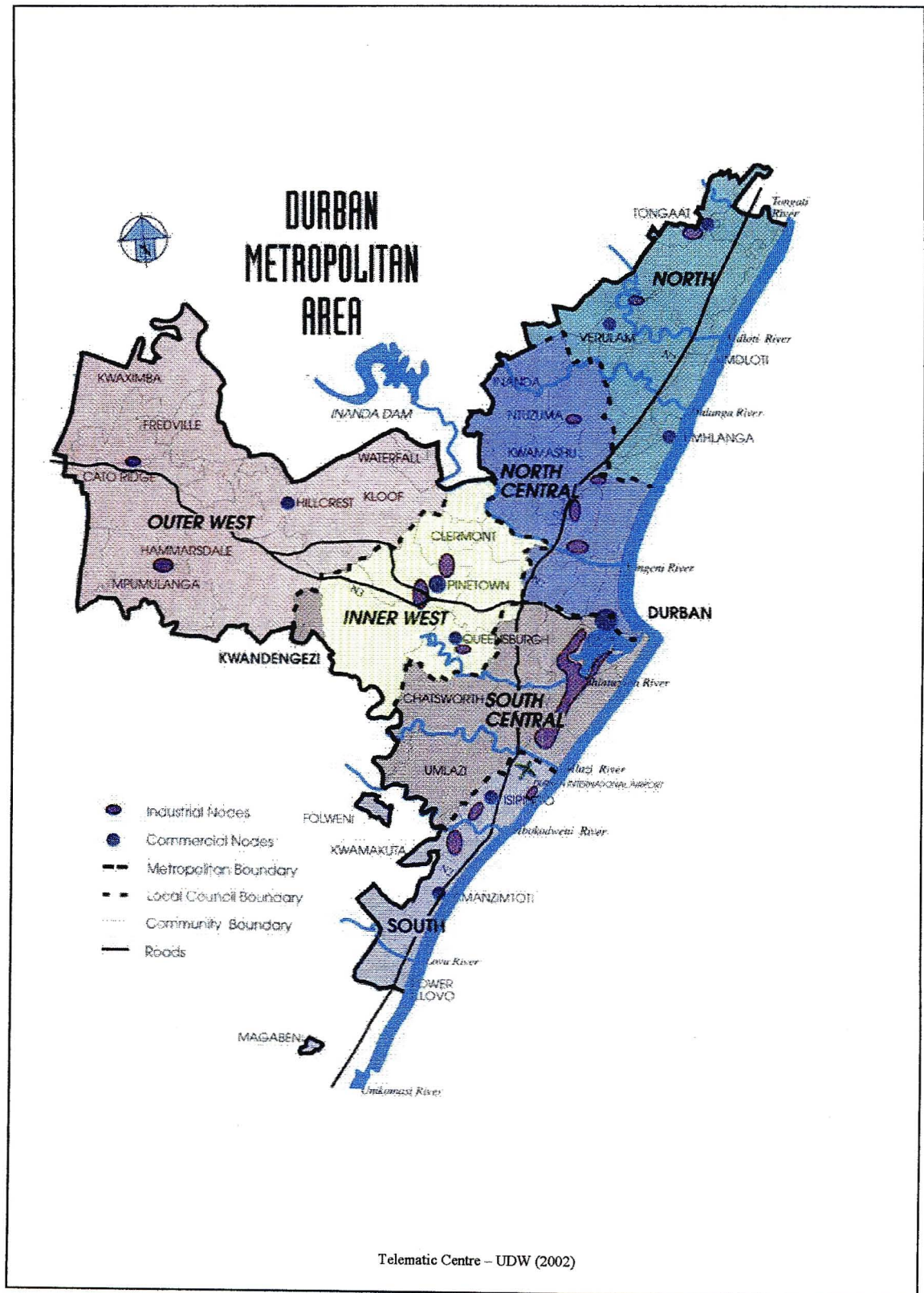


Figure 1.2 The Durban Metropolitan Area



1996). The social structure of the DMA reflects the legacy of decades of apartheid planning which created an urban structure based on race, class and residential structure. Blacks were removed to the far periphery and Indians and Coloureds to the inner periphery. Whites retained the core city and suburban areas (Roberts, 1996).

The DMA is consolidated into six substructures viz., outer west, inner west, north, south, south central and north central (Fig. 1.2) under a single metropolitan council with sub-councils having delegated powers. For the purposes of this study and for pragmatic reasons of implementation and representativity the research area has been delimited to two sub-substructures (Inner West and North Central Substructures) of the Durban Metropolitan Area from which three informal settlements were chosen on a purposive sampling basis. The historical background to informal housing in the present DMA and the three specific case studies chosen will be discussed in chapter five in the methodology chapter.

1.6 CHAPTER SEQUENCE

Chapter one provides a brief overview of the health literature outlining the relative neglect of health studies in South Africa's informal settlements and a motivation for the present study including the aim, objectives and a brief description of the study area. An attempt is made in Chapter two to provide a comprehensive review of the health literature as well as the literature focusing on health concerns. This is followed by Chapter three, which draws from the literature review presented in Chapter two to advance the conceptual framework that provides clarity and signposts for the study. Chapter four summarises issues pertaining to South African health care, past and present. Chapter five presents the conceptual basis for the research methodology and the method and techniques used in the study. Chapter six provides the data analysis and description of primary data. Firstly, descriptive statistics are presented followed by more complex statistical techniques that highlight relationships between various health-impacting variables in the study areas. This is followed by some qualitative assessments of the health status of respondents. Finally, chapter seven summarises the

key findings of the research and proposes recommendations.

1.7 CONCLUSION

The questioning of the direction, purpose and content of current health research has resulted in the present study being undertaken. As Geographers, there is a need to take space and place seriously, especially with regard to health and health care issues and investigate the relationship between health and health care and people and place in South Africa. This will attempt to broaden the scope of health geographies and re-orient its concerns using innovative research strategies and social theory and add to the existing knowledge base pertaining to urban informal settlements in developing countries.

This study also provides a critical geographical analysis of health and health care in South Africa. In particular, the incorporation of the needs and aspirations of the urban poor as well as the impact of health care initiatives on their lives are carefully considered. In this regard, the ability of improved health and health care to enhance the status of the urban poor, improve the quality of their lives, increase their productive potential and decrease/ minimise health risks are key focus areas. Furthermore, this study is concerned with poor people's perceptions of health and health care in South Africa. Case studies to examine these issues are drawn from the Durban Metropolitan Area in the Province of KwaZulu-Natal. Three informal settlements, representing geographical locational diversity, provide the basis for detailed study. It is important to point out that of interest in this study is the urban poor (those residing in informal settlements) and health concerns. This includes aspects of health rights and health practices as well as an interest in health care service resources. Some of the concerns are whether health care systems and interventions to promote as well as enhance healthy environments consider and are able to positively impact the multiple facets of poor people's lives. An additional consideration is whether existing policies and practices of health and health care in

South Africa challenge social, political and economic disparities that tend to reinforce poor people's inability to access health care services and facilities.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Theory is vitally important in exploring health issues as it helps to understand and explain how the social world works. Theory informs empirical investigation, and suggests research directions and places to find answers. It suggests ways of organising ideas to keep sight of the whole while trying to analyse and solve problems that represent only parts of the whole. Concepts of theoretical value determine approaches, questions and answers. There is no single theory that answers or explains everything. For example, the engagement of theory locates environmental health firmly in the social as well as health and natural sciences. It leads to disciplinary and interdisciplinary progress, social relevance and commitment to social justice (Eyles, 1997). This chapter will focus on the above issues to give substance to the present study. The chapter begins with the disciplinary basis of the study which is Medical Geography and moves on to Geography, health and health care; contemporary views on medicine and society; health definitions and concepts; public health; environmental health; social production, basis and construction of health; health policy; equity in health and health care; and the concept of "Healthy Cities."

In this section of the thesis, the Medical Geography literature as well as the broader debates around health and health care issues will be briefly reviewed. The key focus is to highlight and summarise some of the pertinent aspects raised in the literature that are relevant to the South African situation. Furthermore, a critical examination of the literature illustrates the need for re-thinking and re-conceptualising health and health care concerns. The need to broaden the scope of analysis is underscored. This topic is elaborated on in greater detail in the next chapter that presents the conceptual frameworks used in this study.

2.2 MEDICAL GEOGRAPHY: Concept and Definition

In recent years there has been a growth in interest in geographical aspects of disease, nutrition and health care systems. The result has been an introduction of a number of competing concepts and definitions to Medical Geography leading to an epistemological debate. Barrett (1986) contributes to this debate by asking a fundamental question, that is, "What is Medical Geography?" by examining various propositions. He concludes that the place of Medical Geography in Geography as a discipline is characterised by the notion of locational factors and the environment's influence on health. Therefore, it is easy to establish that Medical Geography has a place in Geography due to the fact that the primary cause of disease is not found in the host itself, but the cause of disease is found in the environment (Barrett, 1986).

Medical Geography studies the geography of health care, the geography of disease and also the geography of nutrition. Generally, studies focus on the lack of health, the consequences of disease and the attempts to create systems that may restore lost health. There is no direct study of health, but instead meaningful associations are made between health and the quality of health care systems and the environment. Regional synthesis can create a profile of a region that could highlight disease, nutritional and medical care characteristics. Conceptually, therefore, Medical Geography consists of geographical relationships in three sub-sections: disease, nutrition and medical health care. It would therefore be an error to title Medical Geography, a Geography of Health because conceptually, historically and linguistically, the title "the Geography of Health" is inappropriate, on the grounds that there is no epistemological distinction between the Geography of Health Care and Medical Geography (Barrett, 1986).

Medical Geography is largely an applied and empirical sub-discipline (Jones and Moon, 1993; McGlashan, 1972). Its parent discipline, Human and Social Geography has tried over the last few decades to engage in theoretical and methodological debates with other social sciences to ensure disciplinary relevance and vibrancy. According to Litva and Eyles (1994), recent progress reports and debates in Progress

in Human Geography and the Professional Geographer aspire for Medical Geography to at least note the challenges, for example, the role of space in social theory. The unease in the Medical Geographical community stems from it being a successful applied science with many policy related linkages but having a poorly articulated body of facts (Litva and Eyles, 1994).

The discipline of Medical Geography has developed over decades and some of the major highlights are outlined below. Three evolutionary phases of Medical Geography can be identified: the Hippocratic roots of environmental medicine, the Pre-Pasteurian times of geographical pathology and the Post-Pasteurian medico-geographical thinking. The last mentioned has a strong bearing on contemporary Medical Geography (Ackerknecht, 1965; Foster, 1992; Gilbert, 1958; Singleton, 1994).

2.2.1. Geography and Disease

Numerous lucid statements have been made describing the nature of Medical Geography as a discipline. Emphasis needs to be placed on the basic concept that disease may be regarded as the interaction between agent, host and the environment (Dubos, 1965; May, 1960). However,

The discipline of Geography does not claim that such dynamic or relational analysis is its exclusive preserve, but what is geography if it is not a discipline that focuses on the analysis of man-environment interactions?

(Akhtar and Hunter, 1991: 6)

The concept of the health field is significant in geographical studies. Biological characteristics, environments, lifestyles and the nature of medical treatment vary from place to place. It therefore follows that the probability of developing or dying from a particular disease will vary spatially. Since disease and illness varies geographically, it is clear that geographers can make a major contribution to reducing suffering and increasing life chances if they are able to establish the causal links between specific diseases and the environment. Foster (1992) asserts that this might involve

geographers finding marked similarities, or differences between a disease pattern and a suspected geographical causal variable. According to Jones and Moon (1987), if a geographical causal relationship is established, then co-variation between the variables is expected.

2.2.2 Human-Environment Equilibrium

A common theme in Medical Geographical studies is the notion of the dynamic equilibrium between people and their total environment. Here the interactions between physical and social factors become vitally important. Increasing interest in environmental and behavioural interactions as the causes of disease to a large extent stimulated contemporary Medical Geography. In everyday life human adaptational behaviour to the changing environment can disrupt the balance and result in the emergence of new diseases or health patterns (Akhtar and Hunter, 1991).

2.2.3 Geography and Health Problems

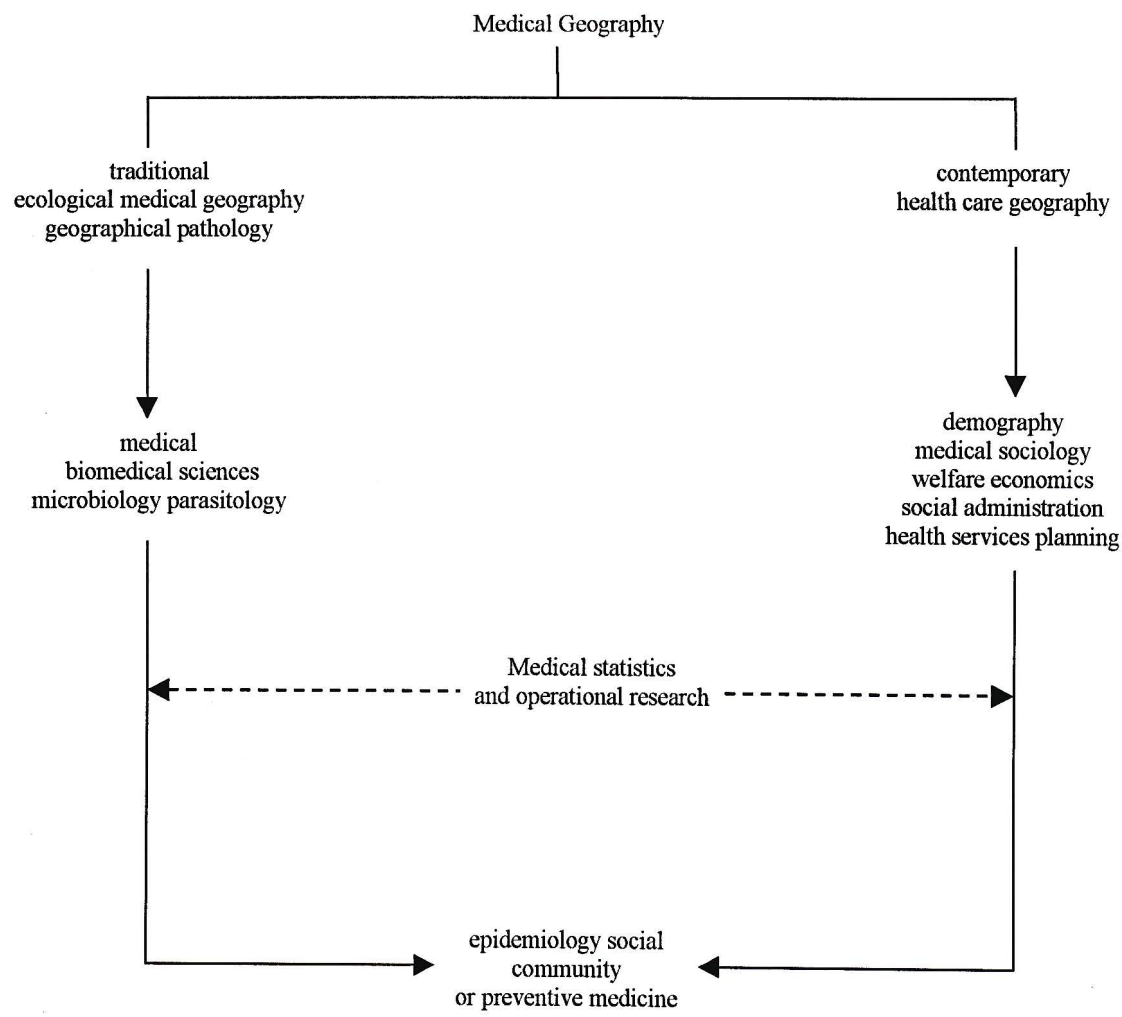
The field of Medical Geography is usually defined as:

The application of geographical concepts and techniques to health related problems.

(Akhtar and Hunter, 1991: 7)

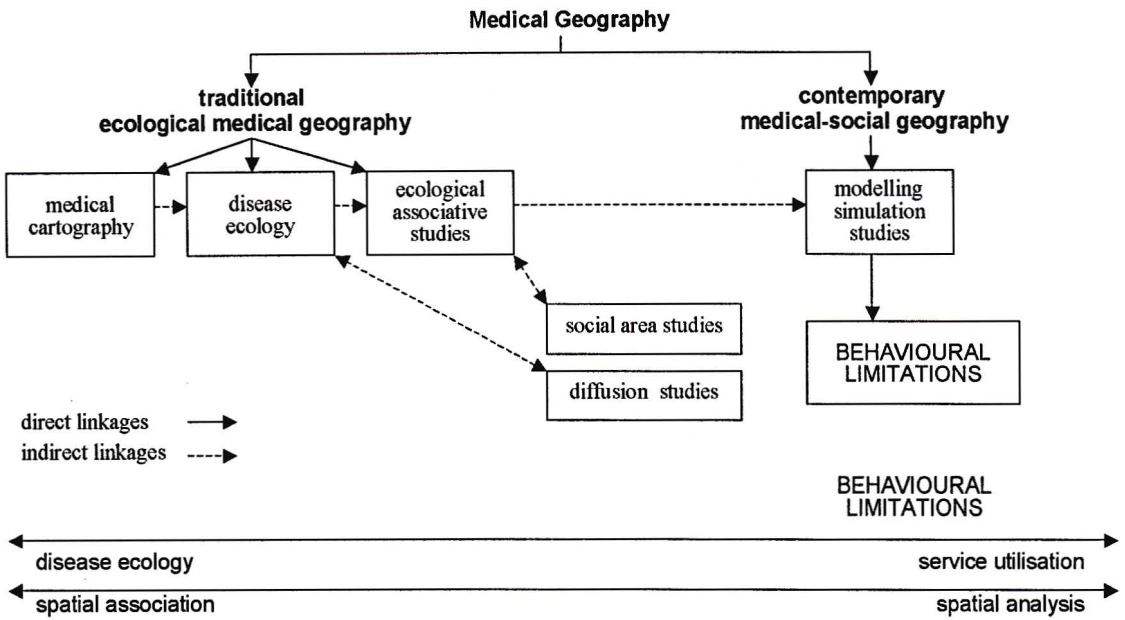
Reliance is placed on systems related analysis of human-environment interactions through time and over space. Geography is broad ranging and fusionary. It is heavily committed to interdisciplinary activity in concept, substance and technique according to Philips (1981) and Akhtar and Hunter (1991). These linkages are well illustrated by Akhtar and Hunter (1991:12-13) and are depicted in Fig.2.1 and Fig.2.2 below.

Figure 2.1: Some Interdisciplinary Linkages of Medical Geography



Adapted from Akhtar and Hunter (1991:12)

Figure 2.2: Spatial approaches to the study of Medical subjects



Adapted from Akhtar and Hunter (1991:13)

2.2.4 Medical Geography, Epidemiology and Disease Ecology

Medical Geography continued to develop continually and methodologically from pure disease mapping, to an ecological approach and to spatial analysis. The scope of geographic contributions to health and disease is enormous. Most geographers ask how geography differs from medical science. The difference is in the approaches to the subject. Basically Medical Geography and professionals with a background in health differ in their approaches. Epidemiologists concern themselves mainly with groups that suffer from particular diseases. Epidemiology is strictly the study of the occurrence and distribution of disease and usually restricted to epidemic and endemic diseases (Learmonth, 1988 and 1991; Verhasselt, 1981). The term is sometimes used to cover all health-related characteristics of the population. Medical Geographers concentrate on the region where people are seen in the context of spatial or regional patterns. Medical Geographers tend to look at ground pattern for data extraction and

make relevant inferences (Akhtar and Hunter, 1991). This is called disease ecology and can be defined as the study of regional variation in environment conditions related to the incidence and prevalence of disease. Learmonth (1991) asserts that Medical Geography in general tries to describe, understand and explain spatial variations in health, disease and health care. Attempts are then made to address spatial health problems and carefully define solutions, stimulate debate about health promotion and provide a basis for measuring the effects of actions to improve health (Akhtar and Hunter, 1991; Singleton, 1994).

2.2.5 Major Sub-Fields of Medical Geography

In the body of knowledge that comprises Medical Geography there is order and pattern that facilitate understanding (Akhtar and Hunter, 1991). Numerous internal categories or sub-fields are to be found that include the historical nature of the discipline (Cartwright, 1972; Howe, 1972); bio-statistics, sampling and surveying (Schoeman and Mahajan, 1977; Werner, 1979); the role of nutrition (De Castro, 1977; Hunter, 1967) and infectious and chronic diseases (Armstrong, 1965; Armstrong, 1983; Hunter and Thomas, 1987; Prothero, 1977).

2.2.6 The Geography of Health Care

Geographers are constantly preoccupied with decisions relating to optimum location and optimisation of location. No field of enquiry is more important than the field of medical provision where the cost of facilities, even when inadequate, are high. Location is therefore a very important aspect of health care provision and health care operations. Factors affecting the utilisation or consumption of health care services are also important matters. These are not merely organisational or economic, but are often strongly cultural and perceptual in nature (Akhtar and Hunter, 1991). However, two problems become apparent according to Learmonth (1991). These problems include:

- the integration of models of human behaviour in Medical Geography; and
- the integration of the two main streams of Medical Geography, Disease Ecology and the Geography of Health Care.

Disease eradication needs to take into account the whole disease cycle and to attack at the various stages of disease. It thus takes into consideration the different ecologies involved. Medical Geography usually begins and ends at description. There is a need for integration of behavioural models in Medical Geography and to integrate disease ecology and health care geography (Learmonth, 1991).

2.2.7 Traditional Medicine and Health Care

Traditional Medicine is important, as a vast majority of the population in developing countries is reliant on the ability of local healers to cure ailments. There is evidence that suggests that the majority of particularly rural inhabitants rely heavily on an indigenous system of medicine (Degeffie and Aseffa, 2001; Good, 1977; Good, 1989; Gordon et al, 1997; Pick et al, 2000; South African Health Review, 1999). There has, however, been very few studies conducted on the geographical distribution patterns of health facility location, people's behaviour towards indigenous and western systems, and on comparative studies of disease landscapes of areas where these two different health systems are adopted (Ackerknect, 1965; Akhtar and Hunter, 1991).

The lack of proper health care in African countries and rural areas in developing countries force many people to care for themselves. Traditional medical practices are a regular source of health care in these instances. Blacker (1991) states that customs, which include eating habits or diets and traditional practices, unrelated to socio-economic status or wealth, may yet have an important influence on health outcomes.

2.2.8 Definition of Health

The definition of health is a thorny problem. The traditional way of defining health by the World Health Organisation (WHO) was the absence of disease or illness. This is a very negative and limited definition that does not indicate what health is. The focus is on physical health status. Little attention is paid to mental, behavioural and social health. To meet these criticisms a broader definition was adopted. According to the revised definition, health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity. The attainment of a high standard of health is the fundamental human right of every human being without making a distinction between social or economic conditions, religion, race or political affiliation (WHO, 1983). Thus, health is not only the absence of illness or pain but refers to physical, spiritual, psychological and emotional wellbeing.

The broadened definition not only stressed the absence of disease but also included non-physical aspects of the quality of life. It includes a tripartite conceptualisation of the ability of a person to function in an environment, that is, the mental, physical and social dimensions of health (Kronenfeld, 1993). The importance of WHO's (1983) definition lies in its conceptualisation of health as a social phenomenon as opposed to the object or outcome of medical care. The effects on health of social inequalities is therefore of great importance. For example, in South Africa the highest standard of health care was not attainable by all because economic and social inequalities stratified South African society, particularly by skin colour and this determined illness, disease patterns and health care.

The broader proposals on health were controversial at first but now many nations have gradually broadened health policy focus to encompass the expanded definition. Conceptualising and defining health continues to plague health policy makers and researchers. The expanded definition is only a starting point. It does not lend itself easily to measurement and trend following for goal setting in policy (Kronenfeld, 1993).

The many conceptualisations and measurements of health becomes clear when studying the works of various social scientists. For example, Patrick et al (1973) and Reynolds et al (1974) have broken the dimensions of health into categories: physical health, self-care activities, social roles and mobility. Schlenger (1976) formulated a two-dimensional model, the first dimension is the absence of disease and the second is the effective or feeling aspect of health. Many studies have used employable measurement instruments by which data is easily obtained (Hunt and McCowen, 1980; Hunt et al, 1981; Kohn and White, 1976). Population and community surveys are undertaken to avoid sole reliance on doctor data or avoid bias of interviewing those people who attend health care facilities. Most approaches use multi-dimensional survey data. According to Kronenfeld (1993), some of these include:

- simple questions asking persons to rate health;
- doctor based assessments of health status which are linked to the presence or absence of major chronic illnesses;
- aggregate population measures such as infant mortality rate; and
- average life expectancy or disability rates in a population.

2.3 HEALTH ISSUES HIGHLIGHTED IN THE LITERATURE

In relation to some of the thematic aspects highlighted as well as the Medical Geography literature, it is important to stress the evolutionary and contextual nature of debates and discussions pertaining to health and development issues generally. It is imperative that arbitrary distinctions between the various aspects and issues are not emphasised. Given these concerns, the rest of this section will examine some of the general issues discernible in the wide-ranging health literature that are pertinent to this study.

2.3.1 Health and Development

In the last two decades there has been a major focus on the relationships between development processes and health. Pick et al (2000) show that experience of the

developing countries suggests that weakening of economic opportunities and income flows, especially intra-family income flows, is often accompanied by a weakening of the health status of individuals and families as well as a growth in poverty more generally. Recent studies, particularly pertaining to the impact of HIV/ AIDS on individuals and households indicate that changes in the health status can dramatically impact on people's quality of life including their ability to participate in and benefit from development activities and processes (Bond, 1999; Dorrington, 2000; Gray, 2000). This is because one's health status can influence one's ability to access resources and skill in the development process.

In South Africa, as the rest of the world, poverty and poor health affect people from different backgrounds including race, gender, age, sexual orientation, location and ethnic differences. However, the extent and the nature of poverty and disparity between and among these groups differ considerably. For example, numerous studies show that Africans are disproportionately impacted by poor health and poverty more generally (Bradshaw, 1997; Bond, 1999; Curtis and Taket, 1996; WHO, 2000). This aspect will be discussed in greater detail in chapter four where the history of health care in South Africa and its concomitant impacts are discussed. Additionally, some Medical Geographers have highlighted the impact of location on poverty and health (Barrett, 1986; Akhtar and Hunter, 1991). A glaring disparity in the South African context is the vast difference between urban and rural areas. Furthermore, research indicated that experiences of poverty and development (including the provision of and access to health care) are highly gendered (Bob, 1999). Platzky and Billy (1996) state that although women comprise slightly more than 50% of the world's population, 70% of the world's 1.3 billion absolute poor are women. Furthermore, more women than men experience and fear violence, are disproportionately paid in the workforce, own and access significantly fewer resources than men, are subjected to cultural prejudices...and the list goes on.

Werna et al (1999) show that the beneficiaries of health projects where poor people are involved are typically characterised by limited participation. The people are generally poor and illiterate. They are extremely vulnerable and have limited access to

information. Furthermore, accountability in these projects is not directed towards the beneficiaries but rather towards the funders. Potential beneficiaries are sometimes unaware of their entitlements. Project managers and implementers are often unable to get reliable information about the group and are usually influenced by key informants who are generally better off financially and more educated than the rest of the group. Another concern is that often practitioners and theorists who advocate the integration of health concerns tend to articulate specific programs and interests rather than focusing on creating enabling conditions that will allow poor people to make meaningful choices. The latter, focusing on empowering people to make meaningful choices, is much more difficult to achieve, both conceptually and in terms of formulation and implementation of policy. Development projects are subject to continuous change and contestation. However, development practitioners are rarely trained or willing to deal with such complexities.

Broadly speaking, development initiatives have gone a long way to raise awareness of health issues and to place health on the development agenda. Inherent in these initiatives have been concepts and discourses, such as empowerment, participation, control of resources and primary health care. The widespread acceptance and use of these terms do not always bode well for moving debates forward. For example, the World Bank has very quickly and effectively embraced development terminology such as empowerment and participation, translating them into “Bank” discourses serving particular goals and interests that are not often compatible with health and development aspirations of the poor. The insidious side effect is that when other interests embrace the discourses and concepts, there is no guarantee that it will retain the same meaning.

2.3.2 The Social Production and Basis of Health and Illness

Disease and death vary according to the social and economic environments in which they occur. This does not suggest that the physical and chemical laws governing disease mechanisms can simply be abandoned. They must be seen to operate within social and economic contexts that are constantly changing. Capitalist development has

meant that the living conditions of people have improved and to some extent ameliorated the physical health of people. However, as Doyal and Pennell (1983) illustrate, the same process has tended to have negative impacts on the health of populations in developing countries. In both developed and developing countries marginalized groups tend to be most vulnerable. Additionally, Doyal and Pennell (1983) show that new hazards have been created in developed countries with the large-scale social, technological and economic changes in its development path.

It is evident that many people are still dying prematurely and this is related to wider social and economic conditions. They may be considered in part as resulting from the fact that people's relations to their environments have become removed from which they are biologically adapted. Because changes have occurred in the relationship between human beings and their natural world, rapid biological adaptation is difficult. Modern curative medicine is considered to compensate for this maladjustment of people to the environment that does not effect all people equally. Illness, disability and death are therefore unevenly distributed in society. Packard (1989) and Morgan (1993) correctly suggest that it is not the industrialised nature of contemporary society but the social and economic organisation that structure current patterns of health and illness. A complex of elements make up the lives of individuals and these must be taken into consideration when explaining the social distribution of health and illness (Doyal and Pennell, 1983).

Health problems are rooted in the social conditions of a society, clearly evident in the development of health in developed countries. In developed countries, there are two important measures that promoted health, that is, improved nutrition and better environmental hygiene (Ashton, 1992). Environmental hygiene comprises of improved water supplies and sanitation to reduce faecally transmitted disease. In the control of epidemic and vector borne diseases, striking advances can be made as evidenced in China and Cuba (Bradshaw et al, 1996). Environmental improvements clearly show the interconnectedness of health promotion, the political process and the reversal of underdevelopment. Mass campaigns against agricultural and disease

carrying pests in China and the mobilisation of long stifled human potential is vividly demonstrated to end underdevelopment (Sanders and Carver, 1985).

Gwatkin and Guillot (2000) assert that most people are not aware of the need nor do they have the means to interrupt disease. They are not encouraged to participate in collective activity. People should be encouraged to co-operate in case finding and treatment to improve environmental sanitation. People should be educated in the treatment of excreta, the provision of safe drinking water and improved personal hygiene. They should be conscious of the reasons and convinced that it is in their collective interests (Leahy, 1996). Leahy (1996) further argues that it is the mystification of technical knowledge that keeps people ignorant of the reasons for health promoting interventions maintained and conducted by health professionals. The structure of privilege and unequal social and economic relationships act as barriers to collective commitment in communities. These obstacles need to be eradicated if collective action is to take place. Fundamental social change is therefore needed. The promotion of health is closely related to the process of underdevelopment. It is not confined to the economic level, that is, freeing resources for social improvement and thus health. More importantly, it is a political relationship or has a political dimension, which can be changed by popular action to service areas of pressing social need (Sanders and Carver, 1985).

Another concern identified by Gwatkin and Guillot (2000) is that health care systems tend to be dominated by the State, the medical profession and business interests. These structures and institutions assist in maintaining the system that perpetuates underdevelopment and ill health. There is an urgent need to change the nature of the medical contribution. What needs to be created is a situation in which health care is no longer a commodity owned by doctors and other health workers. This can only be established by an economic system other than the capitalist system with its production and exchange of commodities for private profit. Sanders and Carver (1985) argue that only in a few countries has the capitalist system been overthrown and an economic system orientated to social need rather than private profit has the medical contribution changed drastically. Changes in health follow rather than precede fundamental social

change (Sanders and Carver, 1985). However, recent changes and problems in Eastern Europe, for example, illustrate that socialist transitions are highly complex and differential. Furthermore, the impacts on health care and general health of populations are not necessarily better in socialist societies as compared to capitalist ones. At State level, variations exist between countries even within similar political and socio-economic orientations. Additionally, vast variations exist within countries in relation to individual health, environments as well as access to health care.

2.3.3 The Social Construction of Health and Illness

Health, as the world affirmed in the Universal Declaration of Human Rights more than 50 years ago, is a fundamental human right. Yet over half of Africa's population is without safe drinking water and two-thirds lack access to adequate sanitation. Africa, with about 12% of the world's population, accounts for 80% of the world's deaths due to HIV/ AIDS and almost 90% of the world's deaths due to malaria. WHO (2000), Gwatkin and Guillot (2000) state that addressing this inequality is not an optional act of charity, it is an obligation. Health is also an indispensable component of development, under any economic policy model. Poverty in families and nations produces poor health but the links also go the other way. Failure to invest in good health will undermine even the best-laid development plans.

The concepts of health and illness are complex products of social groups in which they develop. Many factors such as location, political, economic, cultural and phenomenological issues must be taken into account in the social construction of health and illness at the micro and macro levels. Variables such as occupation, social class, age, sex and ethnicity effect health. The way these factors are mediated through cultural norms and acquire meaning at the individual level have practical implications for health and illness (RUHBC, 1989). The reality that is constructed is through human action and cannot exist independently of it. Children learn to see, structure and organise their world from their parents, teachers, the media, and the general social environment. The attitudes and judgements that are acquired are not personal and individual but derived from the societal viewpoint (Jones and Moon, 1987). An

individual's interpretation of his/ her bodily state may be related to the search for purpose and meaning of life generally. It is a form of cosmology in all societies. This worldview extends far beyond the biomedical explanation that is only one view of reality (Herzlich and Pierret, 1986; Jones and Moon, 1987). All members may not accept one worldview. Therefore, the social construction of health and illness takes place with competing cosmologies. Fundamental social change and the alteration of the worldview dominant in a society will be followed by a change in the conceptualisation of health and illness. In addition, certain groups within a society may have the power to determine the dominant form of medical conceptualisation (Unschuld, 1986). This is clear in developed countries where the biomedical perspective dominates lay and indigenous health concepts. Critics such as Illich (1975) and Navarro (1976) have claimed that scientific medicine has extended to include the social life of people. Illich (1975) calls this process the medicalisation of society resulting in people defining their health problems in medical terms. Navarro (1976) viewed the power of medical groups as emanating from societal forces. Although scientific medicine influences the decisions about human lives, he argues that medicine is dominated by the capitalist system.

As mentioned above, health and illness are affected by cultural factors. According to Donovan (1986), culture involves beliefs and customs that a society develops and it is embodied in language as the primary means of communication. Anthropologists have a long tradition in studying the medical beliefs and practices of non-western societies using descriptive and qualitative methods. However, they seldom addressed the implications of their studies to improve the actual health of people (Foster, 1975). More recent work undertaken by medical anthropologists is in different forms. There are still the traditional descriptive and qualitative studies based on indigenous explanations of health and illness. Branches of the discipline viz. medical anthropology focus on epidemiology and medical ecology which examine the distribution and aetiology of disease within the framework of biomedicine using statistical surveys (RUHBC, 1989). Foster, (1975) asserts that the practical clinical utility of medical anthropological studies became appreciated especially in

understanding cultural change. This practical application of applying local culture to public health persists.

In the past decade medical sociologists have used qualitative and observational methods to a large extent. The main trend in this type of work has been survey research and quantitative methods within the biomedical model (Fabrega and Manning, 1979; Friedson, 1970; Kearns, 1993). More recent work redresses these imbalances and looks at health and illness as social processes (Goss, 1996; Kearns, 1997). A classic study is that by Fabrega (1974) who attempted to develop a theory of human disease that includes the criteria by which social groups defined a particular disease, their understanding of disease, behavioural and social effects and the way the disease was expressed socially. He also considered structural factors, which were developed to deal with the disease. These included institutions, changes in medical orientation over time and the success of dominant groups in controlling the disease. The cultural complexity of everyday behaviours also has implications for health and illness, for example, eating habits, diets and nutrition. Different social groups vary in their ideas on food, appropriate food for different ages and the circumstances of members. Generally social groups also have ideas on the effects of food on health (Eckstein, 1980). In the same way Degefie and Aseffa (2001) show that boiling water from an uncontaminated water supply is deemed problematic in some contexts because of basic beliefs and customs on water consumption. Boiled water has a meaning attached to it. Some people associate it with sickness and do not boil water, if they are well. In addition, ideas about domestic cleanliness in relation to sharing food and drink may be influenced by social norms rather than any theory of germs and contagion. For example, RUHBC (1989) assert that social and cultural attitudes to body size have differed historically and across cultures. In Western society plumpness means that there is something wrong with an individual emotionally or physically. Treatment is based on preventative medicine. In some cultures overweight is valued and is associated with emotional well being (RUHBC, 1989).

Crawford (1984) states that lay concepts provide important information to understand social construction of health and illness. These concepts are embedded in everyday

social life some of which are not directly health related. They reflect the pluralistic nature of health systems despite the dominance of the biomedical perspective. This makes it difficult to obtain concepts of health. It is much easier to assess concepts of illness that disrupt everyday life. Good health is a taken for granted state and is more difficult to articulate. There may also be other socio-cultural factors, which affect people talking about health, for example, it may be socially denigrating. Kearns (1994) argues that gaining access to concepts may also be related to the research approach rather than the reticence of respondents. The starting point of the investigation could have been a medically defined problem and lay concepts explored in relation to these issues. Research that has been conducted in one-off interviews result in static, socially approved responses. It is important to allow respondents to set the research agenda concerning what is important for their health and how they might achieve it. It may also be useful to investigate how concepts emerge and affect various social contexts, which make up the lifestyles of people such as the home, work and leisure. In this way factors impeding or promoting health which bear little relationship to the biomedical perspective may emerge (RUHBC, 1989).

It is also necessary to break away from biomedical assumptions and adopt a socially based approach to explore alternative rationalities used by people in their everyday lives. People draw meaning from many areas to make sense of their lives and this varies over time and location. According to Crawford (1984), people describe their lives as variable rather than fixed and this shifts with experience.

2.3.4 Income and Health

Studies show that the loss of income and the concomitant impact on household food security dramatically impacts the health status of households (Baum, 1993; Bob 2002; Goss, 1996). This is most acutely felt when the main income earner becomes too ill to work. Bullard (2001) illustrates that it is the poorest households who lost most workdays to injury and also most income. Furthermore, many of the incapacitated earners were also much more likely to have severely undernourished children. Direct

medical and social service costs do not take into account the costs arising from the loss of productivity, absenteeism from work, nor the costs to train and replace skilled individuals succumbing to various ailments and diseases, especially HIV/ AIDS. These losses represent serious economical and social consequences in terms of human resources and development goals.

The question of the social and economic impacts of poor health, especially in relation to the primary providers, needs also to be an important focus of discussion. In this regard, "the third person principle" developed by Beneria (1992: 1552) is useful and can be adapted to determine the economic impacts of the primary providers in the households falling ill. This incorporates both the inability to perform productive as well as reproductive tasks aimed at ensuring household maintenance and survival. The "third person principle" estimates the costs of completing tasks if performed by a third person in a remunerated form. These estimates help in making comparative analyses possible and quantifying the economic loss of the household. Beneria (1992) provides examples of three input related estimates that can be subscribed to work. First, the global substitute uses the cost of a hired worker to generally perform the tasks completed by the individual who has taken ill. This generally provides a low estimate. Second, the specialised substitute employs cost of a specialised worker. This often provides a high estimate. Third, the opportunity cost utilises the wage that the person carrying out the work would receive if he/ she worked in the market. This provides the widest range estimate because it considers the skills and the opportunity wage.

2.3.5 Relationship between Health, Race, Gender and Class

Geographers agree that inequalities and roles derive from unequal power relations but differ on what form and content these specific power relations take (Foord and Gregson, 1986; McDowell, 1986). Gender, race, ethnicity, class, location and a range of other aspects that often intersect with each other may influence them. Kobayashi (1997) further asserts that difference itself is a politically charged and complex concept. Thus, the way we conceptualise difference must "challenge dominant

norms”, thereby furthering understanding of people’s lives and how their lives might change (Kobayashi, 1997: 4). Understanding social differentiation among groups and within households and communities helps illustrate who specifically are the most vulnerable individuals and households. As the UNDP Report (2000) indicates, among poorer households or individuals there are those who tend to be the most vulnerable as a result of their age, health characteristic linked to genetics or because of socially determined roles that increase their level of risk. Additionally, people’s experiences, views and ideas are not uniform. It is valuable to recognise that these categories (age, class, race, sexual preference, and ethnicity) interact and relate to each other within a particular context. Access to services such as health care, education, technology and extension training are also biased against females. Ostergaard's (1992) study of women and health illustrates that there remains in many parts of the world differential practices of health that results in female neglect and male preference.

2.3.6 Women and Health

Pryer (1993) asserts that most health and nutrition research conducted in Third World countries are primarily concerned with pregnant and nursing mothers and pre-school children who have been identified as the most vulnerable members of society. This concern is also reflected in the health and nutritional programmes of both international health agencies and non-government organisations whose programmes tend to target women and children. Health and nutrition education are often targeted at mothers who are viewed as the primary educators and managers of food at the household level. Women and girl children are also generally responsible for preparing and storing food.

The status of health and health care of Black women can be documented in a number of ways. Generally speaking, the lifespan of Black women is shorter than White women, their deaths from pregnancy and childbirth are several times higher and their death rates from a number of diseases are also several times higher (Aldridge and Rodgers-Rose, 1993). This suggests the relative disproportionate impact of health inflictions in relation to White women. The triple impact of racism, sexism and

classism that many Black women experience contributes significantly to making them less healthy and also deprives them of access to adequate health care. Numerous studies (Aldridge and Rodgers-Rose, 1993; Steenkamp and Sidzumo, 1996; Moodley and Zama, 1997; Randall, 2001) pertaining to African women in particular describe the inhumane treatment, for example, forced sterilisation and experimentation, violence and abuse, while others deal with the unavailability of health care of any kind.

2.3.7 Reproductive Health

Reproductive health is viewed as a critical component of primary health care. Longhurst (1996), Steenkamp and Sidzumo (1996) and Schierhout (1999) argue that Black women, as a result of economic, political and patriarchal forces, often struggle to maintain control over reproductive choices. Aldridge's (1993) study shows that the historical assault on Black women's reproductive health included sex prescribed for them not of their own choice, forced breeding and selling of their children during colonialism and slavery, experimentation, forced sterilisation, the unavailability of safe (sometimes legal) abortions and proper care to ensure healthy children should they choose to give birth.

2.3.8 Women and Violence

Many studies show that official figures on violence against women are very scarce (Hedman et al, 1996; Seager and Olson, 1996). This is because violence is often unreported because of the cultural, legal and social attitudes that do not create an environment where women feel safe and comfortable reporting violence against them. This is particularly true in instances where violence against women is perpetuated within the family. Furthermore, the form of some of the violence such as mental and psychological abuse is not easily recognisable and difficult to prove. Despite these problems that mitigate against collecting data about women and violence, Wood and Jewkes (1997) argue that many small-scale studies show that the phenomenon is

widespread. Violence takes the form of beatings, rape, psychological abuse, sexual harassment and deprivation of basic needs. The health implications for women are indeed widespread. While violence exists in all regions, classes, cultures and against adults, youth and children, there are strong indications that violence is linked to gender, economic, social and cultural factors. Without a doubt, females are usually the victims of sexual and psychological violence.

Anderson (1990) asserts that interpersonal violence is currently the number one single major cause of injury to women. Additionally, Wood and Jewkes (1997) indicate that the scale of violence against women has reached unprecedented levels. Middle and upper class women are not exempt from domestic violence. They experience the same potential for domestic violence and decrease in self-esteem.

The studies discussed above illustrate the link between the health status of women and their partners. The most obvious and abusive relationship is related to violence that threatens women's physical, psychological and emotional well being. Furthermore, as Pryer's (1993) study highlights, the heavy dependence of women and children on the health and earning capacity of male breadwinners and the limited economic options to poor women are problematic. There is, therefore, a need to address environmental and economic constraints faced by poor households as well as address the patriarchal tendencies that discriminate against women.

Black women suffer acutely from the forces of multiple oppression related to class, age, racism and sexism. Age and sex have often been statistically associated with aspects of health and illness with very few studies addressing the social processes behind such associations. Sex differences have been neglected. Verbrugge (1985) states that evidence is clear that women have higher levels of morbidity but still live longer. On the other hand men suffer more life threatening diseases and die earlier. Also of importance is the influence of gender on the social production of medical and social data on health/ illness. For example, a male dominated medical profession may not accurately perceive the experiences of women. Social scientists have also used male and female data interchangeably and ignored the role of gender in knowledge

construction (Roberts, 1985). The different experiences of women and men must always be taken into account in the analysis of health problems and in changing public health. Concepts, which seem immeasurable, should also be included in health research. Due recognition must be given to concepts such as peace of mind, love and happiness which affect health. (RUHBC, 1989).

2.3.9 Malnutrition

Getahun et al (2001) argue that when discussing factors contributing to the high rate of malnutrition in developing countries (the case of Ethiopia is used) it is appropriate to view them in terms of the conceptual framework of malnutrition developed by UNICEF. The immediate causes of malnutrition are inadequate dietary intake and disease. The average dietary energy intake set by the WHO is 2 550 calories per day for males and a recommended intake of 1 940 calories per day for females. The food self-sufficiency ratio, as measured by the extent of food demand met by domestic production, has declined in many parts of Africa following the decreasing trend in food production in the early 1990s (Getahun et al, 2001). Besides this, the dietary intake of young children is given less attention in general. In the rural areas children are usually exclusively breast-fed far beyond the recommended age of six months and the introduction of complementary foods is delayed. Getahun et al (2001) also assert that this could also be one of the reasons for the observed high rate of stunting (59%) in the age group 6-11 months.

In addition to this, the high prevalence of acute upper respiratory infections and diarrhoea are responsible for the high rates of morbidity among under five year old children. These are at the upper strata of the top ten childhood diseases in Africa (Degeffie and Aseffa, 2001). Inadequate access to health service facilities is one of the underlying causes of the high prevalence of diseases and morbidity. Furthermore, access to safe drinking water and adequate sanitation are also limited. Immunisation

rates for all the six antigens were far below the target levels. Illiteracy is also high, especially in rural areas.

The problems of malnutrition are the outcomes of the interaction of various underlying causes such as inadequate agricultural production, inadequate care and inadequate social services in areas of health education, water and sanitation. A number of studies confirm that there is a severe food insecurity problem in many parts of Africa (Asefa, 1994; Atieno, 1998; Bob, 2002; Lazaro, 1998; Omosa, 1998; Sen and Grown, 1988; Van Zyl et al, 1996). Over 40 percent of the estimated food-insecure people in Sub-Saharan Africa are found in Ethiopia, Nigeria and Zaire (Getahun et al, 2001).

Care of the child by the mother and other members of the family are highly compromised by the fact that African mothers have a relatively heavy workload. In the rural areas they work along with the men in the fields as well as taking care of in-house activities. Therefore, they will have little time left to provide adequate care for their children. Often infants and young children are looked after by older children who themselves need to be cared for. Inadequate dietary intake by the mother and prevalence of infections coupled with lack of pre-natal care during pregnancy contributes to the delivery of a low birth weight infant. This in turn, results in a malnourished child and hence, a stunted adult and forms a sort of a vicious circle of the problem.

Limited social services and inadequate infrastructure in the areas of health and education have contributed to lack of awareness about the causes of diseases and intake of balanced diet. Hence, a high prevalence of malnutrition. Inappropriate prioritisation of nutrition issues, low level of development of the socio-economic structure, harmful cultural beliefs and practices and inadequate and inappropriate use of potential resources are the basic causes of the problem (Getahun et al, 2001).

Concerning the problem of vitamin A deficiency, Omosa (1998) states that the supplementation of vitamin A to children is a short-term strategy and cannot be sustainable. It is, therefore, necessary to design and undertake a long-term strategy to ensure total elimination of vitamin A deficiency from many parts of Africa, especially in impoverished areas. Food-based approaches to increase quantity and quality of micronutrients in diets, particularly to improve vitamin A intake, which include strategies other than supplementation, such as horticultural promotion and fortification of processed foods have not yet been given sufficient attention. Nutrition education and communication, Omosa (1998) argues, is also believed to be one of the strategies supposed to bring about a sustainable means of eliminating micronutrient deficiencies, was not addressed effectively so far. At present, NGOs are also making an effort to combat this problem but their efforts need to be integrated into the existing government infrastructure as their coverage might be limited and their efforts need to be supported (Getahun et al, 2001).

With regard to food fortification, the basic question is which foods to fortify in different contexts. There are different ethnic groups in South Africa, for example, who have different staple diets and there is no one type of food that is consumed all over the country. In other countries, Getahun et al (2001) state that processed foods offer to be the best vehicles for fortification. Therefore, it is imperative that research be conducted on identifying the most common food consumed by the large proportion of the population before deciding on one specific food. Getahun et al (2001) indicate that other means of addressing the problem by fortifying locally processed weaning foods at village level could also provide a good option. For this purpose capacity building of small-scale producers and community associations needs to be strengthened. Food diversification is another option that should be promoted by government departments, donor agencies and NGOs. The introduction and promotion of vegetable gardens among communities must also be encouraged.

No one solution by itself will be effective in eliminating nutrient deficiencies or malnutrition in general. Getahun et al (2001) suggest that a collective set of policies

and related programme activities will be needed. Furthermore, any comprehensive strategy for attacking the problem of child malnutrition must include actions to address both its basic and underlying causes. If national income is not improved the resources necessary for investing in health environments, women's education and status and food availability will not be available. Actions taken at both levels will ensure successful achievements of more direct nutrition interventions like breast-feeding, nutrition communications, food fortification and micronutrient supplementation.

Rapid reduction in malnutrition is possible and is urgently needed. This requires focused and systematic action in the areas of health, food security, child and maternal care. Access to education, healthcare and safe water, protection from illness and adequate micronutrient intake are key elements, together with some systems for community follow-up and support of the severely and moderately malnourished children. A key aspect of the deteriorating trends in Sub-Sahara Africa, which includes South Africa is the failure to develop (UNDP, 2000). A compounding, contributory factor is the rapid population growth. Zere (2000) states that uncontrolled population growth drastically undermines social, physiological, mental and intellectual growth and development. Furthermore, Getahun et al (2001) states that it also provides fertile grounds for the recruitment of the socially marginalized child with all that it implies.

The multi-faceted nature of the causes of malnutrition can effectively be alleviated by a multi-sectoral policy that harmonises the activities of those sectors involved in nutrition work. Development of food and nutrition as well as health care policies in Africa will be an important tool for bringing this harmony both conceptually and practically, with the ultimate goal of eliminating malnutrition on the continent.

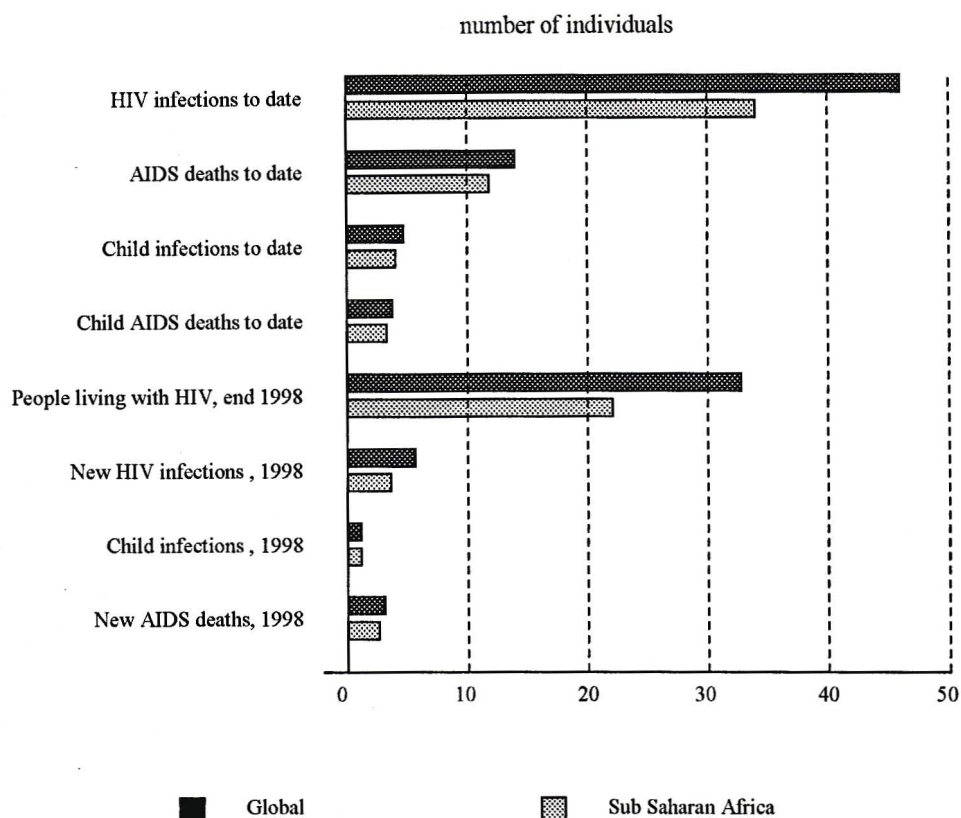
2.3.10 HIV/ AIDS

Weissman (2000) states that one in eight South Africans, one in seven Kenyans, and one in four Zimbabweans has HIV/ AIDS. U.S. Surgeon General David Satcher has likened the HIV/ AIDS epidemic in Africa to the plague that decimated Europe in the fourteenth century. Existing treatments, which enable many people with HIV/ AIDS in the U.S. and other industrialised countries to live relatively healthy lives, are unavailable to all but a few people in Africa. Life-saving HIV/ AIDS drug cocktails cost about \$12,000 a year in many African countries. This is vastly out of reach of all but a small handful of the growing African population with HIV/ AIDS (Weissmann, 2000). The SADC region of Southern Africa is now home to at least one third of the global population of people living with HIV, with about twelve percent of the adult population now infected (Fig. 2.3). As a consequence the following patterns are emerging:

- People who fall sick with HIV/ AIDS are less able to work productively. The productivity of family members drops as they devote more time to caring for the sick.
- When people become ill, their vital social and physical assets such as cattle and tools are sold or depleted as families draw on savings to pay for expensive medical care, funerals, and for the hire of replacement labour.
- When productive assets are sold, the range of activities of people is reduced.
- People's options become limited and they become very vulnerable.
- People from the most productive age group die before they can pass on their experience, knowledge and specialist skills to the next generation. There is therefore a decline in the skills and knowledge base within communities.
- Women are especially vulnerable to infection by their husbands and as widows, to landlessness and destitution by property grabbing by relatives in many parts of Africa.

- External support may decline as service providers such as NGOs, churches, teachers and extension officers become infected by HIV/ AIDS and fall ill and die (Dorrington , 1999, 2000).

Fig. 2.3 Global and Sub-Saharan Africa HIV/ AIDS Estimates



Adapted from UNAIDS and WHO (1999:4)

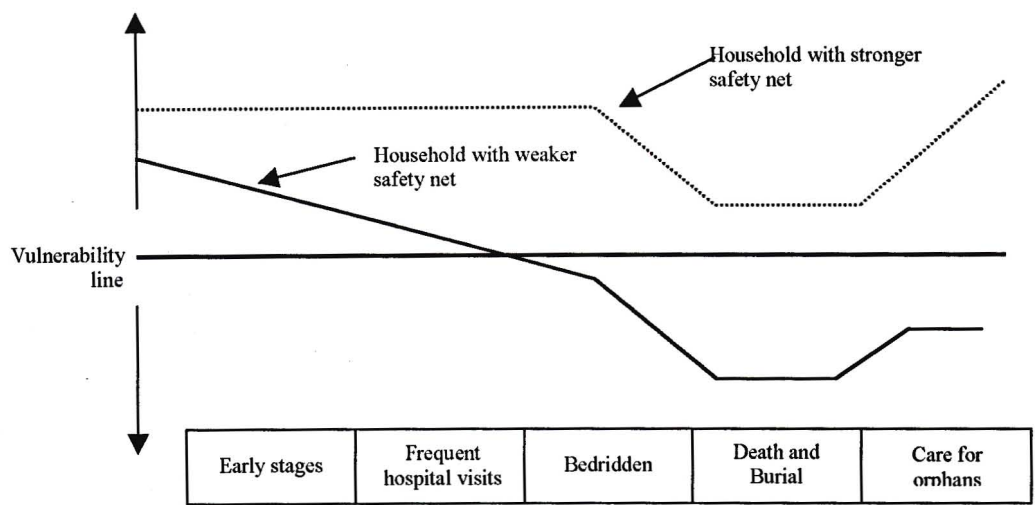
In recent years, AIDS has become a serious health issue for Black people, especially Black women. Studies illustrate that addressing AIDS and other sexually transmitted diseases need to consider the following (Bloom and Godwin, 1997; Foster, 2000; Kamali et al, 2000; UNAIDS, 1999; Webb, 1992; Weissman, 2000):

- **The socio-economic context of HIV/ AIDS:** Poverty and hopelessness which often leads to substance abuse and other self-destructive behaviours place people at a greater risk.
- **Family needs:** The need for appropriate education, housing (including facilities for low income groups), leisure facilities, etc.
- **Isolation of marginalized groups** such as women, the elderly, informal dwellers, homosexuals, etc. These groups are often excluded from needed support services and systems including AIDS education, counselling, treatment and prevention.
- **AIDS education:** There is the need for effective, culturally relevant, realistic and non-sexist prevention education.
- **Treatment of AIDS patients** in general by the health care system: AIDS patients from all backgrounds need equal access to medical treatment, drug treatment trials, psychological services and to long term comprehensive care that acknowledges family needs.
- **Accurate data on AIDS:** Policy makers, activists, health care practitioners and educators need current and accurate data on AIDS including aspects such as risk factors, morbidity and mortality statistics to ensure the development of appropriate legislation and policies that are sensitive to the needs of the poor.
- **AIDS discrimination:** Discrimination against infected persons and their families in the provision of community and social services, educational opportunities, employment, housing and health care, needs to be addressed.
- **Victimisation of women and girls:** The extent to which AIDS infection is, for women and girls, related to sexual oppression and violence (as victims of sexual abuse and rape) raises questions with vast implications for criminal law, sexual assault law and forensic medicine, for example.

HIV/ AIDS has become the greatest threat to humanity in this century, having reached pandemic proportions with incidence rates in Africa higher than any other continent (Bloom and Godwin, 1997). Because of the religious and cultural taboos about the open discussion of sex and related issues, parents and teachers are often afraid to provide youth with useful and general information about HIV/ AIDS. Weissman (2000) states that currently, traditional healers are one of the primary health care providers for AIDS patients. Historically, traditional healers have proven that they are proficient in the treatment of vomiting, diarrhoea and skin disorders; some of the primary complaints of AIDS patients. Traditional healers can be utilised in home-based care programmes. In addition, traditional healers play an important role in the counselling of victims and their families. Fig. 2.4 below is a representation of the effects of HIV/ AIDS on household livelihood strategies (Weissman, 2000: 21). The dotted line represents the rate of degradation experienced by a household with a stronger economic safety net and a wider range of options (including land) to draw upon during a crisis. The other line represents the rate of economic degradation experienced by a household with weaker rates of degradation that appear to pivot on the presence or absence of physical assets, health care facilities and services (including medication), business income and access to credit or savings.

Addressing the HIV/ AIDS crisis in Africa and around the world will require a massively accelerated prevention effort. It will also require revitalising the decimated public health systems of developing countries and making quality health care much more widely available. This, in turn, will require major new investments in public health and the abandonment of structural adjustment requirements to collect "user fees" from people seeking health care. For millions of people already infected with the HIV virus, there is also a crying need to make life-saving drugs more available-and quickly (Bond, 1999; Tarabusi and Vickery, 1998).

Fig 2.4: The Effect of HIV/AIDS on Households/ Livelihood Strategies



Adapted from Weissman (2000:21)

Weissman (2000) reiterates that although access to essential medicines is of critical importance, much more must also be done to prevent the spread of HIV/ AIDS and to improve treatment of those infected. An essential step in combating the transmission of this disease is to cancel the foreign debts of the poorest countries, since debt servicing siphons off funds from investment in public health. World Bank and IMF structural adjustment programs that impose policies such as requiring co-payments from indigent patients make it more difficult for those with HIV/ AIDS to gain access to medical care. Furthermore, African governments must do more to support AIDS education and prevention efforts and to de-stigmatise people with the disease.

In the mid-1990s, African countries were paying more than \$25 billion a year to service their debts, and only about \$15 billion a year on private and public health expenditures (Bond, 1999). Meanwhile, the World Health Organisation (2000) estimated economic losses due to malaria alone at \$2.2 billion a year, and said malaria deaths could be cut in half at a cost of about \$1 billion a year. Health is not just an issue for medical professionals. Public awareness is fundamental in determining whether programs are adequately funded. Trade and regulatory policies influence

whether drugs are affordable. The availability of safe water and sanitation, as well as other environmental conditions has profound effects on health in communities. HIV/AIDS and malaria both illustrate the maxim that preventive action is far more effective than expensive treatment.

2.4 PUBLIC HEALTH

One important issue focussed on in this thesis is contributing to the change in public health, drawing from perspectives in the behavioural and social sciences rather than from the biomedical model. In this respect the concept of public health needs some clarification. According to RUHBC (1989), public health as a concept and as an activity is wide ranging. It is an organised response to the protection and promotion of human health. Concern is with the environment, disease control, provision of health care, health education and health promotion. The medical model is the basis of conventional health education and places the individual at the centre of intervention. The public health focus is on changing individual behaviour to prevent health problems and in this way make improvements. Most current health initiatives emphasise individuals as agents of their own health and this will be ineffective in reducing disease because it draws attention away from social, economic and environmental conditions which create vulnerability to illness and disease. Health promotion is broader. It includes professional practice, policy making, and socio-environmental issues (RUHBC, 1989).

The view that has dominated both professional and lay views of reality is clinically orientated. It seeks explanation in terms of disease specific models. The majority of disease and the highest causes of mortality are found disproportionately amongst the least affluent members of society. They tend to cluster in areas of deprivation and disadvantage. Trying to change the habits of people in these areas even if it were successful would do little to change overall levels of health. The conditions that give rise to health problems would remain the same.

There are three types of individual health behaviour viz. health enhancing, health maintaining and health damaging behaviour. Health enhancing behaviours are those that are consciously undertaken by individuals to improve health. Health maintaining behaviours are those considered by professionals as behaviour related to prevention. These are independent of the formal medical system, for example, the use of vitamins or self-care. Health damaging behaviours are negative health behaviour such as smoking or drug abuse. These definitions are individually based and cannot be applied to collective behaviour but are properties of social systems (RUHBC, 1989).

2.4.1 Environmental Health

Environmental health is the most empirical, policy related aspect of Medical Geography (Eyles, 1997). Last (1987: 131) defines and helps frame the concept as an:

“aspect of public health concerned with all the factors, circumstances and conditions in the environment or surroundings of humans that can exert an influence on human health and well-being”.

In his definition he discusses the content of environmental health but ignores aspects of public health by focusing on the purpose of medicine which is the preservation of health, restoration of health when sickness occurs, relief of suffering and the promotion of good health (Last, 1987). The early ideas on present environmental health emerged from the work of Winslow (1920 cited in Eyles, 1997:16). According to him public health is characterised by the following:

- the science and art of preventing disease;
- prolonged life;
- promoting health and well being through organised community effort for the sanitation of the environment;
- control of communicable infections;

- organisation of medical and nursing services for the early diagnosis and prevention of disease;
- education of individuals in personal health; and
- the development of social machinery to assure everyone a standard of living adequate for the maintenance or improvement of health.

Environmental health is, therefore, about the prevention of disease and the promotion of health in environments or geographically defined populations. What drives the environmental health agenda is the preservation, restoration and promotion of what society sees as important to promote health. This includes not only disease prevention and health promotion, but also the monitoring of particular environments for adverse human health effects and outcomes (Eyles, 1997). Degefie and Aseffa (2001) show that the complex link between health and nutrition has long been recognised, as it is exemplified by the clinical outcome of malnutrition, which in turn may be a result of inadequate food intake or of disease (usually infectious) or a combination of the two.

The content of traditional environmental health with regard to disease prevention and health promotion emphasises actions to monitor and then alter the circumstances that lead to disease or good health. It recognises the importance of individual life-style behaviours and options as well as the community effects of threats to the environment. The history of public health with its successful improvement of sanitary and living conditions is well documented by Hamlin (1991). The importance of nutrition and food quality in improving and maintaining human health is also covered extensively in the works of Asefa (1994), Atieno (1998), Howe (1971); McKeown (1976); Lazaro (1998), Omosa (1998), Sen and Grown (1988) and Van Zyl et al (1996).

What has been neglected is the use of examples from urban environments to illustrate the content of environmental health to help demonstrate the importance of traditional applied environmental health. Eyles (1997) undertook this task. According to him, housing and neighbourhoods are usually seen as private matters. Given their importance in personal worth and status, social well being and as commodities of

stored wealth, these environments have become the most significant element of traditional public health. It has always been this way with attention on sanitation, crowding, zoning, undesirable neighbours and facilities and the consequences of the actions of others on this environment. Open fires, home heating, incineration, and dumps, and road dust for example affects all residential environments with different impacts. Traditional environmental health was geared towards evidence based action and the use of mass information to ensure that it remained on the public agenda (Eyles, 1997). This endeavour may not identify disease but may lead to the recognition of illness (Kleinman, 1988).

The definition of the terms health and environment have become problematic. Health is often used synonymously with the term quality of life and well being. Health needs to be seen as a positive and not only as something which has potential to improve the quality of life. The complete physical, social and mental well being of people needs to be integrated. It should be seen as a positive and contingent resource for living. This is a state that allows for effective functioning in society in the light of particular physical, demographic and social attributes of individuals (Eyles, 1997).

The environment has also been broadened in scope. It is firstly a synonym of nature which emphasises the relationship between the environment and society (Dickens, 1992). It informs on such issues as the nature of existence, truth and beauty. These worldviews act as partial ideologies that provide an existential orientation to society's members. In this regard, Lynch (1981) suggests three normative theories: cosmic, machine and organic. The cosmic comprises of magical and mystical relations between the environment and the Gods to ensure order and harmony in the cosmos. The machine focuses on the interdependence and repairable parts whilst the organic rejects the standardisation of the machine and argues for a dynamic, self-regulatory entity. In the organic theory a balance between diverse elements determines health. This enables the extension of worldviews to include the natural world that is viewed as an ecosystem through which human beings must be understood by their relationships with and their impacts on the natural world. The ecosystem is a powerful metaphor for the environment (Lynch, 1981).

Although health is an individualised phenomenon it is a resource. A working definition of environmental health is health and well being of human populations in specific physical, social and societal environments. The relationship between the environment and health is multi-directional as environments will effect human health but issues of human health and well being will affect the environment. It is clear that human health in environments forms the context within which disease, illness and health issues are played out (Eyles, 1997).

2.4.2 Crowding, Housing and Health

The most widely used indicator of spatial crowding is the number of square meters per person in a housing unit. However, it is useful to use a definition of crowding that includes not only the concentration of people in residential space but also their concentration with respect to the use of limited environmental resources and services. Studies show that crowding facilitates the spread of respiratory infection (Aldridge, 1993; Ramsden et al, 1989; Smith, 1990; Surjadi, 1993). Additionally, exposure to cooking smoke can increase susceptibility to infections and is likely to compound the effects of crowding. The extent and nature of exposure depends on where the cooking (proximity to living quarters exacerbates health side effects) is done and what type of fuel source (paraffin/ kerosene, gas and certain wood types give off toxic fumes) is used (Chen, 1990; Ellegard and Egneus, 1992).

Thomas et al's (1999) study illustrates that people in the lower wealth quintiles are exposed to risks in their homes related to the building methods and materials. The majority of homes in Port Elizabeth, for example, are constructed of brick, but more than half of the people in the lower two wealth quintiles live in informal housing. Wood and corrugated iron sheeting are the main building materials for homes in the lowest wealth quintile (76%) and the lower-middle wealth quintile (54%). Problems experienced in the household environment by residents in the lower two wealth quintiles, include damp, thermal inefficiency, overcrowding and the siting of informal housing in poor locations. Other problems are related to poor ventilation rates in

informal houses and the risks associated with paraffin, the main cooking fuel used by those in the lower two quintiles. While the study showed that 80% of households using paraffin had soot on the walls and ceilings, and the focus groups reported negative health impacts of using paraffin, the adverse health effects of paraffin combustion products required further investigation.

2.4.3 Environmental Health Perspectives

Numerous theories for the basis of environmental health research have been forwarded. Some of these, which will be discussed, are symbolic interactionism, structuration, structuralism, functionalism and ecologism. Different environmental health researchers may adopt different theoretical stances. Eyles (1997: 7) stated, "Theories are not about truth, they are about explanation and must be judged by their utility".

2.4.3.1 Symbolic interactionism (Eyles et al, 1993)

It deals with interaction as the key process in understanding how the ability to think and perceive is developed and expressed. Interaction then produces perceptions and meanings that orient individuals for action. Perceptions and meanings are not static but may be altered when individuals face new situations. The interactionist approach is used to help understand how people construct risk through events, meanings and interactions. It also focuses on how perceptions of risk concerning health, children, security and property lead to uncertainty and anxiety (Eyles et al, 1993). It is worthwhile to use the interactionist perspective to explore the perceptions and language of risk, anxiety and uncertainty with regard to environmental health.

2.4.3.2 Structuration (Giddens, 1984)

Elements of structuration theory use the concepts of agency and negotiation. Agency is seen as the capabilities of people and their related behaviours. Individuals are

active, knowledgeable and capable of reasoning and they can articulate the reasons for certain actions being carried out. Agents do not operate atomistically. The importance of context is recognised through mutual dependency of structures. These are rules and resources, organised as properties of social systems and agency which is the continuous flow of conduct. It is appropriate to examine the flow of human conduct as a negotiation process in which what things mean for the self and others is determined and which is then transformed into feasible actions. It is also important to understand how individuals and communities determine their identities through their capabilities and actions. An example of this is when individuals define themselves as healthy even though they have chronic illnesses and adverse social and cultural circumstances. Health in the above case is identified as the effective functioning of the body which is linked to personal worth. Hence the need to be healthy despite burdens (Eyles and Donovan, 1990). Ill health is often negotiated out off the practices of everyday life. Such negotiation illustrates agency. Whatever happened would not have happened if that individual had not intervened.

Foster (1992) asserts that the idea of negotiation in everyday life is extended by the concept of the field. This provides strategies through which individuals and communities seek to safeguard and improve their positions. Fields are arenas of struggle through which negotiation can be recognised. Negotiation is a way of knowing and acting about environmental degradation and potential risk. The capabilities of groups and communities in the negotiation process will determine the location of undesirable facilities. The concepts of agency and location are key to understanding public facility location including health related facilities.

2.4.3.3 Structuralism

Structures give form and shape to social life. It enables and constrains human activity and thought. The theoretical insights are obtained from structuralism and post-structuralism. The purpose of structuralism is to provide objective universal knowledge. Knowledge may be achieved by deconstructing texts or phenomena of

interest to discover such aspects as power and action (Eyles et al, 1995, (1978) and Doyal (1979) have examined the economic class structures of health systems in the USA and UK by using structuralism. The structural context is also central to the work of Jones and Moon (1987) in their development of radical epidemiology.

2.4.3.4 Poststructuralism (Foucault, 1965; 1975)

Foucault (1965; 1975) examined the asylum and the isolation of the mad and the birth of the clinic through medical practice. Here the search is for real structures through knowledge. Here power plays a crucial role. Power is not only a matter of structural interest but it is also important in the domination of knowledge. Institutions use techniques and technologies of knowledge to exert control over people. The structuring of knowledge is a powerful tool for understanding paradigm shifts in environmental health and the nature of environmental health policy formulation.

2.4.3.5 Functionalism (Eyles, 1997)

Functionalism is a social system that builds from norms and values that make of the environment. It involves identifying the parts of a social system as descriptive and individualistic rather than explanatory and collectivist. Functionalism emphasises motivations and capabilities rather than order, conflict and prerequisites. Each system must adapt to the environment; there must be means and resources to achieve goals; internal co-ordination must be maintained for dealing with problems and pattern maintenance required to maintain itself close to equilibrium. These ideas are significant in areas such as healthy cities and healthy communities. Eyles further (1997) that the healthy city concept is based on reorienting social work better (integration) with due regard to the environment, mutual aid (pattern maintenance) and resource mobilisation (g

2.4.3.6 Ecologism (Foster, 1992; Eyles, 1997)

This deals with the ecosystem and its relations to human health and well being. Epidemiologists and Medical Geographers made use of this concept when they examined the relationship between the environment and health. Here for example, the physiological and psychosocial effects of exposures to toxic events have been examined and the outcomes, effects and relationships quantified. It is an extremely important research area, which follows the traditional research agenda on environmental health.

There is a qualitative difference in the theoretical stance as well as research content of the “new” environmental health. Several changes to connect the environment and health have taken place since the work of Park (1936) and his classical ecology. Dickens (1992) illustrates that the key construct today is the ecosystem. They are selective systems, which are fragile and need protection as well as human intervention. Much concern is with ecosystem health and ecosystem stress. The theory underlying such research is orgasmic. It emphasises interdependence for survival, growth and maturation. Such research is relevant to environmental health because it emphasises human health and well being. The importance lies in the need to bring together human health and ecosystem issues. It may be achieved quantitatively and critically by researching the human costs of environmental actions and the environmental costs of human actions.

2.5 HEALTH AND HAZARDS

The literature also examines the link between health and hazards (Cuny, 1983; Davis, 1979; Foster, 1992; Lewin et al 1998; Mulwanda, 1991 and Pantilec, 1990) and illustrates that the problem for low income groups who reside in the city is not that they face the greatest risks but that hazards affect them more profoundly. Mulwanda's (1993) study shows that floods in Lusaka, which is a regular occurrence, has devastating impacts on some communities. The study illustrates that the level of avoidable deaths and damages which disaster-preparedness and prevention should provide is limited and in most cases non-existent in the poorer segments of the society.

2.6 HEALTH POLICY

Policy has a number of functions. These include setting standards and ensuring a minimum level of uniformity in implementation; providing a framework for action and for dealing with potentially sensitive issues; and promoting the transparency and accountability of service providers. In general, Lewin et al (1998) assert that there tends to be high expectations of the ability of 'policy' to influence the actions of environment and health departments.

A central focus in many of the health debates is the integral role of policy in promoting health and equality. This is important because the experience of differential health status and access to health care can be seen as a product of institutions, where it is the outcome of institutionalised patterns of distributing resources and social value as well as public and private power. Wildschut and Hulbert (1998) warn that policy cannot be designed and implemented without an analysis of the institutions within which it is practised. The success of policy, its ability to inform practice and thus change conditions on the ground, is largely influenced by the capacity of institutions that are responsive to health issues. Getting health policies right is concerned with understanding the relationships between patterns of health management and health outcomes. It is important, from a health perspective, to highlight that policies and institutions have not been right for marginalized groups such as the elderly, women, the disabled and Blacks. Policies and institutions often limit people's options as well as depending on discriminatory practices related to sexual orientation, class, race, religion, political affiliation and ethnicity in different contexts.

In many instances, health policy initiatives have, at least in principle, been accepted by governmental and development establishments. However, evidence from many studies indicates that social institutions and development organisations continue to produce outcomes which either maintain the *status quo* or even worsen the conditions of the poor (Nadasen, 2000; McIntyre et al, 1999; Randall, 2001; Segall, 1999). It is therefore useful to examine whether health reform initiatives in South Africa which are part of broader reconstruction and development endeavours, will positively or

negatively impact on the health status and conditions of the poor. This examination is in part undertaken in chapter four.

Health is a policy area that will become increasingly important in the future. In the past few people spoke about health care. Going to the hospital was a rare and dreaded event in the lives of most people. People went infrequently to the doctor usually when they had no other recourse for getting better and returning to work. This is changing for the average person as visits to doctors and health care centres is becoming common when people feel sick or when they are well. People increasingly go to the doctor to help them stay well, such as through a general physical examination, and to prevent new problems from developing. Access to health care is thus important (Kronenfeld, 1993).

A nation's health policy is part of its general overall social policy. An important part of health policy is to improve the health status of the population, that is, improve health and well being of citizens. As such the formulation of health policies is influenced by various social and economic factors that impact on broader development policy issues. The nature and history of existing institutions, social conflict, and general goals and values of a society all play a role in the formulation of policy (Kronenfeld, 1993). Highly controversial issues such as abortion, HIV/ AIDS, crime and environmental pollution have become prominent on policy agendas in the public domain. In this atmosphere, policy issues tend to be framed in either/ or terms. For example, abortion is depicted as "murder" on the one hand and a woman's "choice" on the other. The situation does not lend itself to a middle or common ground (Kelly and Dennis, 1993).

These policy disputes

... reduce the emphasis on finding rational, balanced solutions. Political ideology and a zero-sum approach to politics and policy making become the order of the day.

(Kelly and Dennis, 1993: ix)

There are various approaches to the study of health care policy. One important perspective utilised by Morgan (1993) is the political-economic ethnography of health policy. This perspective emphasises the social and historical roots of disease and health care. It plays particular attention to the existence of stratified social relations within world economic systems. It departs from the orthodox political economists such as Doyal and Pennell (1983) and Turshen (1989). These social scientists imply that foreign precepts were imposed wholesale by colonial and neo-colonial powers. Moreover, it was accepted uncritically by national elites and implemented by national elites with little resistance from locals. They emphasise the global penetration of capitalism and the adverse consequences of capitalist biomedicine in developing countries. Morgan (1993) on the other hand argues that international relations explain only one dimension with regard to health care and community participation. He considers crucial the role of the State in setting the direction of social policy and the dynamic participation of subordinated people in resisting domination and constructing social forms under conditions of dependency. He thus focuses on the dynamic interplay among different levels of analysis, which are ignored by political economists. Global economic forces and cultural imperialism are major determinants of ill health. However, economic dependency is not enough to account for the political economic contingencies and histories of any country. There is a need to look inside and outside the national boundaries at linkages, especially the local history, class structure and interest group politics within the framework of international dependency (Morgan, 1993).

Lewin et al (1998) show that environment and health departments at the local government level in South Africa are engaged in a number of policy development and implementation processes. While, in the past, policies were inconsistent, ad hoc, reactive and often impractical, there was official intervention. The study also concluded that under the new dispensation, policies needed to be realistic, adaptable and linked to budgets. It was also noted that policy could be used to bargain for more resources, particularly where these policies were formalised in law and therefore required enforcement.

A number of constraints to policy development in the health care sector were identified by Lewin et al (1998):

- inadequate environmental and health data;
- lack of co-ordination and consistency between policies underdevelopment;
- inadequate attention to implementation mechanisms and
- lack of capacity amongst officials.

In terms of policy, it is important to raise the question of whether policy development is being seen as a 'panacea' for a range of ills or problems in these sectors. Whilst policies need to be revised and new policies developed, there is a danger that policy making will divert attention away from other important issues relating to health and health care provision. Policy-making and policies cannot, in themselves, result in the transformation of organisations. For meaningful transformation to occur, attention needs to be paid to the organisational barriers impeding transformation. Lewin et al (1998) state that this may be a far more challenging exercise than the process of policy development itself.

2.6.1 Equity in Health and Health Care

In any perspective embraced, the allocation of resources and access to facilities as well as services become critical to health concerns. The poor have very little status in societies. They have very little or no access to health resources and/ or income to acquire health care. This creates a sense of dependency and helplessness. Equity and fairness are common terms used without being questioned in promoting health and delivering health services. The reasons for promoting equity are important and should be explained. Equity is important because national health should serve all people but not all benefit from the use to the same extent (Leahy, 1996). This can only take place if decision making is fair and just because equity is about fairness and justice. Being fair and just, however, does not mean treating everyone equally. Individuals and groups of people have different needs and some need greater and better access to

health services than others. The equity objectives that are chosen have to be locally achievable.

There are several ways to define equity. It must be ensured that those with equal needs should get equal treatment or those with different needs should get different treatment. These are very broad objectives that are difficult to tie down and monitor. More precisely the aim should be to have according to Leahy (1996) the following:

- **financial and geographical equality;** this not a simple matter to resolve because allocating money on the basis that each individual is the same is not equitable. People have differing needs based on criteria such as age, sex and the social environmental conditions.
- **equality of health status;** this implies equality of health status for all. Although it is desirable, it is not a suitable short or long-term objective. There are many factors outside the health system that affect health, for example, housing and pollution. The objective thus becomes unrealistic for authorities to pursue. However, government should try to achieve this objective by pursuing the effective delivery of services in areas that will have an equal impact on the health of the population. Programmes such as immunisation will put people on an equal basis.
- **equality of service use;** it is impossible for the authorities to force people to use services even if every effort is made for people to use services appropriately.
- **equality of treatment;** patients with the same illness will complete their treatment in the same condition as each other (equal outcome). However, patients are different and it is difficult to predict factors that will affect recovery.
- **equality of access;** there should be a move towards providing everyone with equal access to basic services. This can be monitored and disadvantaged groups can be targeted. This is achievable over time.

Equity refers to who gets how much of what is available (Jones, 1984). Humphreys (1988) states that with health care, in comparison to other goods and services, there has been a general focus on equity with regard to services. This has in turn led to certain rules and procedures being formulated. In this respect Humphreys (1988: 323) points out, "equity is a procedural concept which requires implementing rules to the allocation and distribution of scarce resources." Equity is considered in determining the actual amount and nature of resources available and who gets how much of what that is available. Equity can be achieved when policies are orientated to health care rather than medical care and when provision and distribution of resources are geared to service outcomes rather than service inputs. The issue of social provision was of major concern throughout the world in the 1960s and 1970s. There was much research by geographers and other social scientists. Questions that were focussed on were: who gets what, where and how? Most of the focus of attention was on the distributional aspects of resource provision to ensure that unmet needs were fulfilled and inequalities minimised or overcome (Graycar, 1979; Smith, 1977; Stillwell, 1974).

The provision of health care services is a good area to demonstrate the concept of equity. It represents a social good that all people can relate to. According to WHO (1986; 2000), it is a basic need and a basic right. Similar to other public goods and services, there is a choice of distributional criteria which must be adopted to ensure equitable provision (Humphreys, 1988). With health care services there is greater insistence on equitable distribution compared to other public goods. Knox (1979) argues that this can be attributed to the fact that good health is a fundamental determinant of people's life chances.

Social provision and service delivery comprises two processes, that is, allocation and distribution. Allocation refers to the amount and nature of collective goods to be provided. However, with health care services, the use of population dispersion as a measure to ensure an equitable provision of resources has not been widely recognised. In a country with many interests and choices, priorities have to be made between different interests (Humphreys, 1988; Knox, 1979). The choices are either utilitarianism or individualism. In the first instance, equity is central and in the second

freedom is maximised. The actual choice will relate to the entitlement an individual is believed to have to a social product (Harvey, 1973).

Equity is a term closely related to notions of equality, justice and fairness. It is only one of several distributional principles, which guides the process of resource allocation (Humphreys, 1988; Smith, 1977). Troy (1981) argues that all nations require some concept of fairness to be able to operate with stability. However, there are no absolute criteria to judge whether a distribution is equitable or not. Choosing the criteria for equity is a political decision and reflects the dominant ideology. Furthermore, van Rensburg and Fourie (1994) state that it is much easier to demonstrate the principle of inequality than equity. Certain people benefit from resource distribution based on equity. Others may lose even though society as a whole may benefit. The main opposition to redistribution based on equity comes from people who did not benefit. These people feel that they are missing out on something while others get something for nothing. Humphreys (1988) believes that not all members of society accept the legitimacy of what is equitable. A socially just or equitable distribution of goods and services will not be obtained in a market economy. In a market economy, this will only be possible when each member of society competes from a fair and equal economic base. To define equity in terms of equality of opportunity is of no use without recognising wealth, income and power inequalities that characterise social structures and location differences that confer various benefits and costs. When equity is defined in terms of justice and fairness, it requires consistent, impartial and equal application of allocation rules to similar cases. It does not apply to all members of society (Humphreys, 1988). As equity is a procedural concept, Hodgart (1978) indicates that the application of different rules may result in different spatial distributions of resources in a society.

With regard to the provision of health care services and facilities, the application of equity principles does not mean that resources should be uniformly or equally distributed. Rules of distribution are a function of social welfare judgements. It relates to perceptions of and decisions determining people's entitlement to society's resources (Humphreys, 1988). According to Harvey (1973), need determines ideas

about equity of access to health care services. There is no absolute definition of need. Need is relative and refers to the adequacy of existing conditions in society in relation to socially acceptable norms. Harvey (1973) further asserts that need involves perceptions of conditions and individual judgements on the nature of conditions constituting need. There are also different types of need: expressed need, normative need, felt need and comparative need. Expressed need can be measured by demand, normative need through the judgement of experts, felt need through the perception of people and comparative need is based on the position of an individual relative to others (Humphreys, 1988).

The importance of equity as a principle guiding resource allocation has diminished over the years. Many countries have tried to find the best way to allocate and deliver limited resources with increasing economic adversity. They have done this by opting for political expediency rather than principles of equity. Resource allocation is a political problem and not only a technical exercise. Humphreys (1988) states that this requires value judgements and priorities.

2.6.2 Racism and Health Care

Randall (2001) demonstrates that equal access to quality health care is linked to racial discrimination. The need to focus specific attention on the racism inherent in the institutions and structures of health care is overwhelming. Rodgers-Rose (1993) argues that Black populations are sicker and dying at significantly higher rates than White populations. Furthermore, people in developing countries are sicker than people in developed countries, and these disparities track racial lines. There are many examples of disparities in health status between ethno-racial groups. For instance Randall (2001) shows that in the United States infant mortality rates are two and a half times higher for Blacks, and one and a half times higher for American Indians than for White Americans; the death rate from heart disease for Blacks is higher than for Whites; individuals from racial and ethnic minority groups account for more than 50 % of all AIDS cases, although they only account for 25 % of the population of the

United States; the prevalence of diabetes is 70 % higher among Blacks and twice as high among Hispanics as among Whites; Asian Americans and Pacific Islanders have the highest rate of tuberculosis of any ethno-racial group; cervical cancer is nearly five times more likely among Vietnamese American women than White women.

The current health disparity issues are not isolated health system problems. In fact, Randall (2001) argues that health disparity is the cumulative result of both past and current forms of public policies. For instance, because of institutional racism in South Africa, in general, Africans have less education and fewer educational opportunities; they disproportionately reside in informal settlements having significantly poorer housing options; and they disproportionately work in low-paid and high-health-risk occupations.

Despite health care policies and legislation, significant disparities in health status can be linked to individuals' unequal access to quality health care on the basis of race, ethnicity and gender. This denial of health care does not occur only as overt racism, but also as a result of institutional racism. Institutional racism grows because of the disparate impacts of practices and public policies, inadequate laws and regulations, ineffective enforcement of existing laws and regulations, cultural incompetence of health care providers and institutions, and socio-economic inequities that are disproportionately distributed along racial lines (Randall, 2001).

Within a country, racial barriers to quality health care may manifest themselves in a number of ways. According to Bullard (2001) and Randall (2001) these are:

- lack of economic access to health care;
- racial barriers of entry to hospitals and health care institutions;
- racial prejudice of physicians and other health care providers;
- racial disparities in medical treatment;
- racially discriminatory policies and practices;
- lack of language and cultural sensitivity;

- disparate impact of the intersection of race and gender;
- lack of data and standardised collection methods;
- inadequate inclusion of disadvantaged groups in health care research; and
- the racialised conduct of scientists, professionals and other public figures on matters relating to scientific experiments, clinical trials, industrial products and safety standards.

Effective regulation of racial discrimination in health care will require that governments take a proactive role in uncovering where institutional racism exists. Among the actions that need to be considered include the routine and systematic collection of health status and health care data based on race, gender and socio-economic status (Randall, 2001). Such data should not be limited to census and vital statistics, but should include data on access and quality (particularly service delivery, diagnosis and treatment, facility availability, provider availability and other related health activities and services).

Bullard (2001) states that environmental racism in relation to health reinforces the stratification of people (race, ethnicity, status, power), place (central cities, suburbs, rural areas, unincorporated areas and homelands), and work (office workers afforded greater protection than farm workers). It institutionalises unequal enforcement; trades human health for profit; places the burden of proof on the 'victims' and not the polluting industry; legitimises human exposure to harmful chemicals, pesticides, and hazardous substances; promotes 'risky' technologies; exploits the vulnerability of economically and politically disenfranchised communities; subsidises ecological destruction; creates an industry around risk assessment; delays cleanup actions, and fails to develop pollution prevention and precaution as the overarching and dominant strategy.

Environmental racism, Bullard (2001) asserts, is also evident at the global level. Shipping hazardous wastes from rich communities to poor communities is not a solution to the growing global waste problem. Transboundary shipments of banned

pesticides, hazardous wastes, toxic products, and export of 'risky technologies' from the United States, where regulations and laws are more stringent, to nations with weaker infrastructure, regulations and laws smacks of a double standard. Unequal interests and power arrangements have allowed the poisons of the rich to be offered as short-term remedies for poverty of the poor. This scenario, Bullard (2001) demonstrates, plays out at the national level (as in the United States, where low-income and communities of people of Colour are disproportionately impacted by waste facilities and 'dirty' industries) and internationally (where hazardous wastes move from developed countries to developing/ underdeveloped countries).

Bullard (2001) shows that endangered people of Colour in the industrialised countries of the North have a lot in common with populations in developing countries of the South that are also threatened by industrial polluters. The 'unwritten' policy of targeting Third World nations for waste trade received international media attention in 1991. Lawrence Summers, when he was chief economist of the World Bank, shocked the world and touched off an international scandal when his confidential memorandum on waste trade was leaked. Summers (1991 cited in Bullard, 2001: 3) wrote: "Dirty Industries: Just between you and me, shouldn't the World Bank be encouraging MORE migration of the dirty industries to the LDCs?"

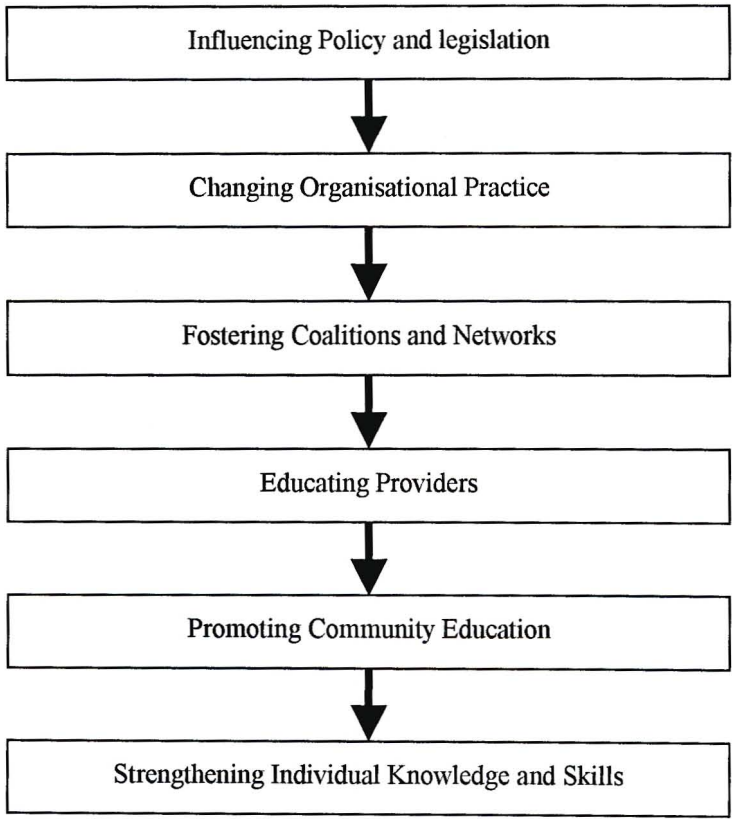
Environmental racism also manifests itself in the substandard treatment of workers (Rodgers-Rose, 1993). Thousands of farm workers and their families are exposed to dangerous pesticides on the job. These workers endure substandard wages and working conditions. Environmental racism extends to the exploitative work environment of garment district sweatshops, the micro-electronic industry and extraction industries. Large proportions of workers who suffer under substandard occupational and safety conditions are immigrants, women and Black.

2.6.3 Health Care and Service Delivery

Access to health care services has received a great deal of attention. Especially primary health care services are viewed as being critically important for preventive

health. A prevention-orientated approach is illustrated in the diagram below. The spectrum that is illustrated operates on a two-way basis. Recent studies are beginning to critically examine the quality of the health and environmental services provided (Cohen and Swift, 1993). This aspect includes the maintenance and operational efficiency of the services provided. For example, regular water interruptions offset the benefits of an otherwise adequate water supply system. The maintenance and level of use of sanitation services is also important. For example, the communal use (many households) of a flush toilet system is bound to break down regularly and will require constant maintenance. Thus, this type of system may not be appropriate in a specific context.

Fig. 2.5: The Spectrum of Prevention



Adapted from Cohen and Swift (1993: 63)

2.7 PRIMARY HEALTH CARE (PHC)

In most parts of the world doctors and health authorities have gradually obtained control over the domain of health and medicine. With the advent of the PHC movement, this trend is being reversed in an effort to return to people some responsibility for maintaining health. Primary health care was designed to make basic preventative and curative care universally available at the first level of contact with the health system. There is a commitment to equality, which means providing basic services for the whole population rather than high quality speciality care for a few people (Garfield and Williams, 1992). PHC has emerged as the dominant approach to solving health problems after it was realised that the existing system of health care failed to cater for the majority of the world's population. The international community has therefore espoused PHC as the major hope of solving health problems. The most notable formulation of PHC as a concept was arrived at in 1978 at the Alma-Ata conference. Since that time, it has been identified as the strategy for "health for all by the year 2000" and has become the slogan of the WHO in respect of health promotion (Philips, 1990: 151).

At the Alma-Ata conference PHC was defined as a mixture of curative, preventative and promotive activities of a basic nature. It involves many facets of society and the economy that influences health and welfare and not only aspects of medical care. Numerous programmes and activities make up PHC such as family planning and mother and child health. The recent trend has been a focus on selective primary health care (SPHC) targeted at certain health problems. The 1978 declaration integrates two main streams of activities and processes; one is the growth and extension of basic health services and the other deals with the development of the community in relation to education, infrastructure initiatives and resources (Philips, 1990). The definition of PHC clearly outlines the objectives as indicated below:

...essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford. It forms an integral

part of the country's health system, of which it is the nucleus, and of the overall social and economic development in the community.

(WHO, 1978: 34)

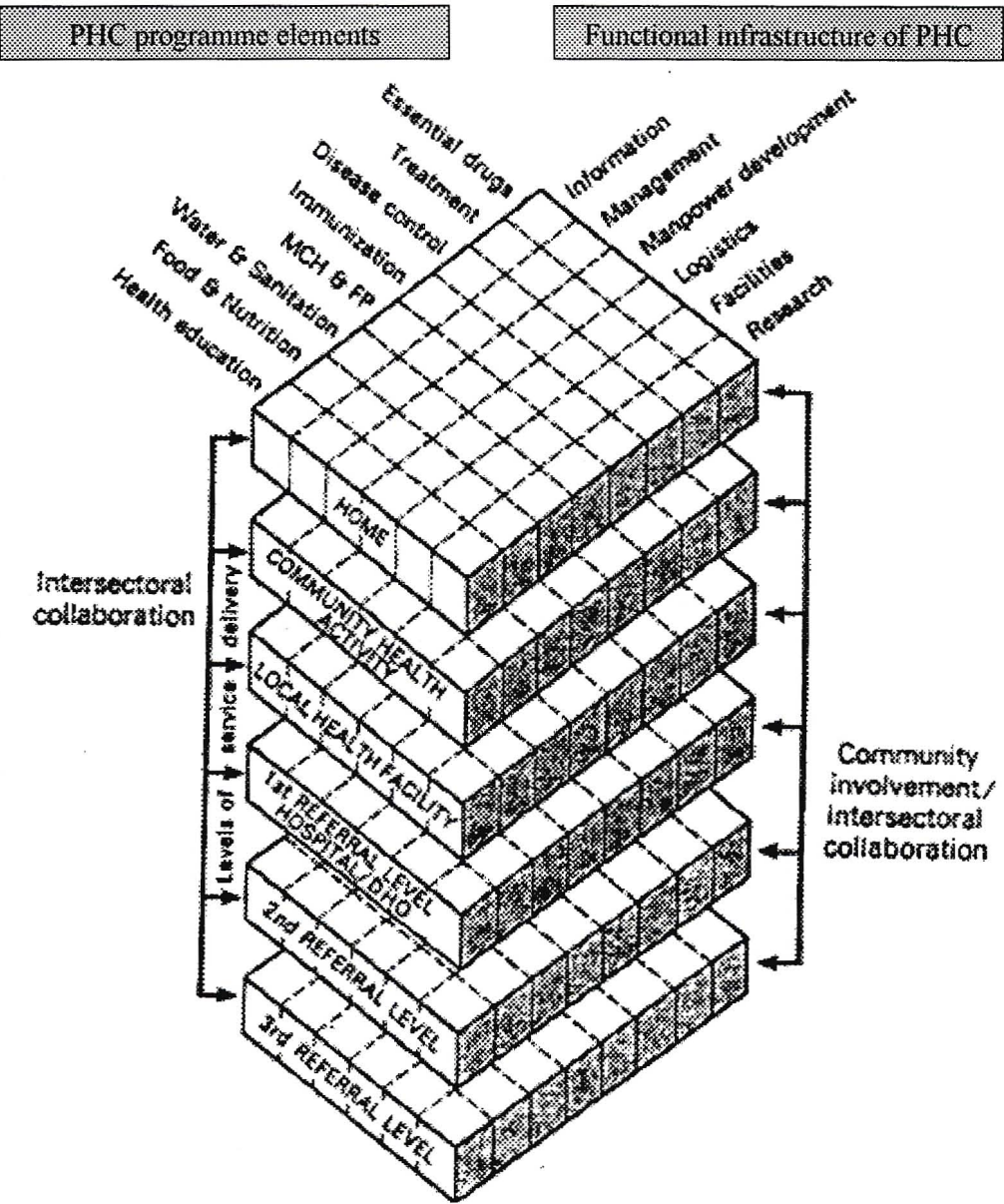
The PHC philosophy has increasingly become health care policy (Philips, 1990). The basic elements or principles that provide the framework are (Garfield and Williams, 1992: 23-24; Philips, 1990: 152):

- education to prevent or control health problems;
- promotion of food supply and adequate nutrition;
- safe water and basic sanitation;
- maternal and child health care, including contraception and family planning;
- immunisation against major diseases;
- prevention or treatment of common diseases and injuries;
- provision of essential drugs.

PHC embodies the basic needs approach with the provision of essential health services with community involvement and participation. By definition the concept of PHC is wide ranging and not purely a health activity. Inter-sectoral collaboration is a key entailing the combination of health and community development (Ebrahim and Ranken, 1988). Success depends on task orientated activities, that is, the health problems of communities or process orientated such as education and the improvement of social and economic conditions (Philips, 1990). This may lead to a potential conflict situation, as social change may be difficult to accept or opposed by individuals and communities although many may favour the improvement in services and facilities. PHC may not be the cheap alternative as was envisaged. As Fendall (1985) outlines, it may be complex and difficult to achieve in reality. Furthermore, the collaboration and involvement of all related sectors of the economy may be difficult especially in developing or transforming economies where there is a lack of or no co-operation and co-ordination (Philips, 1990).

The components of PHC are illustrated in Fig. 2.6 below. They include programme elements and their relationship to a loose functional infrastructure. The components can and should interact at various levels of care. Thus, intersectoral collaboration and community involvement at all levels provide the totality of the PHC approach (Philips, 1990).

Fig. 2.6: PHC Based Comprehensive Health System



(Adapted from Philips, 1990: 154)

Comprehensive PHC (CPHC) has not yet been fully implemented and is not universally considered as an effective means of implementing health for all. It has been modified to a selective primary health care (SPHC) approach because of the problems of the bottlenecks and shortage of finance and personnel. For practical reasons, costs and use of resources effectively, some priority is assigned to certain tasks especially the eradication of specific diseases (Philips, 1990). The major criticism of this approach is its attack on individual illnesses and disregarding the upgrading of communities. Fendall (1985) calls this approach a thinly disguised euphemism for the disease approach whilst Berman (1982) considered this approach too costly and technical. The SPHC approach thus reduces the scope of health services to those that are cost effective and is required because full or comprehensive PHC cannot be attained in most developing countries. It must be admitted that SPHC does not confront the many basic health problems of communities and is an adoption of a narrower definition of that accepted by the WHO concerning the improvement of the social, mental and physical well-being of people. SPHC is also better suited to urban areas although the need is in rural environments. In time this type of interventionist strategy may change.

In the context of the modernisation thesis, there are arguments against PHC and the expansion of secondary and tertiary health facilities. In the light of this PHC can be depicted as of lower quality or a backward option. In many poor countries, PHC should not be regarded as second class medicine. It is a rational course of action, responsive to local needs and conditions and which is appropriate. In this regard the community improvement elements of PHC are attractive and some advances can be made, whatever the social and political context (Philips, 1990). However, the early enthusiasm for PHC became dampened. There are a number of obstacles that include financial, social and political problems. Donor support means a certain amount of leverage. This forces the acceptance of the ideas of specific agencies and the demand for rapid, tangible results. Philips (1990) further indicates that finance is also a major problem even when donor aid is available. Massive donor aid is necessary to supplement national budgets to implement and expand PHC, which is a major problem as it is very unlikely to be sustained.

There are also political and practical problems such as inadequate political support and informed leadership at the national and international level. The ideals of certain national health ministries have to be altered to take account of the breadth of PHC ideals. Coovadia (1988), Ebrahim and Ranken (1988), Morgan (1993), Owen (1995), Powell (1986a), Rifken et al (1988) and Wood (1983), illustrate that many health systems continue to be hospital and hierarchy orientated to curative medicine. Furthermore, at the practical level there is a lack of organisational, personnel and managerial resources at the lower levels of the health system. Evers et al (1990) state that this would be difficult to overcome if local professionals and influential community members are resistant to the ideals of PHC that may involve loss of power for them. It is also frequently difficult to replicate successful PHC projects at a small scale more widely (Philips, 1990).

PHC is widely regarded as a positive package that may reach the majority of people over time. However, doubts have arisen about its long term potential. These relate to fundamental explanations of the existing patterns of inequality in health and access to health resources. It is seen as involving the “development of underdevelopment debate” which lays the blame on previous systems, which undervalued the health of the masses whilst catering for the elite (Philips, 1990: 157). Improved health is not only a matter of medical systems. It is a much more complex question of the relationship between health and the nature of underdevelopment (MacPherson, 1982). Some people did benefit from western medicine introduced by the colonial powers. Independence in many countries has not eliminated the extremes of poverty, hunger and ill health that developed in colonial days. These have sometimes been exacerbated. The expansion of modern medicine has not even kept pace with the needs of the elite and growing middle classes in developing countries and there is thus the call for health by the people (Fendall, 1985). Kronenfeld (1993) asserts that primary health care has become the vehicle for such thrusts but projects are isolated and their impacts limited. The approach did help to circumvent some of the barriers to utilisation of integrated health and other resources that were created by a narrow technological approach to health care (Gish, 1979). In the long term, PHC strategies may become a palliative in the absence of change in the whole health care system.

This may lead to disappointment and frustration amongst some sectors of the population (Philips, 1990).

2.7.1 The Integration of Primary Health Care Services

According to the WHO (1997), an integrated service is firmly linked to the development of a district health service. Integration implies multi-purpose clinics; multi-purpose staff; overlapping levels (for example, primary and outreach functions for hospitals); planning programmes that have many objectives and include other sectors and budgeting that reflects this; information systems that track inputs, services delivered and health status; training courses that are general rather than specialised; and supervisory visits that deal with all aspects of the service. In addition, an integrated service has in place the existence of mechanisms to bring together different health care providers; a close relationship with health care centres and district hospitals; and joint efforts across sectors. The WHO (1997) asserts that integration avoids wastage and duplication of effort. Schierhout and Fonn (1999) state that women's health advocacy groups on the other hand, see integration as supplying a wider range of services that would be provided in the biomedical approach to health care alone, and easier access for marginalized or vulnerable groups.

Schierhout and Fonn (1999) further assert that the extent to which PHC can be 'integrated' has been an area of controversy internationally for decades. Within the health sector, the debate includes what PHC services can or should be offered together, or what interventions are best run separately as vertical programmes, and how PHC can be linked via referral mechanisms to other levels of care. The debate also includes a vision of health in its social context, and asks how PHC services can be linked to other sectors, involving preventative and promotive interventions that are broader than traditional biomedical interventions.

The international debate, according to Schierhout and Fonn (1999), has been shaped by the legacy in many countries of strong donor-driven vertical programmes that aim to target one or a few selected health problems, leaving other problems that are

perhaps seen as more intractable, unaddressed. Thus, it appears that the debate has focused primarily on whether or not it is a good idea to extend the range of services offered by pre-existing vertical programmes such as HIV/ AIDS education and contraceptive services/ family planning (FP). In recent years, considerable donor and political support has focused on HIV/ AIDS. This has resulted in integration debates to consider the expansion of FP and mother and child health (MCH) services to include services of relevance to the prevention of HIV, such as treatment of sexually transmitted diseases (STDs), education campaigns and condom provision.

Schierhout and Fonn (1999) and WHO (1996) argue that the proponents of integration promise that integrated programmes reach more people in ways that are easier for the users than vertical or specialised services, save money because of less wastage and duplication and are more ethical. On the other hand, those who do not favour integration claim that specialised programmes offer better quality of care and have a greater public health impact than integrated programmes which can be too unfocussed and are harder to implement properly. Integration is also seen as a continuum, where a purely vertical programme and a multi-purpose service are at opposite ends, but between them is a range of options for partial integration, such as programmes which offer a “core package” of priority services rather than the full range of PHC, perhaps including interventions by sectors other than health (Bartlett, 1999).

Schierhout and Fonn (1999) further assert that in general, recent guidelines and documents on integration focus on the advisability and means of bringing together specific services previously run separately, but to date, guidelines have lacked a health systems approach. In particular, factors necessary for the successful implementation of an integrated service have been paid scant attention. An additional problem identified is that there is no consensus as to how to measure the performance of integrated programmes. This lack of approved indicators has been a disincentive for integration among the donor communities.

Unlike other countries in the developing world, Schierhout and Fonn (1999) assert that South Africa does not have strong donor driven vertical programmes.

Nonetheless, the legacy of fragmentation and duplication of services mean that the promises of integration are attractive. McIntyre (2000) states that in an effort to reduce fragmentation of health services in South Africa, some municipalities are increasingly providing integrated preventive and curative primary care services. As in the 1990s in South Africa, considerable effort is being expended on restructuring health services, with the political will to restructure in ways that promotes equity, and integration has perhaps been seen as something of a panacea.

The effect of integrated services on the user (demand-side) can be measured in a number of ways. As a framework for assessing the desirability of different models of service delivery, the following parameters, which it can be argued are essential components of an ethical PHC service, are important (Schierhout and Fonn, 1999):

- information on accessibility, using service utilisation data;
- data on access for marginalized or vulnerable groups;
- data on quality of care, including user satisfaction;
- data on morbidity and mortality, indicating the success of the programme in preventing major public health conditions.

In addition, although cost-effectiveness is not strictly a demand-side issue, cost-effectiveness is important for integrated programmes as they are central in terms of ensuring long-term sustainability.

In almost all case studies reviewed by Schierhout and Fonn (1999), a key disparity identified in integrated PHC programmes is the differences between what was planned and what was actually implemented. The generic problems pertaining to effective implementation are summarised below:

- **Training:** appropriate training, especially for first-level providers is important. Some studies found that technically competent staff are not suitable as trainers. Trainers needed to be trained not only in technical areas of the programme but also in participatory training techniques and how to organise

as well as manage training sessions. This needs to be followed by actual field supervision.

- **Multi-purpose workers and professionals:** there is increasingly a need for multi-purpose workers and professionals in the health sector.
- **Record keeping systems:** the inability to keep proper records prevents proper supervision as well as results in the loss of critical data and information. A key problem that needs to be addressed is assistance to keep records.
- **Local health committees:** the effectiveness of local health committees remains a concern identified in many studies. There is evidence that local health committees perform better and are more motivated if they have specific concrete tasks. Furthermore, local government in some cases tend to favour curative services at the expense of preventative and promotive services. The needs of women and children may be overlooked.

2.7.2 Community Participation

One component in this new strategy of primary health care is the importance of community participation. The concept of participation is socially constructed. It is defined and redefined through time. When international agencies sold the idea of participation as a "one size fits all" panacea, they did not consider the relevance of citizen and state relations or prior history of participation in a country (Philips, 1990; Rifkin, 1985). History is important in terms of identifying factors that would make participation feasible in particular countries. However, it is pointless to identify the extent of participation without knowing the political motivations and ideologies of those who design the programmes and conduct the evaluations. Morgan (1993) states that although contemporary commentators recognise the political nature of participation they fail to explain how and why it plays such a vital role in debates over the nature of society. According to Morgan (1993: 6):

Participation is first and foremost a political symbol, by nature amorphous, flexible and adaptable. Unravelling what participation symbolises to different

people and groups at various historical periods offers insights into the relations of domination and subordination operating within and between societies.

Some experts insist that community participation was a technical and not a political concept (Leahy, 1996). The political nature of global health initiatives was generally not acknowledged. Thus, they legitimised and reinforced existing socio-political formations. McIntyre et al (1999) state that edicts, although designed collectively with representatives from less developed countries, when adopted and disseminated as international mandates must be re-analysed in each country to assess national priorities and program feasibility. National programs are designed to modify and improve health status in ways that support domestic political priorities and do not challenge the political status quo. Less developed countries draw the symbols, slogans and plans for their national health programs from international agencies. These reflect international policy trends, technological developments and global politics. However, States do interpret and redefine them to make them consistent with national political priorities (Morgan, 1993).

Definitions of participation range along a continuum. At the one end, participation can begin at the grassroots level without professional sponsorship. At the other end it can be imposed from above, with organisational components defined by professional and state authorities (Sherraden, 1991). There is also the case of bottom-up, community supportive social participation. This is not isolated in one sector but part of a larger process of social development intended to foster social equity. It may be a deliberate effort to protest or counteract state policies (Muller, 1983; Sherraden, 1991; Werner, 1976). Garfield and Williams (1992), Philips (1990) and Werner (1976) suggest that participation is always constrained at the State level by partisanship, funding limitations, whims of international agencies, resistance of local and national interest groups, professionals and bureaucrats. At the local level participation changes with the needs of people and the ability of the State to respond effectively. Proponents of community participation have a grand vision of self-motivated communities working together with the State to design their own programmes to improve health and development. However, Morgan (1993) illustrates that in practice this is difficult to

achieve especially in countries and regions without an existing tradition of joint community-government co-operation. Community participation involves more than labour. It means having a say in what sort of health care is made available. Garfield and Williams (1992) show that when communities take charge of their health care conflicts are inevitable, especially with regard to financial issues. They also cite some micro analytic studies of community participation, which blame community passivity, ignorance or cultural barriers for inadequate levels of participation. Communities do participate in popular development projects and social movements of their own choosing. When communities participate actively in health matters they can be critical of health services. Rifkin (1985) and Rifkin et al (1988) indicate that there is little evidence, however, that health will improve more quickly, effectively or permanently with formal, government sponsored participation than without it. There are many evaluations of community participation programmes. They centre on administrative or cultural impediments to effective participation. It is assumed that the biggest hurdles to participation can be found at the community level such as psychological characteristics or charismatic appeal of individuals, the organisational or leadership structure of specific communities, existence or persistence of traditional beliefs regarding disease aetiology or some other intra-community variables (Martin, 1983).

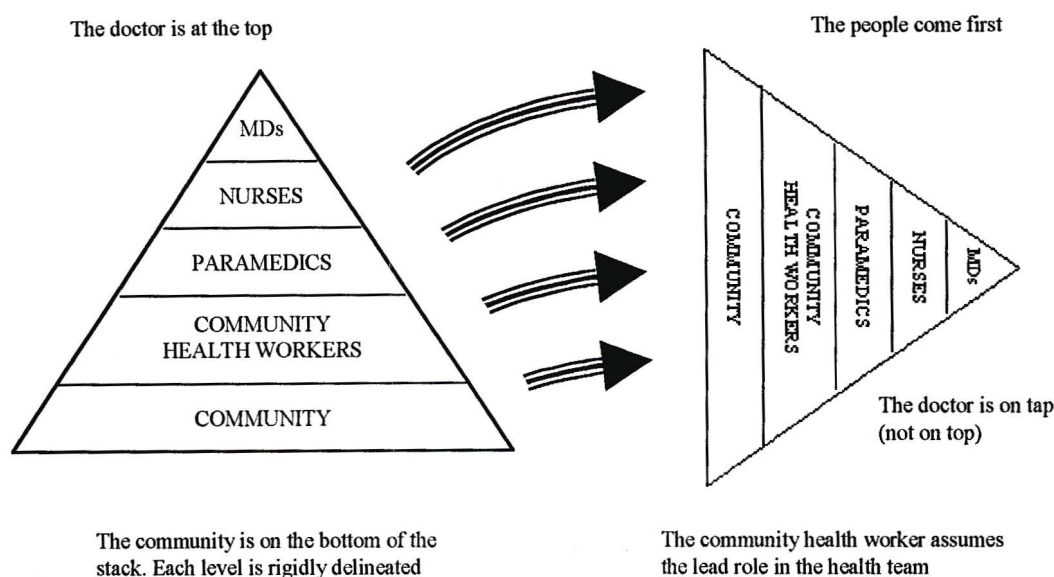
There also tends to be reliance at local levels on health workers. This may be a source of strength for PHC but it may also place a strain on communities. The burden of PHC sometimes falls on certain individuals. Owen (1995) states that the participation of lowly skilled workers in PHC is often made a virtue in that it is suggested that they are closer to the people, are more acceptable and are available in greater numbers more quickly than trained medical staff. Reliance is also placed on paid and unpaid aides such as community health workers (CHWs) and voluntary health workers (VHWs). Trained staff such as nurses and doctors are often involved but are not permanently stationed in rural areas but are found in larger primary health care establishments. A crucial issue is the relevance of professional medical and nursing training to the needs of specific localities. Often a broad understanding of public health and local ecologies and communication skills with people in their own settings is required. Primary Health Care volunteers are often regarded as peripheral health

workers. They have a limited influence on the effectiveness of national medical services. Philips (1990) argues that low level workers are often central to PHC, as they are the only formal health providers with whom the majority of people come into contact. A technologically orientated system with formally qualified staff is seldom an appropriate model for developing countries. Orientation towards PHC is therefore a practical and preferable approach, especially in the context of marginalized communities.

In the past, health care and related services have emphasised the role of professional staff. As stated earlier, there is still the perception that PHC workers are temporary and second best. This attitude has been dispelled by Werner (1978) who concluded that the roles of VHWs are distinct from professional staff and is far more important. He argues for the primary health care workers to be key members of the health team and the doctor as the auxiliary and used only when necessary for referrals and advice on problems that lay beyond the scope of the health worker. He proposed that the skill pyramid of the conventional health care hierarchy is tipped on its side to make the health worker in the lead and the doctor to be used whenever problems were encountered (Fig: 2.7 Werner, 1978: 180). According to Philips (1990), this type of structure removes the expectation that better health facilities should only be located at larger centres and it also removes the barriers to upward referrals. In addition, psychological equality of the community with health workers and professionals at all levels is promoted.

Many micro community studies miss the larger context that guides decisions in health policy and there is a need to include macro levels of analysis into the study of medical systems (Morgan, 1993). The interactions between forces at the international, national and local-level forces are inter-dependent and cannot be separated from one another. Certain social classes and interest groups at all levels will stand to benefit, both ideologically and politically by promoting particular models of health service provision. Health and development initiatives must therefore be analysed dialectically as a result of the relations among international, domestic and local groups who act in response to changing economic and political priorities.

Fig 2.7: Health Care Hierarchy



Adapted from Werner (1978:180)

The overall success of community participation in health planning depends on activities not necessarily directly related to health. It can include education, housing and income generation. For example, Philips (1990) shows that in China there was fundamental political, economic and social change. Most effective was the primary health care workers or barefoot doctors. There was thus a qualitative change in the health sector and this depended on fundamental social change. Also, the development of appropriate technologies for health and health care is an important element in the successful operation of a primary health care system (Sanders and Carver, 1985).

Community participation in health is a noble goal. It is worthy of the attention it has received. It is also true that it is a powerful concept with revolutionary potential. When participation is promoted, there is the obligation to listen and respond to people, to accept criticism, to negotiate and to work towards substantive social and political change. With community demands, the state may be obligated to take action

against such issues as poverty, lack of housing and sanitation. Sanders and Carver (1985) suggest that when these contradictions become evident, participation may be redefined and eventually dropped.

2.7.3 Equity in PHC

Powell (1986b) examined some aspects of spatial equity that exists in the delivery of primary health care and dealt with the balance between needs and resources at different spatial scales in settlements. The concept of “Territorial Justice” formulated by Davies (1968) in which the most appropriate distribution between areas must be “to each area according to the needs of the population of that area” was utilised (cited in Powell, 1986b: 17). It was found that it was possible to extend the analysis to define relatively under or over-provided areas. The problem lies with different conceptualisations of need and equity, which may lead to different conclusions about the balance between need and resources. This makes it difficult to arrive at any firm conclusions concerning the degree of spatial equity in health delivery systems (Powell, 1986b). Hart (1971) advanced the law that the availability of good medical care tends to vary inversely with the need of the population served and accepted that the inner city PHC epitomised the operation of the law, for example, the worst social and medical problems were combined with the poorest PHC services. Where need was greatest the services were least able to cope. However, there are various problems associated with the law. One of the key concerns is that availability, need and good medical care are difficult to define and quantify. Garfield and Williams (1992) and Morgan (1993) conclude that studies undertaken have not found any association between need and poor PHC. Also, if spatial variations of need and provision are considered together, there is no evidence that the inverse care law operates. There is little evidence of an equitable system of provision in areas with highest need having the best provision. The law did, however, challenge some of the myths surrounding need and the provision of health care. This was, however, very simplistic. Some parts of the cities have high need and poor provision while other parts have low need and good provision. There is no clear pattern of over and under-provision between the

inner and outer city and between different sectors of PHC (Wood, 1983). These issues certainly raise questions for debate.

The key to understanding these complex relationships is geographical scale. According to Harvey (1973), a just distribution at one level of analysis need not be just at another level. It is important that the local scale is studied. It is of no consolation to patients to know that they are living in a well provided area if the immediate environment has poor/ low quality services and these are inaccessible (Powell, 1986a).

2.8 HEALTHY CITIES

2.8.1 Environment, Health and the City

The literature clearly illustrates the link between environments, poverty and health in urban areas. As Novick (1990: 5) states:

All constituents of the environment of our planet - rainforests, troposphere, seas and biological environment - ultimately exert influence on human health and well being. However, the environment, which exerts the greatest and most immediate influence on the lives of people, their health and well being, is the intimate environment of their home and neighbourhood. A health-promoting home and urban environment embody the fundamental aspirations of the majority of people, where the quality of their lives depends on having a clean, decent, safe home in which to live and raise a family.

Songsore and McGranahan (1993) state that while the centrality of the home and neighbourhood environment to human health is widely recognised, environmental studies of human health tend to emphasise larger-scale environmental problems. Understanding the interactions between environmental impacts at different scales in urban contexts are critical for the development of appropriate and effective health programmes as well as for urban environmental management.

Thomas et al (1999) show wide disparities in access to services across the wealth spectrum. While this is typical of cities in developing countries, the data also

highlights the relatively poor access to basic services by groups disadvantaged by past government policies. In addition, unequal access to education and therefore opportunities for income generation, in the past, is evident in a high rate of functional illiteracy in the lower wealth groups.

Thomas et al (1999) further state that given the environmental conditions faced in informal settlements, diarrhoea among children is a major health problem. As illustrated previously, poverty and inadequate water supply associated with poor sanitation and hygiene are closely interrelated. Songsore and McGranahan's (1993) study of health conditions in Accra, Ghana clearly indicates that the prevalence of diarrhoea is higher when access to superior water and sanitation services are lower. The same study shows that the prevalence of diarrhoea is lower among households where adult members have some secondary education and some form of income. Therefore, it would appear that access to income and education can contribute significantly towards reasonable levels of protection from diarrhoea.

Lewin et al (1998) explore the environment-health nexus in South African cities, especially Cape Town. The following conclusions are relevant to environmental health concerns in cities, especially in developing contexts, more generally:

- Despite a number of constraints, including lack of clarity on how environmental health services will be integrated at the local level, restructuring appears to have impacted positively on the status of the environmental health sector in local government. At the provincial level, however, the environmental health department is perceived as weak and in need of support and direction.
- There appears to be a strong awareness of the need to make links between environmental conditions and health impacts and therefore between environment management, environmental health and health departments. However, adequate linking structures are not yet in place or operationalised and administrative systems do not appear to be structured to facilitate co-

ordination. Departments still tend to function within their own areas of interest, and the implementation of policies that promote cross-sectoral actions has been slow. This may be linked to issues of departmental ‘territory’ and a lack of formal liaison structures, particularly at middle-level management and field levels. The health sector seems to be more sceptical about the feasibility of working closely with other sectors, such as planning departments, than is the case within these other sectors.

- Officials and councillors were not in agreement on what constitutes meaningful community participation in environment and health policy making and how this could be achieved. Broad participation was viewed, by some officials, as an obstacle to the speedy implementation of policies, while other respondents acknowledged the difficulty of balancing the need for participation against the pressure for rapid improvements in service delivery.
- The difficulties of operationalising ‘community participation’ in the context of very diverse and often conflictual communities are important to consider. While local government is viewed as having an important role to play in this regard, but they may be limited by lack of capacity and support and by lack of familiarity with the bureaucratic processes of local government. Other obstacles to effective participation include the apathy within communities, the bureaucratic and non-user friendly processes of local councils and inadequate or inaccessible information.
- ‘Buy-in’ from senior politicians and officials and the establishment of integrated working groups were identified as important in effecting participation and cross-sectoral linkages.
- The role of indicators in informing decision making and facilitating dialogue between service providers and end users is also important. Municipal or metro-wide indicators and community-based indicators need to be distinguished.

Lewin et al's (1998) study concludes that while environmental management and environmental health departments share many of the same concerns, and increasingly make the links between environmental driving forces and health impacts, there is still very little real co-ordination of policy making and implementation across these sectors. Co-ordination, where it does exist, is focused on 'downstream' issues, such as air pollution monitoring rather than on 'upstream' issues such as policies on industrial development. By shifting environment-health policy co-ordination 'upstream', it is possible that these departments could have a more substantial impact on the environment, driving forces that often result in poor environmental conditions and health.

2.8.2 Health and the City

A range of studies examines different aspects of the health conditions and experiences faced by urban dwellers (Ashton, 1992; Baum, 1993; Chetty, 1992; Davies and Kelly, 1993; Eyles, 1986; Hancock, 1993; Hunt, 1992; Kelly et al, 1993; Leahy, 1996; Montiel and Barten, 1999; Powell, 1986a; Tsouros and Draper, 1993 and Weissman, 2000). These include general thematic studies on specific diseases and health issues as well as locality specific case studies that particularly focus on health problems and hazards in low-income communities. Furthermore, the health conditions and needs of the most vulnerable groups such as women and children as well as the elderly populace are highlighted.

Examples from all over Africa detail the range of chronic environmental and health problems in cities. The linkages between location, class, gender, race and other factors are examined in particular contexts. Most of the studies cited above highlight the disparities in health problems between the richest and poorest households within cities. Thus, economic inequalities are the most important factor when examining intra-urban health differentials. Most health problems are not indiscriminate but targets particularly disadvantaged and vulnerable households.

In urban areas, the key environmental risk factors that impact negatively on health are strongly linked to standard poverty indicators that include (Stephens and Harpham, 1991):

- poor sanitation facilities and open defecation in the neighbourhood;
- fly infestations;
- inadequate access to a clean water supply;
- questionable water storage practices and
- high levels of food insecurity linked to unbalanced nutrition.

The list above illustrates that most risk factors reflect the absence of basic amenities that should be provided by governments and local authorities. However, in many cities this problem is compounded by the fact that local government structures lack political power or the resources although responsibility for basic infrastructure (roads, sanitation, drainage systems, etc.) and service provision (health care, education, housing, etc.) is usually concentrated at this level. These problems tend to be most pronounced in illegal/ informal urban settlements. Mulwanda (1993) asserts that the major cause of cholera, dysentery and similar diseases in urban areas where high levels of poverty persists is the contamination of surface water by sewage.

Despite the broad socio-ecological approach, as illustrated earlier, the biomedical model in public health tended to be dominant, especially in the period 1930 to 1970. Challenge to the biomedical model came in the mid 1970s with the concern at the huge amount of resources needed by high technology modern medical care. Simultaneous with this questioning, developments occurred in Canada, which led to the Healthy Cities Movement. Using the ideas of McKeown (1971), who was of the opinion that major developments in the 19th century were due to public health provision and not medical intervention, Lalonde (1974) wrote his report: the Lalonde Report. The report highlighted the fact that improvements in health could take place by improving the environment and promoting lifestyles conducive to health. Sadly, the emphasis was placed on the second aspect dealing with health education and

conforming to the biomedical model. Health education was considered as an intervention and a form of treatment. It did not consider the wider socio-economic and environmental factors that affected health. However, the Lalonde Report together with other developments during the 1970s viz. the WHO Alma-Ata conference with its PHC initiative and its subsequent "Health for All by the Year 2000" strategy acted as a fertile ground for the new public health initiatives (Ashton, 1992). In 1981 the WHO's "Global Strategy for All by the year 2000" was accepted as policy by the 34th World Health Assembly (Singleton, 1994). In 1984, the WHO's European office made recommendations on the concepts and principles of health promotion which led to the Ottawa Conference and Ottawa Charter for Health Promotion (WHO, 1986). From this developed the Healthy Cities Projects in 1985. By 1988, 24 European project cities were involved. The European offices of WHO broadened the approach to health by including:

- self-care;
- integration of medical care with other related activities such as education, recreation, environmental improvements and social welfare;
- integrating the promotion of good health with preventative medicine, treatment and rehabilitation;
- meeting the needs of the under-served groups and
- community participation.

(Singleton, 1994: 2)

Davies and Kelly (1993) state that in 1986 the Healthy Cities movement was formally launched. It was needed to reaffirm the obvious, that is, improved health in cities entails much more than improved health services for those who live in poor quality housing and lack basic services (Bartlett, 1999). The starting point of Healthy Cities' projects was the recognition that cities have an important role to play in promoting health. Cities are in a very good position to implement public health measures on ecology and environments. Cities should provide a clean, safe, high quality physical environment based on sustainability. Tsouros and Draper (1993) indicate that

inhabitants of cities should have the basic determinants of health such as food, shelter and income. Healthy cities are better seen as a movement than a programme because much of the work of promoting healthy cities is done outside any government or international agency. It involves a diverse range of people and institutions. Bartlett (1999) recognises the role of WHO for its encouragement and support for the movement.

Cities require much more than improved health services, especially for those living in very poor quality housing that lacks basic services. The importance for healthy cities of adequate quality housing with adequate water provision, sanitation, drainage, and rubbish collection has been recognised since the middle of the 19th century (Bartlett, 1999). The Healthy Cities concept is therefore, both old and new. It is old in the sense that since the dawn of urban civilisation people have been trying to make cities healthier. It is new in that it is now a major vehicle for health promotion and the new public health for achieving health for all (Hancock, 1993). However, there is little evidence in Africa, Asia and South America that this has been acted on. There are many reasons for this and they vary from nation to nation. Part of the problem, as Leahy (1996) asserts, is that professionals in government departments, local authorities or international agencies who work in housing and urban development, know little about health. It seems that health is someone else's responsibility. Getting involved in the issues of health is complex. Also, training of professionals working in urban organisations does not include the links between the built environment and health. People in health departments want to secure funding for their own role, that is, health care. Bartlett (1999) states that it is also obvious that providing health care is safer and perhaps easier than focusing on the underlying causes of ill health.

There is also clearly an anti-urban bias that is based on the assumption that all urban populations are more privileged than rural populations. No recognition is given to the many urban poor who have not benefited or benefited very little as their rural counterparts. The assumption that all urban populations have benefited much more than rural populations from resource allocation developments has inhibited any concerted effort to promote healthy cities. Many have recognised the mistake of

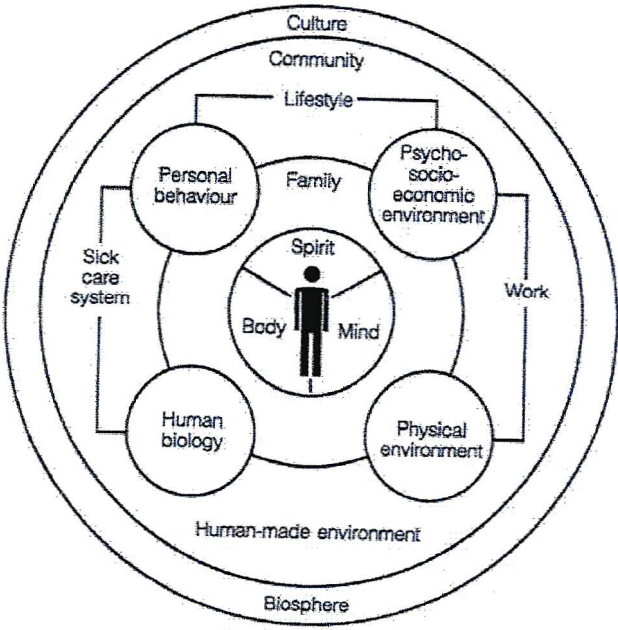
ignoring the urban poor. The result of so little attention being given to urban poverty is that it has grown, resulting in millions of urban dwellers lacking the fundamental determinants of health, that is, adequate housing and the provision of basic infrastructure as well as services (Montiel and Barten, 1999). Another reason why cities remain unhealthy is because of the debt crisis, which stifles support for key aspects of health. In addition, the dominant development ideology during the 1980s was to prioritise economic development and this provided little or no support for the basis of healthy cities. Even when there was a renewed commitment to poverty reduction, the health aspects were ignored. Healthy cities require co-ordinated action and the working together of different sectors which are used to competing for scarce resources (Bartlett, 1999).

The Healthy Cities movement is seen as legitimising, nurturing and supporting the process of community empowerment. It seeks to reduce inequalities, strengthen health gains and reduce mortality and morbidity. The Healthy Cities movement is about liberation, that is, liberation from the inequalities in health and the basic prerequisites for health (Davies and Kelly, 1993). Furthermore, the WHO (1986) illustrate that the Healthy City projects should be seen as a process that enables people to have more control over their health so that they may improve it. This means that health promotion is a process of empowerment. The concept of health that is used is a positive one that emphasises social and personal resources and physical capacities. It allows individuals and groups to identify and realise aspirations to satisfy their needs. Great emphasis is placed on advocacy, enablement and mediation. Focus is also placed on building healthy public policies, creating supportive environments, strengthening community action, developing personal skills and reorienting health services. Hancock (1993) asserts that these broad concepts and strategies are taken to apply at the local level.

Hancock (1993) further argues that there are three salient aspects of the Healthy Cities movement that can be identified. These will be discussed below. Health is firstly considered as positive. It is not merely the absence of disease. Secondly, health is considered holistic or ecological and takes into account the many different factors that

determine health. Lastly, focus is placed on inequalities. This positive model stems from the WHO's (1946) definition of health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. According to this definition, health cannot be measured in terms of mortality and morbidity indicators alone. It is recognised that there is more to health than disease and death. Moreover, the health status of people cannot be determined only by hospitals and doctors alone (Hancock, 1993). In this respect, Hancock (1993: 18) has formulated an ecological or socio-ecological model of health (Fig.2.8, below).

Fig. 2.8: The Human Ecosystem



(Adapted from Hancock, 1993:18)

What the model recognises is that the determinants of health are multi-factorial. It includes the physical and social environment, including culture, at the individual level

and moves to the global ecosystem. The model indicates that the determinants of health are more than the provision of hospital and medical services. A broad range of public policies at the local and nation levels determine health. The model recognises that local government can play a crucial role in improving the health and well being of individuals and communities.

The implications of the ecological model includes the development of a “salutogenic epidemiology” (Hancock, 1993: 17). What is meant by this term is:

... an epidemiology of the causation of good health that can also assess the relative power of different determinants of health and the projected or actual impacts upon health of salutogenic interventions.

Salutogenesis was coined by Antonovsky (1987 cited in Hancock, 1993:17) in his search for an understanding of the reasons for some individuals who remain well in situations while others do not. Salutogenesis is the opposite of pathogenesis. There are many salutogens, with some more powerful than others. The most important of these, which are lacking in developing countries, are the basic human needs of food, shelter, clean water, a safe environment and peace (Hancock, 1993). It should be remembered, however, that beyond these basic human needs there are other salutogens such as social networks, self-esteem, control over one's life, income, education and a sustainable environment.

A vital component in health promotion and in achieving “Health for All” is a concern with inequalities in health and health care and to improve the health of the disadvantaged and those who are least healthy in society. Dealing with inequalities in health poses numerous problems for cities. One of the problems is the adequacy of data to document inequalities within cities. More importantly, though, is whether the city has the power and jurisdiction to address inequities in access to the basic determinants of health. Some of the symptoms of inequities may be addressed by cities but it is doubtful whether cities have the power to address the fundamental social and economic determinants of health such as unemployment, malnutrition and

poverty. The power lies at national and international level and cities have little or no involvement at this level. Cities could, however, advocate to provincial and national governments some policy changes which could address health determinants and inequalities so that the health and welfare of people could be improved (Hancock, 1993).

A Healthy City is not simply one that has the highest health status. It is one that is engaged in a continuing process at different levels ranging from the policy and environmental levels to the individual levels to improve the health and well being of people. According to Tsouros (1990 cited in Hancock, 1993: 21), the following are the processes and structures characteristic of a successful Healthy Cities Project:

- strong political support;
- effective leadership;
- broad community ownership;
- high visibility;
- strategic orientation;
- adequate and appropriate resources;
- sound project administration;
- effective committees;
- strong community participation;
- inter-sectoral collaboration
- political and managerial accountability

The WHO's Healthy Cities project is political and process orientated. Goals are pursued by political commitment and fundamental change in local municipal institutions which result in equity, sustainable and supportive environments, community participation and better health for all (Tsouros and Draper, 1993). In addition, the development of healthy public policies is the basis of Healthy Cities

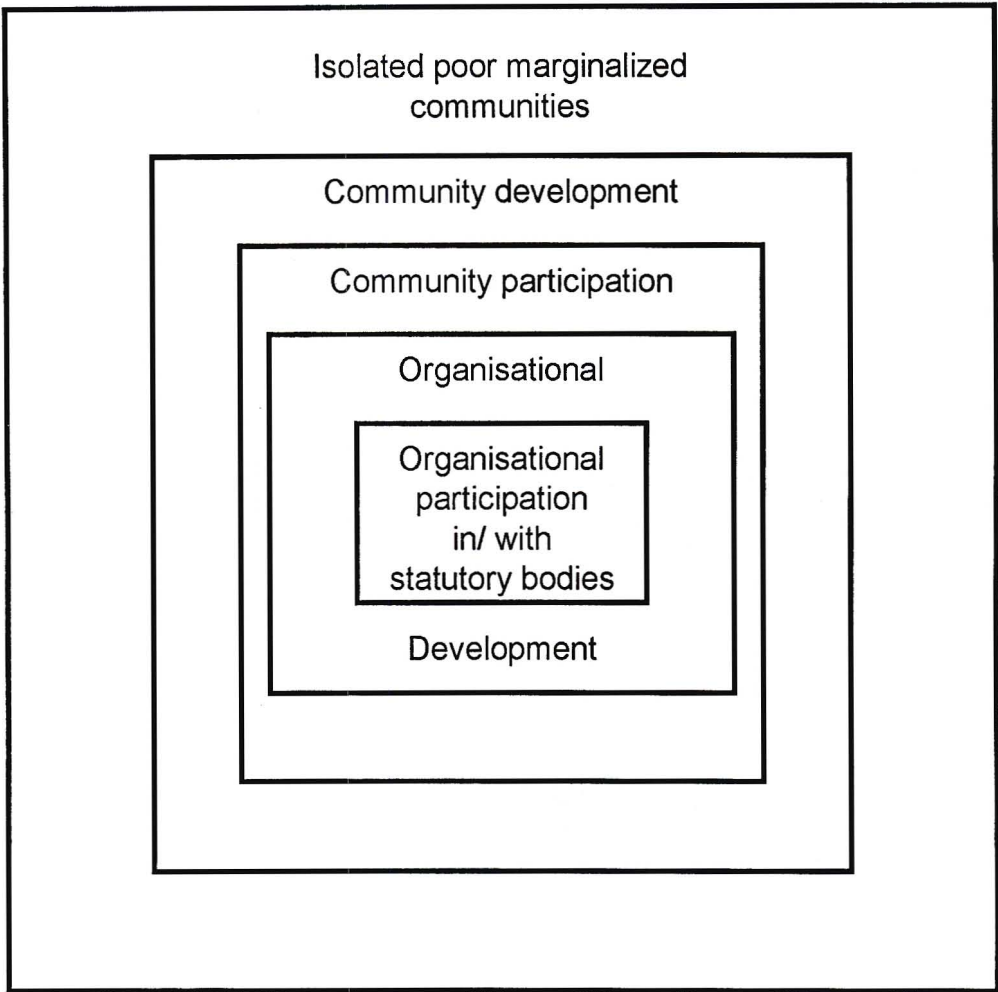
projects. According to Evers et al (1990), there is a need for health promoting policies in all sectors of local government. There should be the establishment of inter-sectoral mechanisms and structures that allows different departments within city government to collaborate in addressing the determinants of health in cities. Health can form the umbrella beneath which different departments can work collaboratively to reach a common goal (Hancock, 1993).

There is a significant focus in Healthy City projects on community participation, community development, mobilisation and action. Thus, as Hancock (1993) states, the empowerment of individuals and communities is centralised. Participation can take place at various levels, ways and degrees. There is a distinction between organisational and community participation as illustrated by Davies and Kelly (1993: 58, Fig. 2.9). According to Fig. 2.9 there is active participation in community groups or voluntary organisations but people sometimes have very little or no desire to participate in statutory bodies and decision-making structures. When ordinary people participate, their involvement is marginal. In distinguishing community participation from organisational participation, the need for organisations themselves to change and develop in order to be open to community involvement is highlighted. All participation needs to be stimulated by community development processes and practice if it is to be effective and meaningful (Davies and Kelly, 1993; Smithies and Adams, 1993).

Community development is a process whereby communities are empowered and enabled to express their health needs. People work on the ways these needs can be met collectively either through their own endeavours at individual or community level or through lobbying for action (Smithies and Adams, 1993). Anyanwu (1988:15) has described the concept of community development as being based on:

... the premise that when people are given the opportunity to work out their own problems, they will find solutions that will have a more lasting effect. Hence it is not necessarily the physical improvements effected within a community, but principally the changes that have taken place in people themselves, that count as important in the process of community development.

Fig. 2.9: Participation Levels



Adapted from Davies and Kelly 1993: 58)

Organisations should be able and willing to respond to action from community development. Community development approaches can also involve conflict and direct action to make changes (Smithies and Adams, 1993). For openness and responsiveness to community participation organisational development is needed. Organisational development is:

....an approach which can be seen to mirror the principles and methods of community development, but takes place within organisations at strategic levels.

(Smithies and Adams, 1993: 58)

Further, in the evaluation of community development strategies there are many difficulties. There are various actors and interests that often oppose each other. Moreover, the work is developmental and the outcomes are not predictable with changes taking place continually (Smithies and Adams, 1993). Also, Hancock (1993) indicates that with the emphasis on bureaucratic structures in Healthy City projects there may be the problem of getting local government to accept that communities need to be empowered.

2.9 METHODOLOGY, RESEARCH AND DATA BUILDING

Within Medical Geography, as is the case in health studies more generally, there are a number of debates and perspectives regarding methodologies and methods. Jones et al (1997) and McDowell (1993) raise a series of pertinent questions relating to research in Human Geography which are often based on masculine, Eurocentric views of the world. Baum (1995) argues that it is imperative that the use of a variety of approaches and methods in research are promoted and that politically relevant research needs to be encouraged.

A major contention of critiques of established, quantitative approaches to research is that knowledge in general is socially constructed locally. Therefore, it is inextricably linked to nature and space, especially the patterning of society over space, which is a central concern of Geography. It is believed that this path will deepen our knowledge of the multitude of people's experiences in relation to health concerns. The methods employed are also guided by the research questions that aim to focus on the everyday life experiences of people, as well as relate these experiences to larger social structures.

The WHO spurred research and development efforts on behalf of the poor world-wide. One result of this international effort was an improved data base that demonstrated the health status and concerns of the world's impoverished and marginalized. The links between health and quality of life as well as the way in which health impacted on varied activities that were crucial to the production and

reproduction of households and communities were also underscored. From these statistics it was clear that health policies and programmes that failed to improve the conditions of the poor left communities and households worse off. The deleterious effects of inappropriate biomedical approaches to health and health care in poor countries are well documented as stated earlier.

Despite these crucial findings, Weissman (2000) states that data available on health and people in developing contexts are inadequate. In developing countries, adequate and reliable health information is often lacking. There is usually no systematically organised registration of vital events. Also, Getahun et al (2001) assert that national figures are of limited use for health planning at regional and local levels. Traditional census and information-gathering mechanisms tend to either undercount, misrepresent or ignore the health conditions, experiences and concerns of the poor, especially women, in both developing and industrialised countries. There is also a need for disaggregated data to tease out the relationships between gender, race, class, ethnicity and other social categories in relation to health and health care. Addressing statistical concerns are important for national and international policies to recognise the health conditions and experiences of the poor and therefore ending their invisibility.

Statistics and qualitative information that reflect health issues are critical to understand people's experiences, promote action, inform policies and monitor changes. As emphasised in this discussion, one of the biggest obstacles to effectively address health concerns is the shortage of information. However, it is important to note that merely collecting more information about people's health will not be adequate to address the inequities this type of information might reveal. Interpretation and analysis of data, as well as how and what type of data is collected may obscure key interest groups and voices. Health projects, as development projects generally, must be seen as arenas of negotiation and struggle where different groups of interests stake their concerns. Not all groups, however, enter the discourse of development with the same power positions. Those who are generally better educated and better off are more likely to benefit. In general, those who are less educated, are worse off, less

likely to attend meetings or make claims on resources and services are less likely to benefit.

2.10 CONCLUSION

The literature review illustrates that a great deal of effort and research has been geared towards exposing the health needs and conditions faced by the poor in urban contexts, especially within informal settlements. The diverse group of social scientists and health practitioners referred to highlight the everyday experiences of people living in the city and the types of health demands that need attention.

To summarise, the literature on health in the city emphasises the following major themes (Special Edition of Environment and Urbanisation, “Health and Well Being in Cities,” 1993; Stephens and Harpham, 1991; Weissman, 2000):

- health care delivery and service provision in urban areas;
- environmental problems and health;
- the scale of ill-health, injury and premature deaths among urban residents;
- how inadequate incomes enormously increases the risks of ill-health, injury and premature death;
- how social differentiation impacts on the health status, conditions and needs of various individuals and groups; and
- the extent to which appropriately focused public action and support for household and community action can prevent most of this ill health, injury and premature deaths at relatively low costs.

What is clear from the literature is that in most urban areas in developing countries, especially on the African continent, governments have generally failed to give adequate priority to environmental or public health, health care provision and

preventive health. The burden associated with urban poverty for poorer households poses serious challenges in terms of creating healthy cities in developing countries.

CHAPTER THREE

HEALTH CARE IN THE CITY: CONCEPTUAL FRAMEWORK

3.1 INTRODUCTION

The circumstances and conditions of the health status of urban dwellers in developing countries have received a great deal of attention in the last two decades as demonstrated in the literature review chapter. This research effort uses both secondary and primary data sources to examine the health needs and conditions of communities in the Durban Metro area. In this regard, it is therefore necessary to critically identify the major conceptual approaches that have informed studies on health care in city environments. The intention is to develop a conceptual synthesis that provides a basis for examining the data collected in this study.

There is a need to develop a conceptual framework that reveals the critical relationships between health issues and social, political, economic and location/ context-specific dimensions. This chapter draws on the literature reviewed as well as other relevant contributions to clarify conceptual frameworks within which health and health care concerns for the urban poor and the marginalized can be approached. It is imperative that the frameworks focus on the following aspects:

- understanding peoples' relationships to health and health care;
- critically analysing existing conceptualisations/ approaches in Medical Geography; and
- forwarding options to address the health and health care concerns of the urban poor who reside in informal settlements.

It is believed that complementary conceptual frameworks presented in this section contribute towards shaping both the study and the discussions. By responding to the current theoretical emphasis in the Medical Geography literature and local specificities, will also enhance the conceptual frameworks presented. From the outset, it is important to recognise that health and health care in urban areas are influenced by

specific historical, socio-economic and physical environments under consideration, and is location-specific. It varies with, for example, whether one is focusing on locations close to water sources such as rivers, whether illegal immigrants populate the settlements, what the households' livelihood strategies are or whether household members are currently sick.

The literature reviewed in chapter two illustrate that some theorists have forcefully argued that peoples' rights to good quality health care and healthy living environments are crucial indicators of peoples' status in society. The literature that directly focuses on health issues and the poor is extremely useful in building a foundation for developing a conceptual basis for understanding health and health care issues for the urban poor. The issue of health and health care needs to be emphasised by policy-makers and academics who are concerned with empowerment and development issues. Although health and health care varies considerably spatially and temporally, there is a need for conceptual synthesis that helps in characterising health conditions and experiences in specific contexts, explain how they are maintained, and identify the processes by which they might be changed.

This thesis draws from three broad conceptual perspectives: the biomedical approach, the social/ humanistic perspective and the political economy framework. The biomedical approach is influenced by western science and medical thinking while the social perspective is derived from social theory. The political economy framework originates from the Marxist perspectives. As indicated in the literature review, there are economic, social and political justifications for addressing the inequalities associated with health and health care in urban areas. Similarly, there are economic, social and political linkages that together provide a framework for understanding and explaining health and health care issues.

In keeping with many geographers (Katz, 1994; McDowell, 1993; Montiel and Barten, 1999; Moss, 1994; Nast, 1994), it was decided to embrace a multi-theoretical/ multi-conceptual approach. Each framework provides some insight into the topic under discussion. Together they provide a richer understanding of health and health

care in poor urban areas, especially informal settlements. Furthermore, crucial aspects are highlighted that could very well provide guidelines for policy-makers and implementers concerned about changing inequalities in health and health care.

3.2 CONTEMPORARY VIEWS ON MEDICINE AND SOCIETY

Medicine is going through a period of crisis. Interpretations of this crisis vary widely from very simplistic interpretations of a complex situation to interpretations rooted in the nature of capitalism as an economic and social system. A critical analysis of the role of medicine in society and the social determinants of health and illness has now emerged (Doyal and Pennell, 1983; Navarro, 1976). This section attempts to clarify the major aspects of this awareness.

3.2.1 The Orthodox View

Participants in contemporary debates (de Beer, 1986; Doyal and Pennell, 1983; Illich, 1976; McKeown, 1976; Navarro, 1976) share three central views:

- the assumption that the determinants of health and illness are mainly biological. This means that patterns of health and illness have little relationship to the social and economic environment in which they occur. The solutions to health problems therefore lie totally in modern medical solutions.
- medicine is assumed to be a science in the way it is presented and the way its authority is accepted by society. In the same way that natural scientists separate their subject matter, it is assumed that medical practitioners can divorce themselves from their patients. Based on the assumption that medicine is scientific, it is believed that unchallenged and autonomous knowledge can be produced that is not influenced by social and economic factors.
- the belief that scientific medicine is the only means for mediating between disease/ illness and people. Medicine is considered to be good but the problem is that it is insufficient for all. Focus in discussions is therefore on the ways in which medical knowledge and technical skills can be distributed.

The orthodox view of medical care in its most sophisticated form can be found in two academic approaches to the study of medicine, that is, social administration and the sociology of medicine (Doyal and Pennell, 1983; Pinker, 1971). The social administration perspective accepts that there are certain tasks that need to be carried out in advanced industrial societies that cannot be left to the market. These tasks must be carried out by the State. They also accept that the system will have casualties who must be taken care of by welfare institutions. The scientific nature of health care to curing the sick and relieving suffering is taken as given with emphasis being placed on ways to provide more medical care within levels of expenditure and little regard for decreasing environmental threats. The sociology of medicine approach accepts a particular view of society and reinforces widely held beliefs on the role of medicine. It looks broadly at the social functions of medicine and accepts uncritically the curative and scientific components of medicine. Issues such as doctor-patient relationships are dealt with. Concern is with immediate social relationships in the medical context with little or no attention to the economic and political structure of the medical care system.

It is further indicated by Stacey et al (1977) and Doyal and Pennell (1983) that most orthodox social science because of its way of analysis, does not define the nature of medical knowledge as a problem and therefore pay little attention to wider issues relating to medical practice in capitalist societies. Therefore, it is necessary to examine other forms of analysis of medicine in society, which critique the nature and practice of modern medicine and move beyond the orthodox views of social administration and social policy.

3.2.2 Medical Nemesis

Illich (1975) attempts a critical evaluation of the effects of medical science and its mode of delivery on illness and death. His concern is the broader significance of medical practice. Some aspects that he examines are the effects of medical practice on individual perceptions and the potential of individuals to control their lives/ deaths.

He outlines three categories of pathology or iatrogenesis (damage caused by the medical system). These are:

- clinical iatrogenesis: physical damage caused by doctors in their attempts to cure.
- social iatrogenesis: the addiction of people to medical care to solve their entire problem.
- structural iatrogenesis: the destruction of a patient's autonomy and the expropriation of responsibility for individual health care.

(Illich, 1975: 15-28)

Illich (1975) and other critiques such as Powles (1973) argue that there are cases where many modern medical techniques are not just ineffective but physically harmful. According to Illich (1975), medicine on balance does more harm than good. He views doctors as increasing their control over the lives of people and depriving them of their autonomy in physical and psychological ways. The medicalisation of life is regarded as:

...the bringing of more and more aspects of daily life into the medical sphere of influence - is a process which has attracted much critical comment in recent years.

(Doyal and Pennell, 1983: 17)

Although Illich's (1975) contributions are illuminating, his arguments are unsatisfactory when he tries to discuss solutions to health problems. Solutions for problems emerge from his view that the medical bureaucracies and industrialised medicine form the major obstacles to a healthy society. He proposes that modern medicine should be destroyed and removed from the control of doctors and taken back by the people. This would be accompanied by a de-bureaucratisation and de-industrialisation of society, which would result in medicine having its own mode of production (Doyal and Pennell, 1983). The problem with Illich's (1975) analysis is that in demonstrating the negative effects of modern medicine he ignores the positive aspects. By measuring the negative effects against the rate of cure he decides on balance that we would be better off without medicine. In rejecting medicine, he does

not take into account the positive role that it plays in symptom relief and caring for the sick. This seems to stem from his view that the societies he discusses are industrial and not capitalist.

Based on the assumption that in industrialised societies all institutions are organised on an authoritarian, bureaucratic and hierarchical manner, Illich (1975) sees the solution in the de-industrialisation of society to end the manipulation of individuals. There may be problems with bureaucracies but the function of medical organisation and the mode of production of health are determined outside the health sector. They are a reflection of the need to sustain social and economic relationships in production and consumption in a capitalist system. The disappearance of medical care would not change this status. Illich (1975) also avoids any examination of the political and economic determinants of particular cases of industrialisation. He does not offer ways to distinguish between capitalist industrialisation and other forms of industrialisation in the world. He assumes that technological medicine could only have taken its present form in the developed capitalist world without any structural analysis of the forces pushing it in a certain direction. Hence, Doyal and Pennell (1983) correctly indicate that he assumes an anti-technology stance and rejects modern medicine.

Illich (1975) emphasises cultural rather than socio-economic change to bring about de-industrialisation and individual autonomy. However, he discusses these in a socio-economic vacuum. In rejecting bureaucracies, and encouraging individuals to change their life-styles, he offers little guidance. Nevertheless, some of his ideas are attractive for those who want certain changes in medicine and who reject more radical solutions to change in society (Doyal and Pennell, 1983).

3.2.3 The Marxist View

Science and technology have recently come under critical scrutiny resulting in radical critiques. These critiques reject the common view of science as being value-free and benefiting all (Cicotti et al, 1976; McKeown, 1976; Navarro, 1976). Two alternative interpretations can be found within the radical critique. The first is an anti-scientific

pessimism that rejects scientific rationality totally. Science and technology are blamed for the ills of industrialised societies with disregard for the social forces that shape developments in science and technology. The second view is the traditional Marxist view that makes a distinction between science and ideology and is aimed at an uncontaminated science. Both these positions have been rejected in recent years to obtain a critical understanding of contemporary science and technology. It involves an understanding of the complex interrelationship between science at various levels: analysis of the knowledge base of science; analysis of social practice of a given science and relating the theory and practice of science to the social formation within which it is produced. This type of analysis will lead to ways in which the social role of science will be transformed within an alternative set of social goals and relationships. It applies to medicine as well as other areas of science and technology (Doyal and Pennell, 1983; Stark, 1982; Turshen, 1977).

A great deal can be learned about a specific society by examining patterns of health and illness and the type of medical care present. It is therefore important to examine specific forms of social production of health and illness and the social organization of medical care under capitalism.

3.2.4 Capitalism, Illness and Health

Discussions of medical care have taken ill health for granted without questioning its economic or social origins. It is impossible to take patterns of health and illness outside the context of the mode of production. According to Eysers and Sterling (1977: 2),

a large component of adult physical pathology and death must be considered neither acts of God nor of our genes, but a measure of the misery caused by our present social and economic systems.

It is not the concern to improve overall living conditions but the profit motive, which is the most important determinant of economic and social decision-making in capitalist societies. Capitalist development has improved the general health of people

but the health needs of the masses has not been met with continued capital accumulation. However, not all aspects of capitalist development have been harmful. For example, life expectancy has tended to improve under capitalist development (McKeown, 1976; McKinlay and McKinlay, 1977; Powles, 1973). Generally the relationship between capitalist development and health has been contradictory. On the one hand it has removed some threats to life but on the other hand it has created new health problems (Doyal and Pennell, 1983).

3.2.5 Development of Medical Thought

Histories of medical thought have been produced in isolation from medical practice resulting in discoveries and theories being viewed as milestones on the path to modern medicine. It was essentially a positivist approach which has been heavily criticised (Figlio, 1977). Doyal and Pennell (1983) in their discussion on the evolution of scientific medicine, move away from the positivist tradition and place the history of medicine in the context of the social and economic aspects of society. They argue that although western medicine is now dominant this was not always the case. Only until the 20th century did the majority of people have access to modern medicine regularly. Mainly women, based on tradition using natural remedies, did most healing on an informal or semi-formal basis. According to Ehrenreich and English (1976) these methods were considered unscientific and were overshadowed by modern medicine.

Western medicine had its origins in the 17th century and the Renaissance period. It transformed the previous dominance of the Aristotelian view. Scientists attempted to discover and explain events that could be quantified and codified so that they could make accurate predictions. With regard to medicine, scientists tried to map out the internal workings of the human body. This formed the basis for modern technological medicine (Doyal and Pennell, 1983). Early findings were based on a mechanistic viewpoint; that is, humans were seen as machines rather than whole organisms. This mechanistic model is the basis of medical thought today (McKeown, 1976). However, Enzenberger (1976) asserts that it has made possible those aspects of medicine which

have been genuinely successful either in preventing or curing disease (for example, vaccinations, antiseptics, anaesthesia or antibiotics) or in providing symptom relief. This view limited the nature and the boundaries of the medical task. Thus, scientific medicine became curative, individualistic and interventionist. It objectifies patients and denies them status as social beings. Health is defined in terms of the malfunctioning of a mechanical system and therefore treatment consists of surgical and chemical means to restore the machine (body) to normal working order (Doyal and Pennell, 1983). Jewson (1976) argues that scientific medicine has three basic stages that correspond to modes of production of medical knowledge. These are bedside medicine, hospital medicine and laboratory medicine. Bedside medicine dominated Western Europe from the Middle Ages to the late 18th century and was available to the rich based on patronage. Patients chose their doctors and the patient doctor relationship determined medical treatment. Medicine was patient centred because the doctor had to have the patient's confidence and because diseases were assumed to be caused by a disturbance in the balance of the organism (mind and body). The diagnosis was based on the patients account and the life circumstances for understanding the illness/ disease. Treatment was given for the whole body.

Change took place at the beginning of the 19th century in the medical worldview and practice, in the period of hospital medicine. Rosen (1974) states that the consequences of the industrial revolution with its mass urbanisation and unhealthy cities saw the establishment of huge hospitals for the large number of sick people. This brought about important changes in the content of medical knowledge and its practice. Doctors became more organised as a profession. Working class patients were now considered to be of inferior status than the doctors. Disease became more important than the persons who were sick (Figlio, 1977; Parry and Parry, 1976). With this change in the social relationships, the worldview of medicine changed with individuals being treated as cases. Hospital medicine shifted from a belief in disease, which disturbed the total system to the realisation, that the malfunctioning of one part of the body caused illness. Doctors tried to relate external symptoms with internal malfunctions of the body. However, little treatment was available (Doyal and Pennell, 1983; Jewson, 1976).

During this period there was an increasing interest in public health because of the effects of industrialisation and urbanisation on health. It was widely accepted that there was a relationship between disease and working and living conditions. Studies undertaken on this relationship led to the Victorian Public health legislation which did not form part of mainstream medical development (Figlio, 1977). The success of these preventative health measures which brought diseases and illnesses under control gave the space for medicine to consolidate itself and develop, for example, the germ theory with the establishment of laboratory medicine (Doyal and Pennell, 1983).

Figlio (1977) asserts that laboratory medicine was a victory for the mechanistic worldview with medical knowledge being advanced by experiments and vivisections. Doctors no longer observed the human body but actively intervened in the physiological process. With the use of experimental methods, medicine established itself as a science on par with the natural sciences. Histology and physiology developed rapidly and the individual cell became the focus for understanding ill health. This reductionism widened the gap between the doctor and patient. The patient was viewed as an object to be manipulated. From these developments the broader social significance of medical practice and its central concepts can be understood (Doyal and Pennell, 1983).

Health has become difficult to define in an absolute way. How it is defined in a particular society is vitally important. Jewson (1976) suggests that it is the medical definition of health that forms the basis for the social definition of health and illness in the developed world. Ill health is defined as the malfunctioning of a mechanical system. Treatment consists of chemical, surgical or electrical intervention. The functionalist element in the definition results in health being defined as fitness to undertake a task in a particular social position (Doyal and Pennell, 1983). On the other hand, health is usually defined negatively as the absence of incapacitating and externally verifiable pathology. If there are no signs of illness, a person is assumed to be healthy. The definition of health in a functional way is an example of the capitalist value system, defining people as producers or the forces of production. Concern is with fitness in an instrumental sense. The hopes, fears, anxieties, pain and sufferings

of individuals are ignored. The definition in the medical model limits people's own expectations of what it is to be healthy and is thus insignificant in keeping sickness, and demand for medical care, under control (Doyal and Pennell, 1983).

In a capitalist system, health is also defined in an individualistic way. Individuals are considered sick and the social, economic or environmental factors that cause ill health are ignored. The emphasis on the individualistic origin of disease is of great social significance. It obscures the social and economic causes of ill health. With the new diseases of affluence and the ineffectiveness of curative medicine, it is being suggested that ill health can be explained in terms of individual moral failings. This is blaming victims for what has happened to them (Berliner, 1977; Ryan, 1972; Stark, 1977). Doyal and Pennell (1983: 35) are of the view that:

the suggestion that individuals are to blame for their own unhealthy lifestyles means that moral exhortations to be healthier, as well as self-care and self-help are stressed as important future trends in health care.

Capitalist production is itself a cause of ill health. As a consequence, preventative medicine to be effective, needs to interface with the organization of the production process. Curative medicine appears to obscure or at least minimise the need for such preventative measures (Berliner, 1977; Navarro, 1976).

Capitalist development in the 19th and 20th century resulted in the state taking over the responsibility for the collective reproduction of the labour process through the provision of education, social security and other welfare services. It is vital for capitalism that the labour force should be reproduced. It involves the legitimisation of the existing mode of social and economic organization. The family, the media, the education system and welfare institutions all play an important part in shaping attitudes and beliefs in advanced capitalist countries. Health care systems function as powerful agencies of socialisation and social control within the category of welfare institutions. Health care provision involves a set of social relationships that are bureaucratic and authoritarian. Health workers reflect and reinforce the division of labour in society on the basis of sex, class and race. Patients have an unequal

relationship with doctors. The doctor is considered the only one who can cure and this leads to a loss of individual autonomy and a feeling of powerlessness. This is also common in other areas of social and economic life. It makes people believe that they have little control over the conditions in which they spend their working lives. Health care is thus an ideal mechanism for socialisation and social control. Because health is so vital, the provision of medical care seems to represent rational policies of a benevolent state in an unequal and divided society (Cockburn, 1977; Doyal and Pennell, 1983; Kinnersly, 1973).

Health and illness are determined by the mode of social and economic organization. With capitalism there is a contradiction between the pursuit of health and profit accumulation. There will be conflicts when attempts are made by the State to keep standards of medical care at a reasonable level. Opposition will come from individual capitalists wishing to keep down public expenditure. Health care systems therefore represent the outcome of struggles between conflicting forces. They are not the rational policies of a benevolent state nor are they manipulative policies to ensure healthy lives or control the daily lives of its members (Doyal and Pennell, 1983; Navarro, 1976).

In addition to the above viewpoints, this thesis also draws from various other perspectives as a foundation for the conceptualisation of health and health care. It is clear that health and health care can only be understood using a multi-theoretical/multi conceptual approach as mentioned earlier and these will be discussed below.

3.3 APPROACHES TO THE STUDY OF HEALTH AND HEALTH CARE

3.3.1 Biomedical Approach

Rosen's (1958) work is the most comprehensive history of public health. He traces public health orientated to housing, sanitation and communicable diseases from ancient to modern times. He documents a medical concern with public health from a

medical perspective, documenting the history of eminent physicians and their efforts to contain diseases influenced by the environment. He does not focus on the social context and ignores individuals and groups within societies. The public health movement had its roots with a social conscience on problems such as housing and sanitation. The initiation of modern public health has been traced to the work of Chadwick and Simon and was continued by the Medical Officer of Health in Britain until the post was abolished in 1974 (Chave, 1984).

The function of public health was then taken over by the National Health Service, which represented a further medicalisation of public health. This meant that health was located within a service that was mainly concerned with care and the delivery of services designed to cure patients. Focus was on the individual and emphasis on individual behaviour in relation to the health care system. Concern was placed with coping, stress, social support and lifestyle and away from the social environment, housing, work and income. The rising importance of community and social medicine filled the gap left by the medicalisation of public health. It is clear that the biomedical perspective has dominated public health in the last century and led to a medicalised interpretation of health behaviour. Since World War II, there has emerged a social science perspective in the public health debate (RUHBC, 1989).

This perspective asserts that health is largely dependent upon the quality of health care services and delivery. If health care services and delivery do not operate at an adequate optimum capacity, then it follows that health will suffer. Therefore, barriers to health care delivery must be examined and efforts made to eliminate them where they exist.

3.3.2 Social Science Perspective

Only until the 19th century did the environment in which people lived and their living conditions become the focus of medical attention in a modern scientific way because of the rapid urbanisation during the industrial revolution. The deplorable conditions moved reformers to improve the human environments through better housing, sewage

and water supplies (Davies and Kelly, 1993). Also, at this time, public health began to include broader social issues (Wohl, 1983). Out of this broad approach, the seeds of socio-ecological models of public health and urban planning developed (Ashton, 1992).

At the outset there was a negative view of social science. As Green et al (1980) state, social sciences are often held in reserve for when the hard sciences cannot solve the problem. The critical perspective of the social sciences applies an evaluative, analytical approach to a field dominated by a medical view with its facts and answers to problems. The social science perspective includes an anti-positivistic tradition, which is anathema to the positivistic tradition of biomedicine. Thus, qualitative research has problems of acceptance within health and health care research (Feyerabend, 1978). Many social science disciplines are relevant to understanding health and health care issues. The disciplines that directly attempt to describe, understand and predict change in public health behaviour are sociology and psychology. However, RUHBC (1989) suggests that public health has failed to pick up and nurture these perspectives, resulting in its impoverished development focussing on the micro level (individual) rather than the macro (socio-cultural). This is generally the case in all health and health care research conducted by social scientists.

3.3.3 Humanistic Approach

3.3.3.1 Empowerment perspective

This approach centralises the importance of individuals, households and communities to address health problems. In this regard, the key issue is that empowerment for health comes partly from knowledge and resources, which will allow for effective change (Rao and Kelleher, 1995). 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.

Advocates of the empowerment perspective also suggest that where individuals, households and communities are empowered; they often contribute significantly towards a healthy city thereby substantially reducing public expenditure costs and resources. Thus, empowerment is centrally important to governments. Pryer (1993) for example shows how a modest support community - based insurance and credit scheme can ease the financial burden and distress of sickness induced loss of income in a low-income settlement. Additionally, Cohen and Swift (1993) indicate how support for community action and coalitions in a violence prevention programme resulted in an improvement in health. Thus, the empowerment of poorer groups, especially in relation to political power to ensure that their needs and priorities are addressed as well as to grant greater control over local resources becomes vitally important to address health issues in a proactive rather than a reactive manner. Empowerment is, however, closely linked to participation. Participation has some inherent problems linked to aspects such as social differentiation and time constraints of particular individuals and groups.

Psychosocial impacts and perception of problems may be evidence of some adverse effects of the environment on human health and well being. To recognise this there must be a change in mind-set concerning the practice of science, the nature of method and the acceptability of different types of evidence. In traditional public health this is not possible because success has been based on careful epidemiological investigations of the relationship between human health and a specific environment to preserve, protect and restore health. For a social science this is limited, as it does not seem to progress the discipline. To progress, theory must be engaged (Eyles, 1997). New debates point to the need for different ways of seeing and examining the world. There are challenging ways of examining the relationship between environment and health. In the traditional way most problems are understood by precise measurements and those relationships that do not have the criteria of causal science are irrational and irrelevant. It is based on a particular view of science and what constitutes a problem. Although it is helpful, it is limited. This raises the issue of the nature of science and

nature of theory in science (Eyles and Taylor, 1994). There is, therefore, the need for a reorientation of ideas for helping to understand and explain issues of social life.

3.3.3.2 Healthy Cities Approach

The Healthy Cities approach (discussed in the previous chapter) is a major shift in the conceptualisation of health. In this approach health has moved out of the biophysical realm into the socio-political domain with a change in power relations in respect of health and illness. Davies and Kelly (1993) argue that there is a fundamental epistemological shift in the conceptualisation of health. They assert that it is evident that science alone cannot be used to solve complex and multidisciplinary problems as is evidenced in the health environments of cities. There is need for new paradigms to be developed. Although there is need for hard data, there is also the need for qualitative data such as stories, anecdotes and anthropological reports (Ashton, 1992). The research framework should therefore move away from traditional methods to more qualitative, ethnographic and action-orientated approaches. Healthy Cities as a movement and as an idea is post-modern. It is based on an aesthetic and moral view of health, not a biophysical view of illness. It focuses on subjective health in the context of ecology and the environment. It is not individually based and is not preoccupied with pathology. Although it has conventional aims, the methods and philosophies are shifts in the thinking on health, especially in urban environments. With the research base still in its infancy, there is no single existing academic field that can provide the breadth of vision or scientific theory and methods to cope with the complex issues in urban areas (Davies and Kelly, 1993). In this context, Ashton (1992) believes that social processes are critical in determining the health status of individuals and communities with the key to understanding being the ecological idea of how complex natural systems or processes work in practice. This cannot be understood by traditional scientific theories.

Nevertheless, health has become clearly visible on the political agenda of many cities (Tsouros and Draper, 1993). According to the South Australian Health Commission, 1988 cited in Baum, 1993: 96):

A social view of health is one that recognises the impact (both direct and indirect) that physical, socio-economic and cultural aspects of the environment have on the health of the community. A social view of health implies that we must intervene to change those aspects of the environment which are promoting ill health, rather than continue to simply deal with illness after it appears, or continue to exhort individuals to change their attitudes and lifestyles when, in fact, the environment in which they live and work gives them little choice or support for making such changes.

The concept of Healthy Cities and traditional scientific research are from two different worlds, the modern and the post-modern. Postmodernity is a world of aesthetics, the deconstruction of conventional social arrangements, and experimentation in artistic, cultural and life forms (Baum, 1993; Kelly et al, 1993). According to Kelly et al (1993: 159) the basic idea of postmodernity is that:

... the social and moral conditions pertaining in the world at the present time mark a fundamental break with the past. In art, form displaces content; in philosophy, interpretation displaces system; in politics, pragmatism displaces principle; and in science chaos displaces order. To be paradoxical: the core idea of postmodernity is that there are no core ideas.

In the Healthy Cities framework, emphasis on disease is displaced by an emphasis on health and the focus is on the origins of health rather than the origins of disease (Kelly et al, 1993). Unwittingly, the WHO (1946) definition created the post-modern approach to health. The WHO is an ultra modernist organization with technical expertise in solving health problems. The post-modern approach does not look for systems but views physical and social life as chaotic. It is not the social model of health that is the basis of the difference between conventional approaches and the new public health and the Healthy City movement. Both the medical and social models are system based. They are built on the assumption that a system is open to systematic scientific explanation and investigation. The distinction between Healthy Cities and previous approaches is the emphasis on positive health, which is not amenable to modern conventional scientific discussion (Antonovsky, 1987). However, work done

on Healthy Cities and the new public health is still pervaded by normal science. Kuhn (1970) states that normal science is convergent and has a defined object, methodology and procedure for validation. It is based on the assumption that if enough time, energy and resources are utilised on a problem then there will be a scientific solution. It works within a specific paradigm and the problem is known and it has an answer. What the scientist, in the traditional scientific paradigm, needs is to work out the answer.

Postmodernity refers to a major social and cultural break that has taken place in numerous fields of human cultural and scientific endeavours in the 20th century. It is associated with the discrediting and questioning of the possibility of ultimate truth and/ or human happiness being revealed or produced by science. Kelly et al (1993) state that cities with their social problems and their inequalities in health seem to challenge the view that rationalist planning can produce human happiness. Modernity implies a progressive economic and administrative rationalisation and differentiation of the social world whilst post-modern suggests an epochal shift which involves the growth of a new social totality with its own principles (Featherstone, 1988). Modernity was based on a belief that there was a bedrock of rational truth on which scientific and rational inquiry converged. It does not consider other rationalities and believed their opponents to be misguided, deluded, immoral, dishonest or wrong (Kellner, 1988).

The post-modern view is relativist and does not seek ultimate truths about health. It acknowledges that positive health is a quality of individuals and social groups. The original WHO definition has often been criticized. In rationalist terms it is meaningless. Looking at the definition one may ask, for example, what is complete social well being and how can it be measured? It is obvious that it cannot be measured as it is subjective and is the property of individuals or groups and not the possession of scientists or administrators who want to control it. It cannot be measured in the same way as pathology and when this is understood there is no problem (Kelly et al, 1993). In the context of health promotion, health is less abstract and more the ability to achieve potential and to respond positively to environmental challenges. Health is seen as a resource for everyday life and is a positive concept that emphasizes social,

personal and physical capacities. It focuses on the interaction between individuals and their environments and the need to achieve a balance between the two. Health in the post-modern view is based on aesthetics and a moral value. Defining health in this way is important if “Health for All” is to be practised in Healthy Cities (Shustermann, 1988).

Lyotard (1984), the pundit of postmodernity, was of the opinion that postmodernity is an attack on the two great Western scientific and philosophical traditions which developed out of the period of Enlightenment. These traditions were the liberation of humanity and the speculative unity of knowledge. The post-modern condition is a state of mind or an attitude, which calls into question these grand myths. The “Health for All” principles and the Healthy Cities movement are driven by a desire for equality or to combat inequality and by the notion that scientific or rational principles could lead society in this direction. To be successful, however, there must be something more. It must attempt to describe the lives of people as they live and experience it and must grasp the complexities of their thoughts and actions in their environments and attempt to come to some kind of accommodation with them. This accommodation, as Kelly et al (1993) argue, must be psychological and interpersonal. It will be a political, economic and social process and not the abstract principled analysis of science *per se*.

3.3.4 The Political Economy Perspective

Political economy focuses on the patterns of uneven development within a capitalist system and their differential economic and social effects of a global market economy that have been emerging since the 16th century (Merchant, 1992). The process of underdevelopment and capitalist expansion has generally led to a worsening of the environment for those people who live and produce on it. Political, social, economic and ecological marginality occurred as a result of capitalist and colonial expansion that led ultimately to the expropriation of land and resources as well as unequal service provision and access to facilities, including health care. Some political economists are now beginning to pay attention to the interrelation between macro-

economic policies and social frameworks (Elson, 1997; Folbre, 1995). Understanding the social relations of health and health care implies understanding power relations as well as struggles over access to health services and facilities. The political basis of health policies, such as the use of contraceptives and testing of drugs, are also examined.

Based on a conflict model of society, the basic premise of the political economy approach is that the unequal distribution of resources is the inevitable outcome of class conflicts. Political economists have extended this argument to incorporate gender conflicts as well as conflicts pertaining to other social categories such as race and ethnicity (Elson, 1997; Folbre, 1995; Moser, 1993). The conflicts are not independent and are often mutually reinforcing. People's health and access to health care affects the political economy of their lives as producers and procreators. Mackenzie (1992) and Blaikie (1989) suggest that understanding the political economy of the environment and social change will lead to a greater comprehension of differential access to and control over resources. This includes health and health care at the household and community levels. It is at the household and community levels that poor health can acutely impact on the quality of life as well as life chances and opportunities. In African urban areas, the urban poor who reside in informal settlements are dramatically and negatively impacted. As the health conditions of the individual (and concomitantly the household) deteriorates and access to health care becomes increasingly scarce, the household comes under social and economic stress.

The importance of the care economy in maintaining and cushioning the household, especially in times of crises and vulnerability, is critical. In the context of poverty, where access to health care is often limited, the care economy is central in terms of providing home-based care, shelter and subsistence foods. In the context of developing countries a pertinent question is whether the care economy will continue to be in a position to respond to the demands made on it. Evidence indicates that the severe stress placed on the care economy has greatly reduced its ability to function. Women particularly bear the brunt of the overburdening of this sector. Capacity building in the care economy will require serious investments in the form of service

provision, adequate remuneration for underpaid work (especially in the informal economy and the domestic sector) and undertakings in human resource development (access to education and training).

The focus of the political economy approach is on structural and institutional inequalities in health care provision and policies. Specifically, the focus is on:

- the growing poverty and homelessness among the poor who reside in urban areas;
- the inadequacy of current health delivery systems;
- interpersonal violence and abuse against certain groups;
- the relationships between specific diseases and structural inequalities.

Aldridge and Rogers-Rose (1993) argue that the fact that poorer segments of society suffer most from health problems linked to environmental vulnerability, inadequate health care provision, lack of access to preventative mechanisms and exposure to violence reflects both the lack of economic opportunities and political power to effect changes in legislation, policies and programmes linked to the health needs of the poor. This political marginalisation is an important component of continued structural failures and limitations in public policies related to health issues that impact the lives of the urban poor. Duhl (1993) considers the inadequacies of conventional government responses to health problems in cities and stresses the need for systems of governance which meet the diverse needs of different individuals and groups within the city while recognising that nearly all city dwellers and enterprises have common goals relating to healthy city environments.

From an economy of scale perspective, cities are at a distinct advantage in terms of lowering the costs of reducing diseases and improving health care delivery. As a result of population concentration in cities, the unit costs of providing piped water, sanitation, garbage collection, paved roads, drainage and services such as housing, electricity, education and health care facilities are greatly reduced. Furthermore,

industrial concentration in cities reduces the costs of enforcing regulations on environmental and occupational health and pollution control. Yet, in most instances in developing countries, cities have failed to develop effective institutions and modes of governance to address the most pressing health needs of the majority of the urban populace (Meyer-Lie, 1987). In particular, Phillips (1990) asserts that urban health programmes that focus on preventive, community-based primary health care is extremely limited. This is also discernible in urban health care programmes' inability to prioritise project interventions related to water supply, sanitation, literacy and poverty reduction, which can bring major health benefits.

From a political economy perspective it is also important to raise pertinent historical concerns relating to health and health care. Colonial capitalism has dramatically transformed the political economy of health care in many African societies (Rodgers-Rose, 1993). At the same time, the penetration of capitalism has not been a uniform phenomenon throughout Africa nor has its impact on health and health care been the same everywhere. Also, although capitalism has been viewed as a major determinant in changing health conditions and health care, it is not the only determinant. Other aspects have also been influential such as cultural practices and political change. Thus, significant variations and complexities exist that warn against blanket solutions and programmes to address historical health and health care imbalances.

It is also important, within the debates of political economy, to incorporate the recognition that socialist transformation does not necessarily eliminate or eradicate health inequalities. Access to health care and health conditions for the urban poor have not changed significantly by socialist transformation of governments in countries like Tanzania, Ethiopia and Mozambique. However, the political economy approach is extremely useful in highlighting the historical, international and national dimensions of health and health care in South Africa. This perspective urges us to look at national and international imperatives that shape the existing environment and future intervention options and priorities. Furthermore, this approach is significant since it stresses the need to concentrate on power dimensions associated with health and health care.

The problem with the political economy approach is that it does not look within households and communities to analyse patterns of decision-making pertaining to health and health care within them. As clearly indicated previously, there is a great deal of evidence that suggests that the household and the community are not consensual units that share common goals and experiences. Another critique is that although the political economy approach has highlighted the importance of conflict it fails to provide an alternative development vision. Thus, its contribution lies primarily in its ability to explain macro-economic factors that impact on health and health care as well as roles and allocation of power relating to health and health care provision.

3.4 CONCEPTUAL MODEL OF ENVIRONMENT AND HEALTH

Placing health issues in relation to environmental influences stands in contrast to the conventional biomedical approach that tends to focus on physical health outcomes in relation to access to western medicine (Beck, 1993). The environmental health perspective therefore encourages an in-depth understanding of the influence on health of a household's socio-economic context which is critical. The socio-economic realities of specific households and communities mediate the interaction of people with their physical environment and health care systems. As Songsore and McGranahan (1993: 12) state:

Households' socio-economic circumstances help determine their members access to environmental services, exposure to environmental hazards, hygiene behaviour, and capacity to undertake protective measures. Often, it is changes in the households' socio-economic status that holds out the best hope for improvements in their environment and health.

Songsore and McGranahan (1993:17) also provide a conceptual model based on the work done by Beck (1993) and Blacker (1991), illustrated in Fig.3.1 that elucidates the linkages between environment, wealth and health.

The conceptual logic of this model is that differentials in the population are a function of the interaction of environmental risk factors and socio-economic factors in specific locations. The underlying rationale is that urban environments are highly contested as

different groups and individuals compete for resources and space. In this model (See Fig.3.1) urban spaces are made up of two main aspects:

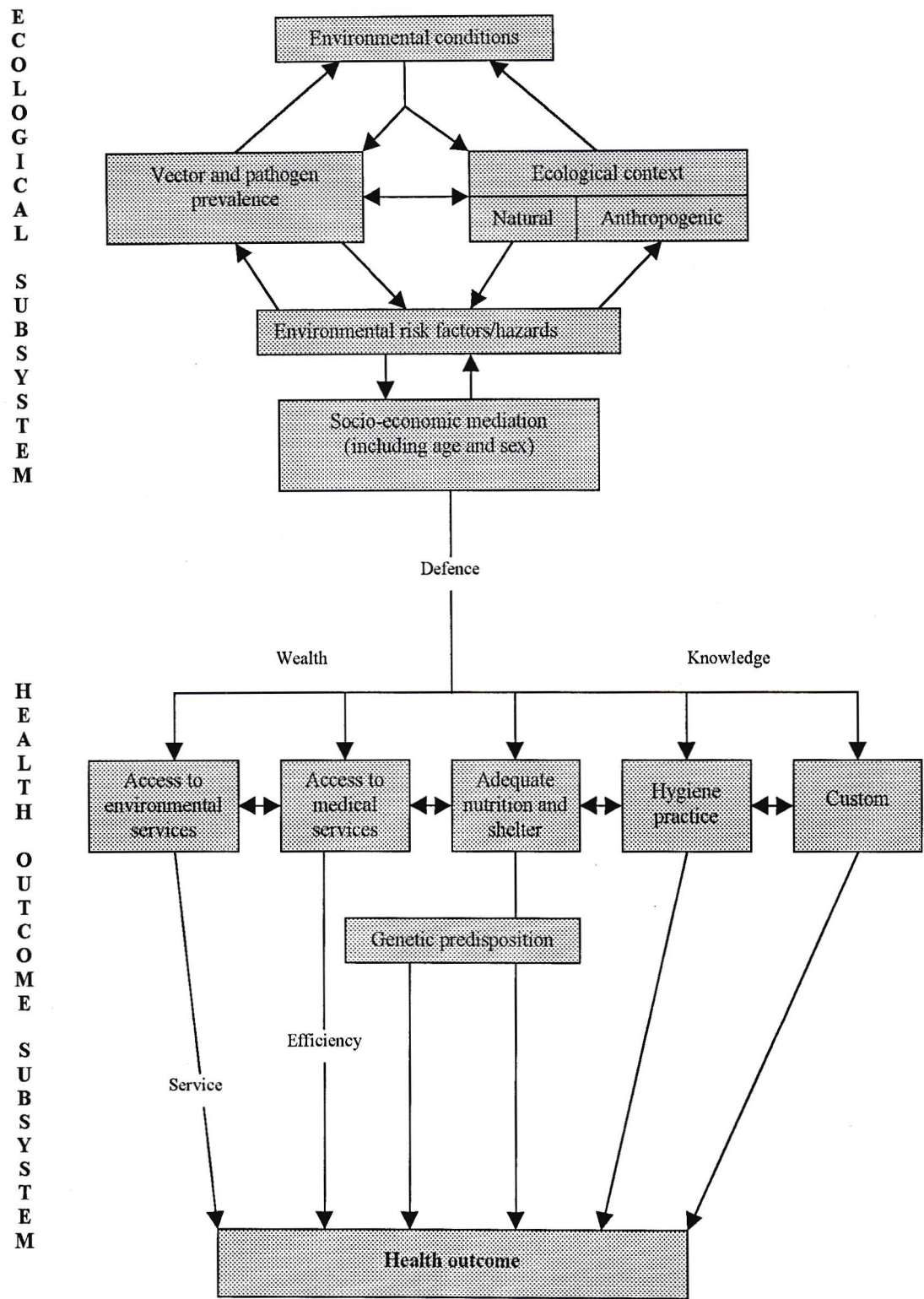
- the ecological context: a product of both natural and human created or influenced factors; and
- the prevalence of vectors, pathogens and other hazards that arise from the ecological environment.

The ecological environment includes natural factors such as climate, geology and topography, naturally occurring toxic chemicals and natural disasters/ hazards such as floods and earthquakes. The anthropogenic factors include housing type, population dynamics (linked to crowding), and adequacy of water and sanitation services, waste disposal methods employed and energy/ fuel use. It is also argued that human beings are both biological agents of disease transmission and social agents of stress, violence and substance abuse (Songsore and McGranahan, 1993). Thus, the environment risk factors are linked to human as well as natural influences and determine the level of exposure to conditions inducing ill health. Access to resources (natural such as land and water, institutions, services and facilities, etc.) to meet basic human needs are thus critical to ensure the adequate health status of people and environments.

3.5 CONCLUSION

Habermas (1971), a social scientist, was of the opinion that the nature of science itself was such that it constituted a form of domination which was incompatible with humanistic and egalitarian pursuits. Research favours the privileged classes and members of underprivileged classes rarely have any influence over research or policy and thus their interests are often overlooked. That research might or should be related to policy rests on the assumptions that most research takes the form that makes it applicable to social problems and that policy is primarily influenced by evidence of a scientific nature. However, both research and policy are influenced more by political expediency than by the desire for social justice. Most research is not determined by its social relevance but by its value to vested interests (Hunt, 1992).

Figure 3.1: Environment, Health and Wealth Linkages



Adapted from Songsore and McGranahan, 1993:17

The idea that research can direct policy presumes that policy-makers draw upon the most convincing and up to date evidence. Policy-makers seek to remedy current rather than future ills and work towards short-term solutions rather than long term goals. Decisions are seldom taken because of available evidence. Rather evidence is used to support existing positions and processes (Hunt, 1992). Rarely is the social view of health considered and this should again be emphasised.

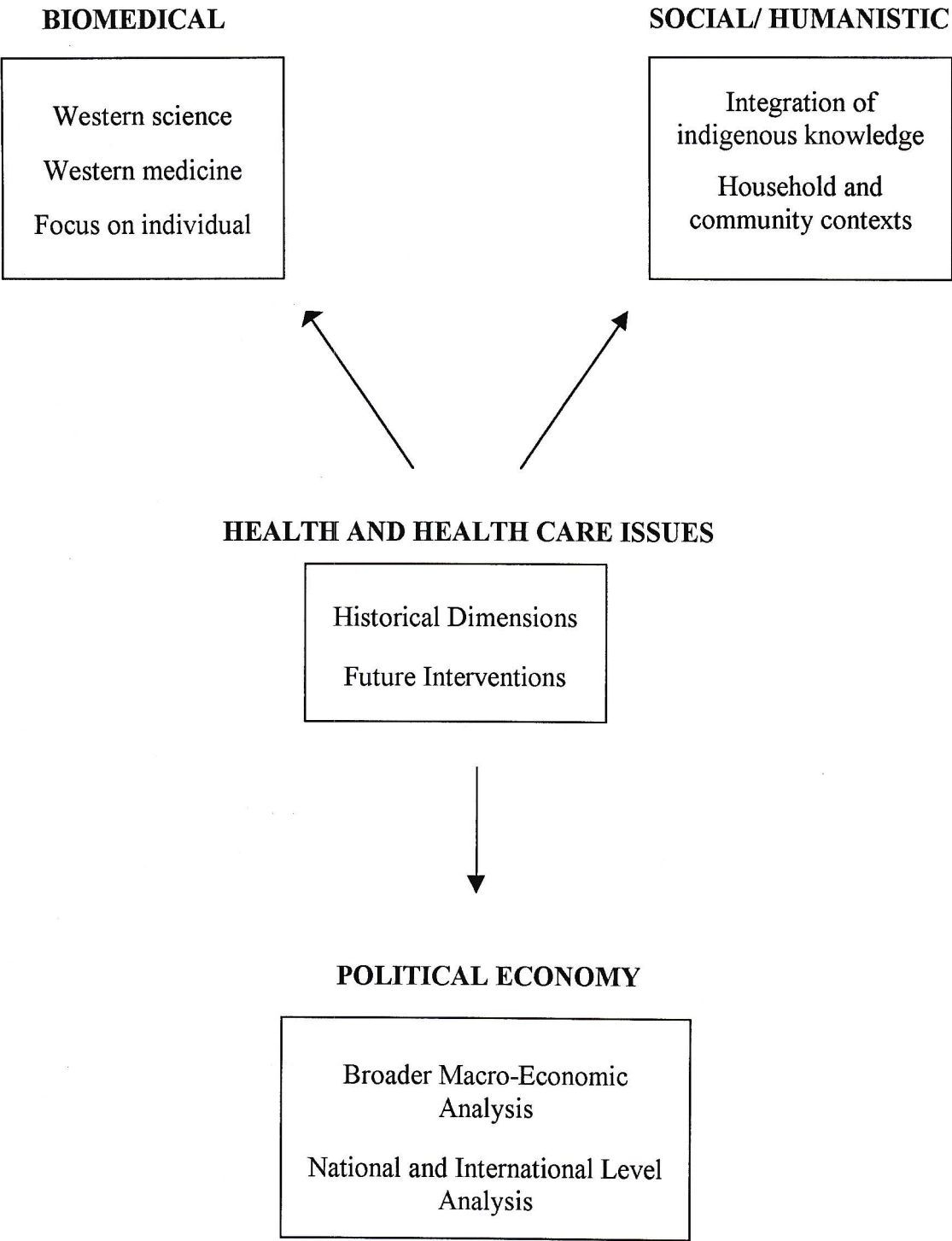
Given the limitations of the various approaches, this study advocates the use of an integrated and holistic perspective as illustrated in Fig.3.2. This integrated approach recognises that health risks emerge from multiple and complex factors related to personal, economic, social, environmental and political causes. The health of an individual, household and community is linked to various social, physical, economic and political attributes elucidated in various studies. Therefore, the reduction of health risks and the improvement of the health status and conditions of the poor necessitate a multi-pronged approach. Complex and interrelated causes require the implementation of multiple solutions. This requires that resources need to be mobilised at various levels including international, national and local agencies and organisations.

A review of the above perspectives indicates that each approach contributes substantially to a greater understanding of health and health care. Fig.3.2 below illustrates the inter-linkages and the central focus areas of the various perspectives. The different approaches address questions relating to why people have been historically denied access to health and health care, how people gain access to health care and why it is important that people's health status is improved and that they have access to health care.

Furthermore, an integration of the different perspectives ensures that different scales of analyses are incorporated. The biomedical approach focuses primarily on the individual level. The social/ humanistic framework primarily centres on household and community dynamics while the political economy perspective highlights international, national and regional influences. Also, a multi-conceptual framework integrates several themes relating to health and health care. Given the frameworks

presented above, it is critical to understand that health reform is a highly political and complex process embedded in social and economic realities or perceptions. Thus, the need for an integration of conceptual frameworks presented.

Fig. 3.2: A Biomedical, Social/ Humanistic and Political Economy Conceptual Framework



The overview presented here and the literature review in the previous chapter clearly suggest that location, historical factors, race, gender and class are undeniably interrelated when examining health issues. Thus, it is necessary to examine the interrelationships between various factors when attempting to understand and analyse health issues and concerns in a particular context. This perspective provides the opportunity to examine the environmental, political, economic, social, physical and psychological aspects of health. Thus, health outcomes are associated with socio-economic factors, environmental conditions and various protective measures including health service provision. Additionally, the health status of an individual, household or community is linked to numerous systems including the family, access to education, health service delivery, work environments, employment status and public services such as the provision of water and sanitation. Furthermore, instead of adopting a passive approach when dealing with health issues among poor people there is the recognition that people actively survive and struggle in spite of obstacles.

The complexity and magnitude of health issues in cities require the adoption of an integrated approach which considers the wider socio-economic and environmental factors affecting health not only the narrow changes to the physical and socio-economic environments. Social processes are often of even greater importance in determining the health status of individuals and communities. The political and legal organization of the policy making process can be identified as the major determinant of urban health due to its role in creating possibilities for participation as well as its influence on the content of public policies and distribution of resources (Montiel and Barten, 1999). According to the Ottawa Charter for Health Promotion (WHO, 1986: 10), health promotion is “the process of enabling people to increase control over and to improve their health.” It identifies health promotion as a process aimed at empowerment and social inequity. Health promotion is not value free, but socially and politically aware. In most policy environments, local government does not have the power to address the inequity in access to basic determinants of health or the social and economic problems of health in general. In societies where there is a high degree of political and social polarisation, localities have a major role to play. The local level provides the best conditions for developing an agenda for improving the health and

well being of a city and its people. Montiel and Barten (1999) indicate that there is a need for the development of strategic alliances between the principal stakeholders at local and regional level to develop co-ordinated policies, strategies and activities for integrated development of urban health.

To summarise, health and health behaviour is not rooted only in a medical perspective with its emphasis on human behaviour. Health behaviour is derived from two perspectives, the biomedical and the social science perspective. The biomedical perspective focussed attention on individual human behaviour in public health while the social science perspective has broadened the individualistic medical view but has included only a small part dealing with individual beliefs and practices into public health. Basic health care and essential health research need a multi-faceted approach that combines epidemiological, social, biomedical as well as political economy perspectives. This requires data on health situations of a society at different levels: the individual, the household, community, regional, national and international. Such an approach must not focus solely on counting heads and diseases but must also relate to cultural patterns and values as well as power relations.

CHAPTER FOUR

SOUTH AFRICAN HEALTH AND HEALTH CARE: PAST AND PRESENT

4.1 INTRODUCTION

Many of the key contradictions in the world such as racism, economic deprivation and political repression were evident in the South African social system, which was based on the policies of apartheid. The nation's health was inseparable from the economic, social and political structure of the country. Apartheid denied the fundamental rights of the majority of people by a deliberate, carefully planned and ruthless execution of the violation of people. Years of oppression have literally torn apart the social fabric of South African society leading to a major crisis, especially with regard to people's health. Health became the privilege not only of the privileged but also of one race. The source of the present crisis in health and health care is the historical neglect, fragmentation of services, centralisation and a lack of any clear national primary health care policy (MRC, 1991; Seedat, 1984). The prevalent approach in the health sector was a disease service and not a health service. The medical profession developed expertise in understanding and treating illness without doing anything to change the system that gave rise to illness and disease. There was a lack of understanding that good health does not only depend on doctors and health care services and facilities but instead on the prevailing social, economic and political conditions (Seedat, 1984). It is therefore clear that the socio-economic and political arena in South Africa had a major effect on the health status and the quality of life of the majority of people with the prevalence of diseases and sickness. There were a multitude of facets that contributed to the unhealthy situation, most significant of which were: under-nutrition; lack of clean water; improper sanitation and housing; limited access to proper education; low incomes; unemployment; violence; crime and pollution. The population most vulnerable and socio-economically disadvantaged was the African population which was plagued with preventable causes of death, illness and disease (McGarry and Haddon, 1993). Some of the most destructive effects of the apartheid system concern the psychosocial environment in which people were

born, grew up, lived or died. Stresses in environments caused insecurity and violence and other negative behaviour (WHO, 1983).

In a transforming democratic South Africa, where racism is no longer a legalised institution, it is necessary to go beyond racism to understand the social context of health and health care inequalities. In any study of the determinants of health, it is thus fundamental to understanding the social, political and economic determinants of health (Chetty, 1991). Navarro (1984) had a similar idea when he wrote that health was an outcome of politically determined structural, economic and social changes. It is therefore not a medical outcome but rather a social one.

Apartheid planning led to a fragmented and inequitable health system with many health authorities. There were fourteen ministries of health and four autonomous provincial administrations, which were split between curative and preventative services. Numerous NGOs and CBOs also provided health care. The result was that at the primary level especially in rural areas, peri-urban areas and semi-urban areas, service delivery and the co-ordination of health care were poor. Limited resources were a major problem with health care having to compete with other sectors such as housing, electrification and education. Another major problem was that resources were unequally distributed between urban and rural areas and the different racial groups, public and private sectors and curative and preventative services (American Association for the Advancement of Science -AAAS, 1998; McGarry, and Haddon, 1993).

The impact of past South African health care policies and strategies were clearly exposed in the numerous submissions to the Truth and Reconciliation Commission. Apartheid was a system based on such deep racism that it deprived Black people of all human dignity. Racism was manifested in every aspect of health. Some of these include: segregation of health facilities; disproportionate spending on the health of Whites as compared to Blacks; health policies that ignored diseases affecting Black people and the denial of basic sanitation, clean water and other public health components to homelands and townships. Health services were deliberately

fragmented to perpetuate discrimination. The health consequences of apartheid extended beyond the practices within the health sector itself, inflicting violence on Black people, including indiscriminate killing and torture in detention, forced relocation and family break-ups (AAAS, 1998). There were horrifying tales of medical neglect and the pre-1994 Health Department admitted that its policies had devastating effects on millions of South Africans by contributing to ill health and many unnecessary deaths. Testimony was also received on the role of doctors during this period who accepted interference in their professional duties by the State. White health professionals were deeply implicated in human rights abuses. The large number of White health professionals benefited from a discriminatory system and either embraced the values and practices of apartheid or went along with them silently. They turned a blind eye to the torture and ill treatment of political detainees while the Medical Association of South Africa (MASA) admitted complacency in opposing apartheid. Doctors working in detention facilities wrote false medical reports to cover up torture, testified falsely to security forces and failed to provide adequate health care to detainees. MASA closed ranks to protect doctors implicated in human rights abuses (AAAS, 1998; Strachan, 1997). According to the AAAS (1998), the conduct of leaders of health professional organisations was most egregious as they allied themselves with the apartheid State and avoided challenging overt discrimination in health, forced relocations and detention of children. When doctors committed violations of human rights, health organisations chose the side of the State over the victims of abuse. A classic case of human rights violation, according to Strachan (1997), is that of Steve Biko in 1977 when MASA refused to investigate two doctors implicated in his death. MASA believed that if doctors were found guilty it would create a furore for the government and the security police.

The data on preventable diseases in the country in the pre-apartheid era also left much to be desired although there were claims by the authorities that South Africa had the best health care system on the continent and it could also be compared to other developing countries. This led to two myths of South African health care, that is, the quality and quantity of health care and the level of health of the Black population are adequate, are improving and gave no reason for concern (WHO, 1983). Muller (1990)

in an analysis of South Africa's economy points out that South Africa is not a unique Third World Country that is divided into First and Third world components. It is a middling Third World country relative to other third world countries. He points out the unreality of optimistic comparisons with rapidly developing countries such as Korea. Moreover, limited comparisons could be made with other Sub-Saharan countries. With regard to the incidence of diseases, De Villiers (1997: 4) pointed out that the:

Incidence of important preventable diseases, and consequently the real burden of disease in the community, is not reliably known in South Africa, due to poorly developed public health information systems, both in the public and private sector.

South Africa was plagued by many problems, deficiencies and constraints which related to the health care system as a provider on the one hand and the population as clients of the system on the other. The problems are interrelated and complex in nature and are related to the racial and ethnic fragmentation of services, which were wasteful and inefficient. In the opinion of Van Rensburg and Fourie (1994), this resulted in the neglect of the health of the majority of people. Inequalities and inequities had a protracted history in a highly undemocratic society and has become the main target of the reform process.

These are some of the problems that the post-1994 government was confronted with. It was not a problem of health care per se but a problem of restructuring the social fabric of the country to improve the quality of life and the health of all people. This chapter will begin with the historical background to South African health and health care beginning from the 1940s to the present and in this way provide the basis for the current research initiative. It also provides some insight to the health challenges facing a transforming South Africa with its prevalence of widespread diseases such as TB, cholera, HIV/ AIDS and Sexually Transmitted Diseases (STDs). Only by understanding the past can any significant conclusions be made about change that has or has not taken place in the current dispensation.

Much has been written and presented on health and health care in South Africa, especially in the 1980s by organisations such as the WHO (1983) and the Carnegie Foundation (1984) conference on poverty. Papers at the conference, for example, Jinabhai et al (1984), Hansen (1984) and other presenters, were directly related to health and health care issues whilst other papers provided background information on factors affecting health (Pinnock, 1984; Thornton, 1984). Other major works were undertaken by Packard (1989) on the history of TB and Seedat (1984) as well as De Beer (1986; 1985) who focus on the political and historical origins of health and health care patterns in South Africa. Some of the above work, although dated, is significant in any review of the history of health care in South Africa. Recent additions (as will be revealed in this review) have, however, been included as a basis for understanding the complexity of health issues of the past and current changes.

4.2 HISTORY OF HEALTH AND HEALTH CARE IN SOUTH AFRICA

South Africa's history is one of Afrikaner settlement expansion and African resistance to exploitation for more than 200 years. Between 1870 and 1930 racial discrimination and segregation was associated with the expansion of capitalist relations of production. Various work amendments and mine Acts legalised the colour bar in industry. The Native Urban Areas Act laid the basis for urban segregation and the Land Act of 1913 undermined the viability of African peasant production. These provided the template for the apartheid policies of the nationalist government. Apartheid was a cornerstone of South African economic development and political policies from 1948 to 1994 (AAAS, 1998). The Nationalist Government did not only continue a system of racial oppression from the previous era but rigidified the system and greatly increased the scale of oppression (Walker, 1982). After the electoral victory in 1948, the Nationalist Party set the apartheid system in place. The foundations of the system was the Population Registration Act (1950) that classified every person in South Africa as a member of the White, Coloured, Indian or Black race group. The Group Areas Act of 1950 and its amendments defined separate areas that could be legally owned and occupied by Whites, Africans, Coloureds and

Indians. In 1953, the Reservation of Separate Amenities Act (1953) reserved separate buildings, services and conveniences for each racial group (AAAS, 1998). Apartheid ensured that the minority government dominated by the Afrikaner National Party maintained political power over resources, population, the economy and the military.

The apartheid system was extended to the creation of the Homelands in 1959. This required that all Africans not required in the White territory to return and be considered as citizens in the independent Homelands/ Bantustans. The government forcibly relocated mainly Africans, Indians and Coloureds. It was estimated by the Surplus Peoples Project (1983) that about 3 522 900 people were forcibly removed between 1960 and 1983. Africans were sent to Homelands/ Bantustans. By 1979 there were 10 Bantustans which included numerous pieces of the most arid and rocky land in the country and comprised 13% of the land areas of the country with an average density of 150 per square kilometre (Lipton, 1972; Walker, 1982).

Health care in South Africa developed both private and public sector components. During the 19th century, public health care was expanded, controlled and consolidated by numerous statutes. This in fact laid the basis for the present health system. The formation of the Union of South Africa in 1910 by the British Parliamentary Act of Union, gave the Whites the right to self determination and the government was allowed to further develop a pluralistic health system based on race. In 1919, the Public Health Act was introduced because the State realised that it had a responsibility for public health due to the deaths from an influenza epidemic. Under this Act, the Department of Public Health was established (Burger, 1997; Mc Millan, 1994). Various commissions were introduced, but the government chose to ignore them and entrench its apartheid policies. The system of discrimination exacerbated the deterioration of the health status of the majority population. People were driven from productive arable land under the pretext of resettlement through the Native Land Acts (1913 and 1936) and settled in marginalized areas that were unproductive (AAAS, 1998; Horrel, 1973). Africans, who comprise 71% of the population, were forced onto 13% of the land. These were in scattered parcels. The result was widespread landlessness, poverty and the decreased production of staple foods. The incidence of

unknown diseases such as Kwashiorkor and TB increased. The prevalence of diseases was directly linked to poverty, deprivation and harsh conditions experienced by the African population (Seedat, 1984). Thus, the health status of these populations was exacerbated by the lack of proper services and facilities in resettlement areas.

4.2.1 The Gluckman Commission

The historical neglect of health and health care in South Africa is clearly evident in the 1942 Gluckman Commission of Inquiry into health services in South Africa. The brief of this Commission was to enquire, report and advise on the provision of an organised national health service that conformed to the modern conception of health that ensured adequate mental, dental, nursing and hospital services for all the people of South Africa (De Beer, 1985; McGarry and Haddon, 1993). The Commission found that:

... there is a lack of co-ordination, shortage of services in urban and rural areas and unbalanced medical education...., private care was provided for people according to their ability to pay, rather than according to their needs. In addition, too much emphasis was placed on cure and not enough on the prevention of disease.

(De Beer, 1986:17)

The Commission was also of the opinion that diseases in the country were the result of social and economic conditions. Moreover, health services were inadequate, uncoordinated and misdirected and targeted to the curing of ill health rather than prevention of disease (De Beer, 1985).

The Commission recommended a nationally co-ordinated health policy which could determine priorities on the basis of need and not piecemeal initiatives to meet the needs of the government or the ruling class. The recommendations were wide ranging, focussing on the total reorganisation of the health care system with the objective of establishing a National Health Service which would reach all people regardless of colour. It was also of the opinion that there should be a rationalisation of structures dealing with health into a unified system under central State control aimed to establish

preventative health services rather than an increase in the high cost of hospital based curative care (De Beer, 1985; McGarry and Haddon, 1993). In the context of preventative health care the commission stated that:

... unless there were drastic reform in the sphere of nutrition, housing, health education and recreation, the mere provision of more doctoring would not bring more health to the people of the country.

(Gluckman Commission, 1944 cited in Mc Garry, and Haddon, 1993: 5).

The Gluckman Commission's analysis still remains significant, given the socio-economic origins of much disease and illness in South Africa. Access to the basic needs of housing, water and sanitation is more effective in improving the health of people than the medical services that may be provided. Emphasis was therefore on prevention as well as the curing of illness. An important contribution by the commission was that they sought ways to reduce the enormous social inequalities in South African society where definite progress could have been made if the recommendations were followed. However, this was not to be, as will be indicated in the period of the Nationalist government rule.

4.2.2 The Nationalist Party

When the Nationalist Party came into power in 1948 nothing changed for the majority of people. The apartheid policies flourished and there was a relentless promulgation of legislations which oppressed and dehumanised Black people. Afrikaner political and economic power grew rapidly (Burger, 1997). The recommendations of the Gluckman Commission were disregarded and never implemented. The reason for this was that the provinces refused to hand over hospital services to the State. Also, the medical profession totally opposed the proposals because they assumed that they would lose their professional status.

The situation changed in the late sixties and the early seventies when the State took control of health care provision as an area of reform because of strikes, unrests and revolts in Black communities (De Beer, 1985, 1986; McMillan, 1994). The Health

Act of 1977, No.63 was introduced to address the inefficiencies in the health service sector and to formulate a workable health policy, which placed emphasis on preventative rather than curative health care accessible to the entire population. With this Act, health care functions were placed in three tiers: national, provincial and local government levels. Two bodies were established and these were the Health Matters Advisory Committee and the National Health Policy Council which brought about co-ordination of White health care. The government declared this health policy to be comprehensive and community-based with the proposed building of community health centres and access to safe water, sufficient food, sewage and waste disposal. In reality, however, the policy had nothing to do with comprehensive and adequate delivery of health care. It failed to encompass promotional, preventative, curative and rehabilitative health care and failed to solve the inefficient, pluralistic health services or the emphasis on curative services. Although the government stated its commitment to PHC, it was not adequately demonstrated and the principle of PHC was based on racial fragmentation. However, the Act did promote privatisation, with growth continuing into the 1980s (De Beer, 1985; Kelly, 1988; Mc Millan, 1994; Ross, 1982; Seedat, 1984).

In 1980 the minister of health and welfare announced The Health Services Facilities Plan which served as policy for the establishment of health service facilities (De Beer, 1986). This Plan attempted to co-ordinate a national network of community health care centres or clinics to promote self-care and community awareness on health issues (McMillan, 1994). Many of the responsibilities for the actual provision of health care was delegated to other government departments and to provincial and local authorities with little or no financial resources provided. The Plan was an attempt to stop fragmentation with no real steps towards greater rationalization in the health sector (Spier, 1987). The Plan had all aspects of being a democratic policy instrument, but for political reasons it had never been given weight through legislation such as scrapping of the homeland policy, reintegration of services and amenities and creation of a single health ministry. Policy-making on health was thus entrenched in politics (De Beer, 1985). The State realised that no progress was being made with the above legislation and therefore established the Browne Commission to recommend ways of

providing a more effective public health care service. The Commission highlighted many of the deficiencies of the health system and made certain recommendations. At a broad level, the Commission recommended that a national health policy be formulated; a strong primary and preventative service be developed as well as the need for hospital services to be deregulated and privatised (De Beer, 1986; McMillan, 1994). This could have worked in an integrated health system, but the Tricameral Parliamentary system instituted in 1984 further divided and fragmented the health system along racial and ethnic lines (Coovadia, 1986).

Access to and the provision of health become more fragmented, inefficient, discriminatory and costly with the changes in government policy, which required the creation of the so-called Black States. This resulted in an additional ten health departments, each with its own bureaucracy, policies and chain of command. As mentioned earlier, the resultant health system had fourteen Ministries of Health; ten in the Homelands, three Own Affairs and one National General Department (Department of National Health and Population Development) (DNHPD). High-density settlements were created which were far away from the established health delivery systems in the country. This had serious impacts on the health of the people in these areas. Thus, the major legacy of apartheid was an extremely fragmented and inequitable health system with a multiplicity of health authorities, that is, national, provincial, regional, homeland, own service and local authority. Fragmentation was not cost-effective as it lacked co-ordination and effected the quality of care. Additionally, there was extensive health care provision by the private sector, NGOs and CBOs. The system ensured that national health care delivery was fractured, inefficient, badly co-ordinated and inadequately resourced. There were huge gaps in service delivery, which was serious especially at the primary health care level in rural and semi-rural areas, where it was difficult to obtain even basic care. The system was structured to cater for curative care for the White and urban population (Chetty, 1992; McGarry and Haddon, 1993).

Ineffective health care was partly due to a lack of effective health planning, control and co-ordination. The fragmentation in the health system resulted in the

maldistribution of resources and inefficiencies in the increased bureaucracy. There was no system-wide planning at the lower levels and the organisational services were inflexible and lacked accountability to the people it was meant to serve. Moreover, there was no consultation or responsiveness to the opinions of the community on health issues.

The health system further burdened the most socio-economically disadvantaged population group (Africans), especially those in informal settlements and rural areas. Death and disease due to preventable causes, affected African and other government defined population groups disproportionately with the White and urban populations having a distinct advantage. Another major factor in the pattern of disease was the Homeland and influx control policies which constrained land availability and influenced the geographic patterns of population.

The 1990s saw further health legislation, due in part to the poor economic conditions and the process of dismantling apartheid structures. Legislation endeavoured to make health care more accessible in both the public and private sectors. The process of reform began with the National Policy for Health Act of 1990. According to McMillan (1994: 6) this Act had four general principles viz.:

- Individual responsibility of the inhabitants of South Africa for their own physical, mental and social well being and for that of their families.
- Recovery of costs incurred in medical treatment from the inhabitants themselves, although consideration was given to the poor and needy.
- State and local authorities were to provide a comprehensive health service, provided they had funds, resources and manpower.
- Encouragement of private health services, provided they were in the public interest.

The last apartheid Minister of Health Dr Rina Venter did nothing to integrate the 14 Health Departments. In addition to integration there was very little co-operation

between private and public sectors to ensure the satisfaction of the needs of the majority Black population. There was a waste of scarce economic resources, poor communication between interest groups and deficient control and co-ordination of services. In spite of the concessions made, racial stratification in disease and health care remained in terms of the differences in economic and political power. The issue of ownership and control had to be changed if any change was to take place in the pattern of disease and death (Chetty, 1992). These changes did take place to some extent in the Botha and de Klerk eras.

The era of President Botha saw the ideological collapse of apartheid and separate development policies. Muller (1990) asserts that the strategies adopted by Botha's successor de Klerk in the 1990s was not by deliberate political choice but by the inevitable forces impinging on the South African regime internally and externally. For example, in 1989 there occurred a massive non-violent defiance campaign that posed serious challenges to apartheid health. In this campaign, thousands of Blacks arrived at White health facilities and demanded treatment. This pressurised the government into announcing in May 1990 that hospitals would be desegregated and open to all. However, 22 provincial hospitals did not admit any African patients in that year (SAIRR, 1992: 109).

Attempts were made to rationalise health services and provide efficient and cost-effective services to more people (SAIRR, 1992; Wisner, 1991). Although Own Affairs continued to exist until a negotiated constitutional dispensation came about, there were announcements that there would be a restructuring and rationalization in the health sector. The main features of this restructuring according to SAIRR (1992: 112) were the following:

- A single role player was responsible for the different health levels: primary, secondary and tertiary.
- The national health policy, plans, norms and standards and fund allocations were to be the responsibility of national government.

- The 13 academic hospitals were to become autonomous and run by a management board and not the provincial administration.
- Secondary health services (including provincial hospitals) were to be the responsibility of the provincial administrations and the ten non-independent Homelands.
- The Department of National Health and Population Development, the three Own Affairs administrations and provincial and local authorities were responsible for PHC.

Despite significant changes occurring and laws being abolished, desegregation cannot be seen in isolation from the control measures that were maintained by other structures. It led to the post-apartheid era facing the residual effects of apartheid health. To counteract some of the most adverse effects of apartheid health care, the ANC held conferences and workshops on health and health care to chart the way for the future. One notable national conference was that held in Durban in 1991, the principles of which are to be found in the post-1994 health policy. The principles formulated at this event are to be found in a Bill of Rights.

The conference recommended that:

- there should be a single ministry of health and social services;
- health services should be unified, non racial, accessible and affordable;
- the focus should be on those most in need;
- major diseases such as TB should be eradicated;
- health care should be financed by public funds with no one being denied access by their inability to pay;
- most health care was to be provided by public health services;
- ways should be found to involve the private health sector in the national health system;

- the cost of private health care should be regulated;
- health workers (doctors and nurses) were required to do compulsory service in rural areas;
- a national drug policy which was cost-effective was to be established; and
- relationships should be developed between traditional healers and the rest of the health service.

(SAIRR, 1992)

The impact of apartheid on health and health care was destructive and had a deleterious effect on the health of the majority of South Africans. When the Homelands were created, the government paid little concern to the capacity of these areas to sustain a population or develop an economic base. Additionally, adequate housing, water, sanitation, schools, hospitals and other public services were infrequently provided. Blacks were not permitted to live near their urban places and commuted long distances to cities for employment. In 1986, the repeal of the pass laws eased legal restrictions on migration to cities and townships by people searching for work. However, migration caused a proliferation of informal settlements on the periphery of urban centres (AAAS, 1998). The conditions in these settlements such as make-shift housing, lack of protected water, absence of sanitary facilities, threatened the health of residents and increased the spread of diseases (Wilson and Ramaphele, 1989b). Few people in townships and informal settlements had access to safe and adequate water supplies. Women and children travelled long distances to collect water in buckets and other containers. The disposal of sewage was another problem. The lack of adequate sewage disposal, combined with hot and humid conditions together with heavy rainfall created enormous health problems such as infectious diarrhoea, gastrointestinal disorders and worm infestations in these settlements (AAAS, 1998). A study conducted by the Community Agency for Social Enquiry (CASE) (1995) found that two-thirds of the African population was affected by poor public health conditions such as overcrowding, lack of electricity, clean water and sanitation. Access to health care and the segregation of health facilities and services was also major problems. Almost all public hospitals had segregated wards for a specific race

group. People sometimes did not have access to a nearby hospital because it was designated for another race group or was located in an area that did not serve them.

The extent of the difficulties faced by a future democratic government in its transformation process was enormous. Some statistics on the impact of apartheid health policies on the health status of the population will give a clear indication of the past situation and the extent of future difficulties faced by the present State. One of the main difficulties is that there was a complete absence of significant health data and the quality of existing data varied and was sometimes inadequate. Selective data will be used in this illustration, for example, it is estimated that 50 percent of rural deaths were unregistered (McGarry and Haddon, 1993). The data will focus on the following aspects: budgets, expenditure, administration, health resources, Mean Subsistence Level (MSL), Minimum Living Level, mortality, morbidity and certain diseases.

4.2.3 Health Data

4.2.3.1 Administration, Budgets and expenditure

There was a three-tier administration, that is state, provincial and local authority. This was further divided into racial groups. Preventative, rehabilitative and curative services were administered separately. National programmes for dental services, nutrition, family planning and TB also had their own administration (McGarry and Haddon, 1993).

In terms of budget allocations, there was great variability in the country. The Cape, Natal, Transvaal and Orange Free State obtained their budgets by direct negotiation with the national treasury. For the country as a whole the expenditure on health care in 1988 was 5.7 % of the GNP, the highest in Africa and in the top thirty in the world. This was above the WHO's target of 5%. The figures are misleading as the picture of a high proportion of the GNP on health care changes when a distinction is made between the public and private sectors. The public sector proportion, although it

catered for 80% of the country's population received only 3.2 % of the GNP and the balance went to the private sector. What this meant is that 44% of the GNP proportion for health went to the private sector and only 56% to the public sector. This was less than the WHO minimum. Expenditure also differed according to racial origin and in 1987 the African and White expenditure ratio was 1:4.3. Even within the Whites only health sector there was a significant bias to urban/ curative medicine as opposed to a rural preventative bias (Coovadia, 1988: 72; De Beer and Broomberg, 1990:144; McGarry and Haddon, 1993:9; McIntyre and Dorrington, 1990:12; WHO, 1983; Wisner, 1991).

In the period 1991/ 2, although the apartheid government showed some commitment to PHC it was only capable of allocating 5% of the health budget to this sector, which indicates that it was still biased towards curative medicine. With regard to provincial budgets, over two thirds of the public health budget was allocated to the provinces. Between 1989/ 1990 and 1991/ 1992 periods, the funds allocated to provinces decreased. This resulted in cuts in provincial health services and increases in charges to patients, which was detrimental especially to the disadvantaged majority (SAIRR, 1992: 109).

4.2.3.2 Human Resources

The country had 246 Provincial Hospitals and the hospital/ patient ratio in 1991 was 1:232 which was in line with the WHO's ratio. Although the ratio seemed reasonable, when the data on the number of beds is examined, there was a shortage of 7 000 beds for Africans but a large surplus of 11 700 beds for Whites. With regard to clinics, none of the provinces met the WHO's criteria of 1:10 000 except the Homelands of Ciskei and Venda (McGarry, and Haddon, 1993: 14). In 1990, the provinces had the following clinic/ patient ratio per 10 000 viz. Natal-21 878, OFS-17 958, Cape-11 015 and TVL-19 153 which far exceeded the recommended criteria set by WHO (SAIRR, 1992:109).

In 1990 there were 23 139 medical doctors but only 10% were in the public service as 63% were in private practice and 27% were specialists (McGarry and Haddon, 1993: 14). Of the total number of qualified doctors, only about 1 000 were Black. Blacks had a difficult time gaining admission to medical schools. The extension of the University Education Act (1959) provided that anyone of colour accepted by a medical school had to obtain individual ministerial consent from the relevant ministry to attend a university. Consent was disproportionately denied to Africans. The consent system was lifted for medical schools in 1986. It was found that 50% of newly qualified doctors emigrated. This was especially amongst the Whites. The registered nurses in 1990 was 148 558 (AAAS, 1998).

Additionally, socio-economic factors induced most doctors to practise in developed areas of the country where potential patients could afford the fees and were covered by medical aid schemes. It was estimated that 75% of all doctors worked in metropolitan areas and less than 20% worked in small towns (AAAS, 1998). The maldistribution is also evident when only private practitioners are considered. The Financial Mail (1987: 12/ 12/ 17) highlighted this aspect when it indicated that 16 times as many private practitioners were in urban areas than in the 10 self governing States during the 1983-1984 period. Most of the health services were concentrated in urban areas and it was specifically targeted to the disease patterns of Whites. The bulk of the resources were spent on expensive high technology to cure chronically degenerative diseases associated with affluent lifestyles. In contrast, less than 5% of the total health care budget was spent on preventive services. The scenario becomes more depressing when the doctor patient ratios are examined in urban and rural areas.

In the 1980s, the ratio between doctors and the population in rural areas was 1:25 000 compared to 1:750 in urban areas giving rise to gross inequalities (Benatar, 1986: 529). In 1990, the ratio of general practitioners to population in the urban areas was 1:900 as compared with 1:41 000 in rural areas and which indicates an increase in the number of patients per doctor in 10 years. The discrepancy in the population doctor ratio is further illustrated in 1990 by the overall population/ doctor ratio (excluding the homelands) which was 1:1 340 whilst the ratio in the Homelands was 1:15 625

(SAIRR, 1992: 109). Also, there was a great shortage of South African trained doctors in rural areas. Over 30% of doctors who worked in mission hospitals in rural areas were from non-South African Universities (Seedat, 1984).

There was a great discrepancy in the distribution of training facilities for doctors in relation to the population distribution in the country. Gauteng and the Western Cape which had 11% of the total South African population had four medical schools with the University of Cape Town and Witwatersrand producing 40% of South Africa's doctors (Seedat, 1984). The maldistribution of human resources was aggravated by the application of apartheid policies with its forced removals of the majority of Blacks into Homelands resulting in the availability of health services in rural areas being extremely poor.

4.2.3.3 Mean Subsistence/ Minimum Living Level

Poverty in South Africa was and is still a primary health problem as is indicated below by surveys conducted between 1991 and 2000. According to Bradshaw (2000), a large proportion of the population is living in poor conditions and poverty is correlated with population group. Further, it is estimated that 61% of Africans, 38% Coloureds, 5% of Indians and 1% of Whites fall below the poverty line. Therefore, financial obstacles affect living conditions and access to those seeking health care. In 1991 about 45% of the South African Population (16.3 million) lived below the Minimum Subsistence Level (MSL). In terms of the different race groups in urban areas, 31.9% of Africans, 23.2% of Coloureds, 8.3% of Indians and 1.5 % of Whites lived below the MSL. In the country as a whole, 21.1% were effectively below the MSL (McGarry, and Haddon, 1993: 15; Race Relations Survey, 1991-1992: 109). About two-thirds of all African households have monthly incomes below the Minimum Living Level of R900 and a quarter of the population have a monthly income of less than R300 (CASE, 1995). Low incomes, combined with lack of education about health, therefore, leave the economically deprived population groups

prone to diseases such as TB, cholera, measles and widespread hunger and malnutrition (AAAS, 1998).

4.2.3.4 Mortality and Morbidity

Mortality is an indication of deaths occurring in a population. It can be used as an indicator of the standard of health or disease. The term morbidity refers to disease or cases of disease. This includes specific aspects of the incidence and prevalence of disease. Prevalence indicates the number of cases of disease existing or occurring in a population at a specific time or period despite the specific time of onset. Incidence of disease refers to the onset and increase of new cases of disease conditions during a specific period of time (Van Rensburg and Mans, 1990).

The society in which individuals live and the type and quantity of health available determines the health of a population and the risk of disease and death. In South Africa certain segments of the population are more susceptible to diseases in general and to certain diseases in particular and are at greater risk of death. According to Van Rensburg and Mans (1990) this is due in part to behaviour patterns or lifestyles associated with socio-economic and socio-cultural factors. Further, racial/ ethnic divisions correspond to socio-economic categories in the population. Certain segments of the population were very rich or poor. Many Africans and Coloureds are in the lower socio-economic categories and the Whites and Indians in the higher and more affluent socio-economic categories and therefore have different susceptibility to disease, mortality and morbidity. Susceptibility to disease results in different patterns of disease and mortality within the South African population. Access, availability, allocation and the quality of health services and facilities to certain racial groups is also important. This has led to distinct internal disparities in the profile of disease and mortality. In addition to the racial dimension in South African society, there are also rural-urban differences, socio-economic stratification, housing and residential segregation that exerted an influence on health (Rispel and Behr, 1992; Van Rensburg and Mans, 1990).

In the opinion of Van Rensburg and Mans (1990), the African population in the country were more exposed to the risk of contacting such diseases as TB, typhoid fever, malaria and hepatitis. The Coloured community was more prone to diarrhoeal disorders, pulmonary infections, infective and parasitic diseases and diseases of early childhood. Whites and to a certain extent Indians had a low profile of acute, infective diseases and a high profile of lifestyles diseases such as ischaemic heart disease, malignant tumours and ulcers. Amongst Africans, heart diseases was extremely rare compared to Whites (Van Rensburg and Mans, 1990). Africans and Coloureds had an 80 times greater risk of dying from diseases related to nutritional deficiency than Whites. The malnutrition mortality rates amongst Coloureds and Indians in 1988 were at their worst levels since 1980.

However, the malnutrition mortality rate for Africans declined by 32% between 1987 and 1988 (SAIRR, 1992: 109). Between 1986 and 1989 the number of TB cases amongst Africans increased by 22% and Coloureds by 35%. TB has been the most frequently notified disease comprising of 61% of all notifications and was the country's single biggest health problem. In 1989 it was 211/ 100 000; 1990: 229/ 100 000, even though about one-third to half the cases were not reported (McGarry and Haddon, 1993: 14). The WHO (1983: 119) estimated that at any given time there were as many as 1 000 active cases to be found per 100 000 of the Black population. According to the South African TB Association, about 100 000 people suffered from TB in 1992 (SAIRR, 1992: 109). Tuberculosis was a disease that originated among gold and diamond workers in the 19th century. The crowding in mine hostels and poor nutrition provided ideal conditions for the disease. Although a lot of money was spent on control efforts, there were 50-60 000 new cases every year, and over 25 000 people died between 1978 and 1988 (Packard, 1989: 35). Wisner (1991) was of the view that TB demonstrated all the most important aspects of the health crisis in South Africa. These included the disparities of health between the White and the rest of the population; the role of malnutrition, sanitation and poor housing; the patterns of morbidity and mortality as determined by the spatial interaction between the peripheral rural areas and industrial centres and finally the futility of conventional biomedical curative approaches in the apartheid health system. Presently, TB has

reached epidemic proportions in the country. The Department of Health declared TB a priority and introduced the Directly Observed Treatment, Short-course (DOTS) to curb the problem. The incidence of TB in 1999 was 300/ 100 000 (Bradshaw et al, 2000).

Measles was the second most notified disease, being highest amongst Africans. In 1990 the figure for the different race groups per 100 000 was Africans: 22.8, Coloureds: 9.3, Asians: 3.4 and Whites: 9.3 (McGarry, and Haddon, 1993: 14). In recent years the incidence of measles has declined dramatically following the national measles prevention campaigns. This resulted in a reduction in the number of notified deaths due to measles. The incidence of measles in 1999 was 1/ 100 000 (Bradshaw et al, 2000). Diphtheria and polio, which are easily treated by immunisation, were common amongst Black children. There were also diseases related to poor sanitation such as typhoid, trachoma and cholera which affected the economically marginal Black population (Wisner, 1991).

Zwi et al (1988) refer to the prevalence of psycho-social and occupational diseases associated with industry and the WHO (1983) and Myers (1987) cite diseases associated with toxic substances such as asbestos and pesticides prevalent in South African society. Wisner (1991) indicated that cancer of the liver and oesophagus was more common amongst Blacks in South African society than the rest of Africa. The cause of these diseases, according to his assessment, was not known but he suggested that the deterioration of agriculture led to storage techniques which created moulds that produced carcinogenic toxin that caused cancer.

Other notable statistics that need to be mentioned are the notification rates for hepatitis per 100 000. This increased for all race groups between 1986 and 1989. Also, the number of in-patients in state psychiatric hospitals increased by 22% between 1987 and 1989 (SAIRR, 1992: 109). Respiratory diseases were also common amongst the Black population. The common contributor to such illnesses was the use of coal burning stoves in many African households (Wisner, 1991).

The prevalence of HIV has been rising at an alarming rate since 1990. It is estimated that in the next ten years, six million South Africans will die from AIDS (Bradshaw et al, 2000). Approximately 13% of all South Africans between 20-64 years are currently infected and these numbers could rise. HIV is a disease that affects mostly younger people (Steinberg et al, 2000). There will be an expected loss of young adults and children with premature deaths occurring in their prime productive years. About half of all adults who acquire HIV become infected before they are 25 years and die of AIDS before they are 35 years. HIV/ AIDS will also impact on the life expectancy of South Africans. The life expectancy in 1996 was 52.1 years for men and 61.6 years for women. It is estimated that the average life expectancy has dropped from 63 in 1990 to 57 in 2000. It is expected to be 40 years in 2010 (Bradshaw et al, 2000).

There are also gender differences with women between 15-20 years having the highest risk of infection. This is due to biological, social and economic factors. Infection rates amongst teenagers is also increasing rapidly (Steinberg et al, 2000). The antenatal sero-prevalence survey conducted in public sector clinics has been the major surveillance mechanism of HIV/ AIDS. The most recent estimate of the prevalence of HIV is 22.4% with marked differences between the South African provinces. KZN has the highest prevalence rate (32.5%) and Western Cape the lowest (7.1%). Women in their 20s comprise the majority of pregnant women infected with HIV (Bradshaw et al, 2000).

Due to HIV/ AIDS, the birth rates in the country are expected to decline due to deaths amongst the high fertility groups. Poor households carry the greatest burden of disease. They experience the greatest negative impacts but have the least reserves to cope. The greatest impact will be felt at the household level because people play the greatest role as providers, carers and nurturers. The situation is worsened when more than one household member contracts the disease. The financial impacts have been shown to be as much as 30% more than deaths from other causes. Medical costs and the reduced capacity of individuals to work also deplete household savings. Some members who are able to earn incomes are burdened with caring for persons with the

disease. Additionally, the disease stigmatises individuals and this prevents them from accessing the means of social support (Steinberg et al, 2000).

At the micro level, Steinberg et al (2000) state that the number of employees lost to AIDS deaths is expected to be between 40-50% in the next few years and this will have direct and indirect costs on business such as costs of health care, employee benefits, costs of absenteeism, lost skills, training, reduced work performance and lower productivity. They further contend that at the macroeconomic level the impacts of HIV will reduce the number of workers in the economy, decrease the public sector, corporate and personal savings and reduce direct state investment in areas such as infrastructure and education due to increased AIDS expenditure.

With no prospect of a vaccine, prevention and healthier as well as safer sexual behaviour needs to be encouraged. The greatest barrier to prevention is fear and ignorance. Most prevention efforts have been plagued by silence for fear of stigmatisation (Steinberg et al, 2000). There is an urgent need for people to change their behaviour. Sexual behaviour change is complex and requires an integrated, intersectoral approach at all levels of society to create a social consciousness that would lead to personal action (Bradshaw et al, 2000; Steinberg et al 2000). Moreover, the management of STDs needs to be strengthened and the transmission of HIV from mother to child must be prevented. The State should provide anti-retrovirals free or at a reduced cost and appropriate guidelines need to be formulated for the treatment of opportunist infections (Bradshaw et al, 2000).

4.2.3.5 Infant, Child and Adult Mortality

The Infant Mortality Rate (IMR) is measured as the number of deaths among infants under one year of age per 1 000 live births. It is universally accepted as a measure of the community health status (Bradshaw et al, 2000). The IMR amongst Coloured, Indians and Whites worsened between 1986 and 1988. Generally, the mortality rates for children up to 4 years of age for all races worsened between 1985 and 1988 (SAIRR, 1992). The IMR amongst African and Coloureds was five times that of

Whites in 1989. More specifically the IMR for Whites was 10/ 12 per 1 000 and Blacks 90/ 100 per thousand. In the country as a whole (excluding the Homelands) the IMR was 50/ 1 000. Compared to Africa (113/ 1 000) it was lower but it was almost similar to Latin America (113/ 1 000). However, it far exceeded that of Europe (10/ 1000). In South Africa as a whole, the proportionate IMR rates amongst the different race groups were: Africans: 51.8 %; Coloureds: 35.1%; Indians: 12.2 %; Whites: 8.6 %. In the same year (1989) it was found that the child mortality rates (deaths between 1-4 years) as a percentage of total deaths amongst Africans was 18%; Coloureds: 15%; Asians: 6% and Whites: 2%. A White child had a six times better chance of survival, beyond the first six months of life, than an African child (McGarry and Haddon, 1993; SAIRR, 1992; Seidman, 1980; Wilson and Ramaphele, 1989b). According to Bradshaw et al (2000), the under five mortality rate was 61/ 1 000 between 1988 and 1998 with high rates in the Free State, KwaZulu-Natal and the Eastern Cape.

The high mortality rate amongst Black children was attributed to malnutrition, TB, dysentery and gastro-enteritis. The most common cause of deaths was the complication of malnutrition with gastro-enteritis. More specifically, Bradshaw et al (2000) suggest that the major causes of death during infancy are conditions that occur during the prenatal period (22%), low birth weight (20%) and diarrhoea (16%). For children aged 1-4 years, the most common cause of death is injury (24%), followed by diarrhoea (20%), malnutrition (13%) and lower respiratory infections (9%). In 1995, AIDS accounted for 3.2% and TB for 3.1% of the deaths of children aged 1-4 years (Bradshaw et al, 2000). Additionally, poor immunisation caused preventable childhood diseases such as whooping cough and measles have become common causes of death. Besides the direct infection of children through multiple causes, mothers suffering from infections tend to have serious difficulties in pregnancy and childbirth. Children born from infected mothers had generally low birth weights, which increased the rate of potential mortality (Carmichael, 1981; Wisner, 1991).

Premature adult mortality in the country has been high as a result of the triple burden of poverty-related diseases such as TB, diarrhoea, injuries and chronic diseases such

as hypertension and diabetes. Deaths among men are dominated by injuries with TB being the most important infectious disease causing deaths amongst all age cohorts. Ischaemic heart disease, diabetes and cancers play an important role in the 45-59 year age groups. Presently, this pattern is rapidly being affected by the impact of HIV/AIDS. According to the estimations made by Bradshaw et al (2000), premature adult mortality (measured as the probability of a 15-year-old dying before the age of 60 years) is increasing and will reach levels close to 80% within the next ten years.

4.2.3.6 Inequalities in Health and Health Care

In South Africa inequalities are expressed in terms of accessibility, attainment, utilisation, service quality and facilities in the health sector. These resulted in inequalities in health status and varying health risks and chances of survival amongst certain population groups. Inequality is a complex problem in the country but generally the sources of inequalities are socio-economic status, wealth, race/ colour and geographical areas. On an average, Whites earned four times more than Africans per month in almost all sectors of the economy. The main problem was that incomes were unevenly distributed with Whites receiving 64% of the national income and Africans receiving 26% (SAIRR, 1982). In addition to the broad categories referred to above, there are various related issues such as the disproportionate distribution of resources; over and under concentration of personnel, services and facilities; unequal availability and provision of services and facilities; unequal accessibility and use of services and facilities and unequal service quality. The inequalities served to strengthen the privileged socio-economic position of Whites and perpetuated repression, poverty and deprivation of Blacks in South African society (Seedat, 1984; Van Rensburg and Fourie, 1994).

Better health care was only received by the employed, rich and those with health insurance. To those in society who, through no fault of their own, were unemployed, poor or had no insurance, health care was unaffordable and inaccessible. The socio-economic stratification was closely tied to race and colour. The minority White group were positioned more favourably than other race groups and therefore had a

preferential claim on health care resources which made membership of a race group leading to inequalities in health care. These inequalities were strategically created and maintained by the State for White privilege with its discriminatory and oppressive policies. It was common to concentrate health care supply in favour of Whites and exclude Blacks from these facilities. In the rural and peri-urban areas where most of the deprived populations lived, the situation was desperate (Van Rensburg and Fourie, 1994).

The area and conditions in which people lived was also a cause of inequalities. Most of the health personnel and facilities were biased towards urban and metropolitan areas with the majority of rural areas being under-provided and under-served. In White areas there was a high allocation of personnel and amenities, with over-servicing and over-provisioning being normal. In the peri-urban and informal settlements, services and facilities were absent or sparsely provided. This situation was aggravated by geographical conditions with many areas having poorly developed infrastructure or no infrastructure at all. In some areas, access to services and facilities was difficult because of the terrain, poverty and backwardness (Van Rensburg and Fourie, 1994). For example, access to piped water inside the home has got worse in the last few years and has dropped from 45% to 39% and may be the result of the increase in the number of households or the fact that the State has focussed on the provision of piped water outside homes. However, the proportion of households with access to piped water has increased from 82% in 1996 to 87% in 1999. With regard to sanitation, the proportion of households without access has decreased from 12% in 1996 to 10% in 1999, showing a slight improvement in a transforming South Africa (Bradshaw et al, 2000).

The cause of structural inequalities was the absence of a central health policy, the incoherent legislation, the authoritative structures and policy measures and the pluralistic health care system which was fragmented according to race, functions, control and area. The apartheid system and White dominance thus caused structural inequalities with its discriminatory and undemocratic measures, structures and practices (Van Rensburg and Fourie, 1994). The apartheid policies determined that

the differentiated incidence of disease and mortality was socially structured due to enforced inequalities in the society and the denial of the vast majority (WHO, 1983). There is therefore, no doubt that apartheid policy created marked disparities in health status and health care delivery between Blacks and Whites in all areas in South Africa. For example, amongst the Whites there existed diseases of wealth whilst Blacks experienced diseases of poverty.

The medical profession in the era of apartheid should also take much of the blame for the inequalities. The profession had specific priorities and modelled health care delivery to suit professional and vocational interests. They rejected the type of care that was appropriate and which suited the needs of the majority of people. Emphasis was on institutional and curative care and not on prevention (Van Rensburg and Fourie, 1994).

It is thus clear that apartheid planning had a devastating effect on the lives of the majority of South Africans. Apartheid had deprived the Black population group of the opportunity to establish equilibrium with the environment in its total physical and social context. The problems are being intensified with more people being urbanised. Presently, about 55% of the population are urbanised. There is a lack of water and sanitation facilities and services in expanding informal settlements, which is a major obstacle to good health. Among the 22 million people who reside in urban and metropolitan areas in South Africa, 20% of the population have minimal water and 33% minimal sanitation (McGarry and Haddon, 1993: 9). The present State had inherited enormous problems in terms of health and health care and drastic steps were needed. Numerous challenges were faced by the health care system. Millions of people had no access to the most basic services whilst a minority of the population were offered services compared to the best in the world (Burger, 1997).

Benatar (1992) argues that the situation was complex, given the political, economic and social contexts. Within these broad areas numerous significant factors need to be highlighted such as growth, industrialisation, urbanisation, international recognition, support for human rights, abhorrence of any form of discrimination, which could

ensure the elimination of apartheid policies (Burger, 1997). Democratic elections took place in 1994 and a new non-racial, non-sexist, democratic government led by the African National Congress came into power. In this new social order, there was space for individual rights and freedom within a participatory democracy. The new government had much to do in attempting to reverse past policies and attitudes in a transforming society. The formulation of policies and strategies for the reconstruction and development of the country and health and health care in particular to improve the conditions of all in the nation was thus a priority. These issues will be dealt with later in this chapter.

4.2.3.7 Health, Social Reproduction and Struggle

In South Africa women have the task of ensuring the social reproduction of a cheap labour force. Children must be nurtured, protected and educated to take up their roles to continue the socio-economic system as adults. Health systems should therefore cater for more than the birth of children. In order to understand the crisis in health, there should be an appreciation of the often difficult and impossible conditions and circumstances under which women struggle to feed, shelter and care for their children. According to Wisner (1991), there is sufficient evidence to indicate that child mortality and morbidity were directly and indirectly related to the labour of women in social reproduction to replenish a cheap labour force.

From numerous radical analyses of the future of mothers and children during the 1970s, (Davies, 1979; Legassick, 1974; Slovo, 1976; Wolpe, 1972), it is clear that capitalist growth in South Africa required racial oppression to ensure the reproduction of a cheap labour force. According to Wisner (1991), it was implied also that racial equality would make capitalism impossible or the overthrow of capitalism would cause racial oppression to disappear and end the socio-spatial reproduction of cheap labour automatically. It is doubtful whether the role of women and their impact on child health will change significantly in the present transforming democracy. The country has inherited patterns of socio-spatial labour reproduction that may not be easily changed. The role of women will continue to be a struggle and the health of

children does not have easy and quick solutions (Anderson and Marks, 1989; Bradshaw et al, 2000; Packard et al, 1989; Wisner, 1991).

4.2.3.8 Health and Human Rights

According to the American Association for the Advancement of Science (1998), the health and the human rights of the South Africans were violated by detentions without trial. They estimated that between 1960 and 1989, about 73 000 detentions took place. Seventy percent of the detentions took place between 1984 and 1988. During the national state of emergency (June 1986 to June 1988), 30 000 people were detained with 40% being children under 18 years. It was a common practice not to inform relatives of detainees until weeks or months later. There were numerous deaths in detention and the courts often ruled the deaths as suicides or accidents without proper evidence. Additionally, medical negligence contributed to some cases of deaths in detention as was indicated in the earlier case of Steve Biko (AAAS, 1998).

4.3 THE RECONSTRUCTION AND DEVELOPMENT PROGRAMME (RDP)

The RDP was a plan formulated to address the many social and economic problems facing South Africa. It focused on problems such as lack of housing, violence, lack of employment, inadequate education and health care facilities, lack of democracy and a declining economy. The interconnectedness of these problems was recognised and the programme had a vision to mobilise all people in South Africa and all resources to get rid of apartheid and build a non-racial and non-sexist society (ANC, 1994). It was based on the Freedom Charter of the African National Congress. The Freedom Charter makes the pledge of “A Health for All” (Suckling and White, 1988: 207). Some of the elements outlined in the Freedom Charter are:

- all people shall have the right to live where they choose, be decently housed, and to bring up their families in comfort and security.
- a preventive health scheme shall be run by the state.
- free medical care and hospitalisation shall be provided for all, with special care for mothers and young children.
- slums shall be demolished... (ANC Freedom Charter cited in Wisner, 1991: 121-136)

Whether these idealistic visions of the Freedom Charter and the RDP can be achieved remains to be seen although the move to a democratic South Africa is in place.

In terms of health care, the aim of the RDP was to ensure that all South Africans received infinitely better health care and that the mental, physical and social health to be improved to contribute to increased prosperity and improved quality of life for all (ANC Congress, 1994). The document also stated that policies affecting health should consider South Africa as an integral part of the Southern African region with regional responsibilities to prevent and combat the spread of disease.

Another important area that was emphasised was that of women and children. It made provision for free health care for all children under six years of age and all homeless children at State clinics and health centres. Preventative and promotive health care for children was also to be improved. Breast-feeding was to be encouraged and promoted with a code of ethics on breast milk substitutes being enforced. The document also called for a more effective immunisation programme and the eradication of polio and neo-natal tetanus within two years. The RDP provided the basis for the formulation and development of all South African policies. Although it is recognised that health is an integral part of all other sectors, for example, housing and water, for the purposes of this discussion the focus will be on the health policy.

4.3.1 Health Plans and Policies

4.3.1.1 The National Health Plan

The National Health Plan addresses the fragmented, inefficient and costly health services of the past apartheid era. The basis of the plan is to divide the country into health districts that are to be administered by district health authorities that are part of local government to essentially provide Comprehensive Primary Health Care (CPHC). There are also secondary and tertiary levels of health care provided by national and provincial governments. It is envisaged that there would be close co-operation between the different organisational levels which are designed in such a way that people have appropriate levels of care that are affordable to individuals (ANC Congress, 1994). Burger (1997) states that the restructuring of the health system was based on the 1993 interim constitution and the RDP. It sought to amalgamate the fourteen former health departments into a single national health system with one national and nine provincial departments.

4.3.1.2 Health Policy

The South African Health Policy was formulated by national and provincial health departments according to the ideology, principles and priorities of the RDP of the country. The basic tenets of the health policy are the achievement of equity and improved quality of life of people. What this entails is to meet the basic needs of health care, that is, clean and healthy environment for all. Local government is charged with the task of implementing the goals of the RDP. The aims of local government are to transform health delivery so that the national health system could be implemented. This entails providing CPHC at the district level, that is, monitoring the nutritional status of disadvantaged communities and taking remedial action; ensuring safe and healthy living and working environments; providing effective waste management and pollution-prevention services and most importantly, providing access to clean, affordable and sufficient drinking water (Government Gazette, 1997; Munro and Wild, 1996).

4.3.1.3 National and Provincial Health Department

The health authorities at the national level are responsible for the following: formulating health policy with the required norms and standards; building effective capacity in health departments; ensuring appropriate utilisation of health resources; delivering national services which cannot be delivered cost-effectively at other levels; co-ordinating information systems and monitoring national health goals; regulating the public and private health care sector; ensuring access to cost-effective and appropriate health commodities at all levels and liaising with health departments of other countries and international agencies (Burger,1997; Government Gazette, 1997).

At the provincial level, the health department is responsible for:

- formulating and implementing provincial health policy, norms, standards and legislation;
- the provision and rendering of health services;
- the planning and management of provincial information systems;
- conducting research on health services to ensure quality;
- ensuring quality control of all health services and facilities;
- screening applications for licensing and inspecting private health facilities;
- co-ordinating funding and financial management of the District Health Authority (DHA);
- ensuring effective consultation on health issues at the community level and finally
- ensuring that all delegated functions are performed satisfactorily (Burger,1997; Government Gazette, 1997).

4.3.1.4 District Health System (DHS)

Barron and Sankar (2000) asserts that the Minister of Health and Members of the Executive Council (MECs) for the nine provinces have a vision of the DHS as being the cornerstone of a national health system and located at the local government level. The DHS has therefore become the largest and most far-reaching aspect of health sector reorganisation. The development of the DHS is closely related to the demarcation of new local government boundaries. The number of municipalities in the country was reduced from 834 to 285 and the health district boundaries are being re-aligned to correspond with Metropolitan and District councils (Barron and Sankar, 2000). The development of the DHS based on PHC as well as community participation and inter-sectoral collaboration are cornerstones of this system and implied the establishment of health districts. According to Burger (1997), the country was divided into 48 health regions, each with a regional director. The task of the director was to create health districts within each region. In total there are 157 health districts that were demarcated in the entire country except the Northern Cape, where for economic reasons regional health services were maintained. In KwaZulu-Natal demarcation is still continuing. In the country as a whole it is estimated that there would be 170 health districts (Burger, 1997).

When establishing the DHS system, the priority was to identify effective procedures, methods, structures and implementation strategies that were practical and appropriate. Generally the principle was that each district health authority would provide comprehensive health care at primary and secondary levels and would include community involvement, planning and decision-making with maximum flexibility to develop institutional structures and other delivery mechanisms (McGarry, and Haddon, 1993). More specifically, the District Health System Policy lays out the conditions for achieving a District Health System (DHS). At the head of the District Health System is the District Health Authority who manages the CPHC with the Provincial and National government providing support and guidance. The DHS has distinct demarcated boundaries, which at the moment coincide with existing political and administrative boundaries. In this respect, the local government boundaries were

preferred because it was of a manageable size and had reasonable transportation infrastructure. In the district, the health care facilities and workers would provide CPHC which were appropriate to the local needs of people. The management of services and decision-making is at the district level with intersectoral collaboration taking place with other sectors such as the departments of housing, water and sanitation. The District Health Authority is accountable to all communities and their representatives. Equity in service provision is the ultimate goal of the policy. Community participation, decentralised structures and autonomous management are considered vital in creating a system that closely relates to people. The legislation and policies formulated focus on transformation of health services to a system that is accessible, efficient and equitable. It targets the needs of disadvantaged communities with local government playing a significant role in the entire process (Barron and Sankar, 2000; Government Gazette, 1997; Munro and Wild, 1996; Owen, 1995).

4.3.1.5 Local Government and the South African Constitution

The South African constitution of 1996 outlines the functions and powers of local government. It is clear from this document that local government has the right to provide local health services and the national and provincial government are charged with the task of building the capacity of local government to undertake their functions. The KwaZulu -Natal Proclamation of 1996 outlines the Metro's powers and functions. The role of the Metro is to provide services to assist, enable and empower local councils to deliver PHC services. These include specialist services, co-ordination and bulk service delivery (Government Gazette, 1997; Munro and Wild, 1996).

4.4 THE PROVISION OF HEALTH IN KWAZULU-NATAL AND THE METRO

Both public and private sector organisations provide health care in the province. At the public level the provincial and local governments are responsible for health

provision. The Metropolitan (Metro) and local councils have the responsibility for PHC. Local government funds most of its own health services. The balance of funds for health provision is obtained from the provincial health services. Public health in areas such as hospitals and ambulance services is also funded by the national and provincial health services (Munro and Wild, 1996).

In the private sector, there are various organisations providing health care. These are general practitioners, traditional healers, private hospitals and emergency services such as ambulances and paramedical personnel (physiotherapists/ occupational therapists). In addition, occupational health and safety services are provided by commerce and industry (Munro and Wild, 1996). Non-government, community-based organisations (NGOs and CBOs) and religious organisations also provide health care. Some of these are: the Cancer Association and FOSA; Hospice and civic organisations, to mention a few.

4.4.1 The Metro Health Department

The Metro Council governs the Metro Health Department. There is also a Metro Health Forum with representatives from the local councils and the district health forums. Their function is to advise the Metro Health Department and the Metro Council. The Metro Business Plan outlines the steps for local government to implement the district health system and deals with the matters of governance of CPHC (Munro and Wild, 1996).

4.4.2 Present Initiatives and Philosophy

At the moment an attempt is being made by local government to provide promotive/ preventive and curative PHC services in the form of personal health/ environmental health/ health education and development services. The target populations are the disadvantaged residents. However the quality and quantity of health services differs between and within the Metro Areas (Munro and Wild, 1996).

The CPHC philosophy has been embraced in the present policy and strategies. As mentioned earlier, PHC is the point of first contact with health service delivery. The main features are accountability, participation by organised community structures and focus on the principles of social justice. The potential of the health system to deliver on the ideology of the RDP has been increased with the emphasis on collaboration with the different local government service departments (ANC, 1994). At the level of the local government health services the ultimate vision is to improve the Quality of Life of residents by creating safe environments and a healthy city with the phased implementation of services. The overriding mission is to provide equitable, acceptable, accessible, appropriate, affordable, accountable, efficient and effective CPHC in the context of the district health system. Those areas that are the most needy have priority. Needy areas are those services needing upgrading, do not have health services, have under-provided services or have services which have collapsed. There are great disparities amongst Local Council in terms of human resources and the allocation of funds. There is vital need for equity in resource allocation. Moreover, there is also no clarity on the intention of provincial government to subsidise local government health services (Munro and Wild, 1996).

Mechanisms are to be established for adequate intersectoral collaboration and consultation with all role players who impact on community health. Partnerships are to be created with NGOs, CBOs and the private sector. The partnership with the national and provincial governments serves to link the secondary and tertiary sectors of health care. At the local level, community participation is vital. In this respect, the establishment of community health forums as well as clinic and health committees would ensure participation and also provide links with other community structures (Munro and Wild, 1996).

4.4.3 PHC in the Metro

According to Munro and Wild (1996), PHC services in the Metro regarding personal health, environmental health, health education and development services are well developed. In terms of community participation some community development

forums and health forums have been established in a few communities. The basis of participation is input in policy formulation and management of health services in the metro.

With regard to personal health services there is need for more comprehensive services. This is due to the fact that about 40 % of the population are comprised of children less than 18 years. There is also a very high incidence of violence which necessitates 24 hour emergency treatment centres. In addition there is a high incidence of HIV/ AIDS with 15-18% of the sexually active population being infected (Urban Strategy Department, 1996). Another drawback is the scarcity of clinics in the Outer West and Southern part of the Southern Local Council. Among those clinics which are already established there are numerous obstacles and problems which need urgent attention, the most important of which are the opening hours of the clinic, risks to staff safety, access to clinics, lack of public transport for staff and the general public and finally, staff conditions of service. There is great need of capital funds to employ additional staff at the clinics and increase the number of clinics. Clinics should be given a service package to fund additional staff, finance an adequate essential drug list and an adequate ambulance service (Munro and Wild, 1996: 5; Urban Strategy Department, 1996).

4.4.4 DHC in the Metro

With regard to the DHC in the Metro, a Technical Planning Committee (TPC) was formed in 1995 to develop a health service plan for the delivery, organisation and management for all the citizens in the area by contextualising a Health Plan in terms of the National Health Plan. The Health Plan considered the provision of comprehensive health services at primary, secondary and tertiary levels within the public and private sectors and defined the goals, aims, objectives and targets for achievement. The Health Plan also made proposals for the rationalisation of existing fragmented, uncoordinated and inefficient services in the Metro. At the time of inception, the TPC used the borders of the Durban Functional Region but has included most of the Durban Metropolitan Area and this will give a good indication of the

proposed Health Districts, existing and proposed hospitals and Community Health Centres CHCs (Map 4.1, 4.2 and 4.3). The health system is based on a tiered system of autonomous managed units, each monitored and supported by its higher level. A brief discussion of each level will be undertaken.

The community health centre is responsible for co-ordinating services to a defined community served by that centre, its satellite clinics and out-reach and community services. The services will be managed locally and be accountable to a community health committee. According to the Dept. of Health –KZN (1995: 8-9), the services at the community level will include the following:

- environmental health and nutrition services;
- family planning services; ante-natal, delivery, post-natal and neonatal services;
- preventative, promotive and rehabilitative health services for children;
- treatment of common illnesses/ injuries and communicable and non-communicable diseases;
- community rehabilitation, mental, geriatric and nursing and home care services;
- essential accident, emergency, laboratory and diagnostic services; and
- occupational health and basic medico-legal services.

The district was defined as a multi-sector service area. Each district will be the responsibility of a district health authority that will co-ordinate and support all health services. District health personnel will manage the health services. The functions of the district health authority include planning; provision of community health services, provision of essential medicines for community and district health services, control and management, provision of appropriate facilities, ensuring community participation, managing the district budget, ensuring equity in health and health service provision, monitoring and evaluating health and health services, rendering an health information system, providing appropriate personnel and access to training and research, and ensuring co-operation with other districts and health service providers.

The services provided at the district will be supported and monitored by the provincial health authority. As mentioned previously, the province will be served by a regional hospital with its regional authority, which will in turn be monitored by the provincial health authority (Dept. of Health-KZN, 1995).

In the Metro, the district boundaries are congruent with those of the Metropolitan Sub-structures. According to the Dept. of Health-KZN (1995: 12-13), the following are the proposed districts in the Metro (see Map 4.1- numbers correspond to the numbers on the map):

1. Central Durban: from Louis Botha Airport to the Umgeni River and the outer ring road as the Western boundary
2. Durban north to Umhlanga, including Newlands, KwaMashu, Glen Anil, Melkhoute and Duffs Road
3. Phoenix, Umhlanga, Mount Edgecombe and Waterloo
4. Verulam, Tongaat, Hambanathi and La Mercy
5. Ntuzuma, Newtown and Inanda
6. Westville, Clermont, Kwadebeka, Chesterville, Reservoir Hills and New Germany
7. Pinetown, Kwandengezi, Marianhill, Marianridge, Welbedhact, Klaarwater and St Wendolins
8. Kloof Ridge to Cato Ridge including Mpumalanga
9. Chatsworth, Queensburg, Shallcross, Yellowwood Park, Old Line Suburbs and Lamontville
10. Umlazi, Prospecton and Louis Botha Airport
11. Isipingo, Amanzimtoti, Kingsburgh, Umgababa, Illovo, Folweni and Kwa Makuta

4.4.5 Environment Health Services in the Metro

The Durban Metro Area is an economic hub with the influx of a great number of migrant workers. This has serious implications for infection control and the management of environmental health. There is a proliferation of informal settlements which poses serious challenges. About 330km of rivers are found in the Metro and most of these are inadequately drained. To prevent the spread of diseases these rivers need to be monitored on a regular basis and actions taken to prevent diseases (Hindson and King, 1996; Munro and Wild, 1996).

The Metro Environmental Department has started implementing Local Agenda 21 and the concept of a "Healthy City" and is thus involved in many identical activities to those of the health departments. However, there is need for closer co-ordination and co-operation between local government departments. The major obstacles at the moment are the fragmented responsibility for services and monitoring, the lack of inter-sectoral collaboration on environmental issues, the lack of finance to increase the staff compliment and finally, the limitation posed by existing environmental legislation (Munro and Wild, 1996).

4.4.6 Health Education and Development Services in the Metro

This sector is often neglected in favour of personal and environmental health. Education and development services are provided by health professionals who undertake this as part of their normal duties which is totally insufficient. Moreover, staff resources are spread unevenly amongst the different councils and there is need for additional staff. There is also the need for closer links between local government departments involved in education and development and NGOs, CBOs and the private sector (Munro and Wild, 1996).

Figure 4.1: Health Districts in the Durban Functional Region (DFR)

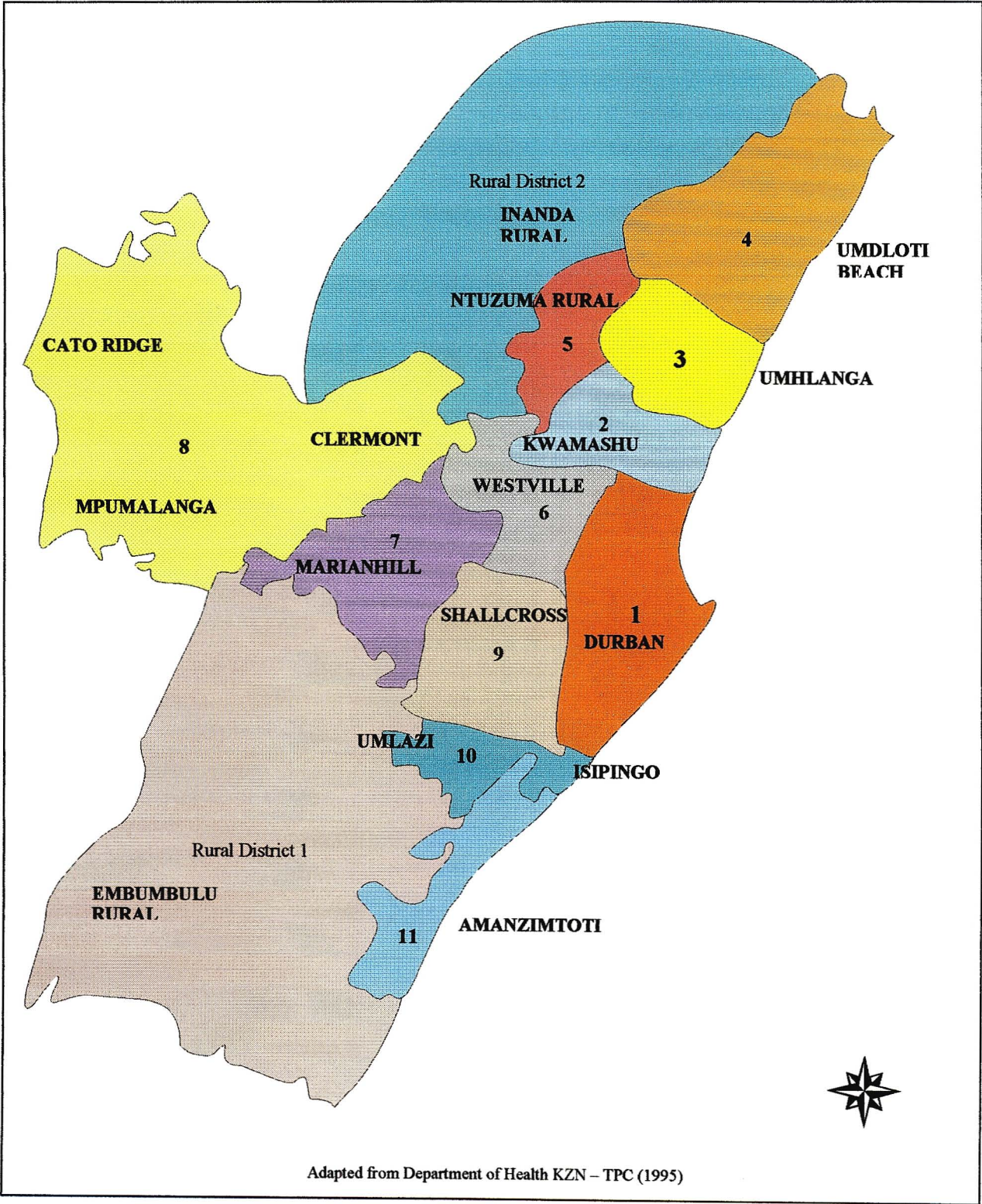


Figure 4.2: Health Districts, Existing and Proposed Hospitals in the DFR

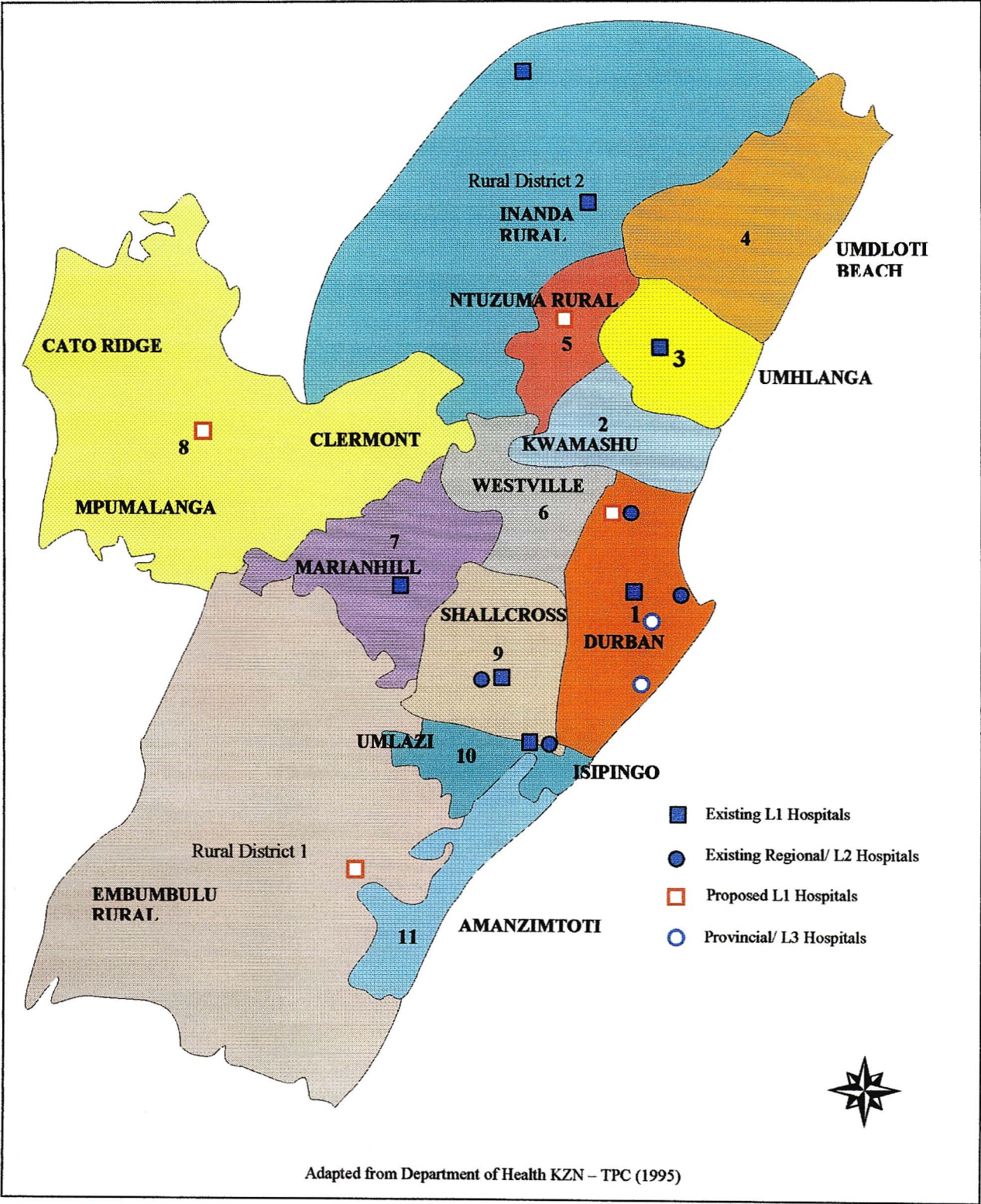
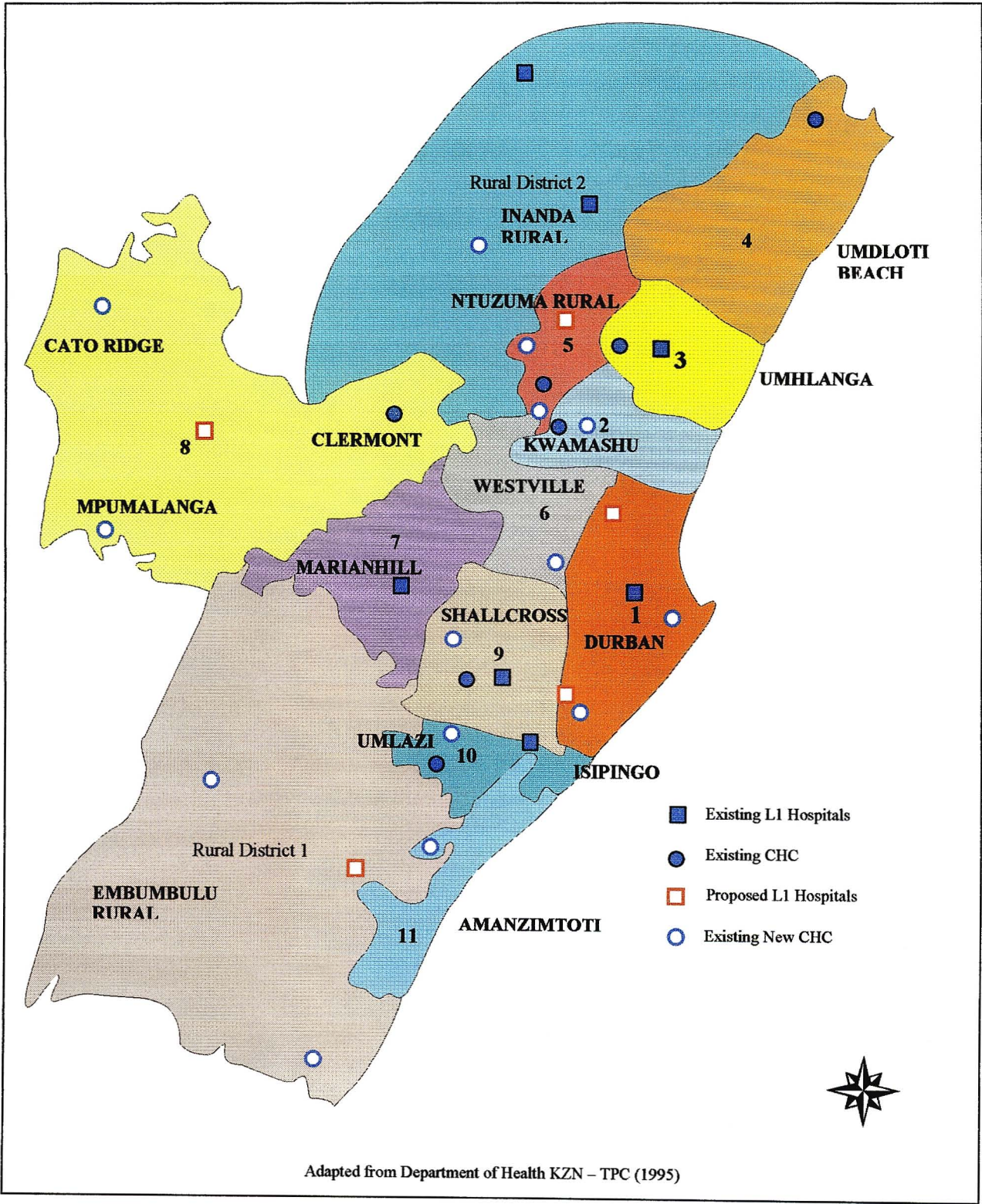


Figure 4.3: Health Districts, Level 1 Hospitals and Community Health Centres



4.5 EVALUATION AND CURRENT DEVELOPMENTS IN HEALTH AND HEALTH CARE

4.5.1 Health Achievements

Since 1994 there has been great progress in the health sector to overcome the apartheid legacy. According to Buch (2000), the following achievements can be identified:

- The establishment of a unitary health system with a single national health system and nine provincial Health Departments;
- The appointment of Black managers to executive positions;
- The removal of structural racism;
- The upgrading of fixed clinics and health centres and the building of 500 new clinics;
- Free PHC to the disadvantaged;
- Variable progress in establishing the District Health System;
- Community service for doctors who were newly qualified;
- Contracting foreign doctors to serve in under-serviced areas;
- A primary school nutrition programme;
- Programmes to tackle priority health problems, for example, childhood illnesses;
- Restructuring the district surgeon system;
- Legislation to steer the health sector to greater effectiveness;
- Transformation of health governance institutions;
- The launch of a Patient's Charter; and
- An immunisation campaign.

However, Buch (2000) mentioned a few negative aspects and these were: the HIV/ AIDS epidemics which the state has not come to grips with, the reduction of the health budget in real terms due to health inflation and the widespread promotion of health staff. Promotion of health staff is not a bad thing in itself, but promotion not based on competence may have negative impacts on the health system.

4.5.2 PHC

The State is committed to providing basic health care as a fundamental human right. In April 1996, free PHC was launched. This was the first part of the universal health care plan that provided free medical services at public PHC facilities such as clinics and community health care facilities provided by the local authorities. At these facilities patients were to be treated by specially trained primary health care nurses. The aim was to avoid patients going to hospitals for minor ailments and use services provided at these health facilities for family planning, maternity care, prevention of communicable/ endemic diseases and accident/ emergency services and immunisation. In cases where there were complicated problems, referrals were to be made to hospitals (Burger, 1997). A PHC Facilities Survey conducted by Van Rensburg et al (2000) made numerous observations when comparing 1997/ 1998 and 2000 facility survey data. They found that significant strides have been made but there are areas in which inequity has increased. Many areas of PHC remain in dire straits although there have been marked changes in the betterment of PHC. However, improvements in certain areas of PHC have occurred at the expense of others. The main findings of this survey have been divided into positive and negative aspects and are summarised below. The positive aspects are:

- An increase in the following services: TB sputum testing; turnaround times of laboratory tests have improved; DOTS system has been implemented in 8 out of 10 fixed clinics; 80% of satellite clinics conduct home visits; most health workers perceive the referral system to be efficient; HIV/ AIDS skills training has increased; electricity to fixed clinics has increased from 65% in 1997 to

92% in 2000; nurses in fixed clinics have a lower patient load and condoms, oxygen, oral contraception are more readily available than in 1998.

- Vast improvement in antenatal care.
- Moderate improvement in immunisation, family planning and postnatal care.
- Slight improvement in Sexually Transmitted Disease (STD) and TB care.

On the negative side Van Rensburg et al (2000) found that:

- Various services were not available: one quarter of fixed clinics have no ambulances; STD and TB skills updating has a low priority; essential PHC equipment is not available at some fixed clinics; the availability of telephones at fixed clinics is unsatisfactory; electricity was interrupted frequently and poor water supplies remained a major problem in PHC facilities.
- The availability of PHC testing was unsatisfactory: HIV tests were less available than syphilis tests; HIV testing was low at fixed clinics; Pap smear tests at fixed clinics are low; less than half of fixed clinics offer Rhesus and pregnancy tests.
- Vehicles were not road-worthy at one third of mobile clinics.
- Medical wastes were not incinerated at one-fifth of fixed clinics.
- Some drugs such as iron tablets were not readily available.
- TB record keeping was poor and there were few clinic committees established.

Some of the aspects mentioned above will be explained in more detail below.

4.5.3 Essential Drug List

A policy was also formulated in respect of drugs in 1996. An Essential Drugs List (EDL) was compiled which streamlined the existing drug list of 3 000 drugs to a

package of 400 thus reducing the cost. The ultimate goal was to ensure the availability of essential drugs, which were safe, effective, and of good quality with available resources. The EDL and Standard Treatment Guidelines (STG) for PHC was made available to the Provincial Health Departments in April 1996 (Burger, 1997).

4.5.4 Emergency Treatment

In November 1996 a bill was passed which ensured that every person was entitled to emergency treatment at any public or private medical facility which was able to provide the necessary care. Treatment could only be refused by private hospitals if the patient could be transferred to a public institution without serious risk. It thus gave patients greater rights especially with regard to the right to respect from health workers which was a major problem with apartheid health care when patients were given shabby treatment by health workers. Patients also had the right to participate in all decisions affecting their health. They were to be kept informed on their health status and the range of treatments that were available. The health workers were not disregarded as they were protected by a ten-point obligation plan that the patient had to follow. There were also plans to reform the private sector but this required legislation before action could be taken (Burger, 1997).

4.5.5 Human Resources

The effective distribution and utilisation of personnel are one of the cornerstones of the National Health Department. This aspect is of significance to the provision of an effective and efficient health system. Priority is given to those areas that are inadequately served in accordance with equality and universal access principles (Burger, 1997). Burger (1997) further correctly recognises that the problem is one of maldistribution rather than that of shortage. Because many graduates from medical schools go into private practice, it is now accepted policy that doctors must serve an additional two years in compulsory training in rural areas that are understaffed. There has been much opposition from doctors in training but nonetheless the policy was

implemented. In the short term this policy will decrease the shortage of doctors in the public sector, especially in rural areas where there is an extreme shortage. After the two-year term has been served there is still the possibility that doctors will move into private practice or emigrate as is common among members of this profession. However, there will be a constant stream serving their internship in rural areas. The State needs to find strategies to keep doctors in public service and one way to do this and save the State an enormous amount of resources in training doctors is to make the conditions suitable viz. provide incentives, increase salaries, hours of work and general working conditions such as safety and security in rural areas. Currently, it is questionable whether doctors forced to practice in rural areas by policy measures will be dedicated to improving the conditions of those whom they are compelled to serve. Trying to achieve health goals through sufferance will not achieve the intended goals of the State.

According to Buch (2000), the inability to enforce fair transfers in the public sector has blocked key aspects of transformation of the health system. He further states that the current human resources model based on health professionals is inappropriate and unsustainable. Accordingly, he states that there is a need for a large number of middle level professionals such as environmental and other assistants who need to be trained rapidly. The Department of Health should continue its active efforts to influence training and increase appropriate training. There should also be an increase of African students admissions to medical schools (Buch, 2000).

4.5.6 Clinics and Hospitals

In addition to the 3 000 State and privately subsidised permanent clinics and 1 500 mobile clinics maintained by local and regional authorities, it was announced in April 1996 that 343 new clinics were to be built and 58 upgraded. In KwaZulu-Natal, 27 new clinics were to be built, 3 replaced, 1 upgraded and additions to 13 clinics were to be made (Burger, 1997: 350). It seems that the spatial allocation of new clinics and the upgrading of old clinics is only intended to fill the spaces/ gaps left by apartheid

health policies. Further planning needs to take place in this regard, especially in terms of the distribution of populations and the satisfaction of the specific needs of different population groups in different spatial locations. This may be considered when the district health system is in place and running smoothly.

It is tragic that the transformation of the health system to a focus on PHC in the country was accompanied by the almost total destruction of the existing system by the Minister of Health. A report in the Daily News (15/10/1996) paints a bleak picture of the worsening conditions in public health institutions. It was stated that Provincial hospitals have deteriorated from what they were in the past and there is a lack of confidence in them. The author further states that the problem may be due in part to the lack of resources. The policy of free medical care for women and children has increased the demand for medical care without a simultaneous increase in resource allocation. The assumption of the new policy is that new and restructured clinics would relieve the burden on the large regional hospital. It may be too late for these hospitals when this eventually occurs. There are also staff and administrative problems in hospitals. Staff are underpaid and overworked and are sometimes callous, rude, indifferent and lazy. There is an attitude and discipline problem with the administration afraid to act and in a state of paralysis. Although the provincial hospitals are a provincial responsibility, the national ministry has considerable influence and should introduce minimum standards of behaviour and performance and change attitudes by offering decent salaries and hours of work (Daily News, 15/ 10/ 1996). These problems need urgent attention if the health care needs of the nation are to be satisfied.

4.5.7 Community Health and Immunisation

With regard to community health, the Department of Health decided to improve this aspect by the most cost effective and beneficial measure, that is, immunisation. It has therefore embarked on an Expanded Programme on Immunisation to reduce death and disability using vaccines for preventable disease. These are accessible to children and

women of childbearing age. According to Burger (1997), the current immunisation campaigns undertaken are for TB, whooping cough, tetanus, diphtheria, poliomyelitis and hepatitis B for children up to 5 years of age. Tetanus is given to women at risk during pregnancy. Additionally, there is to be a national polio day and measles is to be reduced to less than 4 000 per year. Rabies and malaria and other endemic disease control measures are to be introduced to prevent deaths from these diseases (Burger, 1997:355). It is clear that although there are noble intentions in instituting immunisation for preventable diseases, the strategy adopted is that of a vertical primary health care approach. This is in contrast to the CPHC approach advocated in the health care policy. It can, however, be seen as a short-term measure to rid the country of the most common preventable diseases with the available resources. In the long term the CPHC will be expensive because it deals with not only the provision of health care but the restructuring of communities and providing them with the basic needs for survival. This aspect was not envisaged when most developing countries including South Africa embraced the PHC ideology.

4.5.8 Nutritional Programme

An Integrated Nutritional Programme (INP) has been implemented. This forms the framework for transforming existing programmes. The strategy is to provide a Community based Nutrition Component of an INP to provide household food security (Burger, 1997). Part of this programme was the feeding scheme in schools. In assessing the programme according to media coverage, it may be stated that there was variable success with the programme but overall the scheme was a failure due in part to fraud at different management levels. The result was that funds allocated did not reach the target population it was intended for.

Another major problem is one of intersectoral collaboration, which is one of the basic principles of any PHC initiative. There is little or no evidence that any collaboration is taking place at any level of the different structures in the country. Each sector seems to have its own focus and works independently of one another, for example, the

Department of Local Government and Housing or The Department of Water Affairs. Health is a multi-dimensional entity and the Department of Health should in practice collaborate with every other sector that is related in some way with health issues. Collaboration must take place at all levels from central government structures to the local level. For example, building clinics and providing health care to people who do not have proper sanitation or a decent water supply will not improve the health of individuals or communities as people will return to unhealthy environments after being treated and the illness will recur. However, by working with other sectors and providing proper housing, water and sanitation in addition to health care will definitely improve the quality of life of people. According to Burger (1997), there is need to acknowledge that health, illness and medical care are collective matters. The State is responsible for the welfare and health of citizens and it is necessary to foster democracy and conditions for economic growth. He contends that if no attempts are made to meet the basic needs (food, shelter, clothing, water and sanitation) and fundamental social needs (education and health care), crime and violence will be perpetuated within an increasing disadvantaged class of people in the country. Those who are privileged in society need to re-align their economic aspirations within more reasonable limits so that the disadvantaged in society can accept the fact that disparities cannot be reversed overnight. The medical profession can make a significant contribution to an equitable redistribution of resources by assisting in the process for an appropriate health care system in the country (Burger, 1997).

4.5.9 Health Data

Reliable data on preventable diseases are still lacking and this must be rectified immediately. De Villiers (1997: 4) makes the following observation:

Reliable incidence rates determined at primary care level could help with the planning and delivery of appropriate health services and the monitoring of the effects of intervention programmes and new health policies.

This issue will be dealt with in more detail in the recommendations of this study. Additionally, it should be pointed out that other developments may have occurred

since writing this thesis and these should be considered in assessments of the present South African health policy.

4.6 CONCLUSION

This review was conducted with the aim of tracing the historical development of health care in South Africa from the pre-apartheid era to the present. It is evident that the bio-medical perspective is still dominant in assessing the health of the South African nation. The review also points out that significant strides have been made pertaining to the restructuring of the health care system in the country as outlined in the White Paper (Dept. of Health, 1997). It is significant that the country has a coherent, nationally co-ordinated health policy, which can be used to set priorities and control the application of existing resources in the country. The main problem, which will have to be overcome, is the process of implementation. The bureaucratic structures have been created, but there is still no proof that tangible benefits have accrued to the majority-disadvantaged populations. People must be the recipients and the goal should be the improvement in the quality of life of all South Africans, especially those in need. This will entail not only focussing on health services but by also improving the living environments of people. This is closely related to the initial arguments in this thesis and the primary empirical analysis that follows. It has been articulated that the problem is not so much the health status of individuals and communities per se, but a holistic problem embedded within the environments in which people live and work and the impacts of these environments on people's lives which leads to ill health.

The South African State's GEAR policy is limited as there is a lack of insight between the policy and the health of the nation. There is need for policy to comprise health objectives so that the impact of policy implementation could be assessed in terms of health outcomes and human well-being. GEAR is a capitalist policy and the trickle-down effect of such a policy on the health of the nation will be insignificant and may only be achieved over an extended period of time. The majority of South

Africans, after years of oppression, need immediate relief and resources should be allocated in this respect.

Although the PHC strategy is the main focus of the South African health care policy, it is beset with many problems such as the non-provision of water, sanitation and adequate shelter for those living in informal settlements. To overcome these problems and obtain effective results in people's health will take a long time to achieve. Adoption of the PHC approach is not a "quick fix" approach to solving the health care needs of the South African population but a long term undertaking which is costly but will eventually result in lasting health care for South Africa's population. PHC is costly because the focus is not only on the provision of health care but the restructuring of communities in terms of meeting their basic needs. There is little doubt that adequate income, housing and living environments are crucial in preventing illness and maintaining the health of people.

CHAPTER FIVE

METHODOLOGY

5.1 INTRODUCTION

South Africa lacks reliable health information on the majority Black population whose health conditions cannot be accurately assessed. Numerous factors determine the health of the population and these need to be examined using appropriate methodologies. Moreover, health and health care problems are not prone to compartmentalised thinking and research. There is need for an all encompassing approach that is able to yield significant results. The present approach in this thesis is one that is holistic, using a developmental framework within Medical Geography, and attempts to find solutions based on the principles of equity, efficiency, quality and accessibility. It is based on the premise that health care users should play a principal role in determining their health care needs. Geographers have made significant contributions in this regard, using various methodologies in their investigations. The methodologies utilised also have their own conceptual and theoretical basis and these need to be clarified at the outset. Some of the pertinent issues will be discussed below. The overall intention of this chapter is to thus provide some general comments on research, focus on the different paradigms used, discuss the utilisation of theory in research, provide some insight on quantitative and qualitative techniques and finally briefly review the role of geographers in health research. Additionally, specific emphasis will also be placed on the methods and techniques used in the present study. Also, background information to the case studies used in the primary research endeavour is presented.

5.2 RESEARCH, THEORY AND PARADIGMS

The common view of research is that it is a neutral, technical process. Researchers use this process to reveal or discover knowledge. However, technical knowledge is not the sole criteria because knowledge of techniques should be complimented by an

appreciation of the nature of research as a fundamental human process through which knowledge is obtained (Morgan, 1983). To appreciate the above process, researchers need to reframe their understanding about research in a way that goes beyond method alone (Moodley, 1988). Moreover, it is inadequate to justify a particular style of research as different strategies of social research draw on different associations that generate different kinds of knowledge. Therefore, the criterion as to what is significant knowledge varies according to the approach used in research, with the commonly used term being a paradigm. A paradigm is a means of breaking down the complexity of the real world and reveal to practitioners things that are important (Morgan, 1983). Theory is therefore of fundamental importance in the research process and thus a few comments on theory are undertaken below.

5.2.1 Theory in Research

According to Morgan (1983) and Moodley (1988), the use of theory in research cannot be divorced or used separately from the research process. There is a constant interplay of theory throughout the research process, from the initial selection of the research problem, the methods of investigation, data collection, data analysis and evaluation. The initial use of theory is to provide a focus for any study and provide ideas for investigations. Theory also provides alternate perspectives for field research and assists researchers to formulate and reformulate problems posed during research. For example, in the hypothetical-deductive method, progress is made by empirically testing deductions from a universal statement and results obtained are used to verify or falsify the original theory. Theory is therefore indispensable in the entire research process. Theories are formulated using different world-views or paradigms and generally there are three basic paradigms, viz., liberal, conservative and radical (Moodley, 1988).

5.2.2 Paradigms

The liberal paradigm has grown through historical experience and has been modelled by its application in public policy with the need to focus on greater concern and

awareness of significant social problems (Browett, 1984; Cooke and Robson, 1976; Gordon, 1971). The main concern in this approach is justice, welfare and redistribution within the context of democratic capitalism. Social reform is undertaken by efficient and equitable resource distribution through legislative action with the aim of ensuring that all members of society do not fall below a certain minimum level of living (Browett, 1984; Johnson, 1983).

The conservative paradigm has its historical roots in Classical English Liberalism of the 19th century. There is not much fundamental difference between the conservative and liberal paradigms because both are rooted in orthodox economic analysis and take institutions in society for granted. They, however, differ in their normative dispositions, views of the State and solutions to social problems. According to the liberal view, the State adequately reflects the wishes of individuals by group representation and is justified in acting to advance the interests of individuals. However, conservatives have greater faith in the private market and desire to limit the power of the State for fear of government inefficiency and infringement on personal liberties. Liberals view the State as effectively serving everyone's interest in contrast to the conservative view that the State does not serve anyone's interest. On a continuum of social reality, these two views reflect two extremes (Gordon, 1977).

There was much opposition to the above methodologies and practice leading to a radical critique or paradigm which sought to replace existing methodologies without any modification (Herbert and Smith, 1979). This led to the radical paradigm being adopted. It was influenced by Marxist methods of social analysis using a structuralist approach (Browett, 1984; Herbert and Smith, 1979). The approach places central importance on the structuralist constraints imposed on individuals and society through the working of the capitalist mode of production (Browett, 1984). Emphasis is placed on the organisation of production with its distributive mechanisms, the socio-political processes and the significance of decision making roles in the class structure of society (Herbert and Smith, 1979). Moreover, this paradigm treats the world as the product of deep rooted mechanisms and research strategies provide a structuralist mode of understanding rather than the focus of superficial data (Morgan, 1983).

Attention is placed on organised settings and institutions that are an integral part in creating social patterns, activities and interactions that are endemic to capitalism with revolutionary change being the ultimate aim (Wilson, 1983). With so many pressing social problems prevalent in society, revolutionary change may be difficult to achieve and Smith (1979:265) cautioned that:

Radical social change hardly seems imminent under any realistic scenario of contemporary political development....

Research, especially using the structuralist approach, has led to numerous methodological debates on the use of different methodologies with no one fixed methodology being selected. It is common to find a structuralist perspective with quantitative or qualitative methodology (discussed below) or other combinations in use. No resolution to these methodological debates has been reached and until a methodology is developed the only option is to use a methodology suited to individual researchers (Moodley, 1988; Morgan, 1983). Geographers have played a vital role in health research using different approaches, changing and adapting methodologies in line with the changing theoretical formulations and conceptions on health. It is therefore important to highlight the current role of geographers in health research.

5.3 ROLE OF GEOGRAPHERS IN HEALTH RESEARCH

According to Elliott (1999:240), a geographer's role in health research is:

... the result of a tripartite evolution: the evolution of models and definitions; the evolution of medical to health geography; and the rise of the population health perspective.

As mentioned earlier, the definition of health has seen a radical evolution since the initial attempts by the WHO (1957) which only focused on the absence of disease. It presently includes the complete physical, social and emotional well being of persons. What this has led to is the revisiting of the biomedical perspective on health and the development of models dealing with health and well being. Most of the models stress

the many determinants of health including the role of social, cultural, economic and environmental determinants that have an impact on health and well being. These alternative health frameworks have tried to reduce the role of the formal health sector on health and well being (Elliott, 1999).

Traditionally Medical Geographers had a strong quantitative emphasis with statistical studies in such areas as pathology, epidemiology and medical ecology. Spatial statistics and mapping are also common tools utilised. Recently, Geographical Information Systems (GIS) is increasingly being utilised in studies on the provision of, and access to health care resources (Wilton, 1999). There is clear evidence that in recent geographical studies that the evolution of new models and theories has changed the focus of the sub-discipline in the 1990s from Medical Geography to The Geography of Health (Elliott, 1999). According to Mohan (1989), Medical Geography with its methodology was conservative and this led to a serious questioning of the sub-discipline. There are now calls to take place and space seriously when investigations are undertaken on the relationship between people, place, health and health care (Dyck, 1999). The result of the evaluation of the sub-discipline has led to the broadening of the scope of Medical Geography and refocused its concerns to reveal people's health experiences and the way socio-political and economic forces impact on people (Mohan, 1989). The developments in the discipline also emanated in much theoretical work including the holistic and contextual conceptions of health and health care in society and space (Wilton, 1999). In order to construct and expand the knowledge base, there was stronger links with social theory from other disciplines besides geography (Dyck, 1999; Kearns, 1993).

Together with this changing emphasis to health geography, there were methodological shifts. This entailed a move from quantitative, positivist approaches to an increased use of qualitative methodologies which were theoretically informed by an alternate epistemology that recognised individual experiences of health and illness (Elliott, 1999; Wilton, 1999). Respondents are now being treated as persons rather than objects. Qualitative methods have thus become very important to geographical research in the last two decades (Wilton, 1999). There is increased use of the support

for population based frameworks in empirical research to understand the broad determinants of health and well being. The importance of behavioural, biological and environmental factors are also stressed with the role of formal medicine and the biomedical perspective decreasing. This approach is able to provide answers to questions about people's experiences of health and place that cannot be obtained or addressed through quantitative approaches alone (Elliott, 1999; Wilton, 1999). Some of the principles underlying the quantitative and qualitative approaches in geographical research therefore need to be outlined.

5.3.1 Quantitative and Qualitative Methods in Research

Commentators view the debate between quantitative and qualitative techniques not only as a disagreement over advantages and disadvantages but as a clash between methodological paradigms. Each method, according to this viewpoint, is associated with a separate and unique paradigm that is in conflict. The quantitative paradigm has a positivistic, hypothetical-deductive, objective, outcome orientated and rational world-view whilst the qualitative paradigm has an inductive, holistic, subjective and process-orientated world-view. Because these two paradigms were assumed to be rigid and fixed, the conclusion was that they could not be used together and researchers had a choice of one or the other. These assumptions seem to be incorrect as the two paradigms can be used simultaneously, as their purposes do not clash, their methods build on each other and are complementary. It is clear that a quantitative understanding presupposes qualitative knowledge and when used together, each method will provide in-depth perceptions that neither would be able to provide by itself (Bryman, 1984; Reichardt and Cook, 1979).

Conventional research deals more with the measurement and description of the spatial dimensions of illness and disease than on the experiences of people. It relies heavily on quantitative techniques in areas such as location, allocation and accessibility of formal health services and environmental health quality. Current approaches have moved away from quantitative techniques and a focus on geometric space to the use

of qualitative techniques and the subjective experiences of people on their health and illness in specific contexts. Emphasis is on the social, relational and recursive dimensions of space such as living space, places of healing and people and their health. The approach is more holistic and a new way of thinking and viewing health issues. A close relationship is being formed between theory, philosophy and methods of investigations to broaden research agendas. It is the injection of social theory into the geography of health that has been most significant (Dyck, 1999). This has allayed the concerns of medical geographers such as Eyles (1997) and Moon (1997) that applied research should be more theoretically informed. Theoretical ideas have the power to subvert traditional biomedical categories of what constitutes health, illness and health care (Dyck, 1999).

The qualitative approach is not new to social geographers and health geographers are fortunate to have a strong theoretical base. Qualitative methods are increasingly being used to understand place sensitive and subject-orientated analyses of health and health care in space. An alternative way of understanding health and health care concerns is provided, using a range of techniques that complement traditional approaches and have the potential to reframe research issues. A range of topical issues addressing various aspects of health, illness, disability, health care and the experience of place are covered. The methods used enable geographers to respond to questions about the health experiences of people and place that cannot be addressed by quantitative analysis alone (Wilton, 1999). Investigating the complex links between people, place and health has succeeded in decentralising the dominant biomedical perspective and positivist science by introducing issues rooted in the experiences of people, illness and the health care system. This permits variation in the construction of ideas about health issues in place and over time and introduces an alternative way of obtaining knowledge to manage health and health care in transforming societies (Dyck, 1999).

It is not suggested in this discussion that qualitative approaches could or should replace quantitative approaches in health research. They are complimentary and can be integrated. Patton (1990) argues that the guiding principle should be appropriateness in the research context. He stated that:

... I advocate a paradigm of choices. A paradigm of choices rejects methodological orthodoxy in favour of methodological appropriateness as the primary quality criterion for judging methodological quality.
(Patton, 1990:39)

Qualitative research is an alternative research paradigm and exists side by side with the quantitative paradigm. It adds to conventional quantitative inquiry with the use of numerous methods. In-depth interviews are the primary method. Other techniques include participant observation, oral histories, focus groups, journal keeping, autobiography, photographs and textual analysis. Dyck (1999) indicates that the value of these strategies is in their capability of understanding experiences, perceptions, attitudes and meanings in space or place that go beyond pure description. They provide flexibility and different strategies for exploring the numerous dimensions of health phenomena. The most commonly used strategy is to give more depth to survey research utilising quantitative research designs. It is also used with quantitative methods to bring different perspectives to issues under investigation. Issues and meanings undiscovered in quantitative designs are sometimes revealed. In addition, focus groups and in-depth interviews provide rich accounts of the context of health and health care and moves beyond the biomedical model of health and illness to subject-centred perspectives that investigate lay perceptions of health and illness. The use of qualitative methods allows the movement away from conventional medical concerns imposed by the dominant biomedical view of health and health care. In addition, the focus on individual perceptions, actions and experiences places emphasis on the central role of agency in negotiating the meaning of health and illness in places (Dyck, 1999).

It is important also to understand some of the theoretical and methodical issues, which focus on experience, situation and the action of place integration as the root of both health and health care problems. Whether the problem is disease or health care, each is experienced pragmatically as a challenge to be overcome in a specific and moral way. Problems in place may cause the disruption of place integration. Cutchin (1999) asserts that the natural and social processes that bring place together are the same as

those that can cause disintegration in the experience of place. The section below deals with some of these issues.

5.3.2 Pragmatism and Related Concepts in Qualitative Research

Cutchin (1999) argues that most researchers have turned to qualitative methodologies to investigate aspects passed over by quantitative approaches in studies focusing on the relationship between place and health and health care. Because this entails a change in the philosophical and conceptual basis of such studies, new dimensions to empirical knowledge are added. Together with this development, there is presently a resurgence of pragmatism within the humanities and social sciences. The use of pragmatism assists in clarifying a philosophical orientation to deal with practical and theoretical problems that are present. Pragmatism, place integration and the concepts of social capital, core participation and community reconstruction add focus and value to important and sometimes overlooked research questions studied by qualitative research (Cutchin, 1999).

The key elements of pragmatism serve as a philosophical starting point for health and health care research. It is unlike idealist and materialist philosophies that ignore life processes. Moreover, pragmatism can be used to re-theorise place as the basis for understanding the character, cause and potential solution of social problems such as health and health care. It thus creates a theoretical and practical perspective for research in health geography. It is a stipulation of pragmatism that meanings can only arise through the continuity of person and place and that place-based problems can only be solved by action (Cutchin, 1999; Dewey, 1989). The where, what, and the how of our experience in the world is place. Place defines our intersections with natural and social processes. A pragmatic place is neither subjective nor objective but a medium of experiences, the basis for actions, morals and meanings. Pragmatism, therefore finds its ultimate implementation and utility in place (Cutchin, 1999).

Health and health care in place becomes problematic from time to time. Place integration encourages analysis of the social processes that work to integrate or

disintegrate the health of place. Participants offer ways of thinking, act as a community to deal with problems, discover how problems emerge and assess how value and meaning are determined by place actions (Cutchin, 1999). As mentioned above three concepts are suggested by Cutchin (1999) that provide ways of investigating place integration in empirical analysis. These are social capital, core participation and community reconstruction. These concepts are related to pragmatism as they focus on social and co-operative aspects of health and health care; interrelationships in place (not on entities); ability to connect processes in place and pragmatic action by individuals or groups. The concepts that have an ameliorative component are core participation and community reconstruction (Coleman, 1990; Cutchin, 1999). These concepts encourage qualitative research strategies that are participatory, critical and well informed. The concepts will be briefly discussed below.

5.3.2.1 Social capital

Social capital refers to social resources available for actors in a place. They are not tangible resources and unlike human capital which is individually based. Social capital is based on the relations among people and entails the obligations, expectations and trust amongst people. It is a public good to be shared for community use and needs to be continually maintained and enhanced or it would depreciate. It works best when all groups in a community (ethnic groups, classes etc) are able to utilise the available resources for community improvement (Coleman, 1990).

Cutchin (1999) states that social capital can be used to either increase problems in a place or hold places together. It is an inherent part of health and health care. If problems in health and health care integration appear in a place, the importance of social capital emerges in the ability of communities or individuals to identify possibilities for action using resources to improve health and health care. It also allows for the examination of health experiences in place by understanding how problems are created and the way action is taken to address problems. Qualitative

methodologies are used to identify problems and understand social relations that provide capital. It also leads to the development of strategies and actions.

5.3.2.2 Core Participation

Core participation is defined as the “... psychological, active, and moral commitment to society ...” (Cutchin, 1999: 270).

Core participation stems from the need for intimacy and social relations which is the basis of life experiences and personal identity. Opposed to core participation is segmented participation. This is the level of social action that maintains psychological and moral distance and distorts commitment. An improved understanding of core participation through the events, lives and problems of health care situations of people can be fulfilled by qualitative investigations. Core participation generates strong social ties that are at the root of social capital. It enriches the imagination to identify the possibilities for action and moral competence within places.

With the social causes of health problems, the role of core participation is relevant to the understanding of places. Development of social capital and core participation can assist pragmatic action to make places caring and healthy. Moreover, place generates communities that undergo continual reconstruction and change as places change. If communities change negatively, health and health care will be negative. This will result in the reconstruction of communities being an inevitable process. Community reconstruction can direct qualitative investigation to assess where, why and how health and health care problems are addressed through formal and informal political processes that reshape the values and meanings of community. Persons who know and care about health threats in the locality would want to work to reconstruct their community to eliminate threats. Thus, the geographical analysis of community experience can provide insights into the creation and solution of health problems that may be applicable in other situations (Cutchin, 1999).

Health geography views disease mainly from an environmental perspective and health care from a social, cultural, political or economic position. Place integration collapses them as a unified whole. It is necessary to assess the deeper philosophical basis of humanistic methodologies using qualitative work in place. There is more to the meaning of place than has been previously presumed. The concept of place can be powerfully informed by pragmatist Deweyan philosophy that makes an important contribution to the question of method and concept of place. Place integration unifies pragmatism with geography's most important concept that is place. Social capital, core participation and community reconstruction connects place integration with social processes relevant to health geography (Cutchin, 1999; Dewey, 1989).

5.4 TECHNIQUES AND STRATEGIES IN QUALITATIVE RESEARCH

Qualitative techniques range from passive observation and personal reflection to intervention, with a common theme of shared meanings and subjective understanding (Smith, 1994). Qualitative researchers are encouraged to allow the research situation to guide research procedures in order that they may gain access to human experiences. The analytic view of outsiders is important for understanding. Researchers are positioned subjects who are consciously thinking about what and where they are and what and how they do things. It allows for conscious deliberation of what they do, how they interpret and how they relate to subjects. Concern is with understanding and analysis of meanings in specific contexts. They view the world of individuals or groups as they themselves see it and attempt to develop representations and constructions that take place within the social world (Baxter and Eyles, 1997).

According to Baum (1995: 465), the goals of participative research is the production of "... context bound knowledge for use by participants in research", the role of the researcher being to "... assist the community in finding out information they want to know and taking action to change the status quo". One of the major strategies in participative research is the use of focus groups. Focus groups are used in group settings to engage in collective inputs. This method of data collection, using methods

such as story telling, is becoming very popular. Health geographers use this method to create local histories and translate the local aspirations of people into development strategies that work (Goss, 1996; Kearns, 1997; Longhurst, 1996).

The stories provided by people assist in constructing knowledge of the more nuanced aspects of health and healing. It assists geographers in looking at health issues holistically and contributes to addressing social justice (Kearns, 1997). Issues of social justice are brought into the foreground of geographical research so that inequalities in peoples' health status can be tackled (Smith, 1994; Wilkinson, 1994).

In depth interviews provide evidence on the way people deal with health and illness. This has the advantage of grounding the everyday experiences of people. It involves direct contact with people and this permits an investigation of people's feelings and experiences in a socio-spatial context (Wilton, 1999). In the light of the above the following section discusses the context in which the present study was conducted that is, informal housing and the background to the case studies. Additionally, the research questions and the methods used in this study are also discussed below.

5.5 INFORMAL HOUSING AND THE BACKGROUND TO THE CASE STUDIES

5.5.1 Informal Housing in South Africa and the DMA

South Africa is faced with the crisis of inadequate shelter for its people and this has serious consequences, especially its impact on health, welfare and security. The emergence of informal settlements is an established feature of the South African landscape and the predominant location is in and around major metropolitan areas. Informal or squatter settlements refer to areas illegally occupied by settlers who are cognisant that at the outset they have no legal rights other than a moral claim of being homeless (Beavon, 1989).

In order to understand the health status of informal dwellers, it is important to firstly

obtain some insights into this phenomenon in the DMA. Informal settlements were never entirely eradicated under apartheid. After being reduced to small hidden pockets in the 1960s, it began to grow in the 1970s especially on the periphery of African Townships. The State's refusal to build houses in sufficient numbers to meet needs forced people to build for themselves. In the 1980s, a number of factors came together which resulted in the mushrooming of informal settlements in the metropolitan areas of KwaZulu-Natal (Makhathini, 1994). These included the attack on Black local authorities, the weakening of tribal authorities, private Indian and African landowners and warlords. This resulted in the opening up of new spaces for settlement for people from overcrowded townships and migrants fleeing from drought-stricken areas as well as poverty and social constraints of rural society (Hindson and McCarthy, 1994). Throughout the 1980s, rural refugees moved into Durban at an estimated flow of 100 000 and by 1985, the total number living in informal settlements on Durban's periphery was about one million (Star, 1/ 9/ 85). Open political activity in the early 1980s was associated with a massive upsurge of violence within squatter settlements and between them and neighbouring townships. This led to further displacement of people and the trickle of squatting in the late 1980s turned into a substantial stream in the 1990s (Natal Witness, 15/12/1992). Current estimates suggest that there are approximately over a million people living in informal settlements in the DMA in over 500 settlements (Urban Strategy Department, 1996).

According to Makhathini (1994), there are various stages in squatting. These are hidden squatting, open squatting and organisation and consolidation in squatting. In the first stage, people start invading the area and extend until the threshold is reached as determined by the authorities. The end of this stage is marked by public recognition given to squatters through the allocation of numbers to shacks following negotiation with authorities. The second stage (open squatting) is characterised by the emergence of new social relations and the strengthening of old ones. People who are settled see outsiders as being detrimental and are threatened by their occupation and impose restrictions on newcomers. There is also a demand for infrastructure services in this stage. The last stage, organisation and consolidation is when elected leaders from the community attempt to negotiate the permanent future of the population with

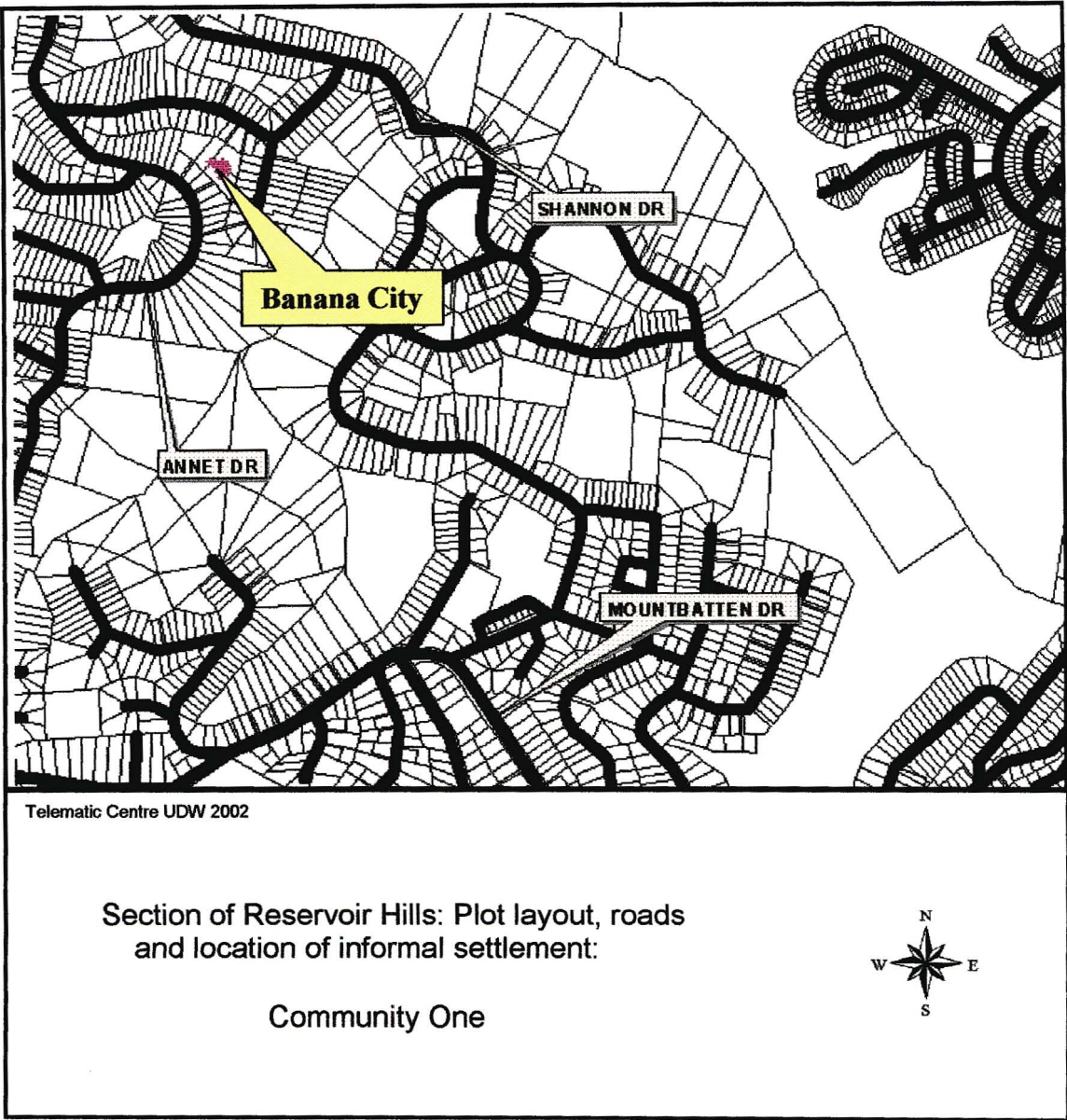
leadership struggles and alignment of people to those who offer the best deal taking place (Makhathini, 1994).

5.5.2 Background to Case Studies

5.5.2.1 Banana City: Community One (Comm.1)

Banana City is an informal settlement situated in a previously Indian residential area in the Inner West sub-structure of the DMA (Map.5.1). The settlement is located off the main road (Mountbatten Drive) and comprises of 240 households with a population of 1 200 people. This informal settlement acquired the name “Banana city” simply because residents in the settlement have planted banana trees. Geographically the area is situated in the heart of a valley and the topography is extremely rugged. The area was settled in 1990 with people moving from the nearby informal settlement of Clermont seeking employment in the residential suburb of Reservoir Hills as domestics or garden workers. According to residents, it became increasingly difficult to pay the transport costs from Clermont to Reservoir Hills and this resulted in people building shacks in a vacant area in the residential suburb to be close to employment and employment opportunities. However, kinship ties, ethnic networks and friendship ties with people from rural areas encouraged movement of people to the settlement in the hope of improving their quality of life by obtaining employment. Low educational levels and lack of skills relegated people to obtain unskilled and semi-skilled occupations with low wages thus preventing them from any upward mobility and forced them to remain in the settlement. With increasing movement into the settlement, the size of the settlement thus increased to its present number.

Map 5.1: Banana City – Community One (Comm.1)



5.5.2.2 Tempele Settlement: Community Two (Comm.2)

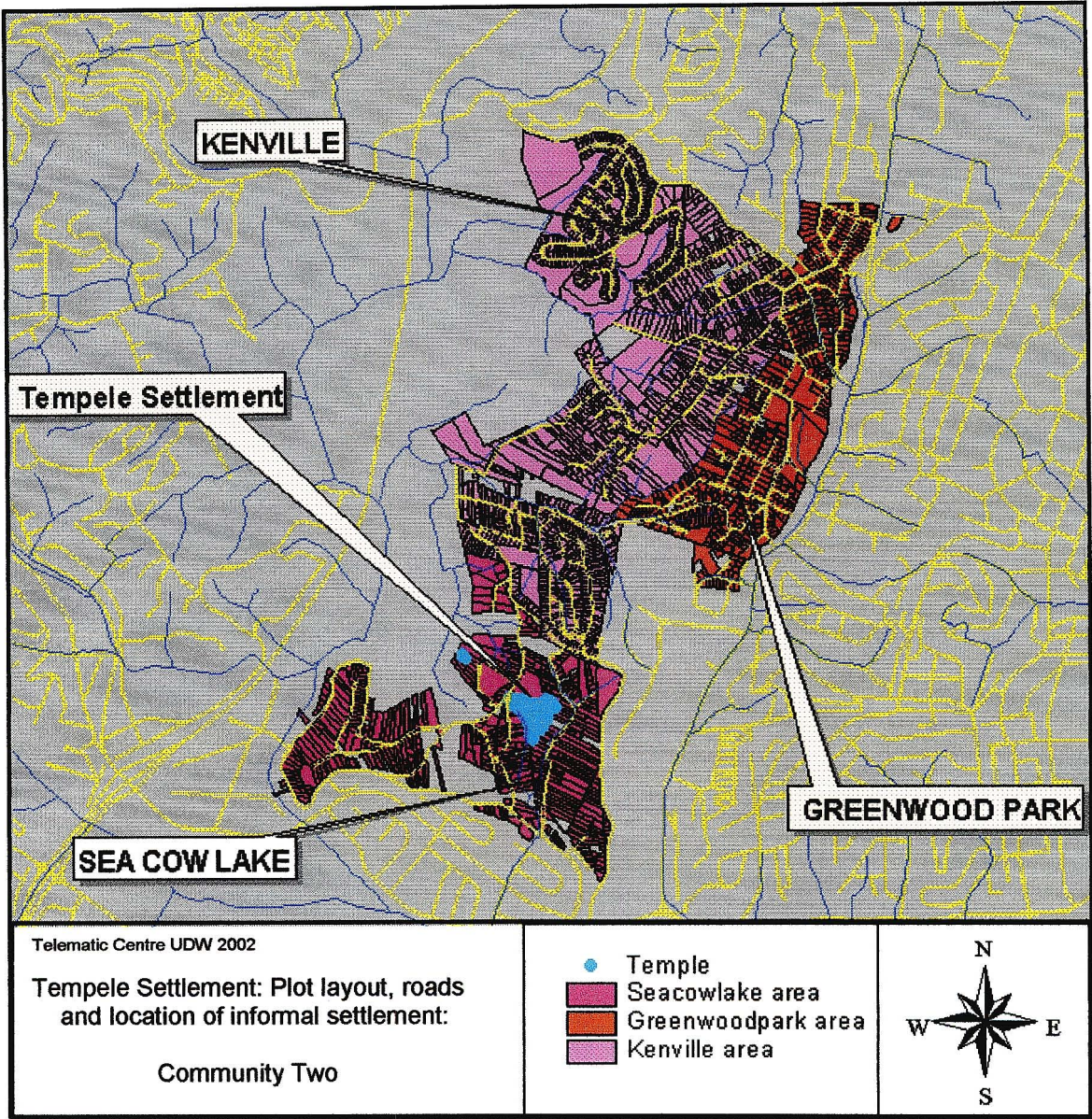
According to information obtained from one of the elders and a community leader in the community, the settlement originated in the early 1990s and became fully established between 1991 and 1992. The settlement is located in the North Central sub-structure of the DMA in a previously Indian residential suburb called Kenville (Map 5.2). The settlement comprises of 300 households with approximately 1500 people with an average of 5 people. Houses comprise of one to two-room shacks. People settled on vacant land close to the Greenhill Recreation Ground, between Storm Road and Amashi Place. People in this settlement came from inside and outside the DMA from such areas as Inanda, Kwamashu, Tongaat, Ntuzuma, Highflats, Umzinto, Umzimkulu and Ixopo. The settlement is about 15 kilometres North of the Durban Central Business District (CBD). The reasons for settling in the area were varied and include: no other place to live in Durban, violence in previous residential areas and being ousted from flats next to the settlement because of non-payment of rent.

5.5.2.3 Besters Informal Settlement: Community Three (Comm.3)

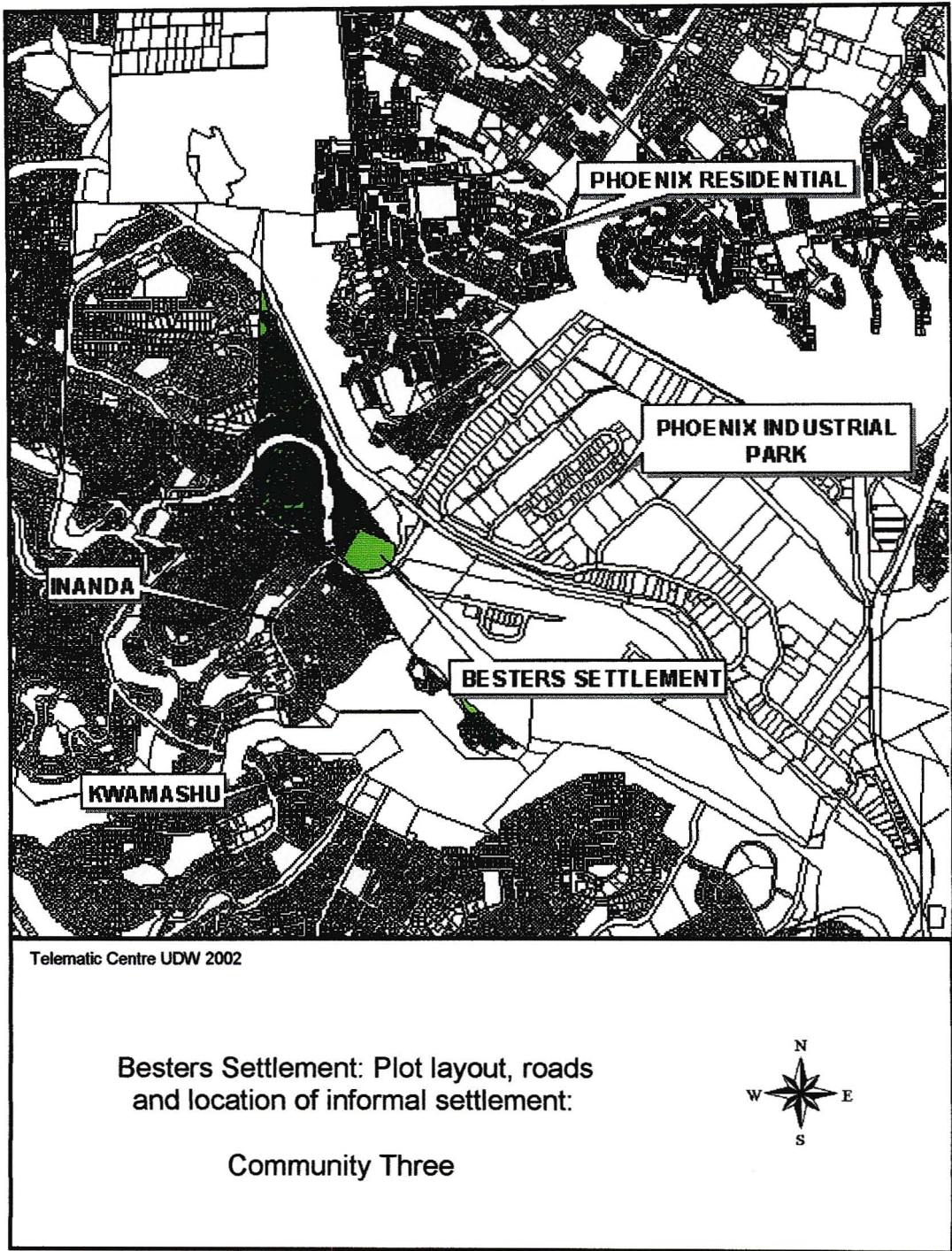
The Besters settlement forms part of the burgeoning informal settlement of Inanda in the North Central sub-structure of the DMA on the outskirts of the Phoenix suburb to the East and bounded by Inanda Newton to the North and Kwamashu and Ntuzuma to the South (Map 5.3). The settlement began to develop in the mid-1970s on Indian owned property. According to Copley (1993), the settlement consisted of 75 dwellings in 1985 and four years later, this number had increased to 3100. Rapid settlement took place during the 1986-1989 period. This was partly due to the violence that occurred in Inanda. Landowners in the area alleged that the rapid settlement that took place was closely linked to political problems amongst various organisations wanting to extend their influence in the area (Urban Foundation, 1990). The Urban Foundation's Informal Settlement branch was initially responsible for upgrading the area. However, due to various problems experienced by the

organisation, the Urban Foundation ceased to exist in 1992 and since 1993, a Joint Civic and Development Structure operates in the area called the Inanda Community Development Trust. Part of this settlement has been upgraded with a community hall, a clinic and tarred roads. However, the majority of people still live in informal houses, having no or little access to basic services and facilities. The survey was conducted in the informal sections of the settlement.

Map 5.2: Tempele Settlement – Community Two (Comm.2)



Map 5.3: Besters Informal Settlement – Community Three (Comm.3)



5.6 STUDY METHOD

The present study used a combination of methods with multiple sources of data collection, both qualitative and quantitative being utilised to compensate for and supplement the limitations of one or other method. It used formal survey instruments, a questionnaire as well as informal conversations, which were structured by a checklist of topics to be covered in the focus group discussions. In the checklist, initially the perceptions of health and illness were examined, then the causes of illness which was followed by perceptions of health care and finally the societal context of people's perceptions and experiences. Additionally, secondary data sources were also consulted. The use of multiple methods has enabled triangulation to be undertaken in the study.

5.6.1 Research Questions

- What are the socio-economic characteristics of informal dwellers?
- What are the main problems facing informal households in the Durban Metropolitan Area with regard to health and health care?
- What is the health status of individuals and communities?
- How do people in informal settlements conceptualise health?
- Can people's complaints, needs and frustrations be linked to health?
- How can communities be involved in health issues?
- Do traditional beliefs and practices compliment bio-medicine and how extensively is it used?
- What changes are required to improve health and health care in informal settlements?
- Are socio-economic indicators of the population related to selected health indicators?

- Can the health and health care needs of people in informal settlements be satisfied?

5.6.2 Questionnaire Development

The initial draft of the questionnaire took ideas from various other social research questionnaires, together with comments from colleagues. The questionnaire was amended to include comments and ideas obtained. The schedule was designed for its application to ordinary people in disadvantaged communities. The final version of the questionnaire is shown in Appendix 1. The first part of the questionnaire obtained socio-economic and demographic data of the respondents. It then gradually progressed to bring the topic under investigation to the forefront of the respondent's mind with a range of issues that were pertinent. More specifically, it was used to determine how people conceptualise health; identify their health problems, needs and frustrations; and assess health status, housing and environmental circumstances.

5.6.3 Selection of Interviewers and Training

Interviewers were selected from a group of post-graduate students in the Department of Geography and Environmental Studies, University of Durban-Westville. It was based on them having some knowledge of health issue and those who had completed a module on the Geography of Health. Final selection was dependent on students who had knowledge of the settlements under investigation and with social contacts in the areas. On selection, interviewers attended a workshop where the questionnaire was discussed and some training provided on the skills and techniques of interviewing.

5.6.4 Settlement Selection, Sampling Technique and Size

Sampling is the basis of discovery and description. The method of sampling was extensively debated and it was decided to avoid the use of convenience sampling

because of the problematic nature of those who are easy to access. These people may not be the most informative and may have limited capacity to comment on issues relevant to the present research. Personal preference was avoided and respondents were chosen as broadly as possible as indicated from the techniques outlined below.

The three settlements were chosen on a random basis from a map of the distribution of informal settlements in the DMA. Each of the settlements was numbered and the choice of settlement was made from a list of random numbers. With regard to the actual choice of households, it was difficult to use a simple random technique because of the nature of the location of households. Clusters of households were identified in the settlements. Generally there were about three to four houses in a cluster. Each cluster was numbered and a random sample of fifty clusters selected. From the clusters selected, one household, willing to be interviewed was selected for interview. The technique used conforms to probability sampling and is spatially relevant. The sample size may seem small but it is valid in terms of the minimum number required for statistical purposes. In any case, leading social scientists such as Baxter and Eyles (1997) have indicated that the credibility of research need not be threatened by low sample sizes.

For the qualitative aspect of the survey respondents were recruited by means of purposeful sampling. This only focused on the health or development committee in the informal settlement. It was assumed that people from a range of different groups would be represented in these committees. In two of the three communities, it was difficult to obtain an interview with members of the health committee. After repeated attempts meetings took place and focus group discussions were held. An average of 10 respondents attended the focus group meetings. Respondents were asked to rank the problems that they experienced in order of importance in the three communities. The results of this exercise are discussed in detail at the end of the quantitative analysis of data.

5.6.5 Primary Data Analysis

After the questionnaire survey was completed, responses were coded especially the open-ended responses. Data was inputted into the Statistical Package for Social Science (SPSS) and the necessary descriptive and analytical statistics were obtained in tabular form. Data was checked for errors and cleaned up and most of the tabulations were retained as will be evident in the next chapter.

5.7 CONCLUSION

This chapter undertook to explain the way in which the research problem was conceptualised in this thesis and the methods and techniques utilised to obtain data. As is explained in the discussion above, the researcher attempted to have a rigorous research design. It also demonstrates the ways in which the methods and approaches offered by the discipline of geography can be applied to the field of health and health care research. The inclusion of a variety of issues in this chapter has been deliberate and was intended to demonstrate the varied currents within the geography of health. The methodology is rooted in the social science perspective and pays scarce attention to the biomedical approach. It is only through criticism of present assumptions can there be a move towards new ideas on research. Geographers, especially South African health geographers must develop practical and theoretically sound research strategies to improve health and health care and an attempt was made in this thesis to accomplish this task. It is clear that strategies used in health and health care research must ameliorate deprivation and disadvantage and in some way influence public policy to improve the quality of life of the poor in South African society. Health needs to be viewed in a wider social, economic, political and environmental context and not within narrow frameworks that characterise most biomedical research undertaken in the country.

CHAPTER SIX

DATA DESCRIPTION AND ANALYSIS

6.1 INTRODUCTION

Assessments of health and health care health levels require and provide concrete information about the health conditions of residents in communities. There are numerous probable relationships between health and health care levels and the physical, social and environmental determinants. However, only some of these will be discussed to clarify the impact of these conditions on the health of people in an attempt to satisfy the criteria outlined in the aims and objectives of this study. The analysis begins with the socio-economic and demographic characteristics of communities. This is undertaken to reveal any socio-economic disadvantage experienced by communities that may provide the context in which the analysis of the health conditions and access to health care needs can be understood and evaluated. The principles guiding the analysis of access is to determine whether services are relevant, accessible, appropriate and sensitive to the needs of the community. The overriding priority is to access disadvantage and suggest positive actions to redress past disadvantage and discrimination of communities whose needs have been identified.

The research findings of this study are therefore organised to provide an understanding of the geography of health in three informal settlements in the Durban Metropolitan area. Both subjective and objective assessments of people's reality are undertaken with a view to identifying the people's problems with the aid of factual analysis of data and surrogate information that provides insights of empirical data. Empirical data analysis was simplified by the use of the Statistical Package for Social Sciences (SPSS/ PC) which generated the descriptive tabulations, Chi-squared tests and multiple correlation which helped to investigate variables and their effects. It should be noted at the outset that only in cases where a relationship existed was further statistical calculations necessary. Generally, the data is analysed under the following themes viz. socio-economic and demographic characteristics of the sampled

population, dwelling characteristics, water and sanitation, health concept, factors influencing health, health facilities, present health policies, disease prevalence, other illnesses, health workers and participation of respondents in health matters.

6.2 SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

A vital component of any analysis is the socio-economic characteristics of respondents as it provides a backdrop to the social, economic characteristics and the probable direct or indirect influence it has on the attitudes, perceptions and health status of individual and communities that are under study. According to Schiller et al, (1996), an analysis of the social and economic disadvantage experienced by communities provides the context for any study on health and health care issues to be understood. In this respect, socio-economic variables such as age, sex, marital status, education, employment, household composition and relationships in informal settlements are discussed below.

6.2.1 Age of household head and other family members

Table 6.1: Age of household head

Age (yrs)	Comm. 1		Comm. 2		Comm. 3		All Comm.	
	f	%	f	%	f	%	f	%
25-34	6	12	11	22	19	38	36	24.0
35-44	24	48	18	36	9	18	51	34.0
45-54	10	20	8	16	5	10	23	15.4
55-64	8	16	9	18	12	24	29	19.3
65-74	-	-	2	4	4	8	6	4.0
75+	2	4	2	4	1	2	5	3.3
Total	50	100	50	100	50	100	150	100
	X= 45.1 yrs		X=45.3 yrs		X=44.7 yrs		X=45.1 yrs	

Table 6.2: Age of other household members

Age (yrs)	Comm. 1		Comm. 2		Comm. 3		All Comm	
	f	%	f	%	f	%	f	%
<14	61	30.	63	27.7	36	16.1	160	24.5
15-24	38	18.7	59	26.0	37	16.5	134	20.5
25-34	28	13.8	41	18.1	60	26.8	129	19.7
35-44	33	16.2	32	14.1	38	17.0	103	15.7
45-54	14	6.9	11	4.8	18	8.0	43	6.6
55-64	15	7.4	9	4.0	26	11.6	50	7.6
65-74	13	6.5	10	4.4	8	3.6	31	4.8
75+	1	0.5	2	0.9	1	0.4	4	0.6
Total	203	100	227	100	224	100	654	100
	X=28.5 yrs.		X=27.5 yrs.		X=33.5 yrs		X=30yrs	

Table 6.3: Average age of total population (including household head)

Community	Average Age (yrs)
Community 1	32.5
Community 2	29.8
Community 3	35.2

The total sampled population in each of the three communities was 203, 227 and 224 respectively. In all three communities, the ages of household heads ranged from 24 years to 75 years with the average age in the mid-forties (Table 6.1). The average age of other household members of communities one and two was in the late twenties whilst that of community three was in the early thirties (Table 6.2). When the data of the household heads was combined with the rest of the household members, the average age of the total population increased slightly and was in the early thirties in community one, late twenties in community two and middle thirties in community three (Table 6.3). Generally though, the main feature of the population in all communities was their youthful nature with a large proportion of children and young adults that follows the expected trend of a decrease in population with increasing age in developing countries (Tables 6.1 and 6.2). The youthfulness of the population could also be attributed to the migration of the younger age cohorts from the rural areas of KwaZulu-Natal to the major urban settlements. The youthfulness of the population is a cause for concern especially in terms of the provision of services, facilities, employment and the probable health impacts it may lead to in urban areas.

6.2.2 Marital Status, Sex, Family Composition and Size

6.2.2.1 Marital Status

It is clear from Table 6.4 that the majority of household heads (70%) in community one were married. This is not true for communities two and three where there was a significant proportion of widowed persons, 30% and 26% respectively, in addition to single parents and married persons. Regarding other family members in the household, almost equal proportions in all communities (between 18% and 19%) were married. A large proportion of persons (over 66%) were single persons in community two whilst the numbers were smaller in this category for community one (25.6%) and community two (31.2%) (Table 6.5).

Table 6.4: Marital status of household head

M Status	Comm.1		Comm. 2		Comm. 3		All Comm.	
	f	%	f	%	f	%	f	%
Married	35	70	15	30	15	30	65	43.4
Single Parent	15	30	18	36	17	34	50	33.3
Widowed	-	-	15	30	13	26	28	18.7
Divorced	-	-	-	-	3	6	3	2.0
Separated	-	-	2	4	2	4	4	2.6
Total	50	100	50	100	50	100	150	100

Table 6.5: Marital status of other family members

M Status	Comm.1		Comm. 2		Comm. 3		All Comm.	
	f	%	f	%	f	%	f	%
Married	37	18.0	42	18.4	43	19.2	122	18.6
Single parent	-	-	-	-	6	2.7	6	0.9
Single (never married)	52	25.6	151	66.7	70	31.2	273	41.8
Children	105	51.8	26	11.4	90	40.2	221	33.8
Divorced	-	-	2	0.9	2	0.9	4	0.6
Separated	-	-	-	-	5	2.2	5	0.8
Widowed	9	4.5	6	2.6	8	3.6	23	3.5
Total	203	100.0	227	100	224	100	654	100

6.2.2.2 Sex

In community one and three, most household heads were female (66% and 52%) whilst there was an equal proportion of males and females in community two (Table 6.7). This trend of the proportion of females being dominant is also reflected amongst other family members especially in communities two and three. The predominance of females and older relatives, especially amongst poor households, will have health implications because of their special needs as will be indicated later.

6.2.2.3 Family Composition

The data in Table 6.6 reveals that all communities had extended families that comprised, in addition to the head and spouse, married and unmarried children, parents of the household head, relatives and grandchildren. All communities had almost similar average household sizes, that is 5.06, 5.54 and 5.48 respectively.

Table 6.6: Relation to head of household

Relation	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Spouse of Head	32	15.8	52	22.9	15	6.7	99	15.2
Spouse of married child	14	6.8	8	3.5	31	13.8	53	8.2
Married Child	17	8.3	2	0.9	38	16.9	57	8.7
Unmarried Child	53	26.3	114	50.2	62	27.7	229	35.0
Father	12	6.0	2	0.9	2	0.9	16	2.4
Mother	17	8.3	-	-	6	2.7	23	3.5
Father in Law	6	3.0	-	-	2	0.9	8	1.2
Grandchild	43	21.0	40	17.6	36	16.1	119	18.2
Relatives	9	4.5	9	4.0	32	14.3	50	7.6
Total	203	100	227	100	224	100	654	100

Table 6.7: Sex of household head

Sex	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Male	17	34	25	50	24	48	66	44.0
Female	33	66	25	50	26	52	84	56.0
Total	50	100	50	100	50	100	150	100

Table 6.8: Sex of other household members

Sex	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Male	106	52.2	92	40.6	85	37.9	283	43.3
Female	97	47.8	135	59.4	139	62.1	371	56.7
Total	203	100	227	100	224	100	150	100

6.2.3 Income, Education and Employment Status of Household Heads and Other Family Members

6.2.3.1 Income

Table 6.8 and Table 6.9 identifies the incomes received by household heads and other family members, much of which is very low. It is evident that many of the heads in community one (66%) received between R100-299. Incomes were generally higher in communities two (between R300-R1099, 70%) and three (between R100-R699, 80%) (Table 6.9). Most of the other household members were children, the elderly and the unemployed with only a small proportion that received a range of incomes between R100-R2 099 in all communities (Table 6.10). The average income of household heads, other family members and the entire household are reflected in Table 6.11 below. The average income of household heads was highest in community two but the income of other family members was lowest. In community one and two, other family members earned higher incomes. When looking at the entire household incomes, almost similar incomes were earned by households in communities two and three whilst households in community one earned less by about R200 (Table 6.11).

Table 6.9: Income of household head

Income (R)	Comm 1		Comm. 2		Comm. 3		All Comm	
	f	%	f	%	f	%	f	%
0-99	3	6	4	8	2	4	9	6.0
100-299	33	66	3	6	20	40	56	37.4
300-499	5	10	9	18	10	20	24	16.0
500-699	2	4	5	10	10	20	17	11.3
700-899	2	4	10	20	3	6	15	10.0
900-1099	1	2	14	28	2	4	17	11.3
1100-1299	3	6	-	-	-	-	3	2.0
1300-1999	1	2	-	-	-	-	1	0.7
1500-1699	-	-	2	4	-	-	2	1.3
1700-1899	-	-	-	-	3	6	3	2.0
1900-2099	-	-	3	6	-	-	3	2.0
Total	50	100	50	100	50	100	150	100

Table 6.10: Income of other household members

Income (R)	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
None	116	57.0	163	71.8	153	68.2	432	66.0
< 99	-	-	6	2.6	-	-	6	1.0
100-299	5	2.5	12	5.3	-	-	17	2.6
300-499	18	8.9	8	3.5	3	1.4	29	4.5
500-699	12	5.9	8	3.5	11	4.9	31	4.8
700-899	18	8.9	14	6.2	15	6.7	47	7.2
900-1099	12	5.9	-	-	17	7.6	29	4.5
1100-1299	15	7.4	2	0.9	3	1.4	20	3.0
1300-1499	7	3.5	-	-	11	4.9	18	2.7
1500-1699	-	-	2	0.9	1	0.4	3	0.4
1700-1899	-	-	-	-	4	1.8	4	0.6
1900-2099	-	-	12	5.3	6	2.7	18	2.7
Total	203	100	227	100	224	100	654	100

Table 6.11 Average incomes of head, other household members and entire household

Respondents	Average Incomes (R)		
	Com. 1	Com. 2	Com.3
Head of household	R347.50	R767.50	R 475.50
Other family members	R799.50	R593.50	R1 079.50
Entire household	R633.50	R839.50	R 829.50

6.2.3.2 Education

In terms of the education levels of respondents, it is evident from Table 6.12 that community one had the highest number that had no formal education (44%), community two the highest number with a secondary education (56%) and community three, the highest number with a primary education. However, 50% to 80% of respondents in all communities received either a primary or secondary education (Table 6.12). A significant proportion of other family members in community one (43.8%) and community three (32.6%) had no formal education in contrast to community two where the prevalence of persons with a primary, secondary and tertiary education was very high (75.4%) (Table 6.13).

Table 6.12: Education of household head

Education	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
No formal	22	44	12	24	10	20	44	29.3
Primary	18	36	10	20	28	56	56	37.3
Secondary	10	20	28	56	12	24	50	33.4
Total	50	100	50	100	50	100	150	100

Table 6.13: Education of other family members

Education	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Infants	17	8.4	30	13.2	17	7.6	64	9.8
Nursery	7	3.4	6	2.6	18	8.0	31	4.7
Pre-school	12	6.0	6	2.6	20	8.9	38	5.8
No formal	89	43.8	14	6.2	73	32.6	176	26.9
Primary	43	21.2	62	27.3	43	19.2	148	22.7
Secondary	29	14.3	107	47.2	44	19.6	180	27.5
Tertiary	6	2.9	2	0.9	9	4.1	17	2.6
Total	203	100	227	100	224	100	654	100

6.2.3.3 Employment

A small proportion of household heads in communities two and three were professional persons (10% and 8% respectively). Most of the heads in community one (36%) were in clerical and sales. Significant proportions of members, in all

communities, were labourers (14%, 34% and 36%) and self-employed persons in communities two and three (20% and 16%). In community one 16% were housewives and 10% unemployed (Table 6.14). Amongst other household members, the trend in employment does not vary greatly from that of the household heads, as there were a limited number of persons in white-collar employment and a significant proportion of labourers (Table 6.15).

Table 6.14: Employment status of head

Employment	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Professional	-	-	5	10	4	8	9	6.0
Clerical	10	20	-	-	-	-	10	6.7
Sales	8	16	3	6	6	12	17	11.3
Craftsmen	5	10	2	4	-	-	7	4.7
Labourer	7	14	17	34	18	36	42	28.0
Retired/pens	5	10	13	26	10	20	28	18.7
Housewife	8	16	-	-	2	4	10	6.7
Unemployed	5	10	-	-	2	4	7	4.6
Self-employed	2	4	10	20	8	16	20	13.3
Total	50	100	50	100	50	100	150	100

Table 6.15: Employment status of other family members

Employment	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Professional	-	-	4	1.8	-	-	4	0.6
Technical	2	1.0	2	0.9	5	2.2	9	1.5
Clerical	6	2.9	-	-	6	2.8	12	1.9
Sales	4	2.0	4	1.8	11	4.9	19	2.9
Craftsmen	8	3.9	-	-	3	1.3	11	1.7
Labourer	28	13.8	44	19.4	22	9.8	94	14.4
Retired/pens	20	9.8	16	7.0	9	4.0	45	6.9
Housewife	28	13.8	6	2.6	18	8.0	52	7.9
Unemployed	34	16.7	85	37.4	32	14.3	151	23.0
Self-employed	12	5.9	10	4.4	15	6.7	37	5.6
Student	13	6.4	2	0.9	6	2.7	21	3.2
School	32	15.8	24	10.6	80	35.7	136	20.8
Infants	16	8.0	30	13.2	17	7.6	63	9.6
Total	203	100.0	227	100.0	224	100.0	654	100

6.3 DWELLING CHARACTERISTICS

6.3.1 Dwelling Type and Living Space

In discussing the health status of communities, it is important that the conditions in which people live is also assessed, as this will have an important bearing on people's health. In communities one and three, over 90% of people constructed their homes with cardboard, plastic and mud (Table 6.16). The housing structure was much better in community two with brick and tile and blocks being used by 50% of the respondents in housing construction. One and two rooms of living space were common amongst all communities with the average room size being 1.5, 2 and 2.4 in communities one, two and three respectively (Table 6.17). Living space was larger in communities two and three as compared to community one and it is clear that community three was more advantaged in this respect.

Table 6.16: Dwelling type

Type	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Brick and Tile	2	4	13	26	3	6	18	12
Blocks	-	-	12	24	-	-	12	8
Cardboard, plastic and mud	48	96	25	50	47	94	120	80
Total	50	100	50	100	50	100	150	100

Table 6.17: Living space

No. of Rooms	Comm 1		Comm. 2		Comm. 3		All Comm.	
	f	%	f	%	f	%	f	%
One	25	50	15	30	7	14	47	31.3
Two	22	44	17	34	18	36	57	38.0
Three	3	6	18	36	25	50	46	30.7
Total	50	100	50	100	50	100	150	100

6.3.2 Rating of Housing and Environmental Conditions

Respondents were also asked to rate their housing conditions and their housing environment (Tables, 6.18 and 6.19). It is clearly evident that respondents in community one and two rated their housing conditions as poor (78% and 70%) (Table 6.18). It was surprising to note that the majority of respondents (58%) in community three rated their dwellings as good and satisfactory. Most of the respondents in all communities (56%, 74% and 86%) considered their housing environment as being very clean and moderately clean (Table 6.19).

Table 6.18: Housing conditions

Rating	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Good	3	6	5	10	4	8	12	8.0
Satisfactory	8	16	10	20	25	50	43	28.7
Poor	39	78	35	70	21	42	95	63.3
Total	50	100	50	100	50	100	150	100

Table 6.19: Housing environment

Rating	Comm 1		Comm. 2		Comm. 3		All Comm.	
	f	%	f	%	f	%	f	%
Very Clean	7	14	7	14	15	30	29	19.4
Moderately Clean	21	42	30	60	28	56	79	52.6
Dirty	22	44	13	26	7	14	42	28.0
Total	50	100	50	100	50	100	150	100

6.3.3 Convenience of Dwelling, Changes to Dwelling and Problems Experienced in Adverse Weather Conditions

In terms of the convenience of the dwellings for individual needs, 80% to 90% of respondents in communities one and two stated that their dwellings were inconvenient. However, the respondents in community three thought that their dwellings were convenient for their needs (Table 6.20) and did not desire to change

their dwelling even if they were given a choice (Table 6.21). This was also the case of 34% of respondents in community one. However, 46% of respondents in community one and 14% in community two wanted to build more rooms. Thirty percent in community two wanted to build a new house whilst others (36%) needed to put new roofs on their dwellings and generally improve the structure of the dwelling (6%) (Table 6.21). Most of the respondents in community one and two (54% and 84% respectively) stated that their dwellings were inconvenient for all weather conditions whilst respondents (56%) in community three felt that their dwellings were inconvenient (Table 6.22).

Table 6.20: Convenience of dwelling for needs

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Convenient	10	20	3	6	41	82	54	36
Inconvenient	40	80	47	94	9	18	96	64
Total	50	100	50	100	50	100	150	100

Table 6.21: Changes to dwelling if given the choice

Type of change	Comm 1		Comm. 2		Comm. 3		All Comm	
	f	%	f	%	f	%	f	%
No changes-used to conditions	17	34	4	8	-	-	21	14.0
Build more rooms	23	46	7	14	3	6	33	22.0
Build new house	-	-	15	30	-	-	15	10.0
Improve structure of present dwelling	-	-	3	6	4	8	7	4.7
Put new roof	-	-	18	36	-	-	18	12.0
Move to better place	-	-	-	-	2	4	2	1.3
N/A	10	20	3	6	41	82	54	36.0
Total	50	100	50	10	50	100	150	100

The major problems experienced were that:

- the house leaked when it rained (all communities: 50%)

- water damaged personal possessions (community one: 28% and community two: 30%)
 - crowding in dry areas when it rained (community one: 20% and community two: 14%)
 - roof and mud walls fall (community two: 26%)
 - wind blows roof out (community two: 20%)
 - water causes dampness (community one: 30% and community two: 20%)
- (Table 6.23).

Table 6.22: Convenience of dwelling for all weather conditions

Response	Comm 1		Comm. 2		Comm. 3		All Comm.	
	f	%	f	%	f	%	f	%
Convenient	23	46	8	16	28	56	59	39.4
Inconvenient	27	54	42	84	22	44	91	60.6
Total	50	100	50	100	50	100	150	100

Table 6.23: Problems experienced during adverse weather conditions (multiple responses)

Problems	Comm 1 (N=50)		Comm. 2 (N=50)		Comm. 3 (N=50)		All Comm. (N=150)	
	f	%	f	%	f	%	f	%
House leaks when it rains	25	50	22	44	28	56	75	50.0
Water damage to personal possessions	14	28	7	14	15	30	36	24.0
Run-off washes away parts of house	7	14	5	10	2	4	14	9.4
All crowd in dry area of house	10	20	7	14	3	6	20	13.4
No place to sleep	4	8	-	-	13	26	17	11.4
Roof and mud walls fall	-	-	13	26	-	-	13	8.7
Cold in winter, hot in summer	-	-	8	16	13	26	21	14.0
Wind blows roof out	-	-	10	20	2	4	12	8.0
Water causes dampness	15	30	10	20	15	30	40	26.7

6.4 WATER AND SANITATION

6.4.1 Water Source, Storage, Water Carriers and Distance to Water Source

The availability of piped water and proper sanitation has an obvious health impact. Communities that do not have good water sources would be more prone to illness and disease and their health status would be poor. The majority of respondents in all three communities indicated that they had access to piped water in the form of public taps (Table 6.24). This is the initiative of the previous Metro Council that ensured the availability of standpipes in most informal settlements in the Metropolitan Area. A significant proportion of respondents in community one (40%) and a minority in community three (14%) obtained their water from rivers and streams as it was more accessible to them in terms of their location in the settlement.

Table 6.24: Sources of drinking water

Water Source	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Public tap	28	56	50	100	40	80	118	78.6
River/ stream	20	40	-	-	7	14	27	18.0
Tank	2	4	-	-	3	6	5	3.4
Total	50	100	50	100	50	100	150	100

Even though the majority of respondents sampled had access to piped water, an important component in any health survey is to investigate the mode of storage of water in households. A cause for concern is the storage of water in containers and buckets as is evident in all three communities. The way water is stored could impact negatively on health status of households if the containers are contaminated. Fifty percent, 90% and 62% of respondents in community one, two and three respectively, stored water in twenty litre containers and buckets. Tanks were used to store water by 26% of respondents in community one and three (Table 6.26).

Table 6.25: Water storage

Water Source	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
No storage	12	24	5	10	6	12	23	15.3
Tank	13	26	-	-	13	26	26	17.3
Containers	14	28	32	64	17	34	63	42.0
Bucket	11	22	13	26	14	28	38	25.4
Total	50	100	50	100	50	100	150	100

Table 6.26: Distance to water source

Distance (km)	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Less than one	2	4	12	24	10	20	24	16.0
One	8	16	17	34	32	64	57	38.0
Two	12	24	10	20	4	8	26	17.3
Three	17	34	8	16	4	8	29	19.3
Four	3	6	3	6	-	-	6	4.0
Five	8	16	-	-	-	-	8	5.4
Total	50	100	50	100	50	100	150	100

Table 6.27: Persons carrying water to home

Persons	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Male Adult	2	4	12	24	20	40	34	22.7
Female adult	25	50	23	46	15	30	63	42.0
Adult both sexes	6	12	7	14	5	10	18	12.0
Children	17	34	8	16	10	20	35	23.3
Total	50	100	50	100	50	100	150	100

The distance to the water sources and the persons carrying water to households may also have health implications. Distance to water sources ranged from less than one kilometre to five kilometres with over half the respondents indicating that they carried water one kilometre or less.(Table 6.26) In the majority of households in all communities, adult females carried water (50%, 46% and 30% in communities one, two and three respectively) (Table 6.27). Females and children were generally observed to carry water containers on their heads and this practice could lead to present and future health problems such as head and spinal injuries with symptoms

such as headaches and backaches. This aspect will be focused on later when the prevalence of illness and diseases in these communities is discussed.

6.4.2 Toilet Type, Availability of Public Toilet and Distance to Public Toilet

In all communities surveyed, a significant proportion of respondents did not have access to proper toilet facilities. Ninety percent of persons in community one and 34% in community two used nearby bushes as their toilets. There was also manual disposal of human waste by burying, especially in community three (46%). There was some improvement regarding toilets in community one and three where 62% and 48% of households had septic tanks. The use of bushes as toilets is very unhealthy, as it becomes the breeding ground for flies and other insects. This can lead to the spread of infectious diseases. Additionally, the location of human waste disposal in terms of the runoff during heavy rainfall will cause pollution to the environment viz., rivers and streams. Diseases and germs can easily spread by people using contaminated water, not only for drinking but also for other household purposes such as washing and bathing. The recent spread of cholera in many parts of northern KwaZulu-Natal has been due to the use of polluted water from rivers, streams and ponds.

Table 6.28: Toilet type

Toilet type	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Manual disposal	5	10	2	4	23	46	30	20
None (bush)	40	80	17	34	3	6	60	40
Septic tank	5	10	31	62	24	48	60	40
Total	50	100	50	100	50	100	150	100

Table 6.29: Availability of public toilet

Availability	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Available	5	10	-	-	10	20	15	10
Not available	45	90	50	100	40	80	135	90
Total	50	100	50	100	50	100	150	100

Table 6.30: Distance to public toilet

Distance (metres)	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
15 metres	3	6	-	-	-	-	3	2.0
25 metres	2	4	-	-	-	-	2	1.3
200 metres	-	-	-	-	7	14	7	4.7
500 metres	-	-	-	-	3	6	3	2.0
N/A	45	90	50	100	40	80	135	90.0
Total	50	100	50	100	50	100	150	100

Very few households had access to public toilets. Those households that had access to these facilities had to travel distances ranging from 15 metres to 25 metres in communities one and two and over 200 metres in community three (Table 6.30). Respondents considered the walk to these facilities dangerous especially at night because there were incidents of mugging, beatings and a few cases of rape in the past few years. Respondents therefore opt to use the nearest bush area in close proximity to their homes.

Following from the above discussion, the next section will assist in providing an understanding of various other health and health care issues of respondents in the three communities surveyed. A range of themes will be discussed from survey data obtained and it will become apparent from the presentation that the present research is multi-focused. The following variables will be discussed:

- meaning of health;
- healthy communities;
- factors influencing health;
- health facilities;
- present health policy;
- disease prevalence; and
- community participation.

6.5 HEALTH CONCEPT

Health is a very broad concept but, according to Cartwright (1983), many studies consider sickness as a more appropriate term. The present study uses the concept of health as discussed in the literature review and conceptual framework presented previously and attempts to seek general measures of health which could be used to evaluate the changing health circumstances of individuals or communities. Using such measures makes it possible to also compare the health needs of different communities in different geographical areas to assist in planning for adequate services and facilities.

6.5.1 Interpretation of Health by Respondents

Generally most people consider health to be important. However, they find difficulty when asked to define the concept (Eyles and Donovan, 1986). Health is an abstract idea and is considered in a negative way when people consider illness or other problems. People assess their own health subjectively (Ewles and Simnett, 1985). In the present study respondents were asked what they understood by the concept of health. Varied responses on the perceptions of health were received from respondents. These are clearly illustrated in Table 6.31 below. However, it is clearly evident that there were various commonalties as well as differences with regard to the way respondents perceived health. For example, community one and three placed most emphasis on having nutritious food as their understanding of health (84% and 36% respectively) (Table 6.31). Community two understood health to mean having water and sanitation (50%). A significant proportion of respondents in all communities cited the receiving of proper medical treatment (36%, 46% and 24% respectively). What is evident generally from all the responses is that when the meaning of health is analysed carefully, responses can be placed into the following perspectives:

- **Biomedical:** nutritious food, receiving treatment, exercise, having medication in house, living to an old age and the ability to work.

- **Social:** getting on with people especially neighbours, feeling at peace, and taking care of oneself and the family.
- **Environmental:** good condition of life, having water and sanitation and having a clean environment.

It should be noted that some of the responses could be placed in more than one category because they may be open to interpretation and meaning. For example, “good condition of life” could mean having good environmental conditions in which to live in or having access to proper health care services and facilities which would lead to a good lifestyle (Table 6.31).

Table 6.31: Meaning of health to respondents (multiple response)

Meaning	Comm.1 N=50		Comm.2 N=50		Comm.3 N=50		All Comm. N=150	
	f	%	f	%	f	%	f	%
Nutritious food	42	84	12	24	18	36	72	48.0
Getting on with people especially neighbours	15	30	13	26	17	34	45	30.0
Receiving treatment when ill	18	36	23	46	12	24	53	35.4
Good condition of life	13	26	10	20	15	30	38	25.4
Feeling at peace	17	34	10	20	15	30	42	28.0
Exercise	5	10	-	-	-	-	5	3.3
Having water and sanitation	18	36	25	50	2	4	45	30.0
No knowledge	5	10	-	-	-	-	5	3.3
Taking care of oneself and family	6	12	-	-	5	10	11	7.4
Living to old age	3	6	7	14	15	30	25	16.7
Having medication in house	2	4	-	-	-	-	2	1.4
Having a clean environment	-	-	3	6	-	-	3	2.0
Ability to work	3	6	2	4	10	20	15	10.0
Living in a good condition	2	4	28	56	17	34	47	31.4

6.5.2 Understanding of a Healthy Community

The broad perspectives outlined above are also valid in relation to respondents understanding of a healthy community as is evident in Table 6.32. Even in this case there was greater emphasis on the biomedical perspective with responses such as “medical support and access to health facilities”; “no disease or illness”; “enough health facilities” and “enough food”. Social support was very significant in

community three (56%) with social and environmental as well as services and facilities being mentioned by a minority of respondents in all communities (Table 6.32).

Table 6.32: Understanding of a healthy community (multiple response)

Meaning	Comm.1 (N=50)		Comm.2 (N=50)		Comm.3 (N=50)		All Comm. (N=150)	
	f	%	f	%	f	%	f	%
Social support	10	20	7	14	28	56	45	30.0
Knowing right and wrong	2	4	-	-	-	-	2	1.3
Having sanitation and water	3	6	5	10	3	6	11	7.3
Working together	5	10	2	4	-	-	7	4.7
No illness or disease	8	16	5	10	-	-	13	8.7
Personal responsibility	7	14	-	-	-	-	7	4.7
Access to electricity	2	4	-	-	15	30	17	11.4
Medical support and access to health facilities	12	24	38	76	9	18	59	39.4
Good socio-economic conditions	3	6	7	14	8	16	18	12.0
Clean environment	7	14	-	-	10	20	17	11.4
Have proper housing	-	-	15	30	-	-	15	10.0
Enough health facilities	-	-	3	6	2	4	5	3.3
Adequate food	-	-	7	14	-	-	7	4.7
Stable community	-	-	-	-	2	4	2	1.3
Don't know	32	64	3	6	-	-	38	25.3

Generally though, more responses were received in attaching meaning in terms of the biomedical perspective, although the social and environmental perspectives also received attention. Meaning attached to the concept of health seems to be dependent on the circumstances that people find themselves. The people interviewed are from an informal settlement but still place great emphasis on the biomedical perspective in contrast to the environmental and social aspects of health. Being located in close proximity to and in urban areas, where there is an abundance of health care facilities and the fact that they have been living their lives in a society where the biomedical perspective is entrenched, socialising residents into believing that it is the only means of preserving their health. This is to be expected. It is not contended that there is no merit in biomedicine, it is needed, but it is fruitless to live in a community where medical treatment is received and individuals and groups return to the conditions that created their ill health. No matter how many clinics and hospitals are built, it is contended that the health status of populations living in unhygienic, unsanitary and

poor housing will not improve significantly, no matter how satisfied people are living in those conditions.

6.6 FACTORS INFLUENCING HEALTH

The state of health or ill health in communities or amongst individuals is the result of numerous factors and these are time and context related. It is imperative that these factors are identified in communities so that improvements could be made. Policy makers and planners must be made aware of the fundamental social and environmental determinants of health as viewed by people. This is essential in a transforming South Africa because the control of health and health related problems have been taken away from the people over a period of time. It has been seized from those people who are affected and placed in the hands of medical experts who do not understand or do not have sufficient knowledge on the social and environmental basis of health and illness. According to Ewles and Simnett (1985), the medicalisation of health has created in people an expectation of a cure for everything and has deprived people of the ability to cope with illness and its causes that stem from the living environment. The stimuli that impacts on health in the living environment continually change and are not static and place serious demand on people especially in underprivileged or deprived communities and these should be accounted for in any development initiative. For example, unemployment and retrenchments will obviously influence health, as it will deprive households of essential sustenance. The point is that it is no use providing health facilities in a community, if the basic needs of the community are not satisfied. These include among others, sufficient food, proper shelter and clothing. Additionally, people should have adequate access to employment opportunities to satisfy their needs.

The nature of the community in which a person lives is of vital importance as it influences a person's health. Attention should therefore be given to identifying conditions in communities that tend to promote or retard people's health. However, different people will be effected differently in terms of their health to similar

conditions in the residential environment that include housing and the neighbourhood environment. According to McGuckin and Smith (1991), the relevance of housing to an understanding of health has never been in doubt. The adverse effects of poor living conditions on health leading to the probability of certain illnesses and diseases occurring in residential environments are well documented. In the present study respondents were questioned on their knowledge of factors in the residential environment that influenced their health and the way these factors effected their health (Tables 6.33 and 6.34). Respondents were able to identify numerous factors, the most important of which were:

- insufficient food (26.7%-especially in comm.1 and 2)
- poor living conditions (16.7%-especially in comm.1)
- waste around house (27.3%-significant in all communities)
- too many people in the house (33.4%-especially in comm.1)

Respondents were also able to assess the ways in which these factors influence their health (Table 6.34). For example, in community one (40%) and community two (20%), respondents were able to draw the link between the lack of healthy foods and poor health. Similarly, respondents stated that poor living conditions caused illness very easily (52%). Waste around the house was cited as causing insects to breed and spread germs and diseases (36%). It is clear from the responses that most respondents understood the nature and causes of illness and diseases. They were able to identify physical factors (for example, lack of food) which affected their bodily functions, poor living conditions (availability of water, proper toilets, proper housing) and also environment conditions (for example, waste disposal, poor terrain, wet and muddy conditions, dust and smoke) as the leading cause of ill health. The relationship between poor housing and ill health cannot be disputed. Numerous studies have demonstrated the relationship between specific housing conditions such as dampness and overcrowding and ill health (Hyndman, 1990; Lowry, 1990; Martin et al, 1987; Platt et al, 1989; Strachan and Sanders, 1989; Smith, 1991). Moreover, the WHO (1989) has also acknowledged the contribution of decent accommodation in

promoting health. It can therefore be concluded that the informal dwellers living in poor housing conditions in the study areas are more susceptible to illness and diseases.

Some of the conditions that influenced health in this study are beyond the control of the people but other activities such as waste disposal and smoke from open fires in their homes which can lead to high incidences of respiratory diseases, could be attended to by households themselves. In this respect individuals and communities can share in this responsibility for creating such conditions if they have been educated on these issues. Although they may understand the factors that lead to poor health, they should be educated on preventing adverse health conditions by public health officials in their health promotion campaigns. Health promotion will remove the underlying risk factors and should be increased in informal settlements. More permanent solutions should also be sought in the form of rehousing people, that is, moving people out of unhealthy homes and environments into healthy ones. It may also involve upgrading of present informal settlements to improve the conditions in which people live. The aim here is not to explore the various alternatives in detail but to point out that alternatives are available. According to Smith et al (1991), the relationship between housing and health is not the product of chance but rather a product of political will. It is therefore incumbent on the National State to provide the necessary resources via the Provincial government to redress the housing problem at local level in those South African provinces that are desperately in need.

Table 6.33: Factors influencing health in the residential environment (multiple responses)

Meaning	Comm.1 (N=50)		Comm.2 (N=50)		Comm.3 (N=50)		All Comm. (N=150)	
	f	%	f	%	f	%	f	%
Insufficient food	20	40	13	26	7	14	40	26.7
Lack of clean water	10	20	7	14	3	6	20	13.3
Poor living conditions	15	30	7	14	3	6	25	16.7
Waste around houses	10	20	13	26	18	36	41	27.3
Lack of health information	2	4	7	14	-	-	9	6.0
Too many people in one house	34	68	7	14	2	4	50	33.4
No proper toilets	2	4	5	10	13	26	20	13.3
Cold and damp house	-	-	5	10	12	24	17	11.4
Area is wet	-	-	2	4	3	6	5	3.4
Violence/ crime amongst people	3	6	7	14	2	4	12	8.0
Dirty toilets	-	-	2	4	7	14	9	6.0
Poor housing	2	4	-	-	5	10	7	4.7
Dust and smoke	-	-	-	-	3	6	3	2.0
Mosquitoes	-	-	10	20	3	6	13	8.7

Table 6.34: Way in which factors effect health (multiple responses)

Affect on health	Comm.1 (N=50)		Comm.2 (N=50)		Comm.3 (N=50)		All Comm. (N=150)	
	f	%	f	%	f	%	f	%
Lack of health food leads to poor health	20	40	10	20	-	-	30	20.0
Poor living conditions cause illness easily	10	20	27	54	15	30	52	34.7
Lack of clean water causes illness	10	20	7	14	3	6	20	13.4
Waste around home / insects breed / spread germs and diseases	8	16	13	26	15	30	36	24.0
Mosquitoes spread germs	-	-	7	14	-	-	7	4.7
Cold gets into home causing illness	7	14	5	10	15	30	27	18.0
Poor terrain causes old people to fall and get injured	-	-	13	26	-	-	13	8.7
Wet and muddy conditions cause illness	-	-	3	6	12	24	15	10.0
Dirty toilets cause flies to breed and spread germs	-	-	2	4	10	20	12	8.0
Witchcraft causes people to get sick	-	-	8	16	-	-	8	5.4
High crime causes injury	-	-	7	14	3	6	10	6.7
Dust and smoke causes breathing problems	-	-	-	-	3	6	3	2.0
No health information to improve our lives	2	4	8	16	-	-	10	6.7

6.7 HEALTH FACILITIES/ SERVICES

No study of the geography of health is complete without an investigation of the health facilities/ services in an area. Although it has been revealed in previous discussions

that the social and environmental components of a community are paramount in influencing the health of people, the availability of health services/ facilities also have their part to play in providing treatment for those who are sick, injured or for those who require other treatments for an ailment. All communities should have access to basic health services and facilities. The general trend in most South African provinces is a bias of health services/ facilities in urban areas. In the words of Wilson and Ramphela (1989b), South Africa has some of the best medical facilities in the world but tends to be under-supplied and highly inaccessible to the majority disadvantaged population. It therefore needs to be established whether these services and facilities are available and accessible to the disadvantaged communities under investigation. Accessibility to health care is more complex than just determining the number of health facilities/ services available in an area. Distance, time and cost are the major components that comprise access to any facility/ service and these variables would be of greater significance to those who are disadvantaged. There is also a need for people to provide in the planning process, their own assessment of the health care facilities available and the quality of care obtained, that is, the subjective perceptions and attitudes of people and not only the objective indicators used by policy makers, planners or medical administrators. People are the users of health services and facilities and they are in the best position to provide a true evaluation. According to Van Rensburg et al (1992), health needs are basic needs and the demand for health is a subjective or self-experienced need. Individuals and communities sometimes do not make use of available services and may even endanger their health by not experiencing such a need. The characteristics of a population will therefore not only influence their health perspectives (beliefs, myths, customs) but will also determine their health behaviour (Van Rensburg et al, 1992). The following sections therefore provide a discussion of the data obtained on some of the variables mentioned above.

6.7.1 Health Service Availability

Table 6.35: Availability of health services in area (Comm.1)

Response	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Pract. (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Available	10	20	7	14	8	16	-	-	38	76	38	76	5	10
Unavailable	40	80	43	86	42	84	50	100	12	24	12	24	45	90
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Except for sangomas and inyangas who are traditional healers, there were no other medical facilities in community one (Table 6.35). In community two, the majority of residents stated that a PHC clinic, FP clinic and GPs were available but there were no hospitals, sangomas, inyangas and emergency services (ambulance)(Table 6.36). In community three, hospitals and GPs were unavailable but the majority of residents stated that the other health facilities/ services were available (Table 6.37). What is evident is that there are inequalities amongst the three communities in terms of health facility/ service availability in the respective areas. Community two and three were advantaged, having clinics and community three, traditional healers. Inequalities regarding health facility/ service availability have arisen not by the location of the health facilities in the metropolitan urban areas but by the location and establishment of the informal settlements in areas that respondents considered suitable for their dwellings. The combined data on the availability of facilities/ services for all three communities is presented in Table 6.38. It is clear that the majority of respondents stated that PHC clinics, FP clinics and traditional healers were available to them.

6.7.2 Number of Facilities/ Services in Area

Even though hospitals were considered to be unavailable in community one, 52% of residents have access to one or two hospitals and clinics. The number of GPs ranged from none to four and the majority of residents stated that one to two traditional healers were in their area (Table 6.39).

Table 6.36: Availability of health services in area (Comm.2)

Response	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Pract. (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Available	-	-	38	76	40	80	43	86	5	10	13	26	7	14
Unavailable	50	100	12	24	10	20	7	14	45	90	37	74	43	86
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.37: Availability of health services in area (Comm.3)

Response	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Pract. (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Available	20	40	50	100	40	80	13	26	45	90	47	94	38	76
Unavailable	30	60	-	-	10	20	37	74	5	10	3	6	12	24
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.38: Availability of health services in area (All Comm.)

Response	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Pract. (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Available	30	20	95	63.3	88	58.7	56	37.3	88	58.7	98	65.3	50	33.4
Unavailable	120	80	55	36.7	62	41.3	94	62.7	62	41.3	52	34.7	100	66.6
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100

Table 6.39: Number of facilities/ services in area (Comm.1)

Number	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
None	22	44	23	46	18	36	13	26	5	10	7	14	18	36
One	18	36	17	34	22	44	12	24	23	46	22	44	20	40
Two	8	16	8	16	8	16	12	24	8	16	7	14	8	16
Three	-	-	-	-	-	-	10	20	2	4	4	8	2	4
Four	2	4	2	4	2	4	3	6	12	24	10	20	2	4
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

It was stated by over 40% of the respondents in community one that there were no hospitals and PHC clinics in the area. However, a significant proportion (36% and 34%) mentioned that there was one hospital and PHC clinic accessible to them. Similar proportions of respondents had the same view with regard to FP clinics, sangomas, inyangas and emergency services. The number of GPs in and around the area ranged from one to four, although 26% stated that there were no GPs located in the settlement itself (Table, 6.39).

In community two there were no hospitals available in the area, however 94% of respondents stated that one PHC and FP clinic was available. Additionally, 96% stated that one GP was available. The majority of respondents (66% and 56%) were of the opinion that there were no sangomas and inyangas available to them in the area. There were also no emergency services in community two (Table, 6.40).

Table 6.40: Number of facilities/ services in area (Comm.2)

Number	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
None	50	100	3	6	3	6	2	4	33	66	28	56	50	100
One	-	-	47	94	47	94	48	96	10	20	14	28	-	-
Two	-	-	-	-	-	-	-	-	7	14	8	16	-	-
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

In community three, all respondents stated that one PHC clinic was located in the area. The majority (86%) also confirmed that there was one FP clinic. However, 70% responded that there were no GPs and 60% no emergency services. In this community, there was a high prevalence of traditional healers (sangomas and inyangas), ranging from one to four (Table, 6.41).

Table 6.41: Number of facilities/ services in area (Comm.3)

Number	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
None	33	66	-	-	7	14	35	70	3	6	5	10	20	40
One	17	34	50	100	43	86	13	26	7	14	10	20	25	50
Two	-	-	-	-	-	-	2	4	7	14	7	14	3	6
Three	-	-	-	-	-	-	-	-	10	20	2	4	2	4
Four	-	-	-	-	-	-	-	-	23	46	26	52	-	-
Total	50		50	100	50	100	50	100	50	100	50	100	50	100

The overall assessment of the number of health services and facilities in the three communities surveyed is indicated in Table 6.42. It is clearly evident that 70% of respondents have no hospitals in their area. About eighty percent have one to two PHC and FP clinics. Traditional leaders ranged from one to four with an average of two traditional healers in each community. Over 58% of respondents had no emergency services. Although there were no hospitals or other health facilities in some of the communities, respondents had access to the facilities that were located in some part of the metropolitan area. Respondents had access to an average of at least one hospital, PHC clinic, FP clinic, GP and emergency service but on average they had access to two sangomas and inyangas. (Table 6.42). The adequacy of the health facilities/ services to respondents was also explored and this data is reflected in Tables 6.43 to 6.46 below.

Table 6.42: Number of facilities/ services in area (All Comm.)

Number	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
None	105	70.0	26	17.4	28	18.7	50	33.3	41	27.4	40	27.4	88	58.7
One	35	23.4	114	76.0	112	74.7	73	48.7	40	26.7	46	26.7	45	30.0
Two	8	5.3	8	5.3	8	5.3	14	9.3	22	14.6	22	14.6	11	7.4
Three	-	-	-	-	-	-	10	6.7	12	8.0	6	8.0	4	2.6
Four	2	1.3	2	1.3	2	1.3	3	2.0	35	23.3	36	23.3	2	1.3
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100
	X=1.0		X=1.0		X=1.0		X=1.4		X=2.3		X=2.2		X=1.4	

Table 6.43: Adequacy of health services in area (Comm.1)

Response	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Adequate	3	6	10	20	10	20	10	20	5	10	5	10	3	6
Adequate	10	20	-	-	-	-	-	-	28	56	34	68	8	16
Inadequate	37	74	40	80	40	80	40	80	17	34	11	22	39	78
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.44: Adequacy of health services in area (Comm.2)

Response	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Adequate	7	14	-	-	-	-	5	10	17	34	15	30	2	4
Adequate	33	66	25	50	40	80	35	70	23	46	30	60	12	24
Inadequate	10	20	25	50	10	20	10	20	10	20	5	10	36	72
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.45: Adequacy of health services in area (Comm.3)

Response	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Adequate	2	4	26	52	7	14	-	-	-	-	3	6	5	10
Adequate	7	14	2	4	21	42	13	26	33	66	47	94	28	56
Inadequate	41	82	22	44	22	44	37	74	17	34	-	-	17	34
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.46: Adequacy of health services (All Comm.)

Response	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Adequate	12	8.0	36	24.0	17	11.3	15	10	22	14.7	23	15.3	10	6.7
Adequate	50	33.3	27	18.0	61	40.7	48	32	84	56.0	111	74.0	48	32.0
Inadequate	88	58.7	87	58.0	72	48.0	87	58	44	29.3	16	10.7	92	61.3
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100

6.7.3 Adequacy of Health Services/ Facilities

In community one, except for the traditional healers, public health facilities were considered inadequate to the majority of respondents. Residents of community two perceived emergency-services to be inadequate. The remaining health facilities/ services were very adequate and adequate to the respondents. The majority of respondents in community three were of the opinion that the hospitals and GPs that they attended were inadequate (82% and 74% respectively). With regard to the rest of the health services and facilities, most respondents rated them as adequate or very adequate (Table 6.45).

In the overall assessment of health facilities/ service rating, the majority of respondents were of the opinion that the hospitals, PHC clinics, GPs (58%) and emergency services (61.3%) were inadequate. Family Planning clinics were adequate (40.7%) to inadequate (48%) and traditional healers also adequate (Table 6.46).

6.7.4 Distance Travelled to Services/ Facilities

Table 6.47: Distance travelled to services/ facilities (Comm.1)

Distance (kms)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
<1	5	10	5	10	5	10	7	14	17	34	20	40	5	10
1-4	22	44	20	40	15	30	12	24	18	36	18	36	17	34
5-9	13	26	13	26	10	20	10	20	5	10	8	16	10	20
10-14	8	16	8	16	18	36	8	16	5	10	4	8	8	16
15+	2	4	4	8	2	4	13	26	5	10	-	-	10	20
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X= 5		X= 5.6		X=6.7		X=7.8		X=3.3		X=1.6		X= 7.1	

The majority of respondents travelled between 1-14 kilometres to all health facilities/ services except in the case of traditional healers who were located from less than 1 kilometre to 4 kilometres to most respondents. The average distance to the sangomas was 3.3 kilometres and the inyangas, 1.6 kilometres. The average distance to all the other facilities/ services ranged from 5 to over 7 kilometres (Table 6.47).

In community two the hospital, sangomas and inyangas were furthest away from respondents as compared to other facilities/ services with average distances ranging from 8 kilometres for hospitals, 4.9 kilometres to sangomas and 6.7 kilometres to inyangas. The other facilities/ services averaged distances of between 1.6 kilometres and 3.1 kilometres.

Similarly, in community three only the hospitals, GPs and emergency services were furthest away according to respondents. Most respondents travelled between 5 to over 15 kilometres. The average distance to hospitals was 9.3 kilometres, GPs, 12 kilometres and emergency services, 10.5 kilometres (Table 6.49). Distances to other facilities/ services was between less than 1 kilometre to just over 1 kilometre.

Table 6.50 indicates the composite distances travelled by all communities to health services and facilities. It is evident from the average distances travelled by respondents that only the hospitals (11.5 kilometres), GPs (5.8 kilometres) and emergency services (6.9 kilometres) were over 5 kilometres. In all communities the distances travelled ranged from less than one kilometre to over fifteen kilometres.

In the overall assessment, it is evident that from the three communities, community one and three suffered disadvantages in terms of hospitals, GPs and emergency services, whilst community two was only disadvantaged in terms of hospitals and traditional healers as they had to travel long distances to these facilities/ services. Access in terms of distance was therefore critical to some communities for certain facilities. Distance to services and facilities is closely associated with the cost incurred in travelling. The costs incurred in travelling to the various health facilities/ services are indicated in Tables 6.59 to 6.61.

Table 6.48: Distance travelled to services/ facilities (Comm.2)

Distance (kms)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
<1	-	-	12	24	12	24	13	26	12	24	8	16	17	34
1-4	20	40	30	60	30	60	27	54	7	14	13	26	13	26
5-9	8	16	8	16	8	16	10	20	21	42	10	20	12	24
10-14	13	26	-	-	-	-	-	-	10	20	12	24	8	16
15+	9	18	-	-	-	-	-	-	-	-	7	14	-	-
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X=8.1		X=1.6		X=1.6		X=1.7		X=4.9		X=6.7		X=3.1	

Table 6.49: Distance travelled to services/ facilities (Comm.3)

Distance (kms)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
<1	7	14	36	72	36	72	7	14	28	56	18	36	8	16
1-4	5	10	7	14	7	14	7	14	13	26	23	46	3	6
5-9	7	14	2	4	2	4	12	24	7	14	7	14	7	14
10-14	20	40	2	4	2	4	17	34	2	4	2	4	10	20
15+	11	22	3	6	3	6	7	14	-	-	-	-	22	44
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X=9.3		X=0.1		X=0.1		X=12		X=0.3		X=1.3		X=10.5	

Table 6.50: Distance travelled to services/ facilities (All Comm.)

Distance (kms)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
<1	12	8.0	53	35.3	53	35.3	27	18.0	57	38.0	46	30.7	30	20.0
1-4	47	31.4	57	38.0	52	34.7	46	30.7	38	25.3	54	36.0	33	22.0
5-9	28	18.7	23	15.4	20	13.3	32	21.4	33	22.0	25	16.7	29	19.3
10-14	41	27.3	10	6.6	20	13.3	25	16.6	17	11.4	18	12.0	26	17.4
15+	22	14.6	7	4.7	5	3.4	20	13.3	5	3.3	7	4.6	32	21.3
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100
	X=11.5		X=2.5		X=2.5		X=5.8		X=2.8		X=3.2		X=6.9	

6.7.5 Mode of Travel to Health Services/ Facilities

The common mode of transport to hospitals, PHC clinics, FP clinics and emergency services was the bus with the number of respondents ranging from 70% to over 80% in community one. Over 50% of respondents walked to the traditional healers (Table

6.51). In community two, from 50% to over 60% of respondents walked to the hospital, PHC clinic, FP clinic but a significant proportion used either a bus or a mini bus taxi to visit traditional healers or seek emergency services (Table 6.52). Most respondents (from 48% to 90%) in community three used a bus and mini bus taxi to all the health facilities/ services in and around the area. A significant proportion of respondents (40%) also hired cars in times of emergencies (Table 6.53). The overall assessment of the mode of travel in all communities is indicated in Table 6.54. It is clearly evident that over half the respondents in all communities used a bus and a mini bus taxi although significant proportions (>30%) walked to the PHC clinic, FP clinic and traditional healers.

Table 6.51: Mode of travel to facilities/ services (Comm.1)

Travel Mode	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Bus	35	70	35	70	42	84	35	70	20	40	20	40	42	84
Mini bus	8	16	8	16	-	-	-	-	-	-	-	-	-	-
Own car	3	6	3	6	3	6	3	6	3	6	3	6	3	6
Walk	4	8	4	8	5	10	12	24	27	54	27	54	5	10
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.52: Mode of travel to facilities/ services (Comm.2)

Travel Mode	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Bus	10	20	3	6	3	6	10	20	20	40	23	46	17	34
Mini bus	10	20	12	24	12	24	8	16	17	34	10	20	24	48
Hired car	3	6	-	-	-	-	-	-	3	6	3	6	2	4
Own car	2	4	2	4	2	4	2	4	2	4	2	4	2	4
Walk	25	50	33	66	33	66	30	60	8	16	12	24	5	10
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.53: Mode of travel to facilities/ services (Comm.3)

Travel Mode	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Bus	17	34	15	30	15	30	12	24	8	16	8	16	12	24
Mini bus	33	66	17	34	17	34	20	40	18	36	19	38	12	24
Hired car	-	-	2	4	2	4	7	14	3	6	3	6	20	40
Own car	-	-	3	6	3	6	3	6	3	6	-	-	3	6
Walk	-	-	13	26	13	26	8	16	18	36	20	40	3	6
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.54: Mode of travel to facilities/ services (All Comm)

Travel Mode	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Bus	62	41.3	53	35.3	60	40.0	57	38.0	48	32.0	51	34.0	71	47.4
Mini bus	51	34.0	37	24.7	29	19.4	28	18.7	35	23.4	29	19.4	36	24.0
Hired car	3	2.0	2	1.3	2	1.3	7	4.6	6	4.0	6	4.0	22	14.7
Own car	5	3.3	8	5.3	8	5.3	8	5.3	8	5.3	5	3.3	8	5.3
Walk	29	19.4	50	33.4	51	34.0	50	33.4	53	35.3	59	39.3	13	8.6
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100

6.7.6 Travel Time to Facilities/ Services

In community one, the least time taken (5-14 minutes) by the majority of respondents was too traditional healers (78%: sangoma) and (80%: inyanga). Time taken to the rest of the facilities by most of the respondents was between 25 to 30 minutes with average times ranging from 18 minutes (hospitals) to 23.5 minutes (GPs) (Table 6.55).

Table 6.55: Travel time to facilities/ services (Comm.1)

Time (min.)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
5-9	2	4	2	4	3	6	2	4	17	34	20	40	5	10
10-14	17	34	13	26	13	26	15	30	22	44	20	40	15	30
15-19	5	10	5	10	8	16	3	6	5	10	2	4	3	6
20-24	2	4	4	8	2	4	2	4	-	-	-	-	-	-
25-29	2	4	13	26	2	4	-	-	-	-	-	-	-	-
30+	22	44	13	26	22	44	28	56	6	12	8	16	27	54
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X=18		X=22		X=22.3		X=23.5		X=13.2		X=13.4		X=22.6	

In community two the time taken to travel to all the facilities/ services by over 80% of respondents was between 15 to over 30 minutes (Table 6.56). Average time to all facilities ranged from between 21.7 minutes to 29.7 minutes. This community travelled longer distances and spent more time in travelling to health facilities/ services than community one. Even the traditional healers were not located close to the community and it took longer to get to them (Table 6.56). Most people from community three took the longest time (25 to >30 minutes) to get to the hospital (84%), GPs (56%), inyanga (50%) and emergency services (92%) (Table 6.57). The time taken to the sangomas was between 20 to over 30 minutes whilst that to the clinics was between 5-14 minutes. The average time taken to health facilities/ services was between 14.1 minutes (FP clinic) to 28.1 minutes to emergency services (Table 6.57).

Table 6.56: Travel time to facilities/ services (Comm.2)

Time (min.)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
5-9	-	-	-	-	-	-	-	-	-	-	3	6	-	-
10-14	-	-	5	10	5	10	5	10	-	-	5	10	-	-
15-19	10	20	2	4	4	8	3	6	-	-	13	26	-	-
20-24	17	34	10	20	10	20	13	26	2	4	3	6	-	-
25-29	20	40	26	52	18	36	12	24	23	46	23	46	23	46
30+	3	6	7	14	13	26	17	34	25	50	3	6	27	54
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X=23.6		X=25		X=25		X=25.5		X=29.3		X=21.7		X=29.7	

Table 6.57: Travel time to facilities/ services (Comm.3)

Time (min.)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
5-9	5	10	25	50	18	36	12	24	13	26	15	30	2	4
10-14	2	4	13	26	15	30	2	4	3	6	2	4	2	4
15-19	-	-	5	10	7	14	3	6	2	4	5	10	-	-
20-24	-	-	5	10	3	6	5	10	17	34	3	6	-	-
25-29	12	24	-	-	2	4	5	10	8	16	15	30	21	42
30+	31	62	2	4	5	10	23	46	7	14	10	20	25	50
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X=27.5		X=22		X=14.1		X=23		X=19.5		X=20.1		X=28.1	

Table 6.58: Travel time to facilities/ services (All Comm.)

Time (min.)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
5-9	7	4.7	27	18.0	21	14.0	14	9.3	30	20.0	38	25.3	7	4.6
10-14	19	12.6	31	20.7	33	22.0	22	14.7	25	16.7	27	18.0	17	11.3
15-19	15	10.0	12	8.0	19	12.6	9	6.0	7	4.7	20	13.3	3	2.0
20-24	19	12.6	19	12.7	15	10.0	20	13.4	19	12.6	6	4.0	-	-
25-29	34	22.7	39	26.0	22	14.7	17	11.3	31	20.7	38	25.4	44	29.4
30+	56	37.4	22	14.6	40	26.7	68	45.3	38	25.3	21	14.0	79	52.7
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100
	X=24.4		X=19.6		X=20.4		X=38		X=20.5		X=18.4		X=26.8	

When the aggregate time to facilities/ services in all communities was computed, it was found that the majority of respondents took between 20 to over 30 minutes to get to the health facility. The average time taken to GPs was highest (38 minutes) with average times also being high for the hospitals (24.4 minutes) and emergency services (26.8 minutes) (Table 6.58).

6.7.7 Travel Costs to Health Facilities

Table 6.59: Travel costs to and from health facilities (Comm.1)

Cost (R)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
None	2	4	2	4	2	4	10	20	25	50	28	56	-	-
1-4	20	40	17	34	18	36	18	36	15	30	12	24	18	36
5-9	16	32	24	48	16	32	15	30	3	6	3	6	17	34
10-14	10	20	2	4	12	24	-	-	-	-	3	6	3	6
15-19	-	-	-	-	-	-	2	4	5	10	2	4	5	10
20-24	-	-	3	6	-	-	-	-	-	-	-	-	5	10
25-29	2	4	2	4	2	4	5	10	2	4	2	4	2	4
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X= R7		X=R7.50		X=R7.50		X=R7.75		X=R5		X=R4.50		X=R8.80	

In community one, no travel cost was incurred by over half the sampled households to visit traditional healers, as they walked to this service. However, 30% and 24% spent between R1-4 to visit sangomas and inyangas, respectively (Table, 6.59). Most respondents spent between R5-R14 to visit hospitals, clinics, GPs and emergency

services. When the average travel costs to facilities/ services was computed it was clear that the least cost were spent in visiting traditional healers (Table 6.59) and the highest cost of R8.80 to emergency services. The average costs to the other facilities/ services ranged between R7 to R7.75.

Table 6.60: Travel costs to and from health facilities (Comm.2)

Cost (R)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
None	12	24	12	24	28	56	28	56	7	14	10	20	17	34
1-4	13	26	17	34	8	16	3	6	18	36	20	40	10	20
5-9	8	16	10	20	3	6	2	4	8	16	3	6	2	4
10-14	15	30	6	12	7	14	13	26	10	20	17	34	12	24
15-19	2	4	5	10	2	4	4	8	7	14	-	-	9	18
20-24	-	-	-	-	2	4	-	-	-	-	-	-	-	-
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X=R8		X=R7		X=R9		X=R11		X=R7		X=R7		X=R10	

In community two, 56% of households did not spend money on travel to the FP clinic and GPs. The majority of respondents spent between R1 to R14 to visit other health facilities and services. The R10 and R11 spent was the highest average travel cost to emergency services and GPs, respectively. Average travel costs to other facilities ranged between R7 and R9. The majority of respondents in community three spent between R1 and R14 to visit hospitals, sangomas and inyangas. Between R1 and R9 was spent to get to clinics by all respondents. Travel costs to GPS and emergency services were higher, ranging between R1 to 24. The lowest average cost of travel was to clinics and the highest, R12.30 to GPs. The aggregate data for all the communities (Table 6.62) indicates that R1 to R14 was spent by the majority of respondents to visit hospitals, R1 to R9 to clinics, R1 to R29 to GPS and emergency services and R1 to R19 to traditional healers. The lowest average cost was to clinics (R5) and the highest to GPs (R10.50) (Table 6.62).

Table 6.61: Travel costs to and from health facilities (Comm.3)

Cost (R)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
None	-	-	-	-	-	-	-	-	5	10	5	10	-	-
1-4	13	26	47	94	47	94	17	34	23	46	20	40	13	26
5-9	12	24	3	6	3	6	3	6	12	24	15	30	15	30
10-14	18	36	-	-	-	-	-	-	7	14	7	14	12	24
15-19	2	4	-	-	-	-	20	40	3	6	3	6	10	20
20-24	2	4	-	-	-	-	10	20	-	-	-	-	-	-
25-29	3	6	-	-	-	-	-	-	-	-	-	-	-	-
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100
	X=R9.50		X=R2.30		X=R2.50		X=R12.30		X=R6		X=R6		X=R8.90	

Table 6.62: Travel cost to and from health facilities (All Comm.)

Cost (R)	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
None	14	9.3	14	9.3	30	20.0	38	25.3	37	24.7	43	28.6	17	11.3
1-4	46	30.6	81	54	73	48.6	38	25.3	56	37.3	52	34.7	41	27.3
5-9	36	24.0	37	24.7	22	14.6	20	13.4	23	15.4	21	14.0	34	22.7
10-14	43	28.7	8	5.3	19	12.6	13	8.7	17	11.3	27	18.0	27	18.0
15-19	4	2.7	5	3.3	2	1.3	26	17.3	15	10.0	5	3.4	24	16.0
20-24	2	1.4	3	2.0	2	1.3	10	6.6	-	-	-	-	5	3.4
25-29	5	3.3	2	1.4	2	1.3	5	3.4	2	1.3	2	1.3	2	1.3
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100
	X=R8		X=R5		X=R5.50		X=R10.50		X=R7		X=R6.50		X=R9	

6.7.8 Frequency of Use of Health Services/ Facilities

The frequency of use of health facilities is also an indicator of the health status of a community. Tables 6.63 to 6.66 clearly indicate this aspect. In community one, 46% of respondents used the PHC clinic frequently and the FP clinic (66%), GPs (70%), traditional healers (44%) and emergency services (64%) sometimes. In contrast, community two used the hospital (66%) and the PHC clinic (72%) frequently and very frequently. Most people in community three used the hospital, GPs, traditional healers and emergency services, sometimes and rarely whilst the clinics frequently and very frequently (Table, 6.65). In the overall assessment of all communities, it is clear from Table 6.66 that over 61% of respondents used the PHC clinic frequently and very frequently and the rest of the health facilities/ services, sometimes or rarely (Table 6.66).

Table 6.63: Frequency of use of services/ facilities (Comm.1)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Frequently	-	-	-	-	-	-	-	-	8	16	8	16	-	-
Frequently	-	-	23	46	15	30	13	26	8	16	8	16	18	36
Sometimes	28	56	23	46	33	66	35	70	22	44	22	44	32	64
Rarely	22	44	4	8	2	4	2	4	12	24	12	24	-	-
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.64: Frequency of use of services/ facilities (Comm.2)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Frequently	20	40	8	16	2	4	1	2	3	6	2	4	-	-
Frequently	13	26	28	56	7	14	7	14	2	4	10	20	2	4
Sometimes	10	20	2	4	31	62	25	50	30	60	23	46	40	80
Rarely	7	14	12	24	10	20	17	34	15	30	15	30	8	16
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.65: Frequency of use of services/ facilities (Comm.3)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Frequently	-	-	27	54	8	16	-	-	-	-	3	6	-	-
Frequently	12	24	7	14	18	36	7	14	8	16	5	10	17	34
Sometimes	23	46	11	22	14	28	16	32	25	50	35	70	20	40
Rarely	15	30	5	10	10	20	27	54	17	34	7	14	13	26
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.66: Frequency of use of services/ facilities (All Comm.)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Frequently	20	13.3	35	23.3	10	6.7	1	0.6	11	7.4	13	8.6	-	-
Frequently	25	16.7	58	38.7	40	26.6	27	18.0	18	12.0	23	15.3	37	24.7
Sometimes	61	40.7	36	24.0	78	52.0	76	50.7	77	51.3	80	53.4	92	61.3
Rarely	44	29.3	21	14.0	22	14.7	46	30.7	44	29.3	34	22.7	21	14.0
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100

6.7.9 Rating of Health Services/ Facilities

When asked to rate the health facilities/ services, most respondents from community one rated all the facilities/ services except the traditional healers as satisfactory or poor. The traditional healers were given a rating of good and satisfactory (Table, 6.68). In community two, all services/ facilities were given a good and satisfactory rating except the emergency services that were given a poor rating (74%). There was a range of ratings by members of community three that varied from being poor for the hospitals (60%) and GPs (64%) and satisfactory for the sangomas (66%) and inyangas (48%). The PHC clinic was considered excellent and very good (50%) whilst the FP clinic rating ranged from very good (30%) to poor (30%). Emergency services were rated good (46%) and satisfactory (24%) (Table 6.69). In all communities the majority of respondents rated most health facilities/ services as satisfactory and poor except for inyangas who were rated good and satisfactory (Table 6.70).

Table 6.67: Rating of services (Comm.1)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Excellent	3	6	-	-	-	-	-	-	10	20	10	20	-	-
Very Good	-	-	-	-	-	-	-	-	3	6	3	6	3	6
Good	2	4	2	4	2	4	2	4	5	10	5	10	2	4
Satisfactory	17	34	18	36	18	36	15	30	17	34	20	40	13	26
Poor	28	56	30	60	30	60	33	66	15	30	12	24	32	64
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.68: Rating of services (Comm.2)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Excellent	-	-	-	-	-	-	7	14	2	4	-	-	-	-
Very Good	7	14	3	6	7	14	8	16	11	22	5	10	3	6
Good	10	20	13	26	24	48	23	46	7	14	17	34	3	6
Satisfactory	21	42	23	46	12	24	5	10	28	56	15	30	7	14
Poor	12	24	11	22	7	14	7	14	2	4	13	26	37	74
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.69: Rating of services (Comm.3)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Excellent	-	-	18	36	2	4	-	-	-	-	-	-	-	-
Very Good	-	-	7	14	15	30	3	6	-	-	3	6	2	4
Good	8	16	5	10	10	20	5	10	7	14	18	36	23	46
Satisfactory	12	24	12	24	8	16	10	20	33	66	24	48	12	24
Poor	30	60	8	16	15	30	32	64	10	20	5	10	13	26
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.70: Rating of services (All Comm.)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Excellent	3	2.0	18	12.0	2	1.3	7	4.7	12	8.0	10	6.7	-	-
Very Good	7	4.6	10	6.7	22	14.7	11	7.3	14	9.4	11	7.3	8	5.3
Good	20	13.3	20	13.3	36	24.0	30	20.0	19	12.6	40	26.7	28	18.7
Satisfactory	50	33.4	53	35.3	38	25.3	30	20.0	78	52.0	59	39.3	32	21.3
Poor	70	46.7	49	32.7	52	34.7	72	48.0	27	18.0	30	20.0	82	54.7
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100

6.7.10 Rating of Care Received

The rating of care received is displayed in Tables 6.71 to 6.74. It is evident from these tables that in community one, care received from all facilities/ services except the traditional healers were very negative, that is, poor. This comprised over 60% of the respondents. Forty-four percent of the inyangas and 36% of the sangomas were considered to dispense satisfactory care (Table 6.71). Most of the responses (>50%) in community two rated the care received as being good and satisfactory. A significant proportion, however, rated the care at the hospitals and PHC clinics, 34% and 36% respectively, as poor. Community three rated the care received at the PHC and FP clinics as being excellent and very good. The emergency services also received positive ratings of good and satisfactory (74%). Most respondents rated the hospitals (40%), GPs (44%) and traditional healers (>70%) as satisfactory although 38% rated the hospitals and 40% the GPs as providing poor care (Table 6.73). In the overall

rating of care received, it is evident from Table 6.74 that from 35% to 45% of respondents rated the care received at hospitals, clinics, GPs, and emergency services as being poor. The balance of respondents, from 55% to 65% rated the care received as being excellent to satisfactory (Table 6.74).

Table 6.71: Rating of care received (Comm.1)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Excellent	-	-	-	-	-	-	-	-	8	16	8	16	-	-
Very Good	-	-	-	-	-	-	-	-	3	6	5	10	3	6
Good	3	6	-	-	-	-	-	-	-	-	2	4	-	-
Satisfactory	15	30	18	36	8	16	5	10	18	36	22	44	5	10
Poor	32	64	32	64	42	84	45	90	21	42	13	26	42	84
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.72: Rating of care received (Comm.2)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Excellent	-	-	-	-	2	4	5	10	-	-	-	-	-	-
Very Good	5	10	7	14	8	16	2	4	-	-	-	-	13	26
Good	20	40	5	10	22	44	32	64	33	66	20	40	27	54
Satisfactory	8	16	20	40	16	32	8	16	10	20	25	50	7	14
Poor	17	34	18	36	2	4	3	6	7	14	5	10	3	6
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.73: Rating of care received (Comm.3)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Excellent	-	-	22	44	5	10	-	-	-	-	-	-	-	-
Very Good	8	16	6	12	22	44	3	6	-	-	-	-	5	10
Good	3	6	-	-	2	4	5	10	5	10	12	24	17	34
Satisfactory	20	40	12	24	8	16	22	44	37	74	38	76	20	40
Poor	19	38	10	20	13	26	20	40	8	16	-	-	8	16
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100

Table 6.74: Rating of care received (All Comm.)

Rating	Hospital		PHC Clinic		Family Planning (FP) Clinic		General Practitioner (GP)		Sangoma		Inyanga		Emergency Services	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Excellent	-	-	22	14.7	7	4.7	5	3.4	8	5.3	8	5.3	-	-
Very Good	13	8.6	13	8.6	30	20.0	5	3.4	3	2.0	5	3.4	21	14.0
Good	26	17.3	5	3.4	24	16.0	37	24.6	38	25.3	34	22.7	44	29.3
Satisfactory	43	28.8	50	33.3	32	21.3	35	23.3	65	43.4	85	56.6	32	21.3
Poor	68	45.3	60	40.0	57	38.0	68	45.3	36	24.0	18	12.0	53	35.4
Total	150	100	150	100	150	100	150	100	150	100	150	100	150	100

6.8 PRESENT HEALTH POLICY

The focus in this section is on the present South African health care policy with its focus on primary health care that has been elaborated on in the section on South African health care. It is important to understand whether respondents, especially the poor and disadvantaged have knowledge of the system so that they are able to use it effectively. The majority of respondents, from 50% in community one to over 60% in community two and three have some knowledge of PHC. Overall, about 60% of respondents in all communities have knowledge of PHC (Table 6.75).

Table 6.75: Knowledge of primary health Care (PHC)

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Have knowledge	27	54	33	66	31	62	91	60.7
No knowledge	23	46	17	34	19	38	59	39.3
Total	50	100	50	100	50	100	150	100

Table 6.76: Explanation of PHC

Explanation	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Clinic	5	10	-	-	7	14	12	8.0
Helping people with health problems	5	10	10	20	-	-	15	10.0
Prevention of illness	8	16	-	-	13	26	21	14.0
Community participation	9	18	-	-	-	-	9	6.0
Keeping healthy	-	-	3	6	-	-	3	2.0
Treatment of minor illness	-	-	20	40	11	22	31	20.7
N/A	23	46	17	34	19	38	59	39.3
Total	50	100	50	100	50	100	150	100

Those who had knowledge of PHC were able to explain what it was (Table 6.76). The most important responses were:

- helping people with health problems (10%)
- prevention of illness (14%)
- community participation (20.7%)

It is clear that respondents touched on the vital components of PHC as explained in the previous section. However, it is also important to note that only about 60% of the respondents had knowledge and could forward an explanation of PHC. Being the first stage in the health system, PHC should be known to all respondents. What this implies is that about 40% of the population of informal settlements are disadvantaged because they do not have vital information on this important and fundamental component of the health system. The source of information on PHC was obtained from clinics (22.6%), hospitals (19.4%) and friends/ relatives. In addition to formal public structures providing information, word of mouth information via friends and relatives is a significant medium of transmission. In terms of the implications for health of communities, this means that the more socialising that occurs in a community, the better the transmission of information by word of mouth and the better the chance of health improvement (Table 6.77).

Table 6.77: Source of information on PHC

Source	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Clinic	17	34	3	6	14	28	34	22.6
Hospital	7	14	10	20	12	24	29	19.4
Friends/relatives	3	6	20	40	5	10	28	18.7
N/A	23	46	17	34	19	38	59	39.3
Total	50	100	50	100	50	100	150	100

Another question that respondents were asked was if they knew how the health system works. In the present South African health system, people are firstly supposed to visit the clinic and if the illness is serious, patients are referred to the regional

hospital. If the illness cannot be treated at the regional hospital patients are referred to the tertiary level, academic hospital. A detailed explanation of this referral system, on which the present South African health care is based, has been discussed in previous sections. It was therefore vital in this survey to know whether people understood how the present health system worked. In the apartheid health care system people could go directly to any hospital and by-pass clinics. With the formulation of the district health system, people have to utilise facilities in the district and be referred from the district to regional and other levels of the system.

Table 6.78: Knowledge of working of present health system

Response	Comm 1		Comm 2		Comm 3		All Comm	
	f	%	f	%	f	%	f	%
Knows how system works	19	38	23	46	12	24	54	36
No knowledge of how system works	31	62	27	54	38	76	96	64
Total	50	100	50	100	50	100	150	100

In the present survey, the majority of respondents in community three (76%) and from over 50% to 60% in community one and two and 64% of respondents from all three communities did not know how the present health system worked (Table 6.78). The relationship between the various socio-economic indicators selected for use in this study and the various subjective variables such as the one presently being discussed will be elaborated on later in this chapter. This is to test whether there was any associations. Presently, it seems that those who had an education were more knowledgeable of the health system. Those who knew the workings of the present health system correctly stated that:

- patients are referred to the hospital from the clinic (15.4%)
- patients go to the clinic first (9.3%)
- patients go to the clinic for minor illnesses (9.3%)
- children/ pregnant mother obtain free treatment (2%)

Table 6.79: Explanation of working of the health system

Explanation	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Patients referred to hospital from clinic	12	24	8	16	3	6	23	15.4
Go to clinic first	7	14	3	6	4	8	14	9.3
Go to clinic for minor illness	-	-	12	24	2	4	14	9.3
Children/ pregnant mothers free treatment	-	-	-	-	3	6	3	2.0
N/A	31	62	27	54	38	76	96	64.0
Total	50	100	50	100	50	100	150	100

Table 6.80: Number of respondents/ family members who go directly to hospital for any illness

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Go directly to Hospital	17	34	7	14	13	26	37	24.6
Do not go directly to hospital	33	66	43	86	37	74	113	75.4
Total	50	100	50	100	50	100	150	100

Although 36% of respondents knew how the health system worked, it was found that only a minority (24.6%) of respondents from all communities went directly to the hospitals for any illness. These people are still in the apartheid health care mode and the proportion of respondents in each community ranged between 14% to 34% (Table 6.80). Those respondents who went directly to the hospitals (16.7%) received treatment for minor ailment such as influenza. The number of such respondents was highest in community one (30%) (Table 6.81).

Table 6.81: Type of illness respondents go directly to hospital for treatment

Illness type	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Flu	15	30	4	8	6	12	25	16.7
Asthma	2	4	-	-	3	6	5	3.3
Epilepsy	-	-	-	-	2	4	2	1.3
Arthritis	-	-	-	-	2	4	2	1.3
Toothache	-	-	3	6	-	-	3	2.0
N/A	33	66	43	86	37	74	113	75.4
Total	50	100	50	100	50	100	150	100

Minor ailments such as influenza are treatable at clinics. It may be acceptable for respondents to go directly to hospital for serious illnesses such as asthma, epilepsy, arthritis and toothaches as some of the clinics in the districts may not have the facilities or services to deal with such illnesses. The problem with going directly to hospitals is that clinics are bypassed and hospitals become congested with a high traffic of patients creating situations where they cannot cope with the in-flow of patients, leading to long queues and frustration amongst patients. Attention may also be diverted from people who have serious illnesses by focusing on minor problems amongst the patients. It is accepted that all people have a right to decent health care, but people may be compromising their own health and those of others by not understanding how the system works and by going directly to hospitals for minor ailments which are treatable at district level clinics. Communities need to be educated on the way the system works so that they could use it to their best advantage.

Table 6.82: Explanation for not going directly to the hospital

Explanation	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Go to clinic first	20	40	15	30	22	44	57	38.0
Clinic closer	-	-	-	-	5	10	5	3.3
No money for medication	5	10	3	6	-	-	8	5.3
Lack of transport	6	12	5	10	-	-	11	7.4
Visit songoma	1	2	4	8	3	6	8	5.3
Visit a doctor	-	-	3	6	-	-	3	2.0
Minor illness that will go away	-	-	3	6	7	14	10	6.6
Good quality medication at clinic	-	-	5	10	-	-	5	3.4
Not on medical aid	1	2	5	10	-	-	6	4.0
N/ A	17	34	7	14	13	26	37	24.7
Total	50	100	50	100	50	100	150	100

In the present survey respondents were also asked the reason for them not going directly to hospitals. A significant proportion of respondents from all communities (38%: Comm.1-40%; Comm. 2- 30% and Comm.3-44%) stated that they went to the clinic first for any illness. Other reasons given are reflected in Table 6.82, the most important of which were:

- lack of transport (7.4%)

- respondents had minor illnesses that would go away (6.6%)
- no money for medication (5.3%)
- visited sangoma (5.3%)

Most of the responses given in this regard are reasonable explanations. However, the fact that some respondents had no money for medication needs to be expanded on. A nominal fee is charged at hospitals for treatment based on incomes and what becomes apparent is that some respondents cannot even afford this fee. It should also be noted that it is not only the fees charged at public institutions but the added cost of transport that should be included in terms of access to health facilities as indicated by 7.4% of respondents. A minority of respondents (5.3%) went to sangomas and this is in keeping with cultural practices of Africans as indicated in the literature review.

6.8.1 Perception of Present Health System

Table 6.83: Perception of health system since 1994

Perception	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Improved	10	20	17	34	13	26	40	26.6
Become worse	23	46	30	60	37	74	90	60.0
Don't know	17	34	3	6	-	-	20	13.4
Total	50	100	50	100	50	100	150	100

The majority of respondents (60%) in all communities perceived the present health system to have become worse. This was most evident in community two and three with proportions of 60% and 74% respectively (Table 6.83). Over 20% stated that the health system had improved when compared to apartheid health care.

Table 6.84: Explanation for positive and negative perceptions

Explanation	Comm.1 (N=50)		Comm.2 (N=50)		Comm.3 (N=50)		All Comm. (N=150)	
	f	%	f	%	f	%	f	%
More clinics with better treatment	10	20	-	-	-	-	10	6.7
Not enough clinics / mobile clinics too far	23	46	-	-	-	-	23	15.3
Free medication	-	-	10	20	-	-	10	6.7
Good treatment	-	-	7	14	-	-	7	4.7
Doctors and nurses do not give proper treatment	-	-	18	36	-	-	18	12.0
Free treatment for children	-	-	-	-	7	14	7	4.6
Pensioners treated free	-	-	-	-	6	12	6	4.0
Big queues and long wait for treatment and medicine	-	-	12	24	22	44	34	22.7
Shabby treatment by nurses and doctors	-	-	-	-	12	24	12	8.0
Only female nurses promoted	-	-	-	-	3	6	3	2.0
Don' know	17	34	3	6	-	-	20	13.3

Table 6.84 indicates the explanation given by respondents for their positive and negative perceptions of the health system. Those who had a negative perception of the present health system forwarded the following most important explanations for their previous responses:

- not enough clinics either fixed or mobile (15.3%) (Comm.1: 46%);
- doctors and nurses do not give proper treatment (12%) (Comm.2: 36%);
- long queues (22.7%) (Comm.2 and Comm.3: 24% and 44% respectively) and
- shabby treatment by doctors and nurses (8%) (Comm.3: 24%).

Notwithstanding the negative perceptions, respondents also forwarded some positive explanations for the improvement of the present health system (Table 6.84), the most important of which are:

- more clinics available with better treatment (6.7%: 20% in Comm.1);
- free medication (6.7%: 20% in Comm.2);
- good treatment (4.7%: 14% in Comm.2);
- free treatment for children (4.7%: 14% in Comm.3) and

- pensioners are treated free of charge (4.0%: 12% in Comm.3).

Table 6.85: Knowledge of present policy for mother and child health

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
No Knowledge	48	96	17	34	13	26	78	52
Free treatment for children under six and pregnant mothers	-	-	33	66	27	54	60	40
Free treatment	2	4	-	-	10	20	12	8
Total	50	100	50	100	50	100	150	100

It is interesting to note that over half the respondents in all three communities did not have any knowledge of the present policy regarding free treatment for children under six years old and that for pregnant mothers (Table 6.85). The majority of these respondents were from community one (96%). Sixty-six percent of respondents in community two and 54% in community three knew about this policy. Policies such as these should be widely publicised in order that all people, especially those who are disadvantaged, benefit from such a dispensation. Lack of knowledge about free treatment may deter people from visiting health facilities. It may also have the opposite effect of encouraging people to seek treatment at public facilities even though ailments may be minor, leading to congestion at these facilities and adding to the negative perceptions as indicated above.

Table 6.86: Perception of own health in present system

Perception	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Improved	15	30	14	28	15	30	44	29.3
Remained the same	18	36	8	16	18	36	44	29.3
Don't know	17	34	28	56	17	34	62	41.4
Total	50	100	50	100	50	100	150	100

When respondents were asked whether their own health improved in the present health system or remained the same as in the apartheid era, it was evident that respondents were divided on this issue (Table 6.86). The majority of respondents

(41.4%) did not know whether it improved or remained the same. Equal proportions of respondents (29.3%) perceived their health to have improved or remained the same.

The last aspect covered in this section dealt with suggestions to improve present health care. Multiple responses were received on this aspect as indicated in Table 6.87. The following most important suggestions extracted from the table are indicated below. These were:

- people should not pay for treatment (66%);
- people should take care of themselves (23.3%);
- improve housing and environments (22.7%);
- use traditional healers (16.6%);
- nurses should be good to people (16%);
- build more clinics and hospitals (11.3%) and
- provide better treatment at clinics and hospitals (11.3%).

Some of the suggestions that were made concerns the health care system and can be easily implemented by planners and policy makers whilst others may be difficult. For example, free treatment cited by the majority of respondents. In a climate of dwindling resources in South Africa, this may be difficult to achieve. Presently, resources have been targeted for the building of more clinics, especially in rural areas that have been deprived of health care facilities during the apartheid period. In any case the suggestion by 11.3% of respondents that more hospitals and clinics be built is not feasible considering the bias in terms of the number of health facilities/ services in urban areas as indicated in the chapter on South African health care. What is needed in urban areas, and that is rightly suggested by respondents, is an improvement in the living environments of people (22.7%). Changes could, however, be made to the treatment at clinics concerning the attitudes of nurses and doctors to patients, which is related to training in public relations.

Table 6.87: Suggestions to improve present health care (multiple responses)

Suggestions	Comm.1 (N=50)		Comm. 2 (N=50)		Comm. 3 (N=50)		All Comm. (n=150)	
	f	%	f	%	f	%	f	%
Supply more medication	8	16	-	-	5	10	13	8.7
People should take care of themselves	22	44	-	-	13	26	35	23.3
Use traditional healers	8	16	7	14	10	20	25	16.6
Have programmes to teach community on health	5	10	-	-	3	6	8	5.3
Doctors and nurses available at all times in clinics	-	-	3	6	3	6	6	4.0
People should not pay for treatment	-	-	7	14	3	6	10	66.7
Build more clinics and hospitals	2	4	12	24	3	6	17	11.3
Improve our housing and environment	5	10	17	34	12	24	34	22.7
Nurses should be good to people	5	10	12	24	7	14	24	16.0
Get rid of corruption in clinics	-	-	5	10	-	-	5	3.3
Provide water and sanitation	-	-	3	6	8	16	11	7.3
Provide better treatment at clinics and hospitals	7	14	3	6	7	14	17	11.3

Personal preference that could also indirectly impact health care was also suggested. Respondents suggested that people should take care of themselves. This could either mean changing to a better, healthier lifestyle which could place less stress on public health facilities. In the present conditions that people live this may not be accomplished successfully. People could improve their lifestyles by giving up such vices as smoking and drinking. To improve one's lifestyle, there is need for healthy living conditions with the basic needs of food, clothing and shelter being provided. For the majority of residents in informal settlements this may not be possible in the short term.

The use of traditional healers was also suggested by 16.6% of respondents to improve health care. Until the standard of care provided by this sector of the health care system is drastically improved this may not be a viable option to improve health care amongst residents of informal settlements.

6.9 COMMON COMMUNITY ILLNESSES

Another aspect of this study focused on the illnesses that were prevalent in the community. In this regard, an assessment is made of the following:

- number of household members who have serious illnesses, type of illness, frequency of treatment, place of treatment;
- the number of people who have minor illnesses in the last month and the type of illness, place of treatment and the most common ailments;
- the issue of gender and illness and opinions on their impact; and
- opinions on the impact of environmental conditions on illness.

The data on these issues are reflected in Tables 6.88 to Table 6.100. Discussion begins with serious illnesses in the household and then focuses on other illnesses. Focus on specific diseases, two of which were selected (TB and HIV/ AIDS) is undertaken in the next section of the analysis.

Table 6.88: Number of household members who have serious illnesses

Number	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
None	31	62	23	46	22	44	76	50.7
One	12	24	23	46	25	50	60	40.0
Two	5	10	4	8	3	6	12	8.0
Three	2	4	-	-	-	-	2	1.3
Total	50	100	50	100	50	100	150	100

Table 6.89: Type of serious illness

Number	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Sores	5	10	-	-	-	-	5	3.3
Asthma	5	10	10	20	3	6	18	12.0
Cholera	2	4	-	-	-	-	2	1.3
Diabetes	-	-	5	10	2	4	7	4.8
High blood pressure	1	2	10	20	13	26	24	16.0
Epilepsy	-	-	-	-	2	4	2	1.3
Flu	3	6	2	4	-	-	5	3.3
Arthritis	-	-	-	-	2	4	2	1.3
HIV/ AIDS	3	6	-	-	2	4	5	3.3
Heart problem	-	-	-	-	4	8	4	2.7
N/ A	31	62	23	46	22	44	76	50.7
Total	50	100	50	100	50	100	150	100

Just over 50% of the total sampled population did not have serious illnesses. This comprised of most households in community one (62%) and about 40% in community two and three (Table 6.88). Although there was a wide distribution of serious illnesses, the highest proportions were found for asthma (12%) and high blood pressure (16%) (Table 6.89). In each of the communities, there were between 10% to 20% with asthma and between 20% to 26% with high blood pressure (Table 6.89). Thirty-two percent of respondents went for treatment on a monthly basis whilst the balance of respondents went for treatment on a weekly, bi-monthly basis or whenever it was required (Table 6.90). Treatment was obtained mostly from clinics (28.6%) and hospitals (14%) (Table 6.91).

Table 6.90: Frequency of Treatment for serious illness

Frequency	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Weekly	4	8	2	4	3	6	9	6.0
Monthly	10	20	18	36	20	40	48	32.0
Twice a month	-	-	5	10	2	4	7	4.6
When required	5	10	2	4	3	6	10	6.7
N/A	31	62	23	46	22	44	76	50.7
Total	50	100	50	100	50	100	150	100

Table 6.91: Place of treatment for serious illness

Place	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Hospital	10	20	3	6	8	16	21	14.0
Clinic	8	16	18	36	17	34	43	28.6
General Practitioner	1	2	6	12	3	6	10	6.7
N/A	31	62	23	46	22	44	76	50.7
Total	50	100	50	100	50	100	150	100

Respondents were also questioned on the number of people who were sick in the last month (Table 6.92). The majority (51.3%) of households had one to five persons who were sick in the last month at the time of the interview. In attempting to obtain responses on the type of illnesses of family members, one month was used as a cut of period because people tend to remember illnesses in the short term. Over an extended

period there is a tendency to forget, especially when it involves the illnesses of other family members. Respondents also cited most illnesses mentioned previously, under the serious illness category. Additionally, 36% of respondents in community one cited headaches and 16% influenza whilst 30% in community three cited diarrhoea. In community two, asthma (10%) and influenza (10%) had the highest proportions (Table 6.93).

Table 6.92: Number of people sick in last month

Number	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
None	17	34	32	64	24	48	73	48.7
One	15	30	8	16	8	16	31	20.6
Two	10	20	5	10	10	20	25	16.7
Three	7	14	2	4	8	16	17	11.3
Four	-	-	3	6	-	-	3	2.0
Five	1	2	-	-	-	-	1	0.7
Total	50	100	50	100	50	100	150	100

Table 6.93: Type of illness in the last month

Illness type	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
High blood pressure	2	4	3	6	-	-	5	3.3
Diarrhoea	5	10	2	4	15	30	22	14.7
Headaches	18	36	3	6	-	-	21	14.0
Asthma	-	-	5	10	2	4	7	4.7
Arthritis	-	-	-	-	2	4	2	1.3
TB	-	-	-	-	3	6	3	2.0
Measles	-	-	-	-	2	4	2	1.3
Influenza	8	16	5	10	2	4	15	10.0
N/ A	17	34	32	64	24	48	73	48.7
Total	50	100	50	100	50	100	150	100

The majority of respondents did not go to the doctor for their illnesses (Table 6.94) but went to traditional healers first (12%) and clinics (9.4%), whilst others went to hospitals, used home remedies or did not go anywhere for treatment (Table 6.95). It is not clear whether those who did not go anywhere used home remedies or did not do anything about their illness. The most common ailments suffered by family members

was influenza (56%) followed by diarrhoea (12%) with equal proportions having asthma (10%) and headaches (10%) (Table 6.96).

Table 6.94: Visit to doctor for illness in the last month

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Visited doctor first	11	22	5	10	10	20	26	17.3
Did not visit doctor first	22	44	13	26	16	32	51	34.0
N/ A	17	34	32	64	24	48	73	48.7
Total	50	100	50	100	50	100	150	100

Table 6.95: Place of treatment for those who did not go to the doctor

Place	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Traditional healer	13	26	3	6	2	4	18	12.0
Nowhere	3	6	-	-	-	-	3	2.0
Clinic	1	2	3	6	10	20	14	9.4
Hospital	-	-	5	10	2	4	7	4.6
Home remedy	5	10	2	4	2	4	9	6.0
N/ A	28	56	37	74	34	68	99	66.0
Total	50	100	50	100	50	100	150	100

The opinion of household heads was also sought on whether more females than males became sick in the household. Forty-five percent of respondents agreed that this was the case (Table 6.97) and furnished the following most important reasons:

- females are weaker than males (22%).
- females are exposed to all weather (8%) (Table 6.98).

Table 6.96: Most common ailments suffered by family members

Ailments	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Asthma	5	10	7	14	3	6	15	10.0
High blood pressure	3	6	3	6	5	10	11	7.4
Influenza	30	60	37	74	17	34	84	56.0
Headaches	10	20	3	6	2	4	15	10.0
TB	2	4	-	-	3	6	5	3.3
Diarrhoea	-	-	-	-	18	36	18	12.0
Measles	-	-	-	-	2	4	2	1.3
Total	50	100	50	100	50	100	150	100

Table 6.97: Opinion on whether more females get sick than males

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Yes	30	60	5	10	33	66	68	45.3
No	8	16	28	56	15	30	51	34.0
Not sure	12	24	17	34	2	4	31	20.7
Total	50	100	50	100	50	100	150	100

Table 6.98: Reason for more females than males getting sick in households

Reason	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Weaker than males	25	50	-	-	8	16	33	22.0
Exposed to all weather	-	-	-	-	12	24	12	8.0
Don't do exercise	-	-	-	-	5	10	5	3.3
Body contacts diseases easily	-	-	-	-	5	10	5	3.3
Females worker harder	5	10	5	10	3	6	13	8.7
N/ A	20	50	45	90	17	34	82	54.7
Total	50	100	50	100	50	100	150	100

Table 6.99: Reason for more males than females getting sick in households

Reason	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Males work harder	-	-	21	42	15	30	36	24.0
Weaker than females	5	10	5	10	-	-	10	6.7
Males get diseases easily	3	6	2	4	2	4	7	4.6
N/ A	42	84	22	44	33	66	97	64.7
Total	50	100	50	100	50	100	150	100

Those respondents (34%) who did not agree that more females than males became sick in households furnished the reason that males work harder than females (24%). These respondents were mostly from community two (42%) and community three (30%) (Table 6.99). Respondents also mentioned that males are weaker than females and males were susceptible to diseases more easily than females (Table 6.99).

Table 6.100: Opinion on whether improvement in housing and environmental conditions improves health

Opinion	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Yes	45	90	37	74	43	86	125	83.4
No	-	-	7	14	-	-	7	4.6
Not sure	5	10	6	12	7	14	18	12.0
Total	50	100	50	100	50	100	150	100

The final question in this section dealt with respondents' opinions on whether improvement in their present housing and environmental circumstances would improve health. Eighty-three percent of the respondents gave a positive response and this was true for all communities with proportions of between 74% and 90% (Table 6.100). This indicates that people are aware that most of the health problems that they are experiencing can be attributed to the disadvantaged circumstances that they are living in.

6.10 DISEASE PREVALENCE

Another important component of any study of the geography of health is the focus on specific diseases in communities. This is in addition to the discussion of serious and general illnesses that pervade communities. Two diseases were selected for investigation in this study , namely, tuberculosis (TB) and HIV/ AIDS. In the words of the Minister of Labour, Membathisi Mdladlana (Sunday Times, 28/ 05/ 2002), "Tuberculosis is rife in our country and it affects people with HIV acutely. Let's beat TB and make life better for all."

6.10.1 Tuberculosis (TB)

Respondents were interviewed on their knowledge of TB, household members who contacted the disease, receipt of treatment for the disease, improvement in the

condition of patients with TB, reasons for improvement and non-improvement of TB patients and the perception of housing and environmental conditions as the cause of TB.

Table 6.101: Knowledge of TB

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Have knowledge of TB	48	96	45	90	43	86	136	90.7
Do not have knowledge of TB	2	4	5	10	7	14	14	9.3
Total	50	100	50	100	50	100	150	100

Table 6.102: Knowledge of TB as a curable disease

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
TB is curable	8	16	45	90	40	80	93	62
TB.is not curable	42	84	5	10	10	20	57	38
Total	50	100	50	100	50	100	150	100

About 90% of respondents had some knowledge of TB (Table 6.101) with 80% to 90% in communities two and three knowing that the disease was curable. However, 84% of respondents in community two stated that the disease was not curable (Table 6.102). When questioned on their knowledge of household members who had TB, two-thirds of respondents did not have such knowledge (Table 6.103) and this was closely related to their response on the number of persons who had TB in the household. Sixty-six percent of interviewees stated that there were household members who had the disease (Table, 6.104). However, the minority responses are important when investigating an infectious disease such as TB. It is evident that in community one and three there was a significant prevalence, 14% and 28% respectively, of one household member who had the disease (Table 6.104) with all patients in community two and three receiving treatment and 61% of those in community one not receiving treatment (Table 6.105). The length of treatment varied between one to ten months for those who sought care (Table 6.106) at hospitals and clinics (Table 6.107). Generally, it was reported that the conditions of those who

received treatment had improved (Table 6.108) because they took their medication (Table 6.109). Reasons for the non-improvement was that medication was not taken properly and doctors did not take care of patients properly (Table 6.109).

Table 6.103: Knowledge of household members contacting TB

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Has knowledge	18	36	2	4	14	28	34	22.7
Does not have knowledge	27	54	45	90	28	56	100	66.6
Don't know	5	10	3	6	8	16	16	10.7
Total	50	100	50	100	50	100	150	100

Table 6.104: Number of household members who contacted TB

Number	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
None	27	54	45	90	28	56	100	66.6
One	7	14	-	-	14	28	21	14.0
Two	7	14	2	4	-	-	9	6.0
Three	4	8	-	-	-	-	4	2.7
Don't know	5	10	3	6	8	16	16	10.7
Total	50	100	50	100	50	100	150	100

Table 6.105: Receipt of treatment by those who have TB.

Number	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
TB patients received treatment	7	14	2	4	8	16	17	11.3
TB patients not receiving treatment	11	22	-	-	-	-	11	7.3
N/ A	32	64	48	96	42	84	122	81.4
Total	50	100	50	100	50	100	150	100

Table 6.106: Length of treatment of household members with TB

Treatment length	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
1 month	-	-	-	-	3	6	3	2
3 months	2	4	-	-	5	10	7	4.7
6 months	3	6	2	4	-	-	5	3.3
10 months	2	4	-	-	-	-	2	1.3
N/ A	43	86	48	96	42	84	133	88.7
Total	50	100	50	100	50	100	150	100

Table 6.107: Facility where treatment is being obtained

Health facility	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Hospital	4	8	2	4	5	10	11	7.3
Clinic	3	6	-	-	3	6	6	4.0
N/ A	43	86	48	96	42	84	133	88.7
Total	50	100	50	100	50	100	150	100

Table 6.108: Improvement in condition of person with TB with treatment

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Condition has improved	3	6	2	4	5	10	10	6.7
Condition has not improved	2	4	-	-	3	6	5	3.3
Don't know	2	4	-	-	-	-	2	1.3
N/ A	43	86	48	96	42	84	133	88.7
Total	50	100	50	100	50	100	150	100

Table 6.109: Reason for improvement and non-improvement of TB patient

Reason	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Takes medication	3	6	2	4	5	10	10	6.7
Doctors do not take care of patient properly	2	4	-	-	-	-	2	1.3
Not taking medication properly	-	-	-	-	3	6	3	2.0
Don't know	2	4	-	-	-	-	2	1.3
N/ A	43	86	48	96	42	84	133	88.7
Total	50	100	50	100	50	100	150	100

Respondents were also questioned on whether they perceived the environmental conditions that they lived in as causing TB. In this respect 63.3% of respondents agreed that this was the case (Table 6.110). The proportions of individual in communities who perceived environmental conditions as the cause of TB ranged from a high of 74% in community one to 56% in community two and 60% in community three (Table, 6.110).

Table 6.110: Perception of housing and environmental conditions as a cause of TB

Perception	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Causes TB	37	74	28	56	30	60	95	63.3
Does not cause TB	10	20	19	38	3	6	32	21.3
Don't know	3	6	3	6	17	34	23	15.4
Total	50	100	50	100	50	100	150	100

6.10.2 HIV/AIDS

Spread of HIV/AIDS is now extremely rapid in South Africa. A United Nations survey (UNAIDS, 1998) estimated that at the end of 2000, about 4.7 million South Africans out of a population of 42 million were infected with HIV/ AIDS especially in the below 20-age category. Unless effective prevention programmes are implemented immediately, the HIV/ AIDS pandemic will have disastrous consequences (UNAIDS, 1999). According to Broomberg et al (1991), the epidemic will have profound demographic, economic and health sector effects. The age structure will be distorted and this will slow down population growth rates. In terms of the economic effects there will be a loss of production due to illness and deaths associated with HIV/AIDS. Economic growth in the country will slow down and the size and productivity of the labour force would be reduced. There will also be a labour shortage that would affect areas such as labour intensive production. The short-term effects of HIV/AIDS will be experienced by the health facilities/ services, as patients with HIV/ AIDS related illness, including TB, will burden them. TB is the main endemic disease for which specific interaction with HIV/ AIDS has been clearly established. More than half the adult population in sub-Saharan Africa has latent TB. This may be activated as a result of the immuno-suppression caused by HIV/ AIDS. TB is an increasing health problem in South Africa and is closely associated in areas where the prevalence of HIV/AIDS is high (Slutkin, 1988; Standaert, 1989).

As indicated by the socio-economic characteristics of people in the informal settlements in the initial sections of this analysis, the majority of households live in

poverty. It is obvious that poverty will reduce the body's immune system and the general level of health. This makes it easier for the HIV virus to enter the blood stream and infect individuals and spread in the community. The predominant mode of transmission is through sex between men and women with the concomitant transmission from infected mother to infant (Karim and Karim, 1992). According to Crookes and Heynes (1992), HIV/ AIDS continues to spread in all race groups with the rate of transmission amongst Africans being higher than other race groups (use of previous racial classification). According to the Department of Health (1997), there has been a 21 fold rise in HIV/ AIDS within eight years, from one percent in 1990 to 16% in 1997 with about three million people being infected. KwaZulu-Natal is hardest hit by the epidemic and it has been demonstrated that HIV is four times more common amongst women between the ages of 15 to 25 than men. In 1997, there was more than one in ten women who became infected with HIV/ AIDS (Karim, 1997).

6.10.3 Community Awareness of HIV/ AIDS

Table 6.111: Awareness of HIV/ AIDS

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Aware	48	96	42	84	48	96	138	92
Unaware	2	4	8	16	2	4	12	8
Total	50	100	50	100	50	100	150	100

In this study of the geography of health, with its focus on disadvantaged communities in the Durban Metropolitan area, it was thus important to understand some aspects of the HIV/ AIDS disease. It is assumed that all people are aware of this deadly virus but the study has indicated that 92% of respondents from all communities were aware of HIV/ AIDS (Table 6.111). Equal proportions of respondents (96%) were from community one and three with a smaller proportion (84%) in community two being aware. The minor proportions of 4% in community one and three and 16% in community two are significant especially when considering the rapidity of the spread

of the disease and should be educated. Awareness of the disease is the first step to prevention and behavioural change through preventative sexual interactions.

Those who were aware of the disease were able to provide explanations of the disease and these are indicated in Table 6.112. The table clearly indicates that people interviewed know that it is a killer disease (46.6%), that it is incurable (24%), that there is a need to use condoms (9.4%) and it is a dangerous disease (7.4%). Eight percent of the respondents could not provide an explanation and this group is the most vulnerable in terms of spreading the virus. The fact that HIV/ AIDS is a killer disease was also borne out by a direct question to respondents on this issue (Table 6.113). Over 84% of respondents stated that they knew that it was a killer disease. Awareness and knowledge of the disease is more likely to deter people from having unsafe sex and spread the disease whilst the opposite would be true of those who have no knowledge of the disease. This group must be the target population for any interventions to stop the spread of the epidemic not only by the health sector but also by the community themselves.

Table 6.112: Explanation of HIV/ AIDS

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
It kills	22	44	35	70	13	26	70	46.6
It is dangerous	7	14	4	8	-	-	11	7.4
It is incurable	8	16	3	6	25	50	36	24.0
Sexually transmitted disease	-	-	-	-	7	14	7	4.6
Need to use condoms	11	22	-	-	3	6	14	9.4
N/A	2	4	8	16	2	4	12	8.0
Total	50	100	50	100	50	100	150	100

Table 6.113: Knowledge of HIV/ AIDS as a killer disease

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Has knowledge	35	70	47	94	45	90	127	84.7
Does not have knowledge	7	14	3	6	2	4	12	8.0
Don't know	8	16	-	-	3	6	11	7.3
Total	50	100	50	100	50	100	150	100

6.10.4 HIV/ AIDS Knowledge/ Information Source

Table 6.114: Source of knowledge/ information on HIV/ AIDS

Source	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Friend	25	50	3	6	2	4	30	20.0
Clinic	-	-	26	52	46	92	72	48.0
Health worker	12	24	-	-	-	-	12	8.0
Hospital	5	10	-	-	-	-	5	3.3
Schools	3	6	-	-	-	-	3	2.0
Media	3	6	13	26	-	-	16	10.7
N/ A	2	4	8	16	2	4	12	8.0
Total	50	100	50	100	50	100	150	100

Knowledge/ information about HIV/ AIDS was obtained from the following main sources:

- clinics (48%)
- friends (20%)
- media (10.7%) (Table 6.114)

In addition to the clinics and other public institutions an important source of information and knowledge about the disease was obtained from friends. This is significant as it indicates the power of social interactions in a community. A community that is closely knit encourages social cohesiveness that would lead to the prevention and spread of the virus. Community cohesiveness or bonding can only stem from the social interaction patterns and relations that are formed within communities and can only be partially imposed. The partial attempts to cement communities and encourage cohesiveness can be achieved through providing the necessary facilities such as community halls and recreation facilities that could bring communities together. At the moment informal settlements are deprived of such resources as they are considered as temporary phenomena on the urban landscape.

The media, that is, newspaper, radio and television can also have a major impact on providing information. In deprived communities, television plays a less important role

as most of the respondents do not have access to this medium and it is unaffordable. Radio is the fundamental basis of information in these settlements and this should be capitalised on.

6.10.5 Knowledge of and Number of Household Members having HIV/ AIDS

Table 6.115: Knowledge of any household member who contacted the disease

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Has knowledge of household member	3	6	-	-	2	4	5	3.3
Does not have knowledge of household member	45	90	35	70	13	26	93	62.0
Don't know	2	4	15	30	35	70	52	34.7
Total	50	100	50	100	50	100	150	100

Table 6.116: Number of persons in household who contacted HIV/ AIDS

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
None	47	94	50	100	48	96	145	96.7
One	-	-	-	-	2	4	2	1.3
Two	3	6	-	-	-	-	3	2.0
Total	50	100	50	100	50	100	150	100

Another aspect of inquiry was on the knowledge of household members who contacted HIV/ AIDS and STDs. In this respect, it was found that the majority of respondents in community one (90%) and community two (70%) had no knowledge of household members who contacted the disease. A large proportion of respondents in community three (70%) stated that they did not know (Table 6.115). Therefore, it is accepted that, when asked about the number of people in the household who had HIV/ AIDs, over 96% stated that there was no one who had the disease (Table 6.116). This was also true when the question was asked about knowledge and number of people who had STDs although the proportions of those who had knowledge of this disease and the number amongst household members was higher than that for HIV/ AIDS (Table 6.117 and 6.118). Fourteen percent of respondents amongst all respondents had knowledge of household members who had STDs and the proportion was highest in

community two (24%) (Table 6.117). Twenty-four percent of respondents in community two stated that from one to three persons had STDs (Table 6.118). The ratios that were calculated to determine the number of HIV/ AIDS and STD persons in households was 1: 18 and 1:5, respectively. What this implies is that one person in every 18 households had HIV/ AIDS and one person in 5 households had STDs.

Table 6.117: Knowledge of persons in household who contacted STD's

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Has knowledge	2	4	12	24	7	14	21	14
Does not have knowledge	48	96	38	76	43	86	129	86
Total	50	100	50	100	50	100	150	100

Table 6.118: Number of persons in household who contacted STDs

Response	Comm. 1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
None	48	96	38	76	43	86	129	86.0
One	2	4	5	10	5	10	12	8.0
Two	-	-	5	10	2	4	7	4.7
Three	-	-	2	4	-	-	2	1.3
Total	50	100	50	100	50	100	150	100

It can be concluded from the data obtained on the above issues that respondents may have considered the question on their knowledge of persons and the number of persons with HIV/ AIDS as too sensitive and may have tried to conceal this information. The reason for this could be the stigma that is commonly attached to persons with HIV/ AIDS who are treated as outcasts and thus the concealment. According to President Thabo Mbeki (Sunday Times, 28/ 05/ 2002:21):

Our common task as a nation is to give hope to fellow human beings. It is wrong and inhuman to treat anyone said to be HIV+ as a person who should be isolated and turned into a social outcast. To communicate a message of hopelessness is to sentence other human beings to death.

Especially in informal settlements where people live so close together, this type of information could be devastating to households. STDs is curable as opposed to HIV/

AIDS and thus the more openness about this disease. People, however, do not understand the close linkages between STDs and HIV/ AIDS. It could therefore be possible that those who had STDs were AIDS sufferers. If the data is considered in this way, it would give a more realistic picture of the HIV/ AIDS scenario in these communities judging from the present statistics of one in three persons in KZN having HIV/AIDS.

6.10.6 Knowledge of Precautions against HIV/ AIDS and STDs

Table 6.119: Knowledge of precautions to take against HIV/ AIDS and STDs

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Has knowledge of precautions	20	40	42	84	48	96	110	73.4
Does not have knowledge of precautions	30	60	8	16	2	4	40	26.6
Total	50	100	50	100	50	100	150	100

Table 6.120: Proportion of respondents who take precautions against HIV/ AIDS

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Take precautions	20	40	32	64	43	86	95	63.3
Don't take precautions	23	46	15	30	7	14	45	30.0
No response	7	14	3	6	-	-	10	6.7
Total	50	100	50	100	50	100	150	100

When respondents were questioned on their knowledge of precautions against HIV/ AIDS and STDs, it was revealed that in community two and three the proportions were very high, that is, 84% and 96% respectively. Sixty percent of respondents in community one had no knowledge of precautions to take. Overall, 73.4% of respondents had knowledge of precautions (Table 6.119). Over sixty percent of respondents stated that they did take precautions against contracting the disease and the majority 64% and 86% were found in community two and three (Table, 6.120). Almost equal numbers of respondents in community one took precautions (40%) and did not take precautions (46%). The type of precaution was, the use of a condom (63.4%), having one partner (5.3%) and taking care of oneself was also mentioned

(4.6%) (Table 6.121). The main reason for not using precautions amongst all communities, as indicated in Table 122, was that:

- They have no knowledge (16%);
- Partner refusal (8.8%)

Lack of knowledge about precautions to take was most prevalent in community one (44%) whilst partner refusal was dominant in community two (Table 6.122).

Table 6.121: Description of precautions respondents take to guard against HIV/ AIDS and STDs

Precautions	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Use a condom	13	26	34	68	48	96	95	63.4
Have one partner	-	-	8	16	-	-	8	5.3
Take care of oneself	7	14	-	-	-	-	7	4.6
N/ A	30	60	8	16	2	4	40	26.7
Total	50	100	50	100	50	100	150	100

Table 6.122: Reasons for not taking precautions against HIV/ AIDS

Reasons	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Have no knowledge	22	44	2	4	-	-	24	16.0
Partner refuses	-	-	10	20	3	6	13	8.8
Don't want to	-	-	3	6	1	2	4	2.6
Too old	1	2	-	-	3	6	4	2.6
N/ A	27	54	35	70	43	86	105	70.0
Total	50	100	50	100	50	100	150	100

Those who have no knowledge of taking precautions need to be educated. It is, however, more difficult to change the sexual practices of sexual partners, especially in a patriarchal society where there is male dominance and the female is an unequal partner. There needs to be behavioural changes especially in African communities where this type of unequal relationship exists to curb the spread of HIV/ AIDS in

society. With the realisation that death is the ultimate check in a relationship based on patriarchy there is need for change in traditional value systems. Education and awareness of the dangers of unsafe sex can only achieve this in the long term. According to Karim and Ramjee (1998), HIV/ AIDS interventions and strategies targeting men will have a substantial impact on reducing the vulnerability of women to HIV as it will shift the balance of power within relationship between men and women.

6.10.7 Family Talks on HIV/ AIDS

People need to be open and transparent on HIV/ AIDS and this can only come from the household level amongst individuals in the family. In this respect, respondents were asked whether they had family talks on HIV/ AIDS. Just over 55% of respondents in all communities had family talks with the proportions being 66% in community two and 60% in community three. Only 40% of respondents in community one had family talks.

Table 6.123: Family talks on HIV/ AIDS

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Talks held	20	40	33	66	30	60	83	55.3
No talks held	30	60	17	34	20	40	67	44.7
Total	50	100	50	100	50	100	150	100

The most important reason given by 44.7% of respondents who did not conduct family talks was that (Table 6.124):

- No-one in the family had HIV/ AIDS (12%)
- There was no time (10.7%)

Other respondents felt insecure (4.7%) and thought that it was for young people (4.6%). Still others had no fear of the virus.

Table 6.124: Reason for not having family talks on HIV/ AIDS

Reason	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
No-one in family has HIV/ AIDS	13	26	2	4	3	6	18	12.0
Feel insecure	-	-	5	10	2	4	7	4.7
No time	7	14	2	4	7	14	16	10.7
It is for young people	-	-	2	4	5	10	7	4.6
Have no fear	-	-	-	-	3	6	3	2.0
Don't know	10	20	6	12	-	-	16	10.7
N/ A	20	40	33	66	30	60	83	55.3
Total	50	100	50	100	50	100	150	100

Even though no one in the family had HIV/AIDS, it is the responsibility of parents to educate their children on this deadly disease. People should find time, whilst discussing other family matters, to speak openly on HIV/ AIDS and sexual practices. The present outcomes based education in schools teaches children to be open about all aspects of sex. Even if parents do not have any knowledge on HIV/ AIDS, children will be able to inform them. The traditional practice is not to talk about sex with children. These behavioural practices must change to stop the spread and decimation of people in our society.

6.10.8 HIV/ AIDS Information and Education

Table 6.125: Requirement of information on HIV/AIDS

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Require information	45	90	30	60	45	90	120	80
Do not require information	5	10	20	40	5	10	30	20
Total	50	100	50	100	50	100	150	100

The final concern in this section on HIV/ AIDS was on information needs of respondents. Eighty percent of interviewees required information (Table 6.125). The proportion of respondents was equal and very high in community one and three (90%) whilst only 60% desired such information in community two. Information in the form of pamphlets, posters, brochures in simple, understandable form in different official languages of the country must be made accessible and available to all persons in the

community. This information can easily be disseminated via children in schools or the different health care facilities. Respondents felt that the clinics (45.3%), health workers (14%) and health authorities (18.7%) were responsible for providing information and education on HIV/ AIDS (Table 6.126).

Table 6.126: Person/ organisations respondent thinks should provide information/ education on HIV/ AIDS

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Clinic	25	50	-	-	43	86	68	45.3
Hospital	7	14	-	-	3	6	10	6.7
Health workers	15	30	3	6	3	6	21	14.0
Health authorities	-	-	27	54	1	2	28	18.7
Media	-	-	13	26	-	-	13	8.7
Schools	-	-	5	10	-	-	5	3.3
Everybody	3	6	2	4	-	-	5	3.3
Total	50	100	50	100	50	100	150	100

These information outlets mentioned above must be used to the fullest, providing an abundance of information especially to target populations that may be susceptible to disease and illness. The South African government has been active in the education sector with changes to curricula to prevent the spread of HIV/ AIDS. According to the Sunday Times (28/04/2002: 12) the Minister of Education, Kader Asmal stated the following:

We must teach young people how to act when facing decisions about sex, how to take safe options and stay free of HIV. We must also respect each other's dignity. The life skills and HIV/AIDS education programme is a compulsory part of the school curriculum. Prevention, therefore, must be the watchword.

It is hoped that this strategy in schools will be implemented properly and qualified persons are available to teach this significant component of the curriculum. Once children, the future of this nation, have the necessary knowledge and skills, this would spread to households and communities. Parents should make use of this valuable source of information and not consider sexual matters taboo, only then can the threat from this deadly virus be prevented from spreading.

6.11 HEALTH WORKERS

As has been mentioned in earlier chapters, the South African government has set in place legislation that will provide primary health care as a priority (Dept. of Health - White Paper, 1997). In this climate of change to preventative health care, community health workers can play a significant role as they will be sensitive to the needs of people and act on these needs to improve specifically the health of individuals and communities and more generally the quality of life of people. According to Wilson and Ramphele (1989b), strategies for appropriate PHC can be developed and tested in practice. Community health workers could undertake these tasks. Additionally, health workers could work within the framework of one of the five principles of PHC as set out by WHO (1978: 34), that is, education about diseases, health problems and their control. Health workers could also try to fulfil one of the eight service principles outlined in the White Paper (1997) and that is, listening to the views of people in disadvantaged communities.

Because of the important role that health workers can play in communities, this aspect was included in the interview with respondents. The questions related to the following issues on health workers:

- knowledge of health workers;
- frequency of visit, source and type of health workers;
- assistance provided by health workers;
- knowledge of assistance provided to other community members;
- perception of helpfulness of health workers;
- knowledge of the work of health workers; and
- satisfaction/ dissatisfaction with health workers and reasons.

The data on the above areas are contained in Tables 6.127 to 6.136.

Table 6.127: Knowledge of health workers visiting area

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Has knowledge	23	56	8	16	25	50	56	37.4
Does not have knowledge	27	54	42	84	25	50	94	62.6
Total	50	100	50	100	50	100	150	100

About 50% of respondents in community one and three had knowledge of health workers visiting the community but such knowledge was not evident in community two (84%) (Table 6.127). Overall, 62.6% of respondents in all communities sampled did not know of health workers visiting the community. Of those who had knowledge of health workers, 21.3% stated that health workers visited the community monthly (Table 6.128) and worked for the province (16.7%) and the Durban Metro (14.6%) (Table 6.129). These persons were chiefly nurses according to respondents (30.6%) (Table 6.130). Twenty-six percent of respondents stated that health workers provided assistance to them (Table 6.131) whilst another 24.6% of respondents were aware that these persons provided assistance to other members of the community (Table 6.132).

Table 6.128: Frequency of visit of health workers

Frequency	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Twice a month	2	4	-	-	-	-	2	1.3
Monthly	17	34	5	10	10	20	32	21.3
Twice in 3 months	1	2	-	-	7	14	8	5.3
Every two months	1	2	3	6	-	-	4	2.7
Every three months	2	4	-	-	5	10	7	4.7
Yearly	-	-	-	-	3	6	3	2.0
N/A	27	54	42	84	25	50	94	62.7
Total	50	100	50	100	50	100	150	100

Table 6.129: Source of health workers

Frequency	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Metro	3	6	2	4	17	34	22	14.6
Province	12	24	5	10	8	16	25	16.7
NGOs	3	6	-	-	-	-	3	2.0
Government	5	10	1	2	-	-	6	4.0
N/A	27	54	42	84	25	50	94	62.7
Total	50	100	50	100	50	100	150	100

Table 6.130: Type of health workers visiting communities

Frequency	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Nurse	13	26	8	16	25	50	46	30.6
Social worker	10	20	-	-	-	-	10	6.7
N/A	27	54	42	84	25	50	94	62.7
Total	50	100	50	100	50	100	150	100

Table 6.131: Assistance provided by health workers to families

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Assistance provided	18	36	1	2	20	40	39	26.0
No assistance provided	5	10	7	14	5	10	17	11.3
N/A	27	54	42	84	25	50	94	62.7
Total	50	100	50	100	50	100	150	100

Table 6.132: Knowledge of assistance of health workers to anyone in community

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Have knowledge	15	30	5	10	17	34	37	24.6
Don't have knowledge	8	16	3	6	8	16	19	12.7
N/A	27	54	42	84	25	50	94	62.7
Total	50	100	50	100	50	100	150	100

In terms of helpfulness of health workers, 36.7% of respondents agreed that these workers were helpful (Table 6.133) in providing assistance in the following most important areas (Table 6.134):

- advising families (7.3%)
- assisting in solving problems (8%)
- educating individuals on health issues (9.3%)
- giving treatment (6.7%).

Table 6.133: Perception of helpfulness of health workers in community

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Health workers helpful	22	44	8	16	25	50	55	36.7
Health workers not helpful	1	2	-	-	-	-	1	0.6
N/A	27	54	42	84	25	50	94	62.7
Total	50	100	50	100	50	100	150	100

Table 6.134: Knowledge of the work of health workers

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Give advise to families on health care	10	20	1	2	-	-	11	7.3
Assist in solving problems	7	14	-	-	5	10	12	8.0
Educate individuals on health issues	5	10	7	14	2	4	14	9.3
Talk about hygiene	-	-	-	-	3	6	3	2.0
Give treatment	-	-	-	-	10	20	10	6.7
Create health awareness	1	2	-	-	5	10	6	4.0
N/A	27	54	42	84	25	50	94	62.7
Total	50	100	50	100	50	100	150	100

As is noticeable from Table 6.134, health workers can provide a valuable PHC function in communities and respondents (30%) were satisfied with their work. The work of health workers is part of public sector provision and most respondents were dissatisfied. This is not unique as Rispel et al (1996) found in a study on public health in South Africa that most patients were dissatisfied with this sector. The data, however, reveals that there was no evidence of total coverage of the communities as only a minority of respondents knew about health workers and the assistance they provided. It seems that health workers only visit parts of communities and this could be because of constraining factors such as time, cost or the fact that health workers are not undertaking their tasks in a satisfactory manner which may contribute to household dissatisfaction.

Table 6.135: Satisfaction with the work of health workers

Response	Comm.1		Comm.2		Comm.3		All Comm.	
	f	%	f	%	f	%	f	%
Satisfied	20	40	7	14	18	36	45	30.0
Dissatisfied	3	6	1	2	7	14	11	7.3
N/A	27	54	42	84	25	50	94	62.7
Total	50	100	50	100	50	100	150	100

Table 6.136: Reason for dissatisfaction with health workers

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Spend too little time	1	2	1	2	-	-	2	1.4
Come very infrequently	2	4	-	-	7	14	9	6.0
Not applicable	47	94	49	98	43	86	139	92.6
Total	50	100	50	100	50	100	150	100

A strategy to use in communities of this nature is to train members, selected by the communities themselves, on basic health care issues. Qualified health workers from the province or the Metro should supervise these members. This could be on a voluntary basis or by payment from the respective government structures. Coverage of such settlements would increase and people would be able to interact with members that they can trust and confide in. For more serious ailments community health workers could refer individuals to clinics or hospitals. This type of system is only possible if communities have the necessary structures in place such as health or other committees and the households are willing participants in such structures. The next section therefore focuses on one of the fundamental tenets of PHC and that is community participation.

6.12 PARTICIPATION

In the definition of PHC by WHO (1978), for essential health care to be made universally accessible to individuals and families, there should be full participation. This component of PHC was therefore tested in the study areas. The issues tested to assess participation in health care and related structures included the following:

- existence and types of committees dealing with community problems;
- mobilisation of the community to deal with health problems and the formation of health committees;
- membership and type of committees households active in;
- reasons for non participation in committees; and

- involvement of household members in formulating health policy and reasons for non-participation.

Data on the above are found in table 6.137 to 6.145.

In terms of the existence of committees to deal with community problems, the majority of respondents in community one and three, 70% and 80% respectively, stated that such committees did not exist. In community three, there was almost an equal proportion of respondents who were divided on this issue. In the overall assessment, 68% gave negative responses to the existence of committees dealing with community problems (Table 6.137). Various different types of committees did exist in the three communities, according to the minority of respondents (Table 6.138).

Table 6.137: Existence of committees in area dealing with community problems

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Committees exist	15	30	10	20	23	46	48	32
Committees don't exist	35	70	40	80	27	54	102	68
Total	50	100	50	100	50	100	150	100

Table 6.138: Type of committees in existence

Type	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Masibambane	5	10	-	-	-	-	5	3.3
School committee	3	6	-	-	-	-	3	2.0
Health committee	7	14	2	4	12	24	21	14.0
Youth committee	-	-	-	-	5	10	5	3.3
Crèche committee	-	-	-	-	1	2	1	0.7
Women's committee	-	-	-	-	2	4	2	1.3
Masikane committee	-	-	-	-	3	6	3	2.0
Peoples committee	-	-	8	16	-	-	8	5.4
N/A	35	70	40	80	27	54	102	68.0
Total	50	100	50	100	50	100	150	100

Five committees were in existence in community three whilst community one had three and community two, only two committees. Community one had a Masibambane

(peace committee), a school and health committee. Community two had a health and people's committee. The most important committee in community three was the health, youth and development committee. It is evident that all three communities had a health committee.

Table 6.139: Mobilisation of community to deal with health issues

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Mobilised	15	30	2	4	20	40	37	24.7
Not mobilised	20	40	25	50	23	46	68	45.3
Don't know	15	30	23	46	7	14	45	30.0
Total	50	100	50	100	50	100	150	100

Table 6.140: Formation of health committee

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Formed committee	7	14	2	4	15	30	24	16.0
Did not form committee	8	16	25	50	5	10	38	25.3
Don't know	35	70	23	46	30	60	88	58.7
Total	50	100	50	100	50	100	150	100

The existence of different committees in communities reveals the level of organisation in communities. People mobilise around problem issues in the community and committees are formed. Twenty-four percent of respondents stated that they have mobilised around health issues with the highest proportion in community one (30%) and community three (40%) (Table 6.139). Household members were also questioned on their membership of committees and it was found that only 16.7% of respondents in all the communities were members (Table 6.141). Even though this may seem to be a small proportion, it is significant in that a start has been made and these committees, especially the health committee, have the scope to expand and be more inclusive of the total population. All members of the community need to be made aware of the significance of the various committees. Only when people mobilise in this way can they obtain more from public resources. Participation in this way is the fundamental basis for strengthening communities, improving social relationships and thus providing a united front against the problems that they experience via these community social movements.

Table 6.141: Household membership of any committee in the community

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Member of a committee	10	20	-	-	15	30	25	16.7
Not a member of a committee	17	34	50	100	13	26	80	53.3
Don't know	23	46	-	-	22	44	45	30.0
Total	50	100	50	100	50	100	150	100

The reasons for not participating in the various committees by those who are not members are outlined in Table 6.143. The main reasons given were:

- no knowledge of committees (20.7%);
- busy at work (14.6%);
- ignorance (12%);
- not informed (10%); and
- not elected (10%).

Table 6.142: Type of committee household members are active in

Committee type	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Masibambane	5	10	-	-	2	4	7	4.6
Masakhane committee	-	-	-	-	3	6	3	2.0
School committee	3	6	-	-	-	-	3	2.0
Health committee	2	4	-	-	2	4	4	2.7
Women's committee	-	-	-	-	5	10	5	3.3
Youth committee	-	-	-	-	3	6	3	2.0
Not applicable	40	80	50	100	35	70	125	83.4
Total	50	100	50	100	50	100	150	100

What is noticeable from the reasons given is that the lack of information or ignorance was the main deterrents to membership and participation. People must be informed through word of mouth or through other means such as notices or house to house visits so that there is no ignorance of important community issues to obtain full community participation. It is acceptable when dealing with disadvantaged communities that some members (14.6%) would be busy as they need to work hard to

survive. Even though this was the case, other family members should be encouraged to participate. Matters should not be left entirely to the household head, especially if they are male. Female participation should be encouraged in matters relating to health as they are the caregivers in the community and their position should be recognised.

Table 6.143: Reason for non participation in community committees

Reason	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Not elected	10	20	5	10	-	-	15	10.0
Don't know	3	6	2	4	-	-	5	3.3
Not concerned	8	16	-	-	-	-	8	5.4
No knowledge of committees	7	14	14	28	10	20	31	20.7
Not informed	12	24	3	6	-	-	15	10.0
Too old	-	-	8	16	-	-	8	5.4
Busy at work	-	-	-	-	22	44	22	14.6
Not literate	-	-	-	-	3	6	3	2.0
Ignorance	-	-	18	36	-	-	18	12.0
N/A	10	20	-	-	15	30	25	16.6
Total	50	100	50	100	50	100	150	100

6.12.1 Participation in National Health Policy Formulation

The draft paper on health, the Green paper, was widely circulated amongst all sectors of the community and discussion workshops were held for the input of various stakeholders. Fifty-four percent of the respondents did not participate in the workshops with majorities of 60% and 76% in communities one and two respectively. A significant proportion (40%) in community three participated in the workshops (Table 6.144).

Table 6.144: Involvement of community in workshops to formulate new health policy

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Involvement	12	24	2	4	20	40	34	22.7
No involvement	30	60	38	76	13	26	81	54.0
Don't know	8	16	10	20	17	34	35	23.3
Total	50	100	50	100	50	100	150	100

Table 6.145: Reasons for not participating in workshops on new policy formulation

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Ignorance	7	14	-	-	1	2	8	5.3
Not sure of workshops purpose	6	12	-	-	12	24	18	12.0
No knowledge of workshops	25	50	48	96	17	34	90	60.0
N/A	12	24	2	4	20	40	34	22.7
Total	50	100	50	100	50	100	150	100

The majority of people interviewed, from all communities, who did not participate in the workshops (60%) stated that they had no knowledge of the workshops (Table 6.145). This indicates that the location of the workshops were either inaccessible or that it was not widely publicised resulting in the disadvantaged sector of the population whose inputs are vitally important being ignored.

6.13 ASSISTANCE FOR COMMUNITY PROBLEMS

This section sought information on the sources of assistance for community problems, the level of success and the methods by which assistance is provided. When members of the three communities had problems they sought assistance (Table 6.146). Assistance was obtained from:

- the police (39.3%);
- the neighbours (16.7%); and
- the different committees (18.7%).

6.13.1 Source, Success and Methods of Assistance

Table 6.146: Seeking of assistance for problems in community

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Police	17	34	8	16	34	68	59	39.3
Community meets to solve problem	10	20	-	-	-	-	10	6.6
Masibambane committee	5	10	-	-	-	-	5	3.3
School committee	3	6	-	-	-	-	3	2.0
Peoples committee	-	-	10	20	-	-	10	6.7
Talk to neighbours	13	26	7	14	5	10	25	16.7
Metro	-	-	-	-	8	16	8	5.4
Not sure	2	4	25	50	3	6	30	20.0
Total	50	100	50	100	50	100	150	100

Table 6.147: Success in seeking assistance for community problems

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Successful	22	44	7	14	20	40	49	32.7
Unsuccessful	13	26	12	24	13	26	38	25.3
Don't know	15	30	31	62	17	34	63	42.0
Total	50	100	50	100	50	100	150	100

The majority of respondents in community one (34%) and community three (68%) went to the police for assistance. A significant proportion of respondents in community one and three sought assistance by talking to neighbours (26%) and 25% respectively (Table 6.146). Community two relied mostly on assistance from the police (16%), the peoples committee (20%) and talking to neighbours (14%). Most respondents in community one (44%) and community three (40%) were successful when they sought assistance whilst the majority (62%) in community two indicated that they did not know whether they were successful (Table 6.147). The methods of providing assistance are indicated in Table 6.148. Some people indicated that they were given help when it was required (Table 6.148) whilst others who did not receive assistance gave numerous reasons. These concerned the lack of commitment amongst people, hatred, no understanding, no unity and the fact that the police did not do their job properly (Table 6.149).

Table 6.148: Method of providing assistance for community problems

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
Provide any help needed	8	16	7	14	5	10	20	13.3
Inform about dangerous diseases	4	8	-	-	-	-	4	2.7
Assist by sending investigator	3	6	-	-	3	6	6	4.0
Assist by working together	3	6	-	-	-	-	3	2.0
Stop conflict	1	2	-	-	12	24	13	8.6
Understand each other	3	6	-	-	-	-	3	2.0
N/A	28	56	43	86	30	60	101	67.4
Total	50	100	50	100	50	100	150	100

Table 6.149: Reasons for not being successful when seeking assistance

Response	Comm.1		Comm.2		Comm.3		All Comm	
	f	%	f	%	f	%	f	%
People lack commitment	7	14	-	-	3	6	10	6.7
People hate each other	3	6	-	-	-	-	3	2.0
Lack of understanding amongst people	3	6	2	4	-	-	5	3.3
No unity amongst people	-	-	8	16	-	-	8	5.3
Police don't do their job	-	-	2	4	10	20	12	8.0
N/A	37	74	38	76	37	74	112	74.7
Total	50	100	50	100	50	100	150	100

6.14 RELATIONSHIP BETWEEN SOCIO-ECONOMIC, HOUSING AND ENVIRONMENTAL VARIABLES AND HEALTH INDICATORS

As was mentioned in the introduction, the task of analysing the empirical data was simplified by the use of SPSS. In addition to the descriptive statistics discussed earlier, the researcher attempted to investigate whether there was any relationships that existed between the various variables under study. In this respect, Chi2 tests and multiple correlations were utilised to make inferences about the population being studied. The researcher followed Hammond and McCullagh (1974) and Gregory (1987) in interpreting the Chi2 tests. This involved calculated values and critical values. When the calculated value was greater than the critical value at the 0.05 level, a relationship between variables existed. Only when there was a relationship were further correlations calculated at the 95 and 99 percent significance levels. The independent variables selected to calculate the relationships/ associations were socio-

economic characteristics of household heads, dwelling characteristics and water and sanitation. The dependent variables were selected health indicators in the community such as an understanding of the concept of health, a healthy community, factors influencing health, health facility/ service ratings, knowledge of the health system, disease indicators and disease and illness characteristics. Tables 6.150 to 6.155 below indicate whether there was any relationship between the various selected independent and dependent variables. If there was a relationship the correlations are indicated. The symbol (NR) is used to indicate that there was no relationship between the variables from the previous Chi-squared test.

6.14.1 Socio-economic Variables and Health Concepts

It is widely recognised that not only health services and facilities influence health in a community, but also by numerous physical and socio-environmental factors (Nakamura et al, 1997). Additionally, according to Winkleby et al, (1992), education has been considered to be the most predictive of good health. It must be remembered that education is not the only factor to determine health. Martelin (1994) states that a variety of factors including education, income, occupation and housing conditions contribute to good health levels and stressed the importance of multiple socio-economic indicators. In the present study the age of respondents ranged from 24 years to 75 years and the average age was calculated to be in the mid-forties (Table 6.1) with the majority (43.4%) married and 33.3%, single (Table 6.4). There was more female household heads (56%) than males (44%) (Table 6.7). The average income of household heads was R475 per month (Table 6.11) with 37.3% having a primary education and 33.4% a secondary education (Table 6.12). The researcher attempted to calculate the relationship between the above socio-economic variables and the following health indicators:

- understanding of the concept of health;
- understanding of a healthy community; and
- factors influencing health.

Understanding of the health and health status of a community is increased if information about relationships between various socio-economic variables and health indicators, knowledge of the health system, health services/ facilities, disease prevalence, housing and community services and facilities is obtained. In this respect various relationships were computed and these are discussed below.

Table 6.150: Relationship between selected socio-economic variables and health indicators

	Health Concept	Understanding of a healthy community	Factors Influencing Health
Age	r=0.3658	r=0.2489	NR
Sex	NR	NR	r=0.3014
Income	NR	r=0.1243	r= 0.2561
Education	r=0.4554	NR	NR
Employment	NR	NR	NR

***NR denotes that there was no relationship/ association between variables**

It is evident from Table 6.31 (towards the beginning of this chapter) that there were various ways in which respondents perceived health and when analysed carefully, the responses have the following perspectives: biomedical, social and environmental. When the relationship between the socio-economic variables and the respondent's understanding of the concept of health was calculated, only two socio-economic variables had a relationship to the concept and these were age and education. Age had a weak and insignificant correlation whilst education had a moderately significant correlation (Table 6.150). What this means is that the more educated had a better understanding of the concept of health than those who had a lesser education did. In communities such as these, where the level of formal education is low, it is vital that health promotion strategies be undertaken. In this respect, community health education will go a long way in improving peoples understanding of health and health issues and will ultimately lead to the improvement in people's quality of life. Grounding health education in people's own environments, interests and lives will engage people's collective interests, trust and participation especially amongst those who experience the poorest health (Adedoyin and Watt, 1989). For any action programme to be effective in communities, it should begin by recognising people's

own assessment of their health needs. Programmes should also be directed to areas where there is the greatest social disadvantage such as informal settlements. Improving the knowledge of residents will lead to changes in attitude and behaviour according to Westaway and Viljoen (2000) and this will improve the health status of residents and eventually their quality of life.

When the people's understanding of a healthy community was analysed (Table 6.32) it was found that the majority of people attached meaning in terms of the biomedical perspective as compared to the social and environmental viewpoints. As mentioned earlier, the close proximity and abundance of health facilities in urban areas in relation to the informal settlements may have influenced responses to some extent. However, it was also important to determine whether the responses obtained were associated with the socio-economic characteristics of respondents. It is evident from Table 6.150 that although there was a relationship/ association between age and income with respondent's understanding of a healthy community the correlation was weak and insignificant. What this implies is that the socio-economic variables related to respondents did not determine people's understanding of a healthy community. Such a finding can be expected in South African informal settlements because of their locational proximity and also because of the socialising influence of biomedicine in South African society in general. This does not mean that the researcher does not believe in the value of biomedicine in treating ill health. It only demonstrates a situation where there is an unbalanced focus on biomedicine rather than the social and environmental conditions that people live and die which requires fundamental change. This change, if it does occur, may impact on people's perceptions of their understanding of a healthy community.

There was also an attempt to correlate socio-economic variables with the factors that influenced health in informal settlements. In this respect, respondents were asked to identify conditions in communities that tended to promote or retard their health. They were able to identify numerous factors that effected their health as illustrated in Tables 6.33 and 6.34. The following were the most important factors that were identified: insufficient food; poor living conditions; waste around the house and

crowding in the house. Poor living conditions and insufficient food increases the susceptibility to illness and disease. Coupled to poor living conditions and the waste disposal methods were congestion in homes that can increase the spread of communicable diseases. Additionally, the research sought to identify whether there was any relationship between the responses received and people’s socio-economic characteristic. It was found that only sex and income were related to the independent variable and the correlations were weak and insignificant. In the context of this study it needs to be underscored that socio-economic variations in the sample group were very small. Therefore, the significance of this finding, despite a whole range of variations, is that people are acutely aware of their health conditions and needs. Health promotion campaigns especially in areas in which people have control such as managing waste disposal or avoiding open fires in homes should assist them in their quest for better health.

Other important relationships that need to be focussed on in this discussion are those concerned with socio-economic variables and health service indicators. The health service indicators selected were availability, adequacy and frequency of use of health services/ facilities and rating of care received at health services/ facilities. These relationships are discussed below.

6.14.2 Socio-economic Variables and Health Facility Service Indicators

Table 6.151: Relationship between selected socio-economic variables and perception/ attitude to health facility/ service availability, adequacy, use and rating.

Age	Availability of Health Services	Adequacy of Health Services	Frequency of use of Health Services	Rating of Care Received
Sex	NR	r=0.4730	NR	r=0.3390
Income	r=0.2460	NR	r=0.3863	NR
Education	NR	NR	r=0.4890	NR
Employment	NR	NR	NR	NR

* NR denotes that there was no relationship/ association between variables

According to Van Rensburg (1992), the characteristics of a population will influence their perspectives and determine their health behaviour. It is imperative that people provide their subjective perceptions and attitudes, that is, their assessments of the health care facilities available and the quality of care received. It was established from the data obtained (Table 6.35) that most health care facilities were available to them. When the relationship between socio-economic characteristics and availability of health services to respondents was computed, it was found that only one independent variable (income) was associated with the responses on availability of health services/ facilities but the relationship, although positive, was weak and insignificant ($r=0.2460$) (Table 6.151).

In the overall assessment of health facilities/ services as indicated in Table 6.46, it was clear that the majority of respondents considered most public services/ facilities as inadequate (Table 6.46). The exercise of correlating socio-economic variables with responses on adequacy of health services/ facilities resulted in a moderate positive correlation ($r=0.4730$) between sex and the dependent variable. This could be linked to the roles of women household heads whose maternal roles and health status and the many problems faced determined their perception of health services/ facilities. A moderate positive correlation was also obtained between education and frequency of use of health services ($r=0.4890$). It cannot be denied that those with a better education have a clearer understanding of the health system and because of this could have made use of health services more regularly. Additionally, according to Table 6.151, there was a weak positive correlation between sex and the rating of health care ($r=0.3390$) which means that although sex of respondents was related to health care received, it did not significantly influence their responses.

6.14.3 Socio-economic variables and Knowledge of the Health System

Table 6.152 Relationship between selected socio-economic variables and knowledge of the health system

Socio-economic variables	Knowledge of PHC	Knowledge of Working of Present Health System	Perception of health system	Participation in National Health Policy Formulation
Age	r=0.0102	r=0.0378	NR	NR
Sex	NR	NR	NR	NR
Income	NR	NR	r=0.3652	NR
Education	NR	r=0.4890	NR	r=0.4672
Employment	NR	NR	NR	NR

* NR denotes that there was no relationship/ association between variables

Table 6.152 illustrates the relationships between socio-economic variables and four selected variables of the health system, that is, knowledge of PHC, knowledge of the working of the health system, perception of health system and participation in national health formulation. With regard to PHC, it was noted previously that 60% of the respondents from all communities interviewed knew what PHC entailed (Table 6.75 and were able to explain it as comprising of the following: helping people with health problems, prevention of illness and community participation (Table 6.76). However, when these responses were correlated with socio-economic variables, it was found that there was a weak correlation between age and respondents knowledge of PHC. This implies that age, although associated with people’s knowledge of PHC did not significantly determine their responses. In a similar vein, over 60% of respondents did not know how the present health system worked (Table 6.78). Age in this instance did not significantly determine the relationship (r=0.0378) (Table 6.152). However, there was a moderately strong positive correlation between education and the working of the health system (r=0.4890) which underscores the fact that those with a better education have a better understanding of how the health system worked.

In terms of respondents’ perceptions of the health system, it was established that the majority of respondents (60%) perceived the present health system to have become worse (Table 6.83). When the correlation was computed, it was found that none of the socio-economic variables had any significant relationship to respondent’s responses

although there was a weak positive correlation between income and respondent's perceptions ($r=0.3652$).

The final dependent variable to be tested was respondent's involvement in National Health Policy formulation and socio-economic variables. In this regard the draft paper on health was circulated widely and all communities were encouraged to participate. The majority of respondents from all communities sampled did not participate because they had no knowledge of the workshops (Table 6.144 and 6.145). It seems that only those who had a relatively good formal education and comprised the minority of respondents participated in the workshops as is evidenced by the moderately strong positive correlation that was obtained between education and participation ($r=0.4672$). This implies that although there was claims of wide publicity, this was not the case as a large proportion of people in disadvantaged communities had no knowledge of the workshops. An alternate explanation could be that the majority of people were afraid to participate because of their low educational status.

6.14.4 Socio-economic Variables and Disease Indicators

A better understanding of the links between socio-economic characteristics and health is crucial as socio-economic characteristics mediate the interaction of households with their physical environment. Household's socio-economic conditions help determine their members' access to environmental services, exposure to environmental hazards, hygiene behaviour and the capacity to undertake protective measures. Often it is changes in the household's socio-economic status that holds out the best hope for improvements in their environment and health circumstances (Songsore and McGranahan, 1993).

In this section the intention was to determine whether socio-economic variables had any bearing on disease indicators such as knowledge of TB, awareness of HIV/ AIDS, knowledge of precautions against HIV/ AIDS and family talks on HIV/ AIDS. Over 90% of the respondents were aware of HIV/ AIDS (Table 6.111) and explained that

Table 6.153: Relationship between selected socio-economic variables and perception, knowledge and action on disease

Socio-economic variables	Knowledge of TB	Awareness of HIV/AIDS	Knowledge of Precautions against HIV/AIDS	Family Talks on HIV/AIDS
Age	NR	NR	r=0.3542	NR
Sex	NR	NR	NR	NR
Income	NR	NR	NR	r=0.5230
Education	NR	r=0.3181	r=0.3434	r=0.1531
Employment	NR	r=0.0092	NR	NR

*NR denotes that there was no relationship/ association between variables

it was a killer disease, was incurable, dangerous and there was a need to use condoms (Table 6.112). Additionally, over 70% of respondents had some knowledge on the precautions to take (Table 6.119). However, only 55% of respondents had family talks on HIV/ AIDS (Table 6.123). When the correlations were computed between the socio-economic variables and the independent variables, it was found that the age of respondents had a weak relationship to individual knowledge of precautions taken against HIV/AIDS ($r=0.3542$) and income was strongly related to family talks on HIV/ AIDS ($r=0.5230$) (Table 6.153). This finding indicates that although most of the sampled population were poor with an household income of between R600 to R800, those families who had a better income status were willing to have regular family talks and were open about the disease in their households (Table 6.11). As mentioned earlier, it is the responsibility of parents to educate family members on HIV/ AIDS and sexual practices. Education must begin from the household and adults have a moral obligation to warn children about unsafe sex. Income should not be considered as a factor in this regard as the deadly end is perpetuated by silence on sexual matters. Additionally, although there was a relationship between income and all three HIV/ AIDS variables, the correlations were weak and could not have significantly influenced responses. There was also a weak correlation between employment and awareness of HIV/ AIDS ($r=0.0092$). This situation could be improved substantially if employers educate their employees on HIV/AIDS and related issues. The workplace is an ideal forum for any type of health education to take place. It seems that the

capitalist ethic of exploiting workers until they die, without tangible benefits to the worker is pervasive in South Africa. This could be the result of the overabundance of cheap labour in the country from which the capitalist can draw. It should also be noted that there was no relationship between any of the socio-economic variables and people's knowledge of TB.

Additionally, it should be obvious that housing and neighbourhoods have become significant elements in public health. Attention is focussed on sanitation, crowding, services/ facilities and the consequences of the actions of people on specific living environment. In this respect, the data description and analysis thus far can only be complete if the relationship between dwelling characteristics and household illness characteristics are discussed. The following section therefore deal with these issues.

6.14.5 Dwelling Characteristics and Household Illness

The environment that exerts the greatest and most immediate influence on the lives of people is that of the home and neighbourhood. The quality of lives of people depend to a great extent on a clean decent home in which to live and raise a family (Songsore and McGranahan (1993). The type of housing material used, crowding in homes, garbage disposal methods and fuel used influence the vector, pathogen and parasite presence (Blacker, 1991). Human beings are also the biological agents of disease transmission. Additionally, the sum total of environmental risk factors determines the level of health or ill health. Additionally, Bradshaw et al (2000) state that poor living conditions and poverty is correlated with a population group. In this respect the African population was the most disadvantaged, deprived and exploited population group and all respondents in the present study were Africans. The present study attempted to determine whether there was any correlation between dwelling characteristics and illness.

Table 6.154: Relationship between dwelling characteristics and illness

Dwelling Characteristics	No. with serious illness	Types of serious illness	Common ailments in family
Dwelling Type	r=-0.1265	r=-0.1982	NR
Housing Conditions	r=0.5880	r=0.5910	r=0.3891

*NR denotes that there was no relationship/ association between variables

Table 6.154 illustrates the relationship between the independent variables, dwelling type and housing conditions with the following dependent variables, the number in households with serious illnesses, type of serious illnesses and common ailments in the family. With one exception, dwelling type and common ailments, dwelling type had a weak positive correlation with the number with serious illnesses and the type of serious illnesses. A stronger relationship is revealed between housing conditions and the number with serious illnesses (r=0.5880) and the type of serious illnesses (r=0.5910) indicating that those with very bad housing conditions had more persons who became ill than those with better housing conditions. Additionally, those with bad housing conditions had more serious illnesses. There was also a moderately significant correlation between housing conditions and common ailments in the family (0.3891) (Table 6.154).

6.14.6 Water and Sanitation and Health Indicators

The importance of an adequate supply of potable water and good sanitation has been well established in numerous studies (Cairncross, 1990, Hardoy and Satterthwaite, 1991; WHO, 1987). This study also focused on these variables but used water storage and the type of toilets of respondents and examined their relationship to health indicators as is evidenced in Table 6.155.

Table 6.155: Relationship between water and sanitation and health indicators

Water Source	No. with serious illness	Types of serious illness	Common ailments in family
Water Storage	r=0.0077	NR	NR
Toilet Type	r=0.4120	r=0.5910	r=0.5520

*NR denotes that there was no relationship/ association between variables

It was obvious from the previous description of data that the majority of households (78.6%) in all three communities had access to piped water provided by the municipality in the form of communal standpipes. The health problems that were expected focussed not with the access to water but with the storage of water and the resultant impact on health. Fifty percent, 90% and 62% of respondents in community one, two and three, respectively, stored water in twenty litre containers and buckets (Table 6.25).

In terms of the serious illnesses in households it was indicated by 50.7% of respondents that there was no one who had any serious illnesses. However, 40% of respondents stated that there was one person in the household who had a serious illness (Table 6.88). The most significant type of serious illness mentioned was high blood pressure (16%) with asthma following with 12 %. Other serious illnesses mentioned were sores, cholera, diabetes, epilepsy, flu, arthritis, HIV/ AIDS and heart problems. The most common ailments by family members as indicated in Table 6.96 were asthma, high blood pressure, influenza, headaches, TB, diarrhoea and measles. The most significant common ailment was influenza (56%) diarrhoea (12%) asthma (10%) and headaches (10%) (Table 6.96). Most significant health problems reported by respondents in the study areas are preventable as they are communicable diseases attributable to the environment and the conditions in which people lived. Chronic health problems such as heart disease are also in evidence and could have arisen because of the stresses that people undergo in their quest to survive or the lifestyles practised. The prevalence of asthma in a significant number of households needs further elaboration. According to Surjadi (1993), there are links between the indoor environment and respiratory diseases. It highlights the frequency with which mothers and children suffer from such diseases and how their occurrence is associated with certain environmental characteristics eg, damp housing and inadequate garbage disposal and absence of ventilation. Surjadi (1993) also found that respiratory diseases are associated with household' socio-economic status, especially age and the absence of ventilation in the kitchen compounded by the fuel-wood used for cooking. However, in the present study, the independent variable that was considered was water storage as an influencing variable on health. It is acknowledged that other variables as indicated by Surjadi (1993) may also contribute to illness in households.

When the correlation were computed in the present study, it was found that there was a weak correlation between water storage and the number with serious illnesses ($r=0.0077$) and no relationship between water storage and types of serious illnesses and common ailments in the family. This indicates that water storage, although it was related to the number of people who had serious illnesses was not the direct contributory cause of serious illnesses in household. Further research needs to be conducted in this respect as the prevalence of diarrhoea amongst 12% of the households indicates the possibility that water could have been contaminated. Alternatively, the illnesses could be the result of 18% of households obtaining their water from rivers or streams (Table 6.24). The third alternative that the researcher strongly supports is that of Surjadi (1993) who found in his study that a multiple number of factors could have led to the prevalence of serious illnesses in households. Multiple and poorly understood interactions may therefore underlie the poor health status of informal dwellers.

With regard to sanitation, the variable considered was the type of toilets utilised by respondents as indicated in Table 6.28. The majority of respondents (60%) did not have access to proper toilet facilities and manually disposed of faeces or used bushes as their toilets. A significant proportion (40%) had a septic tank. The computations undertaken revealed that the type of toilet facilities used by respondents was significantly and positively correlated to the number of respondents with serious illnesses ($r=0.4120$), the types of serious illnesses ($r=0.5910$) and the common ailments in the households ($r=0.5520$). What this indicates is that the health status of disadvantaged individuals and communities is influenced to a large extent by the lack of basic amenities, in this instance toilet facilities. This has a profound effect on the number of people who become ill and the type of illness in households. Cunanan and Maharaj (2000), in their study of an informal settlement, conclude that improvements in water and sanitation facilities would greatly reduce the impact and spread of diseases such as diarrhoea. The fact that the disadvantaged are most vulnerable reflects the failure of the public sector to make adequate provision of basic services in informal settlements.

6.15 FOCUS GROUP: PROBLEM RANKING EXERCISES

Ranking exercises were conducted with focus groups in each of the communities under study. In each location the focus group comprised of eight adult community members. In comm. 1 the groups comprised of 3 females and five males while in comm. 2 and 3 males and females were equally represented in the groups. The main aim of the ranking exercises were to ascertain problems that community members experienced in relation to health care provision and their health status in general. The problem identification and the ranking exercises of the focus groups are displayed in table 6.156 to 6.161.

Generally, the results from the ranking exercises reinforced the findings of the questionnaire survey discussed earlier in this chapter. Furthermore, the results indicate that despite glaring similarities there are major differences with regard to health and health care needs and experiences in the communities under study. This underscores the need to understand social differentiation in poor communities and indicates that one size fits all policies and interventions are unlikely to address effectively problems that communities and households experience in relation to health concerns.

An overall assessment of the problems identified by the members participating in the focus group exercises indicate that there are numerous problems that are experienced in the communities. However, the problems identified may be categorised in the following broad areas:

- Social and economic conditions
 - Poverty and unemployment
 - Exposure to violence in the home and the community
 - High workloads (especially in the case of women)
 - Poor nutrition/ inadequate food supply
 - Society (especially youth) is too promiscuous

- Housing conditions
 - Housing conditions are poor
 - Leaky homes/ damp/ broken down/ no ventilation
 - Overcrowding (too many people in a room)

- Inadequate services and facilities generally
 - Poor sanitation facilities and toilets
 - Inadequate clean water supply/ unclean water sources
 - Lack of recreational facilities

- Inadequate health care facilities and services
 - No health care community structures
 - Poor treatment at health care facilities
 - Lack of health information/ education
 - Health care is too costly

- Poor environmental conditions within the localities
 - Litter/ dumping in the informal settlement
 - Refuse/ waste removal is inadequate
 - Insects/ pests
 - Dust and smoke

- Political aspects
 - Government does not focus on the poor/ no good health care provision for the poor

6.15.1 Community One Problem Identification and Ranking Exercise

Table 6.156: Ranking exercise

Codes	SF	HCC	W	P	WD	HC	RF	HW	ET	IHCF
SF	X	SF	SF	P	SF	HC	SF	SF	ET	SF
HCC	X	X	W	P	HCC	HC	HCC	HCC	ET	IHCF
W	X	X	X	P	W	HC	W	W	ET	W
P	X	X	X	X	P	P	P	P	P	P
WD	X	X	X	X	X	HC	HC	HC	WD	IHCF
HC	X	X	X	X	X	X	HC	HC	ET	IHCF
RF	X	X	X	X	X	X	X	HW	ET	IHCF
HW	X	X	X	X	X	X	X	X	ET	IHCF
ET	X	X	X	X	X	X	X	X	X	ET
IHCF	X	X	X	X	X	X	X	X	X	X

Table 6.157: Problems/ codes, frequency and rank

Problems	Codes	Frequency	Rank
Poor sanitation facilities/ toilets	SF	6	4
Health care is too costly (both hospitals and sangomas)	HCC	3	7
Inadequate clean water supply (unclean, standpipes too far)	W	5	5
Poverty	P	9	1
Refuse/ waste removal inadequate	WD	1	8
Housing conditions are poor	HC	8	2
Lack of recreation facilities	RF	0	10
High workloads (esp. identified by women)	HW	1	8
Unable to get emergency treatment	ET	7	3
Insufficient health care facilities	IHCF	5	5

6.15.2 Community Two Problem Identification and Ranking Exercise

Table 6.158: Ranking exercise

Codes	SF	HC	U	LD	HCCS	WFS	I/ P	PHCT	V	HI/ E
SF	X	HC	U	SF	SF	WFS	SF	SF	V	SF
HC	X	X	U	HC	HC	HC	HC	HC	V	HC
U	X	X	X	U	U	U	U	U	U	U
LD	X	X	X	X	LD	WFS	WFS	PHCT	V	HI/ E
HCCS	X	X	X	X	X	WFS	I/ P	PHCT	V	HCCS
WFS	X	X	X	X	X	X	WFS	WFS	WFS	WFS
I/ P	X	X	X	X	X	X	X	PHCT	V	HI/ E
PHCT	X	X	X	X	X	X	X	X	V	PHCT
V	X	X	X	X	X	X	X	X	X	V
HI/ E	X	X	X	X	X	X	X	X	X	X

Table 6.159: Problems/ codes, frequency and rank

Problems	Codes	Frequency	Rank
Poor sanitation facilities/ toilets	SF	5	5
Leaky homes/ damp/ broken-down/ no ventilation	HC	7	3
Unemployment	U	9	1
Litter/ dumping in the informal settlement	LD	1	8
No health care community structures	HCCS	1	8
Lack of proper water facilities and sources	WFS	8	2
Insect/ pests	I/ P	1	8
Poor treatment at health care facilities (lack of medication, waiting time too long etc.)	PHCT	4	6
Exposure to violence in the home and community	V	7	3
Lack of health information/ education	HI/ E	2	7

6.15.3 Community Three Problem Identification and Ranking Exercise

Table 6.160: Ranking Exercise

Codes	W	SF	HC	WD	U/ P	G	DS	O	PN	PS
W	X	SF	HC	WD	U/ P	W	DS	W	PN	W
SF	X	X	SF	SF	SF	SF	SF	SF	SF	SF
HC	X	X	X	HC	HC	HC	HC	HC	PN	HC
WD	X	X	X	X	U/ P	G	WD	O	PN	WD
U/ P	X	X	X	X	X	U/ P	U/ P	U/ P	U/ P	U/ P
G	X	X	X	X	X	X	G	G	PN	G
DS	X	X	X	X	X	X	X	O	PN	DS
O	X	X	X	X	X	X	X	X	PN	O
PN	X	X	X	X	X	X	X	X	X	PN
PS	X	X	X	X	X	X	X	X	X	X

Table 6.161: Problems/ codes, frequency and rank

Problems	Codes	Frequency	Rank
Unclean water sources (rivers, streams, standpipes)	W	3	6
Poor sanitation facilities/ toilets	SF	9	1
Poor housing conditions	HC	6	4
Inadequate waste disposal systems	WD	3	6
Unemployment/ poverty	U/ P	7	2
Govt. does not focus on the poor/ no good health care provision for poor	G	4	5
Dust and smoke	DS	2	9
Overcrowding (too many people in a room)	O	3	6
Poor nutrition/ inadequate food supply	PN	7	2
Society (esp. youth) is too promiscuous	PS	0	10

All three communities, with a few exceptions, identified similar problems but prioritised them differently. In community one the top three problems identified were poverty (ranked 1), poor housing conditions (ranked 2) and being unable to get emergency treatment (ranked 3) (Table 6.157). In comm. 2 the top three problems identified were unemployment (ranked 1), lack of proper water facilities and sources (ranked 2) and exposure to violence in the home and the community (ranked 3) (Table 6.158). In comm. 3 the top three problems identified were poor sanitation facilities and toilets (ranked 1), unemployment and poverty (ranked 2) and poor nutrition/inadequate food supply (also ranked 3) (Table 6.161).

6.16 CONCLUSION

From the data description and analysis it can be concluded that good health can only be possible when households or communities have adequate resources to meet their basic human needs in order that they can ensure the protection of household members from illness and diseases. People must have access to environmental services/facilities such as potable water, sanitation and waste disposal means. They should also have adequate shelter and nutrition. A large number of households in the Durban Metro are living in sub-standard housing and overcrowded conditions without the resources and recourse for decent shelter. The survey of households revealed that 80% of households lived in dwellings that were made of cardboard, plastic and mud. The social fabric and the obligations of the extended family remain fairly strong with married children, mothers, fathers, relatives and grandchildren comprising households. Over fifty-percent of household heads were female with other female members making up a similar proportion. Poverty in the informal settlements is widespread with average incomes of the entire households ranging between R600 to R800 that was closely related to their employment status as labourers.

Access to medical services, both preventative and curative is also a fundamental requirement in informal settlements. All the variables mentioned above interrelate in their effect on health. However, the one determining factor that may have the greatest

influence on health is the socio-economic status of households and communities. It is abundantly clear in this chapter that the majority of the variables mentioned above are not present or are lacking in the informal settlements in the Durban Metro and may be due in part to the limited provision of services by local authorities with their weak institutional management of these settlements or the shortage of resources. It must be admitted however, that some changes have occurred with regard to the provision of housing and resettlement of certain communities but the process needs to be accelerated. Drastic changes need to take place if the health and health care needs of the disadvantaged population in informal settlements are to be satisfied and their quality of life improved. This must entail social, political and economic changes with reliance not placed solely on the provision of health and health care services/ facilities or the changes in behaviour patterns of people.

CHAPTER SEVEN

EVALUATION, RECOMMENDATIONS AND CONCLUSION

7.1 INTRODUCTION

The particular concern in this thesis was to investigate the Geography of Health in the Durban Metropolitan Area with special reference to health and health care in informal settlements. In revisiting the original objectives of this study, the key questions raised relate to the following variables amongst informal dwellers: socio-economic characteristics; health and health care problems; health status; conceptualisation of health; health complaints, needs and frustrations; participation in health issues; use of traditional medicine; changes required to improve and satisfy health and health care needs and the possible relationship between socio-economic characteristics and health indicators. In examining these questions critically, three informal settlements in the Durban Metropolitan Area were randomly selected as case studies for investigation. These were Banana City, Tempele Settlement and Besters informal settlement. The major themes and concerns highlighted below resonate throughout the study. Although the research has focused primarily on case studies in the Durban Metropolitan area, the findings are equally useful as lessons for other urban areas in South Africa and developing countries in general.

The main intention of this concluding chapter is to synthesise the key research findings as well as forward recommendations and outline future research. In the light of the literature review, conceptual framework and findings of this study presented in preceding chapters, general conclusions about the geography of health in informal settlements are tentatively drawn. It should be acknowledged that case studies are unable to provide definitive answers to questions posed about health and health care issues in informal settlements. Case studies, however, are able to illustrate, illuminate and sometimes amplify numerous concerns about the health and health care status of disadvantaged individuals and communities not only in the South African context but also in other developing nations.

Considering the historical legacy of South Africa from the time of the colonialist to the apartheid era, the health reform process in the country has noble intentions of redressing past imbalances to improve the health of the nation. The shift from social structures based on the principles of apartheid to a democratic society needed such a policy shift in keeping with the ideals of a transitional society. It is commendable that the State has taken into account the current realities and has embarked on a mammoth task with a multitude of problems that are not insurmountable in the long term. However, short-term solutions are needed to satisfy the pressing needs of the most disadvantaged in South African society, especially in informal settlements. This thesis began with a literature review that generally demonstrated the social and environmental basis of ill health in South African society. The key arguments presented in the conceptual framework highlighted contemporary views on medicine and society, that is:

- the orthodox view;
- medical nemesis;
- the Marxist view;
- capitalism and its impacts on health and health care.

Additionally, the development of medical thought was discussed with emphasis on placing the history of medical thought in the context of social and economic aspects of society. It was also suggested that it was the medical definition of health that formed the basis for the social definition in developed countries. Health is defined in a functionalist and individualist way in keeping with the capitalist values system that defines people as producers or the forces of production and ignores the hopes, fears, anxieties, pain and sufferings of individuals. The perspective also tends to ignore the social, economic and environmental factors that cause ill health.

The thesis also drew from various other perspectives as a basis for conceptualising health and health care and understanding it in a multi-theoretical/ multi-conceptual way. In this respect discussion focussed on the biomedical approach, the social science perspective, the humanistic perspective which included the empowerment

and the Healthy Cities approach. To reiterate, the empowerment approach is rights-based and centralises the importance of individuals, households and communities (Cohen and Swift, 1993; Eyles, 1997; Eyles and Taylor, 1994; Pryer, 1993; Rao and Kelleher, 1995). On the other hand, the healthy city approach is a fundamental epistemological shift in the conceptualisation of health, asserting that science alone cannot be used to solve complex and multidisciplinary problems. There is need, in addition to quantitative data, qualitative data grounded in the stories, anecdotes and anthropological reports of ordinary people. The fundamental basis of this approach is an aesthetic and moral view of health and not a biophysical view of illness (Ashton, 1992; Baum, 1993; Davies and Kelly, 1993; Kelly et al, 1993; Tsouros and Draper, 1992; Werna et al, 1998). Additionally, the political economy perspective was reviewed. It stressed the patterns of uneven development within a capitalist system and the different social and economic effects of a global market economy. This has led to a worsening of the environment in which people live and work; expropriation of land; unequal service provision and access to facilities and services, and class, gender, race and ethnic conflicts. The specific focus of this approach is on the growing poverty and homelessness, the inadequate health delivery system, interpersonal violence and drug abuse and the relationship between disease and structural inequalities (Blaikie, 1989; Duhl, 1993; Elson, 1997; Folbre, 1995; Merchant, 1992; Meyer-Lie, 1987; Moser, 1993; Mackenzie, 1992; Rogers-Rose, 1993). The conceptual framework also focused on existing models of environment and health, such as that proposed by Songsore and McGranahan (1993) (figure 3.1) that clearly outlines the links between the environment, wealth and health. The underlying logic of this model is that differentials in populations are a function of the interaction of environmental risk factors and socio-economic factors in specific locations.

In reviewing the various approaches it was found that there were various limitations and thus the present study advocated a holistic and integrated perspective as illustrated in figure 3.2. This approach recognises that health risks emerge from multiple and complex factors related to personal, economic, social, environmental and political factors. It is contended that health status improvement and the reduction of

health risks of disadvantaged individuals and communities needs a multi-pronged approach with multiple solutions drawing on resources from international, national and local agencies and organisations. The perspective adopted provides the opportunity to examine the environmental, political, economic, social, physical and psychological aspects of health. This is closely linked to the family, access to education, health service delivery, work environments, employment status and public services such as the provision of water and sanitation. Based on the holistic approach adopted and the specific objectives of this study, three informal settlements in the Durban Metro were selected randomly for investigation. In each of the communities, 50 households were chosen using a probability sampling technique and the household heads interviewed using a questionnaire schedule. To obtain more information on the health status of informal dwellers and to add to the quantitative analysis, a qualitative instrument, focus group discussions were held as the researcher was aware that a purely statistical analysis would not uncover all that was expressed by respondents. Then through the interviews based on a questionnaire survey and focus group discussions the various variables outlined in the objectives were tested. The data description and analysis in the previous chapter comprised 155 tables and the qualitative assessment is presented in a matrix at the end of the quantitative analysis. After the tedious task of completing the previous chapter, the researcher felt that a summary of the pertinent results is essential at this point, without which there would be a void in this final chapter although there might be some repetition. With this in mind the following summary of results is presented.

7.2 SUMMARY OF RESULTS

7.2.1 Socio-economic characteristics

All the communities surveyed were youthful with a large proportion of young adults and children. A large proportion of the household heads were married (43.4%) with a significant proportion being single parents (33.3%) (Table 6.4). The majority (56%) were female (Table 6.8). Household incomes were very low with averages ranging

from just over R600 to slightly above R800 (Table 6.11). Over one third of household heads in all communities had either a primary or secondary education with a significant proportion (29.3%) having no formal education (Table 6.12). In terms of the employment status of household heads, most (28%) were labourers and retired persons (Table 6.14). Amongst other family members, the employment status did not vary greatly from the household heads (Table 6.15).

7.2.2 Dwelling Characteristics

In general dwellings were constructed of cardboard, plastic and mud (80%) although there was a variation with regard to community two where the construction materials used were brick, block and tile (50%) (Table 6.16). One, two and three rooms were prominent in all communities (Table 6.17). Most respondents in all communities rated their dwellings as being poor (63.3%) (Table 6.18) and inconvenient for their needs (64%) (Table 6.20). The major problem experienced in adverse weather conditions was that the house leaked when it rained, water damaged possessions, roof and walls collapsed and the house became damp (Table 6.23). Respondents, however, considered their housing environment as being very clean and moderately clean (Table 6.19).

7.2.3 Water and Sanitation

The majority of respondents indicated that they had access to piped water (Table 6.24) but the cause of concern was in the current study was the storage of water in containers (42%) and buckets (25.4%) (Table 6.25). Although piped water was available to a large proportion of respondents, 54% of respondents travelled a distance of less than one kilometre to one kilometre. About 36% of households carried water two to three kilometres (Table 6.26). It was also observed that females and children carried water on their heads although males did assist in this task (Table 6.27). Water was stored in containers and it was assumed in the initial phase of the study that this practice could affect the number of persons with serious illnesses, the type of serious

illnesses and the common ailments of family members because of contamination and the possible spread of germs. However, this relationship was not obvious in the study as the correlation between water storage techniques and the number of persons with serious illnesses was weak and insignificant (Table 6.155).

In all communities, 60% of respondents indicated that they did not have access to proper toilet facilities and were therefore forced to manually dispose of their human waste (20%) or used the bush as a toilet (40%) (Table 6.28). Ten percent of respondents stated that public toilets were available and had to walk between 15 metres to 200 metre to these facilities (Table 6.29 and Table 6.30). Respondents were reluctant to use these facilities because of the incidence of muggings, beatings and rape and preferred to use the closest bush. When the relationship between the toilet type and the number of persons with serious illnesses, the type of serious illnesses and common ailments in the family were computed there was a strong positive correlation (Table 6.155). What this means is that the lack of basic services such as proper toilets which is closely associated to the availability of water had an influence on respondent's health status.

7.2.4 Health Concept and factors affecting health

It was clearly evident in the study that there were various commonalties as well as differences in the way respondents perceived health. The following perspectives were identified: the biomedical, social and environmental with responses sometimes overlapping these broad categories (Table 6.31). These broad perspectives were also evident in respondents understanding of a healthy community (Table 6.32). Although the social and environmental perspectives received some attention by respondents, most emphasis was placed on the biomedical perspective, which may be attributed to locational factors and also the overriding socialising influence of biomedicine in South African society. When the relationship between socio-economic characteristics and people's understanding of the health concept was computed, only two socio-economic variables had a relationship. These were age and education with age having

a weak and insignificant correlation whilst education had a moderately significant correlation (Table 6.150).

Respondents identified numerous factors that affected their health, the most important of which were: insufficient food, poor living conditions, wastes around the house and crowding. People interviewed were also able to draw the links between the ways in which the factors identified caused poor health but were in no position to do anything about some of influencing agents, for example, insufficient food (Table 6.33). The previous discussion suggested that communities should accept some responsibility for their ill health if they have been educated on the underlying risk factors through health promotion campaigns. However, it was also suggested that more permanent solutions should be sought such as rehousing, relocation, upgrading and the provision of adequate resources by the State to improve the conditions of the disadvantaged in informal settlements.

Moreover, when an attempt was made to identify the relationship between socio-economic variables and the factors that influenced people's health, it was found that only sex and income were related to the independent variables and the correlations were weak and insignificant (Table 6.150). However, as mentioned in the earlier discussion, the socio-economic variations in the sample group were very small and the significant finding is that people are well aware of their health conditions and needs by being able to identify the numerous stimuli that affected their health.

7.2.5 Health Facilities/ Services

The combined data on the availability of health services/ facilities indicate that PHC clinics, FP clinics and traditional healers were available to respondents in all three communities. Other health services/ facilities such as GPs and emergency services were unavailable (Table 6.38) It was therefore obvious that there were inequalities amongst the three informal settlements in terms of the availability of all health services/ facilities availability (Tables 6.35 to 6.37). It was concluded that inequalities have arisen not by the location of the health facilities/ services but by the location and

establishment of the informal settlements in the Durban Metro. Seventy percent of the respondents indicated that they had no hospitals in their area but had access to those located in some part of the metro, 80% have one to two PHC and FP clinics and an average of two traditional healers. In respondent's overall assessment of health services/ facilities, the majority of respondents were of the opinion that hospitals, PHC clinics, GPs and emergency services were inadequate. Family planning clinics were considered to be adequate to inadequate and traditional healers adequate (Table 6.46). When the relationship between socio-economic characteristics and the availability of health services was calculated, it was found that only income was associated to this dependent variable but the correlation was weak and insignificant (Table 6.151). However, the adequacy of health services/ facilities were moderately correlated with sex (Table 6.151).

The average distance travelled to most health facilities/ services was less than five kilometres. The services/ facilities that were greater than five kilometres were the hospitals (11.5 kilometres), GPs (5.8 kilometres) and emergency services (6.9 kilometres). Community one and three suffered disadvantage in terms of hospitals, GPs and emergency services, whilst community two was only disadvantaged in terms of hospitals and traditional healers as they had to travel long distances to these facilities/ services (Table 6.48).

In terms of the mode of travel to health services/ facilities, it was clearly evident that over half the respondents in all communities used a bus and a mini bus taxi. However, a significant proportion of respondents walked to PHC clinics, FP clinics and traditional healers (Table 6.54). The majority of respondents took between 20 to over 30 minutes to reach health facilities. The average time to GPs was (38 minutes) and emergency services (26.8 minutes) (Table 6.58). The average travel costs to and from health services/ facilities ranged between R5 to R9 with the lowest average travel cost to the clinics (R5) and the highest to GPs (R10.50) (Table 6.62).

With regard to the frequency of use of health services/ facilities, it was found that over 61% of respondents used the PHC clinic frequently and very frequently whilst

the rest of the services/ facilities were used sometimes or rarely (Table 6.66). A moderate positive correlation was obtained between education and the frequency of use of health services (Table 6.151). When respondents rated the health services/ facilities, the majority rated them as satisfactory or poor except for the inyangas who were rated good and satisfactory (Table 6.70). Respondents were also asked to rate the care received at health services/ facilities. In this respect 35% to 45% of respondents rated the care received at hospitals, clinics, GPs and emergency services as poor. However, the remainder of respondents rated the care received as being excellent to satisfactory (Table 6.74). When the correlations between socio-economic variables and the rating of care was computed, there was a weak positive correlation (Table 6.151).

7.2.6 Health Policy

About 60% of respondents in all communities have knowledge of PHC (Table 6.75) and were able to explain that it dealt with vital components such as prevention of illness, community participation and assisting people with health problems. Significantly, 40% of respondents did not know about PHC and are disadvantaged with regard to improving their health status. Moreover, there was a weak correlation between age and respondent's knowledge of PHC (Table 6.152). Information on PHC was obtained from public health structures and from friends and relatives in the socialising process. When questioned on the working of the present health system, it was found that 64% of respondents from all communities did not know the way in which the system worked (Table 6.78). The correlation between the socio-economic variables and the dependent variables only indicated a weak relationship (Table 6.152). Nevertheless, the majority of respondents (75.4%) followed the correct procedure by not going directly to the hospitals for the treatment of minor ailments such as influenza. Additionally, the computation of the correlation between socio-economic characteristics and knowledge of PHC revealed that there was a weak correlation between age and respondent's knowledge but there was a moderately strong correlation between education and the dependent variables (Table 6.152). As

mentioned earlier this means that those with a better education have more understanding of how the health system worked.

In forwarding their perceptions on the present health system, the majority of respondents (60%) stated that the health system has become worse (Table 6.83) because of numerous reasons, the most important of which was that there was not enough clinics, improper treatment given by doctors and nurses, long queues and shabby treatment by health personnel (Table 6.84). Moreover, most of the socio-economic variables did not have any significant influence on respondents perceptions except for income which was moderately correlated (Table 6.152) Respondents were divided on whether their health had improved in the present system and made numerous suggestions, the most important of which were: non payment for treatment, improve housing and environments, use traditional healers, build more clinics and hospitals (Table 6.87).

7.2.7 Common community ailments

Over 50% of the respondents did not mention any serious illnesses amongst household members. There was a wide distribution of ailments mentioned by the rest of the respondents and the highest proportions were for asthma (12%) and high blood pressure (16%) (Table 6.89). In the last month before the survey, one to five persons were sick in households with common ailments (Table 6.92). Some of the common ailments suffered by family members were influenza (56%), diarrhoea (12%) asthma (10%) and headaches (10%) (Table 6.96). Treatment was obtained from traditional healers, clinics, hospitals and home remedies were also used. Although most respondents lived in temporary shelters made of tin, timber and cardboard, the type of dwelling was only weakly correlated to the number of people with serious illnesses and the type of serious illnesses. However, the dwelling conditions were strongly related to the persons in households with serious illnesses and the type of serious illness (Table 6.155). A moderately significant correlation was also found between housing conditions and the common ailments amongst family members (Table 6.155).

7.2.8 Disease prevalence

Tuberculosis and HIV/ AIDS were selected for investigation and respondents had some knowledge of the disease. Sixty-six percent of the respondents stated that there were household members who had TB. In two communities persons went for treatment but 61% of those in community one did not go for treatment (Table 6.105). Treatment varied between one to ten months and it was reported that the conditions of those who were sick had improved (Table 6.108). The majority of respondents in all communities perceived the environmental conditions as the cause of TB (Table 6.110).

With regard to HIV/ AIDS it was found that only a minority (8%) were not aware of the disease (Table 6.111). People interviewed knew that it was a killer disease, was incurable, dangerous and there was a need to use condoms (Table 6.112). The main source of knowledge about the disease was obtained from clinics, friends and the media (Table 6.114) and the majority of respondents (80%) requested more information. It should also be mentioned that age of respondents was weakly correlated to knowledge of precautions against HIV/ AIDS (Table 6.153). It is also significant that 30% of respondents did not take precautions against the disease (Table 6.10) because they had no knowledge or partners refused (Table 6.122). Another noteworthy finding is that 44.7% of households did not hold family talks on HIV/ AIDS for various reasons such as not having time or because no-one in the household had the disease (Table 6.124). Income seems to determine those households that had family talks, as there was a strong correlation (Table 6.153). Education on the other hand was related to awareness, knowledge and family talks on HIV/ AIDS but the correlation were weak and insignificant (Table 6.153).

Interestingly, the present study also determined that only 4% of households had persons who had the deadly disease whilst 14% of respondents indicated that there were persons in the household who had STDs (Table 6.116 and 6.117). When the number of persons who had HIV/ AIDS and STDs in households was divided by the number of households sampled, the ratio that was generated was 1: 18 for HIV/ AIDS and 1: 5 for STDs. This indicates that one person in every 18 household had HIV/

AIDS and one person in 5 households had STDs. With the high prevalence rates of HIV/ AIDS in KZN, it seems that because of the sensitive nature of the disease, respondents may have concealed information on the correct number of persons having the disease.

7.2.9 Health workers

Over 60% of the respondents did not have knowledge of health workers visiting their area (Table 6.125). Those respondents having knowledge of health workers provided the times of their visits with the highest proportion being given to visits on a monthly basis (21.3%) (Table 6. 128). Most health workers were nurses and worked for the province and the Metro and according to respondents advised families, assisted in solving problems, educated individuals and provided treatment ((Table 6.134).

7.2.10 Participation

Sixty-eight percent of the respondent stated that they did not know of the existence of committees to solve health problems in the community (Table 6.137). The existence of various committees including health committees was present in all three sampled populations. Only a minority (16.7%) of respondents were members of a committee (Table 6.141). The main reason for not participating was that they had no knowledge of committees in existence, they were too busy or because of ignorance (Table 6.143). It is also important to note that the majority of respondents (60%) did not participate in the workshops held countrywide for inputs to the draft document on health policy. A significant proportion from only one informal settlement participated in workshops that were held (Table 6.144). It was evident from the moderately strong correlation between socio-economic variables and participation that those who had a good formal education participated in the workshops (Table 6.152).

7.2.11 Assistance for community problems

The police, neighbours and the different committees were the main sources of assistance for community problems. The success of the assistance provided varied

amongst communities. For example those in community one and three were successful whilst those in community two stated that they did not know. Those who did not receive assistance stated that there was a lack of commitment amongst people, hatred, no understanding, no unity and that the police did not do their job properly (Table 6.149).

7.2.12 Focus group exercise

Individuals in the three communities experienced numerous problems and these can be classified into the following problem areas: social and economic, housing, services and facilities, health facilities and services, environmental conditions and political aspects. The responses received are in keeping with those obtained from the quantitative data analysis on what comprised a healthy community. With regard to the ranking exercises conducted in the focus groups, it was clear that there were major similarities and differences with regard to the health and health care needs in the three communities although priorities varied. This highlights the need for a context and location specific understanding of community problems and strategies to address these problems.

7.3 DISCUSSION, SUGGESTIONS AND RECOMMENDATIONS

As South Africa shifts from a society based on the principles of apartheid to a democratic one, social policies must be developed that are consonant with the ideals of the new society. They must take into account the current realities of the South African context. Changes that have occurred in South Africa since the 1994 democratic elections have and will have many and varied implications for all South Africans. Specific to the health sector, some of the changes are: the desegregation of services and facilities and the non-allocation of resources according to race; the rationalisation of the fourteen apartheid health departments into one department and the adoption of the PHC approach with its emphasis on prevention and promotion. However, other substantial changes need to take place in the short and long term.

From the present investigation, there are various suggestions and recommendations that emanate and it is crucial that those in authority consider some, if not all, that has been formulated after careful consideration of the plight of informal dwellers in the Durban Metro. Although the present study is context related, the suggestions and recommendations have general applicability not only in South African but also to Africa and other developing countries where the predominance of informal settlements is acute.

7.3.1 Health Care Services and Facilities

It is clearly evident that the country still has a strong bias towards curative care. The policy of setting up curative care centres without improving the social economic and environmental conditions is a smoke screen that veils the oppression of those who are disadvantaged and makes people to passively accept their exploitation. The focus must be shifted from the provision of curative care to the adoption of viewing health and health care from the social and environmental perspective that will result in the social, economic and political circumstances and the quality life of disadvantaged people improving. Rooting out poverty, unemployment and other ills is the only effective way of improving the health of individuals and communities in informal settlements. The social and environmental perspective does not mean the replacement of direct curative strategies to improve health. Direct curative strategies are essential but there should not be any bias in their favour. Large investments in modern health services cannot be sustained in a developing country like South Africa with its unstable economy. There needs to be a rethink of the health system to acceptance of one that is more modest and sustainable and that is able to provide health services/facilities more efficiently and that meets all the other basic conditions for health as is expressed in documents ranging from the UN Declaration of Human Rights, the Alma Ata Declaration and the Freedom Charter of the ANC. It should be apparent to the State that large scale investment in medicines and hospitals are inefficient in improving the quality of life compared to investing resources on the provision of housing, water and sanitation, education and clean living environments.

7.3.2 Water, sanitation and diseases

According to Efblad (1993), diarrhoea and other diseases associated with unsafe drinking water and improper disposal of wastewater and excreta are amongst the leading causes of death and illness. Measures are needed to minimise the faecal-oral transmission of disease and the breeding of insect vectors of disease through sanitary excreta disposal. This is the situation in informal settlements where facilities are lacking, insufficient or deteriorating. Clearly, the combination of improved water supply and sanitation have perhaps the most significant effect on the health status of the poor, particularly when these efforts are accompanied by improvement in other forms of infrastructure and services and socio-economic improvements. The provision of safe drinking water may be the most important single step that can be taken in the interest of good health.

7.3.3 Environmental Conditions and Health

Surjadi (1993) states that many experts have acknowledged that environmental conditions are an important influence on the health of any individual or community. Improving the home and neighbourhood environment is critical to improving the health of the residents of informal settlements. The research findings presented in this thesis clearly demonstrate this. Moreover, some of the findings are similar to those reported in other studies conducted in informal settlements in the South African context in terms of the prevalence of respiratory related health problems in informal settlements (Mathews et al 1991; Mathee and Von Schirnding, 1995). Massive education and health promotion programmes to reduce the risk of respiratory diseases focussing on reducing fuelwood consumption in homes and improving ventilation should be undertaken.

7.3.4 PHC and Environmental Health

A far greater emphasis should be placed on primary health care and environmental health issues by the authorities in overall health planning, especially in informal

settlements. The PHC approach will most likely meet the needs of a future South Africa but there will be various difficulties in implementation, which are not insurmountable. Additionally, the process will take a long time and has numerous problems that need to be dealt with immediately. The present State should have realised by now that PHC is not a cost- effective solution to health care. It entails, in addition to the prevention of ill health, a major restructuring and reorganisation of communities, a legacy of the apartheid political and social system and the provision of infrastructure and social/ environmental services to meet the basic human needs of disadvantaged communities, especially those living in informal settlements. This requires a massive input of resources and effective strategies in addition to the idealistic policy papers with limited direction, that have been accepted, to alleviate the harmful physical, social and environmental conditions that effect informal residents and improve their quality of life.

More importantly, household and neighbourhood problems should be at the centre of attention and not at the periphery of environmental agendas. According to Munro and Wild (1996), local government has moved towards providing promotive/ preventative and curative PHC in the form of personal health, environmental health, health education and development services in the Metro for disadvantaged residents. Moreover, the Metro Environmental Department has started implementing Local Agenda 21 and the concept of a Healthy City. According to Hindson and King (1996), Agenda 21 is an action plan for socially, economically and environmentally sustainable development. The concept of a Healthy City, as illustrated in the literature review, is one that continually creates and improves physical and social environments and expands community resources that enable people to mutually support each other in performing all functions of life to develop their maximum potential (Goldstein and Kickbusch, 1996). Evidence from the case studies of informal settlements in this thesis indicates that although the above two concepts have been adopted, not much progress has been made and the ultimate goal of making Durban a healthy city will not be achieved in the near future unless concerted strategies and programmes are put in place and implemented.

7.3.5 Community Participation

The present study indicated that only a minority of respondents participated in community structures especially those dealing with health issues. There seems to be a lack of a critical voice from the mass of disadvantaged people in South African society. The reason for this may be because most activists have been absorbed into politics. The conditions in the country have changed and there is need for alternate approaches. The methods used in the past such as popular struggle may not work effectively and efficiently to obtain the attention of those in power. In order to meet present health and health care needs lobbying and diplomacy are required to change the current situation. The starting point is participation by communities. According to Wisner (1991) health issues are a natural starting point for organising and mobilising people for self-help and other forms of participation. The main problem according to him lies in how to motivate people who are barely literate about health. People should be made to understand that to prevent diseases and illness they need to play an active role. Therefore, there is a need to encourage new forms of participation such as women's groups and neighbourhood health committees in order that communities can be actively involved in planning, implementation and evaluation of health matters.

Communities need to be organised and volunteers used to achieve health objectives in communities. The State must move beyond lip service to improve the health of the disadvantaged population by systematic transformation. It must recognise and empower vulnerable groups and be sensitive to their social and economic needs. Authorities should involve disadvantaged groups in the institutions and programs that are developed. There must be strategic planning by the authorities to overcome barriers to community participation. Some of these barriers include bureaucratic resistance, professionalisation of knowledge, different political affiliations, cultural differences and resistance from poor people (Tsouros and Draper, 1992). People must be made aware that prevention of illness requires an active role on their part. However, they must be mobilised by community organisations to deal with health related issues.

7.3.6 Health Data Base

The researcher had numerous difficulties in assessing health data bases locally and nationally in terms of access and utilisation. It seems that government agencies and local authorities do not want to part with information and restrict access of such databases to certain individuals and organisations. It is recommended that a Geographical Information System (GIS) database be created or if in existence, be upgraded at all levels of the health system. These should be public domain. The most significant aspect in this process is to gather reliable, standardised data with staff being trained to collect and input data accurately. Data should be analysed and information used for interventions in areas of need. Data and information should not be restricted to the health sector alone, but be disseminated widely to other sectors and to academics and researchers so that valuable inputs can be obtained on the problems that confront the health sector.

7.4 FUTURE RESEARCH

It is evident from the literature review that the focus in international and national health research has shifted from critique and idealistic research to concrete and viable, action-orientated alternatives using innovative methodologies such as narratives and metaphors of users. Such research needs to be of an interdisciplinary nature as it is obvious that no one researcher has the necessary knowledge base or research skills to address the broad range of determinants of health that comprise the different models of health. For example, the ecological model may be useful in this regard. The need to formulate new models and use existing ones cannot be overstated. A significant area that models may be utilised is in assessing the health impacts of policies and programmes by the use of subjective and objective measurement techniques. Additionally, the process of health research itself should be examined with the view to raising issues about the methods used in research, the persons who carry out research and also those who are receiving and interpreting the results. There must be a synergy in the entire research process to obtain valid conclusions.

According to Smithies and Adams (1993), research in health needs a radical rethink. It should make use of the following principles:

- community participation should be a dynamic in the process of research;
- researchers should work in partnership with subjects creating new methodologies;
- researchers need to be accountable to their subjects; and
- the process of research and the intended outcomes must be aimed at reducing inequalities.

There are a number of areas where further research is needed to provide important information that could influence policy formulation and programme implementation. The present study points to the possibility of developing a broad range of social and environmental health indicators. In this respect, there is a need for cheap, reliable and easy to apply methods for assessing health status and health determinants at the local level. In this way inequalities and inequities in health status, access to health and the impact of social and environmental variables could be documented and comparisons made between different informal settlements or neighbourhoods in the city. There is also the need for interpretative, qualitative, ethnographic and case study research on the way in which people experience inequalities in health and inequities in obtaining the basic determinants of health. Such studies will have a greater value than those that rely solely on the use of statistics will.

The list of other related health studies is endless. However, studies need to focus on the following themes in informal settlements and the Durban Metro generally:

- **The process of community empowerment:** asking such questions as what makes for successful community empowerment? What is community empowerment and how do we measure it?
- **Adult ill health:** types of illnesses and its impact on income, nutrition, families and society.

- **Environmental hazards and their influence on illness:** types, nature and the relationship to illness.
- **Environmental factors and disease/ illness amongst households:** trace the links between environmental determinants and the health of households. According to Kearns and Barnett (1997), there is a need to explore environmental, individual and societal factors that come together in the healing process with a view to establishing new connections and understandings by stepping back from disease and service delivery to unfamiliar areas of research.
- **Social justice and inequalities in health and health care:** Smith (1994) suggests that health researchers bring justice into the foreground of geographic research whilst Wilkinson (1994) states that the focus should be on inequalities in health status. The measures to rectify inequities in access to the basic determinants of health using subjective and objective measures should also be on the research agenda.
- **Health and the quality of life:** impact of ill health on the quality of life should focus on the consequences of the disadvantages poor people suffer in terms of access to housing, transport, cleaner environments, education, work and their social contacts. There is also a need to document health impacts down to the city and neighbourhood level.
- **Women's needs and health priorities:** what are women's health needs, how do they prioritise these needs?
- **Traditional, alternate/ complimentary medicine:** types of medicines, sources, costs and the ailments medicines are used for. Moreover, geographers may explore the health promoting roles of informal contexts such as wilderness areas (Palka, 1995) and camping settings (Malinowski, 1995). Further, informal health beliefs and practices such as the home and neighbourhood based social support systems and the extent to which informal therapeutic contexts, beliefs and practices that are complimentary to formal

care to alleviate the perceived shortcomings of western medicine (Kearns and Joseph, 1997).

- **Symbolic Landscapes:** Kearns and Barnett (1997) state that progress has been made in the 1990s towards moving beyond the equating of health care consumption with service utilisation to understanding the symbolic landscapes of health care to obtain more interactive information of health meanings by users themselves. The use of narratives and metaphors to provide knowledge of the more nuanced aspects of health and healing is suggested for these studies.
- **The social aspects of health:** the different priorities amongst different social and ethnic groups as well as economic and demographic groups.
- **Nutrition and health:** access, food security, coping strategies and sharing of food.
- **HIV/ AIDS:** awareness and behaviour change amongst adults and teenagers, the social and economic impacts of HIV/ AIDS and gender and HIV/ AIDS with reference to such issues as power imbalance, rights and vulnerability.
- **Domestic air pollution:** the influence of air pollution arising from the use of coal, wood and paraffin for cooking and other purposes.
- **Creating a healthy city:** what works and what does not? Focus should be on the short-term changes, long term development and the process of implementation for health promotion and health improvement. Additionally, Tsouros and Draper (1992) have identified various other areas of research that need to be mentioned such as the impact of urban policy and programmes on health development and the need to investigate intersectoral collaboration in municipal departments. The latter are organised around specialised sectors and activity with vertical lines of responsibility from city councils to operational levels with much resistance between and across departments. The focus should be to develop organisational theory and practice to overcome constraints for co-operation and action in the interests of improving health.

7.5 CONCLUDING COMMENTS

The evidence in this thesis indicates that societal factors are the primary determinants of health status. Health status determines not only the social categories to which people are assigned but also their exposure to risk factors and access to resources. Research and policy aimed at understanding the determinants of and ensuring improvements in health must recognise that intervening mechanisms and risk factors can be understood and effectively modified only in the context of the larger social environment in which they occur. This means addressing the fundamental social causes by altering the macro causes of inequalities in health. It is becoming increasingly apparent that health and health care development issues are not priority areas of the present State. The closure of the Reconstruction and Development Programme Ministry, the political home of integrated and sustainable health development and the shift to GEAR, a market orientated economic strategy, has created a vacuum in the development sphere. Any changes to amend the current health and health care policy initiatives within the framework of GEAR will surely be limiting as it will be an attempt to provide an economic solution to social and political problems. This ensures that the political will and commitment needed to achieve meaningful and widespread health improvement in disadvantaged communities, especially informal settlements, will not be forthcoming in the near future. Under these conditions further health and health care reform will become depoliticised and desocialised, as economic imperatives tend to overshadow health and health care reform and debates. In whatever narrow discussions that take place in the health sector, the voices of the poor are conspicuously absent. A poverty alleviation, socially just and redistribution of wealth perspective must be central to the health agenda in South Africa and this method of conceptualisation will lead to the setting of new goals and visions that will influence the manner in which health and health care strategies are currently being undertaken.

This thesis draws attention to some alternative options that a transforming South Africa could embark on with respect to health and health care. It is clearly evident that health is a social, political and environmental issue that requires urgent attention.

Health, health care and socio-environmental and political issues are inseparable. Health cannot be separated from broader political and social issues. Additionally, it cannot be separated from the basic needs of individuals and communities such as housing, sanitation, water, clothing and food. The relationship between the people's health and the social conditions in which they live, as indicated by the data, are clearly evident. The health of people is directly linked to the environment in which they live. It is therefore necessary to integrate health issues into the broader development framework of the country and not isolate health as a specific issue. Health and health care must be considered within the broad framework of social and economic change to have any relevance on the lives of the poor in the country.

In this respect this thesis will not be complete without being critical of the biomedical perspective and the medical profession in South Africa and generally. The biomedical perspective on health is powerless to cope with preventable diseases such as TB and cholera with increasing poverty, homelessness, unemployment and social misery that faces the majority disadvantaged South Africans. It is acknowledged that medical doctors, as scientists, are authorities on medicine and ill health. It is however, questionable whether they should be permitted to subject the whole spectrum of health, with its multifaceted impacts on society, under their control. The basic flaw of medical practice is its focus on individual treatment and a neglect of a holistic view of society. Health and health related issues are subjects of social relationships, economics, politics and not only medicine. The cure for society's health does not lie with medicine but in the improvement in the social, economic, political and environmental circumstances of those who are disadvantaged. In all development spheres the focus should be on using co-ordinated and directed approaches in all sectors of development that should focus on improving health and prevention, to improve the quality of life of all. Health professionals therefore need to reorient themselves towards the larger social, economic and political context and not restrict themselves to health care per se. It is acknowledged that the PHC and its inclusion into the curricula at South African medical schools have to a small degree shifted this orientation. However, the medical profession still faces numerous and varied challenges.

South Africa faces many diseases of poverty and this is the major challenge facing the present State. Grand policies and plans have been formulated but the major problem is the implementation of some of the idealistic goals contained in the documents and provide the resources necessary to achieve significant changes to the health and health care of the South African population. With the extensive damage and destruction caused by the apartheid State to the people of South Africa, especially the Black majority population, there is a dire need for massive programmes of growth and redistribution. This should take place not only in the health sector but also in all sectors that influence the health of the nation. The entire organisation of the South African landscape has to be restructured if social justice is to be achieved in the long term. In the short term resources should be targeted to those areas of urgent need, for example, immunisation, to rid the country of preventable diseases. There should also be an increased delivery of new facilities and services such as sanitation, running water, clinics, health centres, the upgrading of informal settlements and provision of public housing. When considering the present trends in the country and the commitment of the State to improving the health of the nation, there is a very strong possibility of not achieving these goals in the near future. The State should increase its investment in health and health-related issues and prove to the majority disadvantaged Black population that it has a commitment to reconstruction and development in the country. At a more specific level, it is vital that the health care system becomes involved with activities that could increase the general health optimism of the population.

It is also clear from this study that the results are relevant to both the setting of priorities and the design and implementing of strategies. Such pertinent information must be brought to bear on the policy process. Further, the approach that should be adopted must be holistic with an emphasis on the social and environmental causes of ill health related to provision of purified water, shelter, sanitation, income generation, security and a decent, clean house and environment. To ignore the many informal settlements in the Durban Metro is to deprive the over one million people living in these settlements their basic human needs. The future of the Durban Metro depends on it being able to provide healthy environments for its residents. This is seldom

attainable in the short term, as it is continuous process with priorities, possibilities and strategies.

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APPENDIX 1

DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL STUDIES UNIVERSITY OF DURBAN-WESTVILLE INFORMAL SECTOR HEALTH STATUS SURVEY

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

FIELDWORKER:	SETTLEMENT:	METRO AREA:
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A. SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

1. Family Member Characteristics

1.1 Family Composition

Family Members	Relation to Household Head 1	Age 2	Sex 3	M/ status 4	M/ income 5	Employ status 6	Educ. 7	Place of employ 8
Person 1	Head							
Person 2								
Person 3								
Person 4								
Person 5								
Person 6								

Codes:

1.Relation to Head

1. Head
2. Spouse of Head
3. Married Child
4. Spouse of Married Child
5. Unmarried Child
6. Grandchild
7. Father
8. Mother
9. Father-in-law
- 10.Mother-in-law
- 11.Sister-in-law
- 12.Brother-in-law
- 13.Other relative

2.Age

- 1.5-14
- 2.15-24
- 3.25-34
- 4.35-44
- 5.45-54
- 6.55-64
- 7.65-74
- 8.75+

3.Sex

- 1.Male
- 2.Female

4.Marital Status

- 1.Currently Married
- 2.Single (Never married)
- 3.Widowed
- 4.Divorced
- 5.Separated
- 6.Abandoned
- 7.SingleParent

5.Income

1. <300
2. 300-499
3. 500-699
4. 700-899
5. 900-1099
6. 1100-1299
7. 1300-1499
8. 1500-1699
9. 1700-1899
- 10.1900-2099
- 11.Other (state)

6.Employment Status

- 1.Professional
- 2.Technical
- 3.Managerial
- 4.Clerical
- 5.Sales
- 6.Craftsman
- 7.Labourer
- 8.Retired/pensioner
- 9.Housewife
- 10.Unemployed
- 11.Selfemployed
- 12.Other (specify)

7. Highest Education

- 1.No formal education
- 2.Nursery
- 3.Pre-school
- 4.Primary
- 5.Secondary
- 6.Tertiary

B. DWELLING

Type	1. Brick & tile	2.I/formal	3.Other	
Living Space	1 Room	2 Rooms	3 Rooms	4.Other
Housing Condition	1.Good	2.Satisfactory	3. Poor	
Housing Environment	1. Clean	2. Moderate	3. Dirty	
Is dwelling convenient for needs?	1. Yes	2. No		
If "no" what would you change if given the choice?	Explain:			
Is dwelling convenient for all weather?	1. Yes	2. No		
If " no" what problems do you experience?	Explain:			

C. WATER AND SANITATION

Source of Drinking Water	1. Tap (public/private)	2. Tank	3.River/stream	
Water Storage	1. No Applicable	2. Tank	3. Other	
Distance to nearest W/source	1. Not Applicable	2. Metres/ kms		
Persons carrying water to home	1. Not Applicable	2.		
Toilet Type	1. Flush	2. Septic Tank	3. Drainage	4. Manual Disposal
Availability of Public Toilet	1. Yes	2. No		5. None (bush etc)
If "yes" above give distance p/toilet	metre/ kms			

D. HEALTH CONCEPT

D.1.Individual Level:

What does being healthy mean to you? Rate them in order of priority (1,2 3 etc). Multiple Responses expected: eg. 1.Feeling at peace 2.Getting on with other people 3.Living to an old age etc	1.
	2.
	3.
	4.
	5.
	6.
	7.

D.2 Community Level:

What do you understand by a healthy community? Rate responses in order of priority (1,2 3 etc). Multiple Responses expected: eg. 1.Socio-economic variables 2.Social support 3.Medical model: freedom from disease 4.Personal responsibility	1.
	2.
	3.
	4.
	5.
	6.
	7.

E. FACTORS INFLUENCING HEALTH:

What factors do you think have an adverse effect on your health and that of the community in your: 1. Home environment: 2. Physical/Residential Environment 3. Social Environment	1.1 How does it effect health? 2.1 How does it effect health? 3.1 How does it effect health?
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F. PRESENT HEALTH POLICY

PRIMARY HEALTH CARE (PHC)

Do you know what PHC is? Where did you hear about PHC? Do you know how the present health system works? (go to clinic for minor illness, referred to hospital for serious illness) Do you or your family members go directly to the hospital for any type of illness? Do you think the health system has improved or become worse after 1994? What do you know about the present policies for mother and child health? Do you think your health has improved in the present health system? What suggestions can you make to improve present health care?	1.Yes (Explain) 2.No 1.Clinic 2.Hospital 3.Friends/ Relatives 1.Yes (Explain) 2.No 1. Yes (Note type of illness) 2. No (Explain) 1. Yes (How? Explain) 2. No Explain 1. Improved 2. Remained the Same 3. Not Sure 3. Don't Know Explain
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G. HEALTH FACILITIES

QUESTIONS: Give Reasons where possible.	CODES	Hosp.	PHC Clinic	Family P. Clinice	G.Pract.	T/ Healer		Emergency Service-Ambulance etc
						Songoma	Inayanga	
a. Availability Are the following facilities available to you?	1.Yes 2.No	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.
b. Adequacy Are the following facilities adequate for your needs?	1.V Adequate 2.Adequate 3.Inadequate	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.
c. Facility Rating Could you rate the following facilities in your area?	1.Excellent 2.V Good 3.Good 4.Satisfactory 5.Poor	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
d. Care Rating How would you rate the quality of care received?	1.Excellent 2.V Good 3.Good 4.Satisfactory 5.Poor	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
e. Frequency How often do you use these facilities?	1.V Frequently 2.Frequently 3.Sometimes 4.Rarely	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
f. Distance(kms) What distance do you travel to these facilities?	1.<1 2.1-4 3.5-9 4.10-14 5.>15 6.Other(Specify)	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.
g.Number What is the number of facilities in your area?	1.None 2.One 3.Two 4.Three 5.Four 6.Other(Specify)	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.
h. Travel Mode How do you travel to facilities?	1.Bus 2.Minl Bus 3.Hired Car 4.Own Car 5.Walk 6.Other(Specify)	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.		1. 2. 3. 4. 5. 6.
i. Travel Time(Min.) How long does it take to travel to facilities?	1.5-9 2.10-14 3.15-19 4.20-24 5.25-29 6.30+ 7.Other(Specify)	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.
j. Travel Cost(R) What is your travel cost to & from the facility?	1.1-4 2.5-9 3.10-14 4.15-19 5.20-24 6.25-29 7.Other(Specify)	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5. 6. 7.

H. DISEASE PREVALENCE

H.1. HIV/ AIDS

Are you aware of HIV/AIDS?	1.Yes (Explain) 2.No
Where did you obtain your knowledge of HIV/AIDS?	1. Clinic 2. Hospital 3. Health Worker 4. Other (Specify)
Do you know that HIV/AIDS is a killer disease?	1. Yes 2. No 3. Don't Know
Has any member of your household contacted AIDS/HIV?	1. Yes (specify number) 2.No 3.Don't know
Has any member of your household contacted any STD?	1. Yes (specify number) 2.No
Do you know what precautions to take to guard against HIV/AIDS or STDs?	1. Yes (Explain) 2.No
Are you taking precautions against HIV/AIDS?	1. Yes 2.No (Reason)
Do you talk to your family about HIV/AIDS or STD's?	1. Yes 2. No (Give reason)
Do you require more information/education on HIV/AIDS?	1. Yes 2.No
Who do you think should provide information/education on HIV/AIDS?	1.Clinic 2.Hospital 3.Health Workers(nurses etc) 4.Other (specify)

H.2. TUBERCULOSIS (T.B.)

Do you know what T.B. is?	1. Yes 2. No
Do you know that T.B. is a curable disease?	1. Yes 2. No
Has any member of your household contacted TB?	1. Yes (Specify number) Adults/Children 2.No 3.Don't know
If "Yes", is the person/s receiving treatment?	1. Yes (For how long treatment received) 2. No
Where is treatment being obtained?	1. Hospital (name) 2. Clinic (name) 3. G P
Is the person getting better?	1. Yes 2. No (Why?)
Do you think the housing & environmental conditions are causing T.B.?	1. Yes 2. No

H.3 OTHER ILLNESS

HEALTH STATUS				
Number of people in household who have serious illness eg heart/ high blood pressure etc?	Number	Ailment	Frequency of treatment	Place
In last month how many people were sick in household?	Number		Type of sickness ?	
Did they go to a doctor first?	Yes	1	No	2
If no where did they go for treatment?				
What common ailments do family members suffer from?				
Do you think that females get sick more often than males?	1. Yes 2. No Give Reasons:			
If the housing and the environment conditions were improved, do you think it will improve peoples health?	1. Yes 2. No			

I. HEALTH WORKERS

Do you have health workers visiting your area?	1. Yes 2. No
If "Yes" how frequently do they visit?	
Where are the health workers from?	1.Metro 2.Province 3.NGOs 4.Other (Specify)
What type of health workers visit?	1. Doctor 2. Nurse 3. Other (specify)
Did they assist you or your family?	1. Yes 2. No
Do you know if they assisted anyone in the community?	1. Yes 2. No
Do you think health workers are helpful?	1. Yes 2. No
What do health workers do in the community?	
Are you satisfied with the work of health workers?	1.Yes 2.No (Why?)

J.

PARTICIPATION

Are there any committees in the area dealing with community problems?	1. Yes 2. No
If "Yes" above, what type of committees are there?	Specify
Has the community mobilized to deal with health issues in the area?	1. Yes 2. No
If "Yes", did they form a health committee in the area?	1. Yes 2. No
Are you or any person in the family a member of any committee?	1. Yes (Specify committee) 2. No (Reason for not participating)
Are there any organizations/NGO's dealing with health problems in the area?	1. Yes (name organization) 2. No
What is the task/work of these organizations?	Specify
Does the community work with these organization?	1. Yes (How?) 2. No
If the community has any problem, whom do they seek assistance from?	
Have they been successful?	1. Yes (How?) 2. No (Why?)
Was the community involved in the workshops to formulate the present health policies?	1. Yes 2. No (Why)

K. OTHER COMMENTS

Are pre-natal & antinatal facilities available in the area? Yes/ no

Do household members use these facilities? Yes/ no

If "no" give reasons

[illegible]