



The Readiness of Public Hospitals on the Implementation of National Health Insurance in South Africa: A Systematic Review

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<http://dx.doi.org/10.47814/ijssrr.v6i8.1477>

Abstract

The National Health Insurance (NHI) Bill has been established to improve access to healthcare. The public health hospitals which will be providing care will have to be prepared for the rollout of the NHI. In order to better understand the nature, effectiveness, relevance, and challenges facing the public healthcare system, this review assesses and discusses the available literature on the readiness of South Africa's public healthcare system in preparation for NHI. This study adopted the non-empirical research design: Systematic review and analysed previously published research on the readiness of public hospitals on the execution of NHI in South Africa. Additionally, a narrative literature review was used. In light of this, the researchers used a purposive sample strategy to collect secondary data gathered from different research platforms that were specifically devoted to the subject at hand. In order to achieve data saturation, limited data from the years 2013 to 2023 (Not in order) were used to construct the selection criteria. Credibility was ensured by employing the Preferred Reporting Items for Systematic Reviews and Meta-Analyses and the Critical Appraisal Skill Programme. There are identified challenges that will impede the execution of the NHI. These include challenges such as inadequate human resource, poor leadership and governance, lack of integration of health system data, and inadequate budgetary allocations. This is made worse by the current state of most public hospitals, which are marked by poor administration, poor and inadequate infrastructure, and shortage of medicines which therefore affects service delivery. In ensuring that the public has access to a healthcare system that is both accessible and affordable, it is without a shadow of a doubt that the NHI's goals could prove to be a viable strategy for reforming the country's national health system. Given the identified challenges, this paper recommends that the timeframe for complete execution of NHI be adjusted so as to solve the challenges first.

Keywords: *Readiness; Public hospitals; Implementation; National Health Insurance; Challenges*

1. Introduction

The South African government established the National Health Insurance (NHI) Bill to improve access to healthcare. The NHI is a system for financing medical care that aims to bring South Africa closer to achieving universal health coverage (UHC) and ensuring that citizens have accessibility to quality healthcare irrespective of their financial status. In order to prepare for the NHI, there have been talks and debates about how to improve the South African healthcare system at different levels (Malakoane, Heunis, Chikobvu, Kigozi, & Kruger, 2020; Gani, 2023). Notwithstanding the numerous discussions, the question that still has to be addressed is whether South African public hospitals are prepared to adopt the NHI.

According to the Department of Health (2019), the NHI will be evaluated in accordance with the intended progressive strategy for UHC, which will be executed in phases as follows:

- The piloting of phase 1 started in 2012 and ran through 2017 with emphasis on the development and testing of the health systems to enhance the efficiency of the healthcare.
- The second phase of NHI, which took place from 2018 to 2022, aimed towards enacting the NHI Bill and amending the regulation while simultaneously operationalizing the NHI fund.
- South Africa is currently in the first year of Phase 3 NHI implementation (2023-2026), which concentrates on strengthening the health-systems programs which are to be executed at the maximum level and mobilization of extra resources. During this phase, the NHI Act and the Medical Schemes Act will be completed and put into effect, along with the enactment of mandatory NHI payments through NHI-specific levies, partnering for permitted private hospitals, and outsourcing for specialized amenities.

In order to accomplish this objective, NHI Bill was proposed, adopted, and gazetted on 26 July 2019 with the main objectives being to raise user satisfaction, promote quality of life, and provide enhanced health results for all socioeconomic categories (Department of Health, 2019). Enhanced family and individual well-being will likely result in increased capacity, productive employment, economic development, stability in society, and cohesiveness within society, consequently lowering poverty and passing down disparities from the past. The phases as described above were however received with varying responses across the pilot districts, demonstrating the fragmentation and need for reconstruction of the health system (Day & Zondi, 2019; Department of Health, 2019). Lack of a strong political will, insufficient human and financial resources, poor coordination and communication, and the absence of surveillance mechanisms in place at the time of implementation are a few of the identified difficulties (Mukwena & Manyisa, 2022).

In 2012, the national Department of Health selected just a few hospitals from various provincial districts for NHI piloting (Ogunbanjo, 2013). However, no study offers a thorough analysis of South Africa's existing public healthcare system. Given this lacuna in the research, this review assesses and discusses the available literature on the readiness of South Africa's public healthcare system in preparation for NHI. The public healthcare sector's resources, the quality of care being provided to South Africans, the health system's financial stability, the management of healthcare facilities, and the factors that have affected the delivery of health services are just some of the crucial areas that are assessed. In order to better understand the nature, effectiveness, relevance, and challenges facing the South African public healthcare system, the assessed areas will give an overview of how prepared the public health hospitals are for the anticipated rollout of the NHI.

2. Literature Review

2.1. Theoretical Framework

The World Health Organization (WHO) has created a guiding framework for healthcare system that divides the system into six components: health workforce, and health systems financing, leadership and governance, health service delivery, essential medicines and technology and health information systems (WHO, 2007). Different studies shows that the WHO health systems framework is useful for evaluating healthcare performance in a given country including the relationships between health reforms and national health systems, the results of health sector improvements, the state of hospitals, and the prevalence of specific health problems (Mounier-Jack, Griffiths, Closser, Burchett, & Marchal, 2014; Senkubuge, Modisenyane, & Bishaw, 2014; Obermann, Chanturidze, Richardson, Tanirbergenov, Shoranov, & Nurgozhaev, 2016; Mutale, Bond, Mwanamwenge, Mlewa, Balabanova, Spicer, & Ayles, 2013).

According to Sharma, Prinja and Aggarwal (2019), the WHO Building Blocks have been used extensively to assess health systems at the national and subnational levels. The same view was also shared by Shoman, Karafillakis and Rawah (2017) and further indicated that the WHO building blocks also lead investment in improving the healthcare system and evaluate performance. A benefit of utilizing the WHO Building Blocks to describe the health system is that they offer an explicit set of objectives that are compatible with the national healthcare system objectives: increased health, adaptability, social and economic protections, fairness, and effectiveness (Manyazewal, 2017). The six elements therefore have to be enhanced as a means of strengthening the system, and their relationships have to be handled in a way that promotes equal and lasting improvements. As a result, an assessment of the entire public healthcare system is needed to pinpoint any shortcomings and offer the right solutions in time for NHI.

The WHO Building Blocks can be used as a helpful guideline to visualize, analyze, and assess the healthcare system more comprehensively. The objectives and functions of each of the Building Blocks can easily be applied to the healthcare system, however the collection of metrics for measuring success over time would need to be adjusted through collaboration (Borghi & Brown, 2022). On the contrary, Phua (2014) argues that it would be more beneficial and simpler to modify the metrics and concentrate solely on the elements of the national healthcare system that fall short of a set of minimal standards, employing targets gathered from programs like the WHO's Building Blocks Framework. In this review, we adopted the WHO Building Blocks framework to describe the readiness of public hospitals on the execution of NHI in South Africa.

2.2. The South African Healthcare System

According to Maphumulo and Bhengu (2019), the South African healthcare system is divided into three levels: the national, provincial, and local governments. Arhete and Erasmus (2016) postulate that the South African healthcare system is divided into two sectors with a major public funded sector that provides care to the vast majority of the country's population and privately financed sector that provides care to a relatively small percentage of the general population. Approximately 80% of South Africans use public healthcare services, although Holtz and Elsayy (2013) deplore that the government only covers 40% of the cost. In South Africa, hospital care charges are presently waived for low-income individuals and vulnerable communities, while primary healthcare is free (Passchier, 2017). As a result, the majority of South Africans pay next to nothing for public healthcare and do not run the possibility of experiencing catastrophic medical expenses.

The South African Human Rights Commission (2017) contends that the majority of South Africans still rely on healthcare services provided in public hospitals due to their inability to pay for private care. Such places significant pressure on the public sector, which is plagued with shortage of staff,

crowding, poor infrastructure, lengthy waiting times, poor infrastructure, and shortage of medication, all of which have a negative effect on the level of services provided. To address this gap, the two healthcare sectors will be combined as part of a significant healthcare system rearrangement in order to execute the NHI scheme and the country will have therefore have ideal hospitals for implementation of NHI (Mukwena & Manyisa, 2022). According to Moyimane, Matlala, and Kekana (2017) an ideal hospital framework is one that has good infrastructure in excellent physical state with the necessary spaces, functional tools, medicines, adequate human resource, effective clinical and administrative policies and guidelines, and the backing of partners and stakeholders, to guarantee the delivery of high-quality healthcare. It is clear from earlier studies that the majority of public hospitals in South Africa lack the most of the specifications as outlined in the framework (Mukwena & Manyisa, 2022).

2.3. Conceptualization of the Universal Health Coverage

According to Clarke, Doerr, Hunter, Schmets, Soucat and Paviza (2019) Universal Health Coverage (UHC) is an important goal for governments and international organizations around the world, as it is seen as a means to achieve greater health equity, reduce poverty, and promote economic development. UHC is recognized as a key component of the Sustainable Development Goals (SDGs) and has been adopted as a policy goal by many countries around the world. Dyakova (2017) declares that beyond health and well-being, UHC promotes social inclusion, equality, poverty eradication, economic progress, and human dignity. The United Nations 2030 Agenda expresses the purpose of UHC as part of the Sustainable Development Goals (SDGs) in goal 3, which focuses on health. According to Takura (2022), UHC refers to Universal access to critical medical care for all people, irrespective of time, place, or financial situation. The idea of UHC is to guarantee that everyone has access to high-quality healthcare without facing financial strain. However, Stigler, Macinko, Pettigrew, Kumar and Van Weel (2016) assert that aiming for comprehensive health care and improved population health should no longer be regarded as a noble goal. Van Weel and Kidd (2018), states that UHC seeks to provide healthcare to everyone, regardless of their ability to pay.

To achieve UHC, health systems must be designed and implemented in a way that ensures everyone can access health services, without discrimination. Erku, Khatri, Endalamaw, Wolka, Nigatu, Zewdie and Assefa (2023) indicates that achieving UHC requires a holistic approach that involves a range of strategies, policies, and interventions. The range of strategies to achieve Universal Health Coverage includes the followings:

Strengthening Health Systems

Strengthening health system is essential for achieving UHC, which strives to ensure that everyone have access to the health services they require without experiencing financial strain. This involves building robust health infrastructures, including adequate number of healthcare workers, health facilities, medical equipment's, and supplies (Kumar, Raut & Narkhede, 2020). This process will ensure that all people have access to quality health services. It is necessary for the country to increase the investments in health and ensure that resources are used efficiently and equitably.

Expanding Health Insurance Coverage

Expanding health insurance coverage is an important component of achieving universal health coverage. Tao, Zeng, Dang, Lu, Chuong, Yue, Wen, Zhao, Li and Kominski (2020), reiterates that health insurance coverage played a critical role in the universal health system of China to ensure that everyone has access to free and quality health care services. In order to protect against financial risk and increase access to health care, the World Health Organization promotes prepayment-financing methods such as social health insurance (WHO 2005). According to Galárraga, Sosa-Rubí, Salinas-Rodríguez and Sesma-Vázquez (2010), health insurance is one way to help individuals and families access health care without

incurring catastrophic health expenses. Expanding health insurance coverage can be achieved through a variety of means, including public health insurance programs, private health insurance, or a combination of both (Berman, 1998).

Governments can also provide subsidies or tax incentives to encourage the uptake of health insurance among populations, particularly for those who are financially disadvantaged. Somanathan, Tandon, Dao, Hurt and Fuenzalida-Puelma (2014) stated that it is the responsibility of the government to contribute to the health of the people by a form of a subsidy. Additionally, measures such as eliminating exclusions for pre-existing conditions, providing coverage for essential health services, and reducing out-of-pocket costs can improve the effectiveness of health insurance in achieving universal health coverage. Lack of insurance coverage is a complex issue with substantial impediments to resolution.

3. Methodology

A systematic non-empirical research design was employed in this study. According to Dan (2017), this research design aims to review advancements in a particular research area [The readiness of public hospitals on the implementation of National Health Insurance in South Africa]. This study analysed previously published research on the state of readiness of public hospitals on the rollout of NHI in South Africa. Additionally, a narrative literature review was used as the study strategy since it has the capacity to identify and combine many sources, including reliable textbooks, journal articles and internet sources. In light of this, the researchers used a purposive sample strategy to collect secondary data. Additional sources for these secondary data were gathered from different research platforms like institutional Electronic Theses and Dissertations (ETD) repositories, Google Scholar, Jstor, EbcoHost, and Sabinet that were specifically devoted to the subject at hand. Using non-probability, purposive sampling, different keywords were utilized to find pertinent content on this topic. In order to achieve data saturation, limited data from the years 2013 to 2023 [not in any particular order or significance] were also used while employing inclusion and the exclusion criteria at all times.

Additionally, according to Matthews and Ross (2010), inquiries can be asked of papers in the same manner done for those participating in the study. For instance, the information gathered can be qualitative approach to determine "what ideas are expressed in the document, what is the underlying approach or "agenda" of the document?" To ensure the validity and relevance of the results of the study about the readiness of public hospitals on the implementation of National Health Insurance in South Africa, the Critical Appraisal Skill Programme (CASP) and Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) were applied.

4. Findings and discussions

In this review, the consulted literature highlights that there are major challenges associated with the rollout of the NHI at public hospitals in South Africa.

Theme 1: Lack of Integration of Health System Data Along with Connectivity Problems

According to Ngoepe and Marutha (2021), medical records are not merged into one system which therefore forces patients to start new files whenever they seek medical care in a different hospital within the same province in South Africa's public sector. Therefore, medical doctors diagnose patients without having access to their complete medical histories, and in certain instances, they find it challenging, if not impossible, to manage patients because doing so entails significant hazards, such as repeated or duplicated prescriptions and treatments (Netshisaulu, Malelelo-Ndou, & Ramathuba, 2019; Moyimane et al., 2017). This lowers the quality of healthcare provided to patients. Ngoepe and Marutha (2021) also

point out that it can be challenging to obtain patient files in certain cases, and that this challenge usually delays the prompt access of medical records by medical personnel which makes patients wait a long time. According to Katurura and Cilliers (2018), technical factors such as inadequate foundation for technological innovation and high installation costs; environmental challenges (concerns relating to rules and regulations, procedures and approaches, as well as systems) and social factors (for example, training for users, competencies, political power, and dedication); are the main obstacles to the application of integrated electronic health record (EHR) systems in public hospitals.

Shortage of computers, printers, and connections tools, the unequal distribution of technological equipment between urban and rural areas, the lack of internet access in certain remote areas, and the insufficiency of a reliable electricity supply for running the devices were all issues that have been identified in some of the research (Cline & Luiz, 2013). Davids (2019) and Katurura and Cilliers (2018) have identified a significant constraints regarding the issues of connection, accessibility, and capacity for successful e-Health systems which needs to be addressed in order for the NHI program to be successful. Katurura and Cilliers (2018) attest to the fact that the Health information system and information and communication technology within the healthcare system fails to satisfy the standards needed for facilitating the operations of the health system, making it impossible for the healthcare system to produce information and statistics for administration, as well as for tracking and assessing the efficiency of the national health system, in an adequate manner. Davids (2019) laments the fact that many provincial and district health care facilities are dispersed extensively without being properly integrated into the national internet network. This will have a negative effect on the system's capacity to provide patients with high-quality care and integrated services, raising concerns of interconnection and national norms. According to Nicol, Hanmer, Mukumbang, Basera, Zitho, and Bradshaw (2021), current routine medical records in piloted public hospitals are still not capable of supporting payments and managing resources effectively, as evidenced by the lack of categorized inpatient diagnoses and discovered discrepancies in health records.

According to the literature, the public hospital's monitoring and evaluation processes, laboratory setup, and record keeping system are all still subpar. For instance, Mukwena and Manyisa (2022) discovered that the hospital they evaluated continued to use a manual record, which causes numerous problems from the time the patient is admitted until they are discharged because records must be maintained and used during the entire operation. Records may become filthy, torn, misplaced, damaged, or lost during the process. Poor record administration, equipment, and surveillance systems were cited in a number of investigations as a problem that would make it difficult to implement the NHI (Els & Cilliers, 2017; Katurura & Cilliers, 2018; Netshisaulu et al., 2019). The aforementioned findings support Katurura and Cilliers' (2018) assertions that one requirement of high-quality healthcare is a comprehensive set of information that includes a patient's complete medical history. Typically, this is accomplished using an electronic medical records system. The NHI will therefore need to develop an electronic medical record system for recording and monitoring patients who consult at various healthcare facilities in order to accomplish this goal. The adoption of numerous e-health systems from various manufacturers creates a problem in South Africa because these systems were developed using different core database designs and frequently fail to connect and exchange data with one another (Katurura, & Cilliers, 2018).

Theme 2: Poor Leadership and Management

Poor leadership and management is the other challenge that has been identified in this review. For example, the implementation of electronic health records was impacted by changes in governmental organizations, such as the presidency or cabinet ministers (Katurura & Cilliers, 2018). Due to the ruling party's lack of effective governance and accountability mechanisms, it is anticipated that the single payer National Health Insurance Fund would not succeed as planned (Arhete & Erasmus, 2016). Gani (2023)

asserts that rewards have been given for loyalty instead of the capacity to meet expectations. When errors occurred, leaders and executives aren't held accountable. South Africa will grow into a nation that is not only a product of its past but one that is consistently unable to solve the health issues of the present or to plan for its future without serious attempts to transform national understanding on accountability.

The health system's biggest challenge is not how to pay for the NHI; instead, it is how the funds will be allocated. A number of provinces have a persistent deficit in their budgets as a result of poor administration, lack of accountability, and corruption (Baleta, 2012). The primary criticism of the NHI, according to Passchier (2017), is that the state's inadequate administrative and management capabilities will hinder the program's execution. This supports the assertions made by Marais and Petersen (2015) that the system's stability is threatened by a lack of synergy between all three levels of government. The necessity for solid and stable governance systems is frequently overlooked in discussions about universal health coverage (Solanki, Cornell, Wild, Morar, & Brijlal (2022). Solanki et al., (2022) further highlight that questions concerning governance, notably those pertaining to the position and authority of the Minister of Health, stood out among the many issues that were brought up. Oleribe, Momoh, Uzochukwu, Mbofana, Adebisi, Barbera, Williams, and Taylor-Robinson (2019) also tapped on the issue of leadership and governance by stating that, one of the greatest challenges within the public healthcare system is the development of those in leadership positions.

Theme 3: Shortage and Unequal Distribution of Human Resource

Human resources are additional supply-side issue posing a barrier to the implementation of the NHI in the healthcare system. Despite the fact that changes give access to an extensive variety of services, Smith, Wishnia, Strugnell, and Shivani (2018) assert that employing additional staff members is necessary in order to deliver these services. Shortage of human resource and leadership, poor infrastructure, and economic status are recognized as obstacles that could prevent the NHI from being implemented in the South African setting (Mukwena & Manyisa, 2022). Human resources (skilled and experienced) are critical factors to take into account when developing, executing, and overseeing a comprehensive healthcare system, such as the one required for the implementation of the NHI (Smith et al., 2018), however they are in shortage in all categories of the healthcare profession (Passchier, 2017).

According to Sekhejane (2013), most community and public hospitals particularly those located in rural and semi-urban areas are filled by unskilled workers who have a high level of negligence. Passchier, (2017) highlight that public health facilities are faced with substantial vacancy rates coupled with inadequate tools and supplies which results in increased workloads therefore causing depression and poor employee motivation. According to Maphumulo and Bhengu (2019), the current severe human resource shortages are a result of an uneven distribution of healthcare professionals between the private sector which is well resourced and the underfunded public sector, and additionally among urban and rural areas. Since nurses serve as the frontline healthcare workers, the majority of staff shortages in South Africa's healthcare facilities are experienced at the nursing department (Maphumulo & Bhengu, 2019).

Theme 4: Shortage of Medicines and Supplies

In order to deliver medical treatment, clinical support services are required, such as ensuring the prompt availability of medications and the effective delivery of diagnostic, and therapeutic services (Gani, 2023). According to Modisakeng, Matlala, Godman, and Meyer (2020), South Africa's public health sector's procurement procedures are the reasons for drug shortages. The ongoing inability to pay suppliers contributes to medication stock out issues (Gani, 2023). Due to unpaid bills from provincial governments, the National Health Laboratory Service (NHLS), which oversees cancer screening, HIV and TB testing, and other public health system functions, was in a severe crisis in 2015. Doctors can cure and medicate patients with the use of diagnostic facilities (Gani, 2023). Furthermore, 26 000 procedures in Limpopo were backlogged, and cancer patients had to wait 12 months after their diagnosis before they

could begin therapy (Wilson, 2018). Treatment holdups have been a frequent issue that has not been fixed. The Chris Hani Baragwanath Hospital experienced an accumulation of thousands of patients in 2017 waiting to undergo different medical operations (Gani, 2023).

A study by Mokoena (2017) found that lengthy hospital admissions are caused by a lack of necessary resources, equipment, and consumables. Furthermore, Mokoena (2017) accentuates that patients are often directed to other institutions for examinations when healthcare equipment are out of commission, or they are forced to wait for the equipment to be serviced, delaying the process of diagnosis and therapy. Manyisa and Van Aswegen (2017) support Mokoena (2017) by highlighting how the shortage of resources and knowledgeable staff has an adverse effect on the quality of care offered for healthcare institutions. In their investigation, Mukwena and Manyisa (2022) discovered that the hospital's equipment was of poor quality, out-of-date, and antiquated since it had not kept up with medical improvements in the departments. A similar issue was identified in a study by Netshisaulu et al., (2019), which found that a shortage of essential medical equipment puts the lives of patients in danger and results in inaccurate patient diagnosis. Since most public healthcare facilities are in the similar situation, an assortment of investigations has shown that shortage of resources is a persistent problem throughout the public health facilities in South Africa (Malakoane et al., 2020; Manyisa, 2016).

Theme 5: Negative Impact on Service Delivery

According to the Department of Health (2015), the NHI places a priority on providing services to the people who need them the most. However, the ability to deliver service is varied between regions due to variations in capability. These variations are observed through unequal distribution of healthcare workers between the private and public sectors and between the districts which make South Africa's healthcare challenges worse and therefore affect service delivery (Barron & Padarath, 2017).

According to Maphumulo and Bhengu (2019), South Africa is currently burdened by an increased prevalence of non-communicable diseases like diabetes mellitus, cardiovascular diseases, preventable cancers, and respiratory diseases, as well as other challenges like gender based violence, mental health conditions, high rates of maternal and infant mortality and injuries. Given that the NHI is designed to serve all South Africans, it is probable that hospitals should be in a position to handle a greater number of patients once it becomes operational. However, because hospitals are already overcrowded with patients, Mukwena and Manyisa (2022) highlighted their concerns about how well the hospital infrastructure will be able to accommodate more additional patients. The assertions are confirmed by a study that examined clinical professionals' experiences with crowding in emergency departments and found that it was a significant issue in public health facilities (Malakoane et al., 2020). The aforementioned issue is further supported by a study that found that South African public healthcare facilities struggle with poor infrastructure, inadequate staffing proportions, and an increase in the number of patients in need of healthcare (Heunis, Mofolo, & Kigozi, 2019).

Theme 6: Health Funding System: Challenges in the Areas of Revenue Collection, Pooling Resources, Buying and Service Delivery

The WHO has identified three key aspects of funding within health systems: revenue generation, resource pooling, and purchasing. These aspects are inextricably connected with the other three primary responsibilities of the health system: provision of care, governance and resource creation (Kutzin, Witter, Jowett, Bayarsaikhan, & WHO, 2017). According to a study by Blecher, Davéni, Harrison, Fanoe, Ngwaru, Matsebula & Khanna (2019), there are a number of significant obstacles preventing progress on the NHI, including: challenges in centralizing funding in a NHI Fund considering the current provincialized health financing framework, inadequate advancement in establishing capacity for managing the NHI, particularly in strategic purchasing, management, and information systems, a lack of

confidence between the private and public sectors and the sluggish development of a framework for hybrid delivery, such as capitation agreements with private doctors.

According to South African National Treasury's 2019 report, the national budget for health in 2019-2020 was 14% of total government spending, excluding interest payments (South African National Treasury, 2019). Although South Africa spends about the same on public health per capita as other upper middle-income countries do (Xu, Soucat, Kutzin, Brindley, Maele, Touré, Garcia, Li, Barroy, Flores, Roubal, Indikadahena, Cherilova, & Siroka, 2018), the system is ineffective and better results can be obtained even at these levels. Concurrently, a number of significant expenditure constraints have also emerged, such as rising public sector pay, free education at institutions of higher learning, and more lately, bailouts for state-owned enterprises like Eskom (South African National Treasury, 2019). Due to these constraints, it has been difficult to boost financing for the health sector, and considering the present state of the economy, these constraints will probably continue to have an impact on health budgets for some time to come (Blecher et al., 2019).

Conclusions and recommendations

In ensuring that the public has access to a healthcare system that is both accessible and affordable, it is without a shadow of a doubt that the NHI's goals could prove to be a viable strategy for reforming the country's national health system. But according to our paper, the NHI implementation is plagued with shortcomings that could lead to its collapse. Therefore, the subsequent suggestions are crucial to ensuring the NHI's effective implementation:

- Additional research should be done to ascertain the most effective method to reorganize the South African public healthcare facilities in support of the proposed NHI, which is considered essential to successful provision of healthcare, while also taking into consideration every challenge in achieving and maintaining the anticipated results of the NHI.
- To ensure that the challenges surrounding the human resource shortages are adequately tackled, the government will need to engage in a huge training, skills development, and deployment of healthcare workers. With the goal to retain the health workers necessary for the implementation of NHI, it is important to tackle the causes which are driving health professionals from the public to the private sector along with the factors that are driving them to seek employment in particular regions (i.e. address the push factors). As examples of the pull factors, rewards for healthcare workers should be considered in order to boost productivity, effectiveness, and commitment.
- The existing challenges with implementing the e-health policy will need to be taken into account by the governing body. The e-health project is a prerequisite for the NHI's effective execution, so sufficient funding should be made available and the right governance framework should be put in place to monitor the development of efficient e-health services. To ensure that the e-health record systems are functional when they are introduced, the public sector has to recruit and keep information and communication technology specialists who are capable of maintaining the systems. This direction will assist in tackling problems with user commitment and training, such as a lack of skilled staff for managing and servicing the systems. In order for EHRs to be successfully implemented in public health, the problem of installation costs has been cited as a problem. The government should set up a sufficient budget expressly for e-health initiatives including the installation of electronic health records, according to the study's recommendation. To ensure the success of the NHI, proper funding allocation for the execution of e-health projects is crucial. EHR implementation would be highly likely to fail in the absence of a committed budget, primarily due to the significant costs associated with developing and maintaining EHR systems. As a result, the government should start a thorough study into the resources that are

already accessible and create an implementation plan that can be executed using the resources that are currently accessible.

- The concerns surrounding poor management, corruption, disparities across provinces and districts, and the failing infrastructure in public healthcare facilities will require the government to take another look. To reflect increased competence and improve transparency and accountability, the management structure of the public sector needs to be completely overhauled.
- Since the cost of building adequate infrastructure is a challenge, it is vital to look for other, more affordable solutions to the problem of a lack of adequate public health infrastructure. The government may perhaps make investments in solar-powered and commercial diesel-powered generators to supply electricity in public health facilities which are located in remote areas. Through the use of financial leverage and economies of scale, NHI has the ability to reduce the expenses associated with costly private services and increase their accessibility. In order for this to actually occur, the government must start working with the private sector and demonstrate these economic advantages, for instance through capitation-based contracts with private doctors. Overall, the complete implementation of NHI can be accomplished over a longer period of time than originally planned. As a result, the White Paper's timeframe for budget increases through to 2025 is probably unaffordable and might need to be adjusted.

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