National Health Insurance pilot phase and service delivery evaluation in rural areas of KwaZulu Natal, South Africa

Sandiso Ngcobo (a)* Bongekile Yvonne Charlote Mvuyana(b)

(a) Associate Professor, Department of Communication, Mangosuthu University of Technology, Durban, South Africa
(b) Head of Department, Department of Public Administration & Economics, Mangosuthu University of Technology, Durban, South Africa

ARTICLE INFO

Article history:
Received 10 September 2022
Received in rev. form 19 Oct. 2022
Accepted 28 October 2022

Keywords:
Healthcare Reforms, National Health Insurance, Service Delivery, Piloting Phases, Perceptions

JEL Classification:
H12, H75, L113, L114

ABSTRACT

The South African national department of the health system is piloting the National Health Insurance (NHI). This is in preparation for the overhaul of healthcare services so that they are efficient and equitable to all citizens immaterial of their socio-economic status. This article aims to evaluate healthcare providers’ perceptions of improved service delivery by the government’s health department during the first piloting phases of the NHI. The context of the study is a health district center in a rural area of KwaZulu-Natal province in South Africa. The article is interdisciplinary in that it interrogates governance issues in the health sector. A quantitative research methodology was utilized to collect data from 30 participants who were the center’s staff. The findings indicate that the significant areas of concern are lack of improvement in response rate to emergencies, ambulances, provision of resources, and specialized staff. The implication is that the government’s health department working with provincial departments, still has major healthcare reforms to address if the NHI program contributes effectively to healthcare service delivery.

Introduction

South Africa is a country under transformation because of many socio-economic, political, educational and health challenges inherited from the past unequal system of government. The health challenges inherited from the apartheid government were caused by the unequal distribution of resources, health care supply and quality of care that was conducted on racial and geographical lines (Charasse-Pouele & Fournier, 2006). This means that Africans and particularly those in far flung rural areas were severely neglected. This has posed serious challenges for the democratic government that commenced its power post-1994. In redressing previous inequalities, the government is guided by the constitution of the country which if not adhered to can be used by knowledgeable citizens to revolt in the form of what has come to be known as ‘service delivery protests’. Section 27.1(a) of the South African Constitution declares that, “Everyone has the right to have access to healthcare services, including reproductive healthcare.” In order to realize this right, section 27(2) clarifies how this can be achieved by indicating that “the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.” (Constitution of the Republic of South Africa, 1996). This part of the constitution was presumably spelt out because of the history in which there were inadequate health facilities for the majority of African citizens. The present democratic government that has been in power for over 28 years is therefore expected to deliver adequate and efficient services for all its citizens whilst addressing past inequalities among the previously marginalized societies. The process should be guided by policies and resources to implement them. Hence, there is the White Paper on Transforming Service delivery by the Department of Public Service and Administration (1997) in which national and provincial departments were urged to identify ways in which they could improve public service delivery. In response, the KwaZulu-Natal (KZN) Health department commits itself and staff to dispatch equal access of its services to all citizens
In the new democratic state it has, however, been noted that the available health services are unequal in that they favor the better employed few who have subsidized or can afford medical aids that give them access to better facilities. Indeed, Wangai, Njuguna, and Ngugi (2019: 37) describe it as common practice among many struggling African economies to have healthcare services provided through either “individual out-of-pocket payments, employer payment, national social health insurance cover or through private insurance.” This situation has been described as a two-tiered health system and there have been calls for a shift to a single unified health system in South Africa (National Department of Health (NDoH), 2019). Statistics South Africa’s (2020) General Household Survey puts citizens on medical aid to as low as 16.2%, which leaves the rest (84%), about 45 million, to be dependent on public health care. It is in response to these figures, made more alarming during the 2019 corona virus pandemic (Covid-19), that the government has been working on the implementation of the healthcare reforms. However, Mantzaris and Ngcamu’s (2020: 138) study of eThekwini Municipality disaster management center’s readiness for Covid-19 finds it to be reactionary and ineffective. This center located in a big city of KwaZulu-Natal (KZN) province in South Africa had inadequate financial and human resources to mitigate the impact of Covid-19 on especially the poor citizens who lived in informal settlements. It also appeared to show little regard for the health and safety of the residents. If a center in an urban area was found to be ineffective during this health crisis, that raises serious concerns about rural areas of KZN.

Friesen and Pelz (2020) argue that there is a link between a person or group’s socio-economic situation and how the course of Covid-19 may be influenced. This implies that citizens in poor rural areas are more likely to have their health compromised. It is for this reason important that the health of a nation should be prioritized if a country is to have a prosperous society (Pricilly Dea & Maharani, 2021). To protect the vulnerable, South Africa is exploring Universal Health Coverage (UHC) since this system enables the government to remove the burden of paying for health services among the poor. UHC is being pursued through what is known as the National Health Insurance (NHI) system which would enable the government to merge funds from different sources to provide equitable health services for all its citizens, especially the poor and vulnerable, by introducing a single-payer system (Cuadrado et al., 2019; Fox & Foirier, 2018; NDoH, 2015; Zondi & Day, 2019). The NHI would be in line with the National Development Plan (NDP) of 2030. The year 2030 is the time by which the government hopes to have achieved “equity, efficiency, effectiveness and quality of healthcare provision and that universal coverage is available.” (NDoH, 2015: 7). In keeping with the constitutional mandate that such transformative measures should be legislated, there was the NHI Green Paper of 2011 and later the White Paper of 2015 that was then approved as the NHI White Paper of 2017. Through this document, the government paved the way for the long-term NHI program designed to terminate the existing two-tier healthcare system and transform it to a single quality integrated system that will be available to all citizens immaterial of their socio-economic status (NDoH, 2015 & 2017).

The implementation of the NHI program is a major transformation agenda to the healthcare system that is riddled with many challenges. It would therefore require a lot of funds and major changes to healthcare facilities for them to be accepted by across the country. As such, the government designed it to be implemented in three phases during which period it would be piloted in different regions and healthcare districts that added up to 11 pilot districts. The first phase (2012/2013 – 2016/2017) of the pilot interventions was principally designed to improve healthcare systems and access to quality healthcare prior to the full implementation of the NHI program (NDoH, 2017). The NDoH (2019) has since commissioned a consortium to conduct a national evaluation of its piloted first phase of NHI. The purpose of the evaluation was to understand the extent to which the goals of making the service delivery improvements and interventions were successful or not by garnering the perceptions of staff and patients. The findings of this evaluation revealed both successes and shortcomings in the initial phase. Areas that were found laudable included the high commitment at political level that was coupled with the provision of more than satisfactory human and financial resources. Yet, these positive efforts were not matched with good planning, resources, communication, coordination and budget (NDoH, 2019).

The results of the NDoH’s (2019) self-evaluation beg the question as to how the government could have on the one hand, been successful in providing financial resources while on the other hand, failed to provide resources and adequate budget. Akokwue and Idemudia (2022: 19-20) aver that such a contradiction can be attributed to the prevalence of “fraud and corruption, poor leadership and governance, a lacking healthcare workforce and insufficient health service delivery” in the health sector of South Africa and Nigeria. The sad part about corruption in the public health sector is that it is deadly, and the list of culprits is so broad that it ranges from administrators, medical doctors to politicians entrusted with bringing about transformation (Mantzaris & Pillay, 2021). Testimony to this can be drawn from the 2021 case in South Africa that involved a politician who was the then health minister who had to resign from his position and many senior managers in the health department who had to be either suspended or dismissed after their alleged involvement in corruption on funds earmarked for the Covid-19 pandemic (Magome, 2021; McCain 2021). This act portrayed the then minister as toxic to the very NHI he had mainly been appointed to facilitate its implementation (Low 2021). Not long after this, the Chief Financial Officer of the Gauteng Health Department who blew the whistle on irregular personal protective equipment (PPE) contracts made during the Covid-19 pandemic was shot dead in broad daylight (Cruywagen & Heywood, 2021). These events show that corruption is pandemic in the South African health system, and it is committed even when it means the health and lives of innocent citizens are put in danger. Those who expose this corruption also face death. In the process, the provision of health resources is impeded.
There is therefore a dearth in research that is conducted independently of the department of health to determine if the results would be the same. Moreover, there is a need to provide an evaluation with a focus on rural areas since they are often left behind when it comes to service delivery processes. Murphy and Moosa (2021) have conducted an independent evaluation of the views of district-level managers in the city of Johannesburg health district in Gauteng province on NHI. Yet, we could not find a study conducted in the province of KZN and its rural areas to determine if they are receiving efficient service delivery. Therefore, an investigation on the perceptions of healthcare providers on service delivery during the piloting stage of the NHI in a rural district of KZN is considered essential before a large-scale roll-out across the country is embarked upon. The specific stakeholders of interest are those in the employ of the provincial department of health because they will be in the forefront of the implementation of NHI. Moreover, an investigation conducted at provincial level is apt since public health facilities in South Africa are managed by provincial departments (Mhlanga & Hassan, 2022). Hence, the study employs a questionnaire as a tool to quantitatively investigate the perceptions of 30 staff members in a rural health care center in KZN. From the findings, suitable recommendations that could help to improve the NHI system to roll-out nationally with success are made.

Literature Review

This section provides clarity on the NHI model because of its central focus in this article. The next section explores issues of service delivery since the NHI system is investigated in terms of its role towards facilitating efficient delivery of health facilities.

National Health Insurance model

National Health insurance (NHI) model is understood differently in different contexts. As a result, Cuadrado et al., (2019) conducted a review of the various definitions of health insurance models in order to identify their common characteristics. Cuadrado et al., (2019) found that there is a general agreement among authors from different countries that all NHI-type models are designed to secure a single fund for a single-payer system with universal coverage. Cuadrado et al., (2019: 621), citing the Pan American Health Organization (PAHO), define universal health coverage (UHC) as a strategy “where all people and communities have equitable access to the comprehensive and guaranteed quality services that they need, throughout the life course, without financial hardship.” The World Health Organization (2021) adopts the same definition of UHC and further clarifies that the “delivery of these services require adequate and competent healthcare workers” who are “equitably distributed, adequately supported and enjoy decent work” if we are to ensure that “the quality of those services is good enough to improve the health of the people who receive them.” The International Labor Organization (ILO) (2021) also identifies the “unequal distribution of qualified health personnel” as “a major constraint in providing universal access to health care.” Key to the definitions is the idea of ensuring the delivery of “quality services” in the health sector that is supported by both material and human resources. The NHI is for these reasons viewed as one of the viable “health financing models to head towards UHC” that has also been adopted in South Africa (Cuadrado et al., 2019: 622). What remains to be evaluated is whether the NHI is delivered adequately across the country, particularly in the rural areas of KZN.

The distinction among different countries on NHI is in both the names used and the forms of implementation. According to Baan et al., (2020) the name used in Indonesia is National Health Care Security (JKN) to refer to universal coverage in which members and their employers contribute, except the poor. Countries like Ghana and Tanzania have the NHI, however, their schemes are not universal because they target a small population of employed individuals covered by their employers. In contrast, in Japan the coverage is only for those who are not covered by their employers. Cuadrado et al., (2019) are of the view that the “NHI-type model should be reserved for a single fund, single-payer system with universal coverage”, as it is intended for South Africa. This view is consonant with Gustafsson-Wright and Schellekens’ (2012:3-4) notion that NHI should adopt a rights approach if it is going to be “effective, responsive, integrated health system of good quality that is accessible to all.” The NHI has been successful in countries that adopt the universal approach, such as Brazil, Thailand and Rwanda. Bhekisisa (2013) reports that part of the success in these three countries can be attributed to the fact that they decentralized health management to local government structures such as municipalities. This, for instance, enabled Brazil to grow its healthcare coverage to about 75% of its population between 1988 and 2008. However, many African countries have found it increasingly difficult to sustain sufficient financing for healthcare, particularly for the poor. The World Health Organization (WHO) (2019) laments slow progress in the provision of health services in many countries across the globe particularly the developing nations with more vulnerable populations. There are noted inequalities in the provision of healthcare between and within countries with slow improvement in providing access to skilled health workers and essential medicines (WHO, 2019: 1). It is for this reason that Wangai et al. (2019) recommend an affordable copayment system by patients as this would ensure the sustainability of the insurance, prevent abuse of the scheme and optimize the delivery of efficient services.

South African as a developing nation also requires an evaluation to determine if it suffers from this slow progression. Scholars such as Booyse and Hongoro (2018) have equally raised their voice on the importance of studies that seek to assess perceptions on the quality of healthcare before the implementation of the NHI policy following its official adoption in 2017 by the South African government. Booyse and Hongoro (2018) made this recommendation following their study on perceptions of healthcare users in South Africa. The area Booyse and Hongoro’s (2018) study did not address are the perceptions of healthcare providers. This is the gap in literature that this study sought to fill by focusing on healthcare providers since they are believed to have a better understanding of resources that should be available to enhance their duties and provide an improved service delivery to the communities. Zondi and Day (2019) also recommend the evaluation in improvements to service delivery since this area has been slow in South Africa. A
report by the South African Local Government Association (SALGA) (2019) on Municipal Health Services (MHS) across the country highlights this shortcoming in service delivery. SALGA (2019) found that almost all municipalities complained about the lack of adequate staff to match increased workload, and this was considered as detrimental to the South Africa’s new NHI system’s success. Basic essential resources such as office furniture and reliable transportation in many rural municipalities was a major concern for staff in helping them execute their duties efficiently.

The NHI appears as a viable system to pursue because of its potential to provide equal and best healthcare services to all citizens of a country immaterial of their income and race. In this regard, Braveman et al., (2017) refer to equity in healthcare as the state where all citizens have a fair access and opportunity to acceptable healthcare. Yet, it needs to be acknowledged that this responsibility would come with serious financial burdens to the government which in all likelihood it would have to transfer and share with taxpayers. More importantly, the government would have to safeguard taxpayers’ money by improving its systems so that resources would not only be equitably delivered to all across geographical areas but that there would be no fraudulent activities that would lead to irregular and wasteful expenditure.

Service delivery in South Africa

Service delivery is in the South African context understood to refer to the provision of basic essential services such as health and education that will contribute to the enhancement of the lives of citizens, particularly the previously marginalized and poor masses (Masuku & Jili, 2019; Katywa & Strydom, 2021). It is equally in view of the past and current inequalities in the South African health system, as alluded to above, that the issue of service delivery has long been made a priority. Many developing countries have put more emphasis “on a high degree of service delivery and development” by local government (Mvuyana, 2019: 4). Similarly, the Constitution of the Republic of South Africa’s (1996) Section 152 identifies local government as responsible for the distribution of basic services such as health, water and housing to the citizens. Local government in the form of provincial government and municipalities is mandated to perform this task because of its proximity to the people which should assist ensure efficient delivery of the expected services. The government further legislated the Batho Pele (1997) policy to guide service providers to distribute quality public services for citizens to feel treated in a dignified manner. The Batho Pele policy principles are to be found posted in notice boards and walls of many public institutions, especially in health, to serve as a daily reminder to employees and officials of the commitment they have to discharge. This commitment has further been extended with the approval of the Batho Pele Revitalization Strategy in which the government seeks to professionalize public service delivery (SAnews, 2022). The challenge though with these brilliant policies is whether they are paired with excellent implementation, as this article sought to investigate. The NHI Bill (2019) suggests there is failure in this regard when it identifies district and subdistrict managers as critical to successful NHI implementation as opposed to this task being bestowed upon provincial healthcare structures. It also remains to be seen if district managers have been successful in executing this complex responsibility of healthcare service delivery (Murphy & Moosa, 2021). In this case, healthcare workers are in a better position to report on how they perceive the performance of the government in providing service delivery. Healthcare workers also equally require certain equipment and resources that would enable them to execute their services. Failure to equip health workers with the right resources, such as ambulances and medicine, would make them feel uncharted for by the hospital which might lead them to be demoralized to provide service delivery and cause them to want to quit their jobs (Matande et al., 2022).

Research and Methodology

This study adopted a quantitative and descriptive research design which required the collection and analysis of statistical data generated from large-scale surveys using questionnaires in order to generalize the results to a wider setting. Leedy, Ormrod and Ruth (2019) describe this approach as numerical and experimental since it entails numbers and measurements. In the same breath, the study wanted to deal with as many participants as possible in an efficient and cost-effective manner whilst using a questionnaire. The participants’ responses to set questions were numbered to measure and generalize their responses.

The participants were selected from the population of staff members employed by the KZN provincial department of health but the focus was on the selected district center. It is considered essential to establish some perimeters in the selection of your population and its sample (Du Plooy-Cilliers & Cronje, 2014). Similarly, from this large population a portion of 30 staff members formed the sample of the study. This selection of the sample was purposeful as it focused on professional employees among administration staff, nurses, doctors and management. The decision was informed by Du Plooy-Cilliers and Cronje (2014: 142) who explain that in purposive sampling one purposefully chooses who or what to include “based on the list of characteristics of the elements.” The professional staff were included because of their assumed knowledge and involvement in the utilization of required resources for them to be able to perform their health-related duties as part of service delivery expected from the government. Their participation was voluntary, and they were assured of their anonymity and that of the district center, as stated in the questionnaire. The questionnaire was distributed and collected by an employee of this center after obtaining a gatekeeper’s letter from the center’s management.

The study chose a particular KZN district health center as a case study rather than examining all three in the region. A case study was selected because of its potential to provide a better understanding of the problem in a particular small or limited context rather than conducting a large-scale national study that can produce unreliable results (Gerring, 2007; Karlsson, 2016). This is specifically
a descriptive case study as it is not intended to generalize on the entire piloting of NHI in South Africa (Yin, 2003). Thus, this study adopted a descriptive research approach to evaluate the challenges faced by the NHI with respect to service delivery during the pilot phase in one rural healthcare center from the perspective of the employees. Karlsson (2016) notes that a case study is usually associated with a qualitative approach by many authors, yet argues that it can also be quantitative or mixed depending on the preference of the researcher. This study preferred a quantitative approach because of the nature of the respondents it dealt with. The respondents were health workers and as such could not be kept away from their jobs of saving lives to participate in interviews. Data were analyzed using descriptive statistics by means of the statistical package known as SPSS.

**Analysis and Findings**

**Demographic profile**

Descriptive statistics were used to evaluate the demographic profile of respondents. The findings show that 64% of the respondents were female whereas 46% were male. The results further show that most of the respondents (35%) were between the ages of 30-39 followed by 26% who were between the ages of 20-29, 18% between the ages of 40-49, 14% between the ages of 50-59, 4% above 60 years and 3% below 20 years. The results indicate that the participants formed an acceptable level of representativeness. Their representativeness went across gender and age to allow a balanced view to the questions posed.

**Emergency preparedness**

Medical centers have to deal with various types of emergencies. This makes it essential that they be better equipped to deal with any eventualities. A case in point was the Covid-19 crisis that had not been anticipated and left a devastation across the globe. Most fatalities that occurred could have been prevented had the state of health facilities not been underprepared. This part of the questionnaire wanted to assess the healthcare facility’s preparedness for emergencies since the piloting of the NHI.

Most of the respondents disagreed (38%) that there was an immediate address of resources which would make the facility ready for emergencies. This was followed by a high number of those that were uncertain about this development in their district at 31%. The high number of neutral respondents can be taken to suggest support to those that disagreed. This suggests a high level of unpreparedness for this district to deal with emergencies. The number of respondents who agreed was at a mere 31%. Figure 1 below presents these figures on emergency preparedness.

![Figure 1: Emergency preparedness](image)

**Ambulances’ adequacy**

This part of the responses is on the availability of ambulances to respond to emergencies. Ambulances are particularly important in rural areas where most of the poor and vulnerable are located. As a result of their circumstances the poor lack access to efficient and reliable public transport that could urgently take them to district healthcare facilities. For this reason the provision of district ambulances is critical.

However, Figure 2 displays that most of the respondents disagreed (66%) with the view that there were enough ambulances for emergency services. Close to this high number was also a concerningly high degree of uncertainty (29%) displayed by respondents.
This neutral group can in some way be considered as supportive of those who disagreed. Very few respondents (5%) agreed that there were enough ambulances.

Figure 2: Ambulance’s adequacy

Availability of specialists

Part of the promise made by NHI is to provide quality healthcare. To realise this goal there would need to be qualified and specialised staff at all levels of healthcare services. This would help transform public health services from being associated with inadequate staff to being on par with private health facilities that are frequented by those on medical aid.

However, Figure 3 shows that the majority of the respondents disagreed with the statement that there is an increase in the availability of specialists during the pilot phase. As many as 60% of them disagreed followed by 32% who were neutral and only 8% who agreed.

Figure 3: Availability of specialists

Improvement of services

The NHI should mean improved services in the piloted districts. Yet, according to figure 4 the majority of the respondents disagreed (49%) that there was an overall improvement of services in their centre. A sizeable number (29%) were neutral and thereby suggesting they were uncertain about such improvements. A concerningly low number agreed that there were improvements in the provided services.
Improved resources during the NHI pilot phase would be expected to contribute to efficient employees who would be happy with the services they provide to their customers. This could improve moral, attitudes and positive behaviour towards work and patients. Yet, Figure 5 indicates that the staff members were divided in their responses to this inquiry. More of them (44%) appeared to lean towards disputing such improvements. An equal high number that constitutes 36% of the respondents could not commit themselves as they chose to be neutral. The number of respondents that agreed that staff attitude and behaviour had improved was at a mere 20%.

**Discussion**

An examination of a healthcare center located in a rural area district of KZN was undertaken to determine if service delivery had improved during the NHI phase 1 piloting period. The findings of this study show that several service delivery challenges were still being experienced despite the piloting phase of the NHI which was aimed at improving facilities. For instance, many respondents disagreed that there was an immediate address of any emergencies. The implication is that despite the piloting of the NHI, there was no significant improvement in the operations. This state of affairs serves to cement the observation made by Rakabe (2018) that accessing healthcare in South Africa is nearly impossible for many citizens as they have to endure poor services in the public sector. To address these shortcomings, Mhlanga and Hassan (2022) call for much needed investment by the government of South Africa on public health facilities because of their frequent use by the majority of citizens.

Furthermore, the findings of this study showed that most of the respondents disagreed that there were enough ambulances for emergency services in their healthcare facility. These findings concur with those of the Bhekisisa (2018) and SALGA (2019) survey which showed that there was an alarmingly high shortage of ambulances in South African health facilities across all municipalities. However, the results contradict the NDoH (2019) evaluation report which counts the availability of resources as one of its successes. The findings also revealed that the majority of the respondents either disagreed or were neutral that there had been any remarkable change in the staff attitude and behavior towards their work. Echoing the findings of this study is Dappah (2016) who found that most health workers have negative attitudes towards patients. The author noted that some health workers do not know how to treat patients as they tend to ill-treat and shout at patients who are seeking medical assistance. The results appear to favor the results of a
Kenya study that found that asking patients to make a copayment, as opposed to a free healthcare service for all, contributed to improved delivery of effective health services. Healthcare providers were found to be committed in servicing patients since they could also provide them with the drugs and facilities they required (Wangai, Njuguna & Ngugi, 2019). Mangwanya (2022: 174) different suggestion in response to a similar observed crisis in a South African hospital in the Eastern Cape province is that the proper implementation of performance-based budgeting could assist the Department of Health to address the issue of underfunding that contributes to poor healthcare services delivery.

The staff complement improvement was also concerning at this rural center, particularly in the provision of specialists. The respondents that disagreed and those that were neutral put together suggests that this rural district has not been able to attract specialists. This casts doubt on the acceptance of the NHI by those who are currently on medical aids which give them access to that type of special treatment when they require medical attention. The findings are in line with WHO (2019), ILO (2021) and SALGA (2019) who note poor provision and the unavailability of skilled health workers. The results further confirm Mangwanya’s (2022) finding in the Eastern Cape province of South Africa that understaffing remains a critical issue to the provision of services. Mangwanya (2022) attributes this crisis to lack of funding which then causes a strain on recruitment, and this has implications for efficient service delivery.

The question on services improvement was particularly important for this study as it focused more on service delivery. The results showed that most participants did not view the services as having improved during the period of NHI piloting. This goes against the health system transformation purpose which is to improve health services for all despite their race or geographical location (NDoH, 2019). More so, lack of satisfactory improvements for all citizens that would contribute to the expected customer satisfaction goes against the White Paper on Batho Pele principles and the KZN Health Departments’ principle where it commits itself to quality service delivery. This suggests that relations between customers and officials at district level have not improved as citizens appear to have not been made to come first (Mvuyana, 2019).

**Conclusion**

Resources in rural areas that are predominantly occupied by black Africans have not improved to satisfactory levels despite the piloting of the NHI. The general lack of resources could be blamed for low morale among staff who tend to be slow to attend to emergencies and their attitudes that have not improved. This points to a need for the improved allocation of resources that could contribute to efficient service delivery. There should equally be programs in the form of workshops designed to attend to staff attitudes and behavior. The right attitude and behavior should be the norm in the working area such that every staff member should act with discipline at all times in their working areas, as the Batho Pele principle stipulates on the behaviors of all healthcare workers. The department should also encourage mentorship of workers in order to inculcate the right skills and behavior. Thus, there is a need to have experienced and skilled workers to share their experience and expertise. The department of health should also invest in infrastructure and assets. Procurement of more ambulances to ease mobility problems for patients in rural areas would be critical prior to the implementation of the NHI.

The limitations are that this study was conducted in one South African region’s healthcare center using a small sample size such that the results cannot be generalized beyond the current scope. However, this study is very useful as it offers insight into the shortfalls of the NHI and therefore provides background information that may be used as a necessary intervention during the country’s rollout. Future research could revisit this area of research to determine if there were lessons learnt during the piloting of NHI which would have translated to improved service delivery. Citizens who are at the receiving end of services would also need to be involved in future research to determine their levels of satisfaction with their healthcare.

**Acknowledgments**

This is to acknowledge the contribution made by the research assistant who helped in the administration of the questionnaire at his workplace.

All authors have read and agreed to the published version of the manuscript.

**Author Contributions:** Conceptualization, SN and BYCM; methodology, SN and BYCM; formal analysis, SN, and BYCM; investigation, SN; resources, SN.; writing—original draft preparation, SN.; writing—review and editing, SN.

**Funding:** This research was not funded by any organisation.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

**Conflicts of Interest:** The authors declare no conflict of interest.

**References**


**Publisher's Note:** SSBFNET stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

© 2022 by the authors. Licensee SSBFNET, Istanbul, Turkey. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).