

# **Socio-Economic Inequalities in the Multiple Dimensions of Access to Healthcare: The Case of South Africa**

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*Background:* The National Development Plan's (NDP) strives that South Africa, by 2030, in pursuit of Universal Health Coverage (UHC), achieve a significant shift in equity, efficiency and quality of health services provision. This paper assesses the extent of socio-economic inequalities in health and healthcare across various dimensions of access to healthcare using an integrated conceptual framework.

*Data:* The 2011/12 South African National Health and Nutrition Examination Survey (SANHANES-1) collected data on a variety of questions related to health and healthcare utilisation and satisfaction, with a household module collecting information on housing infrastructure and asset ownership.

*Method:* A wealth index was constructed for each household. Study outcomes were compared across wealth quintiles using an F-test, while a range of concentration curves and indices was calculated using Stata's *conindex*.

*Findings:* In terms of healthcare needs, good and ill health are concentrated in the non-poor (CI +0.074,  $p<0.001$ ) and poor (CI -0.043,  $p<0.001$ ), respectively. The non-poor perceives a greater desire for care than the poor (CI +0.061,  $p=0.021$ ). However, unmet need is concentrated in the poor (CI -0.035,  $p=0.028$ ). The socio-economic divide in the utilisation of public (CI -0.231,  $p<0.001$ ) and private (CI +0.247,  $p<0.001$ ) healthcare services remains stark. The poor are less satisfied with outpatient care (CI -0.045,  $p=0.019$ ), healthcare services (CI -0.056,  $p=0.008$ ) and healthcare provision (CI -0.054,  $p=0.008$ ).

*Conclusion:* The broader health system remains characterised by deep inequalities across the different dimensions of access to healthcare. National Health Insurance (NHI), when implemented effectively, promises to play an important role in bringing quality healthcare services to the economically disadvantaged.

*JEL codes:* I14, I15

*Keywords:* health inequality, healthcare, wealth index, concentration index, South Africa

## 1. Introduction

According to the World Bank, South Africa has a Gini coefficient of between 0.66 and 0.70, making it one of the most inequitable countries in the world (World Bank, 2016). Studies have found that health problems tend to be more severe in countries with wider socioeconomic income distributions (Elgar, 2010). This is evident given the dual nature of the South African healthcare system that favours the advantaged proportion of the population in terms of private healthcare whilst the disadvantaged are heavily dependent on the scarcely resourced public sector (Ataguba, Day, & McIntyre, 2014; National Department of Health, 2015; Okorafor, 2012).

Constitutionally, everyone in South Africa has the right to access healthcare (South Africa, 1998). Yet, the South African healthcare system is characterised by a number of health disparities. These included but are not limited to maternal and child health inequalities (Nkonki et al., 2011; Wabiri et al., 2016), disparities between ethnic groups (Charasse-Pouélé and Fournier, 2006), ill-health and disability (Ataguba et al., 2011) and mental healthcare (Das-Munshi *et al.*, 2016), the brunt of which fall on the least advantaged in the population.

Needless to say, over 1 billion people in low- and middle-income countries, are unable to afford healthcare services (World Health Organisation, 2010). In the particular case of South Africa, many face a multitude of access barriers and are unable to obtain their required healthcare (Harris et al., 2011; McLaren et al., 2014; Myers et al., 2010).

Looking specifically at the term “access” Levesque et al. (2013) describe a contextual framework beginning with the perception or identification of need for healthcare to the realisation or use of required care. With the aid of this definition of access, this thesis outlines healthcare variables that fit into the different dimensions or stages under the umbrella conceptual framework of access and measures the extent of inequality in these outcomes.

In what follows is an in depth look at the literature on inequality found in South Africa as well as an outline of the selected methodology, which includes an appropriate definition and explanation of the conceptual framework. Thereafter, follows a presentation of the results, then the discussion and lastly a conclusion.

## 2. Literature Review

The following section provides an in depth look at the South African literature on health inequalities.

McIntyre et al. (2006) suggest that the current inequitable state of the South African healthcare system is as a result of the polarisation and commercialisation of the sector during Apartheid. Consequently, the authors describe a system where the white high-earning, minority had access to the private sector and the black low-income earning; majority depended on the public sector. Data from the October Household Survey for 1995 and 1999 was used to conduct analysis over the four-year period. Within this period private sector utilisation increased across all racial groups while public use declined, fuelling the argument for a continued commercialised health sector segregated by socioeconomic position instead of race. Notwithstanding, the African and Coloured populations continued to be the majority users of public healthcare and the white population of private healthcare.

In support of this, more recent work by Mayosi et al. (2014) found that expenditure in the public sector was one tenth that of the private sector in their post-apartheid examination of healthcare. Results showed that 84% of the uninsured population was dependent on the public sector that was staffed by only 30% of the country's pool of doctors, whereas 16% of the insured population was serviced by 70% of the full-time private sector doctors. Added to this, 25% of the uninsured paid out-of-pocket in order to access private healthcare. Research conducted by Buisman and García-Gómez (2015) found the income gradient of inpatient healthcare utilisation to be pro-rich. After examining data from the South African World Health Survey (WHS) it was found that race was the most significant contributor to socioeconomic inequality in in-patient healthcare utilisation. To a lesser degree than race, gender and education were significant contributors. In their concluding remarks the authors stressed the divide between the public and private sectors, much like their counterparts (McIntyre *et al.*, 2006; Mayosi and Benatar, 2014) and called for the implementation of National Health Insurance (NHI).

The severity of unequal income distribution led Ataguba et al. (2011) to investigate socioeconomic inequality in health in South Africa. With the use of several rounds of the South African General Household Surveys (GHS) it was found that ill-health and

disability manifested to a greater degree in the lower socio-economic group compared to the wealthier group. Added to this, the study found that the lower socioeconomic groups carried the burden of non-communicable diseases such as diabetes, which is usually considered a disease of affluence. Ataguba and McIntyre (2013), after consulting the South African Consortium for Benefit Incidence Analysis (SACBIA) survey, found healthcare need to be misaligned with service benefits. They discovered, much like Ataguba et al. (2011), that lower socioeconomic groups benefit less than their wealthier counterparts from public and private healthcare services.

On the same note, Nkonki et al. (2011) found a socioeconomic gradient to exist in child healthcare outcomes. The study used child mortality, HIV transmission and vaccination coverage as their selected variables measured within a cohort study of mother-child pairs in three designated sites in South Africa. High levels of deprivation were reported between the least and the most poor for each child healthcare outcome, including the availability of infrastructure. Results showed the main contributors to inequality to be socioeconomic position and type of residential area. Zere and McIntyre (2003), in a study on child health inequality, also found stunting to be the most prevalent form of malnutrition in South Africa. Findings showed that children from the poorest group suffered up to 3% and 8% more than the wealthier group from underweight and stunting. In addition, those identified as African by ethnicity had the highest reported rates of children who are under-weight for their age and suffer from stunted growth.

Disparities in deprivation and impoverishment have been measured geographically. Research by Mathee et al. (2009) on five housing settlements in Johannesburg<sup>1</sup>, found multiple risk and disease burdens to be higher among the urban population in the study. Results showed that the poorest community reported the poorest outcomes. Respondents living in Hospital Hill were heavily afflicted by community violence; mental and physical ill health as well as mortality.

Focused instead on urban-rural disparities Booyesen (2003) found the argument in favour of better healthcare in urban areas not to always hold. With the use of data from the 1998 South African Demographic and Health Survey (SADHS), findings showed levels of service delivery to be consistently worse in rural areas but in some cases

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<sup>1</sup> Hillbrow, Bertrams, Riverlea, Braamfisherville, Hospital Hill

worse in urban areas. The public-private divide was emphasised with evidence suggesting that those living in rural areas were more dependent on the public sectors for healthcare services. In a similar study, Ward et al. (2014) found, with data from the National Department of Health and the South African Pharmacy Council in all 9 provinces and 15 districts, urban provinces to be more densely populated with community pharmacies than rural areas. Added to this, density was 8 times higher in the least deprived districts than in the more deprived districts, this revealing considerable inequality in access to pharmacy services.

Rural areas appear to be most severely affected by health inequalities as reported by Wabiri et al. (2013), who conducted research on maternal equity in South Africa. After data from the South African National HIV Prevalence, Incidence, Behaviour and Communication Survey (SABSSM) was analysed, results showed women living in formal rural areas received the least antenatal care or completed all four rounds of antenatal care visits; were least likely to be tested for HIV and have a skilled attendant at birth. Moreover, even though women classified as poor received equal antenatal care, 2.7 more women in the wealthier socioeconomic quartile had an antenatal consultation prior to 20 weeks gestation. Additionally, what the study made evident was the difference in maternal health status reported by designated race groups. Overall, evidence showed maternal healthcare utilisation to be equal across socioeconomic quartiles and in some instances favoured the poor. Contrary to these findings, a more recent study found an increase in maternal healthcare inequality over time (Wabiri *et al.*, 2016). The study compared 2008 and 2012 household survey data and found an overall rise in inequality. The longitudinal analysis showed that antenatal clinic attendance, skilled birth attendant and doctor present at birth were more unequally distributed in 2012 compared to 2008. Furthermore, although nationally, more mothers reported having planned their pregnancy and had tested for HIV, on observation these numbers were relatively low in the poorest quartile.

Indeed, the poor seem to be carriers of the burden. Research finds multi-morbidity to be more prevalent among the poor in South Africa. Ataguba (2013) found with the use of 2005, 2006, 2007 and 2008 General Household Surveys (GHS), the poor to be more prone to multi-morbidity in illness and disability. Ultimately, findings show the burden of multi-morbidity to be greater for disability than for illness on the poorest in the population.

Charasse-Pouélé and Fournier (2006) assessed racial segregation with the examination of direct and indirect racial effects on self-rated health between different race groups. According to the study, the white population are more adequately equipped to respond better to health risks associated with lower education levels, gender and age compared to the black population. Kon and Lackan (2008), in another study, reported the inability to access water or food as the largest inhibitor to accessing healthcare. They found more Africans and Coloureds had gone without food in the past year than White and Asian people.

A similar study, focusing on racial disparities but instead with an emphasis on mental health, found that a poverty gradient associated with common mental disorders (CMD) and Post Traumatic Stress Disorder (PTSD) exists across all racial groups (Das-Munshi *et al.*, 2016). Additionally, after the use of a random sample of metropolitan adolescents aged 14-15 years, respondents categorised as black and coloured were more inclined to CMD and PTSD.

Over 1 billion people in low- middle income countries are unable to access needed healthcare because of their inability to afford it (World Health Organisation, 2010). The response, “not having to pay” contributed towards over half of the reasoning behind using public healthcare compared to less than 5% for private healthcare (Harris *et al.*, 2011). Inaccessibility to healthcare has been a major concern in South Africa and has alarmed the need to move towards universal coverage (Ataguba *et al.*, 2014; Buisman & García-Gómez, 2015; Harris *et al.*, 2011). Harris *et al.* (2011) also reported, with the use of a primitive household survey, that those living in rural areas; individuals regarded as poor in socioeconomic terms; people who don’t belong to a medical aid scheme or can be classified as black Africans face the greatest barriers to healthcare access. It was estimated that 21.1% of the poorest in comparison to 1.1% of the wealthiest delayed seeking healthcare due to insufficient transport costs. Barriers to healthcare due to inhibiting transportation costs delayed immediate healthcare for 18.2% of children under the age of 6, 13.8% of the uninsured and 1% of the insured.

McLaren (2014) estimated with the use of the National Income Dynamic Survey (NIDS), that 14% of black African adults live over 5km away from the nearest healthcare facility in relation to only 4% of the white population. Added to this, black South Africans are 16% less likely to report a health consultation and 47% less likely

to visit a private healthcare facility. In other findings, after a case-control study was conducted in a disadvantaged community in Cape Town, it was reported that the poor had inequitable access to substance abuse treatment (Meyers et al., 2010). Furthermore, non-need factors such as geographical and financial barriers as well as knowledge of existing facilities were major contributors to the utilisation of treatment facilities.

### 3. Methodology

In what follows, health inequalities are first defined, followed by a presentation of the conceptual framework and a description of the wealth index employed in the inequality analysis. In conclusion, the section describes the main methodologies of concentration curves and indices and the data employed in the analysis.

#### 3.1 Health Inequality

Whitehead (1991) provides a frequently cited definition for inequity/inequality/disparities (Adler & Stewart, 2010; Asada, 2005; Braveman, 2006; Masseria et al., 2010). Strictly speaking, inequity has moral and ethical foundations, in other words, differences are not only regarded as unnecessary and avoidable but are considered unjust and unfair. Asada (2005), on the other hand, offers a simpler explanation for the terms with the use of health distribution. Accordingly, health distribution is the spread of health across the population, equity is equality in health dispersion (although unfeasible and undesirable) and inequality/disparity are unequal health distributions. Using this as a starting point, a reduction in health inequality benefits health equity.

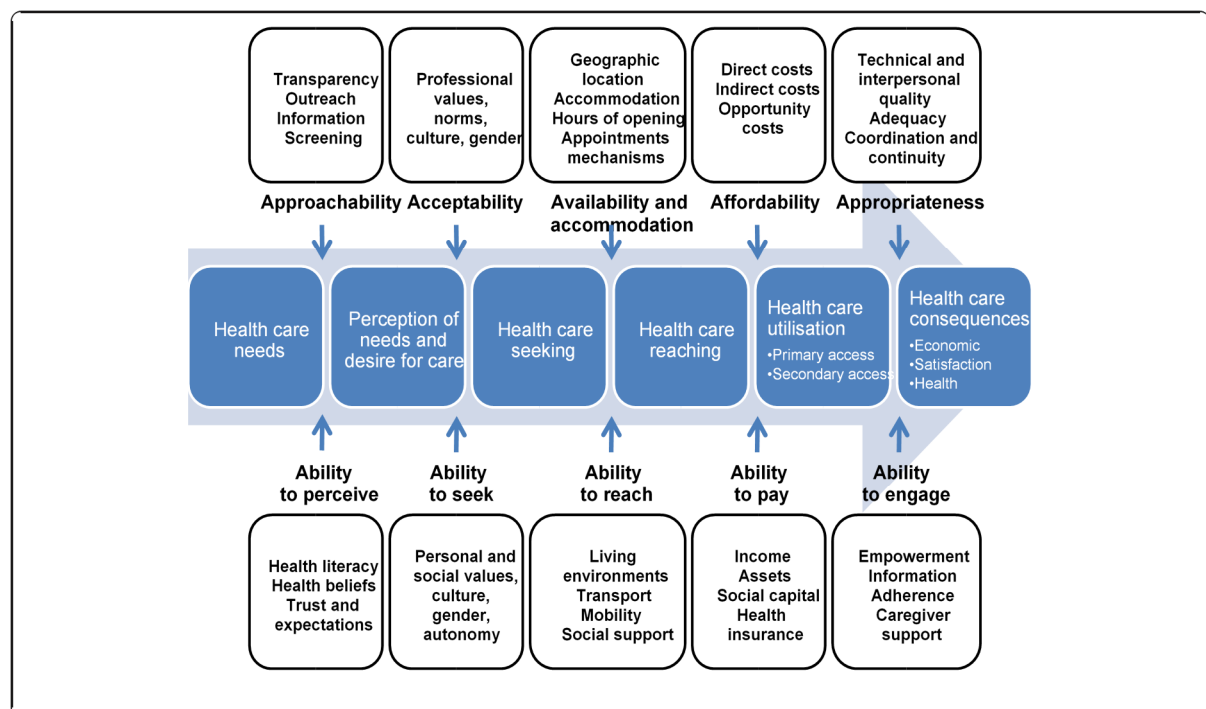
Braveman (2006) instead proposes a concise definition or guide to the measurement of inequality/disparity from a number of definitions provided in the literature. Health disparity/inequality (used interchangeable) is an avoidable difference in health or a determinant of health that can be altered by policy. Inequalities are what distinguishes disadvantaged social groups (or groups who systematically experience worse health or higher health risks) from advantaged social groups. These differences are particularly unjust as it puts those in society who are already vulnerable (e.g. the poor, minority ethnic groups and immigrants, woman) at an even greater disadvantage or risk with regard to their health, disempowering them from escaping their already adverse

societal circumstances. Health inequality as a systematic, unnecessary or avoidable difference in health or in a factor that influences health that is amenable by policy, between people stratified by social position (i.e. wealth, power or prestige) is the definition adopted in this study.

### 3.2 Conceptual framework

There are multiple ways in which to describe access to healthcare. This study uses the framework adopted by Levesque et al. (2013) (Figure 1). The authors define access as realised utilisation. More intrinsically, as the perception of need for care, healthcare seeking, reaching and obtaining (or postponing) care, the type and quality of service utilisation, and the aftermath or result of service use. Accordingly, these steps or sequences can potentially reveal access barriers between transitions' dimensions.

**Figure 1: Dimensions of access to Healthcare: A Conceptual Framework**



Source: Levesque et al. (2013:5)

Along the pathway of healthcare need realisation, there are five influential accessibility dimensions and five personal abilities dimensions. The service accessibility sphere include Approachability; Acceptability; Availability and Accommodation; Affordability; and Appropriateness. On the other side, the dimensions that affect a person's ability to obtain healthcare are their Ability to perceive; Ability to seek; Ability to reach; Ability to



pay; and Ability to engage. Given the broad dynamics of this definition, this study uses proxies that best fit the applicable stages or dimensions of inequality in access to healthcare.

In addition, McIntyre et al. (2009) provide a similarly multi-dimensional conceptual framework on access that is relevant to low – and middle-income countries. According to the authors, access to care is the empowerment or ability of an individual to use healthcare. It is described as based on the interaction between individuals, households or the community and the healthcare system. The dimensions of access identified by the authors include availability, affordability and acceptability, which influence the interaction or degree of fit between the individual and the health system. The framework for this study is much the same, but differs in that additional dimensions are adopted to give a more in-depth view of access to healthcare.

### 3.3 Wealth Index

To investigate the socio-economic gradient across health care users descriptively, a wealth index and corresponding wealth quintiles were constructed by applying Multiple Correspondence Analysis (MCA) to the household survey data. Use was made of a total of sixteen variables, including housing type, water and sanitation services, and asset ownership.<sup>2</sup> The percentage inertia explained by the first dimension is approximately 90%.

### 3.4 Concentration curves and indices

In measuring health inequality, the literature provides six sets of methods, which include the (a) range, Gini coefficient and Lorenz curve, (b) a pseudo-Gini coefficient and pseudo-Lorenz curve, (c) the index of dissimilarity (ID), (d) the slope index of inequality (SII), (e) the relative index of inequality (RII) and (f) the concentration index

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<sup>2</sup> The full list of thirteen assets is as follows: ownership of a fridge, television, stove, mobile phone, radio, DVD, washing machine, computer, DSTV, motorcar, vacuum cleaner, and telephone (landline), internet access. Multiple imputation by iterative binomial and multinomial logistic regression analysis, applied using Stata's *mi* function, was employed to deal with item non-response. Asset ownership was imputed as a function of the ownership of the twelve other assets, whereas housing type was imputed from information on the material of the wall and roof of a dwelling. The wealth index is the average index value calculated across each of the 10 iterations.

(coupled with the curve) (Wagstaff et al., 1991). Both Wagstaff et al. (1991) and Van Doorslaer et al. (1997) give three basic criteria for an index of inequality in health. These requirements include, (i) that it is reflective of the socioeconomic dimensions of health inequality, (ii) that it portrays the experience of the entire population, and (iii) that it be sensitive to changes in the distribution of the population across socioeconomic groups. Only the relative index of inequality (RII) and the concentration index (C) satisfy the minimum criteria for a health inequality measure. Furthermore, the slope index of inequality (SII) and the generalised concentration index is appropriate in cases where absolute inequality is of interest.

The concentration curve plots the accumulative proportion of the population by socioeconomic status (SES), beginning with the least advantaged and ending with the most advantaged, against the accumulative proportion of health or ill health. The line of equality or the diagonal signifies the absence of inequality. If the curve lies above the line, ill health falls on the least advantaged in the population, and if it lies below, the more advantaged. The further the curve lies from the diagonal the greater the degree of inequality. The concentration index is defined as twice the area between the curve and the line of equality. It takes on a positive value when it lies below the line of equality and a negative value when it lies above. A positive value can be interpreted as the concentration of health on the rich and a negative value on the poor. The minimum value the index can take is -1 and the maximum value is +1, should the index be equal to zero no inequality exists and the curve lies on the diagonal (Van Doorslaer et al., 1997; Kakwani et al., 1997; Wagstaff et al., 1991).

Donnell et al. (2016) in their introduction of the *conindex* command provide detail recommendations regarding the appropriate concentration index to use when dealing with different types of variables. The exact purpose of the *conindex* command is to generate a number of concentration indices giving the analyst independence and subjectivity to select the appropriate index given the measurement properties of the data and underlying equity principles. The standard concentration index is suitable for variables with a ratio scale, as the generalised concentration index changes its proportionality.

$$C(h|y) = \frac{2cov(h_i, R_i)}{\tilde{h}} = \frac{1}{n} \sum_{i=1}^n \left[ \frac{h_i}{\tilde{h}} (2R_i - 1) \right] \quad (1)$$

, where  $C$  is the standard concentration index,  $h$  is the healthcare variable  $\tilde{h}$  is the mean of the healthcare variable and  $R_i$  is the  $i$ th- ranked individual in the socioeconomic distribution from the poorest to the richest (O'Donnell et al., 2016).

Bounded variables, on the other hand, complicate the measurement of inequality. Given that bounded variables can take the form of attainments or short falls the mirror property that requires absolute values of health  $I(h)$  and ill health  $I(1 - h)$  to be equal with different signs, is not satisfied with the standard concentration index (Donnell, Neill and Walsh, 2016). In this regard, best practice concerning variables with a limit is the use of the Erreyger concentration index. The index is desirable as it satisfies all four properties required for a bounded variable. That is, it is transferable; satisfies the mirror property; also it is cardinal and equi-proportional invariant (Kjellsson and Gerdtham, 2013).

### 3.5 Data

Data analysis was conducted using the 2012 South African National Health and Nutrition Examination Survey (SANHANES-1). The object of the survey was to examine the current health and nutrition status of South Africans in relation to NCD prevalence and their associated risk factors. For the purpose of the survey, 500 Enumerator Areas (EA's) were identified from the 2007 HSRC Master Sample of 1,000 EAs selected from the 2001 population census, representative of the demographic profile of South Africa. Thereafter, 20 visiting points were randomly selected from each EA totalling a sample of 10,000 visiting points. Of the 10,000 household (VP's) sampled, 8,168 were valid households from which 6,307 (77.2%) were successfully interviewed. From the total number of valid households who gave participation consent, 27,580 individuals were eligible for interview. Overall, 92.6% of all qualified individuals completed the individual interview, which provides the data source for the analysis presented in this paper. The SANHANES-1 survey received ethical clearance from the Research Ethics Committee (REC) of the HSRC (REC 6/16/11/11) (Shisana *et al.*, 2013).

### 3.6 Variable Selection

**Table 1** below maps out the variables selected for each dimension along the pathway of access to healthcare according to the conceptual framework (see Figure 1).

**Table 1: Variable Selection for Each Dimension of Access to Healthcare**

<b>Health Need</b>	Self-reported health (good health)
	Self-reported health (bad health)
	WHODAS score <sup>3</sup>
	Distress <sup>4</sup>
	PTSD <sup>5</sup>
<b>Perceived Health</b>	Need for care
<b>Seeking</b>	Household care postponed
<b>Reaching</b>	Unmet need <sup>6</sup>
	Unmet need <sup>7</sup>
	<b>Inpatients</b>
	Private transport
	Public transport
	Ambulance
	<b>Outpatients</b>
	Private transport
	Public transport
	Ambulance
	Walked
	Household distance to healthcare facility
<b>Utilisation</b>	<b>Private Healthcare</b>
	Private care
	Inpatient private care
	Outpatient private care
	<b>Public Healthcare</b>
	Public care
	Inpatient public care
	Outpatient public care
	<b>Household Utilisation</b>
	Private care
	Public care

<sup>3</sup> World Health Organisation Disability Assessment Schedule

<sup>4</sup> the Kessler Psychological Distress Scale (K10)

<sup>5</sup> Post-Traumatic Stress Disorder

<sup>6</sup> Respondents who did not receive healthcare in the event that they needed it

<sup>7</sup> Respondents who did not receive needed care or did not attend a private or public hospital

**Table 2: Variable Selection for Each Dimension of Access to Healthcare (continued)**

<b>Reasons for Seeking Healthcare</b>	Acute conditions
	Chronic conditions
	Communicable diseases
	<b>Inpatients</b>
	Acute conditions
	Chronic conditions
	Communicable diseases
	<b>Outpatients</b>
	Acute conditions
	Chronic conditions
	Communicable diseases
<b>Method of Payment</b>	<b>Inpatients</b>
	Medical aid
	OOP
	Free hospitalisation
	<b>Outpatients</b>
	Medical aid
	OOP
	Free care
	<b>Household Coverage &amp; Affordability</b>
	Medical aid
	OOP & without medical aid
	Ability to afford costs
	Ability to afford medicine
<b>Healthcare Consequences</b>	<b>Satisfaction</b>
	Inpatients
	Outpatients
	Healthcare service
	Healthcare service provider
	<b>Dissatisfaction</b>
	Inpatients
	Outpatients
	Healthcare services
	Healthcare service provider
	<b>Household Satisfaction</b>
	Care quality
	Cost of care

## 4. Results

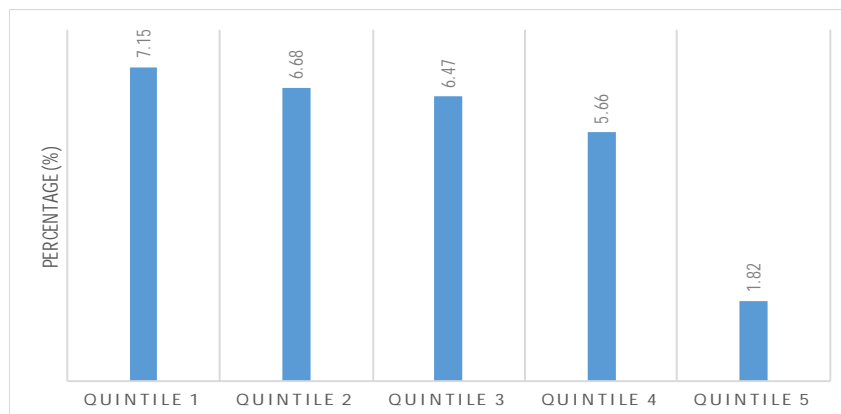
### 4.1 Descriptive Statistics

#### Healthcare Need

In this study, 78.62% of respondents reported their health as very good or good. Although approximately equally distributed across the wealth quintiles, the wealthiest quintile reported the highest good health (83.43%). Contrary to individuals who

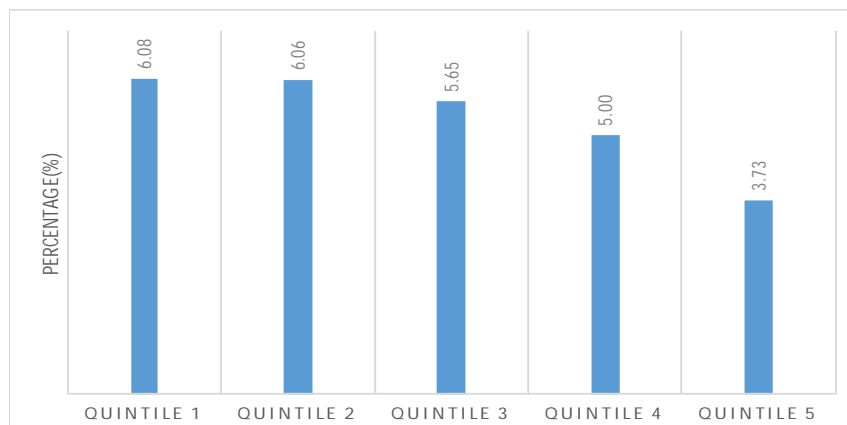
reported good health status, **Figure 2** clearly shows a socio-economic gradient to exist between those who reported their health as bad. The diagram shows the percentage of respondents who self-reported their health as very bad or bad. Although only 5.13% of the total sample reported bad health, 7.15% of respondents in the lowest wealth quintile compared to 1.83% in the wealthiest quintile reported their health as bad ( $F=26.2$ ,  $p<0.001$ ).

**Figure 2:** Self-Reported Health, by wealth quintile



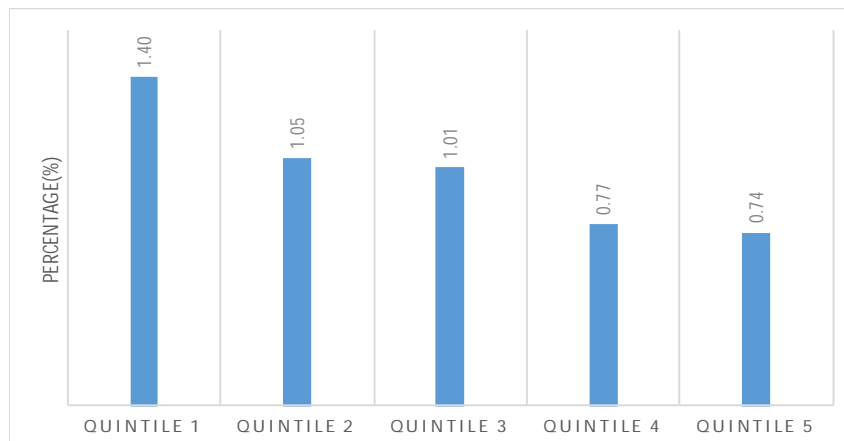
Results show that of the total sample, 62.60% of the population suffer no disability, 25% of the population suffer 1.12% disability, 50% of the population 0.31% disability, 75% of the population 0.07% disability, and 100% of the population 0.05% disability. The WHODAS score distributed across the wealth quintiles show the 1<sup>st</sup> quintile (6.08%) and 2<sup>nd</sup> quintile (6.06%) as greater carriers of disability in comparison to the 5<sup>th</sup> quintile (3.73%) ( $F=20.4$ ,  $p<0.001$ ).

**Figure 3:** Disability Assessment Schedule, by wealth quintile



Overall, only 0.94% of respondents reported having PTSD. Although a minute number of respondents have PTSD, this variable compared across the wealth quintiles show its inequitable distribution. In the 1<sup>st</sup> quintile 1.40% of respondents have PTSD, 1.05% in the 2<sup>nd</sup> quintile, 1.01% in the 3<sup>rd</sup> quintile, 0.77% in the 4<sup>th</sup> quintile and 0.74% in the 5<sup>th</sup> quintile, almost half of the prevalence in the first quintile ( $F=3.1$ ,  $p=0.016$ ).

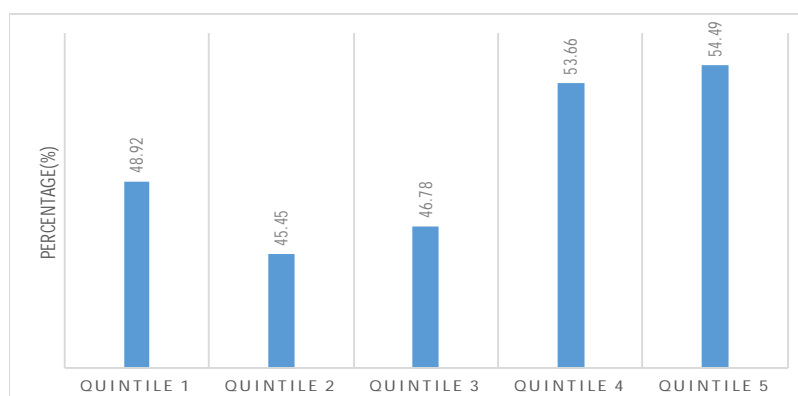
**Figure 4: PTSD, by wealth quintile**



### Perceived Health

Findings show that 50.44% of respondents perceived they needed healthcare in the 12 months preceding the survey. The distribution for perceived need for care across the wealth quintiles are as follows: 1<sup>st</sup> quintile 48.92%, 2<sup>nd</sup> quintile 45.45%, 3<sup>rd</sup> quintile 46.78%, 4<sup>th</sup> quintile 53.66%, and 5<sup>th</sup> quintile 54.49% ( $F=11.9$ ,  $p<0.001$ ). Based on **Figure 5**, respondents in quintiles four and five experienced the highest need for care, significantly more so than in the other quintiles.

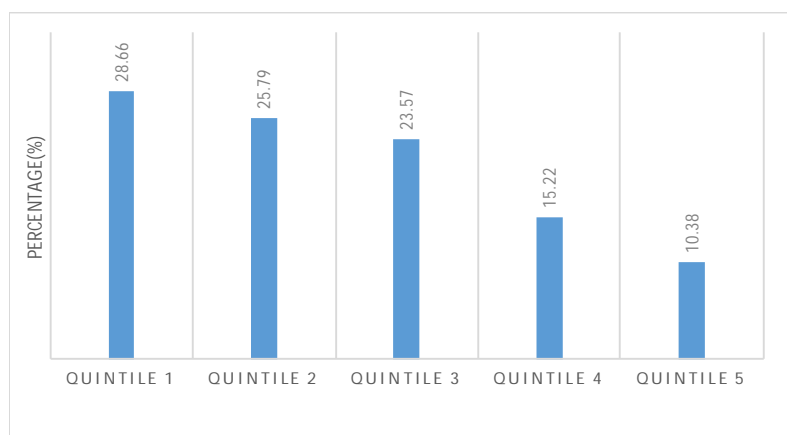
**Figure 5: Need for Care, by wealth quintile**



### Healthcare Seeking

**Figure 6** shows the percentage of households who postponed obtaining healthcare by wealth quintiles. A socio-economic gradient emerges with 28.66% of households in quintile 1 postponing their healthcare, 25.79% in quintile 2, 23.57% in quintile 3, 15.22% in quintile 4, and 10.38% only in quintile 5 ( $F=41.2$ ,  $p<0.001$ ). A marked difference exists between households in the 1<sup>st</sup> quintile who delayed care compared to the 5<sup>th</sup> quintile.

**Figure 6:** *Postponed Household Healthcare, by wealth quintile*

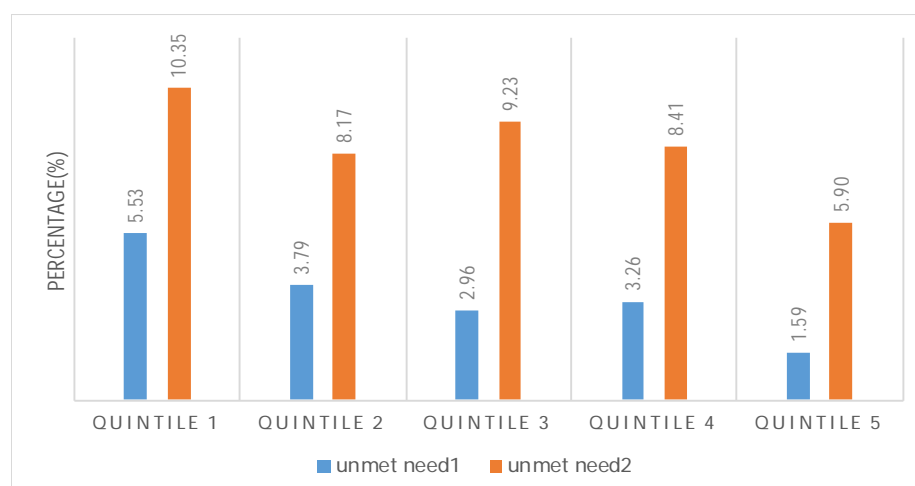


### Healthcare Reaching

Unmet need 1 is unequally distributed across the quintiles, that is 5.53% in quintile 1, 3.79% in quintile 2, 2.96% in quintile 3, 3.26% in quintile 4, and 1.59% in quintile 5 ( $F=7.9$ ,  $p<0.001$ ). Unmet need 2 also falls more on the first four quintiles in comparison to the wealthiest quintile, 10.35% in quintile 1, 8.17% in quintile 2, 9.23% in quintile 3, 8.41% in quintile 4, and 5.90% in quintile 5 ( $F=3.5$ ,  $p=0.008$ ).

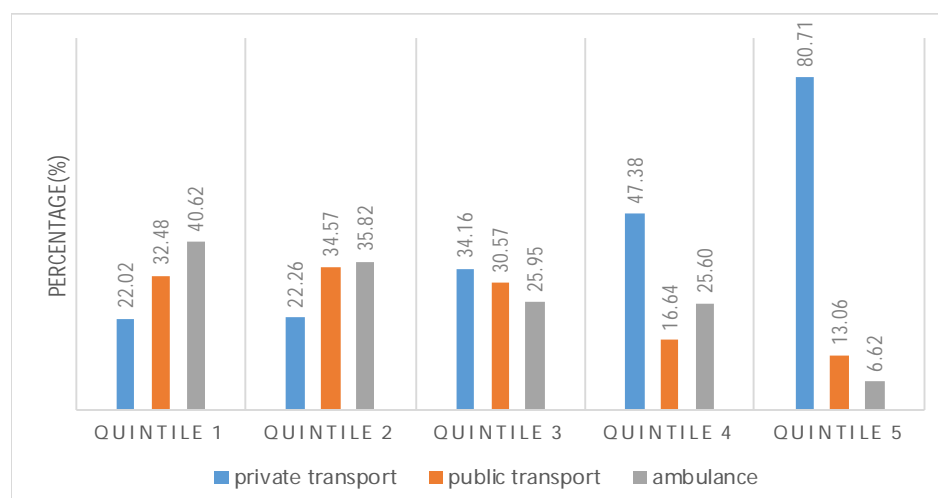


**Figure 7: Unmet Need, by wealth quintile**



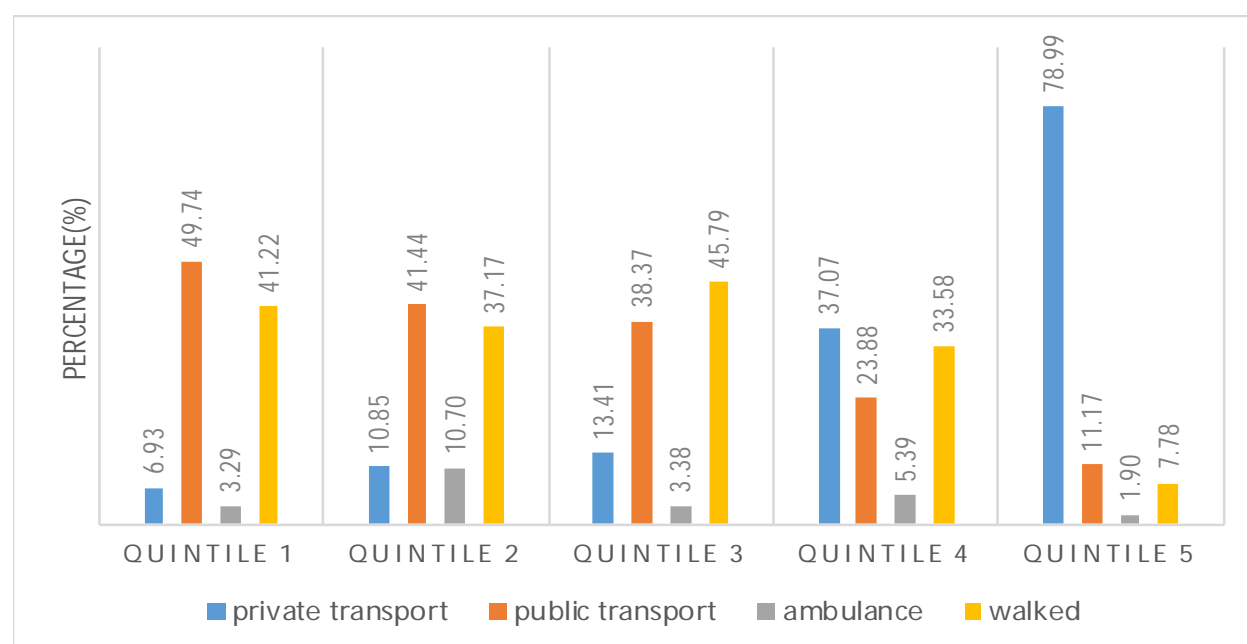
**Figures 8 and 9** graph private, public and other forms of transportation for inpatients and outpatients by wealth quintile. As shown in the **Figure 8**, 22.02% of inpatients used private transport in quintile 1, 22.26% in quintile 2, 34.16% in quintile 3, 47.38% in quintile 4, and 80.71% in quintile 5 ( $F=50.2$ ,  $p<0.001$ ). The opposite results are true for inpatients who used public transport. In quintile 1, 32.48% of inpatients used public transport, 34.57% in quintile 2, 30.57% in quintile 3, 16.64% in quintile 4, and 13.06% in quintile 5 ( $F=9.3$ ,  $p<0.001$ ). In quintile 1, 40.62% of inpatients used the ambulance as means to get to a healthcare facility, 35.82% in quintile 2, 25.95% in quintile 3, 25.60% in quintile 4, and 6.62% in quintile 5 ( $F=15.81$ ,  $p<0.001$ ).

**Figure 8: Private, Public and Other Transport for inpatients, by wealth quintile**



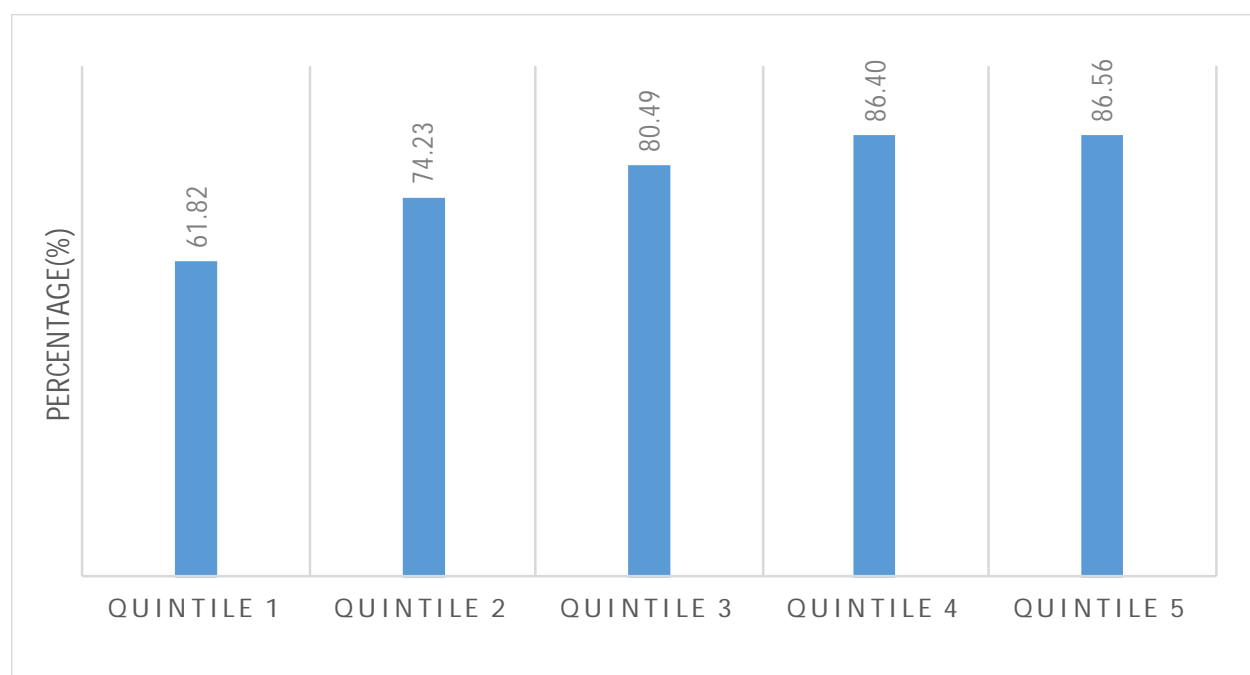
In **Figure 9**, 6.93% of outpatients used private transport in quintile 1, 10.85% in quintile 2, 13.41% in quintile 3, 37.07% in quintile 4, and 78.99% in quintile 5 ( $F=294.5$ ,  $p<0.001$ ). Concerning public transport, 49.74% of outpatients in quintile 1 used a public mode of transportation, 41.44% in quintile 2, 38.37% in quintile 3, 23.88% in quintile 4, and 11.17% in quintile 5 ( $F=53.4$ ,  $p<0.001$ ). The distribution of ambulance use is as follows: 3.29 % in quintile 1, 35.82% in quintile 2, 25.95% in quintile 3, 25.60% in quintile 4, and 6.62% in quintile 5 ( $F=10.3$ ,  $p<0.001$ ). In addition, **Figure 8** reports the number of outpatients who walked to a healthcare facility. In quintile 1, 41.22% of outpatients walked, 37.17% in quintile 2, 45.79% in quintile 3, 33.58% in quintile 4, and 7.78% only in quintile 5 ( $F\text{-stat}=53.7$ ,  $p<0.001$ ). Outpatients in the lower quintiles walked to a healthcare facility more than the upper quintiles.

**Figure 9:** Private, Public and Other Transport for outpatients, by wealth quintile



Household level results provide a different perspective to reaching care. **Figure 10** shows the number of households by quintile who live within a 10km radius of a healthcare facility. In the 1<sup>st</sup> quintile, 61.82% of households lived within a 10km radius of a health facility, 74.23% in the 2<sup>nd</sup> quintile, 80.49% in the 3<sup>rd</sup> quintile, 86.40% in the 4<sup>th</sup> quintile, and 86.56% in the 5<sup>th</sup> quintile ( $F=74.9$ ,  $p<0.001$ ). More households in the upper quintiles live closer to a facility compared to the lower quintiles.

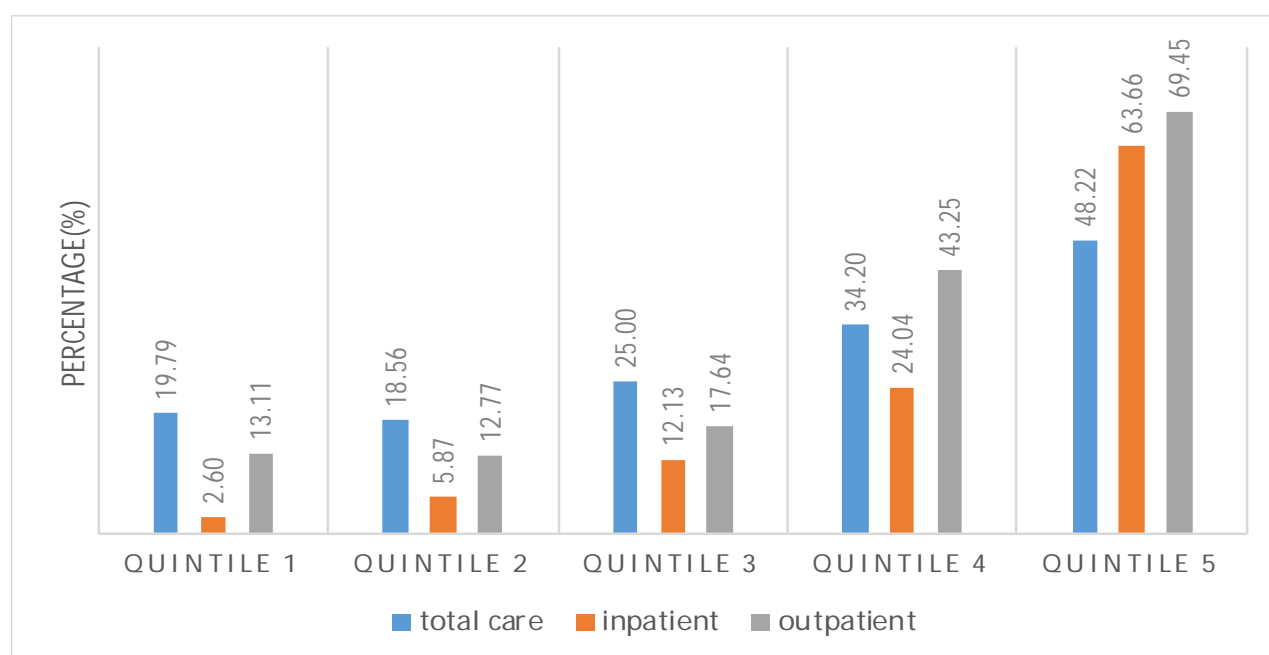
**Figure 10:** Household Distance to Healthcare Facility, by wealth quintile



### Healthcare Utilisation

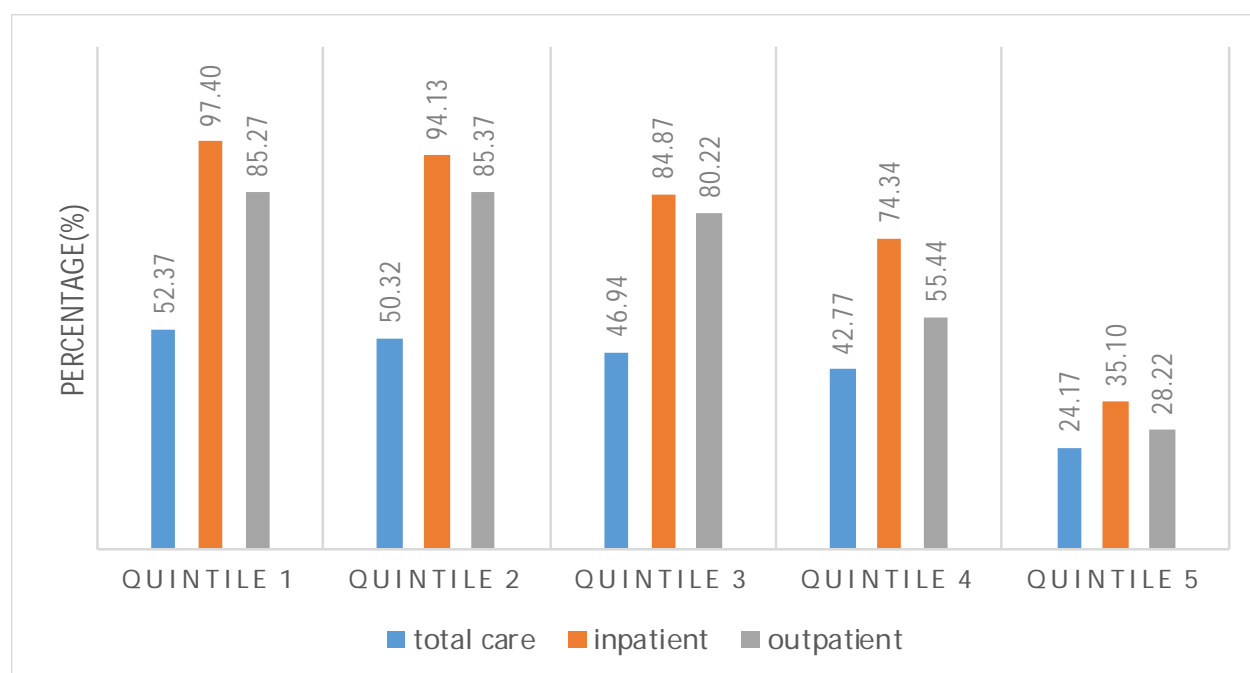
Of all inpatients 30.29% used a private healthcare facility, while of all outpatients 27.73% used a private facility. In terms of total use, 35.42% of respondents used private healthcare. In quintile 1, 19.79% of respondents used a private healthcare facility, 18.56% in quintile 2, 25.00% in quintile 3, 34.20% in quintile 4, compared to 48.22% in quintile 5 ( $F=154.3$ ,  $p<0.001$ ). A similar pattern is found for inpatients, 2.60% in quintile 1, 5.87% in quintile 2, 12.13% in quintile 3, 24.04% in quintile 4, compared to 63.66% in quintile 5 ( $F=79.1$ ,  $p<0.001$ ). Likewise, 13.11% of outpatients in quintile 1 used a private facility, 12.77% in quintile 2, 17.64% in quintile 3, 43.25% in quintile 4, compared to 69.45% in quintile 5 ( $F=165.6$ ,  $p<0.001$ ). Distinct differences therefore exist among the wealth quintiles, more so between the 1<sup>st</sup> and 5<sup>th</sup> quintiles for total, inpatient and outpatient private utilisation.

**Figure 11: Private Healthcare Utilisation, by wealth quintile**



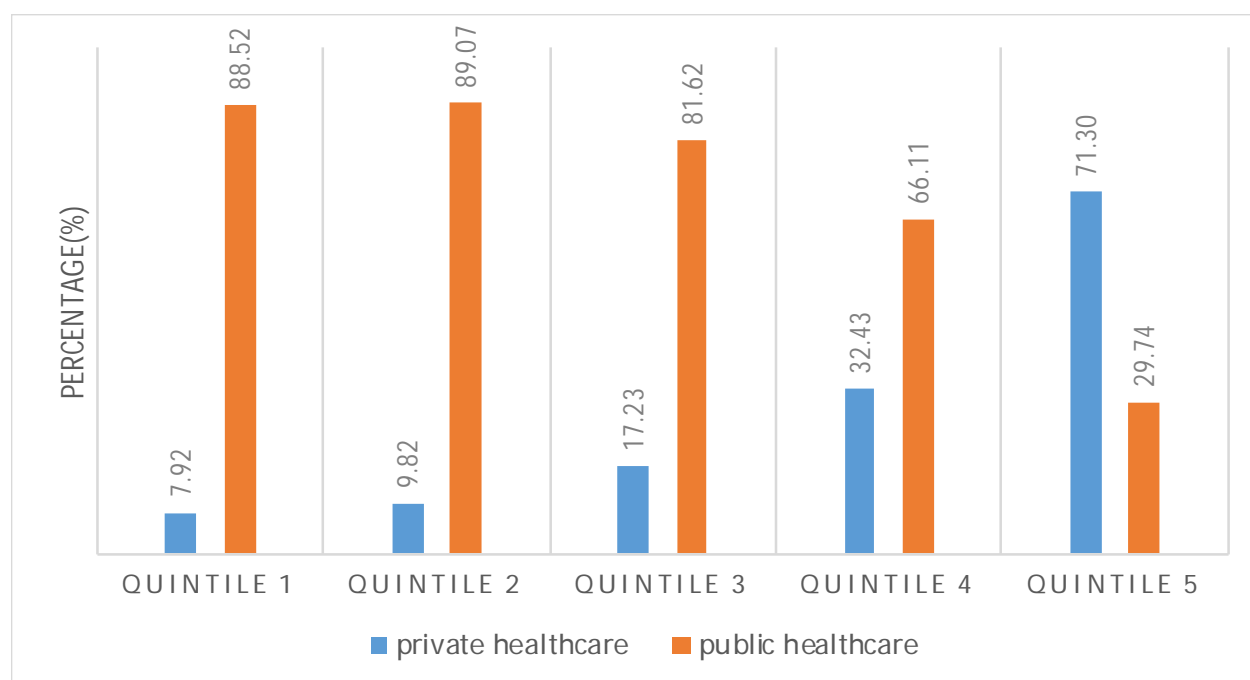
From the total sample, 42.40% of respondents used public healthcare, 71.02% of all inpatients used public care, and 35.42% of all outpatients used a public healthcare facility. Public healthcare, as shown in **Figure 12**, mirrors the private healthcare results, but in the opposite direction. Of all respondents, 52.37% in quintile 1 used a public facility, 50.32% in quintile 2, 46.94% in quintile 3, 42.77% in quintile 4, compared to 24.17% only in quintile 5 ( $F=108.2$ ,  $p<0.001$ ). Disaggregating total results, findings show that a significantly high number of disadvantaged inpatients used a public facility. In quintile 1, 97.40% of inpatients used a public facility, 94.13% in quintile 2, 84.87% in quintile 3, 74.34% in quintile 4, compared to 35.10% in quintile 5 ( $F=77.4$ ,  $p<0.001$ ). A high proportion of disadvantaged outpatients also used a public facility. Specifically, 85.27% in quintile 1, 85.37% in quintile 2, 80.22% in quintile 3, 55.44% in quintile 4, and 28.22% in quintile 5 ( $F=163.0$ ,  $p<0.001$ ).

**Figure 12: Public Healthcare Utilisation, by wealth quintile**



An estimated, 27.59% of households used private healthcare and 71.18% used public healthcare in the past 12 months. In **Figure 13** the distribution of public utilisation in households is as follows: 88.52% of households in the 1<sup>st</sup> quintile, 89.07% in the 2<sup>nd</sup> quintile, 81.62% in the 3<sup>rd</sup> quintile, 66.11% in the 4<sup>th</sup> quintile, and 29.74% in the 5<sup>th</sup> quintile ( $F=454.4$ ,  $p<0.001$ ). These findings differ significantly from private healthcare use in households. As many as 71.30% of households in the 5<sup>th</sup> quintile used a private facility compared to only 7.92% in the 1<sup>st</sup> quintile ( $F=542.0$ ,  $p<0.001$ ).

**Figure 13: Household Healthcare Utilisation, by wealth quintile**

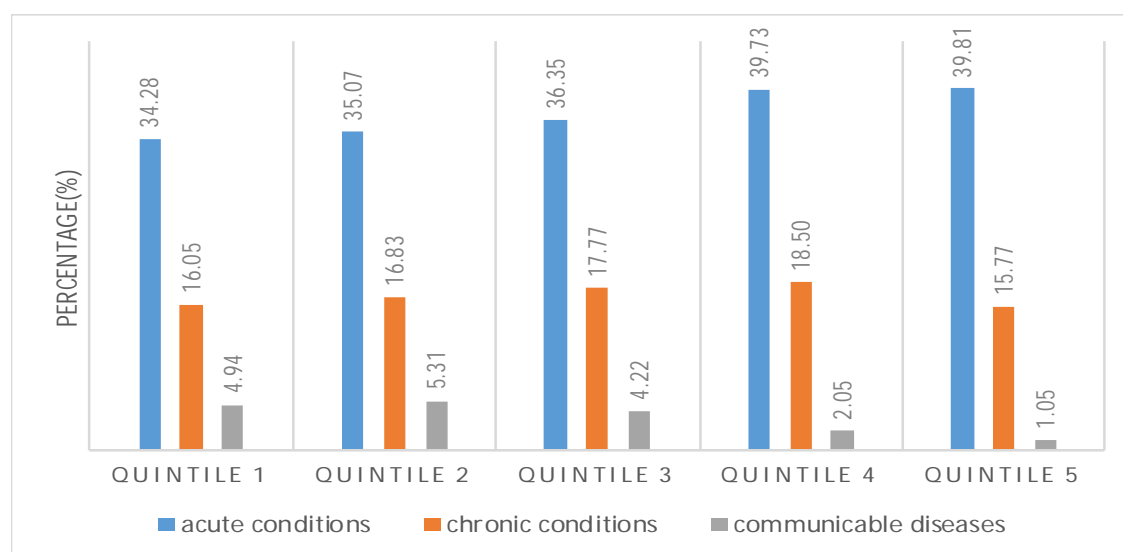


#### Utilisation: Contributing Factors

#### Reasons for Seeking Healthcare

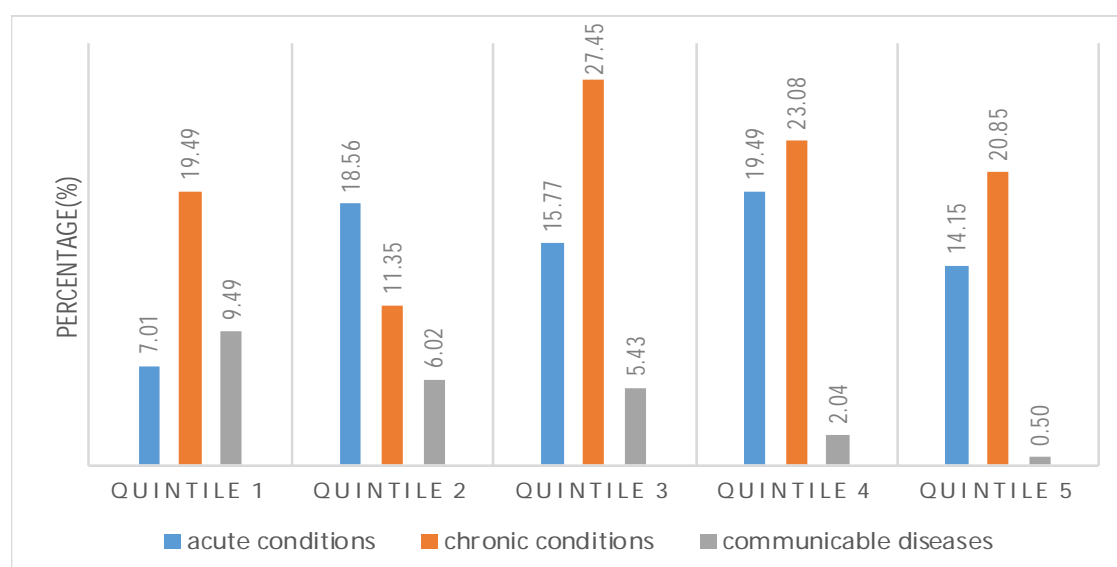
Of all respondents, 37.29% reported accessing care for an acute condition, 17.56% for a chronic condition, 3.27% for a communicable disease, and 39.19% for an unspecified condition. **Figure 14** shows how acute conditions, chronic conditions and communicable conditions are distributed across the wealth quintiles. In the 1<sup>st</sup> quintile, 34.28% of respondents reported accessing care for an acute condition, 35.07% in the 2<sup>nd</sup> quintile, 36.35% in the 3<sup>rd</sup> quintile, 39.73% in the 4<sup>th</sup> quintile, and 39.81% in the 5<sup>th</sup> quintile ( $F=3.6$ ,  $p=0.007$ ). Although the differences between quintiles for acute conditions are slight, what can be noted is the highest values are in the 4<sup>th</sup> and 5<sup>th</sup> quintiles. In quintile 1, 4.94% of respondents reported accessing care for a communicable disease, 5.31% in quintile 2, 4.22% in quintile 3, 2.05% in quintile 4, and 1.05% in quintile 5 ( $F=14.4$ ,  $p<0.001$ ). Chronic conditions appeared to be considerably equally distributed across the wealth quintiles, although the 4<sup>th</sup> quintile reported the highest amount of cases. The differences however were not statistically significant ( $F=1.3$ ,  $p=0.289$ ).

**Figure 14: Reasons for Seeking Healthcare, by wealth quintile**



**Figure 14** provides a graphical illustration on inpatients' reasons for hospitalisation. Not much can be said about inpatient acute conditions except that, like total acute conditions, the 1<sup>st</sup> quintile has the lowest prevalence and that the reported differences are not statistically significant ( $F=2.5$ ,  $p=0.041$ ).

**Figure 15: Reasons for Seeking Healthcare for inpatients, by wealth quintile**

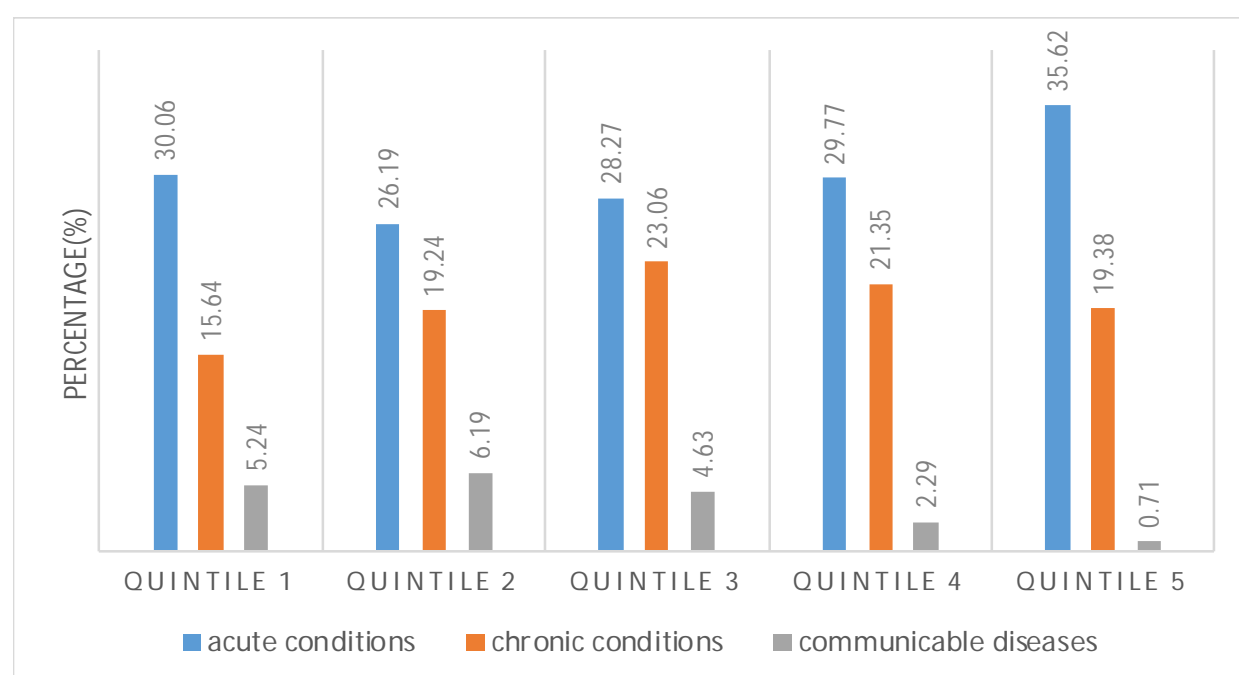


On the other hand, communicable diseases has a gradient in favour of the lower wealth quintiles much like total responses ( $F=5.0$ ,  $p<0.001$ ) (Figure 15). Chronic

conditions again display no coherent trend and in this instance, the 3<sup>rd</sup> quintile has the highest chronic cases, although the differences are statistically significant ( $F=3.2$ ,  $p=0.014$ ).

Results on outpatient reasons for seeking care provide a mirror image of overall responses (Figure 16). Regarding acute conditions, the highest amount of respondents belonged to the 5<sup>th</sup> wealth quintile ( $F=3.0$ ,  $p=0.018$ ). As with the total responses and inpatient findings, a socioeconomic gradient exists for outpatients who reported seeking care for a communicable disease. Quintiles 1 and 2 **account for** 5.24% and 6.19% respectively, compared to quintile 5 with only 0.71% ( $F\text{-stat}=7.4$ ,  $p<0.001$ ). Again, chronic conditions exhibit no inherent trend, the 3<sup>rd</sup> quintile exhibiting the highest response (23.06%). This result is only marginally statistically significant ( $F=2.1$ ,  $p=0.079$ ).

**Figure 16:** Reasons for Seeking Healthcare for outpatients, by wealth quintile



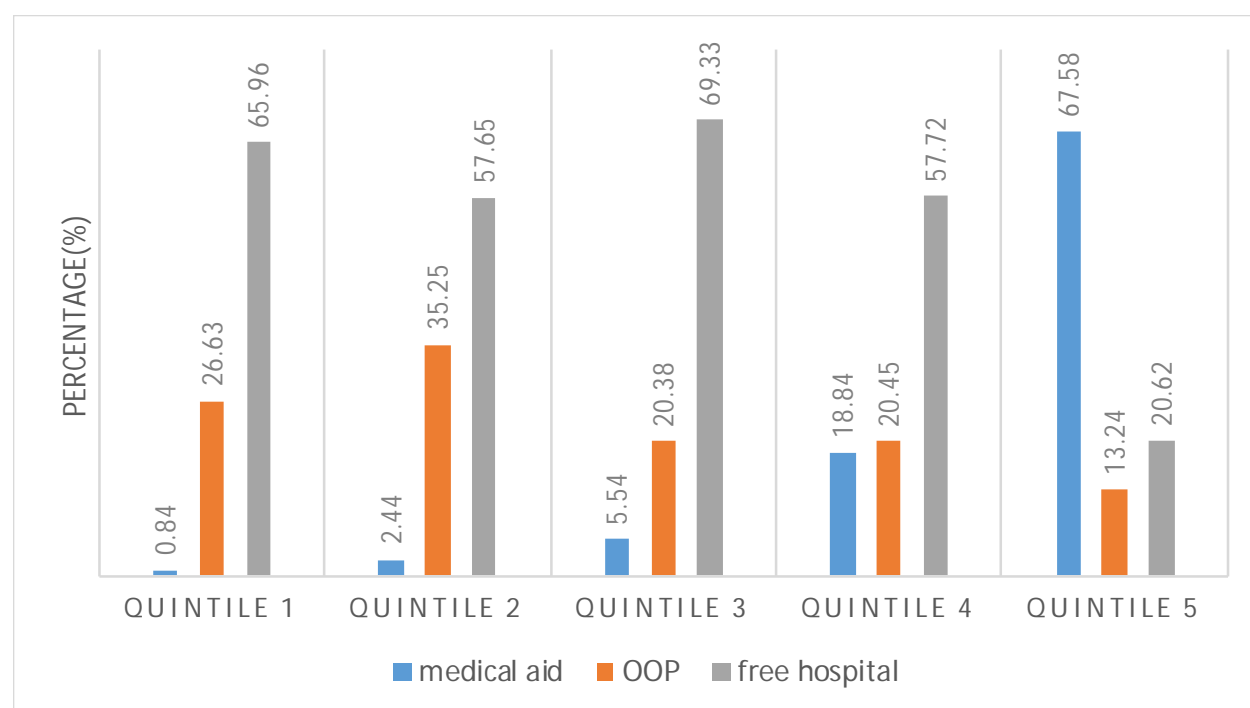
### Method of Payment

**Figure 17** shows the percentage of inpatients who paid with their medical aid, out-of-pocket, or received free hospitalisation. Of all inpatients, 25.29% paid with medical aid, 23.70% paid out-of-pocket, and 47.52% received free healthcare. Medical aid



favoured the wealthiest quintile, with 67.58% of inpatients in quintile 5 paying for inpatient care using medical aid, compared to 0.84% in the lowest quintile ( $F=128.3$ ,  $p<0.001$ ). Out-of-pocket payments seem to affect all quintiles to some degree but more so the 1<sup>st</sup> and 2<sup>nd</sup> quintiles: 26.63% and 35.25%, respectively ( $F=6.4$ ,  $p<0.001$ ). In the 1<sup>st</sup> quintile, 65.96% of inpatients received free healthcare, 57.65% in the 2<sup>nd</sup> quintile, 69.33% in the 3<sup>rd</sup> quintile, 57.72% in the 4<sup>th</sup> quintile, and 20.62% in the 5<sup>th</sup> quintile ( $F=31.7$ ,  $p<0.001$ ). What can be observed is the stark difference in the proportion of inpatients who received free healthcare from the first four quintiles compared to the 5<sup>th</sup> quintile.

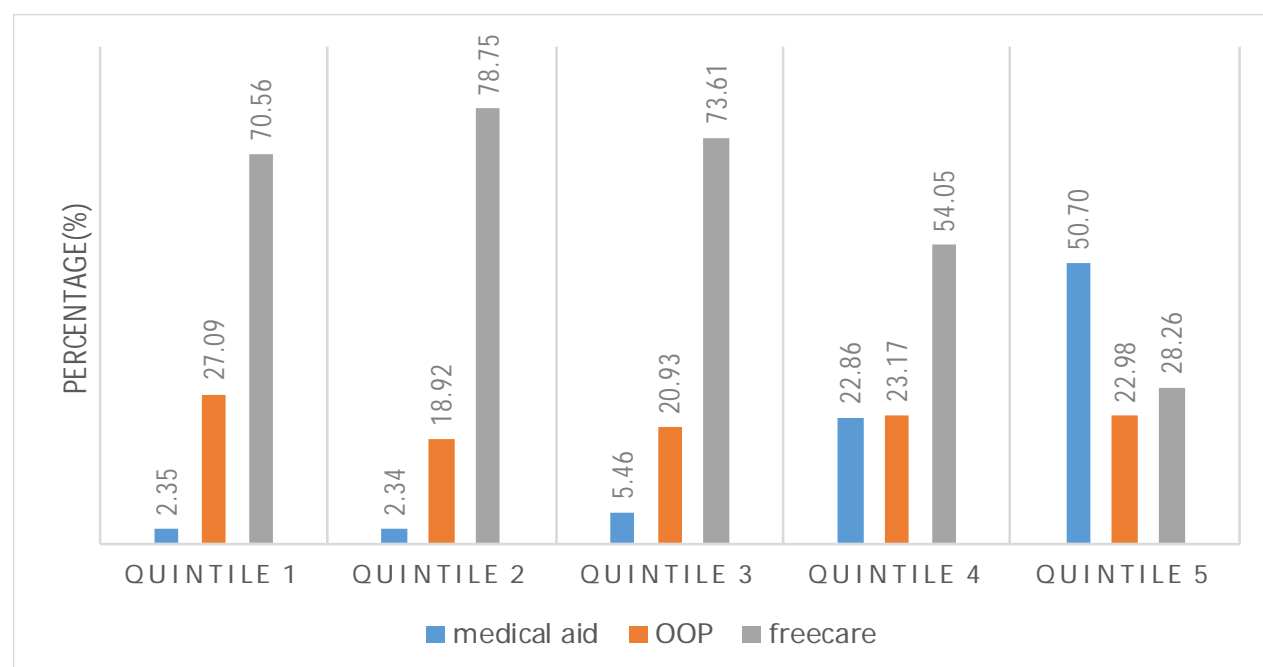
**Figure 17:** Method of Payment for inpatients, by wealth quintile



Outpatient results follow a similar pattern to inpatients outcomes. Of all outpatients 20.55% paid with their medical aid, 22.48% paid out-of-pocket, and 57.72% received free healthcare. From **Figure 18**, we can observe a medical aid gradient in favour of better off outpatients. Comparing quintiles, 50.70% of outpatients who paid with their medical aid fall in the 5<sup>th</sup> quintile, compared to 2.35% in the 1<sup>st</sup> quintile ( $F=170.5$ ,  $p<0.001$ ). Out-of-pocket payments, again, affect all wealth quintiles approximately equally and the differences are not statistically significant ( $F=1.9$ ,  $p=0.101$ ). The distribution of free outpatient care is as follows: 70.56% in quintile 1, 78.75% in quintile 2, 73.61% in quintile 3, 54.05% in quintile 4, and 28.26% in quintile 5, a difference that

is highly statistically significant ( $F=94.4$ ,  $p<0.001$ ). Inpatients and outpatients in the first four wealth quintiles therefore received higher percentages of free care compared to the highest quintile.

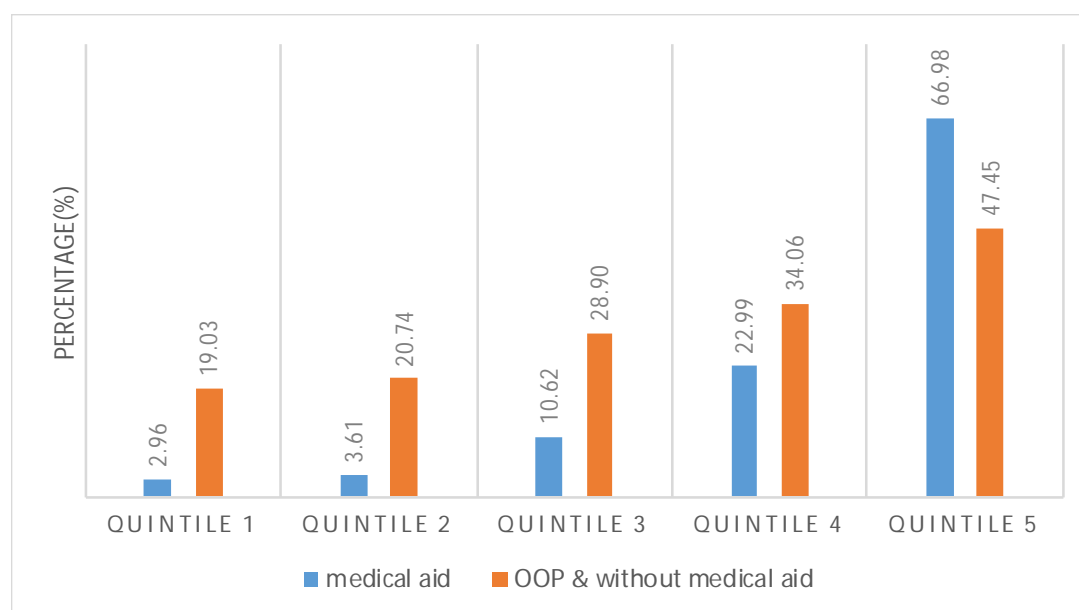
**Figure 18:** Method of Payment for outpatients, by wealth quintile



Among households, 21.22%, answered “yes” to having medical aid, 26.77% had no medical aid and paid out-of-pocket. From **Figure 19**, a gradient exists for both households with and without medical aid, who paid out-of-pocket. The distribution of household medical aid cover is as follows: 2.96% in quintile 1, 3.61% in quintile 2, 10.62% in quintile 3, 22.99%, in quintile 4, and 66.98% in quintile 5 ( $F=734.5$ ,  $p<0.001$ ). The highest percentage of households who had no medical aid and paid out-of-pocket fall into the wealthiest quintile (47.45%) ( $F=39.9$ ,  $p<0.001$ ). This, the 5<sup>th</sup> quintile, had the highest amount of households without medical aid, it also had the highest amount of households without healthcare cover who paid out-of-pocket.

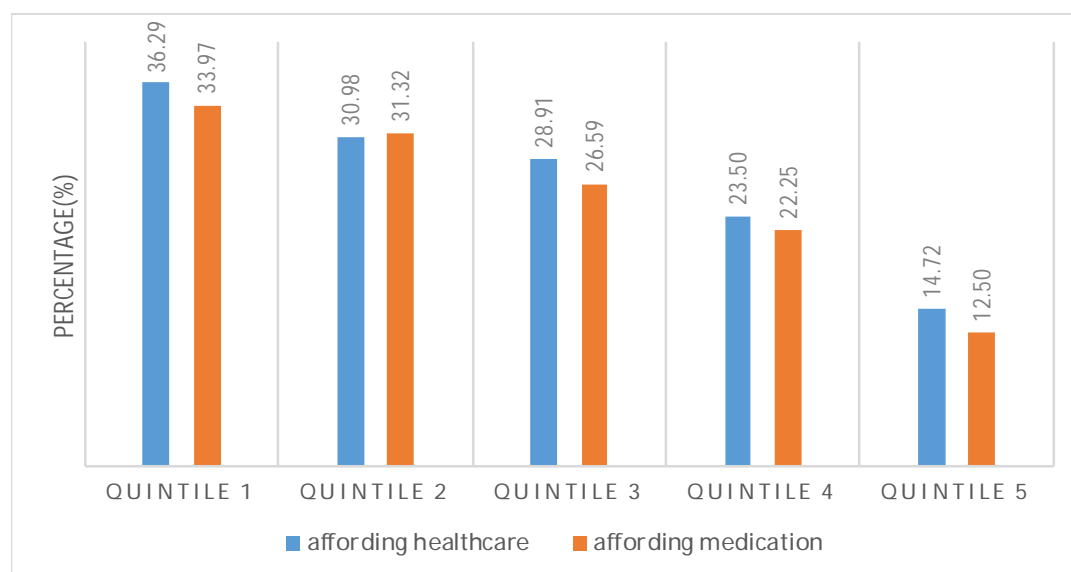
In addition, households responded to having any difficulty paying for their medical or prescription costs in the 12 months preceding the survey. Based on an analysis of the data, 27.17% of all households had difficulty paying their medical costs and 25.72% had financial difficulty paying for prescription medication.

**Figure 19: Coverage and Out-of-Pocket Payment, by wealth quintile**



**Figure 20** show uniform trends for both difficulty in paying medical costs and prescription costs. The graph slants to the right, weighing more on the less fortunate in comparison to the better off. Of households who could not afford their healthcare or medication costs, 36.29% and 33.97% fall in the 1<sup>st</sup> wealth quintile, respectively. This in comparison to the 5<sup>th</sup> wealth quintile is relatively high, with only 14.72% and 12.50% of households reporting having financial difficulty paying their healthcare costs (F=39.5,  $p < 0.001$ ) or prescription costs, respectively (F=43.7,  $p < 0.001$ ).

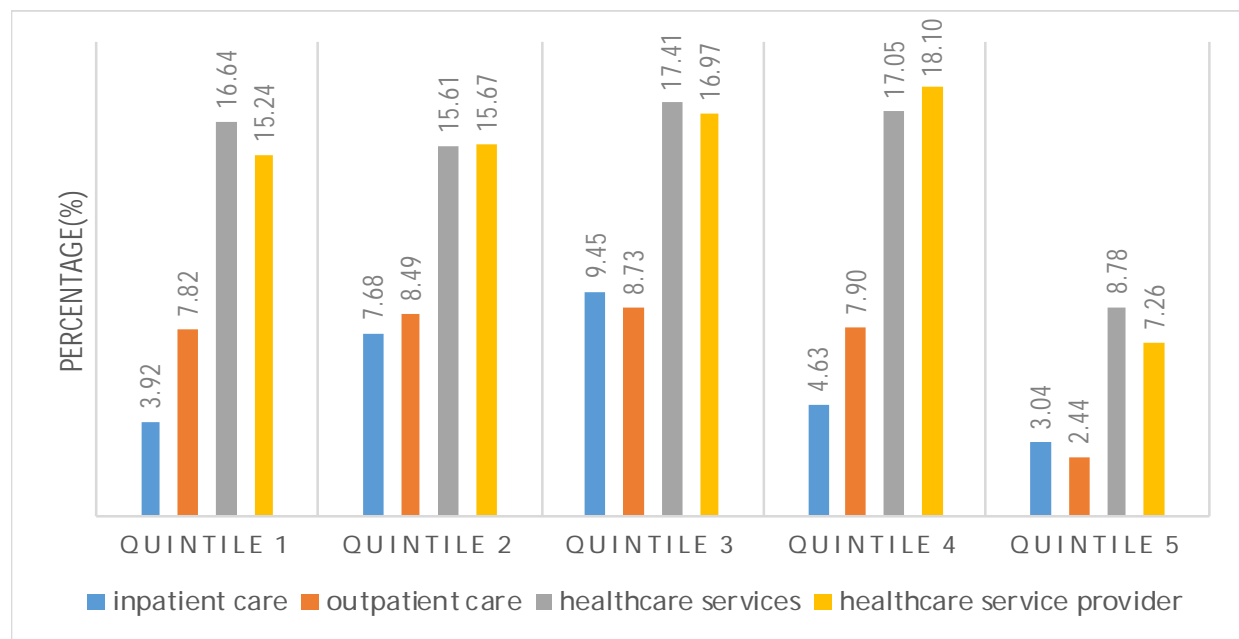
**Figure 20: Household Healthcare Affordability, by wealth quintile**



## Healthcare Consequences

Results show high percentages of respondents who were satisfied with the service they received. A total of 85.44% of all inpatients and 86.01% of all outpatients were very satisfied or satisfied with their healthcare. Moreover, 71.31% of all respondents were satisfied or very satisfied with their healthcare services and 69.27% with their healthcare service provider. Over the wealth quintiles, respondents in each quintile showed high levels of satisfaction concerning the outcomes of their healthcare services. On the other hand, of all respondents 5.97% only of inpatients reported being dissatisfied or very dissatisfied with their healthcare and 6.93% only of outpatients. In addition, 14.83% of respondents reported being dissatisfied with their healthcare services and 14.46% with their healthcare provider.

**Figure 21:** Healthcare Dissatisfaction, by wealth quintile

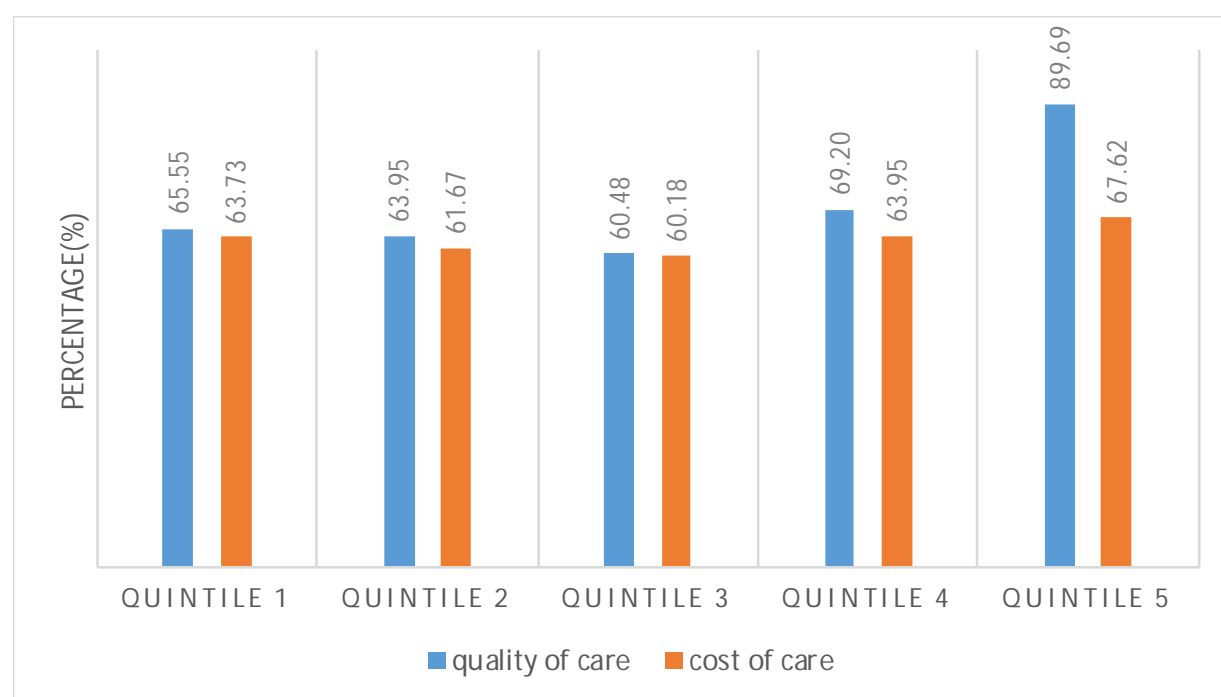


From **Figure 21**, 3.92% of inpatients were dissatisfied with their healthcare in quintile 1, 7.68% in quintile 2, 9.45% in quintile 3, 4.63% in quintile 4, and 3.04% in quintile 5 ( $F=2.1$ ,  $p=0.081$ ). The 3<sup>rd</sup> quintile has the highest number of inpatients dissatisfied with their hospital stay. Noteworthy, is the similarity between the number of inpatients in the 1<sup>st</sup> and 5<sup>th</sup> quintiles, both reporting low levels of dissatisfaction. In quintile 1 16.64% of respondents were dissatisfied with their service compared to 8.78% in quintile 5 ( $F=29.3$ ,  $p<0.001$ ). The same is true for respondents dissatisfied with their healthcare

provider. The 1<sup>st</sup> quintile has 15.24% of respondents dissatisfied with their service provider compared to 7.26% in the 5<sup>th</sup> quintile ( $F=42.8$ ,  $p<0.001$ ).

The household results confirm the individual-level findings. Households reported being satisfied with the quality of care they received across the wealth quintiles, more so in the wealthiest quintile. In quintile 1, 65.55% of households were satisfied with the quality of their care, 63.95% in quintile 2, 60.48% in quintile 3, 69.20% in quintile 4, compared to 89.69% in quintile 5 ( $F=75.6$ ,  $p<0.001$ ). According to **Figure 21**, households appear to be equally satisfied with their healthcare costs, but the more advantaged more so ( $F=3.8$ ,  $p<0.004$ ).

**Figure 22:** Household Satisfaction, by wealth quintile

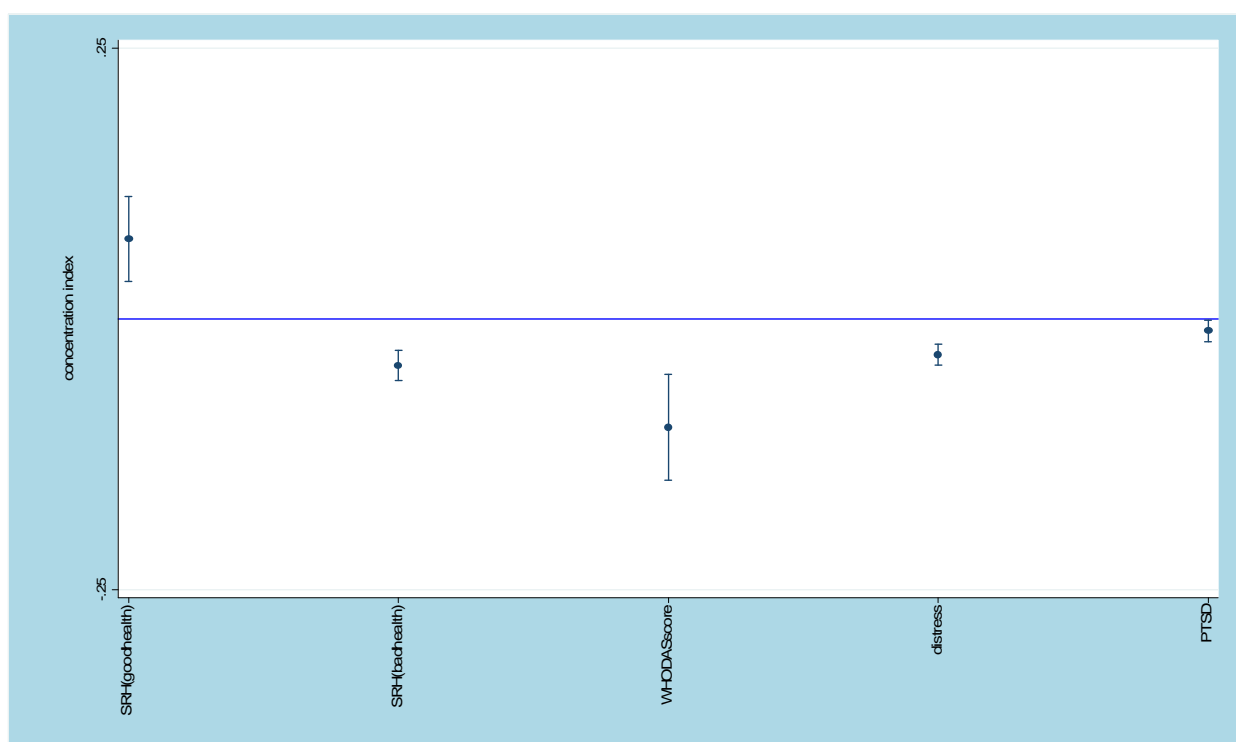


## 4.2 Concentration Curves and Indices

### Healthcare Need

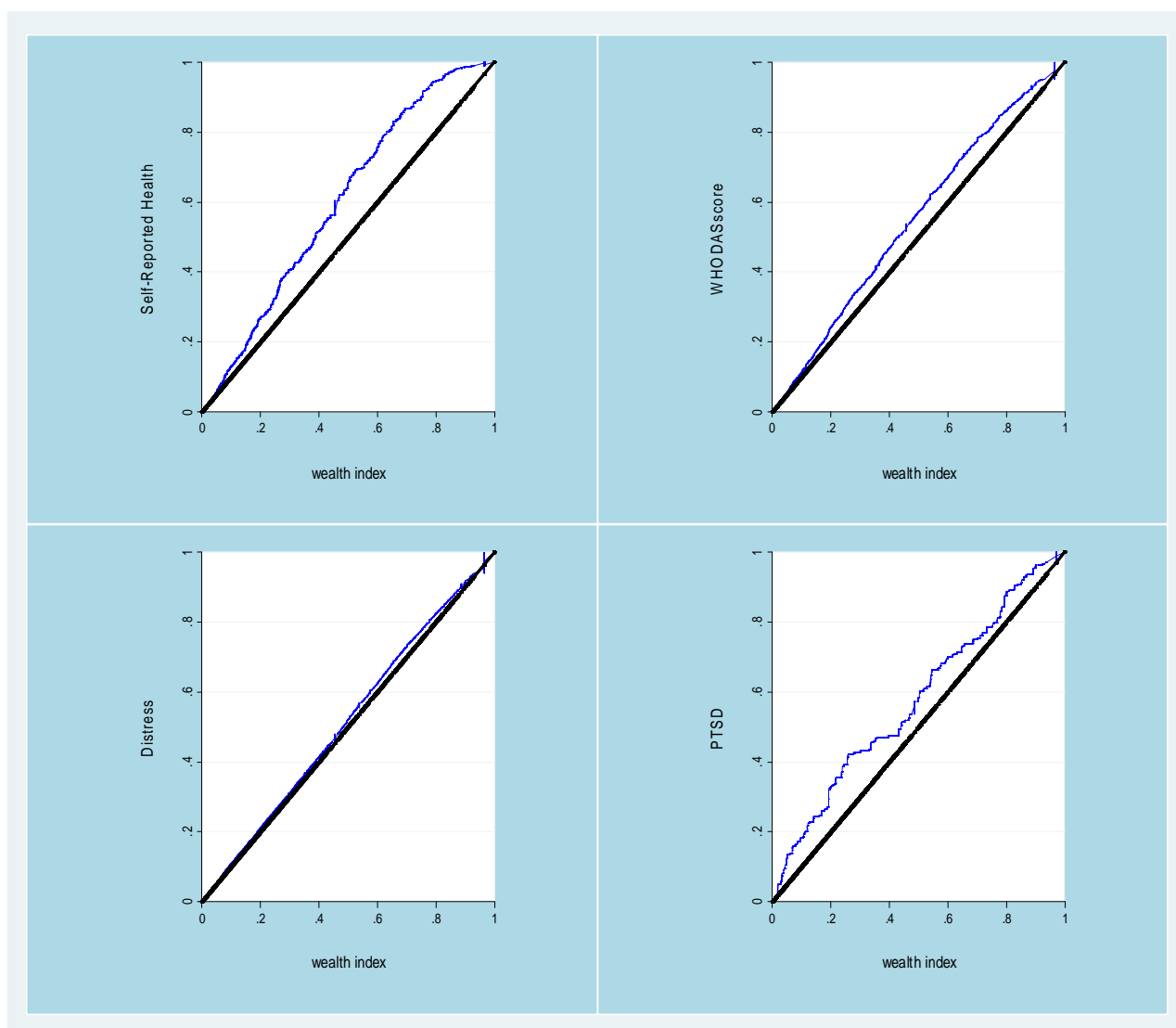
**Figure 23** illustrates that the confidence interval of the CI for good self-reported health lies above zero making it positive in value. Therefore, those who are better off perceive their current health state as good (CI +0.074,  $p<0.001$ ). Confidence intervals for respondents who reported their health status as bad (CI -0.043,  $p<0.001$ ), who suffered immobility (CI -0.100,  $p<0.001$ ), or mental ill health (distress CI -0.033,  $p<0.001$ ) (PTSD CI -0.011,  $p=0.021$ ) all lie below the zero line. The weight of poor health status, disability and mental ill health rest more heavily on the disadvantaged.

**Figure 23: Concentration Indices for Healthcare Need (95% CI)**



In **Figure 24**, the concentration curves for the WHO disability score, distress, and PTSD outcomes are illustrated graphically. On each graph, the concentration curves lie above the line of equality, which confirm that poor health status, mental ill health, and disability and PTSD weigh more on the poor. The distress curve though lies closer to zero, depicting that although there is negative concentration, it is close to the line of equity. This differs from PTSD, which is a significant distance from the line of equality, showing a substantially heavier burden on the poor.

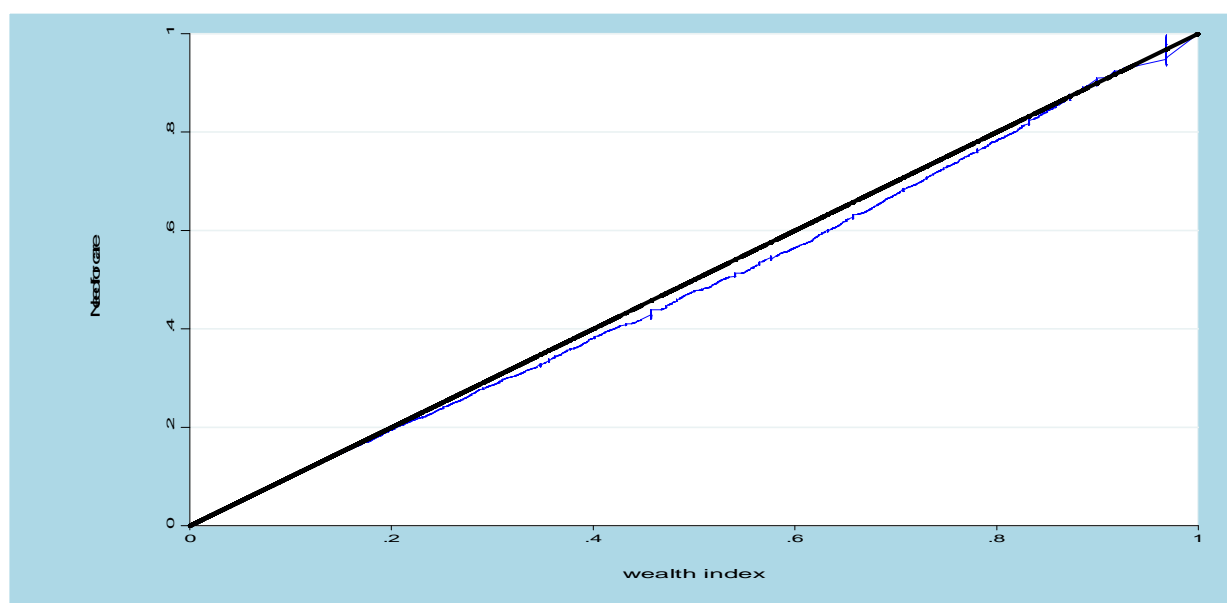
**Figure 24:** Concentration curves: Self-Reported Health, WHODAS, Distress and PTSD



### Perceived Health

Better off respondents experienced a higher need for care than the less well off in terms of reporting a lower status of health (CI +0.061,  $p=0.021$ ). These results confirm descriptive findings. Furthermore, **Figure 25** provides a graphic illustration that the curve lies below the line of equality; therefore, the rich needed more care than the poor.

**Figure 25:** Need for Care Concentration Curve

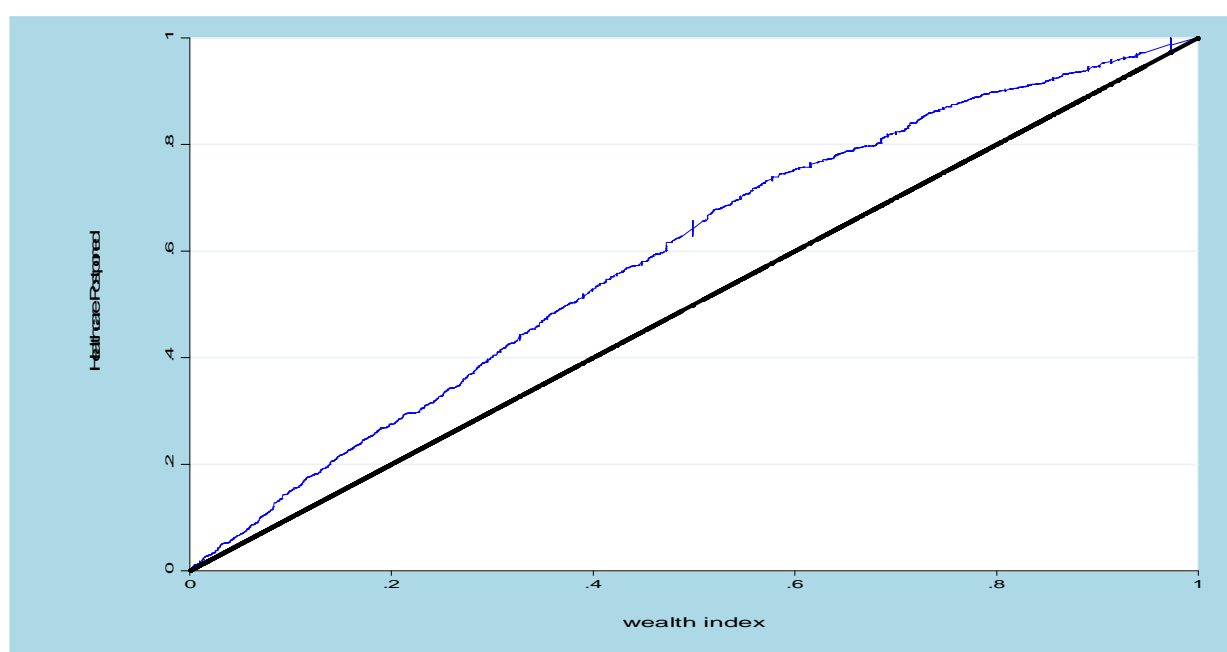


### Healthcare Seeking

The poor postponed getting healthcare more than the rich (CI  $-0.152$ ,  $p < 0.001$ ).

**Figure 26** confirms this in that the concentration curve lies above the line of equality.

**Figure 26:** Household Healthcare Postponed Concentration Curve

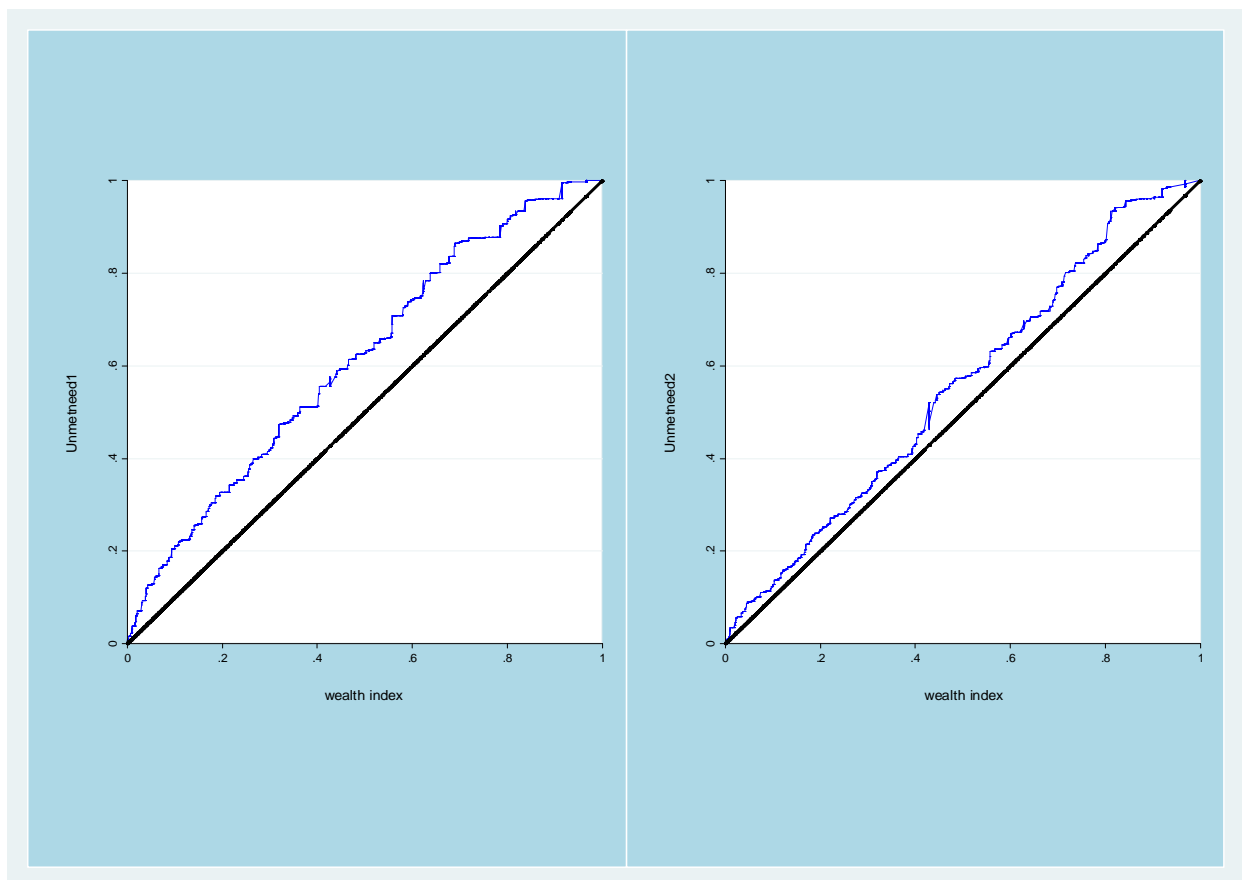




## Healthcare Reaching

The disadvantaged was more likely that the affluent to need care but to not receive care (CI -0.029,  $p=0.0004$ ). Furthermore, poor respondents did not receive healthcare when they needed it or attended a public or private healthcare facility (CI -0.035,  $p=0.028$ ). **Figure 27** illustrates this with concentration curves for the two unmet need variables, which both lay above the line of equality.

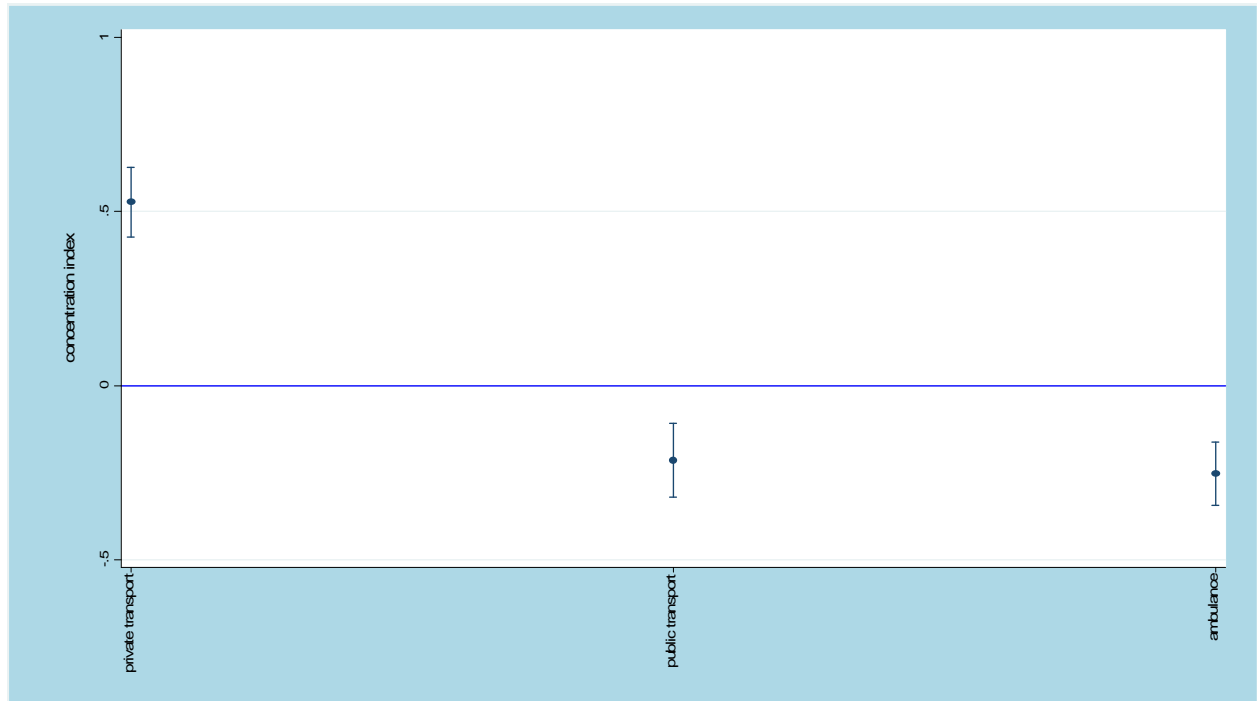
**Figure 27:** *Unmet Need Concentration Curves*



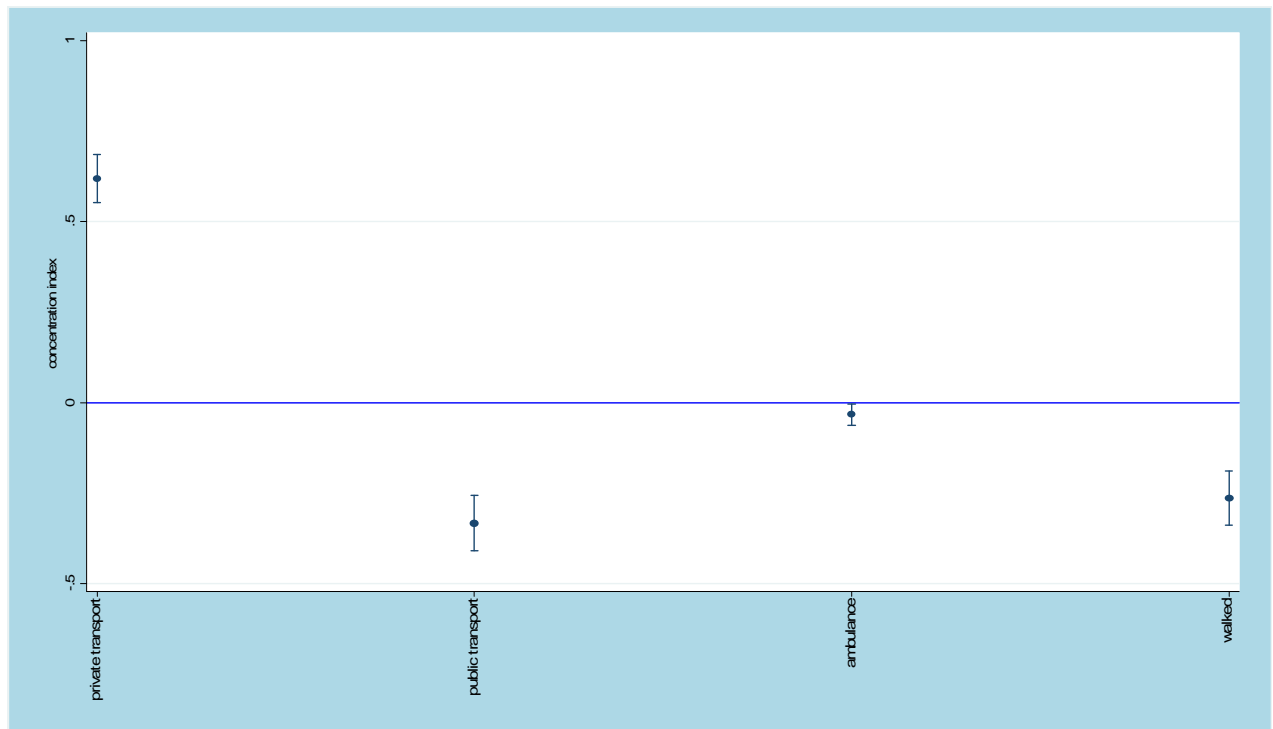
**Figures 28** and **29** show clear distinctions between who uses what type of transportation to reach a healthcare facility. Wealthier inpatients (CI +0.527,  $p<0.001$ ) and outpatients (CI +0.619,  $p<0.001$ ) used private transportation as means to get to a healthcare facility. Inpatients (CI -0.214,  $p=0.0001$ ) and outpatients (CI -0.333,  $p<0.001$ ) considered as less affluent used public transportation. Other forms of transportation weighed only on the worst off in the population. That is, poor inpatients (CI -0.253,  $p<0.001$ ) and outpatients (CI -0.033,  $p=0.027$ ) rather used an ambulance compared to respondents in the upper quintile. Also, poorer outpatients (CI -0.264,

p<0.001) more likely walked to a health clinic/facility while better off households are more likely to live within a 10km radius of a healthcare facility (CI +0.205, p<0.001).

**Figure 28:** Concentration Indices for Inpatient Transportation (95% CI)



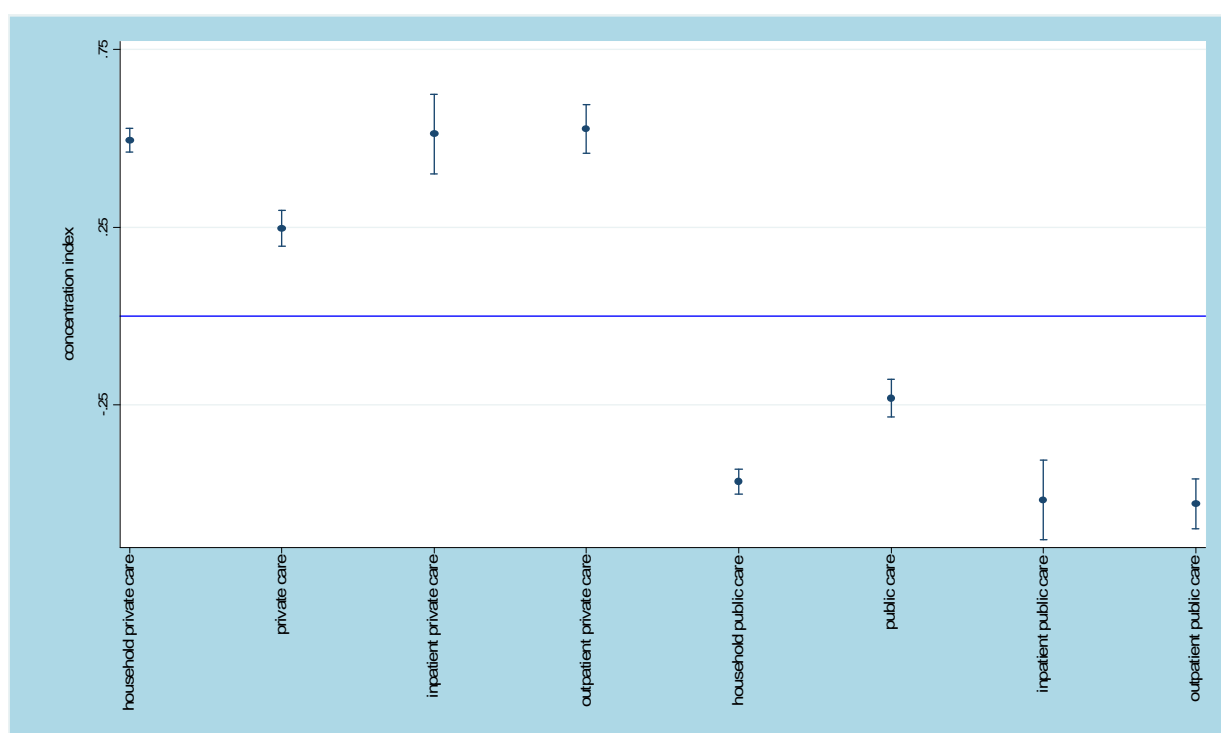
**Figure 29:** Concentration Indices for Outpatient Transportation (95% CI)



## Healthcare Utilisation

The concentration indices depicted in **Figure 30** differentiates the private and public sector, respectively, in terms of the nature of inequality. Private care (CI +0.247,  $p<0.001$ ) is concentrated on the rich, as well as, inpatient private care (CI +0.512,  $p<0.001$ ) and outpatient private care (CI +0.526,  $p<0.001$ ). The poor alternatively are heavily dependent on the public sector, with concentration levels as high as CI -0.231 ( $p<0.001$ ) for public utilisation, CI -0.517 ( $p<0.001$ ) for inpatients and CI -0.528 ( $p<0.001$ ) for outpatients. Household results are even more defining, with a concentration indices as high as CI +0.494 ( $p<0.001$ ) for private healthcare and CI -0.465 ( $p<0.001$ ) for public healthcare use.

**Figure 30:** Concentration Indices for Healthcare Utilisation (95% CI)



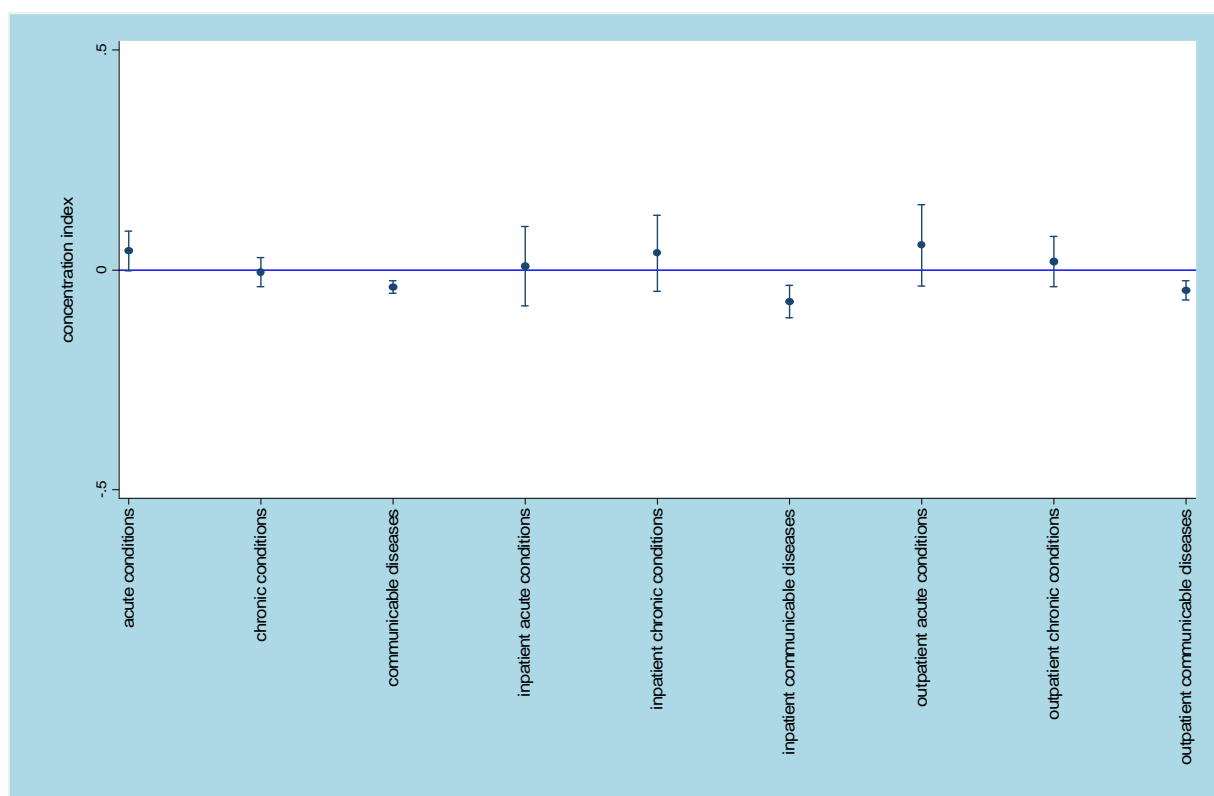
## Healthcare Utilisation: Contributing Factors

### Reasons for Seeking Healthcare

Overall, the better off reported seeking and obtaining care for an acute condition (CI +0.043,  $p=0.062$ ) even though the results were statistically insignificant. The disadvantaged in turn sought and received care for chronic conditions (CI -0.005,  $p=0.750$ ), although insignificant, and for communicable diseases, significant (CI -

0.039,  $p<0.001$ ). Inpatient findings show the rich experienced more acute conditions, but insignificantly so (CI +0.008,  $p=0.856$ ) and more chronic conditions, but also insignificantly so (CI +0.038,  $p=0.392$ ) unlike in the total findings. Worse off inpatients, like patients overall, more likely sought and received care for a communicable disease (CI -0.072,  $p<0.001$ ). The insignificant trend continued with outpatients, the wealthy being more likely to seek care for an acute (CI +0.056,  $p=0.242$ ) or chronic condition (CI +0.019,  $p=0.514$ ), contrary to the poor who more likelt reported seeking and receiving care for a communicable disease (CI -0.047,  $p<0.001$ ). **Figure 31** graphically depicts the reasons the wealthy and the poor last sought and obtained healthcare.

**Figure 31:** Concentration Indices for Healthcare Seeking Reasons (95% CI)

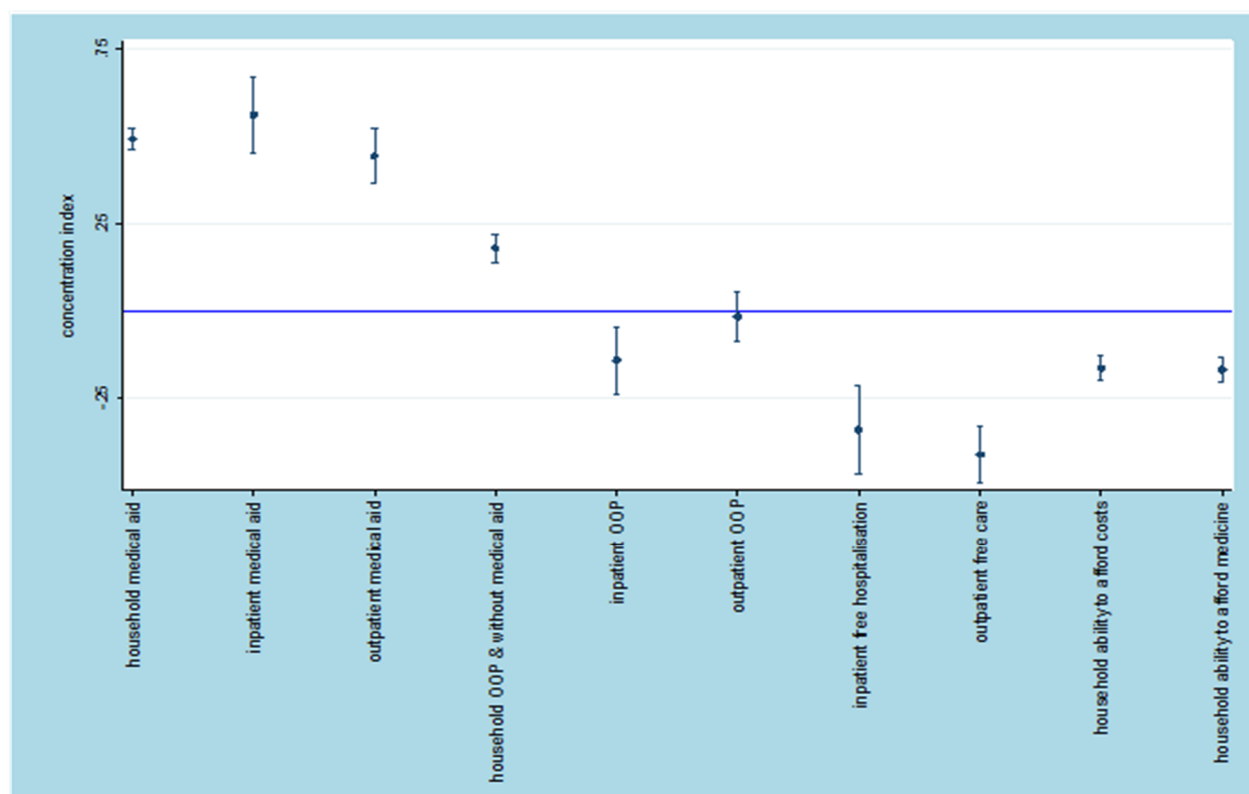


### Method of Payments

The descriptive findings for respondents' ability to pay are further established by its concentration. Richer inpatients (CI +0.564,  $p<0.001$ ) and outpatients (CI+0.444,  $p<0.001$ ) are both more likely to be covered by medical aid than poor users. Out-of-pocket payments seem to affect poor inpatients (CI -0.141,  $p=0.005$ ) and outpatients (CI -0.016,  $p=0.665$ ) in regards to payment for healthcare, even though results are insignificant for outpatients. Free healthcare as expected is concentrated on disadvantaged inpatients (CI -0.339,  $p<0.001$ ) and outpatients (CI -0.411,  $p<0.001$ ).

More affluent households have medical aid (CI +0.494,  $p<0.001$ ) and are more likely to pay out-of-pocket when they do not have medical aid (CI +0.181,  $p<0.001$ ). Disadvantaged households find it more challenging to pay their health costs (CI -0.165,  $p<0.001$ ) and to afford their medication (CI -0.169,  $p<0.001$ ).

**Figure 32:** Concentration Indices for Payment Methods and Affordability

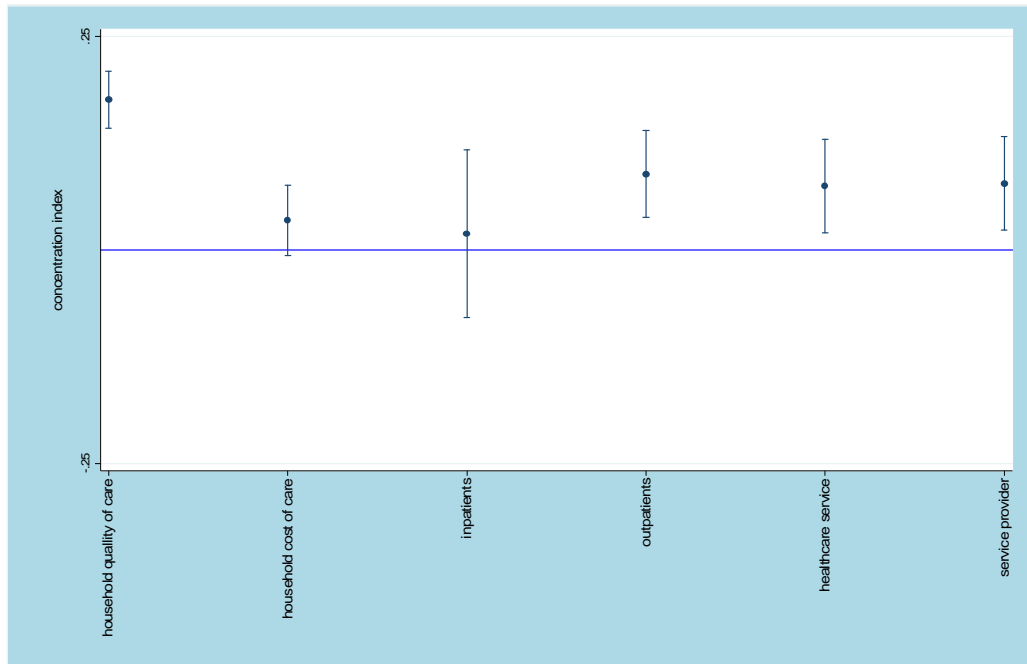


### Healthcare Consequences

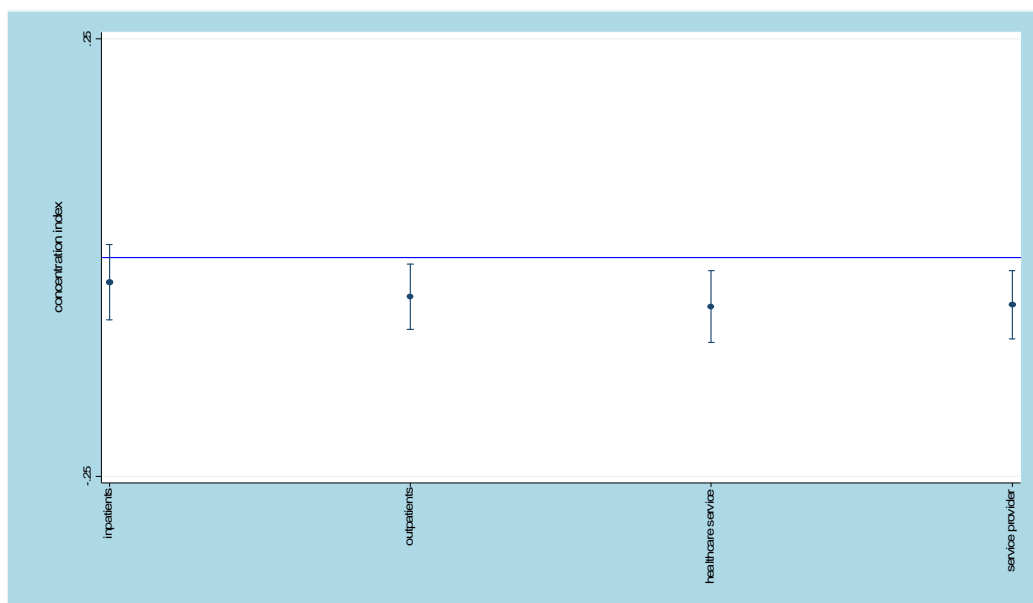
A clear contrast exists between the advantaged and disadvantaged in terms of healthcare satisfaction. **Figure 33** shows that the better off are more satisfied with the quality of healthcare. More wealthier inpatients (CI +0.019,  $p=0.700$ ) and outpatients (CI +0.089,  $p=0.026$ ) reported being satisfied or very satisfied with their healthcare, although results are insignificant for inpatients. The rich reported being more satisfied with their healthcare services (CI +0.075,  $p=0.008$ ) and service provider (CI +0.078,  $p=0.006$ ). From **Figure 34**, those less fortunate share different sentiments. Poorer inpatients (CI -0.028,  $p=0.205$ ) and outpatients (CI -0.045,  $p=0.019$ ) reported being dissatisfied or very dissatisfied with their healthcare, but results are again insignificant for inpatients. In addition, the poor reported being dissatisfied with the level of

healthcare service (CI -0.056,  $p=0.008$ ) and their service provider (CI -0.054,  $p=0.008$ ). At the household level, those who are better off reported being more satisfied with the quality (CI +0.176,  $p<0.001$ ) and cost (CI +0.035,  $p=0.093$ ) of their healthcare.

**Figure 33: Concentration Indices for Satisfaction (95% CI)**



**Figure 34: Concentration Indices for Dissatisfaction (95% CI)**



## 5. Discussion

Levesque et al. (2013) provide a robust and in depth meaning to the term access to healthcare. In essence a pathway is described beginning with an individual's ability to become aware of their healthcare needs and desire care; take the necessary steps to seek and reach it; utilise it; and experience the aftermath or consequences of this inherent process. Self-reported health and the World Health Organisation Disability Assessment Schedule (WHODAS) were used as need measures. Although a small number of respondents reported poor health or immobility, socioeconomic gradients emerged weighing more on the disadvantaged in the population. Harris et al. (2011) also found poor health status to be unequally distributed across wealth quintiles and to favour the disadvantaged. Furthermore, these findings confirm that ill health and disability weigh heavier on lower socioeconomic groups than higher earning groups (Ataguba et al., 2011). The Kessler Psychological Distress Scale (K10) is a distress measure. Of the total sample, 83.28% reported low distress, 10.34% moderate distress, 4.20% high distress and 2.18% very high distress levels. From these results, 93.62% of total respondents experienced low to moderate levels of distress in the past month and 6.38% high to very high distress levels. It is safe to conclude that a high proportion of the sample experienced normal distress levels in the 30 days preceding the survey. An additional measure of mental health is Post Traumatic Stress Disorder (PTSD). PTSD confirm findings on distress, that is, a low proportion of respondents suffer from ill mental health. However despite the small proportion of respondents who experienced any poor mental health, the less fortunate were more likely to report high distress levels or PTSD.

The ability to identify one's healthcare needs is the next stage along the conceptual framework. In SANHANES, respondents reported when last they needed healthcare. Advantaged respondents were better able to perceive their healthcare needs in the 12 months preceding the survey. On the contrary, in the matter of seeking care, the poor postponed obtaining healthcare more than the rich did. The most common reason respondents gave for not seeking care was their inability to afford it (20.13%). Other reasons include the unavailability of transport (11.29%) or the inability to afford transport costs (14.37%), inadequate provider drugs or equipment (11.17%), not being sick enough to warrant care (12.03%) and previously being treated badly (9.61%). Harris et al. (2011) report similar results though instead they also found the most

common reason for postponed care was respondents thought they were not sick enough. Moreover, they found the rich and insured assessed their health state not to warrant care more often than the poor and uninsured. In addition, findings showed respondents could not afford transport costs, anticipated being disrespected by a healthcare provider, or receiving ineffective treatment. McLaren et al. (2014) also found both monetary and time travel costs to constrain an individual's health seeking choices.

According to Levesque et al. (2013), access involves more than just the first contact a patient has with a health facility but every attempt to obtain healthcare. Unmet need is a measure of respondents who needed care but did not receive it in the year preceding the survey. The poor needed care most, did not receive it, and in some instances, neither attended a public or private healthcare facility.

Private transport include respondents who used a private vehicle belonging to them, a neighbour or friend as means of getting to a healthcare facility. Public transportation refers to any type of public transport including the use of a taxi. In addition, other forms of transport refer to respondents who used an ambulance or walked to the healthcare facility. Means of transportation provide information on how respondents "reached" a healthcare facility. Findings show that wealthy respondents, inpatients, outpatients and households used private transport and their poorer counterparts' public transport. Disadvantaged inpatients and outpatients also used an ambulance. A plausible explanation for this could be the lack of alternative forms of transport in the case of a medical emergency. Poorer outpatients were more likely to walk to a healthcare facility. Harris et al. (2011) also found in their study, the majority of outpatients used public transport or walked to a healthcare facility. Results show better off households had a higher probability of living within a 10km radius of a facility. In this regard, Harris et al. (2011) also found distance to a healthcare facility to be pro-rich. These findings confirm evidence reported by McLaren et al. (2014) that respondents in the poorest wealth quintiles are more likely to live further from the nearest health facility.

Once an individual realises he/she has a healthcare need, is able to perceive, seek and reach it, utilisation takes places. Results show that the wealthy are more likely to use a private healthcare facility compared to the poor who have a higher probability of using a public healthcare facility. Noteworthy is the high proportions of public



healthcare utilisation especially by the lower wealth quintiles. The high level of public sector dependency provide further evidence for the already distinct divide between the public and private healthcare sectors (Ataguba et al., 2011; Ataguba & McIntyre, 2013; Mayosi et al., 2014; McIntyre et al., 2006).

Reasons for seeking healthcare and methods of payment are considered influential contributors to utilisation. Exact distribution patterns did not emerge for respondents who sought care for an acute or chronic condition. Concerning concentration, advantaged respondents, inpatients and outpatients insignificantly sought care for an acute condition. The concentration of chronic conditions were insignificant and inconsistent. Contrary results show a significant socioeconomic gradient to exist for respondents, inpatients and outpatients who sought care for a communicable disease. Acute conditions could hold results on communicable diseases given the small reported proportions. How respondents paid for their care provides yet another perspective on the broad definition of access. Wealthy inpatients and outpatients were more likely to pay using their medical aid. Poor inpatients and outpatients paid out-of-pocket, although insignificant for outpatients. Disadvantaged inpatients and outpatients received free hospitalisation and care. The poor having access to public healthcare is in line with public sector objectives, that is, free healthcare for all who seek it (Buisman & García-Gómez, 2015). Advantaged households were also more likely to pay with their medical aid or out-of-pocket without medical aid cover. The ability of better off households to pay out-of-pocket without medical aid shows their greater ability to afford healthcare expenses. On the other hand, poor households faced difficulty in paying their medical and prescription costs. The rich being able to cover medical costs even without cover and the poor finding it challenging to cover their costs show two sides of the coin in terms of the inequality in healthcare financing.

The final stage on the pathway includes healthcare outcomes or the consequences after service use. This phase is subjective in nature in regards to the approach taken in this paper, where the patient has an opportunity to give feedback on their overall healthcare experience. A common way to measure this outcome is to observe satisfaction. Healthcare satisfaction was found to be pro-rich and dissatisfaction pro-poor. Although the poor are dissatisfied, a relatively small proportion of inpatients and outpatients reported being dissatisfied with the healthcare they received across the wealth quintiles.

## 6. Conclusion

The intended purpose of this study was to measure inequality in access to healthcare, along a multidimensional pathway, with the use of a conceptual framework. Findings showed the need for care to be pro-poor, whereas perceived care is significantly pro-rich. The private/public divide was distinct with the wealthy more likely to use a private healthcare facility and the poor a public healthcare facility. In reaching healthcare, the poor are mostly likely to use a public mode of transport, an ambulance or walk (outpatients), whereas the rich are more likely to use private transportation. Healthcare satisfaction was found to be pro-rich and dissatisfaction pro-poor. These socioeconomic gradients that exist in the different access dimensions provide evidence for the need for South Africa to move towards universal healthcare coverage (McIntyre *et al.*, 2006; Mayosi and Benatar, 2014; Buisman and García-Gómez, 2015). The transition to NHI is imperative in light of The National Development Plan's to achieve a significant shift in equity, efficiency and quality of healthcare service provision by 2030 (Planning Commission - The Presidency, 2011).

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## Appendix A: Descriptive Analysis

	Percentages	CI-lower bound	Mean	CI-upper bound	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total	F-value	P-value	n
Healthcare Need													
Self-reported health(good health)	78.62	77.97	78.62	79.27	74.51	75.94	75.97	78.48	83.43	78.00	20.2	0.000	15207
Self-reported health(bad health)	5.13	4.78	5.13	5.48	7.15	6.68	6.47	5.66	1.82	5.35	26.2	0.000	15207
WHO-DAScore		5.07	5.25	5.43	6.08	6.06	5.65	5.00	3.73	5.21	20.4	0.000	14209
0% of the population	62.60												
25% of the population	1.12												
50% of the population	0.31												
75% of the population	0.07												
100% of the population	0.05												
Distress													15067
low distress	82.34												
moderate distress	10.75												
high distress	4.35												
very high distress	2.56												
PTSD	0.94	0.82	0.94	1.05	1.40	1.05	1.01	0.77	0.74	0.99	3.1	0.016	25693
Perceived Health													
Needed for care	50.44	49.49	50.44	51.40	48.92	45.45	46.78	53.66	54.49	50.17	11.9	0.000	10544
Seeking													
Household care postponed	21.01	19.97	21.01	22.05	28.66	25.79	23.57	15.22	10.38	20.66	41.2	0.000	5873
Reaching													
Unmet need1	3.23	2.83	3.23	3.64	5.53	3.79	2.96	3.26	1.59	3.23	7.9	0.000	7267
Unmet need2	7.92	7.20	7.92	8.64	10.35	8.17	9.23	8.41	5.90	8.23	3.5	0.008	5386
Inpatients													
Private transport	46.64	43.48	46.64	49.80	22.02	22.26	34.16	47.38	80.71	45.31	50.2	0.000	963
Public transport	24.10	21.39	24.10	26.81	32.48	34.57	30.57	16.64	13.06	23.64	9.3	0.000	963
Ambulance	23.56	20.88	23.56	26.25	40.62	35.82	25.95	25.60	6.62	24.81	15.8	0.000	963
Outpatients													
Private transport	34.03	32.17	34.03	35.88	6.93	10.85	13.41	37.07	78.99	33.30	294.5	0.000	2502
Public transport	30.00	28.20	30.00	31.79	0.50	0.41	0.38	0.24	0.11	0.31	53.4	0.000	2502
Ambulance	4.82	3.98	4.82	5.66	3.29	10.70	3.38	5.39	1.90	4.68	10.5	0.000	2502
Walked	31.59	29.76	31.59	33.41	41.22	37.17	45.79	33.58	7.78	31.46	53.7	0.000	2502
Household distance to healthcare facility	77.68	76.63	77.68	78.73	61.82	74.23	80.49	86.40	86.56	77.89	74.9	0.000	6044
Utilisation													
Private Healthcare													
Private care	30.29	29.46	30.29	31.12	19.79	18.56	25.00	34.20	48.22	30.04	154.26	0.00	11724.00
Inpatient private care	27.73	24.91	27.73	30.55	2.60	5.87	12.13	24.04	63.66	25.62	79.1	0.000	973
Outpatient private care	35.42	33.57	35.42	37.28	13.11	12.77	17.64	43.25	69.45	34.54	165.6	0.000	2554
Public Healthcare													
Public care	42.4	41.48	42.40	43.32	52.37	50.32	46.94	42.77	24.17	42.50	108.2	0.000	11125
Inpatient public care	71.02	68.16	71.02	73.88	97.40	94.13	84.87	74.34	35.10	73.11	77.4	0.000	973
Outpatient public care	62.65	60.77	62.65	64.53	85.27	85.37	80.22	55.44	28.22	63.59	163.0	0.000	2554
Household Utilisation													
Private care	27.59	26.46	27.59	28.71	7.92	9.82	17.23	32.43	71.30	27.68	542.0	0.000	6052
Public care	71.18	70.04	71.18	72.32	88.52	89.07	81.62	66.11	29.74	71.07	454.4	0.000	6052
Reasons for Seeking Healthcare													
Acute conditions	37.29	36.18	37.29	38.39	34.28	35.07	36.35	39.73	39.81	37.45	3.6	0.007	7321
Chronic conditions	17.56	16.69	17.56	18.43	16.05	16.83	17.77	18.50	15.77	16.99	1.3	0.289	7303
Communicable diseases	3.27	2.86	3.27	3.68	4.94	5.31	4.22	2.05	1.05	3.23	14.4	0.000	7272
Other conditions	39.19	38.07	39.19	40.31	43.06	40.19	38.83	35.30	40.77	39.44	4.2	0.002	7309
Inpatients													
Acute conditions	16.76	14.43	16.76	19.10	7.01	18.56	15.77	19.49	14.15	15.56	2.5	0.041	984
Chronic conditions	19.87	17.36	19.87	22.37	19.49	11.35	27.45	23.08	20.85	20.81	3.2	0.014	980
Communicable diseases	3.56	2.40	3.56	4.73	9.49	6.02	5.43	2.04	0.50	4.01	5.0	0.001	980
Other conditions	57.55	54.46	57.55	60.65	62.27	61.14	46.18	53.83	60.77	56.57	2.9	0.020	984
Outpatients													
Acute conditions	30.14	28.45	30.14	31.83	30.06	26.19	28.27	29.77	35.62	30.35	3.0	0.018	2837
Chronic conditions	20.15	18.68	20.15	21.63	15.64	19.24	23.06	21.35	19.38	19.87	2.1	0.079	2839
Communicable diseases	3.52	2.84	3.52	4.20	5.24	6.19	4.63	2.29	0.71	3.52	7.4	0.000	2835
Other conditions	31.61	29.90	31.61	33.32	36.94	35.01	28.67	30.05	33.73	32.70	2.4	0.047	2841
Method of Payment													
Inpatients													
Medica laid	25.29	22.54	25.29	28.05	0.84	2.44	5.54	18.84	67.58	23.26	128.3	0.000	962
OOP	23.70	21.01	23.70	26.39	26.63	35.25	20.38	20.45	13.24	22.05	6.4	0.000	962
Free hospitalisation	47.52	44.36	47.52	50.68	65.96	57.65	69.33	57.72	20.62	51.70	31.7	0.000	962
Outpatients													
Medical aid	22.48	18.96	20.55	22.13	2.35	2.34	5.46	22.86	50.70	19.34	170.5	0.000	2513
OOP	20.55	20.84	22.48	24.11	27.09	18.92	20.93	23.17	22.98	22.64	1.9	0.101	2513
Free care	57.72	55.79	57.72	59.65	70.56	78.75	73.61	54.05	28.26	58.51	94.4	0.000	2513
Household Coverage & Affordability													
Medical aid	21.22	20.19	21.22	22.26	2.96	3.61	10.62	22.99	66.98	21.37	734.5	0.000	4501
OPP & without medical aid	26.77	25.48	26.77	28.07	19.03	20.74	28.90	34.06	47.45	27.01	39.9	0.000	4501
Ability to afford costs	27.17	26.03	27.17	28.31	36.29	30.98	28.91	23.50	14.72	26.80	39.5	0.000	5832
Ability to afford medicine	25.72	24.60	25.72	26.84	33.97	31.32	26.59	22.25	12.50	25.23	43.7	0.000	5824
Healthcare Consequences													
Satisfaction													
Inpatients	85.44	83.15	85.44	87.74	91.52	80.72	79.77	92.00	85.75	86.12	4.1	0.008	911
Outpatients	86.01	84.64	86.01	87.38	86.39	81.46	78.31	88.65	93.79	86.35	14.2	0.000	2478
Healthcare services	71.31	70.58	71.31	72.03	70.78	68.20	66.81	68.30	79.90	71.16	38.9	0.000	14975
Healthcare service provider	69.27	68.53	69.27	70.01	69.31	66.11	66.13	64.17	79.40	69.43	49.8	0.000	14884
Dissatisfaction													
Inpatients	5.97	4.43	5.97	7.51	3.92	7.68	9.45	4.63	3.04	5.59	2.1	0.007	911
Outpatients	6.93	5.93	6.93	7.93	7.82	8.49	8.73	7.90	2.44	6.78	5.3	0.000	2478
Healthcare service	14.83	14.26	14.83	15.40	16.64	15.61	17.41	17.05	8.78	14.85	29.3	0.000	14975
Healthcare service provider	14.46	13.90	14.46	15.03	15.24	15.67	16.97	18.10	7.26	14.37	42.8	0.000	14884
Household Satisfaction													
Care quality	69.58	68.40	69.58	70.75	65.55	63.95	60.48	69.20	89.69	69.81	75.6	0.000	5919
Cost of care	63.19	61.95	63.19	64.43	0.64	61.67	60.18	63.95	67.62	63.47	3.8	0.004	5805

## Appendix B: Concentration Indices

	C	standard error	p-value	GC	standard error	p-value	E	standard error	p-value	W	standard error	p-value	(EC(v)) 1.5	(EC(v)) 5	(SC(β)) 1.5	(SC(β)) 5	(GEC(v)) 1.5	(GEC(v)) 5	(GSC(β)) 1.5	(GSC(β)) 5
<b>Healthcare Need</b>																				
Self-reported health (good health)	0.024	0.003	0.000	0.019	0.005	0.000	<b>0.074</b>	0.020	0.000	0.108	0.029	0.000	0.016	0.035	0.022	0.030	0.082	0.051	0.069	0.093
Self-reported health (bad health)	-0.202	0.021	0.000	-0.011	0.002	0.000	<b>-0.043</b>	0.007	0.000	-0.214	0.037	0.000	-0.133	-0.288	-0.181	-0.255	-0.048	-0.029	-0.039	-0.055
WHODASscore	<b>-0.100</b>	0.025	0.000	-0.523	0.132	0.000							-0.064	-0.164	-0.089	-0.122				
Distress	<b>-0.033</b>	0.005	0.000	-0.041	0.006	0.000							-0.022	-0.052	-0.028	-0.047				
PTSD	-0.153	0.040	0.000	-0.003	0.001	0.021	<b>-0.011</b>	0.005	0.021	-0.269	0.116	0.021	-0.089	-0.425	-0.120	-0.276	-0.006	-0.008	-0.005	-0.011
<b>Perceived Health</b>																				
Needed for care	0.030	0.006	0.000	0.015	0.007	0.021	<b>0.061</b>	0.026	0.021	0.061	0.026	0.021	0.018	0.041	0.030	0.020	0.062	0.038	0.060	0.040
<b>Seeking</b>																				
Household care postponed	-0.184	0.015	0.000	-0.038	0.004	0.000	<b>-0.152</b>	0.016	0.000	-0.232	0.025	0.000	-0.112	-0.338	-0.169	-0.219	-0.156	-0.131	-0.140	-0.181
<b>Reaching</b>																				
Unmet need1	-0.225	0.040	0.000	-0.007	0.002	0.000	<b>-0.029</b>	0.008	0.000	-0.232	0.065	0.000	-0.137	-0.515	-0.182	-0.374	-0.030	-0.031	-0.024	-0.048
Unmet need2	-0.106	0.029	0.000	-0.009	0.004	0.028	<b>-0.035</b>	0.016	0.028	-0.115	0.053	0.028	-0.074	-0.185	-0.088	-0.211	-0.041	-0.028	-0.029	-0.070
<b>Inpatients</b>																				
Private transport	0.291	0.020	0.000	0.132	0.013	0.000	<b>0.527</b>	0.051	0.000	0.531	0.052	0.000	0.184	0.483	0.259	0.367	0.561	0.409	0.469	0.665
Public transport	-0.205	0.058	0.001	-0.022	0.010	0.027	<b>-0.214</b>	0.054	0.000	-0.230	0.103	0.027	-0.133	-0.352	-0.192	-0.307	-0.097	-0.071	-0.083	-0.133
Ambulance	-0.255	0.034	0.000	-0.063	0.011	0.000	<b>-0.253</b>	0.046	0.000	-0.340	0.061	0.000	-0.159	-0.493	-0.218	-0.365	-0.266	-0.229	-0.216	-0.362
<b>Outpatients</b>																				
Private transport	0.465	0.015	0.000	0.155	0.009	0.000	<b>0.619</b>	0.034	0.000	0.697	0.038	0.000	0.298	0.730	0.418	0.578	0.669	0.454	0.557	0.769
Public transport	-0.309	0.034	0.000	-0.036	0.007	0.000	<b>-0.333</b>	0.039	0.000	-0.349	0.067	0.000	-0.184	-0.643	-0.278	-0.396	-0.143	-0.138	-0.128	-0.182
Ambulance	-0.175	0.057	0.002	-0.008	0.004	0.027	<b>-0.033</b>	0.015	0.027	-0.183	0.083	0.027	-0.122	-0.141	-0.153	-0.164	-0.164	-0.012	-0.029	-0.031
Walked	-0.210	0.018	0.000	-0.066	0.009	0.000	<b>-0.264</b>	0.038	0.000	-0.306	0.044	0.000	-0.140	-0.266	-0.188	-0.261	-0.297	-0.157	-0.237	-0.328
<b>Household Distance to Healthcare Facility</b>	0.066	0.004	0.000	0.051	0.004	0.000	<b>0.205</b>	0.016	0.000	0.298	0.024	0.000	0.036	0.161	0.059	0.083	0.192	0.235	0.185	0.260
<b>Utilisation</b>																				
<b>Private Healthcare</b>																				
Private care	0.205	0.009	0.000	0.062	0.006	0.000	<b>0.247</b>	0.026	0.000	0.294	0.031	0.000	0.130	0.339	0.187	0.249	0.263	0.190	0.224	0.299
Inpatient private care	0.499	0.030	0.000	0.128	0.014	0.000	<b>0.512</b>	0.057	0.000	0.672	0.075	0.000	0.323	0.794	0.441	0.666	0.589	0.380	0.452	0.683
Outpatient private care	0.381	0.015	0.000	0.131	0.009	0.000	<b>0.526</b>	0.035	0.000	0.581	0.039	0.000	0.241	0.619	0.349	0.471	0.563	0.400	0.482	0.651
<b>Public Healthcare</b>																				
Public care	-0.136	0.007	0.000	-0.058	0.007	0.000	<b>-0.231</b>	0.027	0.000	-0.236	0.027	0.000	-0.090	-0.207	-0.117	-0.186	-0.258	-0.164	-0.199	-0.316
Inpatient public care	-0.177	0.011	0.000	-0.129	0.014	0.000	<b>-0.517</b>	0.057	0.000	-0.657	0.072	0.000	-0.114	-0.288	-0.156	-0.236	-0.561	-0.393	-0.455	-0.689
Outpatient public care	-0.208	0.008	0.000	-0.132	0.009	0.000	<b>-0.528</b>	0.036	0.000	-0.570	0.039	0.000	-0.131	-0.339	-0.191	-0.255	-0.564	-0.403	-0.485	-0.648
<b>Household Utilisation</b>																				
Private care	0.446	0.011	0.000	0.124	0.004	0.000	<b>0.494</b>	0.017	0.000	0.617	0.021	0.000	0.296	0.662	0.388	0.611	0.554	0.343	0.429	0.676
Public care	-0.164	0.004	0.000	-0.116	0.004	0.000	<b>-0.465</b>	0.018	0.000	-0.565	0.021	0.000	-0.109	-0.234	-0.143	-0.222	-0.524	-0.311	-0.405	-0.632
<b>Reasons for Seeking Healthcare</b>																				
Acute conditions	0.003	0.009	0.003	0.011	0.006	0.062	<b>0.043</b>	0.023	0.062	0.046	0.024	0.062	0.015	0.062	0.030	0.022	0.038	0.043	0.044	0.033
Chronic conditions	-0.008	0.016	0.632	-0.001	0.004	0.750	<b>-0.005</b>	0.017	0.750	-0.009	0.029	0.750	-0.011	0.031	-0.004	-0.018	-0.012	0.010	-0.003	-0.012
Communicable diseases	-0.300	0.040	0.000	-0.010	0.002	0.000	<b>-0.039</b>	0.007	0.000	-0.310	0.055	0.000	-0.182	-0.524	-0.288	-0.321	-0.404	-0.302	-0.037	-0.042
<b>Inpatients</b>																				
Acute conditions	0.013	0.047	0.774	0.002	0.012	0.856	<b>0.008</b>	0.046	0.856	0.016	0.088	0.856	-0.007	0.175	0.017	0.011	-0.008	0.051	0.011	0.007
Chronic conditions	0.045	0.039	0.250	0.009	0.011	0.392	<b>0.038</b>	0.044	0.392	0.057	0.067	0.392	0.015	0.151	0.042	-0.006	0.021	0.059	0.035	-0.005
Communicable diseases	-0.448	0.098	0.000	-0.018	0.005	0.000	<b>-0.072</b>	0.019	0.000	-0.466	0.122	0.000	-0.260	-0.899	-0.416	-0.460	-0.070	-0.067	-0.067	-0.074
<b>Outpatients</b>																				
Acute conditions	0.046	0.018	0.011	0.014	0.012	0.242	<b>0.056</b>	0.047	0.242	0.066	0.056	0.242	0.034	0.035	0.043	0.060	0.070	0.020	0.052	0.073
Chronic conditions	0.024	0.024	0.323	0.005	0.007	0.514	<b>0.019</b>	0.029	0.514	0.029	0.045	0.514	0.006	0.142	0.018	0.042	0.008	0.053	0.014	0.033
Communicable diseases	-0.334	0.062	0.000	-0.012	0.003	0.000	<b>-0.047</b>	0.011	0.000	-0.346	0.079	0.000	-0.207	-0.551	-0.321	-0.374	-0.049	-0.036	-0.045	-0.053
<b>Method of Payment</b>																				
<b>Inpatients</b>																				
Medical aid	0.606	0.030	0.000	0.141	0.014	0.000	<b>0.564</b>	0.055	0.000	0.790	0.077	0.000	0.399	0.905	0.532	0.813	0.626	0.394	0.495	0.756
OOP	-0.160	0.038	0.000	-0.035	0.012	0.005	<b>-0.141</b>	0.049	0.005	-0.206	0.072	0.005	-0.096	-0.280	-0.144	-0.154	-0.142	-0.116	-0.127	-0.136
Free hospitalisation	-0.164	0.019	0.000	-0.085	0.016	0.000	<b>-0.339</b>	0.064	0.000	-0.339	0.064	0.000	-0.110	-0.217	-0.146	-0.226	-0.385	-0.210	-0.301	-0.468
<b>Outpatients</b>																				
Medical aid	0.575	0.022	0.000	0.111	0.010	0.000	<b>0.444</b>	0.040	0.000	0.712	0.064	0.000	0.377	0.862	0.511	0.754	0.492	0.312	0.396	0.583
OOP	-0.017	0.023	0.453	-0.004	0.009	0.665	<b>-0.016</b>	0.036	0.665	-0.023	0.052	0.665	-0.010	-0.066	-0.007	-0.044	-0.015	-0.028	-0.007	-0.040
Free care	-0.176	0.010	0.000	-0.103	0.010	0.000	<b>-0.411</b>	0.040	0.000	-0.424	0.042	0.000	-0.115	-0.251	-0.160	-0.218	-0.454	-0.274	-0.375	-0.511
<b>Household Coverage &amp; Affordability</b>																				
Medical aid	0.578	0.012	0.000	0.124	0.004	0.000	<b>0.494</b>	0.016	0.000	0.735	0.024	0.000	0.389	0.824	0.500	0.808	0.561	0.329	0.428	0.691
OOP & without medical aid	0.168	0.014	0.000	0.045	0.005	0.000	<b>0.181</b>	0.021	0.000	0.230	0.027	0.000	0.109	0.285	0.149	0.238	0.199	0.144	0.161	0.258
Ability to afford costs	-0.154	0.013	0.000	-0.041	0.005	0.000	<b>-0.165</b>	0.018	0.000	-0.210	0.023	0.000	-0.094	-0.280	-0.137	-0.185	-0.170	-0.140	-0.147	-0.198
Ability to afford medicine	-0.168	0.013	0.000	-0.042	0.004	0.000	<b>-0.169</b>	0.018	0.000	-0.224	0.024	0.000	-0.103	-0.299	-0.151	-0.202	-0.176	-0.141	-0.152	-0.204
<b>Healthcare Consequences</b>																				
<b>Satisfaction</b>																				
Inpatients	0.006	0.008	0.506	0.005	0.012	0.700	<b>0.019</b>	0.050	0.700	0.040	0.104	0.700	0.003	-0.004	0.011	-0.011	0.018	-0.006	0.037	-0.038
Outpatients	0.026	0.005	0.000	0.022	0.006	0.001	<b>0.089</b>	0.026	0.001	0.189	0.055	0.001	0.017	0.028	0.025	0.030	0.101	0.045	0.088	0.104
Healthcare service	0.026	0.003	0.000	0.019	0.007	0.008	<b>0.075</b>	0.028	0.008	0.091	0.034	0.008	0.020	0.019	0.021	0.041	0.096	0.025	0.061	0.118
Healthcare service provider	0.028	0.003	0.000	0.019	0.007	0.006	<b>0.078</b>	0.028	0.006	0.091	0.033	0.006	0.022							