**Modelling the Implications of Covid-19 Pandemic on Healthcare Access in Rural South Africa: Appraising Sustainable Development Goal 3**

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**Abstract**

Most of the research and discussions have concentrated on the impacts of Covid-19 on socio-economic development. Despite this focus, there remains a significant gap in the literature, with limited exploration into how the Covid-19 pandemic has presented significant challenges in rural South Africa, particularly concerning healthcare access, and how it has hindered progress towards the achievement of sustainable development outlined in Agenda 2030. This paper seeks to analyse the consequences of the Covid-19 pandemic, which have created obstacles in the pursuit of the Sustainable Development Goals (SDGs) of Agenda 2030, specifically Goal 3, which aims to ensure healthy lives and well-being for all individuals across all age groups. The paper contends that the Covid-19 pandemic has presented formidable hurdles that have impeded healthcare access and advancement in numerous rural communities in South Africa. Currently, many rural regions appear to be falling behind in their efforts to guarantee healthy lives and improve societal well-being, as outlined in SDG 3 of Agenda 2030 and Sections 24 and 27 of the Constitution of the Republic of South Africa (1996). This paper is primarily theoretical, drawing extensively from an examination of existing literature to establish its arguments, supported by a desk-based study that reinforces its position. The paper reveals that the Covid-19 pandemic has affected South Africa’s interim strategy to accomplish SDG 3, which aims to ensure healthy lives and promote well-being for all individuals by 2030, by necessitating a duplication of its budget and a reallocation of resources towards healthcare-related initiatives. In conclusion, this paper asserts that achieving universal good health and well-being (SDG 3) by 2030 is currently unfeasible and speculative for rural South Africa, given the country's considerable distance to cover and numerous socio-economic challenges that are impeding progress. Consequently, this paper recommends early strategic planning and innovative approaches from both public and private stakeholders to advance good health and well-being for all, thereby realizing the objectives of SDG 3 of Agenda 2030.

Key words: Covid-19 Pandemic, Dependency Theory, Healthcare access, Implications, SDG 3, Rural South Africa

**INTRODUCTION**

The emergence of the Covid-19 pandemic has presented unparalleled difficulties for healthcare systems on a global scale, affecting multiple facets of society (Stiegler & Bouchard, 2020). As countries strive to achieve the Sustainable Development Goals (SDGs) of Agenda 2030 set by the United Nations, the Covid-19 pandemic has significantly obstructed Goal 3, which focuses on ensuring healthy lives and promoting well-being for all (Fagbemi, 2021; Lekan, Aigbavboa, Babatunde, Olabosipo & Christiana, 2022). The Sustainable Development Goal 3 (SDG 3) aims to ensure healthy lives and well-being for all, with a particular focus on reducing maternal mortality, preventing and treating communicable diseases, and ensuring universal health coverage (Hoosain *et al*., 2020; Lekan *et al*., 2022). Ten (10) years since the sustainable development of Agenda 2030 was pioneered, mainly SDG 3; the insofar progress and success in ensuring access to healthcare and well-being in rural communities remain in question. Many rural areas in South Africa are still crippling with service delivery provision, especially on access to healthcare (De Villiers *et al*., 2020; Matli, 2020). This had a significant impact on most marginalised and disadvantaged groups, as they struggle to deal with the shock, particularly since the onset of the COVID-19 pandemic.

According to Stiegler and Bouchard (2020), the Covid-19 pandemic has disrupted healthcare systems globally, affecting the delivery of essential health services and exacerbating existing challenges, especially in resource-constrained areas such as rural South Africa. Rural communities often face unique barriers to healthcare access, including geographical isolation, limited infrastructure, and a shortage of healthcare professionals (De Villiers *et al*., 2020; Matli, 2020). Accordingly, the pandemic has intensified these challenges, placing additional strain on already fragile health systems (Fagbemi, 2021). Having less than six (6) years remaining, rural areas in South Africa still lag behind in terms of ensuring healthy lives and the well-being of all people, despite the country’s commitment to achieving SDG 3 toward the achievement of Agenda 2030. Rural areas in South Africa are much behind urban areas when it comes to healthcare, well-being, and development as of lately. Agenda 2063 has already been pioneered by the governments of the globe and South Africa. South Africa and other countries in the globe have already pioneered Agenda 2063, thus, Mohammad Dastbaz felt that reaching the SDGs would be unachievable, particularly for developing nations like South Africa, and thus questioned whether the “Agenda 2030” is a “fake challenge or a time for action” (Dastbaz, 2018). Agenda 2063 inculcate many features of SDG 2030; however, it aims to deliver on its goal for inclusive and sustainable development and is a manifestation of the pan-African drive for unity, self-determination, freedom, progress and collective prosperity (Oguntuase, 2021). This brings a doubt that the master plan of 2063 will continuously be adopted without realisation.

According to Yingi *et al*. (2022), goal 3 of SDG 2030 may not be met, because governments in many developing nations are reluctant to adopt development infrastructure to improve healthcare, especially in rural regions. Given the apparent absence of healthcare access in South Africa’s rural communities, it may be implied that Agenda 2030 is, in fact, a “fake challenge” for the country, in the words of Mohammad Dastbaz. Thus, the insofar success or failure thereof remain in question within the field of scholars, as South Africa continues to commit to SDG 2030. This study aims to examine the effects of the Covid-19 pandemic on healthcare access in rural South Africa, with an emphasis on critical SDG 3 indicators. The study intends to provide critical insights into policy decisions and interventions aimed at safeguarding and promoting success toward SDG 3 in the post-pandemic ages by assessing the current condition of healthcare, identifying difficulties, and forecasting future scenarios.

**Literature Review**

**Theoretical insights: Dependency Theory**

The Dependency Theory originated in the 1950s and 1960s as a critique of traditional development theories that emphasised modernisation and economic growth (Muigua, 2020; Jacobsen, 2021). It thus posits that the underdevelopment of certain countries is not accidental but rather a result of their dependency on more developed countries (Muigua, 2020). The theory holds that this dependency fuels an endless cycle of exploitation, inequality, and constrained prospects for the dependent countries for development (Muigua, 2020; Jacobsen, 2021). Thus, the Agenda 2030 increased developed countries’ dominance of developing nations and their dependence on them. South Africa and other developing countries are bound to align their development plans to internationals, which does not reflect its initial issues (i.e., disparities in healthcare access between rural and urban areas) affecting the country. The foundation of this paper is based on Dependency Theory, which provides a critical perspective for analysing the complexities and interactions involved in the impact of the Covid-19 pandemic on healthcare accessibility in rural South Africa, in the context of achieving SDG 3 of Agenda 2030.In this context, the implementation of the sustainable development goals outlined in Agenda 2030 placed a burden on developing nations like South Africa, disregarding their present economic circumstances. This agenda was predominantly shaped by United Nations partners who were influenced by their own socio-economic and political positions.

Today, South Africa is under pressure and struggling to align its progress in healthcare access and promoting well-being for people at all ages, particularly in rural areas, in line with the SDG 3 of Agenda 2030 (Yingi *et al*., 2022). The Covid-19 disruptions have shown a significant gap in the achievement of SDG 2030 goal 3, primarily in rural South African communities, which are far behind in ensuring wellness and fostering well-being for people at all ages (Muigua, 2020; Jacobsen, 2021). This could imply that the adoption of the United Nations Sustainable Development Goals has hampered development progress in South Africa and has become a major development dependency mechanism at the expense of underdevelopment for developed countries. In this study, the dependency theory assists to highlight the disparities in healthcare access between developed and developing countries. The pandemic has exposed weaknesses in healthcare systems worldwide, with developing countries (such as South Africa) often bearing the brunt due to limited resources and infrastructure (Jacobsen, 2021). This can be attributed, in part, to historical patterns of dependency, where colonial powers have shaped these nations’ economies and institutions in ways that prioritise the interests of the colonisers over the well-being of the colonised communities. The financial loads faced by South Africa can be viewed through the lens of dependency theory, which posits that historical and ongoing economic relationships lead to unequal power dynamics and perpetuate cycles of debt. Thus, dependency theory offers a paradigm for comprehending the underlying disparities and power dynamics that influence the impact of the Covid-19 pandemic on SDG 3 in rural South Africa. For instance, the economic impact of the pandemic underscores the dynamics of dependency.

**Empirical insights**

Prior to the arrival of the pandemic, South Africa’s economy had already been grappled with structural impediments. Persistent inequality, high unemployment rates, and insufficient access to quality healthcare were emblematic of the nation’s pre-existing woes (Butler, Botes, Brown & Smit, 2023). Abdelatif, Peer and Manda (2021) state that despite commendable efforts, such as the National Development Plan (NDP) 2030 and National Health Insurance (NHI), disparities remain entrenched, hindering the equitable distribution of resources and access to essential services. The vulnerabilities in South Africa’s economy were quickly amplified by the arrival of Covid-19, causing a severe downturn (Arndt *et al*., 2020). The strict lockdown measures further worsened the situation by contracting the Gross Domestic Product (GDP) and disrupting crucial economic sectors. The tourism industry, which is a crucial pillar of the economy, was particularly hard hit by travel restrictions, resulting in substantial job losses and a decline in revenue (Odeku, 2021). In addition, the Covid-19 pandemic has revealed deficiencies in healthcare funding and availability (Odeku, 2021). The pressure on the healthcare system has highlighted weaknesses in the infrastructure, made worse by limited resources and overburdened staff (Oleribe *et al*., 2019). This has further widened the gap in healthcare access, particularly affecting marginalised communities and worsening existing health disparities.

South Africa’s policies faced a daunting test amid the upheaval of the pandemic. Efforts to contain the virus necessitated a delicate balance between safeguarding public health and mitigating economic repercussions (Abdool Karim, 2020). The government implemented relief packages and economic stimulus measures to cushion the blow on businesses and individuals, aiming to preserve livelihoods while combating the spread of the virus. Initiatives such as the Temporary Employer/Employee Relief Scheme (TERS) and the Presidential Employment Stimulus bolstered social protection and job-creation efforts (Abdool-Karim, 2020). However, the road to achieving SDG 3 amid this turmoil has been fraught with setbacks. The pandemic-induced economic downturn impeded progress towards accessible healthcare for all, widening the gap between the health services needed and those accessible to vulnerable populations (Nwosu & Oyenubi, 2021). As resources were diverted to the pandemic response, pre-existing healthcare challenges were further compounded, impeding efforts to attain universal health coverage and ensure essential health services for all (Lalla-Edward *et al*., 2022). Furthermore, the interaction of the pandemic alongside the socioeconomic issues facing South Africa highlighted the relationship between sustainable development and health. Addressing the repercussions of Covid-19 on SDG 3 requires a multi-faceted approach. Alobo (2021) supports that strengthening health systems, ensuring equitable vaccine distribution, and bolstering healthcare infrastructure is imperative to fortify resilience against future health crises while advancing progress towards SDG 3.

Adam (2021) contends that as South Africa navigates these turbulent waters, a renewed commitment to inclusive policies, bolstered healthcare infrastructure and targeted socioeconomic interventions becomes paramount. Only through concerted efforts and global solidarity can the nation mitigate the pandemic's enduring impacts, revitalising its journey towards a healthier, more equitable, and sustainable future (Alobo, 2021). The Covid-19 pandemic acted as a catalyst, intensifying pre-existing socio-economic challenges in South Africa, particularly within healthcare and economic sectors. Addressing these challenges necessitates a holistic approach, aligning policies with SDG 3, and fostering resilience against future crises, ultimately steering the nation towards a path of inclusive and sustainable development (Daniels & Casale, 2022).

Structural and institutional challenges have long been ingrained in the South African landscape. The historical legacies of apartheid left a profound mark, perpetuating inequality across various facets of society (Levy *et al*., 2021). The disparities in income distribution, limited access to quality healthcare, and inadequate infrastructure in marginalised communities epitomise the enduring scars of the country's past. Furthermore, inequity in access to healthcare remains a persistent concern. While policies like the NHI sought to bridge the gap, resource limitations, and systemic inefficiencies hampered its effective implementation (Ujewe & van Staden, 2021). The unequal distribution of healthcare facilities, coupled with a shortage of skilled healthcare professionals, has entrenched disparities in access to essential services, perpetuating health inequities across socioeconomic strata (Levy *et al*., 2021). Achieving the sustainable development goals of Agenda 2030, particularly SDG 3 which focuses on guaranteeing healthy lives and fostering well-being for all individuals regardless of age, presents a daunting task for South Africa. The country faces numerous structural, institutional, and socio-economic obstacles (Roser, 2023) that have long hindered progress towards realizing the SDG Vision 2030, even prior to the emergence of the Covid-19 pandemic.

The pursuit of Sustainable Development Goal 3 underscores the significance of education as a critical focal point. According to Mohamed (2020), advancements have been made in expanding educational opportunities; however, disparities persist, particularly in rural and marginalized urban areas. Challenges such as limited infrastructure, insufficient resources, and socio-economic barriers hinder equitable access to quality education, perpetuating cycles of poverty and inequality. The already fragile healthcare system faced significant strain in balancing the management of both Covid-19 cases and essential health services. This reallocation of resources and overwhelmed healthcare systems further exacerbated existing inequities in healthcare access, disproportionately impacting vulnerable groups (Ikwegbue *et al*., 2021). The Covid-19 pandemic deepened economic disparities, resulting in an economic downturn. Consequently, marginalized communities encountered heightened difficulties in accessing adequate healthcare. Vulnerable populations bore a disproportionate burden, facing heightened health risks alongside economic hardships (Anyanwu & Salami, 2021). Stiegler and Bouchard (2020) argue that the Covid-19 pandemic amplified pre-existing challenges in South Africa, triggering a series of disruptions in the nation's socio-economic landscape. The surge in unemployment, closure of businesses, and interruptions in essential sectors led to a heightened level of poverty (Mubangizi, 2021).

The interplay between pre-existing challenges and pandemic disruptions has been particularly detrimental to SDG 3 progress (Gittings *et al*., 2022). Access to essential health services, a cornerstone of SDG 3, faced setbacks as resources were diverted to the pandemic response (Panneer *et al*., 2022). The disruption of healthcare services, coupled with economic strain, hindered progress towards universal health coverage and the provision of essential health services to all. South Africa's policies, though ambitious, encountered limitations in the face of these formidable challenges. The government's efforts to mitigate the pandemic's impact through relief measures and economic support, while commendable, faced constraints due to fiscal limitations and the magnitude of the crisis (Ehrenberg *et al*., 2021). The balancing act between containing the virus and safeguarding socio-economic well-being necessitated difficult trade-offs. Moving forward, addressing these entrenched challenges, and mitigating the compounding effects of the pandemic on SDG 3 requires a concerted effort (Zhao *et al*., 2022). Strengthening healthcare systems, enhancing educational access, and implementing targeted socio-economic interventions are imperative. Long-term investments in healthcare infrastructure, equitable distribution of resources, and inclusive policies that prioritise marginalised communities are fundamental to realising SDG 3 (Department, 2022). The Covid-19 pandemic has further complicated South Africa’s efforts to achieve SDG 3, as it has magnified the existing structural, institutional, and socio-economic obstacles (Stiegler & Bouchard, 2020). Overcoming these challenges requires a holistic strategy that focuses on policy alignment, inclusive economic growth, and ensuring equal access to healthcare and education (Francis, Valodia & Webster, 2020). By working together and maintaining a long-term commitment, South Africa can navigate towards a future that is healthier and more prosperous for everyone.

The aftermath of the Covid-19 pandemic presents South Africa with an arduous journey towards economic recovery while striving to attain the ambitious SDG 3 within the Vision 2030 framework (Schröder *et al*., 2021). As the nation navigates this pivotal juncture, a multi-pronged approach encompassing fiscal policies, healthcare system fortification, social safety nets, and innovative collaborations is imperative to rejuvenate the economy and advance healthcare and well-being goals (Mhlanga, 2023). Tendengu, Kapingura and Tsegaye (2022) state that the direction of recovery can be significantly shaped by fiscal policies. Specific measures to stimulate key sectors like tourism, manufacturing, and small-to-medium enterprises (SMEs) can boost economic growth and create jobs. By increasing public investment in infrastructure, education, and healthcare, and ensuring effective allocation of resources and fiscal discipline, a strong foundation can be established for sustainable economic revival (Burger & Calitz, 2020). Enhancing the healthcare system plays a crucial role in the progress towards achieving SDG 3. It is essential to allocate more resources towards healthcare infrastructure, such as expanding facilities and hiring qualified staff (de Villiers, 2021). Innovative methods and technology integration are needed to ensure improved access to essential health services, particularly in underserved areas, to address the accessibility disparity (Kruk *et al*., 2019).

Implementing social safety nets to shield vulnerable populations from economic shocks is critical. Enhanced social protection programs, including expanded access to healthcare, unemployment benefits, and targeted assistance for marginalised communities, can mitigate the adverse effects of economic downturns, fostering resilience among the most vulnerable (Human Rights Watch, 2022). Moreover, international cooperation holds significant promise in bolstering South Africa’s recovery efforts (Williams & Papa, 2021). Collaboration with global partners, leveraging international aid, and participating in joint research and development initiatives can facilitate resource mobilisation and knowledge exchange (Hendricks & Majozi, 2021). Engaging in public-private partnerships, fostering innovation, and exploring innovative financing mechanisms can unlock new avenues for sustainable development. South Africa’s policy landscape already embraces initiatives aligning with these strategies. The National Health Insurance (NHI) aims to achieve universal health coverage, striving to ensure equitable access to quality healthcare for all citizens (Mthembu & Nhamo, 2021). The Reconstruction and Recovery Plan, introduced by the government, outlines strategies for economic recovery, emphasising infrastructure development, job creation, and investment in key sectors (Department of Health, 2020).

Nevertheless, to enhance these endeavours, a comprehensive and interconnected strategy is required (Nonet *et al*., 2022). Stimulating entrepreneurship, cultivating a favourable business atmosphere, and advancing digitisation can stimulate creativity and broaden the economy, fostering a resilient economic system (WONG, 2021). Implementing educational reforms alongside skill-building initiatives can empower the labour force, promoting sustainable economic expansion and human advancement. It is crucial to prioritise sustainable development strategies that integrate economic recovery with healthcare and well-being objectives (United Nations, 2023). By focusing on green initiatives, encouraging the use of renewable energy, and adopting environmentally friendly practices, we can not only stimulate economic growth but also protect the environment, which aligns with the broader goals of sustainable development (Mert-Mentes, 2023). At this crucial moment, South Africa is facing the dual challenge of recovering from the economic consequences of the pandemic and making progress towards achieving SDG 3 as part of the Vision 2030 plan (The World Bank, 2023). It is essential to implement strategic fiscal policies, strengthen the healthcare system, establish social safety nets, engage in international collaborations, and adopt sustainable development strategies (de Villiers, 2021). These measures are vital for ensuring a resilient path towards economic recovery and fulfilling the goal of a healthier and more prosperous nation that benefits all its citizens. By working together and making a concerted effort, South Africa can emerge stronger, laying the foundation for sustainable development and inclusive growth.

**RESEARCH METHODS**

The paper is purely conceptual, as it relied heavily on a review of existing literature to articulate the premise, and a desktop study endorsed the argument. Thus, the methodological nature of literature-based research allowed the researchers to search and review literature from different scholars on the implications of the Covid-19 pandemic, which has posed challenges on Sustainable Development Goals, especially Goal 3, of ensuring healthy lives and promoting well-being for all at all ages. The research methodology in this study achieved its objectives by engaging in critical discussions and debates among various authors. Data was obtained through a desktop study, relying on secondary sources such as journal articles, books, and reports. Additionally, a thematic content analysis was employed as a relevant method to analyse the literature data, enabling researchers to delve into the content of diverse articles and derive thematic insights. Consequently, these themes were meticulously developed and conceptually explored in the literature to meet the primary objective of the study. The validation and reinforcement of the paper were strengthened by examining both theoretical frameworks and empirical evidence in the literature, forming the basis of its argument.

**DISCUSSION OF THE RESULTS**

The paper lengthily discussed the implications of Covid-19 pandemic, which has posed challenges on Sustainable Development Goals, especially Goal 3, of ensuring healthy lives and promoting well-being for all at all ages in rural South Africa. From the theoretical and empirical insights perused from the existing literature, it has come to light Covid-19 pandemic worsened the existing challenges in South Africa, causing a series of compounding disruptions in the socio-economic landscape of the country. The already fragile healthcare access faced immense pressure, trying to manage both Covid-19 pandemic cases and essential health services (Stiegler & Bouchard, 2020; Ikwegbue *et al*., 2021). This redirection of resources and overwhelmed healthcare systems exacerbated the existing disparities in healthcare access, particularly affecting vulnerable groups. The dependency theory highlighted the disparities in healthcare access between developed and developing countries. The pandemic has exposed weaknesses in healthcare systems worldwide, with developing countries (South Africa) often bearing the brunt due to limited resources and infrastructure. This can be attributed, in part, to historical patterns of dependency, where colonial powers have shaped these nations’ economies and institutions in ways that prioritise the interests of the colonisers over the well-being of the colonised communities. For example, the economic effect from the pandemic highlight’s dependency dynamics. Thus, the financial loads faced by South Africa can be viewed through the lens of dependency theory, which posits that historical and ongoing economic relationships lead to unequal power dynamics and perpetuate cycles of debt. The literature further established that the economic fallouts from the Covid-19 pandemic have disproportionately affected vulnerable populations in rural South Africa, exacerbating existing inequalities. Job losses, reduced incomes, and increased poverty levels contribute to challenges in accessing healthcare services and achieving health-related SDG targets. The economic downturn has also affected the funding available for healthcare, hindering the government’s ability to invest in healthcare access and services.

**CONCLUSION**

The paper appraised the emanating implications of Covid-19 on SDG 3 in rural South Africa through critical analysis of the prevailing socio-economic fallouts, especially on access to healthcare and well-being of the people. The Covid-19 pandemic has had profound implications for SDG 3, particularly concerning healthcare access in rural South Africa. This crisis has illuminated existing disparities in health infrastructure, access to medical resources, and socio-economic conditions, reflecting broader global patterns of inequality and dependency. The lens of dependency theory has provided valuable insights into understanding these implications. Historical and ongoing economic relationships, characterised by unequal power dynamics between developed and developing nations, have shaped the vulnerabilities faced by rural communities in South Africa and similar contexts. Limited access to quality healthcare, exacerbated by the pandemic, highlights the need to address structural inequalities embedded within the global economic system. Without concerted efforts to address the root causes of dependency and inequality, progress towards goal 3 of SDG 2030 will remain elusive. Moving forward, a comprehensive approach is needed to ensure that rural communities in South Africa and other marginalised regions have equitable access to healthcare. This includes investments in health infrastructure, capacity-building initiatives, and policy interventions aimed at addressing underlying socio-economic determinants of health. The policymakers and other relevant stakeholders should recognise the interconnectedness of health, economic, and social systems, considering the insights provided by dependency theory. That can help address the root causes of health shocks and promote sustainable development, to work towards achieving goal 3 of SDG 2030 of ensuring healthy lives and promoting well-being for all, including those in rural South Africa.

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