

Beyond the Pandemic: A Review of the Persistent Impacts of COVID-19 on Nigeria's Socio-Economic, Political and Health Landscapes

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Abstract

The COVID-19 pandemic has profoundly impacted Nigeria, affecting its socio-economic, political, and health landscapes with lasting repercussions. It has exposed weaknesses in the healthcare system, economy, and political structure, leading to severe consequences such as exacerbated poverty and unemployment, reduced economic growth, strained political relationships, increased healthcare burdens, and long-term health issues. The government's response measures have often worsened the situation, presented governance challenges and diminished citizens' trust. The economic fallout includes decreased consumption, depreciating investments, declining net exports, and increased government expenditure. Politically, the pandemic has led to low political participation, erosion of public trust, and strained relationships between citizens and the government. The

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healthcare system's vulnerabilities are evident in the increased burden on healthcare services and the urgent need for improved health infrastructure. This review underscores the urgent need for proactive strategies to address these lingering impacts and for the enhancement of Nigeria's resilience against future pandemics. It calls for a multidisciplinary approach to develop and implement effective policies and programmes that mitigate the consequences of COVID-19 and strengthen the country's preparedness for future health crises.

Keywords: COVID-19, Nigeria, Socio-Economic Impact of COVID-19, Health, Political Consequences.

Introduction

The COVID-19 pandemic has had a lasting impact on Nigeria, exacerbating existing vulnerabilities and exposing new ones. As the country navigates the post-pandemic era, it must confront the far-reaching consequences that have reshaped its socio-economic, political, and health landscapes. Declared a global health emergency, by the World Health Organisation (WHO) on January 31, 2020 (WHO, 2020), the pandemic has had a profound global impact. As of July 1, 2021, it had claimed 3,942,233 lives out of 181,722,790 confirmed cases (WHO, 2021). The pandemic severely affected Africa, with 140,040 reported deaths as of June, 2021 (Galal, 2021).

The pandemic is caused by the Coronaviridae virus, which manifests as a bacterial infection detectable through thermal scanning (WHO, 2021). COVID-19 symptoms range from mild cold-like symptoms to severe pneumonia, fever, and acute respiratory distress syndrome, leading to death in some cases (Chowdhury et al., 2021). The rapid spread of COVID-19 worldwide has been attributed to various factors, including respiratory droplets, airborne transmission, and contact with contaminated surfaces (Alsved et al., 2020; Echternach et al., 2020/2021). The pandemic's economic impact has been significant, leading to widespread job losses, salary reductions, business closures, and stock market instability (Alfers et al., 2020; Boot et al., 2020; ILO, 2020; Hong et al., 2021). The International Monetary Fund estimated a global economic contraction of 4.9% in 2020

due to the pandemic (Mordecai & Shumacher, 2020). The social implications of COVID-19 have also been far-reaching, with the imposition of lockdown measures implemented worldwide to control its spread. This has led to increased suffering, health crises, and untimely deaths, particularly in low-income communities (Meo et al., 2020; Simunek et al., 2021).

The pandemic has also had significant political implications, hindering political participation and democratic processes worldwide (IDEA, 2020; Barbieri, 2020). In Africa, the pandemic has exacerbated economic and social challenges, with estimated revenue losses of US\$65 billion and US\$113 billion (IATA and UNECA). Global trade declined by 13% to 32% in 2020, with a corresponding slump in global GDP (IMF, 2020). To mitigate the pandemic's effects, international financial institutions released US\$230 billion in assistance to countries between 2020 and 2021, with US\$75 billion allocated to least developed countries in 2020 (Anyanwu & Salami, 2021). The social impact of COVID-19 on Africa was enormous. It led to exacerbated price increases following a reduction in food production, low purchasing power, starvation, high poverty, and high mortality rate resulting from poor diet and poor environmental sanitation. This paper provides a comprehensive examination of the multifaceted impacts of the COVID-19 pandemic on Nigeria, investigating the socio-economic and political implications on livelihoods, healthcare, political and social structures, and providing insights into the country's responses and resilience in the face of this global health crisis.

Socio-Economic Impacts of Post-COVID-19 Pandemic in Nigeria

Since the emergence of COVID-19 pandemic, the entire global community has faced unprecedented socio-economic and political challenges in great intensity. However, the impact differs from country to country. The United Nations Framework for the Immediate Socio-Economic Response to the COVID-19 Crisis warns that "The COVID-19 pandemic is far more than a health crisis: it is affecting societies and economies at their core" (UNDP, 2020). The social impacts range from deaths, lockdowns, social distancing, quarantines, hand washings, food shortages, inflation, impoverishment, crimes, wearing of face masks, travel bans and restrictions, to shutdowns of economic activities in marketplaces and firms. In relation to socio-economic challenges posed by COVID-19 pandemic, Nigerians

suffered significantly as captured by the following implications, discussed below.

Galloping Unemployment and Retrenchment of Workers Resulting from Post-Covid-19

The emergence of COVID-19 compounded the state of unemployment and underemployment in Nigeria. Before the advent of the pandemic, the nation had been battling with the scourge of unemployment and underemployment, which was considered to have emanated from bad implementation of economic policies, over-concentration on agriculture, declining oil price, low industrialisation and closure of multilateral companies, high interest rate, poor exchange rate, high corruption and bad leadership. Those in the formal and informal sectors were seriously affected due to their inability to conduct transactions during the COVID-19 pandemic. It was a unique experience for income earners, as some were neither paid salaries nor retained by their employers (Posel, Oyenubi & Kollamparambi, 2021). The unemployment rate in Nigeria rose to 27 percent in the second quarter of 2020, although it was formerly 23 percent in the third quarter of 2018 (National Bureau of Statistics Labour Survey, 2020). However, the year 2020 was projected to have a 33.5 percent unemployment rate due to low demand for labour supply (*Premium Times*, 2019). The total job loss was 33.9 million as seen in the figure released by the Federal Ministry of Labour and Productivity. A survey conducted by the National Bureau of Statistics in August 2020 depicted that 11% of citizens in Nigeria were thrown out of their jobs, leading to a drastic reduction in family income (National Bureau Statistics, 2020).

On the domestic front, the pace of business activities in Nigeria slowed, following a fall in consumers' demand, resulting in a decline in new orders, thereby leading firms to cut down on employment after the pandemic. Hence, the composite PMI (Purchasing Managers' Index) contracted to 41.0 index points from 50.0 index points in the preceding period (CBN, 2023).

Decline in Oil Prices Due to Low Demand

The implications of COVID-19 on the global economy were devastating as international oil prices, exchange rates, and the stock markets suffered drastic drops. According to *Premium Times* (2020), there was a decline in

oil prices from US\$72.18 per barrel in early January to US\$11.03 per barrel in April 2020. During the COVID-19 pandemic, Nigeria suffered a severe setback in the revenue generated from oil due to low demand from local and international buyers. The suspension of flights at local and international levels drastically reduced the consumption of oil by the aviation industry. There was a drop from US\$60 per barrel to US\$30 per barrel in March 2020. The implication is that the 2020 budget was no longer feasible as the earlier prediction of oil price to US\$57 per barrel was not realistic. Consequently, the national debt increased, foreign exchange rate earnings reduced, and the domestic currency rose to ₦382:50/per US\$ as of September 2020. COVID-19 indeed had serious effects on the extractive sector. In Nigeria, the oil sector provides half of the revenue generated by the government with 90 percent of foreign exchange. With the emergence of COVID-19, the GDP growth of oil depreciated due to low demand for crude oil (White, 2021).

However, crude oil spot prices rose as a result of increased demand from China in the post-COVID-19 period following the reopening of its borders. The average spot price of Nigeria's reference crude oil, the Bonny Light (34.9° API), rose by 1.49 per cent to US\$86.40 per barrel (pb), from US\$84.78 pb in the preceding month. The prices of UK Brent at US\$82.78 pb, Forcados at US\$86.24 pb, WTI at US\$79.05 pb and OPEC Reference Basket (ORB) at US\$81.86 pb all exhibited similar upward movement (CBN, 2023).

Inflation and Currency Devaluation

High cost and interest rates affected the purchasing power of the citizens/residents of Nigeria, and also reduced the aggregate demand levels for businesses too. The post-COVID-19 pandemic had a debilitating effect on the Nigerian economy, specifically, the combination of lockdown measures and the global slowdown of economic activities led to the contraction of Nigeria's GDP by 6.1% in the second quarter of 2020, thus inducing the country's second recession within five years (National Bureau of Statistics, 2020).

Further research on this was carried out by Babalola (2022). The findings of the study revealed that, in both the short and long run, the period of the

COVID-19 pandemic has a very significant impact on Naira exchange rate. Inflationary pressures persisted, following the increase in the food component of the CPI basket. Thus, headline inflation (Year-on-Year) rose to 21.91 per cent from 21.82 per cent in January 2023 (CBN, 2023). The impact of inflation was recorded in transportation, food prices, household needs, raw materials, pharmaceutical products, health care, motor cars, vehicle spare parts, equipment, and in prices of services, among others, even after the pandemic ended in Nigeria.

COVID-19's Impact on the Education System

COVID-19 affected the academic calendar and caused the percentage of student dropouts to increase. The global education systems in various countries were severely affected as schools were shut down. The consequences on the primary, post-primary, and tertiary institutions were more devastating on the developing countries than the developed. For instance, the adoption of the traditional method of teaching declined as new technology of virtual learning took over. The introduction of ICT was affected by electricity, cost of purchasing data, and lack of exposure to the new technology by teachers and students. Moreover, network issues impeded the efficacy of using technology for teaching purposes in Nigeria during the pandemic. From the study carried out by Okagbue et al. (2023), the outcome of the data collected showed that Nigerian schools lacked proper computer learning courses as well as little command of information and communication technology.

However, the advantage of this, after the COVID-19 pandemic is that most schools in Nigeria have now gone digital. Looking beyond COVID-19, the government should formulate an education policy that will make it mandatory for private and public schools, particularly tertiary institutions to employ modern technology to teach. For these education policies to be effectively implemented, teachers have to be trained, and technological facilities must be made available.

Increased Poverty and Inequality

The lockdown policy of the Federal Government jeopardised economic activities across industries and sectors of the Nigerian economy. The pandemic prompted policy response, which hindered regional, national and

local socioeconomic activities (World Bank, 2020), and had negative implications on Nigeria's economy. This imposition of lockdown across Nigeria affected the income generated by families. It was reported by the World Bank in 2020 that poverty rate may increase from 40% to 42% in 2022, as a result of citizens living below \$1 on daily basis. Between 2019 and 2020, about 12.6 million Nigerians became extremely poor, with a significant proportion of the new extreme poor resulting from COVID-19 (World Data Lab. N.d.).

The immediate effects of the pandemic on income inequality within Nigeria between the rural and urban areas widened the level of poverty. Those seriously affected are the ones with lesser income who had to adopt different mechanisms to survive the shock posed by COVID-19, immediately after the pandemic subsided. According to Sanchez-paramo, Hill, Mahler, Narayan and Yonzam (2021), poorer countries contended with a deeper, longer-lasting crisis that increased global poverty and reversed recent trends of shrinking inequality.

Impact on Medium-Sized Enterprises (SMEs)

The micro, small and medium enterprises (MSMEs) were seriously affected. The impact of the pandemic is more severe on the exchange rate, with Naira depreciating by 1% by mid-February 2020. This inflation is, however, higher in the informal market. This further exacerbated the inflation rate of consumer goods, which rose to 14% in 2020 (UNDP, 2020). The cumulative effect of the COVID-19 pandemic on the Nigerian economy snowballed into a negative annual GDP growth rate of -5% to -10% at the end of 2020 (Akpata & Nevin, 2020). The impact of COVID-19 on the aviation industry was significantly high, with a decline in global demand for air travel. There was a great global loss of revenue estimated at US\$113bn. In Africa, there was a loss of US\$400m (£312m) according to the International Air Transport Association (IATA) estimates (Ozili, 2020). Nigeria lost ₦21 Billion on monthly basis during the outbreak (Sirika, 2020). In the aviation industry alone, the pandemic cost domestic carriers almost 400 billion naira, resulting in over 250,000 staff being laid off (Adekola, 2020). This was due to the disruption of operations and the cessation of revenue generation in the aviation industry.

The Pandemic and Food Insecurity

COVID-19 was a threat to food security and nutrition due to the restriction of movement within the state and across the borders, as agricultural workers were unable to produce adequate food for the consumption of Nigerians. Consequently, scarcity resulted from the disruption of the supply chains, leading to subsequent price hikes and an unavoidable inflationary spiral. There was widespread limited purchasing power of poor households who already experienced and suffered income loss during the pandemic (GAIN, 2020). The presence of COVID-19 in the country further exacerbated the existing acute hunger in the country. According to the National Bureau of Statistics (NBS) August 2020 Covid-19 impact monitoring report, 68% of Nigerian households experienced moderate or severe food insecurity in August, down from 76.8% in June and almost double the rate of 37% measured in the NBS Jan/Feb 2019 General Household Panel (GHS) post-harvest survey. The HortiNigeria Programme report, released, claimed that post-COVID-19 pandemic recovery was weak and slowed down the food production momentum (Obi, 2024).

COVID-19 and the Problem of Insecurity

COVID-19 pandemic complicated human insecurity in Nigeria by exacerbating conflict, theft, and armed robbery, aside from other acts of terrorism already known to Nigeria. During the pandemic, houses, churches, mosques, and business firms were burgled. To prevent infiltration, some residents had to engage in night-watch by forming vigilante groups. In the process of obeying the lockdown rules, terrors were unleashed on members of the public by miscreants and violent individuals who engaged in looting, car snatching, rape, and sexual assault within communities. In Lagos, media sources showed that some youths engaged in serious robbery in order to survive (Hanafi, 2020); banditry was on the rise in the north as Islamic State's West Africa Province (ISWAP) attacked some villages in Kaduna and other parts of the north where communal attacks were witnessed following the imposition of curfew by state governments; youths protested against the locked down in Katsina and protesters were arrested (Wuyo, 2020). According to the studies conducted on insecurity in Nigeria by Fasina et al. (2020), and Oguntunde et al. (2018), persistent unemployment,

unbearable poverty, and outright disregard for laws were responsible for criminal acts in the various neighbourhoods in post-Covid era (Akanmu, et al., 2021).

The government should not refrain from beefing up security to forestall any occurrence of unruly behaviour among the citizens. The problem of insecurity was more pronounced during the COVID-19 pandemic because the police that ought to be in the various communities to safeguard the citizens and their properties were kept in the barracks, and only a few were in their various police posts. In addition, the federal government should decentralise the police force by allowing states to establish their local police forces.

Political Impacts

COVID 19's Impact on Democracy and Political Participation

The political process was impeded during the election period in most countries across the world due to the unwillingness of citizens to perform their political obligations for fear of being infected. COVID-19 therefore poses some challenges to democracy. The health of democracy in Africa has been in question for some time, and postponed elections added to the growing fear of democratic backsliding on the continent (Bosman, 2021). In Nigeria, voters' turnout during the COVID-19 pandemic in Ondo and Edo States elections recorded 31.6% and 32%, respectively (Nwankwo, 2021). The Senatorial by-elections initially scheduled to be held in March 2020 were postponed to December 2020 in Bayelsa, Imo, and Plateau States. However, local government election took place in Cross River State in May 2020. Also, in Nassarawa, a constituency by-election was held in August 2020, Ondo state governorship election was conducted in October 2020 (IDEA, 2021). In Nigeria, some of the elections held during the COVID-19 period were marked by low voters' turnout. The study conducted by Nwankwo (2021) shows that a reduction in social interaction caused by COVID-19 can shape the participatory level of individuals.

Consequences of COVID-19 on Nigeria's International Relations and Diplomacy

The 2020 COVID-19 pandemic affected the workings of international relations, disrupted countries' foreign policy objectives and caused diplomatic

tensions. This is to show that the extent and reach of the Coronavirus in Nigeria leave no exception (Otunola, 2022). The Nigerian foreign policy machine was effectively brought to a halt, resulting in the loss of potential beneficial deals for the country. During and after the pandemic, it took Nigerians time to access the consular services following the closure of her embassies abroad.

Reduction of Trust in Government and Institutional Capabilities to Handle Disaster

The mortality and morbidity rates of coronavirus disease 2019 (COVID-19), combined with its high degree of contagiousness, compelled governments worldwide to implement measures to protect citizens from the Severe Acute Respiratory Syndrome Corona 2 (SARS_CoV-2) (Zylke, & Bauchner, 2020). Studies exploring factors of voters' turnout in Africa and indeed in Nigeria have noted that political trust is an essential factor determining political participation (Nwankwo, 2019; Nwankwo & Okafor, 2017). Yunusa et al, 2021 showed that there was a lack of confidence in the government's ability to manage and control the pandemic, due to their concerns about the poor health infrastructure and ineffective response from the government. The cash award given to citizens as food palliative was shrouded in discrepancies and irregularities. Uche Igwe argues that the declining trust among the public towards government institutions and deliberate corruption were among the critical factors that affected the country's overall response to the pandemic (Igwe, 2022). The ruling class' capacity to control the pandemic was doubted 9 basically because of the antecedents of unfulfilled electoral promises, insensitive governance, high level of corruption, and unsustainable policies. According to Habeebullah (2020), policy implementation is perhaps the major area that suffers from the backlash of public distrust. The majority of the populace has no regard for the government. The trust gap between the leaders and the people is extremely wide after COVID-19 ended.

COVID-19 and Corruption in Nigeria's Healthcare Sector

The political and ruling class in Nigeria heightened the level of corruption within the health sector. This affected the resources that would have been used to cushion the effects of the pandemic on the people. Transparency

International found that five months into the pandemic, the Nigerian government purchased some goods at 25 times the original price (Igwe, 2022). The details of how the \$3.4bn IMF rapid relief loan on COVID-19 granted to Nigeria was spent remained unaccounted for by the Presidential Task Force on COVID-19. From the commencement of the virus in Nigeria, some people believed that the claim on the part of the government of Nigeria that there was COVID-19 was a conspiracy theory to loot public funds. The reality of this assertion was later discovered when there were cases of the purchase of fake drugs, inflation of drug prices, and deliberate waste of public fund by those in the health sector, whose responsibility was to protect the interest of citizens and government in their service delivery to the members of the society, who are most reliant on health and public services.

Moving forward and looking beyond COVID-19, the government can manage future pandemics by making the national taskforce include anti-corruption agencies, establishing a procurement transparency policy, and assessing those citizens who are in dire need of government support.

COVID-19's Impact on Nigeria's Healthcare System and Infrastructure

The COVID-19 pandemic exposed the vulnerabilities of Nigeria's healthcare system, highlighting the fragility of its essential health services (EHS) and the need for a resilient approach to maintain uninterrupted EHS delivery during health crises (Okeke et al., 2022). Nigeria's healthcare system, already under strain, faced significant disruptions during the pandemic. Key health interventions declined sharply between 2019 and 2020, with TB treatment initiation dropping by 72%, planned mosquito net distribution by 75%, and maternal care services by 6%. Consequently, child mortality rates rose by 18% and maternal mortality by 9% (Global Fund, 2020; Ahmed et al., 2020). The pandemic undermined progress in family planning and immunisation, setting back vital healthcare gains. The healthcare system has been further strained by the need to care for patients with severe cases of COVID-19, leading to a significant increase in healthcare costs (Okeke et al., 2022). The pandemic also exposed weaknesses in the healthcare system, including inadequate infrastructure, poor infection control practices, and a shortage of healthcare workers (Tanyi et al., 2023). Furthermore, the

pandemic disrupted the supply chain of essential medicines and medical supplies, leading to shortages of critical treatments.

In the post-COVID era, Nigeria's healthcare system continues to face challenges, including a surge in secondary infections, a rise in mental health cases, and a backlog of non-COVID-19 cases. However, there is hope for improvement, with the government and healthcare stakeholders working to strengthen the healthcare system, improve infrastructure, and enhance the capacity of healthcare workers. There is also a growing focus on digital healthcare, telemedicine, and community-based care, which could help address some of the systemic weaknesses exposed by the pandemic. With sustained investment and commitment, Nigeria's healthcare system can emerge stronger and more resilient in the post-COVID era.

Nigeria was among the first African countries to experience the COVID-19 pandemic, with reported 213,177 cases, 2,968 deaths, and 205,770 recoveries as of November 2021 (Worldmeter, 2021). The index case emerged on February 25, 2020, when an infected Italian national arrived in the country (Nigeria Centre for Disease Control [NCDC], 2020). Initially, the country's healthcare system was overwhelmed, and only supportive care was available, including oxygenation, ventilation, fluid control, low-dose corticosteroids, antivirals, and atomisation inhalation of interferon (Cunningham et al., 2020). However, as the pandemic spread, efforts were made to improve treatment options. Remdesivir, an antiviral agent, was approved for treatment in October 2020 (Cannimo, 2021), and convalescent plasma therapy was also introduced, which showed an impressive 80% efficiency in treating critically ill patients (Duan et al., 2020; Zhang et al., 2020; Liu et al., 2020). Furthermore, the U.S. Food and Drug Administration approved three vaccines for emergency use, namely Pfizer-BioNTech, Moderna, and Janssen/Johnson & Johnson, with efficacy rates of 95%, 94%, and 66%, respectively (FDA, 2020). In response to the pandemic, Nigeria's healthcare system saw significant improvements, including increased government and international commitments, establishment of a National Coronavirus Preparedness Group (NCPG) on January 26, 2020 (Dan-Nwafor et al., 2020), expanded laboratory capacity, and increased bed spaces (Edeme et al., 2017; Ajisegiri et al., 2020; WHO, 2020; Ezeamalu & Agency Report, 2020; Onwuzoo, 2020). The government also increased

funding for the health sector, with a capital expenditure of ₦340.45 billion (US\$895.9 million) in the 2019 budget, representing 3.9% of the total budget, and an estimate of ₦46 billion (US\$121.1 million) for the 2020 fiscal year (Muanya, 2020). Overall, while the pandemic posed significant challenges to Nigeria's healthcare system, it also brought about improvements and increased commitments to healthcare infrastructure and services.

Increased Burden of COVID-19 on Nigeria's Healthcare Services

The COVID-19 pandemic placed an unprecedented burden on Nigeria's health services, exacerbating existing challenges in the country's healthcare system (Amos et al., 2021). The pandemic led to an increase in the number of patients requiring medical attention, thereby overwhelming healthcare facilities and workers (Ibeh et al., 2020). Prior to the pandemic, Nigeria's healthcare system was already facing significant challenges, including a shortage of healthcare workers, inadequate infrastructure, and limited resources (Oleribe et al., 2016). The pandemic further strained the system, with reports of shortages of personal protective equipment (PPE), ventilators, and other essential medical supplies (Ibeh et al., 2020). Healthcare workers were particularly affected, with many reporting burnout, stress, and inadequate support (Alabi et al., 2021). The increased burden on health services led to delays and disruptions in the provision of routine health services, including vaccination programmes, antenatal care, and HIV treatment (Shapira et al., 2021). This resulted in a significant increase in morbidity and mortality from other preventable causes.

Impact of COVID-19 on Healthcare Accessibility in Nigeria

The COVID-19 pandemic has a lasting impact on Nigeria's healthcare system, leading to persistent challenges in access to healthcare services (Okereke et al., 2021). The pandemic overwhelmed healthcare facilities, resulting in shortages of medical supplies, staff, and equipment (Grimm, 2021). A study found that the pandemic led to a significant decline in healthcare utilisation in Nigeria, particularly among vulnerable populations such as pregnant women and children under five (Alabi et al., 2023). The pandemic also resulted in a significant increase in morbidity and mortality from preventable causes, including malaria, tuberculosis, and HIV/AIDS, due to delayed or foregone healthcare (Assefa et al., 2021). The reduction

in access to healthcare services has been attributed to various factors, including lingering fears of COVID-19 transmission, shortages of personal protective equipment (PPE), and movement restrictions (Raza et al., 2020).

To address these issues, healthcare stakeholders should call for increased support for healthcare workers and improved access to healthcare services, especially in rural and hard-to-reach areas (Babatunde et al., 2021). Furthermore, there is need to address the shortages in medical supplies, staff, and equipment, as well as improving logistics and support for healthcare workers. In the post-pandemic era, Nigeria must prioritise healthcare system strengthening to mitigate the ongoing impact of COVID-19 and address emerging health challenges. This includes investing in healthcare infrastructure, enhancing healthcare workforce capacity, and improving access to essential medicines and technologies (WHO, 2021). By learning from the pandemic's lessons, we can build a more resilient healthcare system that serves the needs of all Nigerians.

Long-Term Health Effects and Complications of COVID-19 in Nigeria

COVID-19 ravaged global health, including Nigeria's. Besides acute effects, long-term health consequences are a growing concern. Chronic respiratory problems, cardiovascular diseases, neurological disorders like seizures and stroke, renal impairment and kidney disease, and musculoskeletal disorders like arthritis and fibromyalgia are potential long-term effects (Onyeaka et al., 2021; Xu et al., 2022). Anxiety and depression, post-traumatic stress disorder (PTSD), cognitive impairment and memory loss, and psychosis and suicidal ideation are mental health concerns (Giannopoulou et al., 2021). Other complications include immune system suppression, which has the potential to increase the risk of secondary infections (Yazdanpanah et al., 2020). The persistence of symptoms after COVID-19 has been attributed to various pathophysiological mechanisms, including direct viral toxicity, endothelial damage, immune dysregulation, hyper-inflammation, and hyper-coagulability (Paterson et al., 2022). After recovering from acute COVID-19, a significant number of patients experienced persistent cardiac, pulmonary, neurological, and non-specific symptoms as a post-acute condition, even if their initial COVID-19 infection was mild or uncomplicated (Lopez-Leon et al. 2021; Havervall et al. 2021; Lenz et al., 2024).

Hidden Environmental Consequences of COVID-19 in Nigeria

The COVID-19 pandemic has had significant environmental impacts in Nigeria, affecting waste management, sanitation, and environmental health. The surge in COVID-19 cases led to an increase in medical waste, including used personal protective equipment (PPE), syringes, and other infectious materials, posing challenges for Nigeria's already overburdened waste management infrastructure (Oruonye and Ahmed, 2020). Lockdowns and movement restrictions resulted in reduced waste collection and disposal services, leading to accumulated waste and potential health hazards (Adeniyi et al., 2024). The pandemic also disrupted sanitation services, including toilet cleaning and maintenance, potentially leading to the spread of waterborne diseases (Ibeme et al., 2023). Environmental health initiatives were affected, exacerbating existing environmental health issues like air and water pollution (Dente and Hashimoto, 2020).

The pandemic highlighted the risk of zoonotic diseases, posing a threat to environmental health and biodiversity (Adaka, 2024). The increased use of single-use plastics contributed to plastic pollution and waste management challenges (Shams et al., 2021). Nigeria implemented measures to mitigate these impacts, including guidelines for medical waste management, public awareness campaigns, and promoting reusable face masks (Olukanni et al., 2022). Strengthening environmental management systems and prioritising environmental health and sanitation are crucial in Nigeria's response and recovery efforts. By addressing the environmental consequences of the pandemic, Nigeria can build a more resilient and sustainable future, protecting the health and well-being of its citizens and the environment.

Conclusions

In conclusion, the COVID-19 pandemic has necessitated governments worldwide, including Nigeria, to implement policies aimed at mitigating its devastating impact on public health, the environment, and the economy. In Nigeria's case, the Federal Government's palliative measures, supported by international partners, helped stimulate economic recovery in 2021 and 2022. However, the post-COVID-19 challenges persist, and the growth rate slightly declined in 2023. The pandemic has also exposed the inadequacies of Nigeria's healthcare system, highlighting the need for adequate post-COVID-19 reforms. The country must prioritise equipping

health agencies with modern technological equipment, enhancing medical personnel's skills through training and research, and ensuring regular payment of adequate salaries.

Furthermore, the pandemic has significant environmental consequences, including increased medical waste, plastic pollution, and disruption of sanitation services, exacerbating existing environmental health issues. To address these challenges, Nigeria must strengthen environmental management systems, prioritise environmental health and sanitation, and promote sustainable practices. Ultimately, fostering an inclusive society through improved social contract and overall human development is crucial for facilitating post-COVID-19 recovery in Nigeria. By prioritising healthcare reform, environmental sustainability, and inclusive development, Nigeria can build a more resilient and sustainable future that protects the health and well-being of its citizens and the environment.

To forestall future occurrences of politics being threatened by unexpected pandemics, the federal government of Nigeria should take the step of introducing a postal voting system against the use of traditional means of physical appearance at polling booths.

Looking beyond the Coronavirus, to avoid a future distrust of the ruling class within the political landscape of Nigeria, the government should endeavour to monitor the means of sharing money to the people to enable such to have an impact on the needy. Aside from this, those assigned to share the fund should also be thoroughly monitored and directed to give an account of the money to enhance transparency. The various institutions should also be strengthened by investing in them regularly.

In order for Nigeria to respond to health emergencies in the future, there is the need for the country to formulate new robust policy agenda, and also create a strong digital platform that will enable the country to pursue its foreign policy in the event of a similar pandemic in future.

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