SOCIO-ECONOMIC FACTORS INFLUENCING HEALTH CARE UTILISATION IN SOUTH AFRICA: AN INVESTIGATION USING THE NATIONAL INCOME DYNAMICS STUDY

By

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ABSTRACT

The study aims to understand the socio-economic factors that influence health care utilisation in South Africa. Health care utilisation for the purpose of this study is defined as visits for treatment to a hospital, clinic, health centre or traditional healer. Utilisation of health care services can be analysed using a health economics model. The typical economic theory of demand and supply in the context of health care defines supply factors as those that come from the production of health care; and demand factors are those linked to individual and household characteristics. Ensoor and Cooper (2004) suggest the decision to seek treatment, or where to go for treatment, is greatly influenced by demand side factors. Socio-economic factors in this study were defined by variables which incorporated demographic, economic and social references which formed the independent study variables that would be used to report on health care utilisation. The study population was drawn from all adult respondents who took part in the 1st Wave of NIDS, and 3922 of those respondents formed part of this study sample. The study sample comprised respondents who had reported consulting about their health in the last 30 days against which further analysis was conducted. Results from the study show that utilisation is driven by access to a good social support system i.e. the support of a spouse and the income to access health care. Results show that utilisation of public sector health care providers is characterised by high numbers of poor, mainly female, users. The results from the study suggest that a poor majority face the burden of the costs associated with private health care. As much as 87% of the sample did not have medical aid coverage yet 60.6% users of private health care were not covered by medical aid. The study highlights the inequalities evident in our society and the effectiveness of the public sector reforms to date. Although democracy allowed equal access to private health care by all in terms of racial divides that had existed; an inadequate public health care sector has highlighted poorer, uninsured people utilising private health care.

COLLEGE OF HUMANITIES

DECLARATION

I, Shelley King, declare that:

1. This dissertation has not been submitted for any degree or examination at any other university and, except where otherwise indicated, is my original research.

2. This dissertation does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
    a. Their words have been re-written but the general information attributed to them has been referenced
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Signed: *SS King*

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Lastly, I am grateful for the support and love of family and friends. I would most importantly like to acknowledge my primary support base, my mother, Maureen King. Thank you for believing in me and encouraging me to stay focussed.

DEDICATION

'Love is not love
Which altereth when it alteration findeth,
Or bendeth with the remover to remove:

O no! it is an ever-fixed mark
That looketh on tempests and is never shaken'

(Shakespeare, Sonnet 116:2-6)

This dissertation is dedicated to my mother and my dearest Lucy.

Thank you for loving me even when I struggle to love myself.

ACRONYMS AND ABBREVIATIONS

SES- Socio-economic Status

MDG- Millennium Development Goals

SDG- Sustainable Development Goals

WHO-World Health Organisation

TM- Traditional Medicine

PHC- Primary Health Care

NHI- National Health Insurance

NIDS- National Income Dynamics Study

SALDRU- Southern African Labour and Development Research Unit

CAPS- Cape Area Panel Study

KIDS- KwaZulu-Natal Income Dynamics Study

HIV- Human Immune Virus

AIDS- Acquired Immune Deficiency Syndrome

PSU- Primary Sampling Unit

PSM- Primary Sample Member

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CHAPTER 1

INTRODUCTION

1.1 Background and problem statement

People's healthcare choices are based on their health status or nature of their disease. Decision-making around health is a personal, complex matter that draws not only on the status of one's health at that point in time; but socio-economic aspects that influence the individual's thought process and approach to managing their health. This chapter sets out the background for a study undertaken into health care utilisation in South Africa and presents the study specific aims and theoretical framework.

This study is influenced by prior research undertaken into health care utilisation within KwaZulu-Natal using data from the KwaZulu-Natal Income Dynamics Study (KIDS) (Knight & Maharaj, 2009). Researchers Knight and Maharaj (2009), focused on socio-economic factors that drive choice between utilisation of public or private health care providers. The KIDS study provides a snapshot of the status of healthcare utilisation in KwaZulu-Natal province. Unfortunately, due to low response rates, the study sample used by Knight and Maharaj (2009) did not include respondents from all the population groups. The benefits of a comprehensive understanding of health care utilisation in South Africa are primarily two-fold: assistance in developing evidence based policy to address the needs of users; and assisting health care providers to develop patient-centred services.

Articulating the challenges in securing healthcare for the entire population is complex, as understanding health is a very broad and unique phenomenon. An individual's health status does not determine their future health status as various factors influence it as it is not merely about pursuing a healthy lifestyle and accessing the necessary medical care. An analysis and understanding of an individual's sense of well-being is an intricate and complex study as health status is merely a component of well-being. The World Health Organization (WHO) defines health as *a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity* (WHO, 1948). By using the WHO's expanded and holistic approach to health, it is clear that our health status is equally influenced by social factors as by physiological factors. Similarly understanding how an individual interacts with the health care system cannot be understood in terms of their health status alone. A more holistic

approach to understanding health care utilisation would have to take full recognition of the medical need for health care, as well as the social factors that influence health care utilisation.

On a macro level there is an increasing emphasis on the intrinsic link between a nation's wealth and development; and the health status of its population. The link between social factors and health, understanding the push and pull factors, is essential for the development and formulation of policies that constitute social change within the health care sector. This link was institutionalized with the adoption of the Millennium Development Goals (MDG's). In September 2000 the United Nations Millennium Declaration set out a development framework that incorporated eight MDG's for participating countries to work towards by 2015. Three of the MDG's have a direct emphasis on health. Health status is influenced by socio-economic factors and the remaining MDG's all point towards improvement in health status via improvement in socio-economic factors (UN, 2010). The Sustainable Development Goals (SDGs) to address development post 2015 once again acknowledge the importance of population health. SDGs improve on the MDGs in terms of addressing systematic inequality and giving clear direction in terms of social and economic development and the role of government in development (ICS, 2015:5-6). SDG 3 promotes health and well-being for all ages in the population and proposes to target this through the provision of free health care which is intrinsically linked to SDG 1- end poverty in all its forms everywhere (ICS, 2015:15-17).

The United Nations views socio-economic status (SES), as well as health status as important factors in determining well-being (Ardington & Case, 2006). SES is used to describe an individual's "status" or social standing and the three most commonly used measures in contemporary industrialised societies are income, education and occupation (Grundy & Holt, 2001). Traditionally SES in health research deals with understanding the relationship between health, as a dependent variable, and income, education and occupation, as the explanatory variables (Feinstein, 1993). Unpacking the concept of SES transcends just income, education and occupation to include such aspects such as marital status, age and gender (Choi & Marks, 2011). Looking at variables in isolation does not provide a clear answer to the impact of SES on health. Improved health status can lead to higher income, and higher income can lead to better health. A comprehensive understanding of the dynamic relationship between SES and health can be attained when both processes are investigated (Ardington & Case, 2006). Similarly, when investigating the utilisation of health care services, a more concrete outlook

is created when exploring both health care services and SES. It is argued that health care, through its effect on health status, is an important driver of economic growth (Ardington & Case, 2006).

Health care utilisation is important as it is a means of treating illness and securing health in the future. When evaluating health care utilisation in a population it is necessary to evaluate whether those who require health care are able to access it. Equal access should be available to those who are ill and the '*non-ill*', as utilisation of preventative care they will ensure better health outcomes in the future. Different utilisation patterns could explain differences in health status and mortality rates across various segments of the population (Maurer, 2007: 967). An important distinction should be made between utilisation and access, especially with reference to equality in the health care system as utilisation is a function of an individual's need for health care which is based off their health status or their health beliefs/practices. Whereas access is a function of socio-economic factors like a functioning network of health care facilities, policies in place that do not discriminate against users, and concessions or health insurance to ease the burden of the costs associated with health care utilisation (Oliver & Mossialos, 2004). The distinction between health care utilisation and health care access is even more complex when applying it in low-income settings. Bonfrer et al., (2012) highlight the complexity and challenges of defining the need for health care and equitable distribution in low-income countries as it is difficult to assess the strength of the relationship between need and use. They found that equity in health care is more difficult to measure in low-income settings as utilisation of health care became an expression of financial means more than health needs. Therefore, different patterns of utilisation will be observed within a population based not only on health status, but socio-economic factors that facilitate access to health care. And even with measures in place to ensure equal access to health care, utilisation of health care services will not be equal across a population.

Discrepancies in access and utilisation of health care services are even more so evident in South Africa due to the inequalities established by apartheid (Buisman & Garcia-Gomez, 2015). The Apartheid system led to the unequal distribution of resources, bad service delivery and poor quality, particularly for Blacks. This was not due to an inability to provide better health services, but due to Apartheid policies that made the provision of health care for Black people a low priority concern for government (Dhai, 2012). The interaction of socio-

economic factors and health in the South African context has, and is still, to a great degree been shaped by the apartheid system. Researchers have described the inadequacies evident in the current health care system and the challenges faced in tackling communicable diseases to the historical background of inequality that was initiated by the Apartheid system (Coovadia et al., 2009). The historical context of health care in South Africa will be discussed in more detailed in the section describing the research context.

The aftermath of apartheid on the South African health care system have been minimised by the introduction of health policies to improve access to health care (Knight & Maharaj, 2009). What emerged is a health care system that is still defined by segregation-private versus public health care. In some instances, it is perceived as a shift from racial segregation in health care to economic segregation (McIntyre et al., 2014). Completing the health care options that are used by South Africans is traditional medicine (TM). Although legislation exists regarding TM in South Africa, it is not accompanied by any patient subsidy or concession (Peltzer, 2009). TM therefore falls under private health care, and it is an area that has limited research. Understanding health care utilisation in South Africa is therefore extremely challenging as it does not only take into SES, but three parallel health care systems.

1.2 Aims of the Study

The study aims to understand the socio-economic factors that influence health care utilisation in South Africa. Health care utilisation for the purpose of this study is defined as visits for treatment to a hospital, clinic, health centre or traditional healer. The study describes socio-economic differences in health care utilisation by:

- investigating the socio-economic influences on health care utilisation across public and private services
- outlining the use of medical insurance coverage

In terms of the two spheres of the health care system, public and private, traditional medicine falls under the private sector. Patients utilising traditional medicine as a form of health care are responsible for the cost of treatment. Though the government has put in place legislation for traditional medicine, there is no subsidy for patient treatment expenses (Van Niekerk, 2012). For the purpose of this study, traditional medicine was looked at independently, so as to understand the use of traditional medicine as a source of health care.

This study aims to evaluate health care utilisation within the South African population as a function of eight key socio-economic variables. The variables have been identified to provide a broader perspective on what could be understood as factors that would explain an individual's choice; and subsequent usage of either a public or private health facility. The variables include income and variables that have a relationship to earning potential i.e. level of education and employment status. Socio-demographic variables complete the list of eight, and incorporate variables that reference an individual's standing in society i.e. age, gender, race, marital status education and area of residence.

1.3 Rationale for the Study

Since the introduction of democracy in South Africa health policy has been aimed at addressing inequalities in accessing health care and reforming the health system. The HIV and AIDS epidemic, that has greatly affected those in poverty and broadened the circle of poverty, has served to fuel government attempts at providing health policies and services aimed at addressing inequalities in the health care system (Van Rensburg, 2014). This study will play an important role in understanding the factors that influence the use of health services with a particular focus on private versus public health care service providers. By having a greater understanding of utilisation and socio-economic influences across different groups of our population, policy makers will be better informed and more capable to produce evidence based policies that will be effective in bringing reform in the health sector. As South Africa has made progress towards policy development that would increase access to health care, evidence still points to a variation in the utilisation of health care services across socio-economic divisions. This only serves to perpetuate inequality within the population and erode at the progress made by policies to reform the health sector. Health policies have been focussed on closing the income gap between the rich and the poor- de-emphasising the importance of financial resources in securing health status and access to medical care. This is particularly evident with the move towards universal health care coverage through the steps made towards implementing National Health Insurance in South Africa. Studying medical aid coverage in the society will give insight into issues around health care utilisation and medical aid insurance coverage. Looking only at the financial aspects of health care utilisation is however, a limited approach, addressing only one aspect; and does not consider other co-founding socio-economic factors that create inequality within the population and influence the utilisation of health care. In terms of expanding the understanding of health care

utilisation this would require an approach that is more inclusive and broader in its application.

Health economists and policy makers have been challenged by the need to stimulate demand for health care. The challenges have been particularly great in developing and low income countries due to the population dynamics and social inequalities. In this regard, this study will add to knowledge on the influences that drive the demand for health care and subsequent utilisation from a broader perspective; as well as shed light on explanatory variables that will give insight into health care utilisation within the South African population. The research and data analysis component of this study will be based off a secondary data set, the National Income Dynamics Study (NIDS) Wave 1. The NIDS questionnaire is an ideal research instrument for this study as it captures socio-economic data as well as having an expanded view of private health care that includes TM.

1.4 Research context: Health services and the South African population

The history of health care in South Africa is deeply embedded within the apartheid system which propagated unequal access to resources. During the initial developmental stages of the health care system in South Africa, health facilities were segregated against racial lines and the system was extremely fragmented. The effect of this is evident when one reviews the health administration during the apartheid era. Health administration during apartheid consisted of 14 separate health departments with funding and resources predominantly supporting the White minority at the expense of the Black majority (Coovadia et al., 2009: 825). Although heath care administration has been unified under a single Minister of Health, this unity has not translated to equality in the health care system. Inequality is still an unfortunate characteristic of the health care system even though the removal of segregation along racial lines has occurred. The inequality within the South African health care system can in part be linked to the well-established private health care sector which has perpetuated inequality in accessing resources. However, it is not only race which was evident in the apartheid era but based on income (McIntyre et al., 2014).

Initially the private health care sector constituted health centres established by private companies such as those referred to in the mining industry and hospitals established by missionaries. Growth in private health care surged during the 1980's, and evidence of this can

be linked to the worldwide movement towards privatisation (Coovadia et al., 2009: 826). South Africa followed suite on global trends towards privatisation in health care during this period and recorded substantial growth within the private health care sector. The growth in private health care in South Africa not only realised a growth in private health care facilities, but a shifting of medical resources. Redistribution of medical personnel from public to private health care was dramatic with as much as a 20% transfer of public medical doctors to the private health care sector within a decade. The increased medical human capital within the private sector is reflective of an increased demand for private health (Coovadia et al., 2009: 826).

Growth in the private health care has been sustained by a steady revenue stream as income generated in the private health care sector comes primarily from medical schemes with hospitalisation and specialist treatment generating most of the income, 35% and 21% respectively (Coovadia et al., 2009: 827). Coovadia et al., (2009) estimated that less than 15% of the population are members of medical schemes and a substantial proportion of all health care expenditure is covered by such schemes (Coovadia et al., 2009: 826). Data from the General Household Survey 2015 conducted by Statistics South Africa confirms similar results with 17.5% recorded, an increase 1.6 % in medical aid coverage between 2002 and 2015. The increase in medical aid users masks the reality that medical aid coverage is still low with a startling estimation that 44.5 million individuals are not covered by medical aid. At a household level it is estimated that only a quarter of South African households have at least one member of the household as an active member of a medical scheme (Statistics South Africa, 2016:24). The participation in medical schemes as reported by Statistics South Africa also revealed the distinct disparities in medical aid coverage can be attributed to socio-economic factors. Discrepancies existed geographically with reported coverage in metropolitan areas being greater than the national average of 17.5%. Similarly, on a provincial level, people living in Gauteng and Western Cape were most likely to have medical aid cover where as those from Limpopo and Eastern Cape were least likely to have medical aid cover (Statistics South Africa, 2016:25). In the results of the General Household Survey 2015, racial differences in medical aid insurance coverage are quite clear. The Black population only reported 10.6% medical insurance coverage whilst, as much as 77.3% of the White population had medical insurance (Statistics South Africa, 2016:26).

Medical aid cover and race however, cannot necessarily be viewed as precursors to health care utilisation within the private health sector. Though membership to medical schemes is only reported across a quarter of the South African population, private health care utilisation is the choice of the majority in many instances. Approximately 21% of the population are estimated to make use of the private health care sector for basic care. However, they utilise public hospital for hospitalisation (Coovadia et al., 2009: 826-827). Usage of the public sector for hospitalisation which could be attributed to the exorbitant prices charged by private hospitals. Public sector hospitals are not totally free but charge a proportional fee according to income, or ability to pay. Fee exemptions are available for the poor (McIntyre et al., 2014:5). For those covered by medical aid, out-of-pocket expenditure in the form of levies or co-payments is extremely burdensome. In some instances, these payments can be a barrier to health care utilisation for those who are not covered by comprehensive medical aid plans. The 'hidden' costs associated with utilising health care in South Africa result in instances where those with medical insurance cover experience greater expenditure on health care than people with no medical cover (Ataguba & Goudge 2012).

Reported utilisation of health care in South Africa from the General Household Survey 2015 shows that public health care is most widely used by the majority of South Africans. However, from the data it could also be inferred that there is a preference for and confidence in private health care. As much as 25.3% of households reported that they would first consult a private medical doctor; or go to a private clinic or hospital. As much as 40.9% cited preference for private health care as the reason for not making use of their nearest health facility (Statistics South Africa, 2016:22-23). The General Household Survey also measured satisfaction with services at health care providers and disaggregated results down to provincial level to show variations across provinces. Though the provincial profile of the population differs across socio-economic factors, there is distinct unity in terms of perception of service quality across all provinces. Households who used private health care providers reported more satisfaction with the service provided than households who made use of public health care. Satisfaction with services amongst users of private health care was extremely high with as much as 91.9% of users indicating that they were very satisfied with the services received. In contrast only 57.6% of users of public health care providers indicated that they were very satisfied with the services received (Statistics South Africa, 2016:23). Much of the dissatisfaction with the public health sector can be attributed to the state of public facilities in

South Africa and the challenges faced by health care workers to provide quality care under extremely bad conditions. In the Eastern Cape Province it has been reported that hospitals faced such challenges as lack of basic utilities such as tap water and electricity. Many hospital buildings have been declared condemned and should not be occupied. The matter is exasperated by lack of equipment and under staffing (Jardien-Baboo et al., 2016). Jardien-Baboo et al., (2016) explored the concept of patient-centred care at hospitals in the Nelson Mandela Bay region of the Eastern Cape Province. Their findings showed that delivery of patient centred care was compromised by such challenges as inadequate resources, demanding administrative tasks, fear of legal charges been made against health care staff, and unprofessional health care staff (Jardien-Baboo et al., 2016:403).

With the advent of democracy in South Africa much change has come about in the health sector to support the needs of the population. Ground breaking policy changes include the unification of the Health Department and the establishment of a district health system focussing on the delivery of primary health care (PHC) in line with international conventions of the Declaration of Alma-Ata, International Conference of Primary Health Care 1978 (Buisman & Garcia-Gomez, 2015). Pregnant and lactating women as well as children under 6 years were removed for all services in public health facilities in 1994. With a functioning network of district health systems delivering PHC this also allowed for more efficient delivery of health care. Gains in efficiency were channelled into the removal of user fees for all PHC treatment in 1997 (McIntyre et al., 2014). The South African government in efforts to ensure meeting the constitutional right to health for all South Africans, and to redress inequalities in society, has been prompted to make strides towards universal health coverage. In this regard the National Health Department is now working towards establishing the National Health Insurance (NHI) policies and support systems. The NHI aims to ensure that all South Africans have access to affordable quality health care regardless of their socio-economic status (Government Gazette, 2011).

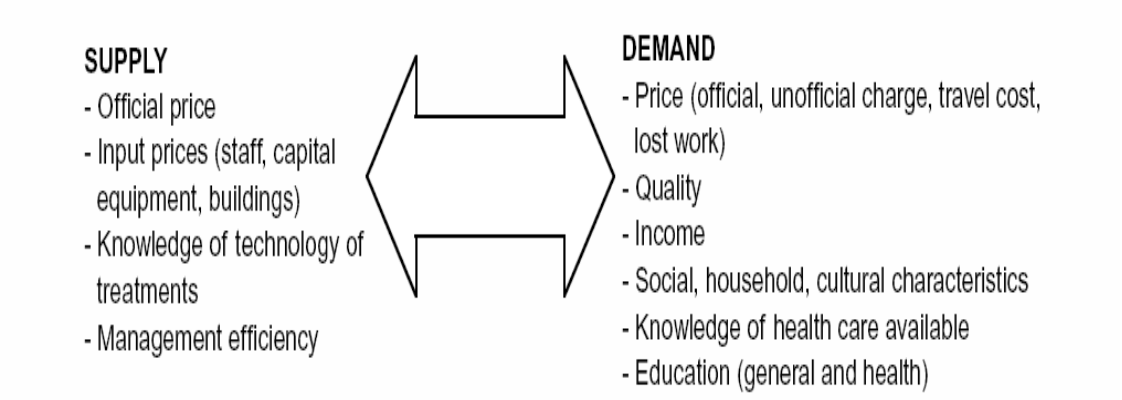
In formulating new policies within the health sector post-apartheid, the spotlight was also turned on traditional medicine as a form of curative care. The role and usage of traditional healers in our society however, is still an area that is under researched. South Africa has initiated measures towards integrating traditional medicine into the health care system but these two systems are still very much parallel systems, with no cross referral or joint care approach set in place (Peltzer, 2009: 956). The World Health Organisation defines TM as

'*including diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness*' (WHO, 2000). The South African Traditional Health Practitioners Act defines traditional health practice in very broad terms covering not only the treatment of illness, but the '*mental and physical preparation of an individual for puberty, adulthood, pregnancy, childbirth and death'*. TM is defined as incorporating the '*performance of a function, activity, process or service based on philosophy that uses indigenous African techniques and principles'* that include traditional medicine or practice (Peltzer, 2009: 956). Given the broad definition of TM understanding the utilisation of traditional healers would have to cover various aspects. In light of understanding utilisation of traditional healers as a source of medical care, there could be some difficulty in assessing utilisation or, results would have to be approached with caution as one would have to factor in the various dimensions of TM. The General Household Survey includes traditional healers as a source of health care as part of the section covering health and health care provision. In this section in terms of covering health care utilisation households are expected to respond with reference to primary care for illness or injury. Only 0.5% of households reported first consulting with a traditional healer in case of illness or injury (Statistics South Africa, 2016:23).

1.5 Theoretical Framework

Utilisation of health care services can be analysed using a health economics model. The typical economic theory of demand and supply in the context of health care defines supply factors as those that come from the production of health care; and demand factors are those linked to individual and household characteristics. Ensoor and Cooper (2004) suggest the decision whether to seek treatment, or where to go for treatment, is influenced greatly by demand side factors. This effect of demand side factors on health care utilisation is particularly evident in low and middle income countries (Ensoor & Cooper, 2004).

Figure 1.1: Supply and Demand Barriers to Health Care Utilisation



Source: Ensoor & Cooper (2004: 71)

Similarly, the principles of health economics are seen to be defining debate even in instances where health care systems are established, and strong social welfare policies are able to subsidise treatment costs. What has become apparent is that equal access does not translate to equal use of health care facilities. The principle factor being that people's demand for health care differs and that their utilisation of health care goes beyond structural or policy factors linked to the provision of health care- equal access does not mean equal utilisation (Richard et al., 2016). Even in instances with equal access and people who have equal need of health care, utilisation will still differ as their demand for health care will differ. A simple way of illustrating this would be to look at the utilisation of preventative care programmes in instances of early detection of disease or prevention of disease. If both rich and poor had similar access to treatment and the poor did not adequately utilise the services; differences in utilisation could not be attributed to the poor not having access to the services. This low utilisation rate of services could be as a result of the poor having lower levels of education and not being able to assimilate the information regarding the importance of making use of these services (Bonfrer et al., 2012).

Demand side influences such as income, education, gender equality and language/ communication proficiency are particularly evident in low income countries like South Africa, which is reflected by the high levels of inequality within society as described by its gini coefficient which sets it as one of the most unequal societies in terms of income and wealth distribution (UNDP, 2014). McLaren et al., (2014) propose even dire consequences to health care utilisation and population health in South Africa due to demand side factors, even

in the light of free health care. They note unless the issue of inequality is addressed very little progress can be made when the poor suffer such challenges as travelling long distances to health care facilities and bearing the associated costs of travelling.

Bridging inequalities in health care utilisation and access to health care is essentially an exercise in understanding the inequalities in demand for health care. In the health economics model the demand side is more complex as inequalities are not only evident on an income level but across the socio-demographic and socio-economic variables. On an individual level socio-demographic and socio-economic factors act as "predisposing factors" or "enabling" factors of health care utilisation (Oladipo, 2014: 325). Variations in health care utilisation are evident for example among different race groups, across gender groups and age groups. Living standards, income and education levels have also been shown to result in variation in health care utilisation. Socio-demographic factors such as race or gender for example could be seen as predisposing factors, as studies have shown that certain race groups have higher usage of health care; or women show more use of health care than men. Socio-economic factors such as family income, standard of living, level of education can be seen as enabling factors as they assist in accessing health care (Oladipo, 2014; Kimani et al., 2014).

Although health care demand and subsequent utilisation of health care is primarily a function of an individual's health status, understanding the utilisation of health care within a population cannot be complete without sourcing the individual's socio-demographic and socio-economic situation. Their utilisation of health care cannot be understood without the investigation of the level of inequality in social status (Oladipo, 2014). This is critical in understanding the success of reform in South Africa as reform that only addresses the issue via providing free health care, does not fully acknowledge the socio-economic differences in society. Providing health care to all of those who need health care needs to incorporate an expansion programme that addresses socio-economic barriers to access on a broad scale (Goudge et al., 2009)

1.6 Organization of the dissertation

The dissertation consists of five chapters. An introduction incorporating the background into the study, the aims as well as the theoretical framework for the study, was covered in chapter

one. Chapter two follows with a report on relevant literature focussing on the socio-economic variables identified to support the research objectives. Research methodology and a brief review of the study variables form part of the discussion in chapter three. As this study utilises secondary data, the research methodology section incorporates a report on the methods that were followed in the original research project. Data analysis and the results are covered in chapter four. Discussions in the fourth chapter highlight how the socio-economic variables interact with the choice of health care provider. The fifth and final chapter consists of the conclusion as well as recommendations.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

South Africa is a country with a history that includes unequal opportunities, inequitable access to resources and inequality across racial and social bounds. Although the country has undergone much reform and policies have been put into place to provide social protection to the population, vast differences in terms of SES still abound. Understanding how socio-economic factors affect health care utilisation is important in terms of understanding the inequality in social status and its impact on the demand for health care within a population. The following chapter in the dissertation will review literature that will provide a background to the relationship between socio-economic factors and health care utilisation.

Literature that includes socio-economic discussions identified by the study were reviewed to provide a background into socio-economic factors and health care utilisation. This literature also acted as a reference for plausible conclusions that were made regarding the relationship between socio-economic factors and health care utilisation. The literature review firstly addresses the demographic study variables followed by the socio-economic variables.

2. 2 Age

Age is an important indicator on the impact on many social aspects, as well act as indicator to measure certain life milestones. In demographic studies it describes a population but is critical when describing demographic processes of fertility, nuptiality and mortality. Age is also a defining factor in many cultures in terms of social standing and economic security (Edvinsson & Broström, 2012).

Distinct patterns emerged when investigating differences in utilisation of health care based on age. A study conducted into aging and consumer decision making found that differences between older individuals are related to the amount of trust they had in the service provider, their desire to have less control over processes and put more control into the hands of their physician, and in some instances the struggle to adapt to new information and new environments (Carpenter & Yoon, 2011). Carpenter and Yoon (2011) note that even though

there is generally a cohort effect in terms of how older people make decisions, and this could be in many instances attributed to constraining factors such as income. Even for those who do want more control over health decisions they are often constrained by income and not having the necessary to make an informed decision due to lack of information, or their own inability to process information due to a decline in their thinking capacity as a result of aging (Carpenter & Yoon, 2011). These findings insinuate that older people base their choice of health care provider on the trust they have in the health care provider to provide the required treatment. It could also be interpreted as older people having difficulty assimilating health care information and processes.

Differences in utilisation of health care also highlight similarities among individuals within a certain age group. The study into aging and consumer decision making (Carpenter & Yoon, 2011) confirms an interesting result in terms of understanding the cohort effect of age, and is particularly interesting for researchers undertaking research where age is an independent variable. In terms of the study into the investigation of socio-economic factors that determine health care utilisation in South Africa, the choice then in health care could differ by age and people in similar age groups could show a similar pattern in their choices. Evidence of this cohort effect is also supported in the South African context from results from the National Demographic and Health Survey. In analysis of the utilisation of traditional birth attendants, a decrease was recorded in assistance from traditional birth attendants during labour for women over 20 years of age over the period 1988 to 2003. In contrast women younger than 20 increased their utilisation of traditional birth attendance over the same period (Peltzer, 2009: 956).

Health care utilisation has been found to be affected by age in terms of differences in need for health care across age groups. Older people generally are found to have a greater need for health care as a majority have been found to have a progressive decline in health particularly towards the end of their lives (Larsson et al., 2008). Patterns of utilisation of health care services by elderly people can be in many instances attributed to mortality, or the process of dying which results in increased health problems as people age. It can be inferred that it is the process of dying that has a greater impact on health care utilisation than aging (Larsson et al., 2008:355). Larsson et al., (2008) in their study into care utilisation in the last years of life in relation to age and time to death found evidence of variation in the type of care used by older people. The care used varied between the use of professional care givers at home, institutions

and hospitalisations. Results showed that older people seek out more expert care and specialist medical treatment in the years preceding death (Larsson et al., 2008). This would be consistent with the paradigm that health status and health beliefs are proximate determinants of health care utilisation. Individuals' health status and health beliefs change with age and hence change and impact on health care utilisation.

However, opting for specialist care is not the uniform choice amongst the elderly. In a report published by Statistics South Africa in 2013, their findings from the General Household Survey presented quite varied results of utilisation based on age. Older people showed a distinct higher rate of reported poor health or injury in the month prior to the survey. Reports of illness increased dramatically from ages 45 years and older with the highest response of illness coming from those who were 65 years and older. The lowest percentage reports of illness or injury was from respondents in the 15-24 year age group (Statistics South Africa, 2013:24). However, when it came to seeking help for their illness respondents that reported not utilising health care because they felt it was not necessary or due to the high cost of health care also came from these age groups (Statistics South Africa, 2013:32). These results suggest that utilisation or choice of health care is dependent on the state of health and barriers to health care. Age could therefore see varied preference and utilisation of health care, not only based on age preferences but also barriers to health care that could be more evident at different ages. The effect observed of age on health care utilisation could be viewed almost as a "life stage" effect.

The cohort effect of age can also influence health care utilisation via access to social grants or benefits; or increase barriers to health care due to educational attainment or access to household resources; as well as influence utilisation via the measure of social standing of the household e.g. car, telephone etc. (Grundy & Holt, 2001). Social policies also differ with age and this impacts on health care utilisation, in particular those policies that impact on income and health care costs (Lloyd-Sherlock & Agrawal, 2014). Benefits provided by the government vary through the life course and unless protected by universal health insurance coverage the population will benefit at certain ages or life stages; or be more vulnerable at other life stages, in terms of access to health care. In South Africa currently free health care is available to pregnant women and children under six years at public health care facilities. Primary Health Care (PHC) is also free at all public health care facilities for all South Africans. Rowland and Lyons (1996) described poverty and illness as being one of the

greatest challenges faced in old age. Lloyd-Sherlock and Agrawal (2014) found that in South Africa there was an association between receiving a pension and health care utilisation, but there was no relationship between receiving a pension and reported quality of life or control of chronic health conditions.

South Africans sixty and older subscribe to an established state pension fund and those who were in formal employment usually benefit from established employee retirement funds. Grants are also available to assist those living in poverty during the child rearing years. Age therefore, through its impact on SES, has an effect on choices in terms of health care utilisation. Moving from public to private health care services could be restrained by age due to the financial implications associated with utilising private health care. Age could therefore limit utilisation of certain health care services.

2.2 Gender

In health research much discussion has been generated around evidence found in the way men and women report on their state of health. Similarly, their interaction with the health care system would also be influenced by gender. In a study focusing on men's health, utilisation of health care services and core reasons for their non-participation, it was found that men had a greater need for confidentiality and placed great value on trusting the expert knowledge of the health care provider. The men reported being more specific in their health care choices and when seeking advice they would source a provider that they regard as being an expert in that area. It was also discovered that men's non-participation, in particular with free health services, had a great deal to do with time constraints and hence sought private health care (Na¨slindh-Ylispangar et al., 2008). Women access for care for themselves and their children is also unique. This is particularly evident in patriarchal societies where women's decision-making is limited as in patriarchal societies, men through the control they have over resources, influence when and where women seek treatment for their health (Shaik & Hatcher, 2004: 50-51).

This gender gap in health care utilisation is compounded in developing countries where the burden of poverty further exasperates the plight of women. Women, especially those in rural areas, are expected to be involved in domestic duties and child care. Educating girl children is not a priority and coupled with the expectations of their domestic role this compromises their utilisation of health care services. Time required to utilise health care services is not

prioritised as this takes women away from domestic duties. With illiteracy and limited formal education women face such challenges as unemployment, poverty, and low assessment of health needs, taboos about health and seeking treatment, self-medication, little or no health insurance and in some instances increased use of traditional medicine (Buor, 2004: 376).

Gender differences are typically defined by how individuals have been socialised as some societies have clear cut gender roles and stereotypes. Studies conducted into male gender roles and gender role conflict among men found that men who showed strong masculine gender orientation were distinctly different from men who showed more of a feminine gender orientation. This was particularly evident in studies focussed on their help seeking behaviour in terms of seeking out professional help from counsellors. The findings show that men or those with a more masculine gender orientation are less likely to show interest in seeking counselling (Penderson & Vogel, 2007). These findings are in line with two theoretical constructs that help to describe help seeking behaviour in men-restrictive emotionality and interpersonal openness. These theoretical constructs are used to describe the difficulty or reluctance men have in sharing their feelings with other people. In terms of help seeking behaviour these constructs both relate to one's willingness to be open with others and share concerns or request help (Good et al., 1989: 295). These results were consistent against the men seeking help from a variety of sources including those sources outside of the medical fraternity such as a partner, friend, relative, parent, sibling etc. When addressing men's help seeking behaviour what becomes evident is the strong link between masculine identity and seeking help. Men that utilised psychological therapy services were greatly influenced by whether they viewed sharing their emotions with others as appropriate male behaviour. Men who held strong beliefs regarding their masculine identity were more likely not to seek help for psychological conditions and have a negative view of men who utilise such health care services (Penderson & Vogel, 2007).

Gender stereotypes which shape the attitudes of men and women regarding health and seeking treatment indirectly would impact on use of services and choice of health care provider. In their study, Noone and Stephens (2008), note that respondents identified women as more frequent users of health care services. The study incorporated in-depth interviews with men and respondents had clear opinions regarding frequent use of health care as

"typical" behaviour of women. Though the respondents did show a great awareness of the importance of seeking treatment, it was clear that they felt that not all concerns needed medical attention. Seeking treatment from a medical practitioner for minor concerns such as influenza was considered not to be "masculine" behaviour (Noone & Stephens 2008: 717-719). Similarly, Van der Hoeven and colleagues (2012) observed differences in health care seeking behaviour in urban and rural settings in South Africa due to society's view of woman and health. They noted that the greater participation of women in their study could be linked to society viewing women as being in greater need of care, if not for themselves then for those in their care (Van der Hoeven et al., 2012). The effect of gender was also evident in a South African study into the proposed introduction of NHI. The study found that both men and women were supportive of the NHI. But women showed greater support for NHI and this varied according to other socio-economic factors such as education levels, marital status, employment status etc. (Evans & Shisana, 2012: 920). Evans and Shisana (2012) propose that their findings reflect the levels of gender inequality and gender differences in accessing health in South Africa**.**

What is evident is that there are distinct differences in the health beliefs and help seeking behaviour of men and women. The gender effect could also transfer into other aspects in terms of their health as well as be reflective of the varied patterns of health care utilisation between men and women.

2.3 Marital Status

Marital status can be viewed as a proximate determinant in an individual's ability to access and use resources within a society due to its reflection of social support (Choi & Marks, 2011:2). Furthermore, studies into adult mortality have focused on linkages between race/ethnicity, gender, socio-economic status and marital status leading to a growing interest in the social issues that drive demographic processes. Distinct differences have been observed between the mortality patterns of never-married and married persons. Differences have also been observed as one changes marital status e.g. from single to married; and married to divorced or widowed (Choi & Marks, 2011). Socio-demographic studies have brought into question the origins of these differences in mortality, and given cause to consider that these differences are not necessarily biological but social. And these social differences speak to inequalities within the society in terms of accessing and using resources.

The influence of the social support provided by having a partner is more notable in particular for men in terms of utilising health care. In a study on the health seeking behaviour of men diagnosed with tuberculosis it was found that men first consulted with a health practitioner due to the persistence of their spouses or someone else in the household (Auer et al., 2000: 651). Family structure is seen to have a significant effect on health outcomes and health utilisation in terms of the impact this has on accessing the resources required to interact with the health care system (Hermeto & Caetano, 2009; Kanata & Banks, 1997). Hermeto and Caetano in reviewing the challenges faced by women who are single parents in Japan and Britain note the critical role played by social policies in assisting such families. The need for adequate social support is critical due to the challenges faced by women who are single parents participating in the labour market. Not being able to participate in full time employment or by having to make do with jobs that are not skilled, compromises their earning capacity and access to employee benefits (Hermeto & Caetano, 2009: 62-64). This impacts on their disposable income to cover health expenses and ultimately affects their utilisation of health services, unless covered by state welfare policies or medical insurance. The impact of marital status on the ability access health care was also shown to be relevant in results of a study into the determinants of health insurance ownership among women in South Africa. Kirigia et al., (2005) found that married women had higher rates of medical insurance cover compared to the women who either single, divorced or widowed. These findings were attributed to the social aspects such as combined income and the need to secure their own health as well as that of their dependents (Kirigia et al., 2005: 7).

In most societies marital status is a strong indication of the nature and extent of one's financial and emotional support. Marriage, or a relationship that is similar to marriage in terms of emotional intimacy and sharing of resources, is usually the centre of one's emotional support system. Spouses can provide practical help such as early recognition of symptoms, encouragement to follow healthy habits, and transportation to health care facilities. Single people, or those without the support of a close partner, have been found to suffer more health problems. Such findings promote the ideas of the link between marital status and health (Choi & Marks, 2011: 3-4). Similarly, one could relate the presence of a spouse as having an impact on the type of health care services consulted. This could be via the effect of financial support in accessing health care or through emotional influence over decision making. Iwashyna and Christakis (2003) found that married patients were more likely to utilise health care facilities

that were perceived to be of high quality and technologically advanced. Their study is limited in terms of only studying two marital groups- married and widowhood. However, their proposition, of the benefit of a spouse in assisting in decision making as well as supplementing resources to plan for future care are quite critical to the understanding of the relationship between marital status and health care utilisation. Furthermore, they conclude that declining marriage rates will negatively impact on health care utilisation (Iwashyna & Christakis, 2003:2143-2144). These ideas put forth by Iwahyna and Christakis (2003) can be used to surmise that the impact of marital status on health care utilisation is two-fold: emotionally through the impact on decision making; and financially through the impact on resources to plan for health care.

2.4 Race

Race is a multi-dimensional concept which is a combination of various factors such as biology, culture, economics, politics, geographic origins and racism. It is essentially a social construct that sets out varying degrees of racial superiority created by institutional and ideological forces (Glasgow, 2007). One of the effects of racism has been segregated residential areas based on race. Although the institutional forces of racism have been eliminated segregated living based on race still exists. Racial discrimination affects the quality of health care available across race groups therefore, the concept of race cannot be investigated without evaluating the impact of other co-founding factors which affect how an individual experiences the health care system, with regard to goods and services, as well as the ultimate effect on health status (Haywood et al., 2000).

Buisman & Garcia-Gomez (2015) found that in the South African context the effect of race is still evident in the health care sector due to race still playing a major role in defining inequality in society. Race and co-founding socio-economic factors such as gender, education and income were found to have the greatest impact on utilisation. Their study found that race accounted for as much as 42% of inequality in health care utilisation and are indicative that apartheid practices though not legislated are evident in health status and health care utilisation (Buisman & Garcia-Gomez, 2015:202).

The implications of race are not only evident in co-founding socio-economic factors but impact in other ways in health decision making. An American study investigating racial concordance between Black and Hispanic patients and doctors highlighted some interesting factors. However, these were inconclusive in terms of the impact of racial concordance on patients seeking treatment. The results did show that patients had higher utilisation of care and had higher satisfaction ratings when racial concordance with doctors is present. This, is in some instances, was influenced by other mitigating factors such as the racial distribution of doctors in certain geographical areas, patients' income, educational attainment and access to medical insurance (Saha et al., 1999). Findings suggest that Black patients and Black doctors related easily to each other due to shared culture and experiences (Saha et al., 1999: 1001). Such mutual understanding could be factored in when evaluating results on choice of doctor. The majority of Black patients reported race as being the motivating factor in the choice of doctor and their continued use of their services (Saha et al., 1999: 1002). A recommendation of this study was the effect of racial concordance beyond just the race of the doctor. The creation of a warm nurturing environment by staff working in the health care facility also affected results with regard to culture and language which was particularly true for Hispanic patients (Saha et al., 1999: 1002-1003). Myburgh et al., (2005) indicate that the implications of racial concordance in health care settings in South Africa can to some to some extent be attributed to race as White patients report higher levels of satisfaction with treatment. However, they note that there needs to be more research into exploring the complexity of the relationship between the patient and the service provider to investigate the influence of patient cultural values and the professional behaviour of the service provider (Myburgh et al., 2005: 476).

In a similar study exploring race, gender and language concordance, the most significant results were observed for language concordance. The study found that in terms of contact, race and language showed significant results in terms of choice of health care provider. Race was found to be a significant predictor in whether the patient chose a primary care provider or a specialist care provider. From the language results it can be hypothesized that patients will be more likely to utilize the services of a health care provider who was proficient in their home language. In the study, language concordance showed patients who speak a similar language as the provider, reported less difficulty in telephonically contacting their health care provider ($p < 0.05$); and were not hesitant to contact them after hours (odds ratio 1.99) (Martin et al., 2009: 348).

Differences in utilisation of health care services between racial and ethnic groups has been in some instances attributed to access to medical insurance. However, studies have found that differences in utilisation still exist between racial groups even in the presence of medical insurance (Zuvekas & Taliaferro, 2003: 140). In a study examining pathways to accessing health care it was found that differences in utilisation between race groups was less explained by access to medical insurance than by other co-founding factors that could be seen as predictors for having medical insurance coverage. These co-founding factors include such aspects as employment, type of employment, marital status, income and education. Results from the study showed these co-founding factors had a distinct racial bias, and hence distinct differences in utilisation could be observed between race groups. In the study, 68 percent of the difference between Whites and Hispanics overall coverage under an employer supplied medical insurance plan could ultimately be explained by low take up by Hispanics due to Hispanics being employed in low paying positions with little or no benefits. Similarly, lower employment rates amongst single Blacks was found to explain as much as three quarters of the disparity observed when compared to single Whites. Marital status was also found to be a predictor for medical insurance cover and the authors propose that due to lower marriage rates amongst Blacks this in turn explains disparity in the results when compared to the other race groups (Zuvekas & Taliaferro, 2003: 146-148). Similar conclusions can be drawn for the South African population as very low rates of medical aid coverage have been reported amongst Black South Africans, and marriage and income have been found to co-founding factors to membership of a medical aid scheme (Statistics South Africa, 2015; Kirigia et al., 2005).

Zuvekas & Taliaferro (2003) conclude that the pathways to health care were greatly influenced by an inexplicable element that is encapsulated within an individual's race group. Systematic differences within society including differences in attitudes towards risk, health care and health seeking behaviour cannot be controlled for or fully understood without taking into account cultural/race issues. Health care utilisation is greatly influenced by attitudes and preferences. Disparities in utilisation between groups could be a factor of the cultural health practices and health beliefs evident within the race group (Zuvekas & Taliaferro, 2003: 151).

2.5 Education

Health literacy defines the "degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Sudore et al., 2006: 770). Educational attainment or years of schooling are often an indication of literacy levels which can critically impact health outcomes. Literacy levels impact on how an individual interacts with the health care system and this relationship is summed up in the definition of health literacy. From the definition of health literacy, the decision regarding whether to seek care and where to seek care is influenced by the individuals understanding of the status of their health and the services available to them.

In a study looking at health literacy in older people it was found that those with low health literacy showed distinct difference in terms of access to health care. The health care access variables in this study were access to a regular doctor or place of care; having had an influenza vaccination in the last 12 months or having medical insurance to cover the costs of medication. A significant relationship was found between low levels of health literacy and access to health care (Sudore et al., 2006: 773). This indicates that education influences how someone interacts with the health care system. In a South African society plagued by inequality, the interconnection of socio-economic factors is more evident. Hence, the impact of socio-economic variables on health care utilisation cannot be looked at in isolation. Consequently, Sudore and colleagues (2006) defined the typical socio-demographic profile of individuals with low levels of health literacy as Black, male, low income and low levels of education.

Educational attainment has also been found to be a determining factor in treatment of disease and accessing health care. Individuals with limited education have been found to have a delayed response in seeking out specialised health care and have also shown to have greater difficulty in following treatment plans. Besides the impact on the individual and how they engage with the health care system; the education levels of the patients have also been found to have an impact on the treatment received or how health care providers relate to such patients (Porterfield & Mcbride, 2007; Kalichman et al., 1999).

In an investigation into the effect of poverty and the level of education of the care giver on perceived needs and access to health services amongst children with special health care

needs, the authors hypothesized that information about health needs plays a critical role in seeking specialized care. Their view is that parents who do not think their child needs specialized care will not seek access to available services. The ability of the parent to assimilate information and come to an understanding of the need for specialized care is directly related to their level of education. Previous studies which guided the authors towards this hypothesis showed that only half of the care givers that accompanied children with special needs to appointments with specialized physicians were able to provide a lay man's description of the medical diagnosis of the child. Another study showed low usage of specialized care by children with special needs. Such children's parents had low income and low education, in spite of having medical insurance cover for specialty care (Porterfield & Mcbride, 2007: 323).

Education can also be a barrier to accessing health care which is particularly the case for individuals with low levels of education. In a study focusing on HIV sero-positive patients found that those with low levels of education were more likely to report a different adherence pattern than those with higher levels of education. The three main reasons cited by patients with low education levels was: how they perceived their treatment at the clinic, not wanting to be seen at the clinic and a distrust of the doctors (Kalichman et al., 1999: 444).

Education levels can therefore influence the relationship between the health care provider and the patient which in turn impacts utilisation of services and treatment literacy. Overcoming educational barriers to utilisation of services cannot be done via a patient centred approach only. Patients levels of education and healthcare literacy does have an impact however the ability of the health care provider to adequately explain the diagnosis and treatment is just as important (Kalichman et al., 1999: 445). The doctor's ability to engage with patients from different backgrounds is a major factor in the doctor-patient relationship. Hence it is important for health care providers to have an understanding of the patient's background, their cultural beliefs and health beliefs (Betancourt et al., 2003:297-298). The relationship between health care providers and patients and information flow from provider to patient has been described as an asymmetrical problem in health research. Porterfield and Mcbride (2007), hypothesize that asymmetry also occurs when health care providers perceive patients with low social standing, lower educated and low-income as less able to act on medical information. Similarly, they propose that more educated and higher income patients are able to access additional sources of medical information than less educated and low income

patients. Poverty and lack of education therefore affect access to information regarding available health services and influence the utilisation of health care services (Porterfield & Mcbride, 2007: 323).

2.6 Employment Status

Employment status impacts access to private medical insurance and health care for the individual as well as for the family unit. A study in the United States into children and youth's access to and utilisation of health care found that employers were the main source of medical insurance (60.2%) for children covered by the private health care sector. The employment status in the family unit was shown to provide greater coverage to private medical aid cover in instances where both parents worked than family units consisting of two parents but with only one parent being employed; or employed single parent households (McCormick et al., 2000: 221-222).

Employment status was also found to impact the type of medical practitioner or health care services used. Even withstanding health needs, a strong relation between choice of health care services between employed and unemployed people was found. Poorer, unemployed people without medical aid were more likely to utilise free services (Habicht & Kunst, 2005: 786). Employment status and relationship to health reveals an interesting connection as employment could be an indication of health status and health status could be linked to your employment status or occupation (Bartley & Owen, 1996). In a study into the relationship between socio-economic status, employment, and health, the researchers found that employment was higher for men without a limiting longstanding illness. When looking at unemployment, although the difference was not as evident, there was very little difference in health status between men who were unemployed and from low socio-economic status i.e. low education, semi-skilled or manual labourers (Bartley & Owen, 1996: 446-447). The study also found differentiation in reported illness based on occupation. Heart disease was slightly less prevalent in men with professional occupations than in men in unskilled manual occupations (Bartley & Owen, 1996: 448).

In a study investigating minor psychiatric morbidity and assistance-seeking behaviour, the researcher concluded that irrespective of health status unemployed individuals who had access to public health insurance were more likely to consult with a general practitioner. This

highlighted that utilisation of health care was a function of socio-economic variables. Therefore, an individual's health status, though indicative of the need for health care, plays less of a role in health seeking behaviour and health care utilisation. Socio-economic variables such as income would have a greater impact on health care utilisation (Verhaak, 1995: 101-102). In their assessment of socio-economic status in health research, the authors proposed that when addressing employment, the standard classifications for occupation or employment status are not the best indicators of utilisation. A measure for control over their work and demands of their work needs to be factored into the respondents reporting surveys. The authors do acknowledge that their proposal does not solve the dilemma for classifying those who are not involved in formal employment or those who experience prolonged phases of unemployment (Braveman et al., 2005: 2884). Research into defining work, in particular into incorporating definitions that give insight into control over and the demands of work, will be beneficial to the investigation of the relationship between health and employment status in two ways. Firstly, it will provide researchers with a clearer understanding of the pathways to health. Secondly, it will also give an indication of the decisions that would have to be made regarding the opportunity costs when having to be away from work when consulting medical care. Understanding employment status in terms of work demands and control over work will give greater understanding to the decision making process involved in choosing a health care provider.

2.7 Income

The decision-making process in choosing health care, is a complex phenomenon as even in instances where health care is covered by some form of insurance, health care choices are also influenced by individual and family factors (Dong et al., 2006: 41). This is particularly true when looking at the influence of income in the health decision-making process as this variable acts both on the individual and household level.

The effect of the household income on health decision-making is more evident in the African context due to the influence the head of the household yields. It is often the household head who decides how resources are distributed and as a result this household allocation impacts whether or not an individual may seek treatment for health-related matters. Researchers have found that the low utilisation of health care services across sub Saharan Africa can be linked to the high cost of health care in relation to household income (Dong et al., 2006: 41-42). In a

Burkina Faso study investigating health care utilisation, researchers proposed a model to evaluate health utilisation and health decision-making referred to as a price-income ratio model. This model assumes that households will not only consider the absolute price but also the relative economic impact on the household while selecting the type of health care to use (Dong et al., 2006: 44). Household income can therefore be seen as a determining factor in health care utilisation. Results from this study showed that economic factors played a great role in health seeking behaviour, in particular in whether or not a person decided to seek treatment. The study analysed what was considered in the decision making process when faced with illness- whether to use traditional medicine, "*western care*", or treat the condition by themselves. The findings reflected that financial resources were a determining factor in the initial decision to seek health care, but once the decision was made the extent to which finances influenced utilisation of traditional medicine or "*western care*" was unclear (Dong et al., 2006: 48).

Evidence from a survey conducted in Cote d'Ivoire, Ghana, Guinea, Kenya, Madagascar, South Africa and Tanzania found that the poor are more likely to self-treat than the rich, and are less likely to seek private, modern care. Interestingly, the study found that the richest groups still rely on the public health care system. This was particularly notable in Cote d'Ivoire and Guinea whereas in South Africa there is evidence of the richest groups supporting private health care. The poor rely mainly on the public system, but private sector is important for both the poor and the non-poor in Ghana, South Africa and Tanzania (Castro-Leal et al., 2001: 68). Evidence of the poor also showing a preference for private care was also evident in A South African study investigating the use of public and private health services among Black South Africans in KwaZulu-Natal (Knight & Maharaj, 2009). The study found that most respondents used public health services as income and access to medical aid influenced health care choices. However, even amongst the poor quite a number still used private health care (Knight & Maharaj, 2009). South Africa has an extensive network of private health care providers which would explain some of the anomalies observed in this study. Worth noting is that opting for private care is dependent on income as the affordability of private care is critical when utilising private health care.

Population health and mortality differentials studies have identified distinct differences in health outcomes between socio-economic groups. Generally, those with higher socio-economic status, e.g. high income earners and highly educated, experience better health than those with low socio-economic status e.g. low income earners and less educated. Financial barriers to accessing care disadvantage those with low socio-economic status as they are unable to afford costly specialist treatment or the necessary preventative care to secure their health in the future. Income is also a barrier in accessing private medical insurance which would in some instances ease the burden of health treatment costs (Veugelers & Yip, 2003:424).

2.8 Residence

Literature on health status and residence has shown evidence of a relationship between living in a deprived area and health status. Area classifications are also used to show inference to socio-economic status of the people living in the area (Grundy & Holt, 2001). Utilisation of health services is further influenced by geographical accessibility. It has been widely shown that geographical accessibility to health care services has a direct effect on the utilisation of these services (Tanser et al., 2006). In almost all countries health care personnel and services, particularly specialized centres and physicians, are concentrated in urban-areas and by comparison are scarce in rural areas (Castro-Leal et al., 2001: 68). In developing countries, a challenging transport infrastructure is a deciding factor in when or where to seek health care. This transport challenge leads to increased travel time and costs which affects health seeking behaviour (Shaik & Hatcher, 2004:51). In the South African context, the socio-economic differences between urban and rural differences are particularly concerning for the rural population. Differences in employment status, income to provide for basic needs, health care and transport to health care facilities have a great impact on health care utilisation. Unfortunately, the rural population in South Africa experiences greater levels of unemployment and poverty (Van der Hoeven et al., 2012).

Rice and Smith (2001) highlight the far reaching effects of geography on health and health care which goes from the obvious implications of one's environment on one's health status, to the impact on health care utilisation and delivery of health care. The question raised is that delivery of health care to rural areas, even in the light of a subsidized health insurance

scheme, could result in sub-standard health services when compared to urban areas. These differences could be attributed to the cost of health care delivery to remote areas. Which could result in a shift in utilisation of health care services in these areas as residents might forgo treatment or seek other alternatives (Rice & Smith, 2001:256-257).

Health care utilisation in areas could also be influenced by microeconomic theories of supply and demand effects. Areas where there is an abundance of health care services could have increased utilisation due to a "supplier induced demand". In contrast health care limited areas could experience "supplier depressed demand" (Rice & Smith, 2001:257). Such effects of supply and demand could explain differences in utilisation of services. Depending on service availability people could choose to use the health care facility that was readily available in their area. Gouge et al., (2009) clearly articulate that even in the light of free PHC, South Africans living in rural areas still display the influence of supply and demand on their utilisation of health care. Issues such as financial constraints and not trusting that they would receive adequate treatment at public health care facilities were noted as reasons why treatment was not sought.

In developing countries, researchers have observed that the distance from a patient's house to the clinic is a critical variable in health care utilisation. Utilisation of health care services was found to decrease as the distance to a health care facility increased. This phenomenon has been described as the "distance-decay" effect (Feiken et al., 2009: 54). A Kenyan study which focused on clinic visits of children under 5 years of age, found an inverse relationship between distance from the clinic and clinic visits. For every 1km increase in distance from the Demographic Surveillance Systems clinic, the rate of clinic visitation dropped by 34 percent (Feiken et al., 2009: 58). The research discussion explored how the distance-decay effect in developing countries is influenced by the mode of transport used to clinics. In Kenya it was observed that walking was the most used option to access clinics due to poor public transport system and lack of infrastructure. However, they noted the distance decay effect would not be offset with improved transport system and infrastructure. In other studies they consulted which were conducted on the African continent, the cost of funding transport nullified gains made by having a good public transport system and infrastructure. Physical distance from the clinic had less of an impact on utilisation of services than the transportation costs associated with visiting the clinic (Feiken et al., 2009: 59). The distribution of health care services invariably influences utilisation as the demand for health care is affected by the

supply of health care within the area, and the costs associated with travelling to health care providers.

2.9 Summary

The literature indicates various instances of the influence of socio-economic status on health care utilisation. Notwithstanding the effect of health status, research highlights that socio-economic variables through their influence on accessing health care play a major role in utilisation. In societies that have high levels of inequality, such as South Africa, the impact of socio-economic status on health care utilisation is more evident. Social constructs such as racial inequality, income inequality and gender inequality all combine to influence the demand for health care and ultimately the utilisation of health care services.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

Traditionally in health care utilisation research five approaches have been observed: the socio-cultural approach; socio-demographic approach; social-psychological approach; organizational approach and social systems approach. Each of these approaches observes the individual as they interact with the health care services/systems in relation to factors seen as proximal determinants of their utilisation of health care (Anderson, 1973). This study, as it investigates health care utilisation as a function of social, economic and demographic factors, can be seen to be following a socio-demographic approach. Anderson (1973) identifies factors such as age, sex, ethnicity, occupation, education, income and socio-economic status as typical variables investigated by health researchers interested in understanding the relationship between socio-economic factors and health care utilisation. The study made use of secondary data which collected socio-economic and health data which allowed for ease of use. This study aims to investigate the relationship between socio-economic factors and health care utilisation, in particular the forces that drive the utilisation of public and private health care. Based on this the null hypothesis states that there is no significant relationship between socio-economic factors and health care utilisation. In the following chapter the chosen data set and the research methods will be discussed.

3.2 National Income Dynamics Study

The National Income Dynamics Study (NIDS) is a unique tool that allows researchers to link economic and social data. This is a critical aspect of research in developing countries like South Africa as it aids monitoring and evaluation as well as in the formulation of evidence based policy. NIDS is a project of the Southern African Labour and Development Research Unit (SALDRU), which is based within the School of Economics at the University of Cape Town. The aim of the project is to provide key information into internal migration, birth and death, savings, health, education and spending patterns (www.nids.uct.ac.za). The NIDS is the first major panel study in South Africa which allows researchers access to longitudinal data from a country perspective. Previously in South Africa panel study data had been available at regional level and two notable studies include the Cape Area Panel Study (CAPS)

and the KwaZulu-Natal Income Dynamics Study (KIDS). NIDS aims to bridge the gap between existing data collected by the government through Statistics South Africa, and assist the government in planning and monitoring. Surveys such as the General Household Survey and Labour Force Survey by Statistics South Africa provide meaningful data but lack the ability to assess to what extent change has occurred. This is because they are not able to track the same households consistently. So such surveys are more equipped to provide information on identifying a problem, than explaining why a problem exists and if the situation has improved or gotten worse over time (Woolard et al., 2006:8). Panel studies through their ability to track households over time are able to provide policy makers with the ability to measure changes in society and the impact of government initiatives. The NIDS 1st Wave was conducted in 2008 and has subsequently been through three more data collection phases on a two year cycle (www.nids.uct.ac.za)

3.3 Research Methodology

The NIDS sampling methods involved a stratified two-stage cluster sampling. Sampling was conducted on Statistics South Africa's 2003 Master Frame, which originates from the Census 2001. The target population of NIDS was private households across all nine provinces in South Africa as well as people residing in workers' hostels, convents and monasteries. The NIDS sample however excluded communal dwelling units such as old age homes, student hostels, hospitals, prisons and military barracks (Leibbrandt et al., 2009: 9).

Fieldwork for NIDS Wave 1 was carried out between February and September 2008. On review of the data the NIDS research team questioned if the data collected adequately represented the South African population. A second phase of fieldwork was commissioned with the overall objective of improving data quality, particularly to redress sample issues in particular in terms of the sample being representative of the South African population. Two key objectives were identified: firstly, replacement of 9 areas where no interviews were conducted during the first phase. Secondly, to revisit certain areas as at provincial level a number of issues where apparent with regard to racial representation. The second phase of data collection revisited predominantly White areas in Gauteng, Mpumalanga, Limpopo, and Western Cape; all Indian/Asian areas in Gauteng and KwaZulu-Natal; and all Coloured areas in Gauteng (Brown et al., 2012: 20).

By the end of phase 2 of field work the NIDS Wave 1 resulted in a final data set that incorporated 7305 households and 28255 individuals (Leibbrandt et al., 2009). As the objective of NIDS is to be a panel study, this Wave 1 data and respondents are regarding as the baseline and would form the basis of further research. NIDS Wave 2 In both Wave 1 and Wave 2 a set of four questionnaires were used to collect data from the sampled households: Household questionnaire, Individual Adult questionnaire, Individual Proxy questionnaire and Child questionnaire (Brown et al., 2012: 11).

For the purpose of this study, the study population was drawn from the NIDS Wave 1 data set. The sample included all individuals aged 15 years and older who had reported consulting about their health in the last 30 days. Analysis was based on self-reported last attempt to seek health care. Input for SES variables was also be based off self-reporting. Self-reporting does introduce bias but hopefully this was minimized by reducing the reference period. The study describes socio-economic differences in health care utilisation across public and private services by investigating the influence of the following variables: Age, Gender, Race, Marital Status, Income, Education, Employment Status, and Residence. The dependent study variable health care providers will be generated from a list of options and condensed into three categories- Public, Private and Traditional Healer. In terms of the two spheres of the health care system, public and private, traditional medicine falls under the private sector. Patients utilising traditional medicine as a form of health care are responsible for the cost of treatment. Though the government has put in place legislature for traditional medicine, there is no subsidy for patient treatment expenses (Peltzer, 2009). Income was studied at the household level on the assumption that the burden of health care costs would not borne by the individual alone. All other variables are at the individual level. Data analysis includes descriptive statistics as well as odds ratios to calculate the probability associated with using health care i.e. public, private or traditional health care services.

3.3.1 Data collection methods

NIDS data was collected via four questionnaires: adult, household, child and proxy which were available in all 11 official languages. During the fieldwork process, data can be affected by various factors that could introduce bias and ultimately affect the quality of the data collected. In terms of the NIDS study two critical aspects where addressed: racial and language concordance; and respondent fatigue. In most instances as far as possible racial and language concordance between the fieldworker and respondent was adhered to by them

completing an English questionnaire and noting the language that the interview was conducted in on the front cover of the questionnaire. To alleviate and reduce respondent fatigue, the questionnaires were designed to be completed in under an hour, with the longest time allotted to the household questionnaire (Leibbrandt et al., 2009:5-8).

3.3.2 Sampling and Weights

Statistics South Africa's Census 2001 allowed for the ground work for the establishment of a national sample of the population which would be beneficial for future research within South Africa. From the Census 2001 Statistics South Africa's generated the 2003 Master Sample. The 2003 Master Sample consists of 3000 Primary Sampling Units (PSUs) and during the compilation of the Master Sample 8 non-overlapping samples of dwelling units were set aside in each PSU. Each of these 8 non-overlapping samples is called a cluster. Within each of 3000 PSUs Statistics South Africa reserved 6 out of 8 clusters for their own use.

For the 2010 NIDS base wave stratified two stage sampling methods were used to develop a sample of dwellings from which to recruit survey respondents from. NIDS was fortunate to have access to the 2 unused clusters that formed part of each PSU within the Statics South Africa 2003 Master Sample. The NIDS base wave consisted of 400 PSUs sampled from the 3000 PSUs on the 2003 Master Sample, based off the 2 clusters allocated within each of the 3000 PSUs (Leibbrandt et al., 2009:9). Individual respondents became part of the NIDS base panel as long as one person in the sample dwelling agreed to participate in the study. The households were defined as all individuals living under one roof and sharing resources including food. Lodgers and domestic workers were regarded as separate households. A household roster was completed for all households and respondents had to list all individuals who had lived under the same roof or within the same yard/homestead at least 15 days in the last 12 months; or who arrived in the last 15 days and now consider this their usual residence. To be considered part of the household these individuals had to also share resources including food from a 'common' pot. All resident household members formed part of the NIDS sample. The NIDS sample also included other members of the household who were listed as non-residents e.g. children at boarding school. These 'out of scope' members were included as they had zero probability of being sampled in their usual residence as the sample frame excluded such establishments as institutions, communal dwellings, barracks etc. These

household members including the out of scope household members were all incorporated in the NIDS sample and became permanent sample members (PSMs), even if they refused to be interviewed in the first wave of NIDS. For all PSMs an individual questionnaire (child, adult or proxy) had to be completed (Leibbrandt et al., 2009:5-11).

The calculations of the weights involved a two-stage process whereby design weights were firstly calculated using information from Statistics South Africa which emanated from the process of two-stage sampling on the Master Sample. Secondly, these weights were then calibrated to the 2008 mid-year estimates (Leibbrandt et al., 2009). Therefore, two sets of weights were defined namely the design weights and the post-stratification weights. Through the application of post-stratification weights, a researcher can allow for the weighted sample size to match the population size due to calibration of key demographic variables against the 2008 mid-year population estimates produced by Statistics South Africa (Leibbrandt et al., 2009; Wittenberg, 2009).

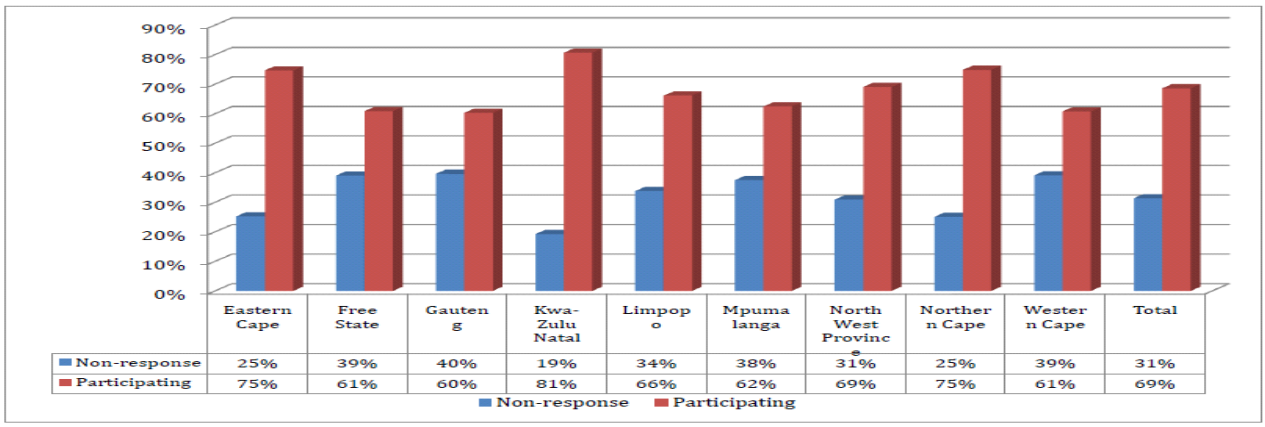
A number of changes and revisions have been made since the initial release of the data. Such changes include updating the sample to be reflective of new municipal and geographical boundaries as used in by Statistics South Africa in Census 2011; and data cleaning to remove repetitions. However, the same methods were applied in the re-calculation of weights as was set out in the original calculation of weights. As a result, using the new or old weights has very little effect and produces the same if not comparable results (NIDS, 2012a; NIDS, 2012b).

3.3.3 Survey Response Rates

The NIDS fieldwork was completed in two phases with the objective of improving response rates. During the two fieldwork phases a total of 10 642 households were contacted by NIDS fieldworkers, and of those 7305 households agreed to participate in the survey. The overall response rate for NIDS wave 1 therefore results in 69%. The NIDS sampling methods did not allow for the survey to be comparable at a provincial level. The response rates at provincial level also show great variance and this could be understood by looking at other factors such as the provincial profile and demographic factors. The province with the highest response rate was Kwa-Zulu Natal while provinces such as Gauteng and Cape Town fell below even the overall response rate for the survey. The variation in provinces is most likely understood when looking at the response rate by race group and by area. Response rates were higher in

non-urban areas and amongst Blacks and lowest amongst Whites. Phase two of the fieldwork was essentially to increase the representation amongst Whites in the study.

Figure 3.1: NIDS Wave 1 Response Rates by Province

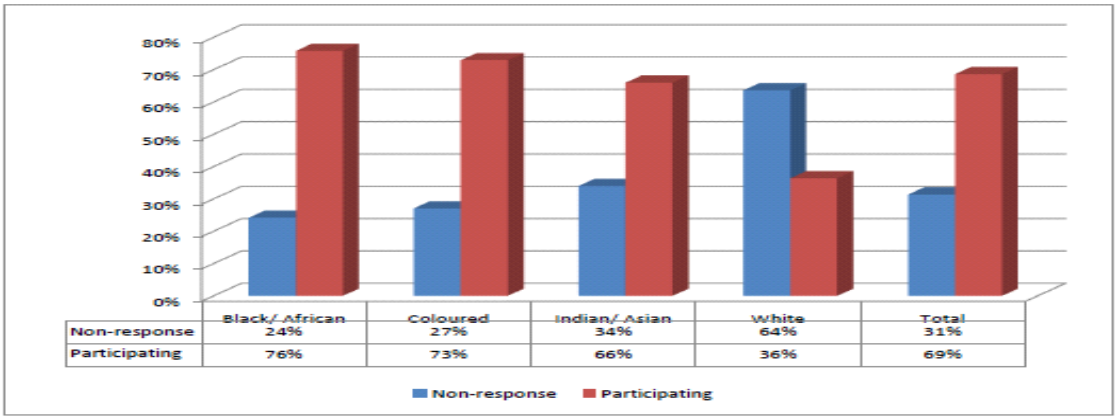


	Eastern Cape	Free State	Gauteng	Kwa-Zulu Natal	Limpopo	Mpumalanga	North West Province	Northern Cape	Western Cape	Total
Non-response	25%	39%	40%	19%	34%	38%	31%	25%	39%	31%
Participating	75%	61%	60%	81%	66%	62%	69%	75%	61%	69%

Source: Leibbrandt et al. (2009: 24)

Gauteng and Western Cape provinces have the greatest proportion of Whites, with 15.6% and 15.7% respectively recorded in Census 2011 (Statistics South Africa, 2012: 21). Given the socio-demographic profile of Gauteng and Western Cape it is understandable that these two provinces would have the lowest response rates as NIDS response rates were lowest in urban areas and amongst Whites.

Figure 3.2: NIDS Wave 1 Response rate by Race group



	Black/ African	Coloured	Indian/ Asian	White	Total
Non-response	24%	27%	34%	64%	31%
Participating	76%	73%	66%	36%	69%

Source: Leibbrandt et al. (2009: 25)

3.4 The study sample and data analysis methods

The sample population for this study included all NIDS respondents 15 years and older who had completed the adult questionnaire. From these NIDS PSMs, only those respondents who had reported to have consulted with a health care provider about their health within the last 30 days were included. The final sample of study participants included 3922 individuals.

3.4.1 Dependent and Independent Variables

3.4.1.1 Dependent variables

In terms of the demand and supply model of health economics, health care providers are considered to be supply factors. In the context of this study health care providers are independent variables as they are the outcome variables that describe health care utilisation as determined by the selected socio-economic factors.

The dependent study variables were generated from a list of options respondents could choose to identify the place of their last health consultation, as identified by the question below:

J4: "Where did this consultation take place?"

- *Public hospital*
- *Private hospital*
- *Public health clinic*
- *Private clinic*
- *Private doctor*
- *Nurse or chemist*
- *Traditional healer*

The result was 3 health care providers coded as follows:

1= Public

2= Private

3= Traditional healer

Private includes all private health care providers plus nurses or chemists as these are options where a consultation fee would be anticipated. Public is a grouping of all identified public

health care providers. Though a consultation fee can be anticipated for users of traditional healers, for the purposes of this study it was not incorporated into private health care providers.

3.4.1.2 Independent variables

This study investigates the relationship between eight socio-economic variables and health care utilisation. In terms of the theoretical framework socio-economic variables influence the demand for health care. In the context of this study the socio-economic variables are the independent variables as the study proposes that the probability of utilising a particular health care provider would be dependent on the socio-economic status. The socio-economic variables were determined from the NIDS questionnaire and coded as follows:

- Age

For ease of use the following categories of age were defined and coded as below:

1= 15-24;

2= 25-44;

3= 45-59;

4= 60+

The reference for age comes from question B1 in the NIDS questionnaire: *"What is your date of birth?"*

- Gender

The variable gender was coded as follows: Male as 1 and; Female as 2. This variable was generated from question *B2: "what is your gender?"*

- Marital Status

Marital status in the NIDS questionnaire was asked under question B5: *"What is your current marital status?"* Respondents were provided with the following response categories:

- *Married*

- *Living with partner*
- *Widow/widower*
- *Divorced/separated*
- *Never married*

In the study the variable marital status was derived following similar principles but combined respondents who had responded as being married and those that they were cohabitating i.e. living with a partner. Marital status therefore in the study had only four categories and was recoded as follows:

1= Married

2= Widowed

3= Divorced/separated

4= Never Married

- Race

Four categories for race were coded for from the NIDS dataset using data in response to question B3: *"What population group would you describe yourself as belonging to?"*

1= African

2= Coloured

3= Indian/Asian

4= White

- Education

The data in on education in the NIDS was collected using the following questions:

H1: *"What is the highest grade in school that you have successfully completed? Do not count the final year you were in school if you did not successfully complete the year"*

H7: "Have you successfully completed any certificates, diplomas or degrees outside of school?"

H8: "If yes, what was the highest level of education you have completed? Do not include in courses you did not successfully complete"

The NIDS data set captures various levels of educational attainment and incorporates milestones across primary, high school and tertiary education as well as recognises adult basic education qualifications. However, for ease of use and to simplify reporting, in this study a simplified list describing educational attainment was preferred.

A categorical variable with 4 options was generated and coded as follows:

1= No schooling

2= Primary School

3= Secondary School

4= Tertiary

- Employment Status

Employment status was measured under the variable *empl_stat*. and recoded as follows:

1= Employed

2= Unemployed

The data was collected in the NIDS questionnaire via the following questions:

E1: *"Are you currently being paid a wage or salary to work on a regular basis for an employer (that is not yourself) whether fulltime or part time?"*

E28: *"Have you engaged in any self-employment activities during the last 30 days?"*

E40: *"Have you done any casual work to earn money in the past 30 days?"*

E63: *"How long ago was it since you last worked?"*

E65: *"What is the main reason you stopped working in your last job/business?"*

NIDS considered whether someone was employed, searching unemployed, discouraged unemployed or economically inactive. This is based off the various methods of measuring unemployment which takes into account whether someone is actually actively seeking employment and also considers those who are totally removed from the job market such as scholars, home-makers, retirees etc. But for ease of use and reporting in this study

employment was recoded to include only two options- searching unemployed, discouraged unemployed and economically inactive were categorised as unemployed.

- Income

Data captured for household income was used to generate the income variable. Income was classified into 3 groups- low, middle, high

"D39: Please would you look at the show card and point out the most accurate earnings category?"

1= Low income (0-1500 per capita)

2= Middle income (1501-4500 per capita)

3= High income (4501+ per capita)

- Residence

South Africa has a mixture of both rural and urban areas. The NIDS Wave 1 covered respondents across all nine provinces and from both urban and rural areas. For this study the following categories were created to define the variable residence:

1= Urban

2= Rural

3= Farm

- Medical Aid & Consultation Fees

In order to report on the usage/coverage of medical aid health insurance and consultation fees the following questions were analysed:

"J7: Was there a consultation for the visit?"

"J8: What was the fee for the consultation?"

"J33: Are you covered by medical aid?"

3.5 Data Analysis

SALDRU allows for researchers to have access to documentation and data from NIDS via two main channels. Firstly, via the NIDS website (www.nids.ac.za) where reports and copies of the NIDS questionnaire can be accessed. Secondly, via the datafirst website (www.datafirst.uct.ac.za) researchers can request copies of the data suitable for analysis using either SPSS or Stata. In this study, data was analysed using STATA and variables were defined as set out in the section above on dependent and independent variables. Weighted data allows for inferences to be made about the general population. Using the '*svy'* command in STATA allowed for the sample to be treated as weighted survey data. The data analysis includes descriptive statistics describing the characteristics of the sampled study population as well calculating probabilities to test the relationship between the independent and dependant variables. Results from the data analysis will enable a discussion to describe health care utilisation in the population. To gain an understanding of the socio-economic variables and identify the critical relationships between dependent and independent variables the data analysis included regression analysis. All results are reported according to conventional standard within social science research; 95% confidence level ($p < 0.05$).

3.6 Limitations of the study

As previously mentioned a major limitation to the study is the use of self-reported data, which is particularly prone to bias when researching health related matters as respondents might not always be accurate in their answers. Non-response from respondents and item non-response are additional limitations to this study. The study deals with questions that could be considered to be sensitive and respondents as a result of this could either refuse to answer some questions, or give answers that they felt would be socially acceptable. In this regard the study not only has to do with non-response from respondents in terms of the whole questionnaire, but item non response for certain questions. Respondents could not be comfortable discussing questions related to their health status or their interaction with the health care system. This could be particularly relevant if the reason for the consultation could be for issues linked to sexual or psychological health. As a result of the stigma attached to such health issues this could affect reporting especially for TM (Peltzer, 2009:179-181).

The challenge of non-response is particularly concerning for income data. Soowon and colleagues (2007), noted that income is an important socio-economic variable in health research, but poses challenges for data analysis and reporting on study findings. Deciding

how to deal with missing income data is extremely complex as it is not necessarily easy to define the subset of the population it would affect. Studies into understanding missing income data in surveys have identified it as an issue for high income earners, whereas in other instances it has also been observed in low income earners (Soowon et al., 2007:754). Various approaches can be adopted to manage the effect of missing income data such as imputation, however it should be noted that there are various other aspects incorporated in SES such as educational attainment and race (Soowon et al., 2007: 762). These limitations should be noted when interpreting results from this study, however the importance of including income in health research cannot be undermined due to the challenges it poses with data analysis and interpretation.

The interpretation of study findings are also limited by not including data regarding the medical condition treated at the last consultation. This is limiting in that it does not allow the findings to be interpreted based on the need for health care. Groudge et al., (2009) found that the seriousness of the condition and the perceived treatment requirements, influenced whether one sought treatment or not, and where to seek treatment. In this study rural South African respondents had expressed that seeking treatment at a private doctor was an indication that one was really ill.

NIDS data is unfortunately not comparable at the provincial level. This is limiting in terms of reporting and comparisons as it would be interesting to see if there are notable differences between provinces.

3.7 Summary

NIDS is a credible source of data collected by SALDRU which is endorsed by the South African government and Statistics South Africa. It is an ideal vehicle to research socio-economic and demographic phenomena within the South African population as the questionnaire acts as a dynamic research instrument that enables the collection of a vast array of socio-economic and demographic data. The survey methodology incorporated in the NIDS allows for the sample to be representative of the South African population thereby allowing for results to make inferences on the general population. However, the data is limited in that it does not allow for meaningful analysis and comparison at provincial level. Through the selection of variables, and subsequent recoding of variables where applicable, the NIDS data provided the necessary data to analyses the socio-economic variables influencing health care

utilisation in South Africa. Results covered in the following section however should be interpreted against the backdrop of the limitations of quantitative data in terms of providing an in depth understanding.

CHAPTER 4

RESULTS

4.1 Introduction

The National Income Dynamics Study provides researchers with the means to gain insight into the South African population from a social and economic perspective. The data collected in terms of health status and health care seeking behaviour makes the NIDS data particularly relevant for those interested in population health and health policy. This chapter will review results of the analysis of health care utilisation in the South African population. The study focussed on participants who had reported making use of health care services within the last 30 days prior to being interviewed for the NIDS. Health care usage was analysed in terms of public, private or traditional healer. Unfortunately, limited usage of traditional healers was reported which limited the depth at which analysis could be done. The results below therefore will provide greater insight into public and private health care utilisation. Utilisation was analysed against 8 socio-economic variables namely, Age, Race, Gender, Marital Status, Education, Employment Status, Income and Residence.

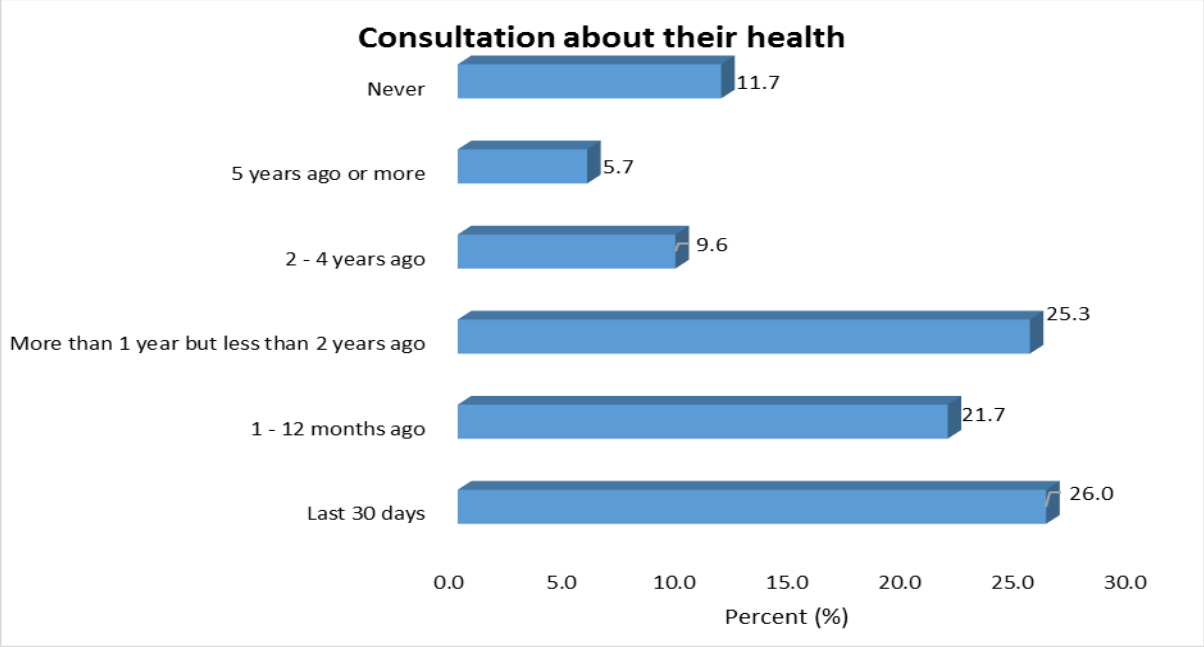
4.2 Description of sample

The sample population for this study included all NIDS respondents 15 years and older who had completed the adult questionnaire. Section J of the questionnaire was constructed in such a manner as to gain insight into health related matters. For this study analysis was limited to respondents who had said they had consulted about their health. The study population was drawn from those who had reported consulting about their health in the last 30 days. The NIDS study was completed by 7305 households and 28255 individuals, however only 3922 qualified to be part of this study sample.

Most of the participants in the NIDS sample stated that they had consulted a doctor within the last two years, as depicted by the results in Figure 4.1 below. The results justified the decision to limit the study sample to those who had consulted within the last 30 days in two ways. Firstly, those who reported consulting about their health in the last 30 days formed the

largest response group, 26%. Secondly, low response rates from respondents who reported consulting about their health more than two years ago.

Figure 4.1: Health Care Utilisation in South Africa



Source: NIDS 2008 (weighted)

The lower response rates in categories more than two years ago could be attributed to some respondents experiencing difficulty in recalling their health consultations. Thus a shorter reference period in questions assisted in yielding more reliable results, and justifies the decision to limit this study to participants who reported health consultations within the last 30 days. The questionnaire did not provide for gathering retrospective data and details such as health concern treated at last visit, access to health insurance and place of last consultation etc. are only available for those who consulted about their health in the last 30 days. It would have been interesting however to profile respondents using retrospective data as almost half the NIDS sample reported consulting about their health within the last two years (21.7% in the last 1-12 months; and 25.3% between a year to under two years).

The demographic profile of the 3922 participants who formed the sample of this study is described in Table 4.1. Those respondents who reported consulting someone about their health in the last 30 days were relatively fairly spread across the adult age groups with the younger age groups showing the lowest levels of utilisation. However, results show that one

should not assume that older people should have failing health; and therefore have higher levels of utilisation of health care services. In age groups 25-44, 32.5% reported utilising health care services in the last 30 days. This was more than double the 15-24 age group and considerably higher than those in age groups above 45.

Table 4.1 Sample Characteristics: Demographic Variables

Age	**%**
15-24	15.0
25-44	32.5
45-59	28.2
60+ years	24.4
Gender	
Male	29.7
Female	70.3
Race	
African	76.2
Coloured	16.2
Indian	2.1
White	5.4
Marital Status	
Married	44.6
Widowed	14.9
Divorced/Separated	3.7
Never Married	36.8
n=3922	

Source: NIDS 2008 (weighted)

More women than men health consultations within the last 30 thirty days as the study population consisted of 70.3% women and 29.7% men. The NIDS data is weighted to be representative of the population across race groups which would explain why there were higher numbers of Africans who reported seeking health care, 76.2%. However, within the gender groups, on average, proportionally more Coloured, White and Indian/Asian males seek out health care than their female counterparts. This difference could be due to their help seeking behaviour and health status, which is not part of the scope of the study. Putting into context what health conditions one seeks treatment for and whether an individual has the means to access health care, could also add to understanding these differences. It is intriguing

as there is great research interest in understanding the health seeking behaviour of men, and these differences in relation to their socio-economic status would be good to explore further. There were a greater number of older respondents than younger respondents. The majority of the respondents were within the 35-45 year old age groups (32.5%) with the average sample age being 45 years. Similarly, more married people reported consulting about their health, making up almost half of the sample (44.6%). Utilisation was also high amongst unmarried people (36.8%) and the lowest responses reported were widowed or divorced/separated people.

Table 4.2 describes the socio-economic status of the sample. Unemployed respondents constituted 78.3% of the sample. Corresponding income and education levels for the sample reflected low levels of income and education for most respondents. Generally, a low level of education was observed with the majority of the sample having some level of secondary education (44.4%) and only 5.1% of the sample completing tertiary education.

Table 4.2 Sample Characteristics: Socio-economic Variables

Income	**%**
Lower	44.7
Middle	26.9
Upper	28.4
Education	
No Schooling	20.2
Primary School	30.4
Secondary School	44.4
Tertiary	5.1
Employment Status	
Employed	21.7
Unemployed	78.3
Residence	
Urban	37.5
Rural	51.4
Farm	11.1
n=3922	

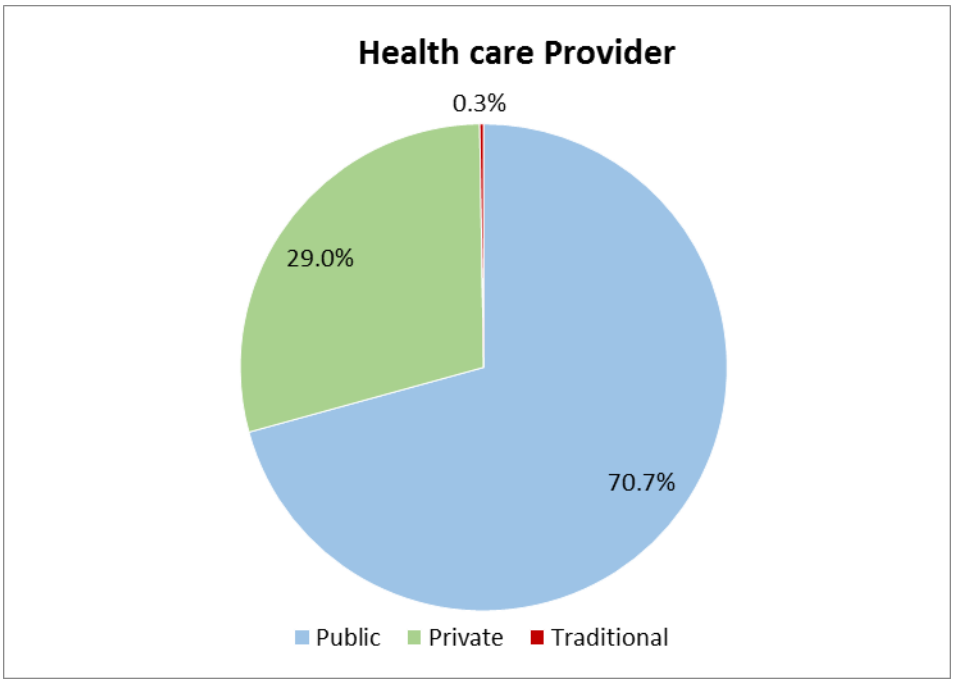
Source: NIDS 2008 (weighted)

4.3 Health Care Utilisation

Figure 4.2 describes the utilisation of health care providers within the sample. This is a basic description of utilisation and more inferences can be made about the influences of on utilisation when making comparisons between utilisation and the socio-economic factors.

Public health care was the most popular option (70.7%) and traditional healers the least reported. Traditional Healers could be under-reported as a result of social undesirability. A possibility could be that traditional healers are consulted for certain health conditions that people are uncomfortable discussing, or because consulting a traditional healer has a stigma attached to it.

Figure 4.2: Health Care Providers



Source: NIDS 2008 (weighted)

People might also consult traditional healers for issues not directly linked to health or conditions that that they do not recognise as being health related issues e.g. bad dreams or visions (psychiatric problems), difficulty conceiving (fertility problems). The low reported

use of traditional healers could affect the decision to use the results to make any inferences. The use of a small sample could have hindered reporting results for the use of traditional healers.

Table 4.3 describes the sample in terms of utilisation across the three health care providers by the study socio-economic variables. Across all three health care providers, higher usage was amongst women, respondents in the 25-44 year age group, the unemployed and respondents with some secondary schooling. Differences in utilisation of health care can be seen across a number of socio-economic variables, namely marital status, income and residence. Within public and private health care more married respondents reported utilisation health care in the last 30 days. However, usage of traditional healers was higher amongst unmarried respondents. Few respondents reported their income. However, income differences amongst the numbers of public and private health care users is quite clear. An increased number of respondents from lower income groups utilised the public health care, whilst private health care was more widely used amongst higher income individuals. There was an equal distribution among income groups using traditional healers. Respondents from rural areas was slightly higher except amongst users of traditional healers. Respondents from urban areas reportedly used traditional healers more.

The results in Table 4.3 indicate differences in the profile of users of health care in the last 30 days however, they do not indicate if these differences are significant and can merely be used as a description of the users. In terms of supply and demand barriers to health care these results also show interaction between socio-economic variables and barriers to health care utilisation. Viewing the results in terms of the theoretical framework there is evidence that socio-economic factors such as gender could act as a barrier to health care utilisation when looking at private care; or race when looking at utilisation of public health services. These results can provide a guideline in further analysis to organise data and choose reference groups. Unfortunately, the number of respondents in the sample who reported using traditional healers is too low to do additional analysis and measure the significance of the socio-economic variables. Drawing any significant conclusions from the results for traditional healers could possibly be better served via a mixed-method approach whereby qualitative data can be used to explain anomalies in results from quantitative study.

Table 4.3 Health Care Utilisation by Socio-economic Factors

Socio-economic Factors	Public		Private		Traditional	
	N	%	N	%	N	%
Age*						
15-24	435	74.7	144	24.7	3	0.5
25-44	831	65.5	435	34.3	3	0.2
45-59	789	71.6	313	28.4	0	0.0
60+ years	709	74.6	240	25.2	2	0.2
Gender*						
Male	755	65.1	402	34.7	2	0.2
Female	2012	73.1	734	26.7	8	0.3
Race*						
African	2215	74.4	757	25.4	7	0.2
Coloured	461	72.9	168	26.6	3	0.5
Indian	48	57.1	36	42.9	0	0.0
White	40	18.8	173	81.2	0	0.0
Marital Status*						
Married	1107	63.6	630	36.2	4	0.2
Widowed	458	78.4	125	21.4	1	0.2
Divorced/Separated	98	68.1	46	31.9	0	0.0
Never Married	1096	76.4	333	23.2	5	0.3
Income*						
Lower	223	72.9	82	26.8	1	0.3
Middle	73	39.5	112	60.5	0	0.0
Upper	19	9.7	175	89.7	1	0.5
Education*						
No Schooling	639	81.1	147	18.7	2	0.3
Primary School	973	82.0	211	17.8	3	0.3
Secondary School	1114	64.2	617	35.6	4	0.2
Tertiary	37	18.7	160	80.8	1	0.5
Employment Status*						
Employed	372	43.7	478	56.1	2	0.2
Unemployed	2395	78.2	658	21.5	8	0.3
Residence*						
Urban	1186	80.8	275	18.7	6	0.4
Rural	1278	63.6	729	36.3	4	0.2
Farm	303	69.7	132	30.3	0	0.0
n=3922						

Source: NIDS 2008 (weighted)

*Significant at $p < 0.05$

4.3.1 Funding Health Care- Medical Aid and Consultation Costs

This study adopted the socio-demographic approach to health care utilisation research and as such investigates health care utilisation as a function of social, economic and demographic factors. Although the costs associated with health care are not the main study variables, the theoretical framework for this study identifies the cost of health care as both an influence on the supply (provision) and demand (utilisation) on health care. Bearing this in mind it is pertinent to include a review on consultation fees and medical aid coverage to any study into health care utilisation. Table 4.4 describes medical aid coverage within the sample as well as in terms of health care provider used. Medical aid coverage was reported at 13% overall for all who had reported using health care in the last 30 days. As much as 87% of the sample did not have medical aid coverage yet 60.6% users of private health care were not covered by medical aid.

Table 4.4: Medical Aid Coverage and Health Care Utilisation

		Public	**Private**	**Traditional**	**Total**
Yes (%)	medical aid	11.7	88.1*	0.2	100.0
	health care provide**r**	***2.1***	***39.40***	***10.0***	
	of Total	1.50	11.40	0.0	13.0
No (%)	medical aid	79.5	20.2	0.3	100.0
	health care provider	***97.9***	***60.6***	***90.0***	
	of Total	69.2	17.6	0.2	87.0

Source: NIDS 2008 (weighted)

*Significant at $p < 0.05$

Despite a great proportion of private health care users not having access to medical aid, having medical aid coverage is seen to be significant factor in accessing private care (p =0.000) as the p-value is less than the level of significance of 0.05 (which is a standard value). Medical aid coverage in the population can also be accessed in terms of the health economics models whereby the demand for medical aid coverage can be viewed as a function of socio-economic factors. There is a greater probability of having medical aid if one is younger than 45 years old, male, white, married, at least have high school education, employed and not from a low income group. The results indicate that medical aid coverage could be viewed as a barrier to the demand for private health care and thus impact on the utilisation of private health. These results also indicate how socio-economic factors such as race, income, educational attainment through their impact on access to medical aid act as demand side barriers to health care utilisation.

The majority (83.1%) of respondents reported being charged consultation. The average consultation rate for private health care reported was R211.09. Consultation fees for public health care and traditional healers were lower at R51.09 and R118 respectively. These amounts though should be assessed with caution as treatment costs are dependent on the nature of treatment required. These amounts would be relevant and further understood if this study included information on the health concern being treated.

Health care users could choose health care providers based more on the condition being treated and the perception that the treatment they receive would be more adequately handled by a certain health care provider. Therefore, even the associated costs of private health care needs to be evaluated against the condition being treated and the user's perception of the health care provider.

4.4 Logistic Regression- Bivariate and Multivariate Analysis

The results from the bivariate (unadjusted odds ratio) and multivariate analysis (adjusted odds ratio) show how the socio-economic variables are reflected in health care utilisation. For the purpose of analysis, the independent variables categories were condensed. The choice of reference variables was influenced by literature, research interests as well as the context of the South African society.

4.4.1 Age

Age was analysed over two categories with respondents younger than 45 years and older than 45 years old. In the literature, older people are identified as been vulnerable due to declining health status associated with age as well as an increased vulnerability in terms of income if they do not have adequate funds to support them once they are no longer active in the labour market. However, in the South African context much of the burden of disease is within younger age groups. As this study is limited due to the non-inclusion of data regarding the nature of illness, nor reason for health care provider consultation, a greater focus on younger age groups would give insight into health seeking behaviour amongst this group. Using age groups younger than 45 years old as the reference, bivariate analysis found age to be a significant factor in health care utilisation. Results showed a difference in the age profile for users of public and private health care. Users of public health care were more likely to be older than 45 years old (0.94), whilst users of private health care providers were drawn from ages younger than 45 years (1.16). The results observed when using multivariate analysis were not significant, however the odds ratios did increase for the private sector (1.40). Increased likelihood that users of public health care providers were older was also evident in multivariate analysis as the odds ratio for ages younger than 45 years declined (0.70).

4.4.2 Gender

As gender differences often reflect instances of inequality in society males were chosen as the reference group as they represented a much smaller proportion of the sample and would provide insight into the utilisation of health care by an under-represented group. Private sector users were more likely to be male (1.30) and these results were found to be significant. In the multivariate analysis the significant results observed in bivariate analysis did not withstand and the likelihood that users were male declined (1.04). Gender was significant in influencing utilisation of public services, however results showed that when considered in multivariate analysis this was not the case and the probability of males making use of public services increased. Results for the public sector were 0.89 under bivariate analysis and 0.96 under multivariate analysis.

4.4.3 Race

South African history of apartheid made race a defining differential within the population as it determined where a person lived, who they could marry, where they went to school, what jobs they could have, what rights and services they could access as a citizen, etcetera. During the apartheid period the health care system was divided along racial lines and government prioritised health care provision for the White minority. Results from bivariate analysis showed distinct racial difference between the African majority and other race groups. Using Africans as the reference group bivariate analysis found that race was a significant factor in health care utilisation. Public sector users were more likely to be African (1.25) and private sector users were less likely to be African (0.63). However, the relationship between race and health care utilisation under multivariate analysis showed starkly different results. The results reflected users of private health care providers were more likely to be African (1.26) and within the public sector they were less likely to be users (0.80). Results from the multivariate analysis however were not significant.

4.4.4 Marital Status

Married was used as the reference variable to analyse the relationship between marital status and health care utilisation. The results from bivariate analysis showed that marital status was a significant factor in health care utilisation. Bivariate analysis showed that married people were less likely to use public health care (0.83), whilst users of private health care were more likely to be married (1.55). This relationship was still significant under multivariate analysis however, the likelihood that users of public health care were married declined (0.63) and increased slightly within the private sector (1.58).

4.4.5 Income

Income differences contribute to levels of inequality within society. Utilisation of health care was found to be significantly influenced by income in both bivariate and multivariate analysis. Using low income as the reference, results showed that in the public sector, users were three times more likely to come from low income households (3.01). In the private sector using bivariate analysis showed very low probability that users came from low income households (0.35). The effect of income on utilisation was further emphasised in the results from multivariate analysis. These results showed that users of public health care were eight times more likely to be from low income households (8.89). The likelihood that users of

private health care are from low income households declined in multivariate analysis to 0.11, further indicating the differences between the rich and poor.

4.4.6 Education

Secondary education was used as the reference as the majority of the sample had at least some level of secondary education. In bivariate analysis education was found to be a significant factor in utilisation of health care. Public sector users were less likely to have at least some secondary education (0.85), whilst private sector users were more likely to have at least some secondary education (1.49). However, in multivariate analysis this relationship was not significant and differed greatly from the bivariate analysis results. In the public sector users were more likely to have at least some level of secondary education (1.39) and private sector users were less likely to have at least some secondary education (0.72).

4.4.7 Employment

Employed was used as the reference variable to analyse the impact of employment status on health care utilisation. Results from the bivariate analysis showed that users of public health care were less likely to be employed (0.56), whilst users of private health care were twice as likely to be employed (2.61). These results were found to be significant, however in multivariate analysis employment had no effect on health care utilisation in both public and private sector (odds equal 1). These results from multivariate analysis though were not significant.

4.4.8 Residence

Urban was used as the reference group to investigate the impact of place of residence on health care utilisation. Using bivariate analysis found that the residence had a significant impact on health care utilisation. Users of public health care were more likely to be from urban residences (1.25), whilst users of private health care were less likely to be from urban residences (0.53). Results from multivariate analysis were not significant however they did show changes in the odds ratio. The likelihood of public health care users been from urban areas increased (1.64). Private health care users were less likely to be from urban areas, however in multivariate analysis the odds ratio increased (0.61).

Table 4.5 Regression analysis: The odds of utilising health care provider by selected socio-economic factors

Socio-economic Factors	Public		Private	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Age				
45+	0.94 (0.90-0.98)*	0.70 (0.48-1.03)	1.16 (1.06-1.28)*	1.42 (0.97-2.08)
<45	1.00			
Gender				
Female	0.89 (0.85-0.93)*	0.96 (0.67-1.39)	1.30 (1.18-1.44)*	1.04 (0.72-1.50)
Male	1.00			
Race				
Other	1.25 (1.19-1.33)*	0.80 (0.53-1.19)	0.63 (0.57-0.69)*	1.26 (0.84-1.87)
African	1.00			
Marital Status				
Not Currently Married	***0.83 (0.80-0.87)****	***0.63 (0.44-0.91)****	***1.55 (1.40-1.71)****	***1.58 (1.10-2.27)****
Married	1.00			
Income				
Middle and above	***3.01 (2.49-3.64)****	***8.89 (6.13-12.90)****	***0.35 (0.29-0.43)****	***0.11 (0.08-0.16)****
Lower	1.00			
Education				
Other	0.85 (0.81-0.88)*	1.39 (0.96-2.00)	1.49 (1.35-1.65)*	0.72 (0.50-1.05)
Secondary	1.00			
Employment Status				
Unemployed	0.56 (0.52-0.60)*	1.00	2.61 (2.39-2.86)*	1.00
Employed	1.00			
Residence				
Non urban	1.25 (1.21-1.30)*	1.64 (0.99-2.74)	0.53 (0.47-0.60)*	0.61 (0.36-1.01)
Urban	1.00			

Source: NIDS 2008 (weighted)

Confidence intervals in parenthesis

*Significant at $p < 0.05$

4.5 Summary

This chapter presented results from statistical analysis into the socio-economic factors affecting health care utilisation in South Africa. Public health care is by far the most widely accessed source of health care for majority of the population. However, the results reflect the disparities that are evident in South African society particularly inequality driven by income. Higher income groups have greater choice and freedom in accessing health care and medical aid. Marital status was also found to be a significant factor in health care utilisation. The support of a partner plays a role in accessing health care. The results indicate that demand side barriers to health care as outlined by Ensoor and Cooper (2004) are very much evident in the decision to utilise private and/or public health care in South Africa. In the following and final chapter, the results will be discussed and reflected upon in terms of literature and recommendations for research and policy.

CHAPTER 5

CONCLUSION

5.1 Introduction

This chapter provides a discussion on the results and provides a platform to make recommendations for further research and to inform evidence-based policy making. Ideas from literature was also incorporated to add relevance to the discussion by supporting research findings and highlighting areas of variance in the study. This chapter concludes the research by presenting the results and recommendations within the context of the theoretical framework and the study limitations.

5.2 Discussion

Recognition of the importance of increasing access to health care as a worldwide priority is reinforced by the concept of Universal Coverage as promoted by the WHO and the Sustainable Development Goals. Increased access to health care however can still be challenged by socio-economic factors, intrinsic inequalities evident within a society and society notions regarding treatment and management of illness. The South African health care system has struggled to transform from the apartheid era that entrenched inequality within our society. The socio-economic differences in society are reflected not only within the population, but within the provision of services. Public health care is characterised by systemic problems such as mismanagement, inadequate supply of medication, poor facilities and equipment, under staffing etc. (Jardien-Barboo et al., 2016). The growth in private health care due to an underperforming public sector has further entrenched divisions within society. High costs associated with private health care divide the health care system based on the ability to afford to pay for health care. As a result of this unequal health care system, user perceptions are subjective. Households who used private health care providers reported greater satisfaction with the service provided than households who made use of public health care (Statistics South Africa, 2016:23). This study set out to investigate the socio-economic factors influencing health care utilisation in South Africa utilising quantitative methods and secondary data from NIDS Wave 1 (2008). The study was able to use data that had national representation of the population. Having a data set that includes respondents from across the country is useful in presenting findings that reflect a national perspective. Quantitative data is beneficial in terms of making generalisations about a broader base, but unfortunately it lacks

the capability to cement an understanding of specific issues on a deeper level. Employing quantitative methods was a suitable option as reporting on health care utilisation is well suited to representing results using descriptive statistics and numerical measurements.

The aim of this study was to describe socio-economic differences in health care utilisation across public and private services by:

- investigating the socio-economic influences on health care utilisation across public and private services
- outlining the use of medical insurance coverage

Socio-economic factors in this study were defined by eight variables which incorporated demographic, economic and social references. These variables formed the independent study variables that would be used to report on health care utilisation

Gaining meaningful results for the utilisation of TM was unfortunately challenged by the use of quantitative methods due to the small number of respondents who reported using TM. Only 0.3% of health care utilisation in the last month could be contributed to TM. It is however difficult to assess the validity of the low reported utilisation of TM as a source of health care. The findings are however comparative with similar findings from The General Household Survey conducted by Statistics South Africa where utilisation of a traditional healer in case of illness or injury was found to be low. Only 0.5% of households indicated using a traditional healer (Statistics South Africa, 2016:23). Peltzer (2009) in a review of published and unpublished research on the use of traditional medicine and complementary and alternative medicine found a decline in the reported use in South Africa over a thirteen year period. Unfortunately reporting on results of TM as a source of health care would not yield much in order to understand the impact of socio-economic factors on the utilisation of TM. The complex definition of TM, incorporating both curative and preventive practices, in the treatment of both psychological and physiological complaints is indicative of the challenge researchers would face in obtaining comprehensive data regarding the utilisation of TM.

The study population was drawn from all adult respondents who took part in the 1st Wave of NIDS and of those respondents 3922 formed part of this study sample. All respondents who

reported consulting about their health in the last 30 days formed the sample against which further analysis was conducted. The NIDS data is weighted to be representative of the population across race groups and this would explain why there were higher numbers of Africans who reported seeking health care, 76.2%. Users of health care in South Africa followed similar gender trends observed around the world. Across all three health care providers, higher usage was amongst women, respondents in the 25-44 year age group, the unemployed and respondents with some secondary schooling. This profile of users speaks to both social issues and health issues in society. Firstly, it calls for greater emphasis on securing the health of people who would fall into the working age groups and secondly, for greater protection for vulnerable members of our society e.g. the unemployed. These results also call for policy makers to further investigate these matters from the health economics theory framework and see how these socio-economic factors are acting as barriers to utilisation of health care.

The distinct socio-economic and demographic differences evident in South African society are evident in attitudes regarding health and seeking treatment as well as interaction with health care providers. Gender stereotypes that shape the attitudes of men and women with regard to health and seeking treatment indirectly would impact on the use of services and choice of health care provider. In their study Van der Hoeven and colleagues observe differences in health care seeking behaviour in urban and rural settings in South Africa noted the greater participation of women in their study could be linked to society viewing women as being in greater need of care, if not for themselves then for those in their care (Van der Hoeven et al., 2012). The study population consisted of 70.3% women and 29.7% men. The distinct gender stereotypes that shape the attitudes of men and women with regard to health and seeking treatment indirectly would impact on the use of services and choice of health care provider. In their study, Noone and Stephens (2008), note that respondents identified women as more frequent users of health care services. The study incorporated in-depth interviews with men and respondents had clear opinions on regarding frequent use of health care as “typical” behaviour of women. The study results indicate a possible preference for private care and this could be understood as gender acting as a barrier to demand for utilisation of not only health care, but public health care in particular.

The average age for the sample was 45 years with the majority of health care users falling between 35-45 years of age. Health care utilisation was affected by age in terms of differences in the need for health care across age groups. Older people generally are found to

have a greater need for health care. Patterns of utilisation of health care services by elderly people can be attributed to mortality, or the process of dying which results in increased health problems as people age. It can be inferred that it is the process of dying that has a greater impact on health care utilisation than aging (Larsson et al., 2008:355). Larsson and colleagues (2008) point out an important observation on health care utilisation and emphasis that utilisation and choice of health care is dependent on the state of health and barriers to health care. Age could therefore see varied preference and utilisation of health care, not only based off age preferences but also barriers to health care that could be more evident at different ages, and the state of health. Results from this study could indicate that the need for health care is greater amongst people in the ages 35-45, and this could be more of an indication of the need for health care due to their health status or the condition being treated.

More married people reported consulting about their health, making up almost half of the sample (44.6%), and this corresponds with age profile of health care users in the study. Unmarried respondents also showed great utilisation of health care with as much as 36.8% unmarried respondents indicating they had consulted someone about their health in the last 30 days. Utilisation of TM was also greater amongst unmarried respondents. These results are interesting and would benefit from reflection in conjunction with the reason for consultation. It would particularly interesting to understand health care utilisation for the unmarried in terms of accessing health care for sexual, reproductive health concerns.

Unemployed respondents made up 78.3% of the sample. Corresponding income and education levels for the sample show low levels of income and education for most respondents. Generally, a low level of education was observed but the majority of the sample had at least some level of secondary education (44.4%) and only 5.1% of the sample had tertiary education. Health literacy defines the "degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Sudore et al., 2006: 770). From the definition of health literacy, it is proposed that decisions about whether to seek care and where to seek care would be influenced by the individuals understanding of the status of their health and the services available to them. In the South African context with free services available at the primary care level low levels of income and education should not necessarily be seen as demand barriers to health care utilisation in the public sector. In this regard understanding how these barriers are overcome when users fitting this socio-economic profile make use of

private care would be beneficial and call for further studies making use of qualitative research methods.

More than half of the sample (51.4%) was made up of respondents from rural areas. High demand in rural areas for health care indicates a need for a health care system that has a wide geographic reach and could likely be indicative of discrepancies in health status between rural and urban residents. McClaren et al., (2014) reflect on the lack of impact that transformation in the health care sector has had on rural residents in South Africa due to income inequality and access to services. The higher odds of utilising private care for non-urban residents, though not significant under multivariate analysis, could support a study by Rice and Smith (2001) which proposed that barriers to access for rural residents could see them forgo medical treatment or make use of other alternatives

Ensoor and Cooper (2004) in their model of the supply and demand barriers to health care utilisation identify price as a factor affecting the decision whether to seek treatment, or where to go for treatment, as well as whether treatment is made available. Consultation fees were reported to have been charged by 83.1% of respondents. Of those who had reported being charged a consultation fee the average rate for private health care was R211.09. Consultation fees for public health care and traditional healers were lower at R51.09 and R118 respectively. These amounts though should be assessed with caution as treatment costs are dependent on the nature of treatment required. The results would have also been more insightful if they could have reflected how much of this could be attributed to the effect of additional payments not covered by medical aid. The study results showed that there is a greater probability of having medical aid if one is younger than 45 years old, male, white, married, at least having high school education, employed and not from a low income group. Such results reinforce the need for a national health insurance policy as this indicates that the less fortunate- lower income groups, disadvantage groups (e.g. Black, unemployed) are more likely to experience barriers to demand for health care. And as such, these amounts would be further understood if this study included information on the health concern being treated.

Therefore, the cost of treatment for private health care is concerning especially in the light of the high number of private health care users who do not have medical aid. As much as 87% of the sample did not have medical aid coverage yet 60.6% users of private health care were not covered by medical aid. Price and access to medical aid therefore are not barriers to

utilisation in the private health care sector. Medical aid does ease some of the burden associated with accessing private health care, however it is not always comprehensive cover. Some medical insurance plans are merely hospital plans which do not take into account day to day medical expenses. Medical aid insurance also caps its benefits available for routine medical expenses and over the counter prescriptions drugs. Ataguba and Goudge (2012) found that members of medical aids contribute as much as 60% of out-of pocket payments in the South African health care system. Thus, even with medical aid coverage there is still an element of vulnerability when ill and this bolsters the cause for national health system as with a fully functioning public health care system all citizens can be assured of good quality treatment.

The relationship between the socio-economic variables and health care utilisation in the public and private sector was further studied using bivariate and multivariate analysis. In the demand and supply model to health care utilisation proposed by Ensoor and Cooper (2004), the socio-economic variables form the demand side of the model. And in keeping the supply constant, these would be the factors that would influence health care utilisation. The results from the bivariate and multivariate analysis show how the socio-economic variables are reflected in health care utilisation. For the purpose of analysis, the independent variables categories were condensed. Under bivariate analysis all the variables were shown to have a significant impact on health care utilisation. Demand by users of public health care was characterised significantly by race (users are 1.25 times more likely to be African); income (users are 3.01 times more likely to be from lower income groups); and residence (users are 1.25 times more likely to be from urban areas). The results speak to the crisis in the public health sector and the pressure to increase the supply of health care.

In the private sector though all socio-economic variables were significant, the results for a few variables spoke directly to inequalities in our society and how these could act as barriers to demand. Demand by users of private health care was characterised significantly by employment status (users are 2.61 times more likely to be employed); age (users are 1.62 more likely to be younger than 45); gender (users are 1.30 more likely to be male); race (users are 0.63 less likely to be African); income (users are 0.35 less likely to be from low income groups); education (users are 1.49 times more likely to have secondary education); and marital status (users are 1.55 times more likely to be married).

Using multivariate regression analysis did not indicate all 8 of the socio-economic variables as being significant in influencing health care utilisation. Under multivariate analysis only marital status and income were significant. In the public sector users were 0.63 times less likely to be married, where as in the private sector users were 1.58 time more likely to be married. Income is seen to significantly drive the demand for health care and under multivariate analysis the results are even more alarmingly. In the public sector users were 8.89 times more likely to come from low income groups, whereas in the private sector users were 0.11 times less likely to come from low income groups. It is however, important to view results from income with caution as the study reported quite a high level of non-response to income. The effect of missing income data could be minimal due to the sample showing many homogenous characteristics and the short reference period. Income can change over time and by using a short reference period this hopefully minimised the effect of non-response and thereby making reference to the relationship between health care utilisation and income more plausible for this sample. Income is an extremely important factor in health research and has been identified as a barrier to demand for health care, therefore it is important to consider these results. The above results are more concerning when one looks at them in relation to other socio-economic variables. Using multivariate analysis employment was seen to have no relationship to health seeking in either public or private health care (odds =1), which could be understood in terms of health status and need for treatment.

Though not significant the relationship between race and health care utilisation in the private sector is different using multivariate analysis. In multivariate analysis users of private health care are 1.26 times more likely to be African. Similarly, results for education show that users of private health care are 0.72 times less likely to have at least a secondary level of education. These results suggest that the demand for private health care is high amongst poor Africans with low levels of income and education. These results are similar to study findings by Knight & Maharaj (2009) into health care utilisation among Africans in KwaZulu-Natal which revealed that a high number poor, uninsured respondents made use of private health care. Accessing expensive private health care for this group very likely has major cost implications especially without the buffer of medical aid to mitigate the costs.

5.3 Recommendations and Conclusion

The government's strides towards establishing universal health coverage in the health care sector via the NHI is indicative of the importance of population health. Though transformation within the health care sector in South Africa has been underpinned in the Constitution and evident in a number of important legislative revisions to increase and improve access to health care, it is still difficult to assess the progress made in addressing inequalities within the health sector. Results from the study show that utilisation is driven by individuals having a good social support system i.e. the support of a spouse and the income to access health care. The study results further suggest that with the high costs associated with private health, a number of poor South Africans are still choosing private health care over public health care. Results show that the utilisation of public sector health care providers is characterised by high numbers of poor, mainly female users. The study highlights the inequalities evident in our society and questions how effectiveness of the public health sector reforms. Although democracy promoted equal access to private health care in terms of racial divides an inadequate, overburdened public sector has seen more poor people making use of private health care. The costs associated with health care should hopefully be alleviated by the introduction of the NHI. However, notwithstanding the costs associated with accessing health care, both public and private health care providers can address a number areas of improvements. These areas need to be addressed in terms of viewing differences in utilisation of health care as an indication of the demand side barriers to health care, which are particularly difficult to address as they speak to factors that are challenging to address through policy. Nonetheless, the ideas expressed below could be taken up to address some of the demand side barriers to health care utilisation in both the public and private sector.

Some recommendations:

- Health promotion which incorporates preventative health screening can encourage young adults to manage their health to alleviate the early onset of disease
- Education and awareness programmes regarding available services at public health care providers can address and combat negative perceptions about treatment and services
- Male-friendly programmes can create comfortable environments for men
- Private health care providers could incorporate policies that promote a more inclusive environment that does not alienate users with low income or low levels of education

(e.g. include information in African languages, have more African specialists/physicians etc.)

More research needs to be done into understanding health care utilisation, in particular in the areas of Traditional Medicine. Studies should also include retrospective data when investigating health care utilisation. Almost half of the NIDS respondents had consulted about their health in a period spread over two years and as much as 11% had reported never consulting about their health. Including such data would give insight into the health status of the population, views around illness and how illness is treated and managed, and the impact of health reform policies. Although this study explored health care utilisation in terms of the demand and supply model of health care utilisation, this model though does not account for health status. Due to the great impact of HIV/AIDS in South Africa understanding health care utilisation and the impact demand factors play in the utilisation of public or private health care, needs to include the need for health care. Policy makers therefore need to take a broader view of health care in the development of policies to reform the health sector. The burden of disease as well as the socio-economic influences across different groups of our population also require consideration. By so doing, policy makers will be better informed and more capable of producing evidence-based policies that will be effective in bringing about reform in the South African health sector.

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