Availability, affordability and acceptability of healthcare in post-apartheid South Africa

Motivated by disappointing health outcomes, stubborn health inequalities and the global and national prioritisation of universal coverage, we investigate access to health care in post-apartheid South Africa. Following Thiede, Akweongo & McIntyre (2007) the study concentrates on three underlying dimensions of access: availability, affordability and acceptability.

These initiatives have paid off: our analysis of the General Household Surveys of 2009 and 2010 shows that while a number of individuals still struggle with physical access to clinics, this is associated with remote and rural communities and innovative solutions may be required to improve the availability of health care for such communities in a cost effective way. Affordability does not appear to be a significant impediment to access.

Turning to user acceptability, the analysis shows that a considerable proportion of public sector facility users complain about long waiting times, rude nurses and drug stock outs, but then proceed to report that they are satisfied with the service they had received. This tension may be attributable to expectations adapting to circumstances and are flagged as a potential concern to be researched in more depth to better understand whether low expectations may present an obstacle to initiatives seeking to strengthen local accountability and monitoring systems. Over the last few years there has been an increasing recognition of the importance of demand-side constraints and specifically, health system responsiveness and clinical quality, amongst South African policy makers. Demand-side aspects of health care have often not received the attention it deserves and is arguably one of the most significant remaining obstacles to enhancing health-seeking behaviour and improving health outcomes in post-apartheid South Africa.

Introduction

The socio-economic marginalisation of non-whites under the apartheid legislation resulted in – amongst other things - extreme inequality being reflected in South Africa's health system, a lack of solidarity and inequity in resources and spending. Persistent inequalities across healthcare and many other health-related dimensions have translated into chronic inequity in health outcomes across races, genders, cultures, socio-economic status and geographic locations (Heaton & Acheampong, 2007). Even though child mortality rates have fallen considerably from 1997 to 2007 (Nannan, Dorrington, Laubscher et al, 2012) and the adult life span has increased to 60 years - albeit from a very low base (Coovadia, 2014) - the weight of the country's quadruple burden of disease still falls largely on the previously disadvantaged (Coovadia, Jewkes, Barron, Sanders & McIntyre, 2009).

Given the historical and persisting inequities, the post-apartheid South African government placed health reform high on the country's development agenda (Black, Siebrits & Van Der Merwe, 2011: 104). Over the past 20 years increasing emphasis was placed on redressing the financing and payment mechanisms of the public health system[1] in efforts to achieve its primary objective of universal health coverage. This trend is set to continue over the medium-term due to the government's commitment towards additional allocations for National Health Insurance (National Treasury, 2014: 87). These efforts to achieve universal access take place in the context of South Africa's dual and highly polarised healthcare system where an equitable redistribution of scarce resources amongst a growing population has not been achieved as yet (Sahn, 2012: 246). A project by the Monitor Group[2] , which compared the quality of health systems of forty-eight countries[3], ranked the South African public health sector 8th from the bottom while the private health sector was ranked 6th overall[4] (Monitor Group, 2008).

Despite the substantial fiscal shifts towards health - and within healthcare, towards primary healthcare - South Africa's health outcomes have not improved significantly (Van Rensburg & Engelbrecht, 2012). In fact, most critical health indicators are worse than those of comparable middle-income countries (MICs) that spend substantially less on healthcare[5]. The South African status quo of poor health outcomes relative to total health expenditure suggests that reliable access to affordable quality healthcare, amongst other health performance drivers[6], is severely impeded. In spite of this, there are only a handful of recent studies estimating access to healthcare and access to healthcare remains inadequately understood (McIntyre, Thiede & Birch, 2009).

Even though there is wide-spread consensus that access covers a broad scope, the bulk of access literature focuses almost exclusively on supply-side issues such as availability and affordability. In the South African context the supply-side focus, while important, has overshadowed other equally pertinent issues linked to the demand-side of health access i.e. whether consumers find public

---

[1] At present, approximately 11.6 percent of South Africa's 2014/2015 national budget expenditure is allocated to public health (National Treasury, 2014: 82), with the last measurement of aggregate spending on healthcare amounting to approximately 8.5 percent of GDP (World Bank, 2014a).

[2] Monitor Group is an international advisory and consulting firm.

[3] Developed and developing countries.

[4] Amongst the ranks of countries like Switzerland and Sweden.

[5] At last measurement, Thailand and Sri Lanka - both MICs - spent 4.1 percent and 3.4 percent of GDP on total healthcare expenditure respectively (World Bank, 2014b). In spite of their relatively low expenditure on healthcare, both countries outperform South Africa in terms of health indicators such as life expectancy and infant mortality rates (WHO, 2012a; WHO, 2012b; Schwab, 2013).

[6] Such as efficiency, equity, healthcare expenditure, financing and various aspects related to quality (Reinhardt & Cheng, 2000).

health services acceptable or not (McIntyre, Thiede & Birch, 2009:182). Demand-side issues are under-researched and often absent from many debates around health outcomes and policies. Despite the increased prominence of demand side factors on the global health agenda via the inclusion of quality and user responsiveness in more recent definitions of universal health coverage, the acceptability dimension of access remains inadequately understood.

This article draws on Penchansky and Thomas' (1981) multi-dimensional definition of access which aims to describe the *fit between the patient and the healthcare system*. This definition therefore encompasses quality issues linked to most of the demand-side aspects of health-seeking behaviour. An adaption of Penchansky and Thomas' taxonomy, as described by Thiede, Akweongo & McIntyre, (2007) and used by McIntyre et al (2009), incorporates three interlinked but distinct spheres of access: availability, affordability and acceptability.

Availability, also referred to as physical access, is defined as the relationship between the volume and type of services (resources) which exist and the volume and type of needs of the client. This supply-side dimension is often first-in-mind when policy-makers consider access. Affordability, also referred to as financial access, relates the price of health services and medical aid to the income of clients. It incorporates the client's perception of value-for-money and their understanding of prices, total costs (direct and indirect) and possible credit arrangements. The third dimension, acceptability, refers to client attitudes about the personal and professional characteristics of health care providers compared to the de facto characteristics of existing health care providers. This relationship also works in reverse, capturing health care provider attitudes regarding what they consider acceptable client characteristics. The adapted conceptual framework provides easily understandable, but a wider and more encompassing angle for investigating access to healthcare.

The post-apartheid government has made commendable progress towards reinforcing the public health sector, as well as improving and consolidating access to healthcare (Van Rensburg, 2014). This has mainly been achieved through expanding the physical availability of public healthcare, mainly a supply-side issue. Tackling the availability dimension of access is often the most logical starting point when attempting to increase access. Since supply side concerns have for long dominated the South African health reform agenda, resulting in more than 1600 clinics - 40 percent of all existing clinics - being built or upgraded since 1994, improvements in certain access proxies have been found (South African Government News Agency, 2014). Recent analysis shows that there has been dramatic improvement in the availability of healthcare services over the post-apartheid period, with Burger for instance showing that poor report shorter travelling times to clinics (Burger, 2007).

Affordability-focused policies in South Africa have resulted in the roll-out of free health policies and the expansion of priority programmes to improve access to healthcare to the most vulnerable groups (Van Der Berg, 2002: 17; Van Rensburg, 2014:4). Despite progress at the lowest quintiles, research points to the fact that an exclusive focus on affordability undermines and limits equity in health care access. A South African study by Goudge, Gilson, Russel, Gumede & Mills (2009) found that fee removal alone does not guarantee improved access to public health care, and that broader interventions need to be implemented. Even if public health services are 'free' or affordable, perceptions of poor quality public health services may dissuade clients from utilising it.

A recent microeconomic study by Honda, Ryan, Van Niekerk & McIntyre (2014) argues that improvements in availability and affordability of public health care in South Africa will not amount to much if clients do not find the quality of public health services acceptable. It is therefore imperative

that policy-makers have a thorough understanding of the preferences of clients accessing public health care. Despite this assertion, literature on the acceptability dimension of access is fairly limited (Gilson, 2007).

Methods

The empirical analysis was conducted using nationally representative South African data from the annual General Household Survey (GHS). This survey is conducted and collated by Statistics South Africa (StatsSA) and is publicly available. Each survey contains approximately one hundred thousand individuals providing considerable statistical power for the analysis.

The GHS data set contains a mixture of both individual, and household, level socio-economic and demographic characteristics, and importantly, health and healthcare characteristics. Analyses of the data provided insights into general trends in healthcare as well as the perceptions and characteristics of individuals accessing public health facilities in South Africa.

For analysis conducted at an individual level, only respondents equal to or older than 18 years were included[7]. Data for the periods 2009 and 2010 were used in the multivariate analysis since the GHS surveys asked more detailed questions related to the acceptability dimension of access for these years only. The univariate analysis used mainly 2002 to 2008 data since changes in the post-2008 surveys rendered analysis between these periods incomparable. Weights were used throughout the descriptive and multivariate analysis.

A socio-economics status (SES) index was created using PCA[8] in lieu of adequate income and expenditure data in the GHS data set. PCA is a method used to combine highly correlated variables into a single factor, thereby expressing two or more variables in one index (Thurstone, 1931). Public and private asset and expenditure variables were used to derive the SES index. The index was composed of dwelling type, real[9] expenditure[10] per capita, the household head's level of education, access to water and type of sanitation system. The derived SES index was then used to divide the population into quintiles in each survey. Some analyses used the SES index to divide the population into poor and non-poor, with poor being the bottom 40 percent of the SES distribution (quintiles one and two), while non-poor would be the remaining 60 percent (quintiles three to five).

We employed a Linear Probability Model (LPM) for the multivariate analyses. A LPM regress a dichotomised dependent variable on relevant explanatory variables by using the standard ordinary least squares (OLS) method (Gujarati, 2003:624). The LPM can be expressed as:

$$Yi = \beta 1 + \beta 2\, Xi + ui \ldots (1)$$

where Y is the dichotomised dependent variable and Xi represents a set of an explanatory variables. Model 1 looks like a typical linear regression model except for the fact that the dependent variable is binary. It is called a linear probability model since the conditional expectation of Yi, given Xi, E (Yi | Xi), can be understood as the conditional probability that the event will occur given Xi i.e. Pr (Yi = 1 |

---

[7] This minimum age criterion was chosen on the grounds that certain questions were not applicable to individuals younger than eighteen years. In addition, the inclusion of responses from minors may be less reliable and could add noise to the analysis

[8] Principal Component Analysis.

[9] August 2012 prices.

[10] Created using the mid-point method to derive household expenditure in each interval.

Xi). While the LPM has its weaknesses, its simplicity and ease of interpretation outweighs its disadvantages in the context of this article[11].

In the multivariate analyses, GHS data related to access were dichotomised and used as dependent variables. LPMs were estimated to show how proxies of the affordability and acceptability dimensions of access are associated with socio-demographic, education, employment and household characteristics. The findings obtained provide insights into the observed health access trends linked to affordability and acceptability in the South Africa context.

Limitations
The main sub-sample of interest for the descriptive statistics was individuals who reported that they 'suffered illness or injury during the past month'. Using this sub-sample in the univariate analysis introduces bias since these respondents were more likely to suffer from acute illnesses or injuries vis-à-vis chronic illnesses and this question will also not capture preventative care or antenatal care. The benefits to seeking health services when acutely ill or injured are more likely to have higher returns when compared to the chronically ill or injured. This translates into a greater urgency to seek healthcare when acutely ill or injured.

Another source of bias could stem from what Demery refers to as 'perception bias', a concept which captures how individuals from different income groups perceive or experience illness or injury (Demery, 2003). The subjectivity of illness and injury across income groups could bias the results since the poor may have higher pain or discomfort threshold levels associated with their interpretation of illness or injury – possibly due to the higher opportunity cost (e.g. waiting time, travel time) associated with seeking care (Rossouw, 2015). Rossouw concluded that poor South Africans underestimate their health needs via self-censoring of their reported health needs (Rossouw, 2015). Collectively, such findings add impetus to being cautious about what impact the filter of acute illness and injury may have on the results reported in the univariate analysis.

The empirical analysis is cross-sectional in nature and therefore causal relationships cannot be determined. The findings of the article need to be interpreted in the context of this limitation and those described above. StatsSA[12] made a few changes to the health component of the survey in 2009 and 2010, which influenced the choice of access proxies positively[13], but rendered multivariate analysis of pre-2009 and post-2010 data impossible.

Multivariate analysis: availability, affordability and acceptability
Access was described using three dependent variables which captured its 3 dimensions: *i) availability, ii) affordability and iii) acceptability*. Sequential combinations of access were also derived, namely *iv) AA* - availability plus affordability - and *v) AAA* - AA plus acceptability. Adding sequential combinations of access to the multivariate analyses served to highlight the impact of each dimension when juxtaposed with cumulative access.

The availability dimension was proxied using the objective measure of travel time to closest health facility: respondents who claimed to travel less than 30 minutes to the closest facility were set as

---

[11] In addition, the results obtained from LPM regressions did not differ significantly from that of Probit models, which were also run.
[12] Statistics South Africa.
[13] More detailed health questions were asked in the 2009 and 2010 GHS surveys.

one for the availability dummy. Affordability was derived from information related to payments for health consultations: respondents who did not pay for health services, or who those on medical aid who consulted at a private facility, were set as one for the affordability dummy.

The acceptability dimension relied on the data linked to the question which asked respondents for reasons as to why they did not use their closest health facility. If a respondent answered that the facility was unclean, staff was rude, diagnosis was incorrect, operating hours were inconvenient or they were unsatisfied, they were assigned as 'ones' for the acceptability dummy. These variables aimed to elicit insights into demand-side aspects of health-seeking behaviour.

Since the acceptability proxies were derived from subjective self-reported data linked to experiences at health facilities it was vulnerable to perception bias issues, and thus additional manipulations of the variables were required decrease this bias. An acceptability dummy was thus created for each provincial sampling unit (PSU), where units with an acceptability level of 75 percent or more were considered to have acceptable levels of access i.e. 75 percent on individuals living in that unit considered health services close by as acceptable. The PSU acceptability score – one if acceptable, zero if not – was then reassigned to each individual based on their residential location. While impossible to remove all bias, this method ensured that individual-level bias was minimised to some degree.

Cursory analysis of the access variables, as shown in figure 3, shows that clear disparities in access exist between the poor and the non-poor, and these disparities persist across all dimensions of access. Viewed from a different perspective, the availability dimension of access achieves the highest level, irrespective of SES status. This attests to the strides made by the South African government in terms of increasing the physical availability of health services.

When the affordability dimension is added to the availability dimension i.e. AA, the level of access decreases slightly for both the poor and non-poor. However, the access level of AA is still relatively high, and seems plausible in the South African context where public health services are free for the most vulnerable – pregnant females and children under the age of 6 years – while primary healthcare is free for all. In additional, public health services at higher levels are charged on an ability-to-pay principle.

Once acceptability is added to AA i.e. AAA, access to healthcare drops to 48 percent for the poor and 67 percent for the non-poor. This alludes to underlying demand-side issues contributing the level of acceptability, and thus the accessibility, of health services in South Africa.

Figure 3: Share (%) of access for poor and non-poor, 2009-2010

A: Availability; AA: Availability + Affordability; AAA: AA + Acceptability
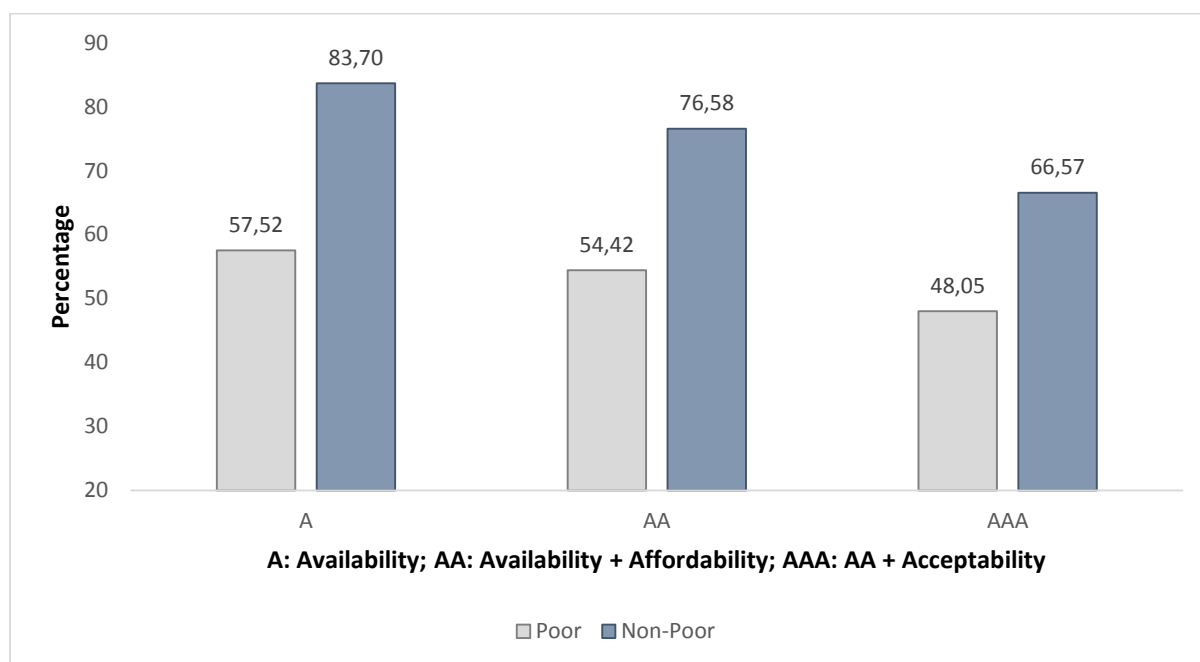
Source: Own calculations using GHS 2009/2010 data

Variables of interest: independent variables
The independent variables were mainly socio-economic and demographic in nature. A dichotomous variable was created for SES quintile 5, referred to as affluent. Our analysis showed little variation in the coefficients across the bottom of the SES scale (bottom 4 SES quintiles), but with large differences between the top quintile and the rest of the income distribution[14].

A continuous real per capita expenditure variable was created from GHS reported household expenditure categories by using the mid-point method to derive household expenditure in each interval and then dividing it by the household size. Continuous variables for the household head's level of education and level of education were included, as well as dummy variables for being employed and whether an individual lived in a household where the household head was employed. The rationale for including the education and employment status of the household head was to test for intra-household dynamics, if any, in the context of access.

A dummy for the male gender was included, as well as continuous variables for age in years and age squared in years. The age squared variable was included to circumvent the non-linearity effects obtained when only including the age variable. The categorical variables for the four race groups (Black, Coloured, Indian and White) were included, with Black being the reference (omitted) variable.

Dummies for each year of the GHS were included to allow for year effects and dummies for the nine provinces were included as control variables.

---

[14] It is postulated that the high degree of variability amongst the bottom four quintiles may explain the flat socio-economic curve (until quintile 5) found in empirical studies in the South African context. Another explanation for the flat socio-economic slope is that it captured the social polarisation between the middle class and the rest of South African society. The two distinct health markets, public and private, may also explain this finding.

Results

Multivariate analysis assists researchers to better understand patterns where inequalities, as evident in the univariate analysis described above, persists. Care was taken to interpret the findings within the context of supporting literature linked to South Africa. All multivariate results were robust to continuous measures and alternative model specifications.

Table 1: Access models (weighted), 2009 -2010

VARIABLES	(1) Available	(2) Affordable	(3) Acceptable	(4) AA	(5) AAA
Affluent	0.0155	0.0126***	0.0329***	0.0106	0.0185
Hhold. Head's edu.	0.00230**	-0.00128***	0.000309	0.000837	0.00246**
Education level	0.00448***	-9.06e-05	-0.000998*	0.00388***	0.00197
Employed	0.0195***	-0.00455	0.00831**	0.00978	-0.00174
Hhold. Head empl.	0.0219***	-0.0224***	0.00730**	0.00202	0.00128
Male	0.00441	-0.00445*	0.00457*	0.00348	0.00332
Age	-0.00123	0.000476	-0.000376	-0.000321	-0.000416
Age squared	1.91e-05*	-6.38e-06	4.62e-06	7.81e-06	8.40e-06
Coloured	0.000766	-0.00732*	0.0263***	-0.0372***	-0.0176
Indian	0.00112	-0.0555***	0.0299***	-0.106***	-0.0566**
White	-0.00985	-0.00118	0.0379***	-0.0273	0.0543***
Rural	-0.297***	-0.0573***	-0.00600	-0.299***	-0.223***
Constant	0.805***	0.982***	0.919***	0.758***	0.624***
Observations	34,237	54,441	57,884	35,221	37,237
R-squared	0.131	0.014	0.013	0.103	0.055

Source: Own calculations using GHS 2009/2010 data
*** Significant at 1%, ** Significant at 5%, * Significant at 10%
Reference groups: Gender: Female, Race: Black, GHS year dummies included but not shown in table
Controlled for provinces

Availability

Overall, education and employment status of the individual and the household head, as well as age, were positively and statistically significantly related to the availability of healthcare. As expected, the rural dummy was negatively and statistically significantly correlated with a travel time of less than 30 minutes to the nearest health facility.

Affordability

Affordability results showed that on average, black South Africans and females, unemployed individuals and less educated individuals were more likely to report healthcare as affordable. Females reported *not* paying for health services (or accessing a private health service while on medical aid) more frequently than men. The education level of the household head, as well as the household head being employed, was negatively and statistically significantly associated with the affordability variable. All race groups, on average, were less likely to report that health services were affordable than Blacks. Rural respondents were also statistically significantly less likely to report health services as affordable. As expected, affluence was positively and statistically significantly correlated with affordability, most likely capturing the population who access private healthcare via medical aid.

Acceptability

Black South Africans were statistically significantly less likely to report health services as acceptable. The researchers tried to eliminate perception bias – which is known to operate via income - and

therefore interpret this race coefficient largely as a difference in service delivery, even though some perception bias may still remain. Men, on average, found health services to be more acceptable than females. Data did not allow the researchers to determine whether men received better treatment, or whether they were simply less critical.

Mixed results were obtained for the employment status and education level covariates. The education level of the individual was negatively associated with the acceptability variable i.e. ceteris paribus; more educated individuals were statistically significantly more likely to find health services less acceptable. However, employed individuals or individuals living in a household where the household head was employed, were statistically significantly more likely to find health services acceptable. More research is needed to fully understand and unravel the dynamics underlying the demand-side dimension of acceptability, especially given the unavoidable challenge of dealing with perception biases and varying levels of expectations which may contribute to skewing the estimates.

Cumulative Access: AA and AAA
The results for the cumulative proxies for access, AA and AAA, show that education is positively and statistically significantly correlated with access. Another robust covariate was the rural dummy, which exhibited a negative and statistically significant relationship with both AA and AAA.

Overall, the Black population group was statistically significantly more likely to report access to cumulative access AA than all other race groups. This same result is observed in AAA when comparing the Black group to all other races, except for the White group. The correlation changes when compared to the White group, who are statistically more likely to report having access (AAA) to health services than Blacks.

Discussion
Since a large body of evidence exists to show that the availability of health services have increased significantly post-apartheid (except in rural areas), a case was made for the focus of the discussion to fall mainly on affordability and acceptability issues linked access.

The affordability analysis provides cause for optimism: Blacks, females, the unemployed and the less educated were more likely to report that health services as affordable. These findings are encouraging when one considers the substantial fiscal redistribution and shifts aimed at eliminating financial barriers to public healthcare for the poor and specifically, the introduction of free primary healthcare for all. These findings are supported by Burger, Bredenkamp, Grobler & Van Der Berg (2012) who found that out-of-pocket health costs in South Africa were low and catastrophic costs virtually zero.

The acceptability dimension revealed conflicting results, with Blacks, females and the employed being less likely to report their experience at health services as acceptable. The opposite was true of the affluent and educated, who generally found public health facilities to be less acceptable than the non-affluent and less-educated. These conflicting results may be indicative of underlying perception-bias dynamics stemming from gender, socio-economic and cultural heterogeneity. The literature shows that it is difficult to find a fair yardstick because marginalised subgroups may have lowered their expectations and may thus have fewer complaints and higher satisfaction, even if they receive worse services.

The conduct of healthcare providers is a crucial element which feeds into the clients' experience and shapes their impression of the acceptability of public health services. It may also be feasible to incorporate aspects of user feedback as key performance indicators in public health service contracts. This may enhance the user-responsiveness of public healthcare, making it more sensitive to users' demands. Problems of social class and notions of hierarchy need to be considered when developing such interventions, or it may hinder the success of it.

Collectively, access seems to be equitable and relatively well-targeted in terms of affordability, while the acceptability dimension is lagging. Rather than viewing this finding in a negative light, key role-players in public health should see these deficits as scope for further improvement of access (via strengthening the acceptability dimension of public health services).

The overall findings revealed that there has been significant progress towards greater equity given that public healthcare has become more affordable for the most vulnerable groups of South African society. However, it would seem that acceptability concerns endure. This is the new challenge for the public health system and the authors consequently argue that this is where policy reforms should focus.

Access in perspective
The following sub-section relates the access findings to socio-economic status, demographics and education to provide an alternative perspective of the findings.

Access and socio-economic status
While it is true that structural inequalities in the health system will result in skewed utilisation patterns, the converse does not necessarily hold: skewed utilisation patterns cannot solely be blamed on inequality - other underlying reasons may account for the outcomes observed. As such, one should be cautious when interpreting findings: adaptive expectations may account for skewed results. The poor and marginalised may have low expectations with regard to health services due to exposure to repeated bad experiences which they now accept as their new 'normal'.

The evidence presented in this article confirmed that efforts to make public healthcare more affordable to the most vulnerable have been successful. However, descriptive findings alluded to a public-private divide along socio-economic lines. It is concerning that the poorest households were paying OOP to consult private GPs when ill or injured, despite the availability of free primary healthcare at public clinics.

Access and demographics
In terms of race, Blacks seemed to be worse off in every dimension of access, except affordability. Ceteris paribus, Blacks also perceived public health facilities to be less acceptable when compared to other race groups.

Gender disparities were observed in the multivariate analyses: ceteris paribus, males were more likely to find health services acceptable. When placed in the context of local and international behavioural studies, the empirics of this study suggest that when men do seek healthcare, they generally reported more positive experiences than women. Unfortunately, data do not allow us to distinguish whether men receive better treatment, or whether they are merely less critical. It is difficult to disentangle these two influences and hence the gender bias cannot be interpreted as

clear evidence of bias in acceptable services, as it could also reflect differences in willingness to voice complaints.

Only one statistically significant result was found for the age[15] covariate. This contrasted strongly with the rural dummy which was found to negatively and statistically significantly associated with all but one access model. It is undeniable that rural residents are worse-off in terms of access to health services. The South African government is well aware of this result, a stylised fact, and continues to address this challenging and persistent spatial inequality.

Access and education
Education level, whether of the individual or household head, was mostly negatively associated with the affordability and acceptability dimensions of access. These results are supported by Penchansky and Thomas' finding that less educated individuals tend to be more satisfied with the acceptability dimension of access. It is possible that more educated individuals have higher expectations.

The education findings highlight the need for health champions in a context where the majority of the country's citizens were under apartheid and many of the marginalised and excluded subgroups may have grown accustomed to rude staff, drug stock outs and long waiting times, and no longer expect a well-organised and client responsive health service. Additionally, literature suggests that marginalised and disempowered subgroups often lack the self-esteem, voice and channels of influence to demand accountability.

Conclusion
As South Africa stands at the threshold of major health reforms under the umbrella of the NHI plan, there should be a sense of urgency with regards to providing microeconomic evidence to better understand the deficiencies of the current system in more depth.

The evidence presented in this paper shows that inequalities in access to healthcare still persists, but improvements have been made post-1994. From an availability perspective, health access is relatively well-targeted. This finding is supported by press reports, government gazettes and anecdotal evidence. Relative equity in terms of affordability has been achieved, however, room for improvement remains.

Acceptability of healthcare may seem high, but there is a caveat: the proxy used, while the best available in the dataset, may be a poor measure of true acceptable due to the taint of perception bias. The researchers tried to account for this bias but more objective measures are needed to better comprehend demand-side issues linked to access. Examples of objective measures include anchoring perceptions by using vignettes, or employing mystery patients in health surveys. Such examples aid in overcoming biases and the influence of expectations.

The deficits described above should be viewed as levers offering scope for further improvement of access. The patient - the main decision-maker – and his/her preferences should now take centre stage in research and health policy so that institutional responsiveness to health demand may be optimised. Encouragingly, similar sentiments have been stressed in the NHI's green paper, where quality and acceptability of health services have been emphasised as future policy priorities.

---

[15] Referring to age and age squared covariates.

Bibliography:

Black P, Siebrits K & Van Der Merwe T. Public expenditure and growth. In: Black P, Calitz E & Steenekamp T. (eds). *Public Economics.* Cape Town: Oxford University Press, 2011, 101-21

Burger R, Bredenkamp C, Grobler C, Van Der Berg S. Have public health spending and access in South Africa become equitable since the end of apartheid? Development Southern Africa 2012, 29; 5: 681-703

Burger R. Policy Brief: How pro-poor is the South African Health System? Matieland: Stellenbosch University, 2007

Coovadia H. Health: Beyond Inequities. Financial Mail, 11 June 2014, http://www.financialmail.co.za/specialreports/20yearsofdemocracy/2014/06/11/health-beyond-inequities [Accessed 3 August 2015]

Coovadia H, Jewkes R, Barron P, Sanders D & McIntyre D. The health and health system of South Africa: historical roots of current public health challenges. The Lancet 2009, 374; 9692: 817-34

Demery L. Analysing the incidence of public spending. In: Bourguignon F & Pereira da Silva L. (eds). *The impact of economic policies on poverty and income distribution*. *Evaluation techniques and tools*. New York: Oxford University Press, 2003, 41-68

Gilson L. Acceptability, trust and equity. In: McIntyre D. & Mooney G. (eds). *The Economics of Health Equity*. Cambridge: Cambridge University Press, Cambridge, 2007, 124-48

Goudge J, Gilson L, Russel S, Gumede T & Mills A. The household costs of health care in rural South Africa with free public primary care and hospital exemption for the poor. *Tropical Medicine and International Health* 2009, 14; 4:458-67

Gujarati D. Qualitative response regression model. In: Gujarati D. (ed). *Basic econometrics (4th edition)*. New York: McGraw-Hill, 2003, 580-635

Harris B, Goudge J, Ataguba J, McIntyre D, Nxumalo N, Jikwana S & Chersich M. Inequities in access to health care in South Africa. *Journal of Public Health Policy* 2011, S102-23

Heaton T & Acheampong Y. The family context for racial differences in child mortality in South Africa. In: Heaton T. (ed). *Families and households in post-apartheid South Africa: Socio-demographic perspectives.* Cape Towns: HSRC Press, 2007, 1-25

Honda A, Ryan M, Van Niekerk R & McIntyre D, 2014. Improving the public sector in South Africa: eliciting public preferences using a discrete choice experiment. *Health Policy and Planning* 2014, May 29. pii: czu038. [Epub ahead of print]: 1-12

McIntyre D, Thiede M & Birch S. Access as a policy-relevant concept in low- and middle-income countries. *Health Economics, Policy and Law* 2009; 4: 179-93

Monitor Group. *Health Systems Comparison Project.* Mimeo, 2008

Nannan N, Dorrington R, Laubscher R, Zinyakatira N, Prinsloo M, Darikwa T, Matzopoulos R & Bradshaw D. Under-5 mortality statistics in South Africa: Shedding some light on the trends and causes 1997–2007. Cape Town: South African Medical Research Council, 2012

National Treasury, Republic of South Africa. *Budget review 2014*. Communications Directorate: Pretoria, 2014

Palmer N & Financing Programmea. Patient choice of primary care provider. South African Health Review 1999: 95

Penchansky R & William Thomas J. The concept of access: Definition and relationship to consumer satisfaction. *Medical Care* 1981, 19; 2: 127-40

Reinhardt U & Cheng T. The world health report 2000 - Health systems: improving performance. *Bulletin of the World Health Organization* 2000, 78; 8: 1064-1064

Rossouw L. Poor Health Reporting: Do Poor South Africans Underestimate Their Health Needs? UNU-WIDER Research Paper No. 2015/027, 2015

Sahn D. Meeting Africa's health challenges. In: Aryeetey E, Devarajan S, Kanbur R *et al* (eds.), *The Oxford companion to the economics of Africa.* New York: Oxford University Press, 2012, 244-73

Schwab K. The global competitiveness report 2013–2014. Switzerland: *World Economic Forum* 2013

South African Government News Agency. SA to get 213 new clinics, 43 new hospitals. Pretoria, 18 Feb 2014. http://www.sanews.gov.za/south-africa/sa-get-213-new-clinics-43-new-hospitals [Accessed 3 August 2015]

Thiede M, Akweongo P & McIntyre D. Exploring the dimensions of access. In: McIntyre D & Mooney G. (eds). *The economics of health equity*. Cambridge: University Press, 2007, 103-23

Thurstone L. Multiple factor analysis. *Psychological Review* 1931, 38; 5: 406

Van Der Berg S. Poverty, fiscal incidence and social outcomes. A paper commissioned by GTZ (German Agency for Technical Cooperation) on behalf of the Policy Co-ordination and Advisory Unit in the Presidency for the ten year review of government policy 2002, Stellenbosch

Van Rensburg H, Engelbrecht M. Transformation of the South African health system – post-1994. In: Van Rensburg H. (ed). *Health and health care in South Africa.* Pretoria: Van Schaik Publishers, 2012, 121-88

Van Rensburg H. South Africa's protracted struggle for equal distribution and equitable access–still not there. *Human Resources for Health* 2014; 12: 26.

World Bank. Health expenditure, total (% of GDP) 2014a. http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS [Accessed 14 March 2015]

World Bank. Country and lending groups 2014b. http://data.worldbank.org/about/country-classifications/country-and-lendinggroups#Upper_middle_income [Accessed 14 March 2015]

World Health Organisation (WHO). Global health observatory data repository 2012a. http://apps.who.int/gho/data/node.main.3?lang=en [Accessed 12 July 2015]

World Health Organisation (WHO). Global health observatory data repository 2012b. http://apps.who.int/gho/data/view.main.200 [Accessed 12 July 2015]