COVID-19 PANDEMIC AND THE POLITICS OF GLOBAL HEALTH SECURITY IN NIGERIA, AFRICA

BY

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DECLARATION

I, Adaa, Juliana Hembadoon (POS/Ph.D/18/002), hereby declare that this Dissertation on 'Covid-19 Pandemic and the Politics of Global Health Security in Nigeria, Africa' is original and has been written by me. It is a record of my research work and has not been presented before in any previous publication.

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CERTIFICATION

We certify that this thesis entitled **Covid-19 Pandemic and the Politics of Global Health Security in Africa: A Case Study of Nigeria** by **Adaa, Juliana Hembadoon (POS/Ph.D/18/002)** carried out under our supervision, has been found to have met the regulations of the University of Calabar. We, therefore, recommend the work for the award of **Doctorate** degree in Political Science (International Relations and Strategic Studies).

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ABSTRACT

The study investigated the impact of covid-19 pandemic and the politics of global health security in Africa: a case study of Nigeria. However, the COVID-19 pandemic is a contemporary global health security challenge before the world today. Three research objectives was suggested, three research questions were raised to guide the study and three research null hypotheses were formulated to serve as a framework for the study. Literature of related work done by other authors in the research area was reviewed based on the sub variables of the study under review. The researcher adopted a case study research design, the study area was Nigeria with primary focus on COVID-19 and politics of global health security, the method of data collection was personal interviews, a total of 15 lead questions were drawn from the research participants, the source of data was both primary and secondary data and thematic data analysis was adopted to test the hypothesis formulated in the study. The study investigation revealed that ; the lockdown measure had positive effect on public health security; the level of government investment in public health infrastructure amidst COVID-19 pandemic negatively affected public health security in Nigeria; the politics of economic palliative stimulus in response to COVID-19 negatively impacted on health security. The researcher recommended that; the ranking of Nigeria by the WHO as number 143 out of 195 WHO member countries with the worst health systems is indicative of the near total absence of health care facilities and highlights the level of pre-COVID-19 preparedness. To address this, there is need for the government at all levels to increase their budgetary allocations to health, monitor its utilization and evaluate the outcome periodically. Important components of the nation's health security budget would include increased funding for state and local

hospitals, scientific research on emerging and zoonotic diseases, epidemiological surveillance and incentives for health workers. Preparedness of healthcare institutions to manage any outbreak of public health significance is a measure of several factors – adequate space for isolation of infected patients, capacity for clinical staff to manage the infection, training on bio-safety issues, institutional diagnostic capacity, availability of personal protective equipment (PPE), motivation of the healthcare workers and many more. The federal and state governments should emphasize and prioritize this in readiness for emergencies. Government should as a matter of urgency endeavour to build trust with the population. This can best be achieved through responsive, responsible and accountable governance. This way, public compliance to COVID-19 protocols and understanding of the attendant securitization will be possible. The provision of social safety nets to lessen the hardship burden on the poor and vulnerable should be prioritized on sustainable basis across the three tiers of government. Public compliance and acceptance of public security measures guidelines can simmer better with financial palliatives distributed in a transparent manner and feedback taken and evaluated accordingly. Partisan, ethnic or religious sentiments should not prevail in the selection and distributions to beneficiaries among others.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Globally, it is an acceptable truism that the primary responsibility of any responsible government is the security, public welfare and health of its citizenry. This is undoubtedly remarkable because "health is perceived in any region and everywhere in Africa, not merely as a market commodity, but as a basic human need and a social right, as stated in many constitutions and signed treaties. The need for strong commitment towards this end is not only a necessity but a desideratum requiring also strong commitment from governments, despite changing political and social environments" (WHO, 2006). The primacy of health to development in this regard is largely undisputable.

The role of health care development in the formation of social capital and the protection of health as a human right has been accepted worldwide. The global political developments following the First World War supported the move towards health as a human right. The Versailles treaty gave birth in 1919 to the International Labour Organisation (ILO) based on the principle of "peace through social justice" and promoting social security against various hazards, including sickness and injury. The United Nations adopted its Universal Declaration of Human Rights in 1948, which states that "everyone has the right to a standard of living for the health and well-being for himself and his family, including food, clothing, housing and medical care and necessary services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control". The WHO Constitution, adopted in its First World Health Assembly in 1948, established as

its objective the "attainment by all peoples of the highest possible level of health" and stated that "Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures" (Roemer, 1991).More so, overlaps between poverty, infectious disease, environmental degradation, and security point to the improvement of public health nationally and globally as a critical mission for governance in the twenty-first century. Public health is at the heart of strategies designed to advance development, tackle infectious diseases, mitigate environmental degradation, and support peace and security (UN, 2004). How governments respond to this responsibility especially in a global pandemic vary and may be somewhat ambivalent.

Governments in the developing countries place priority on public health security over and above other forms of security (UN, 2005).Investments in health infrastructures, education, poverty reduction, food and nutrition, health awareness, health insurance are the indices that are clearly illustrative. Since public health aims to improve the quality of life through prevention and treatment of disease, including mental health, improving on nutritional needs of the people as well as food security, investments are considered as the ultimate means of achieving public health security. This is done through the surveillance of cases and health indicators, and through the promotion of healthy behaviors. Among developed countries of Europe and elsewhere, the primacy and commitment to public health is stronger when compared to that of Africa.

In Nigeria and other developing countries in Africa, the health systems suffer from insufficient financial and human resources, limited institutional capacity and infrastructure, weak health information systems, lack of comprehensiveness, embedded

inequity and discrimination in availability of services, absence of community participation, lack of transparency and accountability, and a need for management capacity building (APHA, 2008). In the context of this contradiction, Nigeria and the entire globe have been responding to the additional public health burden resulting from COVID-19 pandemic albeit, with varying degrees of success.

The COVID-19 pandemic is a contemporary global health security challenge before the world today. The conundrum started in December 2019, when China reported to WHO cases of pneumonia of unknown cause occurring in Wuhan, Hubei. Initial patients exhibited clinical symptoms resembling viral pneumonia. The country's capacity to detect cases facilitated early recognition and verification of the pathogen. Viral genetic sequencing of samples indicated a novel coronavirus.The novel virus was named 2019 novel coronavirus (COVID-19) and confirmed to have 75–80% resemblance to SARS-CoV (Zung et al, 2019).

As at December 31, 2020, globally, the count for confirmed COVID-19 cases was 83,322,449with 1,831,412 deaths resulting in a case fatality rate of 2.2%. In Africa, the count for confirmed COVID-19 cases was 2,830,462 with 67,246 deaths resulting in a case fatality rate of 2.4%. In Nigeria, cumulatively, since the outbreak began, number of confirmed cases across the federation stood at 90,147. Of this number, there have been 1,311deaths reported with a case fatality rate (CFR) of 1.5% (NCDC, 2020). On January 30 2020, WHO had declared the outbreak of COVID-19 as a public health emergency of international concern and put in place a series of temporary recommendations. No specific antiviral therapies are available, and efforts to develop anti-viral and a vaccine continue. Early indications suggest that bats are the primary reservoir for the virus, given

COVID-19's close similarity to bat corona viruses, and while identification of the zoonotic origin of the virus continues, the public health measures for managing the outbreak rely on existing national and regional preparedness capacities to prevent, detect, verify, assess, and respond in accordance with the International Health Regulations (IHR, 2005).

The development of COVID-19 vaccines after months of research and clinical trials served as a big relief. Presently, three vaccines are authorized and recommended to prevent COVID-19 in USA: Pfixer-BioNTech, Moderna and Johnson & Johnson/Janssen. Other vaccines with wider acceptability across the globe include: AstraZeneca COVID-19 vaccine and Novavax COVID-19 vaccine. The fight against COVID-19 has seen vaccine development move at record speed, with more than 170 different vaccines in trials (Gavi, 2021).All of them are trying to achieve the same thing – immunity to the virus, and some might also be able to stop transmission. They do so by stimulating an immune response to an antigen, a molecule found on the virus (CDC, 2020; Gavi, 2021). The potency of these vaccines to prevent or cure this disease is yet unknown thus, posing more concern to global health security.

Challenging as this has become, the securitization of this pandemic and the global public health politics have been none the less debilitating. The Sino-American trade war appears to have been reignited by the pandemic leading to expressions of resentment against China for being the source of the scourge. Global politics and alignments have been taking shape along this sentiment especially after America openly criticized the WHO for dangerously taking side with China. America has consequently withdrawn its funding to WHO. China has consequently increased her aids and assistance to many nations to

support their efforts in containing the pandemic and has also increased her funding to the WHO. Amidst this mutual distrust, apprehension and suspicion, the responsibility for public health security has been left in the hands of various national governments. This has led to different levels of measures and successes among nations.

In Nigeria and elsewhere in Africa, their responses have been far from novel. Hodge-podge of measures adopted by other European countries have been largely replicated undiluted. Containment measures bothering on social distancing, washing of hands, wearing of face mask, personal hygiene, contact tracing, testing, isolation, lockdown, management of patients etc have been adopted albeit with minimal success. Many countries have also initiated policies aimed at cushioning the effect of these measures on their respective economies. Nigeria has also responded with some fiscal/monetary measures, palliatives, economic stimulus packages etc to her citizens.

Indications thus far suggest that despite these 'Eurocentric' measures, Nigeria is witnessing increased confirmed cases while the economy is gradually sliding into a serious recession. The rash of these measures has not only exposed the deficiencies in the public health sector but also has exacerbated other aspects of the economy. What more, the processes and measures adopted in response to this pandemic appear to have been politicized, militarized and securitized.

While the impact of these containment measures and the effect of this pandemic cannot be presently measured with precision, but the indices thus far suggest that lack of homegrown initiatives towards mitigating this pandemic is baneful to public health security. Again, the health infrastructural deficits in Nigeria have also emerged as one

major constraint in effective response to the pandemic. As Abati, conscientiously observed: "since February 27, when the first index case of COVID-19 was reported in Nigeria, and that satanic, virulent virus overwhelmed our lives, Nigeria has had cause to deal with other convergent afflictions: the first, in my view, is the pandemic of irresponsible governance, as evidenced by the kind of poor leadership responses that we have witnessed in some states of the federation, and the growing narrative that some key players may have turned the main pandemic itself into a racket. The second is the pandemic of insecurity – even with states and borders on lockdown, bandits, criminals and terrorists – whichever label suits your fancy – have been running riot across the country, particularly in the North East/West, where villages are sacked in one day, for hours on end. The third is the poverty pandemic: Lockdowns, shutdowns and the obvious possum-isation of all processes, have resulted in the loss of income; the suspension of jobs or their outright loss; a sharp rise, of course, in unemployment figures; and the abbreviation of hope in the face of inflation and economic contractions. The fourth is the pandemic of rape and domestic violence" (Abati, 2020).

The emerging narratives on the pandemic in Africa and Nigeria is the politicization and securitization of the response efforts that clearly give the impression that the disease does not exist or that it is another source of corruption. The manner, in which the financial/food palliative packages were distributed in Nigeria and the seeming non-transparent measures in health information management lend credence to this narrative. This again, is against the backdrop of failing global politics that is suggestively failing the world economy and straining the efforts of many nations.

In essence, could it be plausible to argue that the dynamics of global politics is shaping nation's responses to the pandemic? Could it suffice to argue also that these responses in Nigeria have dangerously politicized and securitized the entire containment process and left at its wake negative consequences to public health security? This work is therefore aimed at examining and assessing the COVID-19 pandemic and the politics of global health security that has been shaping, directing and moderating containment and mitigation efforts across Africa, relying on Nigeria's experience.

1.2 Statement of the problem

The trajectory of COVID-19 pandemic has tragically disrupted the socio-political economies of most countries including Nigeria. The dynamics of international health politics has consequently been structuring state's responses to this pandemic with varying degree of successes. While some countries with strong and efficient health systems are faring better comparatively, others, particularly in Africa have been embroiled in unhealthy politicisation and securitisation of response processes. The obvious implication of this is the continued spike in rate of infections, the impending economic recession and the endangering of public health security among other intersecting problems.

Granted that the pandemic is a global problem, local response towards its mitigation in absence of any known cure thus far, have been lethargic, reckless, normless and hopeless. The entire containment processes, research on vaccine and economic stimulus packages appear to have been politicised and securitised. This is unfortunately, proving to be the major bane to achieving public health security amidst the scourge of this pandemic.

As at December 31, 2020, globally, the count for confirmed COVID-19 cases is 83,322,449 with 1,831,412 deaths resulting in a case fatality rate of 2.2%. In Africa, the count for confirmed COVID-19 cases is 2,830,462 with 67,246 deaths resulting in a case fatality rate of 2.4%. In Nigeria, cumulatively, since the outbreak began, number of confirmed cases across the federation stood at 90,147. Of this number, there have been 1,311deaths reported with a case fatality rate (CFR) of 1.5% (NCDC, 2020). In addition to this spike are the humanitarian consequences, the intersection with poverty, unemployment, fiscal problem, domestic violence and fatalities arising from enforcement agencies etc. The intersecting problems of this pandemic in Nigeria are proving to pose more problems to health security than the COVID-19 pandemic itself.

Worrisomely, the containment measures without proper planning have exposed the political leadership of the country. As rightly observed by Abati (2020), "the COVID-19 pandemic has led to other pandemics whose severity is even more horrendous in Nigeria, the pandemic of irresponsible governance as evidenced by the kind of poor leadership responses that we have witnessed in some states of the Federation, and the growing narrative that some key players may have turned the main pandemic itself into a racket; the second is the pandemic of insecurity – even with states and borders on lockdown, bandits, criminals and terrorists –The third is the poverty pandemic: lockdowns, shutdowns and the obvious politicization of all processes has resulted in the loss of income, the suspension of jobs or their outright loss, a sharp rise of course in unemployment figures and the abbreviation of hope in the face of inflation and economic contractions. The fourth is the pandemic of rape and domestic violence".

The underlying problem of this study from the foregoing rests on interrogating the responses of the Nigerian government to the containment of this disease and the level of successes recorded. In essence, the study would want to ask: How and why has the dynamics of global health politics shaped Nigeria responses to the pandemic? What are the containment measures adopted and how did it succeed in achieving its purpose? What is the state of public health infrastructures and how did this affect the fight against the pandemic? How has Nigerian government responded in terms of providing economic stimulus packages to cushion the effect of the pandemic? Could there have been a better approach towards containment and mitigation of the impact of this phenomenon by the Nigerian political leadership?

The dynamics of international health politics has structured state's responses to contain the pandemic but it did not rule out nationalisation of these measures to suit individual state peculiarities. In Nigeria, the measures adopted are not novel. The measures do not reflect our historical, economic and political specificity but rather tended towards global health order. While this is important, it is also necessary to note that COVID-19 pandemic has exposed weak health systems in several countries, especially those in the Global South. Medical experts are currently focused on the epidemiology of the disease, and rightly so, due to its high fatality rate, as the disease has so far claimed the lives of over 1,311people.So, scientists are racing to develop a vaccine, and in the meantime governments around the world have implemented restrictive measures aimed at containing the spread of the disease. Although these efforts are laudable, but it is also important to examine the political economy of COVID-19, as political and economic forces influence the fight against the disease.

In Nigeria, the response to this pandemic has been seemingly politicised, securitised and merchandized. The monetary, fiscal and economic stimulus packages meant to cushion the effect of this pandemic appear to have been surreptitiously tainted with corruption. This has fueled the suspicion by a large number of people that the entire process is prefixed to serve the vested interests of some political state actors. Some, strongly argue that the disease does not exist even in the first place thereby, refusing to abide by containment protocols. This alone, has dire consequences to public health security.

The COVID-19 orthodoxy that focuses exclusively on the pathology of the disease and advocates "technical" solutions to the pandemic, while ignoring the political and socio-economic forces that shape the fight against the pandemic need to be interrogated. Sometimes, medical supplies and other forms of assistance may be available, but poor managerial response and corruption impair access to these resources. Political consideration must be brought into the COVID-19 discourse, as it shapes the responses to the pandemic and provides insight into the existential threat reality of public health security. This is the complex of this research.

1.3 Objective of the study

The central objective of this study was to study the intersection between COVID-19pandemics and the politics of global health security in Africa, relying on Nigeria's experience. Other specific objectives include:

1. To examine the effect of COVID-19 lockdown on public health security in Nigeria

2. To ascertain the level of government's investments in public health infrastructure amidst COVID-19 pandemic and its effect on public health security in Nigeria
3. To determine if the politics of economic palliative stimulus in response to COVID-19 have positively affected health security in Nigeria

1.4 Research questions

The following research questions provided directional compass to the study:

1. Does the COVID-19 lockdown have any effect on public health security in Nigeria?
2. Has the level of government's investments in public health infrastructure amidst COVID-19 pandemic, positively affected public health security in Nigeria?
3. Has the politics of economic palliative stimulus in response to COVID-19, positively affected health security in Nigeria?

1.5 Research Hypotheses

This study is based on the following hypotheses.

1. COVID-19 lockdown had positive effect on public health security in Nigeria
2. The level of government's investments in public health infrastructure amidst COVID-19 pandemic positively affected public health security in Nigeria
3. The politics of economic palliative stimulus in response to COVID-19, have positively impacted on health security in Nigeria

1.6 Significance of the study

The major essence of this study was to evaluate the impact of the dynamics of COVID-19 global securitization politics on response initiatives of Nigeria. This is necessary in other to fully understand the complexities and contextual dynamics that have been shaping Nigeria's response to the pandemic and how this has been useful in the area of public health security. This again is important against the backdrop of seeming securitization, politicization and merchandizing of national response initiatives which inadvertently is derailing public safety, economy and health.

Theoretically, the study seeks to contribute to scholarly conversation embodied by securitization theory. This is necessary in gaining deeper insight into the implication of politics in public health security. Emphatically, the study interrogated the seeming orthodoxy of COVID-19 containment of emerging realities in Nigeria to ascertain its usefulness in the fight against the pandemic. The orthodoxy that focuses exclusively on the pathology of the disease and advocates "technical" solutions to the pandemic, while ignoring the political and socio-economic forces that shape the fight against the pandemic need to be interrogated. The securitization theory tends to support this orthodoxy but our contribution will incrementally advance conversations in this area.

Above all, the findings and conclusions that sufficed in this study would shape future understanding of local responses to the pandemic in the context of securitization of public health security. This way, the study has filled the existing gap in knowledge wherein COVID 19 mitigation protocols have begun to reflect peculiarities of nations and their histo-political specificity.

1.7 Scope of the study

The evolving nature of this pandemic without any hindsight on its end warranted extension of periodisation. In essence, the scope is limited to 2019-2021. This is to properly unveil and study the evolution and trajectories that started from December, 2019. Also, the work is narrowed to Nigeria for expediency. The Issues related to the evolution of the disease and the episodic trajectories that characterize its existence, mitigation and possible cure will be studied under the ambience of Nigeria. This will serve in providing a blueprint towards preparations against future occurrences of similar pandemics.

1.8 Definition of terms

COVID-19 pandemic

Coronavirus disease 2019 (COVID-19) is defined as infectious illness caused by a novel coronavirus otherwise known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China and declared a global pandemic, on March 11, 2020, by the WHO.

Public health security

This is a public-centered series of activities and measures across sovereign boundaries that mitigate public health incidents to promote the health, happiness and wellbeing of populations.

Global health security

This is global legal institutional framework that commits the World Health Organization (WHO) and from each WHO member states to improve capacity for disease prevention, detection, and response through a uniformed standard for addressing national public health threats that have the potential to become or is a global emergency.

Securitization of public health

Health securitization involves declaring and accepting a particular health challenge as an existential security threat and, thereby, adopting extra ordinary measures and reallocating resources to combat this threat. Securitization represents a compelling strategy to grab the attention and, thus, the money of wealthier states or organizations in order to divert more resources towards tackling urgent global health challenges. Securitization encourages conceptualizing health crises as external threats that need to be neutralized rather than mutual problems that need to be solved

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 General text

The emergence of a new disease cause by novel coronavirus—2019-nCoV, later named as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was observed in the People's Republic of China in December 2019 On January 31, 2020, the World Health Organization (WHO) declared a global health emergency and, on March 11, 2020, coronavirus disease 2019 (COVID-19) was declared a pandemic, causing major impacts both in human health and societal activities (Gralinski, 2019). In particular. the economic impacts of various containment measures began to ripple across the world and initial hopes for a swift recovery were soon dampened (Summer, 2020). As difficult as it is to assess the magnitude of the collateral damage of the COVID-19 pandemic, there is no doubt that it was—and will continue to be—considerable.

Already, most of the economies of various countries are experiencing or had experienced recession. Global gross domestic product (GDP) is expected to decline 4.2% in 2020 (OECD, 2020 (OECD, 2020). Working hours lost equate to 495 million full-time jobs (ILO, 2020. An estimated additional 115 million people could be pushed into extreme poverty, living at or below USD 1.90 a day (World Bank, 2020) and 270 million people will go hungry this year as a result. These devastating impacts are harsh proofs of the value of prevention, in both human and financial terms. Preparedness might well cost billions per year, but the costs of COVID-19 are already in the trillions and counting. Put another way, the amount the world is losing now due to a single crisis is costing as much as 500 years' worth of investment in preparedness for global health crises (Global

Preparedness Monitoring Board, 2020).To be sure, the COVID-19 pandemic has undoubtedly challenged the global economy.

The contemporary nature of this topic has spawned considerable literature focusing on the dynamics of this pandemic, the effect, varying degree of general implications and responses of various countries. While some researches generally focused on the impact of the pandemic, some others were keen on the responses of countries and how these worked in containing the virus. The overarching result of these approaches led to varying degrees of effect and results.

In Nigeria, literature focused extensively on their responses and the result. The effect of containment measures like the lockdown, mask, social distancing featured. The extent to which these measures helped in flattening the curves and the attendant politicization of the entire process is to be considerably reviewed in this section. Again, the way and manner the federal government responded to increasing rate of hunger, domestic violence and unemployment amidst the lockdown will be reviewed.

To this end, this chapter reviewed the extant literature thematically considering themes and sub-themes that are related to the purview of this topic. The first part focused on general overview of the phenomenon and the related concepts in therein. The second sub-theme looked at the configurative studies wherein global perspectives into the pandemic and the attendant problems will be configured. The third section highlighted on the comparative studies wherein the responses of various countries to the pandemic were explored and compared. This deepened insight into the effect and resultant burden on countries across the globe. The case study looked into in the fourth section. Here, issues

arising from the context of Nigeria were explored to flesh out the peculiarities that underscore their responses to the phenomenon. The chapter concludes with a theoretical framework that to serve as a guide to the study.

2.2 Overview of the COVID-19 pandemic

A new viral respiratory infection that was first discovered in Wuhan China in December, 2019 which has caused an unprecedented outbreak of respiratory illness is simply known as Coronavirus disease-COVID- 19 (Licciardi (2020). Arising from the wide spread of the disease, the WHO named it COVID-19 in February, 2020 and declared it a pandemic.

Providing a holistic overview on coronavirus, Hange writes: "Coronaviruses (CoVs) are the largest group of viruses belonging to the Nidovirales order, which includes Coronaviridae, Arteriviridae, Mesoniviridae and Roniviridae families. Coronavirus virions are circular with a diameter of nearly 125 nm. Its most conspicuous characteristic of coronaviruses is the club-shaped spiked projections originating from the surface of the virion. Such spikes are a definite characteristic of the virion and give them a solar corona appearance leading the term coronaviruses" (Hange, 2020).

Coronaviridae covers a broad range of host & carriers, infecting many mammalian & avian species/subspecies; this may affect the upper respiratory, gastrointestinal, hepatic and central nervous system via a number of disease (Gallagher & Buchmeier. 2001).

Providing an insight further, it should be noted that SARS-CoV, group 2b-β coronavirus, was detected as the potential cause of the 2002-2003 outbreak of Severe Acute Respiratory Syndrome (SARS) in the Guangdong Province of China. In a cluster of highly pathogenic respiratory tract Infections in Saudi Arabia and other Countries in the

Middle East throughout 2012, Middle East Respiratory Syndrome-CoV (MERS-CoV), was found to be the potential cause is an example of another novel human CoV (Hange,2020).

A historical trajectory of the disease shows that On 31 December 2019, the Wuhan Health Commission in the Republic of China's Hubei Province notified the National Health Commission, China CDC and the WHO of a series of 27cases of unexplained etiological pneumonia. Leaks have been predominantly tracked to the Huanan Seafood Wholesale Market in Wuhan that trades fish and a myriad of livestock species comprising chickens, bats, marmots and snakes (Lu, Stratton & Tang, 2020). By January 7th, 2020 Chinese Center for Disease Control and Prevention official shad isolated severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). On 11 February, WHO officially named the disease as the coronavirus disease 2019(COVID-19). The World Health Organization (WHO) also announced a global emergency on January 31st due to increasing concern about its rapid expansion and the disease became listed as a pandemic by March 11th (Hange, 2020).

Researches thus far on vaccines for the cure of this disease have not yielded a fruitful result. As per the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), and the FDA, there are presently no drugs or vaccinations that are known to be successful for SARS-CoV-2 management or preventing the spread. Within clinical trials and compassionate use guidelines, numerous different compounds are used relying on in vitro activity (against SARS-CoV-2 or associated viruses) and on constrained clinical knowledge. There was no proven efficacy for any drug therapy (Tim, Jennifer, Aimée, & Tony, 2020).

While researches on cure are ongoing, a body of knowledge exists on the mode of transmission, symptoms and management. This has clearly become major concerns of many affected countries with each country adopting measures that suit its purpose. According to the Centers for Disease Control and Prevention (CDC), the mean incubation period of COVID-2019 is approximately 5.1 days (range 2-14 days) while the main mode of transmission is close or direct contact with infected secretions or large aerosol droplets (Singla, Singla & Singla, 2020).The virus can exist in nature on surfaces and can last for up to 4 hours on copper, 24 hours on cardboard and up to 72 hours on plastic and stainless steel surfaces leading to fomite transmission. However, there is a possibility that it can even spread through fecal -oral route due to ACE 2 receptor which is presenting the epithelium of intestinal lumen to which corona virus binds (Zhang et al, 2020).

Clinical presentation of COVID-19 shows that he patients infected with COVID 19 can either be asymptomatic (without any symptoms) or symptomatic. The most commonly reported symptoms are: Fever, dry Cough, shortness of breath, sore throat. sputum production, nasal Congestion (Singla et al, 2020).

In absence no proven medication, preventing and control measures have been advocated. Some of these measures include: social distancing- implemented to decrease/ avoid contact between those who are infected with a disease and those who are not to decrease or stop the disease transmission; Frequent and proper hand hygiene-washing with soap can break that fat in the envelope apart thereby making it impossible or difficult for the virus to infect human cells; Use of face mask- helps in balancing high filtration, adequate breathability and optionally, fluid penetration resistance (WHO, 2020).

Till date no effective cure (vaccination /antiviral drugs) are available. However, on May 1 2020, the US FDA issued an emergency use authorization for the investigational antiviral drug remdesivir for the treatment of suspected or laboratory-confirmed COVID-19 in adults and children hospitalized with severe disease. The investigational drug has been shown in a clinical trial to shorten the time to recovery in some patients. Various other drugs which have been used as treatment with variable benefits include interferon α and β, lopinavir/ritonavir, faviparivir, umifenovir, darunavir, sarilumab, chloroquine and hydroxychloroquine (FDA, 2020).

The novel corona virus has undoubtedly, defied medications thus far. With the rate of transmissions across the globe, many researchers are even contending with the fact that the disease maybe airborne after all. The WHO has provided control protocols and measures with respective countries responding according to their peculiarity. Much of these responses leading to adoption of certain measures have been subject to debate and political analysis. These responses too, have dire implication to global health security.

The concept of 'health security' has been increasingly apparent in recent years in both academic and policy discourses on trans-border infectious disease threats. Yet it has been noted that there are a range of conceptualizations of 'health security' in circulation and that confusion over the concept is creating international tensions with some states (particularly from the Global South) fearing that 'health security' in reality means securing the West (Rushton, 2011). Notwithstanding the apparent confusion and misplaced perceptions, the basic essential understanding of the concept is apt.

In *People, States and Fear* Barry Buzan (1991, p. 7) famously described security as an 'essentially contested' concept, one of a number of such concepts that generate 'unsolvable debates about their meaning and application'. Although this idea has been widely repeated, others took Buzan to task for his claim, arguing that security does not fulfill some of the criteria of true 'essentially contestedness' (Baldwin, 1997, pp. 10–2); that the debates that are taking place around security are in fact a relatively new phenomenon (McSweeney, 1999); and that in any case there is widespread agreement over the core elements of security (Booth, 2007, pp. 99–100). Notwithstanding this debate over whether the concept of security must necessarily *always* be contested, most would at least agree that security has been the subject of a wide variety of definitions. several proposals for redefinition (Tickner,1995) and numerous attempts at either broadening its scope or defending its boundaries (Bushton, 2011).

According to the WHO, "global health security is simply defined as the activities required, both proactive and reactive, to minimize the danger and impact of acute public health events that endanger people's health across geographical regions and international boundaries" (WHO, 2020). Elsewhere, the United States Center for Disease Control (US CDC), restricted global health security to health emergencies. According to them, concerted efforts meant to prevent, detect and respond to a public health emergency is nothing more than global health security (US, CDC, 2020). Reasoning from this perspective, global health security could be said to be the 'protection of the health of persons and societies worldwide. It includes access to medicines, vaccines, and health care as well as reductions in collective vulnerabilities to global public health events that have the potential to spread across borders' (Caceras, 2017).

Emerging realities resulting from outbreak of diseases of pandemic proportion has shaped the understanding of global health security to health emergency concern. Outside this domain, some perspectives attach anything that promotes people's wellbeing to global health security (Rushton, 2011). Given that, it should not be a surprise to find that the comparatively young concept of health security' is still some way away from a universally agreed definition. It is certainly the case that the health security tag is being used in a variety of ways. It is often used alone, but equally often in conjunction with a variety of modifiers – 'national health security' (US Department of Health and Human Services, 2009); 'international health security' (Chiu*et al*., 2009); 'global health security' (WHO, 2001) – or in conjunction with concepts such as that of 'human security'.

In the face of apparent definitional unanimity of the concept, Feldbaum and Lee, observed that the characteristic claims associated with health security in the literature can be boiled down to three common arguments to wit:

> First, that the fast-moving nature of infectious disease in a globalised world poses a threat to individuals, populations or states; Second, that pathogens may be weaponized, either by terrorists or through state-sponsored biological weapons programs, and used against military forces and/or civilian populations; Third, that a severe burden of disease (HIV/AIDS is by far the most commonly cited and now COVID-19) can have social, political, economic and military impacts which threaten the stability of states and regions (Feldbaum & Lee, 2004, pp. 22–4).

Persuasive as this seems, it is important to look at what actually can pass for a health threat. Like Rushton rightly argued, "not all seeming that can be classified as global security threat. Clear health security threat can emanates either from the cross-border spread of infectious diseases, whether naturally occurring, deliberate or accidental; or from the effect of major health crises on state stability and security" (Rushton,2011).

Importantly for the argument here, the range of recognized health security threats is actually even more limited than this suggests since not all infectious diseases have come to be widely seen as threats to health security. Harley Feldbaum and Kelley Lee (2004, pp. 24–25) make a persuasive case that those diseases that are most likely to be treated in such terms are those which impact on population rather than individual health; have high levels of morbidity/mortality; are acute rather than long term in their impacts; and readily cross borders. This seems to be borne out in practice where the focus of attention in terms of naturally occurring threats has overwhelmingly been on pandemic influenza, emerging and re-emerging infectious diseases (SARS is an oft-cited example) and HIV/AIDS.

This thought appears too convincing to ignore as far as the present existential threat of COVID-19 is concerned. Before now, only one of the top ten causes of death worldwide (WHO, 2010) – HIV/AIDS – is widely treated as a global health security issue. The reality of the present pandemic and the emerging securitization, positions it as a global health security. As Sarah Dry (2008, p. 5) has noted, 'the health security discourse privileges acute outbreak events that occur on a daily or weekly basis as opposed to chronic factors, such as changes in land use and host and vector population, which occur over years or decades, and which account for broader trends.

In the context of this study, I agree with an observation that not all chronic diseases or viral infections can be securitized to be global health security threat. For such to be considered as one, it must have a global outlook with possibility of trans-border transmission. It must be public-centric. It must show some level of resilience defying existing knowledge or remedy. It must exhibit some threat to public good, health, political and the economy if not contained. In this context, the position report of WHO on what constitutes global health security threat is clearly apt. according to the Organization, public global health security is such that represents:

> A cute public health events that endanger the collective health of populations living across geographical regions and international boundaries. As illustrated in this report, global health security, or lack of it, may also have an impact on economic or political stability, trade, tourism, access to goods and services and, if they occur repeatedly, on demographic stability. Global public health security embraces a wide range of complex and daunting issues, from the international stage to the individual household, including the health consequences of human behavior, weather-related events and infectious diseases, and natural catastrophes and manmade disasters, all of which are discussed in this report (WHO, 2007, p. 1).

The opinion cited above highlights on what constitutes global health security in reality. Extending an understanding to the reality of this concept will also inform proper interrogation of global health security in the light of emerging complexities in the narrative of global health emergencies. While interrogating global health security, two

major formulations were identified by Rushton. According to him: "we have two radically different formulations of health security: a statist/national security one, which takes the state as its referent object and is focused primarily on stopping diseases entering or otherwise destabilizing states and societies, and a globalist/human security one, which takes the individual as the referent object and is open to the consideration of a much broader range of issues that threaten individual health and well-being" (Rushton, 2011, p.787).

Again, in the light of the growing narrative, where everything has become global security threat and health security has virtually become everything, it is necessary to situate and contextualize global health security properly. Wenham did argue on this direction that "this nuancing of 'global health security' is required owing to three important changes in the last decade. First, what is constructed as a security threat has expanded beyond what has been previously recognized by the global health security regime, and the new breadth requires a new delineation of terminology to allow the rhetorical tool an efficacious response for the next 'big one'. Second, military involvement in health security activities constitutes a move away from a global health security narrative based on the logic of the Copenhagen School to a more traditional, 'boots on the ground' security response to an external threat. This has tangible repercussions for global health security operations, and risks jeopardizing future acceptance by global audiences of global health security interventions if they perceive them as military interventions, and thus also jeopardizing the ability to enact extraordinary measures which may be required. Third, global health security is now facing an ontological threat as those undertaking this activity have themselves become security targets" (Wenham, 2019, p.1094).

I consider this interrogation very important because, not all health emergencies represent a global outlook and may only look so because the world political actors are presenting them to be so. Again, given the extent to which global health security has defined the current global health policy *Zeitgeist*, and given the lack of precision with which the term is used, this is an important issue and offers a window on to some of the controversies surrounding the concept. The emerging question from the foregoing could be: are these human-centered or state-centric approaches to security?

The International Health Regulation (IHR) are explicitly concerned with outbreaks of 'international concern', and in Annex 2 of the 2005 Regulations (WHO, 2005, p. 43) a 'decision instrument' flow chart is provided which allows for a determination of whether or not a disease outbreak occurring within a state falls under the Regulations. If it does the WHO must be notified. Although unspecified events of potential international public health concern are catered for in the decision instrument, the diseases that are specifically listed all have relatively high levels of morbidity/mortality; are acute in their impacts; and have the potential to cross borders rapidly (compare Feldbaum and Lee, 2004, pp. 24–5).Some diseases (smallpox, poliomyelitis due to wild-type poliovirus; new sub-types of human influenza, and SARS) are automatically notifiable. Others (such as cholera, pneumonic plague and yellow fever) require public health authorities to determine whether or not the WHO should be notified under the IHR. Clearly, then, the answer to the 'security from what?' question is relatively clear in this case: global health security in the context of the IHR is about the containment of potentially serious and rapidly spreading infectious disease threats, whether natural or man-made (Rashton, 2011, p. 788).

In terms of referent object – the 'security for whom?' question – it is certainly true that the WHO has attempted to look beyond the state in order to enhance the ability of the international community to respond to the threats posed by disease in a globalised world. Fidler, who has been perhaps the most vocal in proclaiming the significance of the WHO's embrace of global health security (which he explicitly contrasts with 'international health security') as a new 'governance strategy' (Fidler, 2005, pp. 347–8). In a lengthy examination of the revision of the IHR and the successful promotion of the concept of global health security Fidler notes (2005, p. 392) that:

> The revised IHR perceive a new world forming, in which global health security is a fundamental governance challenge for all humanity from the local to the global level. The world of global health security is one in which governments, intergovernmental organizations and non-State actors collaborate in a 'new way of working' by contributing toward a common goal through science, technology and law rather than through anarchical competition for power.

He concludes by noting that:

> Global health security's premise is that diseases will keep threatening human health. Global health security's promise is that governance of disease threats can remove the dead hand of the classical regime and wield effectively the new way of working through the new IHR (Fidler, 2005, p.295 in Rushton, 2011).

Fidler was actually trying to distinguish the classical perspective to global security from the neo-classical perspective. In the classical order, the IHR draw together threats that were previously dealt with under separate regimes (for example the regulations apply to infectious disease but also biological, chemical and radiological agents, whether deliberately or accidentally released) under a single 'comprehensive governance strategy' (Fidler, 2005, p. 363). The second is that the WHO is no longer limited to receiving information on outbreaks from state sources: it can now also actively seek information from a range of non-governmental sources (Fidler, 2005, p. 348). The explicit authorization for the WHO to gather information from non-state sources (although this was actually agreed by the World Health Assembly in 2001) *is* a genuine advance towards a more effective global system of disease control. Fidler's (2005, p. 376) argument is that this 'changes the surveillance dynamic between WHO and member states in ways that favour global health security over national sovereignty'.

What is important and striking to the concern of this study from the emerging scenario is the interrogation of the roles of the state and non-state actors in the global health security agenda. The WHO no doubt is the health world regulatory body. This does not necessarily give them overriding powers that can injure the sovereignty right of nationals. Every nation has right to protect and promote the health of their subjects. The emerging conspiracy theories on the role of WHO in terms of a COVID-19 pandemic underscores the feelings that the WHO's role ought to be advisory and supervisory and not necessarily to take total health responsibilities of member states. Here again, there is logic in growing suspicion that the vision of global health security that underpins the IHR is really about

the protection of Western states/strong non-western states from exogenous disease threats.

Beyond this suspicion and very importantly, the obligations placed on states by the 2005 revision of the IHR are significant. Far more is required of national health authorities than was the case under the previous regime. The necessity for many states, and particularly those in the developing world, to make significant investments in their domestic disease surveillance infrastructure was well known during the negotiation of the IHR revisions and is recognized in the Regulations: Annex 1 of the IHR includes details of core capacity requirements for surveillance and response'. But while such investments may not necessarily reflect domestic health priorities, but there are as well very essential to the effective functioning of the global health security regime.

2.3 Configurative studies

The review under this sub-theme will center on literature that assesses the state of public health infrastructure and global health security as well as literature that gives global perspectives on securitization of COVID-19 pandemic and global health security. This is considered necessary because the state of health infrastructure, political system, available resources etc is considerably preponderant to the responses to the pandemic and the varying results recorded overtime.

2.3.1 Public health infrastructure and global health security

Emergency response measures are similarly dependent on health system capabilities. Such systems (in the developed world at least) are typically designed with the aim of providing the capacity to respond to any health emergency (whether natural or

deliberate), and are frequently part of broader disaster preparedness plans. Key techniques include training of emergency services/health professionals; public communication strategies; decontamination facilities; vaccine/antiviral stockpiles, etc (Rushton, 2011).

Significantly, the US National Academies of Sciences, Engineering, and Medicine (NASEM) (2016 & 2017) have clearly highlighted on the importance of respective national health institutions to global public health. According to them:

> National public health systems are essential components of resilient health systems and the first line of defense against the threat of pandemic disease. Robust public health capabilities and infrastructure at a national level are thus the foundation of a global health risk framework. We acknowledge that public health cannot be considered in isolation (NASEM, 2016, p.1).

Indeed, the intersection between a nation's health institution and global health security is evident. While, public health objectives can only be achieved within a highly-functioning and resilient health care system with effective primary care delivery (WHO, 2008b); a strong public health institutions at national and regional levels are foundationally necessary in global health emergency response. According to Kieny, "public health capacities at regional and international levels are also important, but national capacities are the foundation of an effective global health risk framework. Regional and global capabilities cannot compensate for deficiencies at the national or local level. Systemic deficiencies in national public health systems, especially the lack of functional disease

surveillance and response systems, were key contributors to the length and severity of the Ebola outbreaks in Guinea, Liberia, and Sierra Leone" (Kieny et al., 2014).

Howbeit, we cannot agree less with Burkle that:

> Well-built and maintained public health infrastructure geared toward both prevention and preparedness is the first line of defense against health threats. Furthermore, activities related to prevention, epidemic investigation, and control require a sophisticated level of decision making and resource coordination. Yet, nations across the world, including the United States, have failed to invest in the necessary infrastructure and capacities. By sacrificing prevention and preparedness, nations have inevitably compromised the ability of public health systems to respond rapidly to health threats. These globally shared deficiencies became evident during the 2002–2003 SARS outbreak; the 2003–2004 H5N1; outbreak; and again during the 2014 Ebola outbreak and overwhelmingly, during the ongoing COVID-19 pandemic (Burkle, 2006, p. 66; GHRF Commission, 2016).

Given that not all health security events can be prevented, however, there is also a need for preparedness and response capacity in the event of an outbreak. This is very important and ought to be a shared responsibility between nations and the international community. 'Every national government must therefore take responsibility for building an effective public health system and be prepared to be held accountable, both by its own people and, given the externalities, by the international community' (NASEM, 2016).

Instructively, deficiencies in public health systems need to be identified and resolved. National governments must commit to rapid reinforcement of their public health core capacities. Public health should be treated as an integral part of national security—part of a government's fundamental duty to protect its own people. To force the pace and ensure accountability, NACEM suggest the imperative of these needs:

(1) Clarity on the core capacities required and definition of clear benchmarks;

(2) Objective, independent, and transparent assessment of a country's performance against these benchmarks to identify gaps;

(3) Clear national plans to achieve and sustain these benchmarks, including resourcing;

(4) Mobilization of resources at a national level, as well as through the international community to fill gaps and sustain benchmark core capacities; and

(5) Strategies to support minimum standards in fragile and failed states (NACEM, 2016).

No doubt, any pandemic like the ongoing COVID-19 has tested the strength of public health institutions across the globe. Before now, since 2005, WHO has declared a PHEIC three times: the first in 2009 for the H1N1 pandemsc; the other two in 2014 for polio and Ebola. H1N1 marked the first time the IHR (2005) were put to the test—and, once again, fragilities in national- and international-level response capacities were exposed, leading to doubts about the IHR mechanism itself (NACEM, 2016). Nothing significant has changed going by the mortality rate resulting from the novel COVID-19. No country appears thus far, to have shown capacity to manage the present pandemic despite the IHR that emphasizes on capacity response to early disease detection and other mitigation measures. This undoubtedly questions the IHR's protocols amidst poor commitments from countries.

Howbeit, what is undeniable is the fact that the robust capacity of public health system of a country is very necessary in terms of a pandemic containment. To build strong public health capacities that will allow detection, reporting, and response to infectious disease threats, countries should focus on revising public health law frameworks, strengthening public health infrastructure; building partnerships; using research evidence to inform program and policy decisions; engaging and improving communication with communities; and establishing a public health emergency operation center (PHEOC).

It is important to note that the difference between either strong or weak public health institutions is political commitment and governance. NACEM corroborates:

> Failures of governance, most notably the flourishing of corruption, can be fatal to such efforts, diverting resources and distorting priorities. Of course, corruption and governance weaknesses are a problem for not only public health, but also every aspect of public services. Yet, given the level of governmental commitment required to build resilient health systems with adequate public health capabilities and infrastructure, this arena seems particularly vulnerable to such failures (NACEM, 2016, p.17)

Yes, a thin line that separates a functional and dysfunctional system is political leadership and the requisite commitment to governance. In most countries in Africa and elsewhere, this commitment is always deficient. In some instances, governments fail to recognize the importance of efficient public health system until when emergencies arise. We can, but agree with Oliveira & Russo (2015) that:

> It is important that government leaders need to recognize the importance of the overall health system, and public health in particular, to the nation's

> human and economic security, and to translate this recognition into budget priorities and concrete plans. Sustained political commitment at the highest levels is essential to devise policies and pass legislation to facilitate the implementation of core capacities, including establishment of national focal points (NFPs), development of laboratory networks and surveillance systems, and provision of adequate financial resources (Oliveira & Russo, 2015, p.167).

Deduced from the foregoing, the imperativeness of public health infrastructures is undoubtful and clearly necessary in strengthening response capabilities. Like Oliveira and Russo also opined 'outbreaks cannot be effectively contained if they are not detected promptly. National public health systems must have the capacity to identify an outbreak and establish an alert system to trigger response and, if needed, seek support from regional and global levels. Countries should work to develop real-time detection and response systems, prioritizing elements that reinforce prevention, provide early detection, and enable effective response' (Oliveira & Russo, 2015).

Reduced to essentials, there are specific areas that are vital when strengthening of public health institutions is concerned. These areas as gleaned from extant literature include:

1. Public Health Workforce: Without a skilled, motivated, and well-supported health workforce, no health system can achieve its goals. Yet the world faces a global health workforce crisis-—characterized by widespread shortages of skilled personnel, uneven distribution of skills, and, in many situations, poor working conditions (Campbell et al., 2013; WHO, 2006). Many countries lack relevant skills in a range of disciplines essential to public health, including epidemiology, biological and health sciences, veterinary

system (community, district, other sub national and national levels). Such systems should be able to support both indicator-based (syndromic) surveillance and event-based surveillance. Increased access to new information technology has increased surveillance capacity even in countries with limited resources and should be fully exploited (IOM, 2007). Electronic surveillance tools should be implemented and standardized across the country to transmit information to a central hub that can be accessed in real-time by surveillance staff at every level. For instance, the common use of mobile phones has allowed early detection and response to outbreaks in remote areas (Rosewell et al., 2013). Continuous training is essential in this regard, and training guidelines and materials should be updated regularly based on changing needs and priorities. Also, strengthening disease surveillance systems would allow countries to comply with IHR requirements and report the occurrence of a PHEIC within 24 hours of receiving indicatory information. Country surveillance guidelines should include procedures and reporting templates to comply with these obligations (NASEM, 2015)

4. Building Partnerships: Government public health agencies are the cornerstones of the public health system, but they cannot work in isolation. To deliver an adequate response during outbreaks, they need to build and maintain partnerships with other public, private, and nonprofit sectors and work closely with communities and community-based organizations (Flessa & Marx 2016).

5. Using Research Evidence to Inform Program and Policy Decisions: Health systems research is a core function of a learning health system that can continuously assess performance and identify responsive solutions. Lack of capacity for health systems

research is a major weakness in many low-income countries (Decoster et al., 2012). Each country should have research capacity built into its health system planning and budget. Social sciences research would help public health leaders understand the social, behavioral, and anthropological aspects of disease preparedness and response, such as effective strategies to engage communities in outbreak detection and control and communicate threats and required responses. The recent Ebola outbreak clearly illustrated the importance of robust representative studies on knowledge, attitudes, and practices regarding Ebola to inform policies and development of effective communication strategies (Laverack and Manoncourt, 2015).

6. Engaging and Communicating with Communities: Dhilion et al (2015) note that: "Epidemics are shaped by a range of factors that include multiple socio-cultural and economic dimensions. Public health practitioners and policy makers cannot succeed in their endeavors to prevent or respond to infectious disease threats without working closely with communities. Considerable "buy in" and support is essential, as little can be achieved if people are unwilling to accept vaccinations or to consume medications. Public health programs requiring collective behavioral change to interrupt the transmission of infectious disease need the active support and involvement of the communities they wish to assist". Considerably, we align with NASEM's position that "effective communication is a critical component of preparedness and response to outbreaks. Preventing and containing infectious disease presents particular challenges because options for interrupting transmission are often limited, and it is crucial that change occurs at speed. Therefore, communications with the community should be

approached as a progressive, adaptable process, rather than a monolith of simple messaging"

It is important that public health officials should develop context-specific approaches that recognize the influence of history, culture, and social forces in their population.

7. Establishing a Public Health Emergency Operations Center: To ensure effective response to an infectious disease outbreak, countries need a well-resourced PHEOC. In the event of a crisis, the PHEOC will integrate public health services with other parts of the health system and incorporate resources from outside the health sector into an emergency management model to implement the outbreak response plan (WHO, 2015a). The PHEOC will be responsible for coordinating all sectors involved in delivering the response plan, including those beyond the health sector, as well as the training and deployment of emergency workforce resources. To be effective, the PHEOC will need to be well established, with appropriate resources and financing, and to have developed and tested the required coordination mechanisms in advance, preferably through rehearsals. The PHEOC should have direct access to national disease surveillance and laboratory systems and possess infrastructure to enable rapid analysis of information to inform decision making. The PHEOC should also work with development partners and regional and global networks to identify where international support is most needed and coordinate its delivery to affected communities.

Submissively, a strong public health institution built on the foregoing key notes is desirable for global health security. Therefore, national governments must take the responsibility to prevent, detect, and control infectious diseases outbreaks; to protect their

own populations; and to play their part in protecting global health security. This goal can only be achieved in full when countries have built effective public health services, operating as an integral part of resilient health systems and capable of recognizing, reporting, and arresting the spread of infectious diseases. This cannot be achieved overnight but must be consistently and vigorously pursued.

2.3.2 Perspectives on securitization of COVID-19 pandemic and global health security

Linking health and security has become a mainstream approach to health policy issues over the past two decades. So much so that the discourse of global health security has become close to synonymous with global health, their meanings being considered almost interchangeable. The ongoing COVID-19 pandemic has heightened the concern in this regard and has immeasurably evoked concern on securitization of the pandemic. Perspectives on this have been shaping the understanding of the situation and are influencing response strategies across various countries of the world.

As rightly observed by Wehmam (2019), 'more recently the global health security narrative, associated governance regime, and the ensuing path dependencies have shifted in three ways. First, the concept has been broadened to the extent that a multitude of health issues (and others) are constructed as threats to health security. Second, securitizing health has moved beyond a rhetorical device to include the direct involvement of the security sector. Third, the performance of health security has become a security threat in itself'.

Howbeit, securitization of health security is the emerging trend that is undoing proactive response to health emergencies. Recently, there is great wave of concern on imposing

political and military agenda on health security and rationalizing same to be global health security challenge. This expansion of the range of issues which have been framed in health security terms raises new questions for studying health security. For example, just as critics of human security have suggested (Booth, 2005), trying to fit too much under the umbrella of global health security may result in the concept becoming diluted or losing the political saliency which has encouraged activity, resource generation and decisive action in the prevention and detection of, and response to, highly pathogenic infectious disease. As Gavin Yamey pointed out, if health security continues on its current trajectory, it is only a matter of time before we see 'toe nail fungus: a threat to global health security (MacFarlane& Yuen, 2006; Roland, 2001).

The securitization of COVID-19 pandemic and other preceding pandemics are feeding into the global security narrative where everything is being fitted into health security. However, as Wenham observed "While the global health security narrative has, to date, had a narrow understanding of what constitutes a health security concern, based on rapid spread, unfamiliarity and an absence of effective treatment, contemporary discourse in and beyond health policy has framed a number of broader issues as health security threats (Wenham, 2019). These have included maternal health (Reza, 2017), mental health (Patrick & Fedasuik, 2017), non-communicable disease, access to contraception (Kegone et al, 2005). reproductive health (UNFPA, 2007), migration (Heymann et al, 2016), food security (UNESCO, 2015) counterfeit medicines (Heymann, et al, 2016), universal health coverage (Jain & Alam, 2017), climate change (WHO, 2008), water and sanitation (O'Reilley, 2016), salty foods(Glickman & Veneman, 2019), even Brexit (Solomon, 2019), and suggestively COVID-19 While those who perceive security at the human level

may suggest that each of these issues may produce individual insecurity, it seems overstretch to attempt to put these all onto a global security agenda.

The irony of this is, however, is that under the ambience of securitization, "various lobby groups and policy advocates have used the global health security terminology precisely as a mechanism to push their concerns up the political agenda, recognizing that security gets to the top levels of decision-making in national, regional and global forums. Yet the outcome of hijacking this discourse to serve issues which do not fit the criteria of the fast-moving and unknown pathogen is the erosion of the power that the global health security narrative may have in the future" (Wenham, 2019). The risk for infectious disease control is that 'crying wolf' from other health policy areas may have a substantially detrimental impact on the response to a potentially catastrophic outbreak. Global health security fatigue becomes a real concern, limiting the acceptance of the global health security rhetoric by audiences across the world and in turn leading to a failure to endorse emergency measures. Thus, this broadening of the health security discourse can actually prove cannibalistic to the concept itself, if the global audience either tires of the global health security narrative, or starts to accept the expanding securitization formula.

2.4 Comparative studies

Literature review under this sub-theme is meant to compare the responses of various countries to the COVID-19 pandemic. Granted that the pandemic affected all the countries of the world, but the severity and impact differed alongside the response mechanism adopted by respective countries. To be sure, some countries' response showed resilience and this worked to lessen the rate of infection and mortality. In some

others, their response was lethargic and this aggravated the burden of the pandemic. So, in this review, focus will be on comparing countries whose responses were considered proactive against those whose responses were tepid, slow and lethargic. Comparison between countries can provide useful insights into the heterogeneity in the burden paid to the disease. This comparison is expected to be contrasted with the Nigeria's experience in order to understand the relativity and differences in response and results.

Various countries have rapidly rolled out COVID-19 vaccines-along with COVID passports- in a bid to fight the virus. In the context of varying degrees of responses and results, the question remains: which countries have dealt with this pandemic the best? And is there a reason why certain countries haven't had such a high number of cases? In this regard, this review will compare the five countries that responded best with other five countries whose response was poor in the world. There are: Mauritius, New Zealand, Iceland, Singapore and Vietnam. Those whose response was poor are: USA, Brazil, India, Mexico and United Kingdom (Howell, 2021).

It is a common knowledge that the COVID-19 pandemic thus far, has had devastating effect across the globe. In an updated report, Howell notes that 'novel corona virus has crept its way across the globe for over a year now, resulting in more than 170 million cases and over 3.5 million deaths (Howell, 2021). Some countries have dealt with these chaotic months better than others. Lockdowns were imposed at different times, various strategies were considered, and restrictions varied in severity from government to government – and indeed, they are still varied. How have countries faired in managing this pandemic?

2.4.1 Comparative review of initiatives and response measures of various countries to COVID-19

2.4.2 Countries with best response

1. Mauritius (1,375 cases, 18 deaths)

According to the data released by Howell (2021) and Yoo et al (2020), the government and people of Mauritius ranks first in global response to the pandemic. Mauritius's government didn't underestimate the virus – stringent measures were put in place from the get-go.

The first three COVID-19 cases were detected on 18 March 2020, and the borders were swiftly closed the following day. This was followed by a curfew, imposed on 20 March 2020, which evolved into a complete lockdown just four days later. At the beginning of the pandemic, Mauritians were only allowed to shop twice a week, in alphabetical order of surnames, with one person per household allowed to shop for 30 minutes.

Overall, strong leadership from political figures guided Mauritius to success. On 31 January 2020, a High-Level COVID-19 Committee was created to monitor local and international cases. The team chaired by the Prime Minister, included ministers in charge of Health and Wellness, Foreign Affairs, Regional Integration and International Trade, and Tourism.

Also helpful was the efficient contact-tracing system. This was also key in preventing the spread of the virus on the island. Once a positive COVID-19 case was notified by the Central Health Laboratory, the Communicable Diseases Control Unit contacted everyone who could have come into contact with that person.

The government also tried something not considered by some other political parties around the globe: it listened to the public. Several feedback mechanisms were put in place to understand public perception of COVID-19, including a coronavirus hotline, social media monitoring, and regular feedback from the Mauritius Police Force.

Despite being named as the country with the highest risk of exposure to COVID-19 in the African Region, Mauritius has pulled off one of the most effective coronavirus prevention plans in the world (Howell, 2021)..

2. New Zealand (2,673 cases, 26 deaths)

New Zealand wasted no time in preventing the spread of COVID-19 in its country.

On 28 January 2020, the Ministry of Health set up the National Health Coordination Centre (NHCC) to respond to the outbreak. An Infectious and Modifiable Diseases Order was issued to take effect from 30 January 2020, which required health practitioners to report any suspected cases under the Health Act 1956. This was the first barrier of protection for New Zealand.

Travel restrictions to and from other countries were imposed as early as February 2020, and on 23 March 2020, New Zealand committed to an elimination strategy. The country had reported 102 cases and 0 deaths when Prime Minister Jacinda Ardern announced that New Zealand was going to rapidly escalate levels of social distancing and travel restrictions, reaching the level of a full national lockdown on 26 March 2020.

Rather than just 'flattening the curve', New Zealand took a more aggressive 'disease elimination' approach. Very impressive for a country that has never experienced a major pandemic, and had been barely affected by SARS (Howell, 2021). Over a year on since

New Zealand's first lock down and the country is still swift to respond to new cases. In November 2020, health authorities partially shut down the central city of Auckland, asking workers in the city to stay home after just one student became infected with COVID-19.

3. Iceland (6,555 cases, 29 deaths)

Iceland's success is partly down to its tiny population of around 364,000 – but early vigilance and act Iceland's action were also key to keeping down the case numbers. Health officials rushed in to contain the spread earlier than most countries, whilst the government quickly built a team of contact tracers. This team would interview those with a positive diagnosis, and track down people they'd been in contact with. As a result, the country has not faced one of the large-scale lockdowns seen across the world. Another huge reason why Iceland has been successful is because people *actually* stayed indoors. If a person was suspected to have the virus, they were told to stay inside while the government covered the individual's full salary.

4. Singapore (62,051 cases, 33 deaths)

According to Phoon, 'with its SG Clean initiative, Singapore created a template for COVID-19 responsiveness that other destinations have emulated, leading the way into a post-pandemic future' (Phoon, 2020). For Howell, 'timely preparation, aggressive testing, tracing of carriers, and a bit of luck has helped limit the impact of COVID-19 in Singapore (Howell, 2021). The city-state's comparatively small population of 5.7 million people and experience of SARS in 2003 gave it the upper hand against the encroaching

virus. The government tightened border controls almost immediately after the disease first erupted in China – whilst also providing a clear public communication strategy.

Despite having high case numbers, many have questioned why Singapore's mortality rate is so low. Leong Hoe Nam, an infectious disease specialist, said the population's average age had "diluted" the country's death rate – since most of Singapore's new cases were younger people. In fact, more than 90% of Singapore's cases at the beginning of the lockdown were low-wage foreign workers living in dormitories. The government also announced that pupils over the age of seven must use the city state's contact-tracing app or wearable device from December 2020 onwards, to combat the transmission of COVID-19 to older family members.

5. Vietnam (7,432 cases, 47 deaths)

When the first coronavirus case was confirmed in Vietnam on 23 January 2020, its emergency plan was immediately put into action – months before other countries had even considered taking any precautions. The country brought in travel restrictions, closely monitored and eventually closed the border with China, and increased health checks at borders.

Schools were closed for the Lunar New Year holiday at the end of January 2020, and remained closed until mid-May. Plus, a vast and labour-intensive contact tracing operation went underway immediately. "When you're dealing with these kinds of unknown novel, potentially dangerous pathogens, it's better to overreact," says Dr Todd Pollack of Harvard's Partnership for Health Advancement in Vietnam in Hanoi (Howell, 2021).

Experts say that, unlike other countries now seeing infections on a huge scale, Vietnam saw a small window to act early and made it count. Vietnam's strategy worked extremely well – at least until July, when an outbreak of the virus in Danang led to over 450 cases being reported in just one weekend. Fortunately, the government was ready to respond, and decided to evacuate around 80,000 visitors in the city – where they were flown home promptly. The historic port city then sealed itself off from visitors and retreated into full lockdown. Unfortunately, Vietnam started the New Year with another outbreak, this time triggered by the UK variant of the virus. However, by following the same strict measures, officials are confident they can keep it under control

2.4.3 Countries with worst response

1. USA (32.51 million cases, 578,499 deaths)

President Donald Trump's nonchalance in the face of COVID-19 and refusal to act fast led the country down a very slippery slope (Howell, 2021). The US government turned a blind eye to much of the World Health Organisation's advice – including implementing a track and trace system. And the ignorance doesn't stop there. President Trump incessantly promoted hydroxychloroquine as a cure for the virus, despite research showing it was likely to be ineffective. His initial refusal to wear a face mask undermined the seriousness of the pandemic. He even hilariously suggested that injecting disinfectant could cure the illness. The Trump administration often blamed the scale of testing for the high figures, as well as the size of the country.

However, if you put New York – the worst-hit state in the US at the time – under the microscope, the mortality rate was close to 150 people in every 100,000. This shows that

there was a lot of variation across the country. To compare, the UK had a mortality rate of 68 people in every 100,000. Back in February 2020, in a White House briefing, Trump said: "One day it's like a miracle, it will disappear." Unfortunately, wishful thinking hasn't fared well for the US. But the US has the potential to slow the infection rate with newly-elected President Biden in office. On his first day, Biden signed executive orders mandating masks on federal property, and when travelling on planes, buses, and trains. Plus, there is now official federal guidance on COVID-19 health measures. However, the responsibility for this guidance does fall to state leaders, some of whom are showing skepticism. In fact, a handful of red-state governors have said they would not follow the advice to introduce tighter public health measures, like universal masking, even while COVID-19 cases were soaring in their states.

In assessing what went wrong in America in terms of response to COVID-19, Yong asserts:

> A virus a thousand times smaller than a dust mote has humbled and humiliated the planet's most powerful nation. America has failed to protect its people, leaving them with illness and financial ruin. It has lost its status as a global leader. It has careened between inaction and ineptitude. The breadth and magnitude of its errors are difficult, in the moment, to truly fathom.....Despite ample warning, the U.S. squandered every possible opportunity to control the coronavirus. And despite its considerable advantages—immense resources, biomedical might, scientific expertise—it floundered. While countries as different as South Korea, Thailand, Iceland, Slovakia, and Australia acted decisively to bend

> the curve of infections downward, the U.S. achieved merely a plateau in the spring, which changed to an appalling upward slope in the summer. "The U.S. fundamentally failed in ways that were worse than I ever could have imagined, (Yong, 2020: 1).

In a submissive manner, it could be rightly argued as also intoned by Yong that the spike in USA was unfortunate and preventable. However, their response was tepid and sluggish. Yong did emphasize that 'a sluggish response by a government denuded of expertise allowed the coronavirus to gain a foothold. Chronic underfunding of public health neutered the nation's ability to prevent the pathogen's spread. A bloated, inefficient health-care system left hospitals ill-prepared for the ensuing wave of sickness. Racist policies that have endured since the days of colonization and slavery left Indigenous and Black Americans especially vulnerable to COVID-19. The decades-long process of shredding the nation's social safety net forced millions of essential workers in low-paying jobs to risk their life for their livelihood. The same social-media platforms that sowed partisanship and misinformation during the 2014 Ebola outbreak in Africa and the 2016 U.S. election became vectors for conspiracy theories during the 2020 pandemic (Yong, 2020).

Deduceably, what went wrong in America's response to the pandemic according to Lewis can be itemized as follows:

1. Downplaying the danger and sidelining experts.

2. Slow, sluggish and flawed testing

3, Inadequate tracing, isolating and quarantines

4. Confusing face mask guidance

5. Airborne spread and "hygiene theater."

6. Structural racism that fueled health inequities

7. Decentralized and uncoordinated response (Lewis, 2021).

2. Brazil (14.86 million cases, 411,588 deaths)

Despite claiming one of the highest death tolls in the world, there has *still* not been a national lockdown in Brazil. States and cities adopted their own measures, but these were met by protests, with compliance diminishing as time went on. President Jair Bolsonaro even joined anti-lockdown protests in the capital, and has repeatedly played down the risks of this "little flu". Medical advice was swiftly ignored by the government – one health minister resigned, and another was even sacked. Amid this chaos, mass testing took its time to get going, while contact tracing never even started. With the increasing number of cases, pressure increased on Brazil's now deeply indebted government to re-establish restrictive measures. But as signs of a second wave began to mount, Mr. Bolsonaro was quick to dismiss them and the worry they generated. In his words: "All of us are going to die one day," he told reporters in Brasília. "There is no point running away from it, from reality. We have to stop being a country of sissies" (Andreoni, 2021).

Compared to wealthier citizens, poorer Brazilians are less likely to have health insurance and are less likely to use health services, despite needing them more. This has led to a huge portion of Brazil's poorer communities contracting the virus. Plus, the real figures are suspected to be much higher, due to severe delays in testing, family members being

rumoured to object to the word "coronavirus" on death certificates, and reports of pressures on local administrators to minimise numbers. For many, the development of COVID-19 vaccines came as a sign of hope – but, in line with the rest of his handling of the pandemic, President Bolsonaro has hugely undermined the significance it could have on the Brazilian population. He even went as far as to say that the CoronaVac vaccisne is "untrustworthy" because of its "origin". In response, China delayed the shipment of active vaccine ingredients to Brazil, which resulted in production being halted. After a nightmarish year with minimal support from leaders, thousands of Brazilians took to the streets in their cars in January 2021 to demand Bolsonaro's impeachment.

3. India (20.66 million cases, 226,188 deaths)

India's response to the pandemic is underscored by their health care infrastructure. According to the Limaye 'In 2018, India's spending on healthcare was 1.28% of its Gross Domestic Product (GDP). By comparison, in the US it was 17%.From numbers published by the Indian government in 2019-20, there is one doctor per 1,456 people in the country. This underinvestment in public healthcare is a long-running issue. Successive governments have not made it a priority. In smaller cities, towns and rural areas, the situation is particularly bad. Hospitals have inadequate equipment and staff. In some parts of the country, people have to travel miles to get to any kind of medical services' (Limaye, 2021).

Notwithstanding, unlike some of the other countries in this list, India was quick on its feet in the early days of COVID-19 – implementing surveillance as early as 17 January 2020. After cases started to emerge in the country, the government enforced a strict lockdown, starting from 24 March and lasting until 31 May. However, given only a few

hours' notice, the people of India were not equipped to cope with this news. The sudden lockdown impacted millions of low-income migrant workers, who had been working in cities in search of a better life. They often had no savings, and little financial help from the government.

Consequently, these workers and their families faced hunger and illness – with many having to walk hundreds of miles to reach their villages. Eventually, the government was able to provide rations for migrants, but this was implemented more than 45 days after lockdown. The GP services and hospitals were not equipped to deal with this outbreak – particularly once the virus made its way to the more rural parts of India – resulting in many people being turned away.

Testing, so crucial in helping to stop the spread of the virus, has also been scarce in India. According to the FIND database, in June 2020, India was testing around 4,100 people per million – compared with a global average of over 29,000 tests per million (Phoon, 2020).

Unfortunately, the polarization between India and the other countries on this list is huge – whilst the likes of the well-funded US and the UK waste billions on faulty track and trace systems, India faced the pandemic head-on, but was let down by a lack of funding and unequipped hospitals. More recently, India's COVID-19 cases and deaths have surged massively, which was fueled by huge gatherings at public festivals and election rallies. The ferocious second wave has led to full hospitals, shortages of oxygen and other medical supplies, and overflowing crematoriums.

4. Mexico (2.35 million cases, 217,740 deaths)

Mexico is yet another country where the government responded too slowly to the coronavirus. President Andres Manuel López Obrador played a key role in the spread of the virus – indeed, the Mexican leader was adamant not to close borders or exercise caution at airports. According to Nuno and Philips (2021) 'the president's cavalier approach hampered Mexico's ability to control its epidemic by confusing citizens – with terrible consequences for families such as the Mejías was responsible for the spike. According to them, 'like Trump and Bolsonaro, López Obrador has downplayed the virus, continued to tour his country and embrace supporters and resisted containment measures such as lockdowns, social distancing and masks. "We're doing well, the pandemic has been tamed," the 67-year-old claimed last May when Mexico's official death toll was about 9,000. In January, as Mexico was plunged into a devastating second wave, López-Gatell was photographed holidaying on an Oaxaca beach despite urging citizens to stay at home (Nuno and Philips, 2021).

For Gonzalez, the president's action was not the only factor that underscored the response. According to him 'the behaviour and mixed messaging of politicians are not the only explanations for Mexico's drama. Chronic underinvestment in healthcare meant hospitals were not adequately equipped or staffed when the pandemic hit. Some of the world's highest rates of diabetes and obesity meant Mexico was especially vulnerable to Covid-19. "It just happened to be a virus that was particularly vicious with the type of chronic conditions that Mexicans have a high prevalence of – uncontrolled diabetes, hypertension, obesity, especially among younger and mature adults. And that, I guess, was bad luck," (Nuno and Philips, 2021).

Before cases began to spike in Mexico, Obrador claimed that "Mexico's spirituality would protect the country against the virus," and made a public display of pulling out two religious amulets that he said would be his shield. In mid-March 2020, the carefree President said the country was "going to keep living life as usual," urging people to "continue taking your family out to eat because that strengthens the economy." And life certainly did continue as normal, for *far* too long. On 15 March 2020, some 40,000 concert goers crowded into the Foro Sor venue for the popular Vive Latino music festival. Tourists from Europe and the US were able to enter the country without any restrictions until late March. Plus, restaurants, airports, subways, and grocery stores remained open in Mexico City until lockdown was introduced on 30 March 2020.

When rules *were* put in place, they weren't always clear, either. President Obrador placed restrictions on border travel between the US and Mexico to limit tourism, but still allowed people to work and go to school across the border. There was also very little guidance from the Lopez Obrador administration for the migrant camps near the US border, where conditions are crowded and adequate sanitation is a challenge (Howell, 2021).

As cases continue to swell, many Mexicans began to deal with the financial as well as emotional toll of COVID-19. The virus is now one of the five most expensive illnesses to treat in Mexico, alongside HIV and cancer, with an average treatment cost of $20,000 – although the price-tag can go beyond $1 million in cases where patients go into intensive care or are put on ventilators (Howell, 2021).

5. UK (4.44 million cases, 127,803 deaths)

According to Ashton, 'the failure of the UK government to respond effectively to the threat posed by Covid-19 has had far-reaching economic and social consequences, and led to thousands of avoidable deaths. Some of the factors that underscores their tepid response include prioritising hospital medicine and pharmacology over public health; poor planning for large-scale emergencies; inability to adopt WHO safety recommendations to "test, test, test", as well as the disastrous, ideologically driven use of private sector organisations to oversee a national programme of testing and tracing, rather than rebuilding local public health capacity. Further missteps included the sloganising news-management approach, rather than one of transparency and public engagement based on a broad range of professional advice; data hoarding by the controlling PHE; and the decision to discharge hospital patients, untested for the virus, to care homes, where they ignited a parallel Covid-19 epidemic, have contributed to the absence of what should have been a robust response' (Ashton, 2020).

Therefore, the UK's high death toll is the result of a dangerously late lockdown, and an administration that was slow to grasp the seriousness of the pandemic. In the early days of the pandemic, most countries had begun their lockdown process – the UK Prime Minister, however, reportedly missed five Cobra meetings. Almost five weeks after the first COVID-19 case was confirmed in the UK, Boris Johnson announced: "It's very important that people consider that they should, as far as possible, go about business as usual."

It wasn't until 285 people had passed away that Johnson decided to lock down the country. And, not only was the lockdown late, but it was considerably lax – travel restrictions in and out of the country weren't even imposed until June! And who could forget about the train wreck of clumsy mistakes from the UK government? Ministers allowed 25,060 patients to be discharged from NHS hospitals to care homes *without* being tested for COVID-19, chose to abandon contact tracing at the height of the pandemic in March, and failed to provide adequate protective equipment for front-line workers.

In September, and the UK's 'Eat Out to Help Out' scheme backfired massively, with some experts believing that it triggered the country's second wave. Boris Johnson was also widely criticized for telling parents that it was safe to send children to school on 4 January 2021, despite announcing the closure of these schools only hours later. Although the UK now has a strong vaccine programme, the main concerns for Brits are the new variants floating about, which are said to have come from South Africa, Brazil, and India. Apparently, Boris's tactic to "take it on the chin" and "let the virus move through the public" didn't work so well after all.

2.4.4 Response of African countries to the pandemic

In Africa, according to the Lowy Institute, Rwanda, Togo and Tunisia are the African countries that have responded best to Covid, far ahead of South Africa and especially many rich countries (Marbot, 2021).

According to this source, the criteria used to evaluate the performance of countries in the face of the pandemic (number of cases and deaths – in absolute terms and as a proportion

of the population – number of tests and rate of positive tests) seems solid and relevant. However, the ranking includes only 98 countries, 20 of which are African.

In the ranking, it was observed that countries like Mauritius and Rwanda are succeeding where South Africa, Nigeria and Ghana are failing. On the continent, it is Rwanda – ranked sixth – which comes first with a score of 80.8, followed by Togo (72.8) and Tunisia (66.7). Tunisia's good result may come as a surprise, given that it is currently facing an outbreak of cases and deaths (Marbot, 2021).Next in descending order are Mozambique, Malawi, Zambia, Uganda, Côte d'Ivoire, Senegal, Zimbabwe, the DRC, Madagascar and Ghana, with scores between 60 and 50. Countries that rank below average are Ethiopia, Kenya, Nigeria, Namibia, Morocco, Libya and lastly, South Africa, with a score of 25.4 and in 82nd place (Marbot, 2021)

When compared to the results from developed countries, the ranking shows that Africa is coping better despite the fears of uncontrollable deaths as earlier envisaged. According to the Lowly Institute Many rich countries were quickly overwhelmed when the virus appeared, and the large number of flights back and forth between these countries facilitated its transmission," explains the Lowy Institute's report. "By comparison, the authorities in many developing countries had a little more time to implement the necessary measures, most of which did not require significant technical capacity" (Marbot, 2021).

Beyond this, the fact remains that Africa's death rate did not correlate with the projected deaths at the onset of the pandemic. Africa accounts for 17% of the global population but only 3.5% of the reported global COVID-19 deaths. All deaths are important, we should not discount apparently low numbers, and of course data collected over such a wide range

of countries will be of variable quality, but the gap between predictions and what has actually happened is staggering (Marsh & Alobo, 2020). There has been much discussion on what accounts for this.

Lead research by COVID-19 team in the African Academy of Sciences, after following the unfolding events and researched on them, simply adduced that 'the emerging picture is that in many African countries, transmission has been higher but severity and mortality much lower than originally predicted based on experience in China and Europe (Marsh & Alobo, 2020). The source after their study opines:

> That Africa's much younger population explains a very large part of the apparent difference. Some of the remaining gap is probably due to under reporting of events but there are a number of other plausible explanations. These range from climatic differences, pre-existing immunity, genetic factors and behavioural differences. Given the enormous variability in conditions across a continent – with 55 member states – the exact contribution of any one factor in a particular environment is likely to vary. But the bottom line is that what appeared at first to be a mystery looks less puzzling as more and more research evidence emerges (Marsh & Alobo, 2020:4).

In support of this, Ibezim avers that 'the most obvious factor for the low death rates is the population age structure. Across multiple countries the risk of dying of COVID-19 for those aged 80 years or more is around a hundred times that of people in their twenties. This can best be appreciated with a specific example. As of September 30th, 2020, the

UK had reported 41,980 COVID-19 specific deaths while Kenya, by contrast, had reported 691. The population of the UK is around 66 million with a median age of 40 compared with Kenya's population of 51 million with a median age of 20 years.

Corrected for population size the death toll in Kenya would have been expected to be around 32,000. However if one also corrects for population structure (assumes that the age specific death rates in the UK apply to the population structure of Kenya), we would expect around 5,000 deaths. There is still a big difference between 700 and 5,000 (Ibezim, 2020). What might account for the remaining gap?

The climatic condition in Africa has been often reported as the major difference (Mishra, 2020, Ibezim, 2020, Marsh &Alobo, 2020). A recent large multi-country study in Europe reported significant declines in mortality related to higher temperature and humidity. The authors hypothesised that this may be because the mechanisms by which our respiratory tracts clear virus work better in warmer more humid conditions. This means that people may be getting less virus particles into their system.

It should be noted however that a systematic review of global data – while confirming that warm and wet climates seemed to reduce the spread of COVID-19 – indicated that these variables alone could not explain most of the variability in disease transmission. It's important to remember that there's considerable weather variability throughout Africa. Not all climates are warm or wet and, if they are, they may not stay that way throughout the year. So this alone cannot account for the difference.

For some others, the possibility of pre-existing protective immune responses due either to previous exposure to other pathogens, Ebola or to BCG vaccination, a vaccine against

tuberculosis provided at birth in most African countries. A large analysis – which involved 55 countries, representing 63% of the world's population – showed significant correlations between increasing BCG coverage at a young age and better outcomes of COVID-19 (Marsh & Alobo, 2020).

For Dendlar, genetic factors may also be important. A recently described heliotype (group of genes) associated with increased risk of severity and present in 30% of south Asian genomes and 8% of Europeans is almost absent in Africa. Studies have also shown that people who have higher proportion of remnants of the Neanderthals' genome in their genes, can be more susceptible to ribonucleic acid viruses like SARS-CoV-2. Though jury is still out on whether they are protective or not, the Africans do not have to face this questions as Neanderthals were never in Africa and Africans do not have the genes. (Varshney, 2021, Dendlar, 2021, Marsh & Alobo, 2020).

Corroboratively, a study published June 1, 2020 in the *American Journal of Tropical Medicine and Hygiene* analysed the data available on five reasons that could be responsible for low incidence. These included:

- Low seeding rate
- Effective mitigation measures
- Young population
- Favourable weather
- Possible prior exposure to a cross-reactive virus

The study concluded that a combination of these factors was likely to contribute even more to the low transmission and reduced disease severity in Africa (Varshney, 2021).

As it stands, multiple factors as adduced in the foregoing accounts for the low incidence of the disease in Africa when compared to other continents. However, I think that the major decisive reason for these low cases is the sustained gain from the Ebola disease that ravaged some West African countries in the past that was replicated in the containment of Covid. The Covid-19 pandemic came at a time when the Democratic Republic of Congo was dealing with its biggest outbreak of Ebola yet. Neighbouring states were on high alert, and the health screening of travelers for Ebola was extended to include Covid-19.

Several West African states - which battled the world's worst ever outbreak of Ebola from 2013-16 - had also mastered the public health measures that have been used to prevent Covid-19, including isolating the infected, tracing their contacts and then getting them quarantined while they get tested. In addition, strong immunity system, climatic factor and the house to house community health programmes dominant in public health system in Africa made the difference.

On the global scene, there are ongoing studies probing into issues and factors that account for low incidence in one country and high incidence in another. One major debate is the effect of political governance system. To this end, the comparison has been between authoritarian versus democratic regimes.

In the global world politics, China represents authoritarianism while USA, Italy, France among others represents ideal democratic states. According to Alon et al (2020), China believed that the supremacy of the Communist Party and the totalitarian nature of their system led to acceptance and compliance to the pandemic protocols. In betwixt,

democratic regimes rely on accountability to the people and places undue emphasis on fundamental human rights. This makes enforcement of health emergencies difficult".

However, the relative success of Taiwan, Korea and Japan shows that the accountability to the people in democracies is key, democracies are not intrinsically inferior to authoritarians in crisis response and that it does not require a dictatorship to be efficient and effective (Alon, et al. 2020).

The Lowy Institute's report also sweeps aside the idea that authoritarian states – "Chinese-style", as it has often been said – have achieved better results: "While there were differences at the beginning, the curves eventually converged and, on average, authoritarian regimes did not register any lasting advantage in the fight against the virus" (Marbot, 2021). Galloway lend his voice to this position also when he noted that "democracies have slightly outperformed authoritarian countries in suppressing the coronavirus, according to an analysis that found smaller populations and competent bureaucracies were the major factors in managing the global pandemic" (Galloway, 2021).

In essence, American political scientist Francis Fukuyama was right in 2020 when he said that regime type was not the determining factor in how effectively states responded to the crisis, "but whether citizens trust their leaders, and whether those leaders preside over a competent and effective state" (Galloway, 2021). What then accounted for varying results achieved across various countries?

Contrary to the earlier narratives to the effect that regime types and political system was responsible for modest records across some countries, Fukuyama further vehemently disagreed. According to him:

> we've had this sweeping narrative take hold about the inherent superiority of societies and different political systems, and for the most part we're saying that is bollocks…the difference was in population and effective communication, trust and responsibility between the government and the people. Smaller countries were able to "ring fence" their populations, while their larger counterparts had issues in being able to close external and internal borders. Also, countries with smaller populations may well have stronger social contracts between governments and citizenry and greater levels of trust in governments (Fukuyama in Galloway, 2021:3).

In the tone of the above assertion, population and not regime type is the deciding factor. Countries with smaller populations, cohesive societies, and capable institutions have a comparative advantage in dealing with a global crisis such as a pandemic.

As rightly pointed out by scholars, systemic factors alone — a society's regional provenance, political system, economic development, or size — cannot account fully for the differences observed in global crisis responses. The results point to some of the strengths and vulnerabilities stemming from the way different countries are set up to deal with a public policy challenge of this scale. But policy choices and political circumstances of the day appear to be just as important in shaping national responses to the pandemic (Yoo et al, 2020, Sorcil, Faivrel & Morand, 2020).

It is important to look beyond regime type in this regard. Focusing the debate on regime type as the main explanation of crisis response must also consider other factors such as culture (Maçães, 2020). In this respect, Hofstede's cultural dimensions (Hofstede, 2015), especially the individualism versus collectivism dimension, may offer a powerful explanation on the differences in effectiveness of response between Asian countries, which emphasize collectivism, and Western countries, which champion individualism. It has been observed that East Asian countries tend to respond to the outbreak more effectively than the West, regardless of their different political systems. This implies that culture may be a powerful explanation factor for the effectiveness of response by different nations. While culture is not our focus, it needs to be further studied.

Further, existing political structures might be adapted to service the conditions brought about by the virus. In the same way that democratic regimes sometimes have authoritarian features (and vice versa), measures deemed politically undesirable in the long term but urgently needed in the short run might be undertaken. For example, the USA has sought to deal with the crisis by temporarily granting indefinite detention powers to the Department of Justice. Although this would constitute a democratic country taking an arguably authoritarian course of action, the realities of combating COVID-19 might mean that idealism will take a backseat to pragmatic actions in the short run (Swan, 2020).

Reduced to essentials, some countries have managed the pandemic better than others – but most countries out-competed each other only by degrees of underperformance. The severity of the pandemic in many countries has also changed significantly over time, with

infections surging again in many places that had apparent success in suppressing initial outbreaks

It's painfully ironic that the two nations that were hailed as being the most prepared for a pandemic – the USA and the UK – have landed themselves among the highest death tolls. On the flip side, countries that kept their COVID-19 death rates very low (such as Vietnam and Iceland) had previously ranked poorly on the preparedness scorecard.

It's clear to see that time is everything. Countries that locked down early were able to manage the virus more efficiently and countries that ignored the virus are now suffering the consequences. State of health infrastructure and level of preparedness also weighed into the results obtained in various countries.

Although the virus seems to be ebbing in some countries, researchers have suggested that this may be the first pandemic of many lessons however, must have been learnt.

2.5 Case studies

The foregoing has concentrated on literature that relates to country's responses and results. Under this sub-theme, the Nigerian experience as regards the securitization of the pandemic and related issues that shapes and moderates the pandemic will be reviewed. This will give an insight into the dynamic and trajectories of COVID-19 containment measures and attendant issues that underscore this.

2.5.1 Securitization of COVID-19 Pandemic and Global Health Security in Nigeria

The political responses to the COVID-19 pandemic across the globe exegesis and contains all the critical elements of securitization. Countries in Africa including Nigeria came up with legal responses granting emergency powers were passed that gave various heads of state to enforce peace and security measures to address economic recession. What started with lockdowns, travel bans, border closures eventually led to police surveillance, detainment, control of access to information, and further shrinking of spaces for dissent and activism (Chen, 2020.)

However, lived experiences in the region show that the securitization of Covid-19 comes with a painful cost. There is clear evidence that disruptions of public health and other essential services, coupled with highly-securitized emergency measures, can create more dangers, especially in contexts where there are insufficient social safety nets and legal safeguards (Miranda and Angkaya, 2020). As such, the pandemic is perceived as a threat to the people, requiring stringent, repressive measures to combat it (Nunez, 2020.) Furthermore, by adopting this wartime rhetoric, States deem necessary to suspend fundamental rights and freedoms to achieve "victory" (Carbonaro, 2020.) To make matters worse, people are obliged to assume duties and responsibilities sanctioned by the state; and anyone who disobeys and divert from the "agenda" would pay a hefty price.

According to Hong (2020), 'the event that showed that global health was securitized was when the WHO declared the COVID-19 outbreak to be a global pandemic'. The word 'pandemic' is not one to be used lightly because it can cause unreasonable fear (Mckeever, 2020). However, its usage gained urgency, priority, focus, and the ability of

the relevant audience to take action. Besides using speech as an indication of securitizing issues, the WHO focused on technical practices such as bureaucratic training and protocols, graphs and models (Kreuder-Sonnen 2014, p.334). The WHO served as the central coordinating body--guiding containment, declaring emergencies and making recommendations. National responses have varied depending on its political system and the severity of its situation. Containment measures include lockdowns, quarantines, and travel bans. Countries have implemented health instructions announced by the WHO such as recommending people to frequently wash their hands, refrain from social gatherings. and wear masks. Former critics credit the WHO for doing a better job than during the SARS and Ebola outbreaks, consistently sharing information with the public and convening more scientists and research funders to help develop tests, vaccines, and medicines (Gebrekidan, 2020).

In Nigeria, the securitization of COVID-19 pandemic obviously manifested in the use of the military to enforce lockdown and other protocol measures. According to Abati (2020) "this approach puts security actors in high-stress, close-contact situations with civilians for which police or military sometimes lack adequate de-escalation training. Violent enforcement or perceived unequal treatment by security forces can create deep schisms which can take a long time to repair. Since effective security engagement rests on trust between security actors and civilian populations, worsened relations can drive future insecurity". This is especially pertinent in Nigeria and Kenya which has one of the highest number of deaths in the world from security trying to enforce lockdowns and where securitized responses from a decade of fighting al-Shabaab, Boko Haram and armed bandits across the Horn have weakened trust between civilians and governments.

Across other countries in Africa, the securitization of the pandemic was the same and has shown common features and effects. According to Hinson and Attuqefio, the experience of Ghana shows that Ghana's Enhanced Response to the Coronavirus Pandemic is aimed at achieving five key objectives, namely: limit and stop the importation of the virus; contain its spread; provide adequate care for the sick; limit the impact of the virus on social and economic life; and inspire the expansion of domestic capability and deepen self-reliance (The Presidency, 2020).

In the context of economic security, interventions targeting the fourth objective have included directives relating to the state's absorption of water bills for all Ghanaians for April, May, and June; mobilization of public and private water tankers to supply water to vulnerable communities; absorption of electricity for various categories of users at various rates; and the establishment of the COVID-19 Fund. Representatives of the government have indicated that, apart from supporting industries and enterprises, these measures are also aimed at providing relief to households for lost income. Furthermore, through the National Disaster Management Organization (NADMO), as well as Metropolitan, Municipal, and District Chief Executives (MMDCEs), food items have been distributed to some vulnerable communities. This has been complemented by the benevolent activities of private citizens and faith-based organizations of domestic capability and deepens self-reliance (Hinson & Attuqefio, 2020).

In Nigeria, the securitization of COVID-19 pandemic is evident in both the restrictions, containment measures and the deployment of the military to enforce same. When on March 29, Nigerian President Muhammadu Buhari announced the imposition of an initial two-week lockdown on Lagos and Ogun States and the Federal Capital Territory, the

three parts of the country that had then presented a higher COVID-19 zero-prevalence, he exempted healthcare workers, security personnel, pharmaceutical companies, oil company workers, the country's food supply chain, the media, and other essential workers, he amplified the urgency of health protection of the citizens (Abati, 2020).To enforce compliance, military checkpoints were mounted in several inter-state borders to enforce restrictions in movement and other protocols.

The Federal Government of Nigeria has responded to this pandemic through several policies. These responses as observed by Dixit et al (2020) are in three major-folds:

1. The Economic Stimulus Bill 2020. The House of Representatives passed the Emergency Economic Stimulus Bill 2020 on March 24 to provide support to businesses and individual citizens of Nigeria. The proposed law aims to provide 50 percent tax rebates to businesses that are registered under the Companies and Allied Matters Act so they can use this saving to continue employing their current workers. However, while the bill focuses on providing relief to formal sector businesses, 65 percent of Nigeria's total GDP comes from the informal sector, which also employs more than 90 percent of the workforce, and these workers need support to survive. Many businesses in the informal sector are unregistered so it will be difficult for them to get these benefits. These businesses are often supported by microfinance facilities. For the government to help, it will have to use small interest-free loans or small grants to these enterprises through microfinance facilities and other community-based channels.

2. Cash transfers. On April 1, 2020, the government announced that it will make transfers of 20,000 Naira ($52) to poor and vulnerable households registered in the National Social

Register (NSR). Currently, the NSR has only 2.6 million households (about 11 million people) registered on its platform. The government hopes to increase this to 3.6 million households during the COVID-19 crisis. However, 87 million Nigerians live on less than $1.90 a day. Therefore, the cash payments by the federal government will reach only a fraction of poor. Besides, Nigeria does not have a robust national information management system, making electronic payments difficult. This has resulted in many people in the NSR not receiving the money promised by the government. An immediate solution the government can explore is to provide prepaid debit cards to the poor. This can be done at the community/ward level to ensure that the cards reach the poorest. Of course, this is a stopgap solution, and more effective measures like direct bank transfers need be strengthened. But people need a Bank Verification Number (BVN) to open a bank account, and obtaining a BVN requires a valid national ID or international passport, which many Nigerians do not have. Currently, only about 40 percent of the Nigerian populations have bank accounts.

3. Central Bank of Nigeria stimulus package. The CBN's stimulus package offers a credit of 3 million Naira to poor families impacted by COVID-19. However, the loan requires collateral and is not interest-free. The loans could be made available free of collateral to poor households or just require signed guarantees by community leaders. The loans should be available at a low interest rate with long moratorium and repayment period. Moreover, not many poor households and businesses in the informal sector know about the available economic packages and policies implemented by the government.

4. Food assistance. After President Buhari imposed the lockdown in Lagos, FCT, and Ogun states on April 1, 2020, the Federal Ministry of Humanitarian Affairs Disaster Management and Social Development announced that it will provide food rations to vulnerable households in these states. The extended lockdown has led to people facing hunger in many regions of the country. The government has not been able to provide food support to everyone who needs it, as the distribution system is marred by corruption and opaque accountability. The government has to improve transparency and accountability in the food ration distribution system. It should also make sure that middlemen do not have excessive control. The government could use the system of house marking used in the polio campaign (in which houses visited by vaccinators are marked) during food distribution, i.e., putting a mark on those houses where food has been distributed. The Ward Development Committees can also be used for distributing the food rations. The government could also better use technology to plug leakages, track rations, and reduce corruption (Dixit, Ogundeji & Onwujekwe, 2020).

Laudable as these responses seem, there is a great concern by some political and economic analyst to the effect that these initiatives have not been efficiently applied. I also share with this sentiment. First, the way and manner in which the cash transfer was hurriedly distributed by hand lack transparency and make accountability difficult (Guardian, 2020). In fact, Njoku et al in Gurdian publication of April, 22 sums it thus:

> The distribution of palliatives by the Federal Government to cushion the effect of the Coronavirus disease (COVID-19) on poor and vulnerable Nigerians in parts of the country has been nothing short of bedlam. Also, the President Muhammadu Buhari's recent directive for the expansion of

> beneficiaries of the Conditional Cash Transfer (CCT) from 2.6 million to 3.6 million, with more focus on the urban poor, who depend on the informal sector to earn their livelihood (daily wage earners), as well as people living with disabilities appear to have failed to impress millions of Nigerians that are living way below poverty line in far-flung parts of the country (Guardian, 2020, p. 1).

The suspicion that the responses to this pandemic has not only being securitized but has been 'corruptised' stem from lack of transparency in the disbursement of funds budgeted as palliatives and the secrecy in announcing beneficiaries. Again, the secrecy of information on daily update without pictures of patients; the huge donations and funds made available to the government from both the private and public sectors; continues school-children feeding from home despite the closure of schools; the humongous foreign aids/assistance to this effect and poor public disclosure, all help in feeding into the growing narrative that COVID-19 pandemic is all but a scam, sham and an enterprise in Nigeria.

On funding, available records according to Dixit et al (2020) show that the FGN require $330 million to procure medical equipment, personal protective equipment, and medicines for COVID-19 control. The government has committed to investing some of this amount, and financial commitments were also made by private, bilateral, and multilateral institutions to raise the remaining funds. The Nigerian state oil company has pledged $30 million for the government's COVID-19 efforts. The European Union has contributed 50 million Euros (EU, 2020), to the basket fund to strengthen the Nigerian

COVID-19 response. In addition, the private sector in Nigeria, after being called upon by the governor of the Central Bank of Nigeria, established The Coalition Against COVID-19 (CACOVID). It was launched on March 26, 2020 to help the government to control COVID-19 in Nigeria. CACOVID has raised over $72 million, which will be used for the purchase of food relief materials and to provide medical facilities and equipment in different regions of the federation. The IMF approved $3.4 billion (IMF, 2020), of emergency support to Nigeria to tackle the economic impact of the pandemic. In addition, in order to alleviate the macroeconomic situation triggered by the sudden fall in oil prices, the Nigerian government has borrowed $4.34 billion from the domestic stock market to finance its budget. The Nigerian government also plans to borrow another $2.5 billion from the World Bank and $1 billion from the African Development Bank (Dixit et al, 2020). What matters most to me is the accountability in the spending process which has been a problem in Nigeria.

Beside the question on funding and its applications, again, there is the apprehension that the securitization of the pandemic in Nigeria has led to more deaths from the enforcement. According to Nigeria's National Human Rights Commission (NHRC) 'the victims of police brutality outnumber those killed by COVID-19 on its territory as the Nigerian police are suspected of having carried out 18 extra-judicial killings between March 30 and April 13.While the new coronavirus has killed eleven patients, security forces have extra judicially executed 18 people to enforce orders," the NHRC head Tony Ojukwu said and added that his organization received 105 complaints about human rights violations in Nigeria'(Tele sure, 2020).Campbell and McCaslin quickly added that: "security forces enforcing lockdown orders across Nigeria had killed more people than

the coronavirus. President Buhari has repeatedly acknowledged that the poor are most affected, and it is part of the impetus to ease lockdown restrictions" (John Cambell and Jack McCaslin, 2020).

In addition to this, the entire process of compliance enforcement is riddled with corruption and extortion. According to Okoli (2020), 'the law enforcement agencies have commercialized and commoditized the lockdown enforcement. In some instances, citizens were made to pay between 1,000 to 5, 000 naira in other to move from one state to another'. This again is a threat to health security.

While it is untimely to evaluate the impact of this pandemic and the response measures taken by Nigeria, it will suffice to take account of some observations and reservations expressed across the country. In many quarters, there is popular opinion that Lockdowns have also led to a spike in domestic violence and threatened livelihoods in a context where there have been few measures to cushion the economic effects.

In the absence of specific anti-viral therapy, amidst poor response by some governments, including Nigeria, I agree with the submission that "Coronavirus has seriously damaged the prospects of global health security. Despite apparent decisive actions by some governments, it is evident that it has affected people from all over the world -- rich as well as poor countries. The Global Health Security (GHS) Index 2019 reveals that national health security is fundamentally weak around the world and no country is fully prepared for epidemics or pandemics, and every country has important gaps to address" (Kujur, 2020). 'There is little evidence that most countries have tested important health

security capacities or shown that they would be functional in a crisis (GHSI, 2019). . Unfortunately, the vengeance of Coronavirus is just proving to be more than correct.

Again, in Nigeria, the convolution of conspiracy theories woven around the pandemic has not only colored the narratives but also shaped, directed and accounted for the level of public compliance to containment measures. This supposedly posed serious danger to public health security. There are so many thriving conspiracy theories that not only function to make people doubt the existence of the disease but also make emergency response difficult in Nigeria.

Covid-19 came with varying media manipulations that tend to amplify and stereotype the audience to question its existence and the subsequent containment measures globally adopted. As rightly observed by Evstatieve "conspiracy theories need just the right ingredients to take off within a population, and the COVID-19 pandemic has been a breeding ground for them. It has actually thrived during this pandemic. For instance, a Pew Research Center survey recently asked people if they had heard the theory that the COVID-19 outbreak was intentionally planned by people in power. Seventy-one percent of U.S. adults said they had. And a third of those respondents said it was "definitely" or "probably" true" (Evstatieve, 2020).

The opinion of people outside the US is significantly not different. In Nigeria and elsewhere in Africa, there is a growing buy-in into the conspiracy theory of inexistency of COVID-19 (Icke & Jones, 2020);the theory that the disease is man-made that escaped from a bio-chemical lab in Wuhan (BBC, 2020; Trump, 2020); the link between the disease to 5G network for the eventual triumph of mark of the beast (666) (Oyeikhilome,

2020); the Bill Gate connection as the promoter of the disease for his vaccine introduction (CUPP, 2020); the US military imported COVID into China (Li, 2020); COVID-19 cases are inflated for pecuniary political/economic gains (Everington, 2020); the disease as a curse/plague against the corrupt political class in Nigeria.

According to professional conspiracy theorists like David Icke and Alex Jones, "COVID 19 doesn't actually exist, but is a plot by globalists elite to take away our freedoms" (Lynas, 2020).This conspiracy theory is widely shared in Nigeria with the believe that it is all but a hoax. This was better captured by Obilade:

> In Nigeria, we have our own home-spawned conspiracy theories. These home-spawned versions conclude that the coronavirus does not exist, that it is a hoax and that our government is not telling the truth. Such proponents believe that the entire COVID-19 fight is another money-making gimmick. They believe that the COVID-19 pandemic has just become a cash cow and is not in Nigeria! They support their arguments that compared to countries like Brazil, they have not been shown videos of graveyards where those that died from COVID-19 are being buried. They buttress their points that state governments started "increasing the numbers of their COVID-19 cases" to increase their access to COVID-19 funds. Videos of empty isolation wards, debacle of the 'Chinese doctors" brought to Nigeria, sharing of minion-sized palliatives, reports of a person going to the hospital to remove a fish bone from the throat and being branded as a coronavirus case, stories of monies changing hands to have

> one's name written in a COVID-19 ward, hospital staff being told that they would receive money if they can claim they have a COVID-19 patient. These appalling stories if true are bound to birth several hydra-headed conspiracy theories (Obilade, 2020, p.57).

In fact, the tenacity of this belief is palpable among many Nigerians. This simply stems from the way and manner the response team is handling the containment and information dissemination. Gaps in information and lack of transparency will also fuel conspiracy theories. The human mind loathes gaps in information. Once there's a gap in information, it would be filled with misinformation. This was not different in the handling of the pandemic.

Again, one of the conspiracy theories around Bill Gates is that he wants to promote his own vaccination agenda to depopulate and control the world. Bill Gates has become the dartboard that the conspiracy adherents are targeting because he is one of the most powerful elites in the world and five years ago, he gave a TED talk on the unpreparedness of the world against a pandemic. As if to give credence to these absurd ideas, Bill Gates has actually promised to give billions of dollars to the development of the anti-coronavirus vaccine (Obilade, 2020). Some others, link Bill Gate with the plot to apparently implant microchips in people via a vaccine to exercise global control. Closely related is the 5G conspiracy theory that claims that the installation of 5G mobile networks is linked to the spread of the disease (Bieber, 2020).

The link between 5G and COVID-19 appear to be the loudest at the onset of the outbreak. In February 2020, BBC News reported that conspiracy theorists on social media groups

alleged a link between coronavirus and 5G mobile networks, claiming that the Wuhan and Diamond Princess outbreaks were directly caused by electromagnetic fields and by the introduction of 5G and wireless technologies. Some conspiracy theorists also alleged that the coronavirus outbreak was a cover-up for a 5G-related illness (Cellan-Jones, 2020). In nigeria, a tele-envangelist, Chris Oyakhilome amplified this theory and was subsequently interrogated for spreading 'false' news. In rebuttal, Professor Steve Powis, national medical director of NHS England, described theories linking 5G mobile phone networks to COVID-19 as the "worst kind of fake news" (Reuters, 2020).According to him, viruses cannot be transmitted by radio waves; nothing can, except information. COVID-19 has spread and continues to spread in many countries that do not have 5G networks. In fact, the health of citizens in the well-developed countries with 5G is better than that of citizens from lesser-developed, poorer countries without it (Reuters, 2020).

Another source of misinformation is even on 'the accidental leakage theory' questioning the origin of the disease. A number of allegations have emerged supposing a link between the virus and Wuhan Institute of Virology (WIV); among these is that the virus was an accidental leakage from WIV (BBC, 2020). This they argue is a product of bio-weapons research, or that the virus was engineered. The theory first emerged in February 2020, when it was alleged that the first infected person may have been a researcher at the institute named Huang Yanling (Mai, 2020). China has denied this theory and painstakingly stated that "the conspiracy theory about the origin of the new coronavirus has no substantive content. In fact, there is evidence to support the natural emergence of new coronaviruses, and preliminary genotyping studies have shown the relationship between the coronavirus and other bat viruses. We must be careful not to blame the

rumours in an irresponsible way and use the global crisis to grab political scores" (Qingyuan, 2020).

The gamut of conspiracy theories, misinformation and misleading information have characterized the existence, containment, prevention and general control measures across various countries. As rightly observed by some scholars, The COVID-19 pandemic has resulted in misinformation and conspiracy theories about the scale of the pandemic and the origin, prevention, diagnosis, and treatment of the disease. False information, including intentional disinformation, has been spread through social media, text messaging, and mass media, including the tabloid media, conservative media, and state media of many countries of the world including, Nigeria. It has also been reportedly spread by covert operations backed by states such as Saudi Arabia, Russia and China to generate panic and sow distrust in other countries. In some countries, such as India, Bangladesh, and Ethiopia, journalists have been arrested for allegedly spreading fake news about the pandemic (Frantzman, 2020; EU, 2020; Kassman, 2020, Putz, 2020).

The general implication of these conspiracy theories to global health security is discernible from the foregoing. The WHO in fact has declared an 'infodemic' of incorrect information about the virus as a major risk to global health (Kaasam, 2020). In the case of Uganda and Kenya, Osuta and Angualia (2020) noted:"COVID-19 pandemic rumours and counter rumours have that increasingly incite young men, in particular, to flout public health measures".

No doubt, conspiracy theories often accompany major world events and disasters. The COVID-19 pandemic is heavily feasting on this. I agree with the position of Obilade that

without proper public information on the disease and transparency of information management in its containment, the buy-in into these theories will continue to rank up. People who believe in conspiracy theories readily accept any alternative explanation of the events around them. They do not critically analyze the impossibility of the claims in these theories. The danger of conspiracy theories around COVID-19 is that promoters of these conjugations go against every preventive measure set by the government to curb the spread of the virus. They do not wear masks because they believe it will reduce their immunity or that the masks have been tampered with by the Establishment. The Establishment can represent local and foreign state actors. The conspiracy theorists flaunt the lockdown order, do not socially distant themselves, do not observe respiratory hygiene and they do not wash their hands regularly. They behave as if the virus never existed. They disregard all the government rules and persuasions to prevent the spread of the virus (Obilade, 2020). This is potentially dangerous to the fight against the fight against the pandemic.

2.6 Summary of Literature Review

COVID-19 pandemic has spawned considerable literature following the outbreak of the disease in December 2019. The scholarly attention devoted to the pandemic became more laudable at the wake of WHO's declaration of the disease as a pandemic in March 2020. Due to the contemporary nature of the problem, a good number of literatures reviewed were reports found in publications in various media and journal outlets. Much of these literatures not only considers the socio-economic implication of this pandemic, but also looked at the global health security threat thus, informing the plethora of works on the securitization of the pandemic.

Drawing from the experiences of preceding diseases and their import threat to global health security, the views of scholars as herein found, were much more interested in mitigating the impact of this pandemic through adequate containment measures since the curative vaccines are not yet available. This requires proactive national responses by respective countries in accordance with the WHO's protocols. Most of these measures bother on personal hygiene, social distancing, wearing of nose masks, limitation of social gatherings, lockdown of the economy among others. This also depends on the response capabilities of nations and the strength of the health system infrastructures to support containment measures.

While these measures appear to be the same across the globe, the successes recorded across states vary. In countries compared here, it is clearly evident that countries that swiftly moved to impose lockdown and other restrictive measures recorded better results than those who waited and relied on anecdotal conspiracy theories for their response. Mauritius, New Zealand, Singapore and Iceland clearly stand out with best response record while, Mexico, India, USA, Brazil (in no special order) represents those with worse success rate.

In Nigeria, and elsewhere in Africa, the literature reviewed consensually noted that the responses have not been too successful. The problems of poor health facilities, weak economy, lack of transparency in palliative/stimulus package distribution and even the securitization of the pandemic with the involvement of the military to enforce public compliance to protocols accounted for the problem. In the lockdown particularly, it was observed that compliance was difficult because of the negative perception of the

pandemic amidst thriving conspiracy theories as well as the nature of their economies where the informal sector is dominant. In the dominant informal sector, a considerable numbers of the population derive their economic security from activities undertaken daily and for whom restriction of movement is essentially a proscription of the fundamental source of income. Compliance was inevitably difficult consequently.

Obviously, the disease is still present without any known cure or the duration of its existence. As an ongoing problem, providing adequate data that accounts for its existence or that can measure the impact on global health security was problematic. However, the unfolding scenario with the convolution of conspiracy theories woven around the pandemic is predictably shaping responses to the pandemic. This is the consensus of most scholars.

However, apart from contemporary media and journalistic reports, no known systematic study has been carried out to interrogate the intersection between this pandemic and global health security in relations to responses from Africa nay, Nigeria. Most of these reports are unnecessarily journalistic and anecdotal. This study is therefore aimed at filling this epistemic gap with the intention to evaluate Nigeria's responses and peculiarities that characterize their mitigation efforts.

2.7 Theoretical framework

A study on COVID-19 pandemics and the politics of global health security is better grounded on securitization theory. This is informed by the growing underlining tendency that seems to have decisively politicized and militarized the pandemic at the behest of vested interests.

Securitization Theory

The paradigm shift from the orthodox to critical conception of security culminated in the emergence of securitization theory (Okoli, 2016). Securitization theory has broadened and deepened the understanding of security "to include political, economic, social, and ecological elements" (Robinson, 2010, p.848). More importantly, it has underscored the import of security as a socially constructed, historically contingent and contextually dynamic phenomenon (Robinson, 2010; Zwierlein & Graaf, 2013).

The theory has its epistemological root to the pioneering work of Ole Wæver who formulated the concept of securitization for the first time in the mid-1990s (Wæver 1995), Buzan, Wæver and de Wilde dealt with it in greater detail in their book *Security: A New Framework of Analysis* in 1998. The Copenhagen School, which emerged from the Conflict and Peace Research Institute of Copenhagen deepened scholarly conversation on the theory thereby, giving it its contemporary meaning (Does, 2013).

Within the context of securitization theory, security is understood with reference to four fundamental concepts, namely: existential threat, referent object, emergency situation, and extra-ordinary measure (Kasim, 2013, p.2). Buzan et al, explains further that securitization is when something is staged as an existential threat to a referent object by a securitizing actor who thereby generates endorsement of extraordinary measures from the relevant audience (1998: 5). There are four crucial criteria required for securitization to work:

1. Something depicted as an existential threat to the survival of a referent object (Peoples and Vaughan-Williams 2010, p.76).

2. A referent object is something regarded necessary to survive by the audience, such as the state. 3. Existence of a securitizing actor who attempts to securitize a given issue. To increase the likelihood of a successful securitization, it is better if the actor is in a position of authority and has enough social and political capital to convince an audience of the existence of an existential threat by coloring it with emergency.

4. The last element is a relevant audience that is willing to accept extraordinary measures. A classic military example in International Relations is a state's right to self-defense: if a state is under attack, it can legitimately use extraordinary measures such as declaring a state of emergency (Hong, 2020).

Elaborating further, the existential threat refers to the superiority of one issue and is so distinct compared to others that it must receive absolute priority. If the referent object does not successfully address it, the issue at hand would put the existence of the referent object in danger. In essence, the very next step after invocating security is the declaration of emergency situation. By declaring it, the state traditionally will claim 'a right to use whatever means (that) are necessary to block a threatening development' – that is the extra-ordinary measure (Kasim 2013, p.2).

Securitization conforms to a discursive process whereby an issue is framed by the state as an existential threat, and, therefore, is equated with state survival in a sense that justifies priority of action. Hence, "A successful securitization process thus first posits an existential threat, then demands an emergency response, and finally undertakes actions that break free of normal social and political rules" (Robinson, 2010, p.851).

Associated with the securitization theory also, is the assumption that security is neither the cause nor the consequence of a specific factor. Rather, it is a dynamic social process

that has its own political and historical dialectics (Fako, 2012; Erdag, 2013). Securitization theory has thus taken the security discourse to the realm of 'threat-import/threat-impact' narrative (Okoli, 2016).

This narrative is essential because it situates the primary way in which we make sense of the security world, produce meanings and articulate intensions on security, and legitimize actions in that regard(Okoli,2016). The four cardinal elements of the security narrative have been highlighted by Wibben (2016, p.103) as follows: threat that locates danger; referents to be secured; agents charged with providing security; and means by which threats are contained and security is allegedly provided.

The suitability of this theory to the present study lies on the existential threat of COVID-19 pandemic to global health security and the amplification of same by vested political interests following the declaration as a pandemic in March, 2020. In this case, the existential threat is COVID-19 because it is highly contagious and there is no vaccine. The referent object is humans since they have been largely affected by this disease. The securitizing actor is the WHO (complemented by respective national relevant health agencies) that speaks on behalf of the United Nations, responsible for international public health. The relevant audience represents the governments and the masses that are willing to accept the extraordinary measures and take crucial decisions.

Since the outbreak of the disease and subsequent declaration as a pandemic, the imperative for containment has informed amplification of the problem as an existential threat that requires emergency responses. The urgency, priority and fervency of the threat have also informed legal and extra-legal measures, including the deployment of military and quasi military outfits to enforce public compliance to WHO protocols. The

securitization of the pandemic has also given primacy to this disease so much so that no other global health security threat is receiving attention. The WHO served as the central coordinating body-guiding containment, declaring emergencies and making recommendations. National responses have varied depending on its political system and the severity of its situation. Containment measures include lockdowns, quarantines, and travel bans. Countries have implemented health instructions announced by the WHO such as recommending people to frequently wash their hands, refrain from social gatherings, and wear masks.

The enforcement mechanisms and the general containment cum palliative measures adopted in response to this pandemic exude all trappings of a war situation with all the four elements of the theory implicit. This does not exclude the politicization of the situation and seconding responsorial measures to vested political interests.

Relevance of the theory to the study is that the political leadership is characterized by blatant personalization of power, predatory, parochial, prebendal and patrimonial dispositions (Jega, 2007). These ills no doubt undermine popular participation and the critical role of the masses in setting the agenda of governance. The dominant role of the political elites in setting, shaping and articulating governmental policies at the expense of the general interests of the populace erodes public support in democratic governance and policies as the masses perceive and equate democratic governance with representing the interest of the ruling elites (Olaniyi, 2001). The fact that in most cases the outcome of the elitist imposed policies consist of widespread unemployment, corruption and poverty tend to worsen the peoples' sense of alienation and frustration in the political system, which often translate into disobedience of the state

and the resort to violence as a means to challenge the legitimacy of the state. This explains in part the impact of COVID-19 pandemic on global health security. It is within this context that the worsening social tensions, economic inequality, poverty and increased spate of insecurity in the country since President Jonathan's administration

CHAPTER THREE

RESEARCH METHODOLOGY

Research methodology considers the logic behind the methods used in the context of research study and explains why a particular method or technique is used and why others are not used so that research results are capable of being evaluated either by the researcher himself or by others' (Kothari 2004, p.8). This chapter is therefore, meant to discuss the research method that guided this work. It is specifically tailored towards addressing the question of 'how' of the research wherein the design of the study, sources of data and how the data collected will be analyzed to arrive at research certain outcomes and findings. The components of the chapter include: research design, area of study, sample and sampling method, instrument of data collection, administration of data and method of data analysis.

3.1 Research design

This study adopts a Case Study Research Design whereby a particular instance or a few carefully selected cases are intensively and holistically studied to create epistemological understanding of the interaction between the factors involved in the study' (Gilbert 2008, p.36; Idaka & Anagbogu, 2012). This gives an overview, and in-depth understanding of case(s), processes, and interactional dynamics within the unit of study (Kumar, 2011), and helps in unveiling the underlined causal relationship between variables which leads to holistic understanding of phenomenon through available data.

The suitability of the design to this study lies on the focus of this study: COVID-19 pandemic and the politics of global health security in Africa: A case study of Nigeria. An intensive, painstaking, rigorous and critical analysis of the unfolding securitization of Nigeria's responses to COVID-19 pandemic is necessary in deepening insights into the

problems associated with the pandemic. This is necessary in panning an in-depth and holistic understanding of the dynamics of securitization and politicization that have characterized responses in other to discern how this has shaped, moderated and affected the country's political economy cum health security.

3.2 The Research Area

The research area is Nigeria with primary focus on COVID-19 response activities coordinated by the COVID-19 National Response Team and the NCDC. However, specific focus will be on the states with higher incidences of cases. These states include: Lagos, FCT, Edo, Kano, Ondo and Ogun. The research area also covers the thirty six component states of the federation as well as the FCT. These component states have their respective Response Teams whose activities are being coordinated by the National body. Each of the State's response team have their peculiarities that will require specific analytical discourse.

3.3 Method of data collection

In the study the researcher adopted Personal Interview technique of data collection which involves face to face contact between the researcher and the interviewees (respondents) which the researcher's questions elicit verbal answers from the respondents, and the responses are recorded (Obasi, 1999). Such interviews will be conducted with individuals who have sufficient knowledge on the management, control and other responses to COVID-19 pandemic. A total of fifteen lead questions would be drawn and posed to the interviewee. These questions reflect the three major hypotheses of this study.

The interviewee will be drawn from heads/top officials of: NCDC, Nigeria Medical Association (NMA), National COVID-19 response team, Federal Ministry of Humanitarian Affairs, Disaster Management and Social Development, Military, Police and Security outfits set up in response to the pandemic among others.

Purposive sampling was used as a sampling technique. This is suitable in that it gives room for the use of researcher's discretion in selecting the respondents to the research instrument.

3.4 Sources of data

This study relies on two major sources of data viz: Primary and Secondary sources.

Primary source of data for this study is the Interview. This is considered suitable giving the contemporary nature of the topic with unfolding issues around the COVID-19 pandemic. Insights from authorities handling the response to this pandemic are necessary in validating the thrust of this study. The experience of the researcher as a member of this context group being affected by this pandemic also suffices to complement the interview approach.

Secondary sources:

This review draws on secondary data sources, and the evidence presented is based first on the growing body of literature regarding the COVID-19 pandemic from a variety of institutional fora. A significant proportion of this work has been carried out by people directly or indirectly associated with international institutions (e.g., the World Health Organization and World Bank), academic institutions, news agencies, national government departments, and non-governmental organizations (NGOs). In some cases, data from these sources were readily available online. This study relies heavily on scholarly and national government literature to historicize the state of the health sector,

while some of the evidence supporting the analysis is drawn from local and international news agencies. The evidence provided by these news agencies is current, which explains why they are used to shed light on contemporary issues related to health care, including COVID-19. Additionally, news agencies often bring to the attention of the public issues that governments are not ready to disclose for political reasons, and scholars have endorsed the use of these sources (Yahya, 2006; Obeng-Odoom, 2011).

However, the use of these secondary sources poses some limitations, as some local news outlets may be biased regarding reportage (Ojong, 2020). To minimize this problem, evidence would be drawn from a variety of national and international news agencies. Additionally, the statistics provided by national government agencies would be considered with caution, as across various states in Nigeria and elsewhere in Africa, there are discrepancies between administrative data and independent household surveys. Several African countries also misreport to foreign donors (Sandefur & Glassman, 2015). So, these limitations would be taken into consideration when engaging with discussions in this study. Nonetheless, the goal of this review is to provide a deeper understanding of the politics associated with COVID-19 pandemic and to shed light on how certain factors are currently affecting the global health security using Nigeria's experience.

3.5 Data Presentation and analysis

Given that the research orientation of this study is qualitative, thematic data analytical method was used in analyzing data gathered in this study. Thematic data analytical technique is a method for identifying, analyzing and reporting patterns within data (Braun & Clarke, 2006, p.79). This method gives discretional flexibility to the research in terms

of considering issues emanating from the interview in themes and sub-themes, looks at pattern and make deductions.

Thematic analysis was applied to analyze transcript data that emerge from interviews and focus group discussions, and less usually from observations. The aim of thematic analysis is to create a comprehensive and systematic record of the codings and themes that are raised in interviews or observations. In thematic analysis, the researchers identify the themes in transcript data from participants, and then attempt to confirm, verify and expand these themes, and also repeat the procedure in order to find out new themes. The researchers first read the transcripts of the interviews or observations and create the appropriate initial coding framework (Galanis and Petros, 2018).

3.6 Test of hypotheses

In testing the hypotheses in the study through thematic analysis, a decision was deduced from the evidence provided in the data presented. Where data overwhelmingly supports the null hypothesis, it was accepted, but if not, it was rejected and the alternative hypothesis accepted.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

Intermittent outbreaks of infectious diseases have had profound and lasting effects on societies throughout history. Those events have powerfully shaped the economic, political, and social aspects of human civilization, with their effects often lasting for centuries. Epidemic outbreaks have defined some of the basic tenets of modern medicine, pushing the scientific community to develop principles of epidemiology, prevention, immunization, and antimicrobial treatments. This chapter outlines some of the most notable outbreaks that took place in human history and are relevant for a better understanding of the rest of the material. This chapter is meant to present a historical overview of the global health pandemics. This will provide an insight into the historical trajectory of previous health pandemics in order to understand their origins, impacts and containment measures. This will help in proper understanding of the present COVID-19 pandemic and the resultant efforts towards its mitigation, containment and vaccination.

The concern of this chapter was discussed in sub-themes related to the major thrust of this section. Throughout known, predominantly Western history, there have been recorded processions of pandemics that each shaped our history and our society, inclusive of shaping the very basic principles of modern health sciences. What follows is an outline of major pandemic outbreaks throughout recorded history extending into the twenty-first century. This was thematically discussed in this chapter.

4.1 Pre-historic plagues and pandemics

One of the greatest catastrophes ever, if not the greatest one in the entire history of humankind, was an outbreak of a pandemic (Benedictow, 2005).In a long succession throughout history, pandemic outbreaks have decimated societies, determined outcomes of wars, wiped out entire populations, but also, paradoxically, cleared the way for innovations and advances in sciences (including medicine and public health), economy, and political systems (Scheidel, 2017).

Within the earliest recorded history, the word plague is most often used in place of the present terminology-pandemic. Stemming from Doric Greek word *plaga* (strike, blow), the word plague is a polysemy, used interchangeably to describe a particular, virulent contagious febrile disease caused by *Yersinia pestis*, as a general term for any epidemic disease causing a high rate of mortality, or more widely, as a metaphor for any sudden outbreak of a disastrous evil or affliction (Huremović, 2019). Most of these 'plagues' had disastrous effect like the pandemic and as such, qualifies as a word that can be used interchangeably. Pre-historic recorded pandemics existed as plagues.

4.1.1 The Athenian plague of 430 B.C.

The Athenian plague is a historically documented event that occurred in 430–26 B.C. during the Peloponnesian War, fought between city-states of Athens and Sparta. The historic account of the Athenian plague is provided by Thucydides, who survived the plague himself and described it in his *History of the Peloponnesian War* (Crawley, 2017).

The Athenian plague originated in Ethiopia, and from there, it spread throughout Egypt and Greece. Initial symptoms of the plague included headaches, conjunctivitis, a rash

covering the body, and fever. The victims would then cough up blood, and suffer from extremely painful stomach cramping, followed by vomiting and attacks of "ineffectual retching" (Crawley, 2017).Infected individuals would generally die by the seventh or eighth day. Those who survived this stage might suffer from partial paralysis, amnesia, or blindness for the rest of their lives. Doctors and other caregivers frequently caught the disease, and died with those whom they had been attempting to heal. The despair caused by the plague within the city led the people to be indifferent to the laws of men and gods, and many cast themselves into self-indulgence (Huremović, 2019). Because of wartime overcrowding in the city of Athens, the plague spread quickly, killing tens of thousands, including Pericles, Athens' beloved leader. With the fall of civic duty and religion, superstition reigned, especially in the recollection of old oracles.

The plague of Athens affected a majority of the inhabitants of the overcrowded city-state and claimed lives of more than 25% of the population (Littman, 2009). The cause of the Athenian plague of 430 B.C. has not been clearly determined, but many diseases, including bubonic plague, have been ruled out as possibilities. While typhoid fever figures prominently as a probable culprit, a recent theory, postulated by Olson and some other epidemiologists and classicists, considers the cause of the Athenian plague to be Ebola virus hemorrhagic fever (Olson, Hames, Benenson and Genevose, 1996).The disease, suspected to have been typhoid fever, weakened the Athenians significantly and was a significant factor in their defeat by the Spartans.

4.1.2 Antonine plague

This was another outbreak that occurred a couple of centuries later that was documented and recorded by contemporary physicians of the time. The outbreak was known as the Antonine Plague of 165–180 AD and the physician documenting it was Galen; this outbreak is also known as the Plague of Galen (Sabbatani & Fiorino, 2009).

The Antonine plague occurred in the Roman Empire during the reign of Marcus Aurelius (161–180 A.D.) and its cause is thought to be smallpox (Fears, 2004). It was brought into the Empire by soldiers returning from Seleucia, and before it abated, it had affected Asia Minor, Egypt, Greece, and Italy. Unlike the plague of Athens, which affected a geographically limited region, the Antonine plague spread across the vast territory of the entire Roman Empire, because the Empire was an economically and politically integrated, cohesive society occupying wide swaths of the territory (Sáez, 2016). The plague destroyed as much as one-third of the population in some areas, and decimated the Roman army, claiming the life of Marcus Aurelius himself (Fears, 2004).

The impact of the plague on the Roman Empire was severe, weakening its military and economic supremacy. The Antonine plague affected ancient Roman traditions, leading to a renewal of spirituality and religiousness, creating the conditions for spreading of new religions, including Christianity. The Antonine Plague may well have created the conditions for the decline of the Roman Empire and, afterwards, for its fall in the West in the fifth century AD (Fears, 2004).

4.1.3 Justinian plague

The Justinian plague was a "real plague" pandemic (i.e., caused by Yersinia Pestis) that originated in mid-sixth century AD either in Ethiopia, moving through Egypt, or in the Central Asian steppes, where it then traveled along the caravan trading routes. From one of these two locations, the pestilence quickly spread throughout the Roman world and beyond. Like most pandemics, the Justinian plague generally followed trading routes providing an "exchange of infections as well as of goods," and therefore, was especially brutal to coastal cities. Military movement at the time also contributed to spreading the disease from Asia Minor to Africa and Italy, and further to Western Europe. Described in detail by Procopius, John of Ephesus, and Evagrius, the Justinian epidemic is the earliest clearly documented example of the actual (bubonic) plague outbreak (Horgan, 2014).

During the plague, many victims experienced hallucinations prior to the outbreak of illness. The first symptoms of the plague followed closely behind; they included fever and fatigue. Soon afterwards, buboes appeared in the groin area or armpits, or occasionally beside the ears. From this point, the disease progressed rapidly; infected individuals usually died within days. Infected individuals would enter a delirious, lethargic state, and would not wish to eat or drink. Following this stage, the victims would be "seized by madness," causing great difficulties to those who attempted to care for them (Procopius, 1914). Many people died painfully when their buboes gangrened; others died vomiting blood. There were also cases, however, in which the buboes grew to great size, and then ruptured and suppurated. In such cases, the patient would usually recover, having to live with withered thighs and tongues, classic aftereffects of the plague. Doctors, noticing this trend and not knowing how else to fight the disease,

sometimes lanced the buboes of those infected to discover that carbuncles had formed. Those individuals who did survive infection usually had to live with ''withered thighs and tongues'', the stigmata of survivors. Emperor Justinian contracted the plague himself, but did not succumb (Rosen, 2007).

Within a short time, all gravesites were beyond capacity, and the living resorted to throwing the bodies of victims out into the streets or piling them along the seashore to rot. The empire addressed this problem by digging huge pits and collecting the corpses there. Although those pits reportedly held 70,000 corpses each, they soon overflowed (Rosen, 2007). Bodies were then placed inside the towers in the walls, causing a stench pervading the entire city.

Streets were deserted, and all trade was abandoned. Staple foods became scarce and people died of starvation as well as of the disease itself (Rosen, 2007). The Byzantine Empire was a sophisticated society in its time and many of the advanced public policies and institutions that existed at that time were also greatly affected. As the tax base shrank and the economic output decreased, the Empire forced the survivors to shoulder the tax burden (Smith, 1997). Byzantine army suffered in particular, being unable to fill its ranks and carry out military campaigns, and ultimately failing to retake Rome for the Empire. After the initial outbreak in 541, repetitions of the plague established permanent cycles of infection. By 600, it is possible that the population of the Empire had been reduced by 40%. In the city of Constantinople itself, it is possible that this figure exceeded 50 % (Smith, 1997).

At this point in history, Christian tradition enters the realm of interpreting and understanding the events of this nature (Evagrius, 1846). Drawing on the eschatological narrative of the Book of Revelations, plague and other misfortunes are seen and explained as a "punishment for sins," or retribution for the induction of "God's wrath" (Evans, 1976). This interpretation of the plague will reappear during the Black Death and play a much more central role throughout affected societies in Europe. Meanwhile, as the well-established Byzantine Empire experienced major challenges and weakening of its physical, economic, and cultural infrastructure during this outbreak, the nomadic Arab tribes, moving through sparsely populated areas and practicing a form of protective isolation, were setting a stage for the rapid expansion of Islam (Evans, 1976).

4.2 Medieval plagues and pandemics

4.2.1 The black death (1348-1351)

The Plague" was a global outbreak of bubonic plague that originated in China in 1334, arrived in Europe in 1347, following the Silk Road. Within 50 years of its reign, by 1400 (Huremovic, 2019), it reduced the global population from 450 million to below 350 million, possibly below 300 million, with the pandemic killing as many as 150 million. Some estimates claim that the Black Death claimed up to 60% of lives in Europe at that time.

Starting in China, it spread through central Asia and northern India following the established trading route known as the Silk Road. The plague reached Europe in Sicily in 1347. Within 5 years, it had spread to the virtually entire continent, moving onto Russia and the Middle East. In its first wave, it claimed 25 million lives (Huremovic, 2019).

The course and symptoms of the bubonic plague were dramatic and terrifying. Boccaccio, one of the many artistic contemporaries of the plague, described it as follows:

> In men and women alike it first betrayed itself by the emergence of certain tumours in the groin or armpits, some of which grew as large as a common apple, others as an egg...From the two said parts of the body this deadly gavocciolo soon began to propagate and spread itself in all directions indifferently; after which the form of the malady began to change, black spots or livid making their appearance in many cases on the arm or the thigh or elsewhere, now few and large, now minute and numerous. As the gavocciolo had been and still was an infallible token of approaching death, such also were these spots on whomsoever they showed themselves (Boccaccio, 1921: 5).

Indeed, the mortality of untreated bubonic plague is close to 70%, usually within 8 days, while the mortality of untreated pneumonic plague approaches 95%. Treated with antibiotics, mortality drops to around 11% (CDC, 2015).

At the time, scientific authorities were at a loss regarding the cause of the affliction. The first official report blamed an alignment of three planets from 1345 for causing a "great pestilence in the air" (Horrox, 1994). It was followed by a more generally accepted miasma theory, an interpretation that blamed bad air. It was not until the late XIX century that the Black Death was understood for what it was – a massive Yersinia Pestis pandemic (Halliday, 2001).

This strain of Yersinia tends to infect and overflow the guts of oriental rat fleas (*Xenopsylla cheopis*) forcing them to regurgitate concentrated bacteria into the host while feeding. Such infected hosts then transmit the disease further and can infect humans – bubonic plague (Eisen & Gage, 2008). Humans can transmit the disease by droplets, leading to pneumonic plague.

The mortality of the Black Death varied between regions, sometimes skipping sparsely populated rural areas, but then exacting its toll from the densely populated urban areas, where population perished in excess of 50, sometimes 60% (Benedictow, 2012).

In the vacuum of a reasonable explanation for a catastrophe of such proportions, people turned to religion, invoking patron saints, the Virgin Mary, or joining the processions of flagellants whipping themselves with nail embedded scourges and incanting hymns and prayers as they passed from town to town (Bennet, 2006). The general interpretation in predominantly Catholic Europe, as in the case of Justinian plague, centered on the divine "punishment for sins." It then sought to identify those individuals and groups who were the "gravest sinners against God," frequently singling out minorities or women. Jews in Europe were commonly targeted, accused of "poisoning the wells" and entire communities persecuted and killed. Non-Catholic Christians (e.g., Cathars) were also blamed as "heretics" and experienced a similar fate (Gottfried, 2010). In other, non-Christian parts of the world affected by the plague, a similar sentiment prevailed. In Cairo, the sultan put in place a law prohibiting women from making public appearances as they may tempt men into sin (Bryne, 2004).

For bewildered and terrified societies, the only remedies were inhalation of aromatic vapors from flowers or camphor. Soon, there was a shortage of doctors which led to a proliferation of quacks selling useless cures and amulets and other adornments that claimed to offer magical protection (Hajar, 2012). Entire neighborhoods, sometimes entire towns, were wiped out or settlements abandoned. Crops could not be harvested, traveling and trade became curtailed, and food and manufactured goods became short. The plague broke down the normal divisions between the upper and lower classes and led to the emergence of a new middle class. The shortage of labor in the long run encouraged innovation of labor-saving technologies, leading to higher productivity.

The effects of such a large-scale shared experience on the population of Europe influenced all forms of art throughout the period, as evidenced by works by renowned artists, such as Chaucer, Boccaccio, or Petrarch. The deep, lingering wake of the plague is evidenced in the rise of Danse Macabre (Dance of the death) in visual arts and religious scripts (Oosterwijk & Knoell, 2011). The plague made several encore rounds through Europe in the following centuries, occasionally decimating towns and entire societies, but never with the same intensity as the Black Death

4.2.2 Small pox pandemic

The origin of smallpox as a natural disease is lost in prehistory. It is believed to have appeared around 10,000 BC, at the time of the first agricultural settlements in northeastern Africa (Lakhani, 1992). It seems plausible that it spread from there to India by means of ancient Egyptian merchants. The earliest evidence of skin lesions resembling those of smallpox is found on faces of mummies from the time of the 18th and 20th Egyptian Dynasties (1570–1085 BC). The mummified head of the Egyptian pharaoh

Ramses V (died 1156 BC) bears evidence of the disease (Lyons & Petrucelli, 1987) At the same time, smallpox has been reported in ancient Asian cultures: smallpox was described as early as 1122 BC in China and is mentioned in ancient Sanskrit texts of India.

Smallpox was introduced to Europe sometime between the fifth and seventh centuries and was frequently epidemic during the Middle Ages. The disease greatly affected the development of Western civilization. The first stages of the decline of the Roman Empire (AD 108) coincided with a large-scale epidemic: the plague of Antonine, which accounted for the deaths of almost 7 million people (Littman & Littman, 1973). The Arab expansion, the Crusades, and the discovery of the West Indies all contributed to the spread of the disease.

Unknown in the New World, smallpox was introduced by the Spanish and Portuguese conquistadors. The disease decimated the local population and was instrumental in the fall of the empires of the Aztecs and the Incas. Similarly, on the eastern coast of North America, the disease was introduced by the early settlers and led to a decline in the native population. The devastating effects of smallpox also gave rise to one of the first examples of biological warfare (Handerson, et al, 1999). During the French-Indian War (1754–1767), Sir Jeffrey Amherst, the commander of the British forces in North America, suggested the deliberate use of smallpox to diminish the American Indian population hostile to the British. Another factor contributing to smallpox in the Americas was the slave trade because many slaves came from regions in Africa where smallpox was endemic.

Smallpox affected all levels of society. In the 18th century in Europe, 400,000 people died annually of smallpox, and one third of the survivors went blind (Barquet& Dominigo, 1997).The symptoms of smallpox, or the "speckled monster" as it was known in 18th-century England, appeared suddenly and the sequelae were devastating. The case-fatality rate varied from 20% to 60% and left most survivors with disfiguring scars. The case-fatality rate in infants was even higher, approaching 80% in London and 98% in Berlin during the late 1800s.

The word *variola* was commonly used for smallpox and had been introduced by Bishop Marius of Avenches (near Lausanne, Switzerland) in AD 570. It is derived from the Latin word *varius*, meaning "stained," or from *varus*, meaning "mark on the skin." The term *small pockes* (*pocke* meaning sac) was first used in England at the end of the 15th century to distinguish the disease from syphilis, which was then known as the great pockes. Jenner's work represented the first scientific attempt to control an infectious disease by the deliberate use of vaccination. Strictly speaking, he did not discover vaccination but was the first person to confer scientific status on the procedure and to pursue its scientific investigation. During the past years, there has been a growing recognition of Benjamin Jesty (1737–1816) as the first to vaccinate against smallpox (Pead &Benjamin, 2003).

Scientific advances during the two centuries since Edward Jenner performed his first vaccination on James Phipps have proved him to be more right than wrong. The germ theory of disease, the discovery and study of viruses, and the understanding of modern immunology tended to support his main conclusions. The discovery and promotion of vaccination enabled the eradication of smallpox: this is Edward Jenner's ultimate vindication and memorial.

4.3 Modern era pandemics

4.3.1 "Spanish Flu" Pandemic 1918–1920

The Spanish flu pandemic in the first decades of the twentieth century was the first true global pandemic and the first one that occurred in the setting of modern medicine, with specialties such as infectious diseases and epidemiology studying the nature of the illness and the course of the pandemic as it unfolded. It is also, as of this time, the last true global pandemic with devastating consequences for societies across the globe (Huremovic, 2019). It was caused by the H1N1 strain of the influenza virus, (Antonovics et al, 2006) a strain that had an encore outbreak in the early years of the twenty-first century.

Despite advances in epidemiology and public health, both at the time and in subsequent decades, the true origin of Spanish flu remains unknown, despite its name. As possible sources of origin, cited are the USA, China, Spain, France, or Austria. These uncertainties are perpetuated by the circumstances of the Spanish flu – it took place in the middle of World War I, with significant censorships in place, and with fairly advanced modes of transportation, including intercontinental travel ((Huremovic, 2019).

Within months, the deadly H1N1 strain of influenza virus had spread to every corner of the world. In addition to Europe, where massive military movements and overcrowding contributed to massive spread, this virus devastated the USA, Asia, Africa, and the Pacific Islands. The mortality rate of Spanish flu ranged between 10% and 20%. With over a quarter of the global population contracting that flu at some point, the death toll was immense – well over 50 million, possibly 100 million dead. It killed more individuals in a year than the Black Death had killed in a century (Flecknoe, 2018).

This pandemic, unusually, tended to mortally affect mostly young and previously healthy individuals. This is likely due to its triggering a cytokine storm, which overwhelms and demolishes the immune system. By August of 1918, the virus had mutated to a much more virulent and deadlier form, returning to kill many of those who avoided it during the first wave (Simonson, 1998).

Spanish flu had an immense influence on our civilization. Some authors (Price) even point out that it may have tipped the outcome of World War I, as it affected armies of Germany and the Austrian–Hungarian Empire earlier and more virulently than their Allied opponents (Price-Smith, 2008).

Many notable politicians, artists, and scientists were either affected by the flu or succumbed to it. Many survived and went on to have distinguished careers in arts and politics (e.g., Walt Disney, Greta Garbo, Raymond Chandler, Franz Kafka, Edward Munch, Franklin Delano Roosevelt, and Woodrow Wilson). Many did not; this pandemic counted as its victims, among others, outstanding painters like Gustav Klimt and Egon Schiele (Whitford, 1997), and acclaimed poets like Guillaume Apollinaire. It also claimed the life of Sigmund Freud's fifth child – Sophie Halberstadt-Freud.

This pandemic was also the first one where the long-lingering effects could be observed and quantified. A study of US census data from 1960 to 1980 found that the children born to women exposed to the pandemic had more physical ailments and a lower lifetime income than those born a few months earlier or later. A 2006 study in the Journal of Political Economy found that "cohorts in utero during the pandemic displayed reduced educational attainment, increased rates of physical disability, lower income, lower

socioeconomic status, and higher transfer payments compared with other birth cohorts" (Almond, 2006).

Despite its immense effect on the global civilization, Spanish flu started to fade quickly from the public and scientific attention, establishing a precedent for the future pandemics, and leading some historians (Crosby) to call it the "forgotten pandemic" (Crosby, 2003). One of the explanations for this treatment of the pandemic may lie in the fact that it peaked and waned rapidly, over a period of 9 months before it even could get adequate media coverage. Another reason may be in the fact that the pandemic was overshadowed by more significant historical events, such as the culmination and the ending of World War I. A third explanation may be that this is how societies deal with such rapidly spreading pandemics – at first with great interest, horror, and panic, and then, as soon as they start to subside, with dispassionate disinterest (Huremovic, 2019).

4.3.2 HIV AIDS pandemic

It is widely believed that HIV originated in Kinshasa, in the Democratic Republic of Congo around 1920 when HIV crossed species from chimpanzees to humans. Up until the 1980s, we do not know how many people were infected with HIV or developed AIDS. HIV was unknown and transmission was not accompanied by noticeable signs or symptoms.

While sporadic cases of AIDS were documented prior to 1970, available data suggests that the current epidemic started in the mid- to late 1970s. By 1980, HIV may have already spread to five continents (North America, South America, Europe, Africa and

Australia). In this period, between 100,000 and 300,000 people could have already been infected (Mann, 1989).

HIV/AIDS is a slowly progressing global pandemic cascading through decades of time, different continents, and different populations, bringing new challenges with every new iteration and for every new group it affected. From a more popular perspective, it is believed that it started in the early 1980s in the USA, causing significant public concern as HIV at the time inevitably progressed to AIDS and ultimately, to death. The initial expansion of HIV was marked by its spread predominantly among the gay population and by high mortality, leading to marked social isolation and stigma (Huremovic, 2019).

HIV affects about 40 million people globally (prevalence rate: 0.79%) and has killed almost the same number of people since 1981 (Cohen et al, 2008). It causes about one million deaths a year worldwide (down from nearly two million in 2005) (Wang, et al, 2016). While it represents a global public health phenomenon, the HIV epidemic is particularly alarming in some Sub-Saharan African countries (Botswana, Lesotho, and Swaziland), where the prevalence tops 25% (UNAIDS, 2018). In the USA, about 1.2 million people live with HIV and about 12,000 die every year (down from over 40,000 per year in the late 1990s). HIV in the USA disproportionately affects gay population, transgendered women, and African-Americans (Hurmovic, 2019).

Being a fairly slowly spreading pandemic, HIV has received formidable public health attention, both by national and by international administrations and pharmaceuticals. Advances in treatment (protease inhibitors and anti-retrovirals) have turned HIV into a

chronic condition that can be managed by medications. It is a rare infectious disease that has managed to attract the focus of mental health which, in turn, resulted in a solid volume of works on mental health and HIV (Ciesla & Roberts, 2001). By studying the mental health of HIV, we can begin to understand some of the challenges generally associated with infectious diseases. We know, for example, that the lifetime prevalence rate for depression in HIV individuals is, at 22%, more than twice the prevalence rate in general population (Ciesla & Roberts, 2001).

We understand how depression in HIV individuals shows association with substance abuse and that issues of stigma, guilt, and shame affect the outlook for HIV patients, including their own adherence to life-saving treatments (Safren, et al, 2016). We know about medical treatments of depression in HIV and we have studies in psychotherapy for patients with HIV. Some of those approaches can be very useful in treating patients in the context of a pandemic. Given the contrast between the chronicity of the HIV and the acuity of a potential pandemic, most of those approaches cannot be simply translated from mental health approach to HIV and used for patients in a rapidly advancing outbreak or a pandemic.

4.3.3 "Swine Flu" or H1N1/09 Pandemic

The 2009 H1N1 pandemic was a reprise of the "Spanish flu" pandemic from 1918, but with far less devastating consequences. Suspected as a re-assortment of bird, swine, and human flu viruses, it was colloquially known as the "swine flu" (Trifonov, Khiabanian and Rabadan, 2010). It started in Mexico in April of 2009 and reached pandemic proportions within weeks (McNeil, 2009). It began to taper off toward the end of the year and by May of 2010, it was declared over.

It infected over 10% of the global population (lower than expected), with a death toll estimated varying from 20,000 to over 500,000 (Dawood, et al, 2012). Although its death rate was ultimately lower than the regular influenza death rates, at the time it was perceived as very threatening because it disproportionately affected previously healthy young adults, often quickly leading to severe respiratory compromise. A possible explanation for this phenomenon (in addition to the "cytokine storm" applicable to the 1918 H1N1 outbreak) is attributed to older adults having immunity due to a similar H1N1 outbreak in the 1970s (Nguyen-Van-Tam, 2010).

This pandemic also resulted in some valuable data studying and analyzing the mental health aspects of the outbreak. It was among the first outbreaks where policy reports included mental health as an aspect of preparedness and mitigation policy efforts. This outbreak of H1N1 was notable for dissonance between the public sentiment about the outbreak and the public health steps recommended and undertaken by WHO and national health institutions. General public sentiment was that of alarm caused by WHO releases and warnings, but it quickly turned to discontent and mistrust when the initial grim outlook of the outbreak failed to materialize (Garske, 2009). Health agencies were accused of creating panic ("panicdemic") and peddling unproven vaccines to boost the pharmaceutical companies (in 2009, some extra $1,5 billion worth of H1N1 vaccines were purchased and administered in the USA) (ABC News, 2009).

This outbreak illustrated how difficult it may be to gauge and manage public expectations and public sentiments in the effort to mobilize a response. It also demonstrated how distilling descriptions of the impact of a complex public health threat like a pandemic into

a single term like "mild," "moderate," or "severe" can potentially be misleading and, ultimately, of little use in public health approach (Leung & Nicoll, 2010).

4.3.4 Ebola pandemic (2014-date)

Ebola virus, endemic to Central and West Africa, with fruit bats serving as a likely reservoir, appeared in an outbreak in a remote village in Guinea in December 2013. Spreading mostly within families, it reached Sierra Leone and Liberia, where it managed to generate considerable outbreaks over the following months, with over 28,000 cases and over 11,000 fatalities. A very small number of cases were registered in Nigeria and Mali, but those outbreaks were quickly contained (Kalra, et al, 2014). Ebola outbreak, which happened to be the largest outbreak of Ebola infection to date, gained global notoriety after a passenger from Liberia fell ill and died in Texas in September of 2014, infecting two nurses caring for him, and leading to a significant public concern over a possible Ebola outbreak in the USA (Bell, 2016). This led to a significant public health and military effort to address the outbreak and help contain it on site (Operation United Assistance) (Bell, 2016).

4.3.5 ZIKA (2015-2016)

Zika virus was a little known, dormant virus found in rhesus monkeys in Uganda. Prior to 2014, the only known outbreak among humans was recorded in Micronesia in 2007. The virus was then identified in Brazil in 2015, after an outbreak of a mild illness causing a flat pinkish rash, bloodshot eyes, fever, joint pain and headaches, resembling dengue. It is a mosquito-borne disease (*Aedes Aegypti*), but it can be sexually transmitted. Despite its mild course, which initially made it unremarkable form the public health perspective, infection with Zika can cause Guillain-Barre syndrome in its wake in adults and, more

tragically, cause severe microcephalia in unborn children of infected mothers (a risk of about 1%) (Kindhauser, Allen, Frank, Santhanaa & Dye, 2016).

In Brazil, in 2015, for example, there were 2400 birth defects and 29 infant deaths due to suspected Zika infection (MFPM, et al, 2018). Zika outbreak is an illustrative case of the context of global transmission; it was transferred from Micronesia, across the Pacific, to Brazil, whence it continued to spread (Kindhauser et al, 2016). It is also a case of a modern media pandemic; it featured prominently in the social media. In early 2016, Zika was being mentioned 50 times a minute in Twitter posts. Social media were used to disseminate information, to educate, or to communicate concerns (Wood, 2018).

Its presence in social media, perhaps for the first time in history, allowed social researchers to study the public sentiment, also known as the emotional epidemiology (Ofri), in real time (Ofri, 2009). While both public health institutions and the general public voiced their concern with the outbreak, scientists and officials sought to provide educational aspect, while concerned public was trying to have their emotional concerns addressed. It is indicative that 4 out of 5 posts on Zika on social media were accurate; yet, those that were "trending" and gaining popularity were posts with inaccurate content (now colloquially referred to as the "fake news") (Sommariva, 2018). This is a phenomenon that requires significant attention in preparing for future outbreaks because it may hold a key not only to preparedness, but also to execution of public health plans that may involve quarantine and immunization.

Since 2016, Zika has continued to spread throughout South America, Central America, the Caribbean, and several states within the USA. It remains a significant public health concern, as there is no vaccine and the only reliable way to avoid the risk for the

offspring is to avoid areas where Zika was identified or to postpone pregnancy should travel to or living in affected areas be unavoidable (Kindhauser et al, 2016).

4.3.6 COVID-19 pandemic

The novel human coronavirus disease COVID-19 has become the fifth documented pandemic since the 1918 flu pandemic. COVID-19 was first reported in Wuhan, China, and subsequently spread worldwide. The coronavirus was officially named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) by the International Committee on Taxonomy of Viruses based on phylogenetic analysis. SARS-CoV-2 is believed to be a spillover of an animal coronavirus and later adapted the ability of human-to-human transmission. Because the virus is highly contagious, it rapidly spreads and continuously evolves in the human population (Yen-ChinLiu et al, 2020).

Coronaviruses are a large family of zoonotic viruses that cause illness ranging from the common cold to severe respiratory diseases. Zoonotic means these viruses are able to be transmitted from animals to humans. There are several coronaviruses known to be circulating in different animal populations that have not yet infected humans. COVID-19 is the most recent to make the jump to human infection.

Common signs of COVID-19 infection are similar to the common cold and include respiratory symptoms such as dry cough, fever, shortness of breath, and breathing difficulties. In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure, and death.

The COVID-19 infection is spread from one person to others via droplets produced from the respiratory system of infected people, often during coughing or sneezing. According to current data, time from exposure to onset of symptoms is usually between two and 14

TABLE 1

Major pandemics that have occurred over time

Name	Time/period	Type/pre-human host	Death toll
Antonine plague	165-180	Believed to be either small pox or measles	5M
Japanese smallpox epidemic	735-737	Variolar major virus	1M
Plague of Justinian	541-542	Yersinia pest bacteria/rats, fleas	30-50M
Black death	1347-1351	Yersinia pest bacteria/rats, fleas	200M
New world smallpox outbreak	1520-onwards	Variolar major virus	56M
Great plague of London	1665	Yersinia pest bacteria/rats, fleas	100,000
Italian plague	1629-1631	Yersinia pest bacteria/rats, fleas	1M
Cholera pandemic 1-6	1817-1923	V-cholera bacteria	1M+
Third plague	1885	Yersinia pest bacteria/rats, fleas	12M (China & India)
Yellow fever	Late 1800s	Virus/mosquito	100,000-150,000 (U.S)
Russian flu	1889-1890	Believed to be H2N2 (Avian origin)	1M
Spanish flu	1918-1919	H1N1 virus/pig	40-50M
Asian flu	1957-1958	H2N2 virus	1.1M
Hong Kong flu	1968-1970	H3N2 virus	1M
HIV/AIDS	1980-present	Virus/chimpanzees	25-35M+
Swine flu	2009-2010	H1N1 virus/pig	200,000
SARS	2002-2003	Coronavirus/bats, Civets	770
Ebola	2014-2016	Ebolavirus/wild animals	11,000
MERS	2015-present	Coronavirus/bats, camel	850
COVID-19	2019-present	Coronavirus-unknown	3M-still counting

Source: Compiled by the author with the aid of information from media sources

days, with an average of five days (Vince, 2020).

Highlights of major plagues, epidemics and pandemics that have affected the world can be found in the table as indicated in table 4.1 above, the world has witnessed several plagues, outbreaks, epidemics and pandemics since the existence of man on earth. Most of these diseases were contained either through the development of vaccines or through preventive/containment measures. However, the Spanish Flu of 1918 appears to have had more global impact in recent time. Over 50 million people died as a result of this disease. Before this, the Black Death pandemic of 1347 had the worst devastating death record. Over 200 million people lost their lives to this pandemic.

Contemporarily, the present COVID-19 pandemic, S.A.R.S- COV and M.E.R.S-COV have semblance in the symptoms and other features. The common known symptoms include fever, cough, myalgia or fatigue, pneumonia, and complicated dyspnea, where as Less common include headache, diarrhea, hemoptysis, runny nose, and phlegm producing cough (Hange, 2020).

4.4 A historical overview of Nigeria's public health system

The aphorism that health is wealth is germane. Thus, a nation that neglects its health sector is bound to face huge challenges as a healthy citizenry most often approximate to a dedicated workforce. This accounts for the reasons many countries pay special attention to the training, retention and remuneration of their healthcare personnel. Therefore, let us consider the Nigerian healthcare sector since independence in 1960. Since 1960 onwards; the healthcare system of Nigeria has not been given priority. For instance, the health policy promulgated in 1954 gave birth to National Health Service. The health policy

envisaged rural hospitals with 20–24 beds; to be supervised by a medical officer who would ensure that dispensaries, maternal and child welfare clinics and sanitation works were adequately provided (Emuakpor, 2010). However, this target was not met by 1975. By 1975, at the inception of the Third National Development Plan, it became obvious that not much had been done to achieve the goals of the Nationwide Health Care Services Policy. It was such that General Yakubu Gowon lamented that development in the health sector was yet to be marked by any spectacular achievement during the past decade (Emuakpor, 2010). Albeit, from 1975, new plans were nurtured as regards the improvement of Nigeria's Healthcare system; hence the system was placed in focus when in 1978 (Abosede and Sholeye, 2014), the global target of "Health for All" was declared by the World Health Organization (Fran, 2007; World Health Organization, 1978). In a tireless pursuit of the global health target, the Primary Healthcare (PHC) was adopted and accepted universally to be the *sine qua non* to healthcare development (Abosede and Sholeye, 2014).

Primary health care, as defined in the Alma Ata declaration is the, "essential care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their full participation, and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination" (World Health Organization, 1978; 1–2). In the light of this, Nigeria, contemporaneously. began to initiate major attempts towards perfecting her primary healthcare system. Historically, these major attempts fall into three categories each with its own chequered performance. The first attempt occurred between 1975 and 1980 with the introduction of

the Basic Health Services Scheme (BHSS) by the Federal Ministry of Health through the Basic Health Service Implementation Agency. The BHSS provides for the establishment of three levels of healthcare facilities: Comprehensive Health Centers (CHC) to serve communities of 5000–20, 000 persons; Primary Health Centers (PHC) to serve communities of 5000–20, 000 persons; and Health Clinics (HC) to serve communities of 2000–5000 persons (Emuakpor, 2010). The strategies for the realization of BHSS include the promotion of community mobilization, the involvement of other sectors, functional integration and the strengthening of managerial processes. Unfortunately, this modest health policy vision failed at implementation on the grounds of poor community participation, faulty citing of health facilities, stolen equipment, lack of political commitment as well as inadequate orientation and distribution of the health workforce (Eme et al., 2014; Adebayo, 10 April 2020; Aigbiremolen et al., 2014; Abosede and Sholey, 2014). Consequent upon this, the primary health quality indicator and coverage remained frail and thereby led to the District Health System of 1986–1992. It is crystal clear that Nigeria healthcare plan is haphazardly implemented, thus leaving a weak foundation. Without getting the Primary Healthcare right, it jumps to the next stage, creating yawning gaps that need to be addressed before a holistic healthcare system could emerge.

The District Health System (1986–1992) began with the development of "Project Formulation Documents" or Action Plans that were funded by the Federal government in 52 selected pilot local government areas. Through this scheme, each local government area was given a minimum of 7 PHCs and 30 HCs with at least one CHC at the apex of the healthcare services; while larger LGAs were given at least 12 PHCs and 50 HCs that

fed into one or more CHCs (Emuakpor, 2010). This system was strengthened by Bamako Initiative activities in 1988 during which PHC facilities had seed drugs that enabled them to operate drug revolving funds jointly administered with their community development committees. Yet similar to the first effort, the District Health System experienced only but partial success with similar hackneyed factors that undermined BHSS: poor involvement, poor funding, lack of appropriate infrastructure, equipment (Eme et al., 2014; Adebayo, April 10; Adebayo, 2020) and substandard drugs and materials. More so, the paucity of basic health statistics and inequitable distribution of manpower and poor logistics persisted (Abosede and Sholey, 2014; Aigbiremolen et al., 2014). Thus, the inability of DHS to achieve a complete success ushered in the third and current effort. In stages of development, the mastery of every stage is imperative. Half measures cannot lead to an enduring next phase. This is the crux of Nigeria's Healthcare challenges which require dispassionate reappraisal before a sustainable healthcare system can be achieved.

Furthermore, the National Primary Healthcare Development Agency (NPHCDA) established in 1992 was the third attempt to perfect and systematize basic healthcare system. Aside the announcement of its establishment, no obvious contributory step was taken until the turn of the democratic era when efforts were commenced towards its implementation beginning first with the institution of Ward Health System (WHS) in 2001 which utilized, among other means, the electoral ward (with a representative councilor) as the basic operational unit for primary healthcare delivery (Abosede and Sholey, 2014; Aigbiremolen et al., 2014). What is more, the Ward Minimum Health Care Package (WMHCP), which outlined a set of cost-effective health interventions with significant impact on morbidity and mortality, was also developed; and among its

packages were the Integrated Management of Childhood Illnesses (IMCI), Integrated Maternal, Newborn and Child Health (IMNCH) services, etc. Other sub-NPHCDA efforts that were intermittently conceived and pursued through the years till present times include the Reactivation of Routine Immunization, Polio Eradication Initiative, Midwives Service Scheme (MSS), Primary Healthcare Reviews, Integrated Primary Healthcare Governance, strengthening of the National Health Management Information System (NHMIS) and the bi-annual Maternal Newborn and Child Health Weeks (MNCHW), etc. (Abosede and Sholey, 2014; Aigbiremolen et al., 2014). Despite these facilitations, the NPHCDA, till date, alongside Nigeria's Revised National Health Policy (Nigeria Federal Ministry of Health, 2004) and the state of Primary Healthcare System are yet to achieve perfect success stories and this is with regard to colossal neglects. Consequently, this neglect led to mortality rate being one of the highest in the world and averagely in Sub-Saharan Africa. The issues accounting for this high mortality rate are: (a) weak health systems; (b) all time low immunization coverage; (c) secondary health facilities in prostrate conditions; (d) outdated and non-functional diagnostic and investigative equipment in tertiary institutions; (e.) prevalence of fake and adulterated drugs; (f.) public expenditure in health less than 8 USD per capita, as against 34 USD recommended internationally; private expenditure estimated to 70% with most of it from out-of-pocket; (g) absence of partnership between private and public health sector; (h) mismanagement of limited health resources and (i) a poor coordination of international community donors.

Nonetheless, irrespective of the obvious decay in the healthcare system in Nigeria, the situation has not improved especially with respect to effective implementation and

funding. Between 2003 and 2005, correlated records on Health Development efforts indicated that Federal, State and Local governments accounted for 12%, 8%, and 4% respectively (Uzochukwu et al., 2015). More so, the total government's health expenditure, as a proportion of the Total Health Expenditure, was estimated at 18.69% in 2003; 26.40% in 2004 and 26.02% in 2005 respectively (Soyibo et al., 2009). Basically, what these reveal is that the federal government's capital expenditure as regards the health sector has dwindled over the years. In the Abuja Declaration, which Nigeria and 43 other African countries signed in 2001, a commitment to spending 15% of annual budgets on public health were made; however, this has not been achieved over the years (Obansa & Orimisan, 2013). Additionally, up to the year 2020, the budgetary allocation for health still remains below the 15% expenditure that was signed by the Nigerian government in the Abuja Declaration (Yanusa et al., 2014). Even in the face of this, Nigerian leaders continued to squander large fortunes on foreign medical treatment for its officials. According to the Nigerian Health Sector Market Study Report (2015: 15) "Nigerians spent an estimated 260 USD million on medical bills in India alone in 2012 and 40% of all visas to India were for medical reasons. The Nigeria Medical Association (NMA) estimates that Nigeria spend 500 USD million to USD one billion on medical tourism per year." Against this background, Abubakar et al. (2018) noted that in 2013, Nigerians spent 1 USD billion on foreign medical trip with a majority being Nigerian politicians. Similarly, the BBC (June 7, BBC, 2016) also reported how the Nigerian President, Muhammadu Buhari traveled abroad to treat an ordinary ear infection. It is being suggested that the huge medical bills incurred by Nigeria for its political leaders abroad could be utilized in addressing its health infrastructural deficit. Many Nigerian

trained medical doctors and nurses are being enticed by Western countries with good remuneration and better working conditions. Some doctors in Nigeria are frustrated by epileptic power supply and lack of modern medical equipment. The political leadership appears indifferent to the parlous medical situation because of the ease with which they travel abroad for medical checkup for themselves and members of their immediate families. In 2017, President Muhammadu Buhari spent more than 100 days in a London hospital. Perhaps, the Nigeria government does not see the president's hospitalization outside the country as a national security risk. There also appears no jolt of conscious local patriotism among the political elite that allows its symbol of sovereignty, the president to be treated outside the country. The clarion call for revitalization of healthcare system in Nigeria is predicated on such embarrassing situation whereby our scarce foreign exchange is expanded on medical trips abroad for government officials and businessmen who could afford it. The issue is that Nigeria has both the manpower and resources to maintain world class hospitals but inept political leadership and crass corruption have vitiated them. The coronavirus pandemic is a wakeup call on Nigerian leaders to urgently address the dilapidated healthcare system or else perish because of lack of foresight when world-wide health crisis might force other countries to close their borders to medical tourists like Nigerian officials.

Unfortunately, in the same period, studies conducted on sudden deaths by Olayinka et al. (2013) (SD) revealed that out of 48 cases, 35.5% was by communicable diseases, 60% by non-communicable diseases while the overall adult mortality reported on CD cases was 718. In 2011, following the need to tackle rising health challenges, the Nigerian Center for Disease Control (NCDC) was established. But up to 2016 government's funding of

the health sector still lagged behind. More so, from 2016 to 2020, the trend remained static and even in some instances deteriorated. For instance, in 2016, only N155m naira out of N251m naira was released to NCDC and during this period, 1,166 Nigerians died of Cerebrospinal Meningitis (Chidebe, April 4, Chidebe, 2020). What is more, in 2017, the NCDC was given N782m out of N1.5billion budget whereas N1billion was recorded to have been spent by the president on foreign medical trip abroad in 2017 (Mbamalu, Oyebade and Oyedoyin, February 17, Mbamalu et al., 2017).

By November 2018, the act establishing NCDC was signed into law by President Muhammed Buhari (Obi-Ani et al., 2020,6). This happened following Bill Gates' criticism of Nigeria's poor funding of her primary healthcare system. Yet in the same year, despite Gates' criticism, only N654m was released out of a total proposed budget of N1.9b by NCDC (Chidebe, April 4, Chidebe, 2020). In 2019, it was hoped that funding for the health sector will improve dramatically but stunningly, the year marked the worst budgetary allocation to NCDC with an N224m release out of an N1.4b budget. Similarly, in the face of the COVID-19 Pandemic, only a meager amount was released to the NCDC despite donations made by individuals, international organizations and other world governments to Nigeria. Consequent upon this, Covid-19 testing laboratories and centers were sparsely distributed. In a country with a population of over 200 million, as of 17 April 2020, the country had only 169 ventilators serving an estimate of 1,266,440 persons per ventilator (Maclean and Marks, April 18, Maclean & Mark, 2020). More so, 70% of ward health centers are severely outdated, dilapidated and short of essential and affordable drugs with a lot of epidemiological cases gaining momentum (Obi-Ani, 2020).

4.5 Analysing Covid-19 Pandemic and the Politics of Global Health Security in Nigeria

4.5.1 Analysis of data pertaining to research questions

Analysis of COVID-19 lockdown and its effect on public health security in Nigeria

Every plague, epidemic and pandemics has their unique peculiarities. It is these peculiarities that do determine mitigation measures especially where vaccines are not readily available. Understandably, 'public health emergencies can arise from a wide range of causes, one of which includes outbreaks of contagion. The world has continued to be threatened by various infectious outbreaks of different types that have global consequences. While all pandemics are unique in their level of transmission and breadth of impact, the 2019 coronavirus disease (COVID-19) pandemic is the deepest global crisis of the 21st century, which has affected nearly every country globally' (Belete et al, 2020).

Global response to COVID-19 pandemic has been unique and essentially centers on containment and preventive measures more than curative. At the start of this pandemic in late 2019, there was no known vaccine. As such, adoption of lockdown to limit rate of transmission was largely adopted.

Lockdown has been used within the literature to refer to measures associated with varying levels of restriction on movement, social interactions, and economic activities that are introduced in society, mostly by government, to reduce or completely eliminate disease transmission (Mboera et al, 2020; Haider et al, 2020). COVID-19 related lockdowns as we have seen in Africa or elsewhere for that matter involve region- or country-wide implementation of restrictive measures that exist along a spectrum of

severity (from less intrusive to more intrusive) that is defined largely by geography/jurisdiction and, as a common thread, seeks to limit activities of, and association between, persons. Restrictive measures, such as quarantine, isolation, social distancing, curfews, school and business closures, and travel restrictions, are effective infection control and prevention measures, when used in a timely and comprehensive fashion, that minimize opportunities for person-to-person transmission and community spread of a virus (Nussbaumer-Streit et al, 2020).These measures, however, are costly – imposing both significant individual and societal burdens (Broadbent, 2020; Brooks, 2020). Thus, in order to be epidemiologically and ethically justifiable, a lockdown needs to have a greater balance of benefits over burdens when being implemented, including considerations about the duration, breadth, and intensity of the restrictive measures involved.

In most societies, including Nigeria, the employment of a lockdown strategy, as we have seen with COVID-19, is meant to be a first-line, time-limited pandemic response. Lockdowns was envisaged to be an effective pandemic response strategy that allows us to buy time – and this is how they were sold to the public with the rallying cry to endure short-term pain in order to "flatten the curve" or "crush the curve" – but buying time for what? In developed countries, the rationale for adopting a lockdown strategy was clear:

> It bought time to scale up response capabilities. Slowing down the transmission of the virus and maintaining surge capacity within the healthcare system bought them time by seeking to minimize infections and their consequences, while at the same time providing the opportunity to build up preventative (e.g., personal protective equipment for healthcare

> workers; masks for the general public; vaccine development), diagnostic (e.g., validating and producing testing kits; training contact tracing personnel or developing a tracing app), and therapeutic (e.g., drugs, ventilators) supplies (Eyawo, Viens, & Ugoji, 2021: 173).

There were many Low and Middle Income Countries (LMICs) that rapidly moved towards implementing broad restrictive measures in early 2020. Nigeria was one of such countries. However, without due contextual consideration of their associated challenges and impacts, such efforts only seemed to delay the long-term burdens to come (Nantulya & Mavhinga, 2020). While the use of lockdowns did slow down viral transmission to some extent, the overall rationale for their use in LMICs including Nigeria is less clear especially in terms of the balance of the burdens over the benefits – unlike developed countries who generally tend to have relatively robust healthcare system capacity, income support to allow people to make the choice to stay home, employment opportunities that allow a large number of people to work from home, and a telecommunications infrastructure that facilitates online education. Without the necessary capacity, infrastructure, and resources to maintain sustained compliance with a lockdown strategy, lockdown measures in LMICs risk leading to tragic consequences, e.g., starvation, economic ruin, neglect of other pressing health issues (Mobarak & Baernett-Howell, 2020).

The desirability or otherwise of lockdown adoption measure in Nigeria was subject to public debate. In an interview with a director in Nigeria's Centre for Disease Control (CDC), he argued:

> There is no better approach towards curtailing this novel pandemic other than to follow the WHO directed guidelines. Nigeria's huge population and poor health awareness among its citizens justifies the use of lockdown as a measure.... No country prepared adequately for this pandemic just like Nigeria too. Nigeria must choose between temporary restrictions and exposure to high infectious risk of the disease. For us, lockdown is a better choice. In essence, this lockdown measure, to us, is the best way to follow to flatten the curve (Field work, 2021).

In a similar opinion, the Director General Nigeria Centre for Disease Control adduced reasons justifying the adoption of lockdown:

> The prime aim of lockdown is to flatten the COVID-19 curve through a persistent reduction in the confirmed cases, and ensuring that infected persons quickly recover from the virus. During lockdowns, people are expected to stay at home. Also, location of contacts such as schools, universities, hotels, clubs, and religious houses are closed, social gatherings involving above 20 people are prohibited and economic activities involving physical interaction are halted. In essence, this measure though painful but is clearly inevitable if we are to safeguard our public health (Field work, 2021).

So, on the heels of the persistent increase and spread of the COVID-19 virus in the Nigerian case, the federal government eventually announced a nationwide lockdown on March 30, 2020, taking immediate effect in three states of the federation: Lagos, Ogun,

and Abuja. This was further extended for two weeks with the inclusion of Kano on 27 April 2020. This lockdown exercise could not, however, be sustained in the face of growing agitations of the people occasioned by the excruciating socio-economic consequences of the exercise, thus prompting the easing of the lockdown in these states on May 4, 2020. This singular decision has consequently led to the rising cases of the virus across the states. According to official data, the reported daily case of the first day of easing-May 4, 2020, saw the pandemic rising to 245, the highest since the first index case was reported for the country (NCDC situation report, 2020).

Despite the seeming unanimous global acceptance and adoption of lockdown as a measure to combat this pandemic, a section of the people in Nigeria believes that this measure in itself (in isolation) is unnecessary. In an interview with a public affair analyst who prefers to be anonymous, he argued:

> Lockdown as much as we know, is nothing more than copying what other countries are doing. But even at that, people supposed to ask: lockdown for what? An answer to this question should reveal that Nigeria is simply adopting this measure to fit into global health security agenda. Beyond this, they are not ready to detect, test and treat patients. The public health facilities are not in anywhere near ready to handle patients and isolate them accordingly.....my take remains: Nigeria is rushing to lockdown to attract global funding and attention (Field work, 2020).

Nigeria has had three major phases of lockdown amidst the growing concerns on the impact.

TABLE 2

Phases of the lockdown in Nigeria

Phases (2020-2021)	Modalities/measures	Effect
Phase 1 From: May 4-June 1	First applicable to Lagos, FCT, Abuja a nationwide curfew of 8 pm to 6 am Restrictions on inter-state travels Restrictions on social gatherings	Limited number of cases recorded
Phase 2 From: June 2 to June 29	Modification of the nationwide curfew from the initial 8 pm – 6 am to 10 pm –4 am daily. The curfew however does not apply to journalists and healthcare workers. Banks are now to resume their normal operations Work to resume in government offices on Mondays through Fridays from 9 am to 2 pm. Interstate movement remains restricted Hand washing/sanitizing practices are required for individuals and organizations. There is a ban on gatherings of above 20 people outside of the workplace.	Relatively flattened the curve
Phase 3. From: June 30 to Monday 27 July 2020	Re-opening of airports resumption of schools for returning students in secondary schools with the graduating set to resume first lifting of the ban on interstate travels. use of facemasks in public places also remains mandatory and now punishable by law	Limited number of cases

Source: Author's compilation with the aid of information from media sources

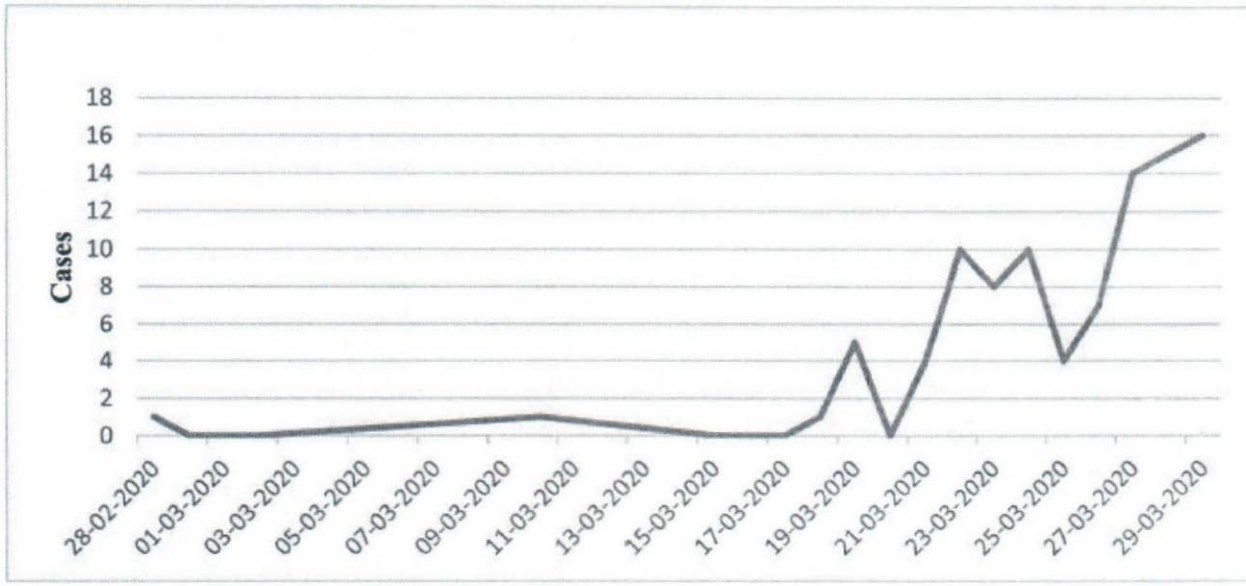

FIG. 1 Pre-lockdown COVID-19 cases
Source: Ibrahim, Ajide & Olatunde (2020:399-404).

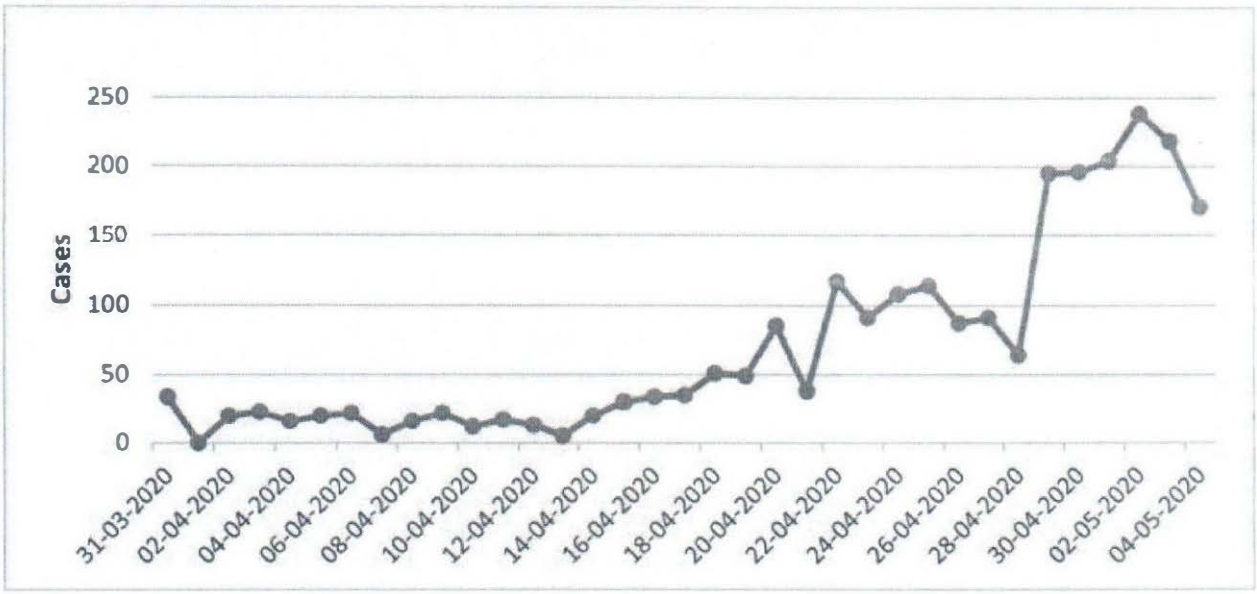

FIG. 2 Lockdown COVID-19 cases
Source: Ibrahim, Ajide & Olatunde (2020:399-404).

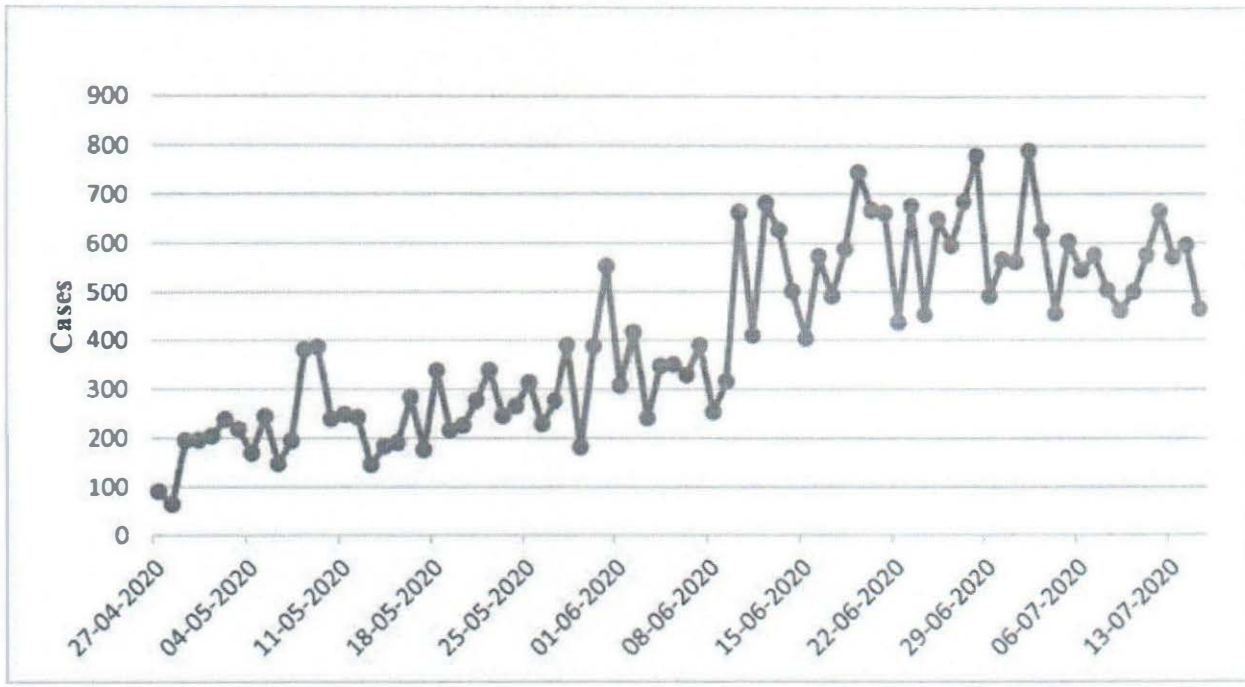

FIG. 3: Easing up lockdown COVID-19 cases.
Source: Ibrahim, Ajide & Olatunde (2020:399-404).

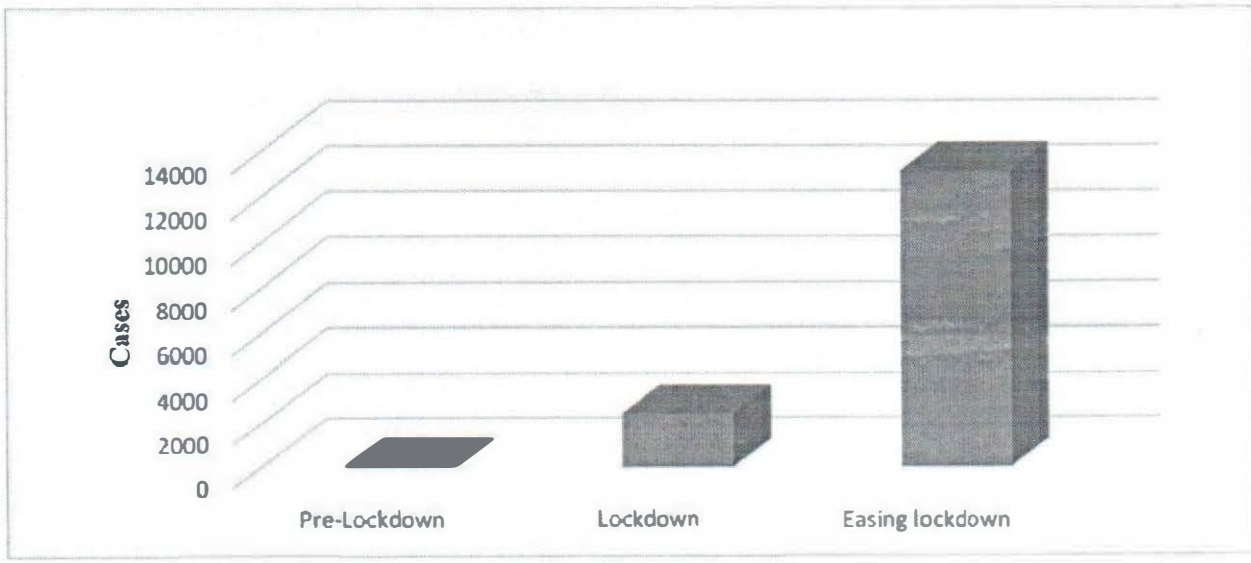

FIG. 4 Summary of COVID-19 Episodes
Source: Ibrahim, Ajide & Olatunde (2020:399-404).

The three episodes of lockdown and the concurrent COVID-19 cases as depicted in table 5.1 to 5.4 suggest that the lockdown helped in flattening the curve of COVID-19 transmission. the situational analysis for both lockdown reports and coronavirus cases for the three episodes experienced in the Nigerian context, which are pre-lockdown (Fig. 5.1), lockdown (Fig. 2), and easing up lockdown (Fig. 3). The various days for each period include 31 days for pre-lockdown (28 February – March 29, 2020), 35 days for the total lockdown (March 30 – May 3, 2020), and 73 days for the gradual easing up of lockdown (May 5 – July 15, 2020).The summary of the three episodes as presented in Fig. 4 shows that the cases recorded in the easing up period outstripped both lockdown and pre-lockdown as a whole. Another insight from Fig. 4 is that the trend in COVID-19 cases has persistently maintained an upward slope, which further raises concern about the ongoing easing up phases and surreptitiously justifies the lockdown.

The pre-lockdown records witnessed a gradual increase in the confirmed cases with the highest being 16 cases. The lockdown period saw a close range of differences in the reported cases with a gradual increase in the early stage. However, in the latter part of the lockdown when people started flouting the lockdown order, there was a sporadic increase with the highest being 238 reported cases in a single day. The first day of the easing up saw 245 cases reported, which are the highest since the first incidence of the novel virus in the country. Since then, the cases have continued to increase sporadically with over 600 cases being repeatedly recorded.

Figure 5 presents the summarized cases for the three periods where the total aggregate for the easing up surpasses 32,434.

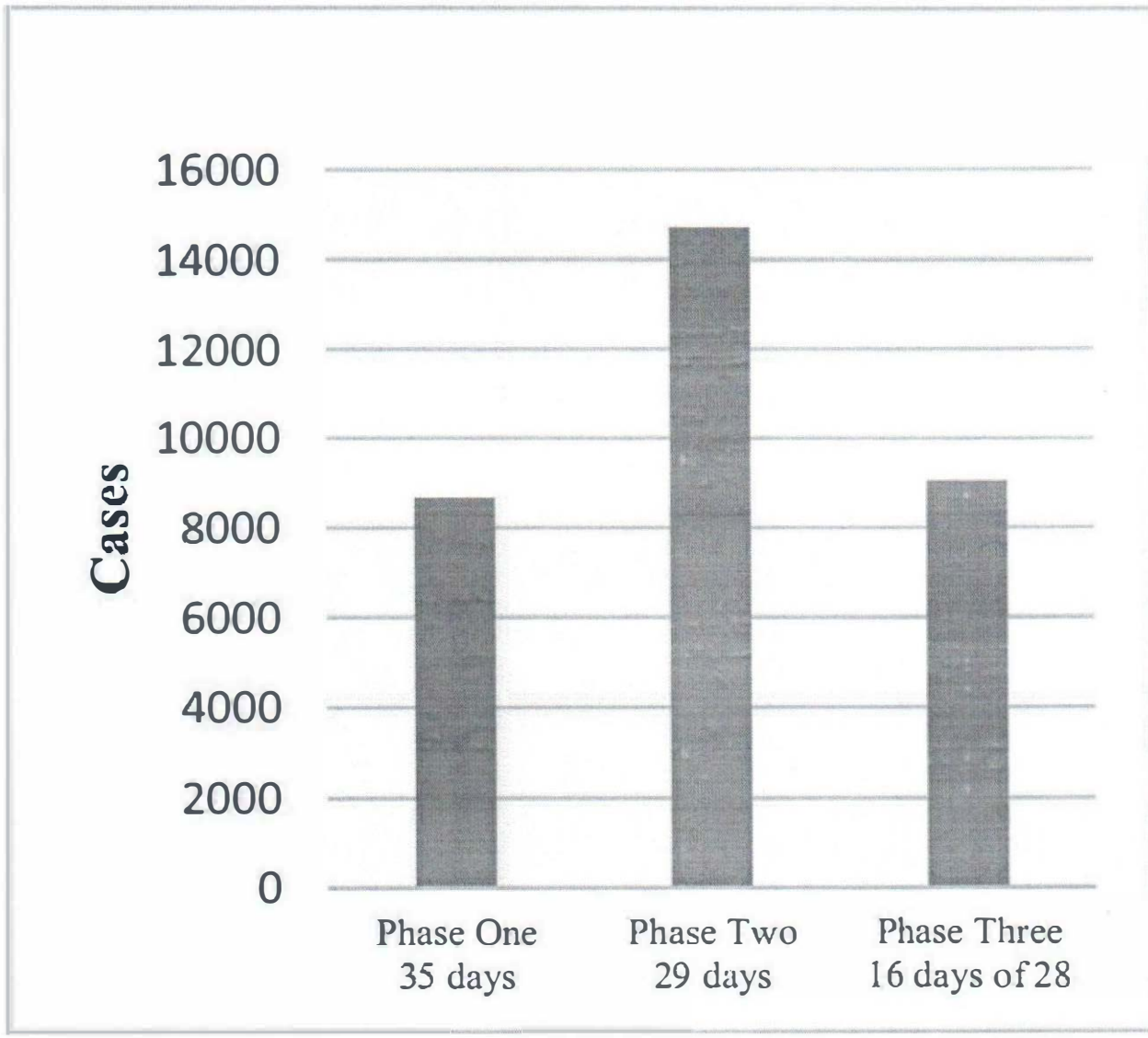

FIG. 5: Summary of the three lockdown phases and cases
Source: Ibrahim, Ajide & Olatunde (2020:399-404).

Further timeline analysis of the phased easing of the lockdown as presented in figure 5.5 above summarizes the three phases. The phases comprising the phase one (27 April – May 4, 2020), phase two (May 5 – June 29, 2020), and phase three (June 30 – July 27, 2020). Each phase has persistently recorded increasing cases of COVID-19 thus putting a question mark on the decision leading to the phased easing. For instance, phase one witnessed a total number of 8673 additional cases for the 35 days, which surpasses the aggregate cases both in the pre and during lockdown periods that summed 1183 cases for 48 days. This implies that the easing of the lockdown is doing more harm than relief for the general wellbeing of the populace especially as it regards public health security. Surprisingly, the number of days in the pre and during lockdown is 13 days more than phase one, yet COVID-19 cases in the latter are 7,490 more than the former. Despite this alarming situation, the government still went ahead on a further easing in phase two for 29 days. Within the second phase period, the country recorded additional cases of 14,712, which are far higher than phase one despite the fewer days to it. 16 days to the third phase of the lockdown easing, the additional cases of 9,049 were recorded. In all, there are clear indications of the escalating trend of high margins as the government continues to ease the lockdown.

While the lockdown may have worked in containing the pandemic, the side effect of the lockdown is a subject of debate. The consensus of major analysis on the impact of the lockdown shows that it had significant adverse effects on household incomes, demand for goods and services, and the economy's output in 2020 (Andam et al, 2020). A multi-sectoral analysis of the impact of the lockdown shows that the Nigeria economy was

badly affected while the severity of unemployment, poverty and hunger was clearly evident.

In an interview with a financial expert, the impact of the lockdown on household income was preponderant. According to him:

> The informal sector is the highest employer of labour in Nigeria. Nigeria has a huge population of self-employed persons in the informal sector: an army of cab drivers, motorcyclists, barbers, event-center managers, hairstylists, make-up artists, artisans and traders who work daily to earn a living and are now stranded at home, unable to sustain themselves. Their home economics has been violated. Their daily source of income has been wiped out. While the rich may have savings and be able to fall back on financial reserves, the poor who hardly ever save, and rarely have any surplus to save for the rainy day, because for them it rains every day and rarely have any surplus to save. In absence of any form of palliative to cushion the effect of hunger at home, there is impeding social unrest. Already, Nigerians are flouting the lockdown amidst government's determination to enforce it (Fieldwork, 2020).

An estimation of the severity of the lockdown shows that the exercise increased the level of poverty, unemployment and socio-psychological state of so many Nigerians. Many citizens whose means of livelihood depend on daily income had to cope under zero income within the period. In absence of any form of government social security interventions, there was serious discontentment leading to gangsterism, armed robbery

and other social crimes geared towards survival. According to Abati, one of the worst consequences of this lockdown is the pandemic of irresponsible government, poverty, unemployment and rape. In his words:

> Since February 27, when the first index case of COVID-19 was reported in Nigeria, and that satanic, virulent virus overwhelmed our lives, Nigeria has had cause to deal with other convergent afflictions: the first, in my view, is the pandemic of irresponsible governance, as evidenced by the kind of poor leadership responses that we have witnessed in some states of the federation, and the growing narrative that some key players may have turned the main pandemic itself into a racket. The second is the pandemic of insecurity – even with states and borders on lockdown, bandits, criminals and terrorists – whichever label suits your fancy – have been running riot across the country, particularly in the North East/West, where villages are sacked in one day, for hours on end; Southern Kaduna, where villages have been razed and murder has been committed on a large scale; and elsewhere in the country where members of the middle class are now afraid of their own shadows. The third is the poverty pandemic: Lockdowns, shutdowns and the obvious possum-isation of all processes, have resulted in the loss of income; the suspension of jobs or their outright loss; a sharp rise, of course, in unemployment figures; and the abbreviation of hope in the face of inflation and economic contractions. The fourth is the pandemic of rape (Abati, 2020).

Other consequences of the forced lockdown have been noted. However, the growing cases of rape and other domestic violence are the major concerns of Abati in this report. It was reported in what some have termed a "shadow pandemic" that the lockdown exposed millions of women and girls to greater levels of violence that persisted even before the Covid-19 pandemic (UNICEF, 2020).In July 2020, the Nigerian Minister of Women Affairs and Social Development, Senator Pauline Tallen, stated that no fewer than 3,600 cases of rape were reported in Nigeria during the lockdown (Sahara reporters, 2020).This rise in sexual violence during the Covid-19 pandemic follows similar trends in other countries, including the United Kingdom, Singapore and Canada, who all witnessed an increase in sexual assault related distress calls during their respective lockdowns (UK Aid, 2020).

In an interview with a director in the ministry of Humanitarian Affairs, he confirmed that Nigeria has witnessed exponential rise in Gender Based Violence, suicides and other forms of expressions of psychological disorders and depressions. In his words:

> Our peculiar experience shows that the lockdown restricted the victims to their predators. Women and children essentially became totally vulnerable to the people who suppose to care for them.....In Kano State, police recently arrested a serial rapist who had raped 40 women over the course of the year by climbing fences and raping women indoors. Likewise, Sokoto State reported 606 cases of rape in 22 local governments' areas in 2019.....Late Uwaila Vera Omozuwa a 22-year old microbiology student of University of Benin in Edo state was also recently raped to death in a

> church where she had gone to read. She was raped, beaten and hit with fire extinguisher on her head. Infact, I believe that the numbers of cases are under reported (Field work, 2021).

Outside the rising cases of rape and domestic violence, there were high incidences of police and security forces brutality against the citizens as well as extortion. This was ostensibly on the heels of the need to enforce the lockdown restrictions across the state. The National Human Rights Commission (NHRC) and other human right agencies reported that Nigerian security forces killed 18 people in two weeks while enforcing lockdowns imposed to halt the spread of the new coronavirus (Aborishade, 2021). According to the report:

> Law enforcement agents extra judicially executed 18 persons in the cause of the enforcement regulations related to lockdown measures. We have eight documented incidents of extrajudicial killings leading to 18 deaths" between March 30 and April 13. The killings were carried out by the Nigerian Correctional Service, the police force and army. Most of the violations witnessed during the period arose as a result of excessive or disproportionate use of force, abuse of power, corruption and non-adherence to national and international laws, best practices and rules of engagement. Besides the killings, we had received 105 complaints of alleged human rights violations in the first two weeks of the lockdown (NHRC, 2020).

Avalanche of reported human right abuses culminated in various reports in the country that police enforcing lockdown to prevent the virus spread had killed more people than the virus itself (AfricLaw 2020; BBC News 2020). The Premium Times (2020b) also reported a viral video showing a policeman extorting the sum of N40,000 ($103.40) from a man whose car had been confiscated for apparently flouting the lockdown orders. In July, a woman, who was identified as a widow and mother of two children, was reported to have been arrested by a named police officer in Port-Harcourt, Rivers State, for not wearing a nose mask, and forcefully taken to a guest house where she was sexually assaulted (Punch, 2020a).According to the report, the officer, who threatened to kill the woman if she resisted his sexual advances, demanded the bank account details of the woman from her and transferred the sum of N2,000 ($5) into her account as compensation, apparently, for sexually assaulting her.

Indeed, extant studies and policing literature have widely reported the Nigerian police engagement in physical violence and torture in dealing with crime suspects at the point of arrest and in custody (Aborisade and Obileye 2017; Famosaya 2020; NOPRIN 2010). However, what is new is the use of such violence on civilian population as part of efforts to safeguard public health. Evidently, the securitization of COVID-19 and the attendant enforcement measures have eroded human rights and security of many citizens.

4.5.2 Analysis of government's investments in public health infrastructure amidst COVID-19 pandemic and public health security in Nigeria

As an important element of national security, public health not only functions to provide adequate and timely medical care but also track, monitor, and control disease outbreak.

The state of health care infrastructure is fundamental to public health security. In most countries in Africa, the decay in health sector undermines access and quality service to the citizens. The Nigeria's experience is not different.

The Nigerian health care system has decade history of undeserving quality services arising from neglect, poor and debilitating public health infrastructure. The COVID-19 pandemic simply highlighted this gap and exposed the problem. According to the 2009 communiqué of the Nigerian national health conference, health care system remains weak as evidenced by lack of coordination, fragmentation of services, dearth of resources, including drug and supplies, inadequate and decaying infrastructure, inequity in resource distribution, and access to care and very deplorable quality of care. The communiqué further outlined the lack of clarity of roles and responsibilities among the different levels of government to have compounded the situation (NNHC, 2009).

One area that is crucial for healthcare security is the capital budget. A budget allows an organization to better understand which funds can be spent on a certain project or section, and how much spending should be allotted to each. Developed countries invest a substantial proportion of their budgetary allocations on provision of health care because they are convinced that their resident's health can serve as a major driver for economic growth. As health is wealth, no amount spent on health by a nation is considered too much. Healthcare spending is a critical expense for most nations and their citizens in order to stay healthy and cared for (Investopedia, 2020).

The WHO recommends that countries should spend 5 percent of national income on health care (Savedoff, 2003) while the United Nation (UN) recommended for a country,

an average of 8 to 10 percent of the GDP as benchmark expenditure on health (Oni, 2014). While this may not be a problem to developed countries, it actually is for so many countries in Africa. Nigeria's case is intriguing. *For example, Nigeria's public spending on health care amounts to just 3.89% of its $495 billion GDP (gross domestic product), according to the latest available figures from the World Bank, compared to 8.25% in South Africa and 5.17% in Kenya (Oni, 2014).*

Governments in Nigeria, over the years have made deliberate efforts at ensuring that there is increase in the level of public expenditure on health. For example, the capital expenditure of government rose from N7.3 million in 1970 to N126.75 in 1987. In 1988 there was a significant rise to N297.96m. The figure rose steadily fromN586.2 million in 1993 to N17717.42, N33396.97and N34647.9m in 2003, 2005 and 2007 respectively. The capital expenditure on health increased from N64922.9in 2008to N98211.51 in 2010. In a similar manner, in1970, recurrent expenditure on health was N12.48 million. This figure rose significantly to N52.79million and N134.12million in 1979and 1986 respectively when the recurrent expenditure percentage of total expenditure stood at 77.4% percent. The value of recurrent health expenditure reduced significantly in 1987 to N41.31m before it rose steadily from N422.80. in 1988 to N24522.27m in2001. This figure rose again from N40621.42 in 2002 to N44551.63, N5 8686.56 and N72 290.07 in 2005, 2006 and 2007 respectively. By 2008, recurrent expenditure increased from N73990 to N77657.43 in 2010. The above trends clearly show that health care expenditure in Nigeria has been on the increase over the years. This is because of the importance of health to nation building and as a facilitator of economic progress. It should however be noted that despite the increase in government expenditure on health

provisions in Nigeria, the contribution of this to human health is still marginally low (Oni, 2014).

Recently, particularly since 2014, the budgetary provisions for health care sector have been on steady decline and the situation is a reflection of disproportionate distribution in health system financing (Lawanson, 2013). Over the years, healthcare financing in Nigeria has been described as inadequate with budgetary allocation to health barely exceeding 7% of the nation's total budget. This allocation clearly falls below the April 2001 Abuja declaration of allocating a minimum of 15% of national budget to health (Uzochukwu, 2014, Lawanson, 2013). Table 3 highlights this better.

An evaluation of the table reveals notable variations in the health sector budgetary allocation between 2014 and 2020. In 2014, only 7.23% of the Federal Government's NGN4.695 trillion budget was earmarked for the health sector. The years 2015 and 2016 revealed a notable decline. In 2015, the allocation to the health sector was NGN 347.26 billion (6.85%) of the budget which is comparatively lower than the 2014 threshold. In 2016, 2017 and 2018, health sector allocation compared to the Federal Government's expenditure size was determined to be 5.83%, 5.11% and 5.79% respectively. It is important to note that since the post-Millennium Development Goals era (2016 till date), the healthcare budgetary allocations have always fallen below the 15% of the national budget allocation.

The healthcare budget for the year 2018 had a significant boost as a result of the increased allocation to the Ministry of Health and the release of NGN55.15 billion by the National Assembly for the implementation of the National Health Act which was passed

TABLE 3

Highlight of Nigeria's Budget from 2014 to 2020 (Amount in Billion) Nigerian Naira [NGN]

Year	Total National Budget (NGN Billion)	Total Health Budget (Federal Government) (NGN Billion)	% Health Budget	15% of Total Budget (NGN Billion)	Gaps (Amount Needed to Meet Abuja Declaration of 2001 (15% Of Budget Size) (NGN Billion)
2014	4695.19	339.38	7.23	704.28	364.90
2015	5067.90	347.26	6.85	760.19	412.93
2016	6060.48	353.54	5.83	909.07	555.53
2017	7441.18	380.16	5.11	1116.18	736.02
2018	9120.33	528.14	5.79	1368.05	839.91
2019	8830.00	372.70	4.22	1324.50	951.80
2020	10594.36	463.80	4.38	1589.15	1125.35
					NGN 4.99 trillion

Source: Adebisi, et al. (2020).

in 2014. Furthermore, in 2019 and 2020, the health budget fell below 5% which reflects a decline in health expenditure compared to previous years. Deduceably, if the Abuja declaration was implemented, additional allocations of NGN 4.99 trillion, approximately 13 Billion USD as of 5 June 2020, should have been injected into the health sector between 2014 and 2020. The inadequate budgetary allocation for healthcare has significantly influenced recurrent and capital health expenditure. It is worthy to note that the insufficient allocation will significantly affect capital expenditure which is a large determinant of the development of any health system (Adebisi, et al, 2020).

Yes, the increase of the health budget to N440 billion in 2020 is the highest in five years, but it amounts to about 4.5% of the total government budget for the year falling short from the 15% agreed in the Abuja declaration. The country's health sector has an annual deficit running into almost US$10 billion (N3.86 trillion) in health infrastructure gap and the annual budget for health sector at both the Federal and States level is not sufficient to cater for the growing infrastructural needs of the health sector.

Apart from evident gap in government expenditure on public health, one other noticeable problem is corruption which undermines efficient resource utilization. Recently, the issue of 'budget padding' has reoccurred in the budgeting process in Nigeria. This form of corruption thrives in an ambience of parliamentary collusion with some members of the executive arm of government to inflate budget figures. With this form of corruption, the budgeted figures as contained in approved budget do not even reflect public health reality or need. In most cases, the budgeted sum hardly gets released for the intended purposes. In this, there are further corrupt practices like diversion of funds, procurement related

malfeasance, ghost workers syndrome and total lack of accountability in the funding and application of financial resources for health services. Surmised precisely:

> Corruption in Nigeria health sector is propagated and sustained by a complex web of interacting factors. It thrives where frontline workers are poorly paid and lack resources to meet the needs of their patients, in settings characterized by weak governance structures and processes, lack of transparency, and ineffective accountability mechanisms. It is especially common among those involved in procurement of resources where oversight is weak. Many types of health sector corruption can become normalized, through custom and practice, even while those involved accept, even if not openly, that it is unjust and risks health. It is facilitated by the invisibility, other than to those directly involved, of many healthcare interactions, compounded by power and information asymmetry between providers and consumers of care (Onwujekwe et al, 2019:287).

Resulting from this background, there are evident cases of poor health services arising from sustained asymmetry with health sector funding and quality public health care delivery. The significant changes and trends in the budget and expenditure of the Nigerian healthcare system have significantly impacted health care indicators over the years. Mortality data are essential sources of demographic, geographic and cause-of-death statistics and can be used to quantify the efficiency of a health system, as well as to define and evaluate a country's healthcare priorities. A 2018 Global burden of disease study from the Institute for Health Metrics and Evaluation revealed trends in maternal

TABLE 4

Nigeria key health indicators

Health indicators	Figures
Population in Millions	190
Density of physicians (per 10,000 population)	4.0
Nursing and midwifery personnel density per 10,000 population	16.1
HRH (physicians, nurses and midwives) density (per 10,000 population)	20.0
Hospital beds per 10,000 population	5
Life expectancy at birth (years)	49
Infant mortality rate (per 1,000 live birth	96
Under-5 mortality rate (per 1,000 live birth	185
Maternal mortality ratio (per 100,000 live birth	840
Per capita total expenditure on health (PPP int. $)	131
Government expenditure on health as percentage of total health expenditure	25.3
Government expenditure on health as percentage of total govt. expenditure	6.5

Source: WHO Global Health Observatory and World Bank data (2020). https://www.who.int/workforcealliance/countries/Nigeria_En.pdf

mortality ratio per 100,000 live births, life expectancy, neonatal, infant and under-five mortality rates per 1,000 live births from the years 2008 to 2018. The years 2008 to 2011 saw the greatest improvements in neonatal, infant, and under-five mortality rates. However, this was followed by a steady decline from 2012 to 2016 and subsequent improvements between 2017 and 2018. On the contrary, life expectancy rates steadily increased from the years 2008 to 2018. Despite this improvement, the percentage increase gradually decreased over the years from 1.09% in 2008 to 0.71% in 2018. Studies have shown that a variable relationship exists between healthcare expenditure and health outcomes (IHME, 2018).

The WHO health indicators as highlighted in table 4 explains better.

The table 4 is a summation of the country's health sector status. Data therein is a reflection of poor public health status of Nigeria amidst other challenges. With an estimated population of 190 million people, the Nigerian government's expenditure on health as percentage of total govt. expenditure is just 6.5%.This has resulted in serious gaps in all measurable public health indicators as found in table 5.3. For instance, for every 10,000 patients, there are just four (4) doctors to attend to them. This is against the WHO recommendation doctor to patient ratio of 1:600. This figure appears to be a conservative estimate. A health practitioner who was at the centre of COVID-19 control interviewed opined:

> With the surge in medical doctors leaving the country to seek greener pasture abroad, there is a huge deficit in the number of medical personnel. Registered Medical doctors with the Medical and Dental Council of Nigeria (MDCN) totalled 74,543.The health sector recorded and increase

> in numbers of doctors seeking migration, from 656 in 2014 to 1551 in 2018. In 2020, Doctors who sought for migration to Saudi Arabia amidst COVID-19 alone was 312. Why won't they seek for migration?..... a resident doctor receives a monthly pay of N350,000 (inclusive of allowance) while Saudi Arabia pays a monthly salary of N4,000,000 to the same category of personnel. Remember, they have better health care infrastructure with a lesser workload than Nigeria. In fact, working in Nigeria as medical personnel is hell on earth (Interview, 2021).

Because of the poor state of the health sector, there has been a consistent mass migration of doctors and health professionals out of the country. This is in relation to the incessant strikes and poor working conditions and environment at the healthcare delivery centres. This development has led to an acute shortage of staff across the three levels of health care delivery in the country.

The deficit is better understood when reconciled with the level of facilities available in Nigerian hospitals. Imagine a country with just 5 beds for 100,000 patients. There is a lack of coordination, a fragmentation of services, dearth of medical resources, including drugs and supplies, inadequate and decaying infrastructure, inequity in resource distribution as well as access to care (Arinze, 2018).Today many primary health care centres across Nigeria are characterized by dilapidated structures, low staff, poor electricity, water, and cannot effectively serve people in the rural areas. Most pregnant women still seek the services of traditional birth attendants for delivery. Many children in the rural areas also miss out on routine immunizations which are meant to be one of the responsibilities of effective Primary Health Care Centres (Arinze, 2018).

The result of these is the data as highlighted in table 5.3. Life expectancy is just 49. In Ghana, it is 65 years, Gambia, 62 years; Mauritius, 74; South Africa, 64; Zimbabwe, 61. Maternal mortality is higher in Nigeria when also compared to other countries in Africa. With 840 per 100,000, Nigeria ranks as one of the countries with worst record. The maternal mortality rate was estimated to be 451/100,000 live births in Ghana. Other countries in sub-Sahara Africa have better records than Nigeria in this regard.

Clearly, this deficit comes with its own implications as it increases outbound medical tourism as some citizens opt for medical treatment overseas. Consequences of this include the country incurring an economic loss of about $1 billion annually, a weaker health system in Nigeria and indirect capital support of the healthcare industry in destination countries (Punch, 2020). The COVID-19 pandemic exposed just this.

With the COVID-19 pandemic, healthcare systems of both the developed and developing world has seen unprecedented stress with healthcare demand outstripping availability and supply. In Nigeria, the weak and dilapidated healthcare system was obviously exposed. The burden of disease prevention, testing, treatment/management and care was apparently evident in the wake of COVID-19 pandemic.

Data gathered in this study simply allude to the fact that the Nigerian healthcare delivery was completely unprepared to contain and combat COVID-19 pandemic. In an interview with a director in National Primary Healthcare Developing Agency (NPHCDA), the following remarks sufficed:

> Nigeria was not prepared just like other countries with weak health institutions. However, our experiences with influenza, cholera and Middle

> East respiratory syndrome coronavirus (MERS-CoV) and Ebola counted in our rapid response dynamism. Recall that the training of the rapid response teams across the 36 states in Nigeria was concluded in December 2019. On January 28, the NCDC further revealed that a Coronavirus Group had been set up to activate its incident system to respond to any emergency. Unfortunately, Nigeria recorded its COVID-19 index case that was imported from Italy, on February 27..... Yes, our preparations before the pandemic may not be the best but our response to the pandemic was spot on (Interview, 2021).

It smacks act of irresponsibility and insincerity to argue that Nigeria's healthcare system was prepared for any disease outbreak not to talk of a pandemic. With poor health facilities as already highlighted in table 5.3 in this study, the country was completely unprepared. Although the government said it had strengthened the surveillance at the airport since January 2020 amidst other emergency measures, yet, Nigeria recorded its COVID-19 index case that was imported from Italy, on February 27. This raised concerns about the effectiveness of airport surveillance and, by extension, the country's general preparedness. The index case (an Italian) had visited some other states of the federation before testing positive for COVID-19. The pre-COVID-19 preparedness was grossly inadequate. Table 5.4 simply highlights these inadequacies.

As evidenced by table 5.4, the Nigerian healthcare services and delivery amidst COVID-19 was simply inadequate. Most tests in Nigeria have been through PCR (Polymerase Chain Reaction) tests in molecular laboratories. The number of these laboratories and their testing capacity was grossly inadequate. For instance, between February 27 and June

TABLE 5

State of health facilities/capacities in Nigeria under COVID-19

Indicators	Rating Adequate	Inadequate	Grossly inadequate
Testing laboratories			✓
Testing capacity			✓
Bed space in isolation centres		✓	
Medical care facilities		✓	
Personal Protective Equipments (PPE)			✓
Medical personnel			✓
Welfare of medical personnel (salaries, bonus & conducive working environment)			✓
Funding		✓	
Supply of medication/drug availability			✓
Healthcare information systems		✓	

Source: Author's fieldwork report collated from interviews

7 2020, about 76,802 persons were tested in Nigeria. The number was described as paltry in a country with an estimated 200 million populations (Akor et al, 2020).COVID-19 testing is being done in runs; each run takes an average of six to seven hours. For each person, the result takes between 20 and 48 h to be ready. In fact, the inadequacies of testing reagents, personnel and laboratories was exemplified by the Federal Government's restriction of testing to people who are in pressing needs. Therefore, those to be tested are the following:

1. Returnees from overseas trips who are symptomatic within 14 days of their arrival (the returnees were advised to self-isolate for 14 days upon return to Nigeria).

2. Persons who had contact with confirmed cases and developed symptoms within 14 days of contact,

3. Those having COVID-19-related symptoms of unknown cause,

4. and persons residing in areas with a moderate or high prevalence of COVID-19.

The number of molecular laboratories with the capacity to test for COVID-19 was just five from March to June, 2020. The number barely increased from five to 23 as of June. From March, 2020 to May 2021, the number has increased to 76 (NCDC, 2020). While this may be considered as progress but, the deficit is still evident considering the population of over 200 million.

As also highlighted in the table 5, it was shown that bed space in isolation centers, medical care facilities, Personal Protective equipment (PPE), medical personnel, welfare of medical personnel (salaries, bonus & conducive working environment), funding,

supply of medication/drug availability and Healthcare information systems were either inadequate or grossly inadequate. For instance, most medical personnel who are on the frontline lack adequate PPE like mask, hand gloves and covers. Despite the donation of some PPE by Chinese business man Jack Ma, the distribution of same to the medics is far from equitable.

Generally, in the words of Amzat "the response to the coronavirus outbreak in Nigeria could be described as medico-centric and reactionary. The federal and state governments only set up isolation centers after positive cases were confirmed in the country. For instance, there was no molecular laboratory in Ogun State, where the index case was identified; the patient was transferred to Lagos State for diagnosis and treatment. The same applies to other states (such as Akwa Ibom, Oyo, Sokoto, and Abia), where the governments acquired medical equipment to fight the outbreak only after positive cases had been reported. The inadequate proactive preparedness accounted for the initial panic wave created by COVID-19 in Nigeria. The pandemic also exposed the healthcare infrastructure's generally deplorable state—a significant reason for the medical tourism embarked on by the Nigerian elite. The federal and state governments are squeezing out funds to upgrade or set up some facilities to boost the COVID-19 response capacity. But, results so far suggest a dysfunctional system with tepid result (Amzat et al, 2020).

4.5.3 Analysis of politics of economic palliative stimulus in response to COVID-19 and health security in Nigeria

The COVID-19 pandemic has had a devastating effect on both developed and developing countries. While the burden of disease and the health implications have been felt most acutely by developed and a few emerging economies, all countries have experienced

serious economic consequences. At the peak of the crisis, 161 countries were under some form of lockdown, which put a severe strain on their economic and trade activities. Developed countries used their enormous financial capacity to respond to the COVID-19 pandemic with expansionary fiscal and monetary policies and social palliatives. By April 2020, the US alone had spent over $6 trillion in COVID-19 response measures, while the EU later introduced a $500 billion stimulus package (Adedeji, 2020).

While public health responses to the COVID-19 pandemic have followed a similar pattern of public awareness creation, testing, tracking, therapeutic management of those infected and physical restrictions (lockdowns and shutdowns) to curb its spread, economic responses have varied significantly across countries, given different fiscal space and pre-pandemic economic fundamentals.

Economic responses have cut across three policy domains: fiscal; monetary and macro-financial; and exchange rate/ balance of payments. Economic responses have also been shifting as the pandemic has progressed. At the onset, the focus of economic policy responses was on delivering relief to vulnerable populations and those in precarious employment whose livelihoods were affected by the lockdowns. Now, with a better understanding of the patterns and effects of the disease, more countries in Africa moved towards reopening their economies and directing their economic policy responses at recovery, following the initial economic shocks.

Low-income countries (LICs) in Africa, had, in turn responded to the health crisis with lockdowns and the heavy curtailment of economic activity. However, the scale and scope of their mitigation strategies paled in comparison with those of most developed countries.

According to Adedeji, "the total COVID-19 budget of African countries stood at $37.8 billion in April 2020, with South Africa and Egypt responsible for 84% of that amount. This implies that most LICs lack the financial capacity to respond meaningfully to the pandemic. In addition, prospects of securing external financial assistance are limited, given that every country is facing a similar crisis" (Adedeji, 2020).

Expectedly, the burden of mitigating the impact of this pandemic inadvertently fell on individual countries. Most of the countries in Africa have their responses centred on some form of fiscal, monetary, balance of payment policies and social policy measures. A highlight of some of these policies is apt:

Fiscal policy: This includes economy-wide and sectoral interventions using taxation/subsidy, public expenditure and deficit-financing instruments. The first line of intervention in many countries is emergency budget support for the health sector and the scaling up of social protection for vulnerable households in the form of direct cash transfers, a debt moratorium, and financial support for small and medium sized enterprises and the informal sector. In many cases, expenditure has been reprioritised to focus on immediate needs in the health sector. For countries with less fiscal space, interventions have taken the form of taxation-related measures, such as tax relief and utility bill freezes, among others. There has also been an increase in deficit financing or drawing down savings.

Most LICs in Africa have used one or more forms of the fiscal policy instruments mentioned above. The most common fiscal policy instrument has been budget support for the health sector, through either re-prioritisation or an expansionary policy. Only a few

LICs have implemented social transfer programmes/support for households or firms. Moreover, the size of countries' fiscal stimulus has been small, generally ranging from 1% to 2% of gross domestic product (GDP).The few exceptions among LICs are Senegal, Niger, Mozambique and Namibia, whose fiscal stimulus injections have amounted to more than 4% of GDP. Other limiting factors in terms of fiscal response (which were evident before the pandemic) are the absence of a social register, especially for urban residents who have carried practically the full burden of the lockdown, and low financial and digital inclusion, which has constrained the distribution of support. Despite these constraints, LICs have still managed to introduce several innovative and cost-effective interventions, such as tax relief (Senegal and Madagascar), a utility bill freeze and a waiver of fees for basic services (Niger), and the distribution of food aid (Senegal and Liberia) (AFDB, 2020).

On the revenue side, the pandemic has affected the economic performance of most African countries, with government revenue projected to decline by more than 12% in 2020. Domestic resources thus make a limited contribution to government policy responses. However, early debt forgiveness and credit facilities granted by donors have helped to expand fiscal space in many LICs on the continent.

Fiscal policy response adopted by Nigeria in response to COVID-19 centred on tax relief and related matters. Some of these measures as announced by FIRS on March 28 were highlighted as follows:

- Extension of the due date for filing of value added tax (VAT) and withholding tax returns from the 21st day of the month to the last business day of the month, following the month of deduction.
- Use of electronic platforms for paying taxes and processing tax clearance certificates.
- Electronic filing of tax returns by taxpayers.
- Filing of tax returns by taxpayers without audited financial statements which must be submitted within two months of the revised due date of filing.
- Submission of tax returns online by taxpayers via efiling.firs.gov.ng or by designated e-mail accounts published by the FIRS.

In addition, an "Emergency Economic Stimulus Bill, 2020" was passed by the House of Representatives (HoR) to:

- Grant a tax rebate of 50% of the actual amount due or paid as pay-as-you-earn tax, to Nigerian companies who retain all their employees from 1 March 2020 to 31 December 2020.
- Suspend import duties on medical equipment, medicines and personal protective gears required for treatment and management of COVID-19 for three months, effective 1 March 2020. This was further extended by the Honourable Minister of Finance to 30 September 2020. Introduce a new moratorium on mortgage obligations of Nigerians under the National Housing Fund.

The FIRS further announced the following additional measures to mitigate the impact of COVID-19 on taxpayers:

- Waiver of late returns penalty for taxpayers who pay their tax liabilities early but submit their tax returns later. Evidence of tax payment can be forwarded to the relevant FIRS e-mail address, or submitted later to the appropriate tax office

- Extension of timeline for remittance of VAT from the 21st day to the last day of the month, following the month of deduction

- Taxpayers facing challenges in sourcing foreign exchange (FOREX) to settle tax liabilities on their FOREX-denominated transactions are permitted to pay the Naira equivalent, based on the prevailing Investors & Exporters FOREX window rate on the day of payment (KPMG, 2020).

Monetary and macro-financial policy:

Expansionary monetary policy is by far the most common economic response deployed by African LICs (AFDB, 2020).One reason for its popularity is that the fiscal space in most countries is heavily constrained owing to high debt levels and weak revenue flows. A change in interest rate policy is another widely used instrument. Countries in the Economic Community of Central African States, which have limited control over interest rate policy, mostly rely on injections of liquidity and extended deadlines for the repayment of loan securities held by credit institutions. Nine of the LICs in Africa implement no monetary policies, according to the World Bank (Adedeji, 2021). These are mostly countries whose weak financial markets make the application of monetary policy difficult. In many countries, too, the use and likely effectiveness of monetary policy is influenced by high inflation, which was evident before the pandemic.

Central banks across most African States, in a coordinated effort with fiscal authorities, have used expansionary monetary policy, in the form of increased money supply, through traditional, open-market operations as well as quantitative easing. Another tool that central banks also deployed was macro-financial assistance, which comprises medium/long-term loans or grants to businesses or households, as a way of cutting through the commercial banking system. In addition, there are support measures for commercial banks and other financial intermediaries that take the form of extended credit lines, higher liquidity and extensions to collateral frameworks Adedeji, 2021).

In Nigeria, the CBN rolled out monetary policies that including establishing a fund to support the country's economy (of 50 billion naira; i.e. EUR 121 million), targeted at households and micro and small enterprises. The interest rate has also been cut, a moratorium has been announced on principal repayments for CBN intervention facilities and some tax relief measures.

Some specific measures as announced on 16th March 2020 are:

1. A 1 year extension of a moratorium on principal repayments for CBN intervention facilities;
2. The reduction of the interest rate on intervention loans from 9 percent to 5 percent;
3. Strengthening of the Loan to Deposit ratio policy (i.e. stepped up enforcement of directive to extend more credit to the private sector)
4. Creation of NGN50 billion target credit facility for affected households and small and medium enterprises

5. Granting regulatory forbearance to banks to restructure terms of facilities in affected sectors
6. Improving FX supply to the CBN by directing oil companies and oil servicing companies to sell FX to the CBN rather than the Nigerian National Petroleum Corporation
7. Additional NGN100 billion intervention fund in healthcare loans to pharmaceutical companies and healthcare practitioners intending to expand/build capacity
8. Identification of few key local pharmaceutical companies that will be granted funding facilities to support the procurement of raw materials and equipment required to boost local drug production.
9. N1 trillion in loans to boost local manufacturing and production across critical sectors.
10. The CBN has adopted a unified exchange rate system for Inter-Bank and parallel market rates to ease pressure on FOREX earnings as oil prices continue to plummet.
11. CBN adopts the official rate of NGN360 to a dollar for International Money Transfer Operators rate to banks.
12. For on-lending facilities financial institutions have been directed to engage International development partners and negotiate concessions to ease the pains of the borrowers.

13. Provision of credit assistance for the health industry to meet the potential increase in demand for health services and products "by facilitating borrowing conditions for pharmaceutical companies, hospitals and practitioners" (KPMG, 2020).

Exchange rate/balance of payments policy: The COVID-19 pandemic has affected demand patterns and global supply chains to the extent that they have disrupted foreign exchange earnings for many African LICs. The oil price crash that occurred during the pandemic generated an additional external shock for petro states and worsened foreign reserves. This was particularly pervasive in Nigeria.

Some countries, like Nigeria, responded to this threat by changing the exchange rate regime or depreciating their currency (IMF, 2020). In addition, countries that lost control of inflation owing to their expansionary monetary policies used exchange rate policy as an alternative tool to address inflationary pressures.

Among the LICs in Africa, only Zimbabwe has made an explicit change to its exchange rate policy, by moving from a flexible to a fixed exchange rate in the face of the country's forex crisis. However, most countries' monetary authorities are using forward guidance to win support for interventions in forex markets in cases of high volatility or significant currency depreciation. For example, the banks of Uganda, Comoros and Sierra Leone have committed to intervening in the foreign exchange market (World Bank, 2020). In contrast, Angola, Eswatini and Nigeria (all lower-middle-income countries) have depreciated their currencies in response to COVID-induced economic shocks (Adedeji, 2021).

LICs have recorded fewer cases of currency depreciation than the frontier economies in Africa. Overall, the exchange rate policy has not played a major role in LICs' policy responses to COVID in 2020.

Social and economic stimulus policy measures:

The Central Bank of Nigeria has set out a number of measures to tackle the impact of the coronavirus, including establishing a fund to support the country's economy (of 50 billion naira; i.e. EUR 121 million), targeted at households and micro and small enterprises. The CBN further reduced the interest rate; a moratorium has been announced on principal repayments for CBN intervention facilities and tax measures are being taken. Some other specific measures include:

- The crude oil benchmark price was also reduced from USD 57 to USD 30.
- The Central Bank pledged to pump NGN 1.1 trillion (USD 3 billion) into critical sectors of the economy.
- Commencement of a three-month repayment moratorium for all Trader Moni, Market Moni and Farmer Moni loans
- Similar moratorium to be given to all Federal Government funded loans issued by the Bank of Industry, Bank of Agriculture and the Nigeria Export-Import Bank.

Suspension of new electricity tariffs:

- On April 1st, the Nigerian Electricity Regulatory Commission (NERC) suspended the payment of the new electricity tariffs scheduled to commence on 2 April, citing poor electricity supply, wide metering gap and the impact of the COVID-19

pandemic. The National Assembly recently postponed the effective date of the new tariff to the first quarter of 2021.

- On October 11, NERC suspended the Multi Year Tariff Order (MYTO) 2020 for the Electricity Distribution Licensees for 2 weeks.

NIS payment waiver for visitors affected by travel ban.

- On 16 April, Nigeria Immigration Service (NIS) announced the grant of payment waiver to visitors / migrants affected by the travel ban and the closure of international airports. Affected persons are expected to reschedule their flights and travel within a week of the suspension of the restriction.

- Lagos State Government reverts annual land use charges to pre-2018 rates.

Taxpayers in Nigeria need to consider the impact of the coronavirus (COVID-19) pandemic on their businesses and in particular the expected increase in debt default rates, cancellations of contracts or "no-shows".

Nigeria's Palliative Allocation, Donations, Warehousing and Distribution

Among all the policies response by the Nigerian government, the social policy response appears to be the most strategic with envisaged wider impact. Yet, this was the most criticized. The setting up of Coalition Against COVID-19 (CACOVID) and the synergy with the ministry of Humanitarian Affairs and other relevant institutions were intended to put to good use of all donations for the provision of palliatives to the vulnerable citizens. The CACOVID created a special account number for donations in respect to COVID. The cash contributions by international donor organisations and development partners,

TABLE 6

Some COVID-19 support donations to FGN

S/N	Institution/Sector	Approx. Amount (NGN
1	United Nations Basket Fund	23.8
2	Nigeria oil and gas	21.4
3	CACOVID	27.8
4	The Presidential Task Force	24.8
5	Development Partners Group for Health (DPG-H	1.2
6	Others	0.305
	TOTAL	**99**

Source: Federal Ministry of Finance, Presidential Task Force, UN, DPG-H

TABLE 7

COVID-19 multilateral Stimulus packages that benefits African Countries

Institution	Policy Response
World Bank	The World Bank (2020a) announced the availability of US$160 billion which will be available to countries until late 2021 The package is set to enhance the ability of the beneficiary economies in easing the effects of COVID-19 on small businesses and the vulnerable populations.
The African Development Bank (AFDB)	The AfDB has a US$10 billion COVID-19 response package in the pipeline of which US$5.5 billion is set for its sovereign operations in the AfDB countries and US$3.1 billion is operations under the African Development Fund. The Bank also launched a US$3 billion fight COVID-19 social bond which was allocated to central banks and official institutions (53%), Bank treasuries (27%) and asset managers (20%). Notably, 8% of this social bond is set aside for African countries
IMF	The IMF approved US$2.7 billion for COVID-19 related emergency responses in African countries
European Union (EU)	The EU announced Euro 3.25 billion COVID-19 toolkit for African countries.
Afreximbank	The Afreximbank announced a US$3 billion Pandemic Trade Impact Mitigation Facility (PATIMFA) to enhance the capacity of African countries in dealing with COVID-19 related health and economic impacts. In addition, the bank set aside US$200 million to finance the production of COVID-19 equipment and supplies within Africa

Source: United Nations Conference on Trade and Development (2020). Assessing the Impact of COVID-19 on Africa's Economic Development, *UNCTAD/ALDC/MISC/2020/3*

the Federal Government of Nigeria, the United Nations, grants from the oil sector, and others are represented in the table 6

These donations were just made between March and April, 2020. Nigeria also benefited from international donations from reputable organizations. The World Bank, AFDB, IMF, EU donated equally. Some of these donations to African countries in general are presented in table 6

From this donation, the FGN in March, 2020 came up with social palliative initiatives. The Government embarked on providing palliative including the conditional cash transfer, homegrown school feeding programme and the distribution of food items to all the affected states in Nigeria through the Ministry of Humanitarian Affairs, who assigned this task to critical agencies to supervise. This includes the National Social Register of Poor and Vulnerable Households, National Home-Grown School Feeding

Programme and Household Uplifting Programme, where directly involved in the selection and distribution process of the palliative to beneficiaries, and we were working closely with all the agencies mentioned above through the Minister of Humanitarian Affairs, Hajiya Sadiya Umar Farouq (Budgit, 2020).

For the conditional cash transfer, in March 2020, the federal government announced the disbursement of N20,000 to 2.6 million vulnerable people under its conditional cash transfer programme of N5,000 monthly stipends. This later increased to 3.6 million (Budgit, 2020).

Furthermore, the Home-grown School Feeding Programme commenced in Abuja, Lagos and Ogun. According to the minister, the programme will run in all 36 states and the

FCT. The beneficiaries received take home rations valued at N4,200 and made up of 5 kg bag of rice, 5 kg bag of beans, 500 ml vegetable oil, 750 ml palm oil, 500 mg salt, 15 pcs of eggs, 140 gm tomato paste. Lagos State received 6,000 bags of rice and two truckloads of vegetable oil from the federal government to distribute to the poor and vulnerable. The state government also supported with an economic stimulus package that targeted at least 200,000 households (Thisday, 2020).

Also, the Coalition against COVID-19 (CACOVID) assisted over 1.7m households who benefited from their palliative effort. CACOVID also played a critical role in reducing the pressure of COVID-19 on Nigerian homes. Kano State received 224,110 cartons of rice, 112,055 bags of sugar, rice, pasta, salt and garri for 112,005 households (Guardian, 2020).

The crucial question remains, how has the Nigerian Government's response to COVID-19 in terms of economic and social palliatives stimulus ranked when compared to other countries? Again, how were these projected interventions handled towards achieving the desired objectives? Put differently, what is the impact of these interventions in relation to socio-economic upliftment of the vulnerable?

Beyond the extant data reeled out by the FGN in response to COVID-19, the result obtained from the field work in the course of this study clearly shows that these interventions have not actually impacted significantly on the lives of the vulnerable citizens. Several indicators show that the targeted beneficiaries were not final beneficiaries. Most of the interventions were simply cosmic and ended in rhetoric, lacking in result and any modicum of objectivity. Again, comparatively, what Nigeria did

TABLE 8

Countries social policy measures to mitigate the impact of COVID-19

	Social Assistance				Social Insurance				Labour Market	
	Cash Transfer	Public Works	Inkind Transfer	Utility Waivers	Health Insurance	Unemployment& paid leave	Pension & Disability benefits	Social Security Cost burden	Wage Subsidy	Activation Measaures
Argentina	✓	0	✓	✓	✓	0	✓	✓	✓	0
Barbados	✓	0	✓	✓	✓	0	0	✓	✓	0
Brazil	✓	0	✓	✓	0	0	✓	0	0	0
Burkina Faso	✓	0	✓	✓	0	0	0	0	0	0
China	✓	0	0	0	0	0	0	✓	✓	✓
Ghana	0	0	✓	✓	0	0	✓	0	0	
Guatemala	✓	0	✓	0	0	0	0	0	✓	0
India	✓	✓	✓	0	0	0	✓	✓	0	0
Indonesia	✓	✓	✓	✓	0	✓	0	✓	0	✓
Kazakhstan	✓	0	✓	0	0	0	0	0	0	0
Kyrgyz Republic	✓	0	✓	✓	0	0	0	✓	0	0
Mauritius	✓	0	0	✓	0	0	0	0	0	0
Mongolia	✓	0	0	✓	0	0	0	0	✓	0
Morocco	✓	0	0	✓	0	0	0	✓	0	0
Nigeria	✓	0	✓	0	0	0	0	✓	0	0
Peru	✓	0	0	0	0	0	0	✓	0	0
Senegal	0	0	✓	✓	0	0	0	0	0	0
South Africa	✓	0	✓	0	✓	0	0	0	✓	0
Thailand	✓	0	0	0	✓	✓	0	✓	✓	✓
Uruguay	✓	0	✓	0	✓	0	0	0	0	✓

Source: Social protection and jobs responses to COVID-19: Areal time review of country measures "long paper" version, 8 may, 2020. Ugo Gentiles (WB), Mohammed Amenfi (WB) and Pamela Dale (UNICEF).

in response to COVID-19 was not significant when compared to what other LICs did let alone the developed countries.

Some of the LICs in Africa undertook ambitious and tasking economic measures that had direct bearing on the lives of the people. Some others took up responsibilities that ensured the protection of the poorest of the poor against the vicissitudes of the pandemic. A breakdown of these interventions can be seen in table 7

Table 8 is a highlight of some policy responses of selected countries towards mitigating the impact of COVID-19. As indicated, most of the countries undertook social policy measures favouring immediate cash and in-kind transfers to the vulnerable segment of their respective citizens. Most countries also went for public utilities subsidy and health insurance. Nigeria, favoured cash and in-kind transfers as well as social security burden.

Much as these measures is salutary, but the implementation process of these policies lack transparency and accountability. For instance, the continued school feeding even when students were at home, food palliative distribution and conditional cash transfer stand out as major response albeit, with widespread condemnation.

The minister of Humanitarian Affairs at the wake of COVID-19 had reiterated the need to meet the dietary and nutritional needs of the school children by continuing the 'home-grown school feeding' programme. While responding to public skepticism questioning the transparency of the social intervention programme at a briefing by the Presidential Task Force on COVID-19 on August, 2020, Ms Farouq argued that 'N523,273,800 was spent to feed pupils in Ogun and Lagos states as well as the Federal Capital Territory (FCT) alone, Abuja, between May 14, and July 6, 2020 (Premium Times, 2021).

A breakdown of continued school feeding programme as released by the Ministry of Humanitarian Affairs shows that: that the school feeding exercise during 2020lockdown gulped N535,873,800. The Minister of Humanitarian Affairs, Disaster Management and Social Development, Sadiya Farouq, insisted that "cash was not disbursed during the exercise", but food items valued at N4,200 per household at N70 per child and based on assumption of three children per household. The total number of households that benefited from the programme is 127,789. In summary, a total of 2,859 schools, 382,765 pupils and 12,789 schools benefited from the exercise that lasted between nine to 20 days between May and June last year in Abuja, Lagos State and Ogun State (Premium Times, 2021).

The contradiction in this programme is as evident as public criticisms suggest. In an interview with public affairs analyst, he opined:

> There is no evidence of corruption and lack of transparency in COVID-19 palliative distribution more than the continued home school feeding. Why would a government sustain school feeding when the schools are closed? When the supposed beneficiaries are at home in lockdown? Why not channel this palliative to the vulnerable parents.....earlier, the Minster of Humanitarian Affairs in a report the ministry submitted to the Senate in October, said that their ration contained 5kg of rice, 5kg of beans, 500ml of vegetable oil, 750ml of palm oil, 500g of salt, 140g of tomato paste and 15 pieces of egg.... But again, she failed to bring forward the list of the beneficiaries.....in all, there is great concern that the palliative distribution

as evidenced by this school feeding lacks transparency and accountability (Fieldwork, 2021).

According to Onah (2020), "the school feeding program was also allowed to run. This is as fraudulent as it is contradictory. The schools were asked to close down and all pupils were expected to be home. Where are the pupils to be served food? These imaginary contracts are avenues the elites siphon public fund, empower themselves to remain in power for oppressive purposes".

The palliative component also included cash transfers to the poorest of the poor. On April 1, 2020, the government announced that it will make transfers of 20,000 Naira ($52) to poor and vulnerable households registered in the National Social Register (NSR). This only captures only 2.6 million households (about 11 million people) registered on its platform. However, 87 million Nigerianslive on less than $1.90 a day. Therefore, the cash payments by the federal government will reach only a fraction of poor.

Again, Nigeria is known to have poor management of database. With this challenge, it is almost impossible to empirically capture the vulnerable Nigerians. As poignantly noted by a team leader of an International NGO interviewed, 'Nigeria does not have a robust national information management system, making electronic payments difficult. This has resulted in many people in the NSR not receiving the money promised by the government....their NSR is not even all inclusive. Politicians simply hijacked this process to serve their selfish interests (Fieldwork, 2020).

The manner of the distribution processes were also condemned by State Governors and even the National Assembly. As rightly summed up by Onah, 'considerable well-

TABLE 9

Comments of Notable Groups over the Distribution of Conditional Cash Transfer (CCT) Palliatives at COVID-19 Lockdown and their Recommendations

S/N	Group	Comments	Recommendation/position
1	Nigeria Gov. Forum	The distribution of the palliatives is selective	Involve the Governors & reform the system
2	House of Reps. (caucus)	The distribution is selective, partial & non-inclusive	Ensure even and wide-spread Distribution
3	Senate President	The distribution is unfair.DistributingN20,000 to the poor is not the best at this time	Reform. Widen the scope
4	Rivers State Indigenes	The distribution of the palliatives is selective and unacceptable	Spread the palliatives to more People
5	Ohaneze Ndi Igbo	It is a skewed program that gives the impression that Igbos are second class citizens or not wanted in Nigeria.	President should ensure that no part of Nigeria is left out of the CCT palliative
6	Human and Environmental development Agency (HEDA	No clear guidelines for the distribution of the palliatives	Make the guidelines clear
7	League of Anambra State Professionals (LAP)	The distribution lacks fairness and transparency	Show more transparency. The figures are conflicting
8	Christian Association of Nigeria (CAN)	The whole exercise lacks transparency	Urgent need for transparency
9	Committee of Youths on mobilization and sensitization (CYMS)	The distribution neglected the youth, hence the crisis, conflicts and riots in the urban areas	Factor in the youths in the distribution of the palliatives
10	Centre for Transparency Advocacy (CTA)	The palliative distribution appear to be politicized	Federal and State governments should not politicize the distribution of the palliatives meant for all

11	Socio-Economic Rights and Account ability project (SERAP)	The database upon which the palliatives are predicated are unreliable. The distribution lacks transparency	Provide more details for Nigerians to see
12	he indigenous people of Biafra (IPOB)	There is lopsidedness in government on-going disbursement of the palliative to the exclusion of the south East geopolitical zone.	The distribution of the palliative is a humiliation of the Igbo and this is capable of creating more crisis.

Source: Onah, N (2020). Tackling the pains of coronavirus lockdown through palliatives in Nigeria: addressing the gaps and critical strategic issues. *Social Sciences and Humanity Open, June, 2020*

meaning and significant groups feel that the distribution of the palliatives is selective, lacks transparency, lacks clear guidelines, based on questionable database, lacks sufficient coverage and capable of causing conflict and crisis'. Table 9 shows summary of some these comments.

Further confirmation of the politicization of the palliative distribution was largely reported by most national dailies. For instance, a national newspaper, Business Day on April 19, 2020, reported thus: "It is lamentation and bitter wailing in Lagos and parts of the country as Nigerians complain that the stimulus packages announced by the Federal and Lagos State governments to cushion the effects of the lockdown imposed on some States and the Federal Capital Territory to contain the further spread of the coronavirus (COVID-19) pandemic have not been sincerely deployed."According to the newspaper, the citizens alleged that the process of distribution of whatever that may have been made available for that purpose had been politicized (Eranga, 2020). The implication of lack of transparency in the distribution of the palliatives is dire for the containment of the pandemic. For instance, one of our interviewee, Mr. Godwin Azi states:

> We are in lockdown with empty stomach. No food, no water, no NEPA and no hope. I am not sure that a hungry man will continue to obey the lockdown and die in starvation. Such persons can neither obey the protocols nor care if his health is endangered. Since what we have is 'audio' palliative, its better we die of COVID than die from hunger at home (Field work, 2020).

To say the least, why most of the response measures like the lockdown failed was as a result of this. Those who depend on their daily struggle for a living were in lockdown without any form of government intervention. The tendency to defy restrictive measures became high and compelling. The subsequent lifting of the lockdown triggered daily cases and further stretched the Nigeria's public health system. The nexus between poor palliative response and the risk of public health insecurity is therefore evident.

4.5.4 Testing of the hypotheses

4.5. 4.1COVID-19 lockdown had positive effect on public health security in Nigeria

Data presented in the preceding section of this study clearly support the fact that the lockdown measure had positive effect on public health security.The three episodes of lockdown and the concurrent COVID-19 cases as depicted in table 2 to 5 suggest that the lockdown helped in flattening the curve of COVID-19 transmission. The situational analysis for both lockdown reports and coronavirus cases for the three episodes experienced in the Nigerian context, which are pre-lockdown (Fig. 1), lockdown (Fig. 2), and easing up lockdown (Fig. 3). The various days for each period include 31 days for pre-lockdown (28 February – March 29, 2020), 35 days for the total lockdown (March 30 – May 3, 2020), and 73 days for the gradual easing up of lockdown (May 5 – July 15, 2020). The summary of the three episodes as presented in Fig. 4 shows that the cases recorded in the easing up period outstripped both lockdown and pre-lockdown as a whole. Another insight from Fig. 4 is that the trend in COVID-19 cases has persistently maintained an upward slope, which further raises concern about the easing up phases and surreptitiously justifies the lockdown.

Admittedly, while the use of lockdowns did slow down viral transmission to some extent, however, the overall rationale for their use in Nigeria is less clear especially in terms of the balance of the burdens over the benefits – unlike developed countries who generally tend to have relatively robust healthcare system capacity, income support to allow people to make the choice to stay home, employment opportunities that allow a large number of people to work from home, and a telecommunications infrastructure that facilitates online education. Without the necessary capacity, infrastructure, palliative and resources to maintain sustained compliance with a lockdown strategy, lockdown measures in Nigeria engendered tragic consequences, like starvation, economic ruin, rape, armed robbery, police brutality, neglect of other pressing health issues among others.

Granted that the major objective of lockdown was to flatten the curve, scale down the risk of further transmission and buy time to scale up response capabilities, but the way and manner of implementation imposed more burdens to the economy. The lockdown and the concomitant efforts by the security agencies to enforce compliance led to serious human right violations and deaths of so many citizens. The National Human Rights Commission (NHRC) and other human right agencies reported that Nigerian security forces killed 18 people in two weeks while enforcing lockdowns imposed to halt the spread of the new coronavirus (Aborishade, 2021). In addition to this brutality, the level of police extortion largely compromised the restriction order.

Deduceably, the lockdown restriction measure was successful in containing the spread of the virus but the enforcement without considering the contextual socio-economic realities in Nigeria was a source of burden. On the tenet of these facts, this study accepts the

hypothesis 1 which holds that: "COVID-19 lockdown had positive effect on public health security in Nigeria".

4.5.4.2 The level of government's investments in public health infrastructure amidst COVID-19 pandemic positively affected public health security in Nigeria

Data from the preceding sections of this study simply suggest that 'the level of government's investments in public health infrastructure amidst COVID-19 pandemic negatively affected public health security in Nigeria'.

Unarguably, the state of health care infrastructure is fundamental to public health security. Consequently, the state of public health facilities is a reflection of government's investments and total commitment towards the health sector generally. Unfortunately, the Nigerian experience shows poor commitment to health care infrastructure characterized by poor funding, corruption and neglect of the health sector.

Resultantly, the Nigeria health care system remains weak as evidenced by lack of coordination, fragmentation of services, dearth of resources, including drug and supplies, inadequate and decaying infrastructure, inadequate manpower, including doctors and nurses, inequity in resource distribution, and access to care and very deplorable quality of care. The COVID-19 simply exposed this gap.

Data available in table 4 revealed the public health status of the country amidst COVID-19. With an estimated population of 190 million people, the Nigerian government's expenditure on health as percentage of total govt. expenditure is just 6.5%. This has resulted in serious gaps in all measurable public health indicators as found in table 5.3. For instance, for every 10,000 patients, there are just four (4) doctors to attend to them.

This is against the WHO recommendation doctor to patient ratio of 1:600.Nursing and midwifery personnel density per 10,000 populations is 16; hospital beds per 10,000 populations are 5. This results in other health care indicators like, life expectancy at birth which is 49years; infant mortality rate per 1,000 live births is 96; maternal mortality per 10,000 is 840 etc. The COVID-19 pandemic exposed just this.

With the COVID-19 pandemic, healthcare systems of both the developed and developing world have experienced unprecedented stress with healthcare demand outstripping availability and supply. In Nigeria, the weak and dilapidated healthcare system was obviously exposed. The burden of disease prevention, testing, treatment/management and care was apparently evident in the wake of COVID-19 pandemic.

Data gathered in this study simply allude to the fact that the Nigerian healthcare delivery was completely unprepared to contain and combat COVID-19 pandemic. The pre-COVID-19 preparedness was grossly inadequate. These inadequacies were highlighted in table 5.4. testing laboratories and testing capacities were grossly inadequate. Bed space in isolation centers and medical care facilities were also inadequate. Personal Protective Equipments (PPE), Medical personnel, Welfare of medical personnel (salaries, bonus & conducive working environment) were equally grossly inadequate.

Sufficiency of laboratories and testing capacities are the most essential aspect of COVID-19 response. The status of patients can only be inferred from testing. Unfortunately, the number of people tested within the peak period of the pandemic is very insignificant. For instance, between February 27 and June 7 2020, about 76,802 persons were tested in Nigeria. The number was described as paltry in a country with an estimated 200 million

populations. This inadequacy clearly exemplifies the level of Nigeria's preparedness. In fact, the inadequacies of testing reagents, personnel and laboratories was exemplified by the Federal Government's restriction of testing to people who are in pressing needs. This did not help in knowing the actual number of infected persons and this undermined public health security. Patients can only be determined through test and can only be treated there from. Absence of this, puts the health security of several people in jeopardy.

In essence, poor response arising from poor investment in public health infrastructure clearly undermines public health security. This was evident during COVID-19 pandemic. With these data, this study rejects the null hypothesis 2 and rather asserts that: ''the level of government's investments in public health infrastructure amidst COVID-19 pandemic negatively affected public health security in Nigeria".

4.5.4.3 The politics of economic palliative stimulus in response to COVID-19, have positively impacted on health security in Nigeria

The Nigerian experience shows that 'the politics of economic palliative stimulus in response to COVID-19 negatively impacted on health security'. This position stands on the evidences that support the fact that the way and manner in which the palliative was distributed and the entire processes lacked transparency and accountability. Widespread condemnation and criticisms that trailed the Conditional Cash Transfer of N5,000 and N20,000 to poor households and the vulnerable using National Social Register, continuation of school feeding even in lockdown, distribution of food items to the poorest of the poor among other initiatives attest to this position.

For instance, on April 1, 2020, the government announced that it will make transfers of 20,000 Naira ($52) to poor and vulnerable households registered in the National Social Register (NSR). This only captures only 2.6 million households (about 11 million people) registered on its platform. However, 87 million Nigerians live on less than $1.90 a day. Therefore, the cash payments by the federal government will reach only a fraction of poor. The Ministry of Humanitarian Affairs that handled this failed also to make the list and names of the supposed beneficiaries public. Figures and counter-figures were made public on the actual figure of beneficiaries. Table 8 of this study highlighted the condemnation from State Governors, NASS, CSOs and other bodies on lack of transparency in the palliative distribution.

In fact, it was the End SARS protest of October 2020 that actually revealed the reality of corruption in the distribution of the palliative. In an interview with Prof. Adagba, he opined:

> The END SARS protest has actually revealed the wickedness of our political class....it has also proved to us that the Governors don't care for the people. How can you hoard the palliative on the premise that the items were kept for vulnerable members of society and in preparation for a possible second wave of coronavirus infections? The people have not survived the present times and you are stockpiling this for the future. The future for who?.....there is no accountability, transparency and fairness in the allocation/distribution of the CACOVID-palliatives (Field work, 2021).

To say the least, why most of the response measures like the lockdown failed was as a result of inadequacy of palliative measures and lack of transparency in its distribution. In fact, the pressure to ease the lock down was as a result of increased hardship amidst poor government interventions. Those who depend on their daily struggle for a living were in lockdown without any form of government intervention. The tendency to defy restrictive measures became high and compelling. The subsequent lifting of the lockdown triggered daily cases and further stretched the Nigeria's public health system. The nexus between poor palliative response and the risk of public health insecurity is therefore evident.

Relying on data from 5.1.3 with facts and table 8 together with the result from the fieldwork, this study reject hypothesis 3 and rather accept the null hypothesis which holds that: 'the politics of economic palliative stimulus in response to COVID-19, have not positively impacted on health security in Nigeria'

4.6 Research Findings

At the end of analysis, the research came up with the following findings:

1. The lockdown measure had positive effect on public health security.

2. The level of government's investments in public health infrastructure amidst COVID-19 pandemic negatively affected public health security in Nigeria.

3. The politics of economic palliative stimulus in response to COVID-19 negatively impacted on health security.

4.7 Discussion of Findings

The success and sustainability of public health security are highly dependent on the positive perception and acceptance by the general public and the quality of government's response measures. Risk communication associated with a particular hazard involves the exchange of information and advice between experts, government and the public, as it becomes available. The ultimate aim of risk communication is to permit people at risk to take informed decisions to protect themselves (Oleribe et al, 2020).

As at June 15, 2021, the NCDC reports that Nigeria recorded 19 new cases, 167,078 confirmed cases and 2,117 deaths (NCDC, 2021). This suggests that despite the anecdotal perception that the pandemic is over in Nigeria, it is very much around. With the new variant of the disease coming up in some other countries like India, UK and even South Africa, the need to sustain the containment measure is preponderant.

The continued increase in new cases of COVID-19, one year after the first case, was reported in Nigeria on 27 February 2020 has made Nigerians wonder about the competency of the government response to the pandemic. As a result of this failure to cap the outbreak, significant numbers of the public are disillusioned and are not keeping to the government-issued guidelines and recommendations, with some believing that the COVID-19 pandemic is a hoax. The level of public health infrastructure and the distribution pattern of government palliatives to cushion the effect of the pandemic have convoluted with other factors to inform public criticism and non-adherence to laid down protocols. This, as observed in this study, has dire consequence to public health security.

This study was conducted to evaluate the Covid-19 pandemics and the politics of global health security in Africa with reference to Nigeria. In this study, most of the interviewees

have vast knowledge of COVID-19 and its viral etiology. As such, the importance attached to research of this nature is well understood by them.

In respect to the tenets of the research, the first research analysis centered on the evaluation of lockdown measure and its effect on public health security. The result obtained exegesis the fact that the lockdown measure helped in containing the spread of the disease. Data made available also indicate that confining people at home, placing a strict restriction in inter-state travels and curfew helped in checking community transmission. This finding agrees with the position of Oleribe et al on the importance of lockdown in checkmating the spread: 'the easiest but most difficult measure that has wonderfully worked in checking the spread is lockdown. With this measure, people are restricted to their homes with limited social interactions. Absence of this interaction is a sure measure to check transmission (Oleribe et al, 2020).

However, the result obtained adds a caveat to this measure. Quoting a Lagos resident interviewed "lockdown without food, without light and without any support from the government is equal to death" (Interview, 2020). In essence, since Nigeria's economy is driven by the informal sector-a sector where people depend on their daily earnings for survival- denying them access to means of livelihood without a shore-up sustaining interventions from the government makes public compliance to lockdown difficult. This clearly manifested in the way and manner people flouted the lockdown measure in a desperate strive for survival. This again, was in a clear absence of palliative support from the government. This again feeds into the opinion of Alade to the effect that "Nigerians can best comply with lockdown and curfews if government is to ease their burden with

generous and equitably distributed palliatives. Absence of this cannot guarantee compliance nor acquiescence" (Alade, 2020).

This again explains why there was total securitization of the enforcement process with the deployment of the security forces to that effect. As reported in this research, this too had its consequences as human rights were seriously abused while the level of corruption and extortion by the security agencies became high.

Data presented in respect to objective of the study two was also instructive. This sought to evaluate the level of government's investments in public health infrastructure amidst COVID-19 pandemic in order to see how it affects public health security in Nigeria. Data presented simply attest to the fact that the health infrastructural preparedness is weak and totally near absent. There were no testing laboratories as at February 2020 with functional reagents for test. The medical and health practitioners were ill-trained and unprepared. The Doctor to patient ratio was low. The health sector too was suffering from incessant strikes arising from poor welfare and poor incentives. This agrees with the position of Howell (2020) that the quality of responses to the pandemic is dependent on the level of health infrastructure to test, trace and treat. Absence of this basics, invalidates every other efforts.....you cannot determine the true status of a person without a laboratory test". This applies to Nigeria's case.

Available facts also did observe that the dearth in health infrastructure was partly traceable to poor budgetary provisions and corruption related to use of resources. It was evident that health budget of Nigeria in relation to their GDP is abysmally low when compared to other countries. It was further observed that even with the paltry fiscal

commitment, misappropriation of this scarce resource is rampant among government officials. This compounded the challenge in the sector and inadvertently explains the level of the country's responses to the pandemic.

Further data presented in respect to objective three of this study interrogates the effect government's economic palliative stimulus in response to COVID-19 on health security. The finding showed that while the federal government rolled out various palliatives measure ranging from CCT, continues home-grown feeding, food subsidy, loan repayment rescheduling among others. States also adopted various measures to cushion the effect of the pandemic.

As evidenced by data collected, these palliatives and the distribution process lacked transparency and equity. The conflicting figures as to how much was expended in this process underscores the perception of the people that there was nothing like palliative in the first place. Nigerians equally questioned the rationale for continuing with school feeding when students are at home because of lockdown.

However, the End SARS protest of October 2020 bursted several warehouses where some food palliatives were stored. The intention for warehousing foods that was meant for the poor and vulnerable was inexplicable. The corruption in the allocation, financing and distribution of the palliatives was evidently adumbrated by this event.

Again, when compared with what other countries did even Ghana in Africa, Nigeria's response in this direction is simply utterly despicable and regrettable. Some countries undertook to give food rations equitably to the poor, suspended utility bills and made humongous social and financial commitment to the MSME. Nigeria dithered in this

regard. This agrees with the position of Hoop that to sustain lockdown and other containment measures, government must address fundamental problems of hunger. People will comply more when the incentive for compliance is compelling (Hoop, 2020).

The study shows a generally poor perception of governmental response to the COVID-19 pandemic by the public. All the specific interventions against COVID-19 were rated as poor except for public health communication and prevention messages.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The Coronavirus Disease 2019 (COVID-19) outbreak was declared a Public Health Emergency of International Concern (PHEIC) on 30th January 2020 and a pandemic on 11th March 2020. The World Health Organisation (WHO) Director General requested all countries to adopt a "Whole-of-Government, Whole- of-Society" approach built around a comprehensive strategy to prevent infections, save lives and minimize the impact (WHO, 2020).

In Africa nay Nigeria, and consistent with the situation globally, all facets of the society – health, security, political, economic and social - continue to be negatively impacted by the pandemic. In the health sector, the pre-existing fragile health systems were overwhelmed with the surge in cases at the peak of the outbreak. The continuity of essential health services has also been disrupted in many African countries resulting from an imbalance of the demand and supply factors. The most common services affected include routine immunization, facility-based services for non-communicable diseases, antenatal care, family planning and contraception, among others. The size and evolution of the virus, expanding knowledge on its transmissibility and the countries' gradual return to the 'new normal' signals a reinforcement and sustenance of the efforts to contain the pandemic.

However, given the Nigeria context, where the securitization of the containment and mitigation process was evident, certain implications were discernible. To this end, this

study was on the behest of these challenges with the overarching objective of evaluating the effect of Nigeria's responses on public health security.

Guided by three objectives and hypotheses, wherein the evaluation centred on the effect of COVID-19 lockdown on public health security in Nigeria; the level of government's investments in public health infrastructure amidst COVID-19 pandemic and its effect on public health security in; and how the politics of economic palliative stimulus in response to COVID-19 affect health security. In a bid to examine these tenets objectively, the study came up with six chapters.

Chapter one featured the background to the study and essentially provided the research platform for the study. The chapter has statement of the problems, objectives of the study, research questions, and hypotheses among others.

Chapter two reviewed extant literature. The review was thematically done under sub-themes related to the tenets of the study. Major sub-themes include: general text, configurative studies, comparative studies, case studies and summary of the reviewed literature. The study was anchored on securitization theory as theoretical framework. The adoption of this theory amidst contending theories on the topic was to give explicable niche to the politicization of the pandemic management processes and the attendant implications thereof.

Chapter three dwelt on research methods and simply provided answers to the research orientation, design, data collection and other matters. Chapter four provided a historical background to the pandemic. this was considered necessary in order to give historical insights on global pandemic that had existed in the past, their effect and remedies.

In chapter five, the study presented data and analysed same. Data were largely drawn from interview. Some state actors at the forefront of COVID-management were interviewed and their opinions analysed. Some personnel drawn from the NCDC, NPHDA, ministry of Humanitarian Affairs, and security agencies' views were analysed. Tables, charts and figures were equally used where necessary to give an empirical touch to the study. At the end, the result obtained shows that

1. The lockdown measure had positive effect on public health security.

2. The level of government's investments in public health infrastructure amidst COVID-19 pandemic negatively affected public health security in Nigeria.

3. The politics of economic palliative stimulus in response to COVID-19 negatively impacted on health security.

Significantly, the study notes that while the containment measure by way of lockdown helped in curtailing the spread of the disease at the onset, enforcing same with expectation of compliance without any modicum of government's assistance to the poor to continue to stay at home endangers public security. Enforcement of a lockdown without socio-economic support is not sustainable and cannot guarantee compliance. The militarization of the enforcement process also underscores the level of corruption, high handedness, extortion and abuse of fundamental human rights. The easing of the lockdown and the consequent surge in the number of cases was at the behest of this scenario.

Again, the way and manner government's palliatives and other intervention initiatives were distributed lacked transparency and best, exegesis corruption. The process lacked

transparency and accountability. The state actors in charge of the distribution of the palliatives have been giving conflicting figures of the beneficiaries and amount spent in the process. This further exemplifies corruption. The level of public mistrust on the government was further exposed by this initiative.

In essence, the securitization of COVID-19 and the attendant mitigation, containment and management measures impacted on public health security and inadvertently injured population's confidence in government's response capabilities.

5.2 Conclusion

The COVID-19 pandemic has undoubtedly, brought unimaginable and unquantifiable challenges to the entire world. It has fundamentally challenged the global economy putting to task the level of health infrastructure, the preparedness of countries and their innovative ingenuity for a quick and proactive response. While the effect of this pandemic appears to be characteristically common among nations, but the burden, response and results recorded thus far, are uneven and ambivalent. Some developed countries with robust public health infrastructure, resilient economy and competent health personnel to contain manage and mitigate the effect of the pandemic was overwhelmed by the pandemic. Some others, their responses were simply slow, sluggish and uninspiring thus, leading to high disease incidence, mortality and monumental socio-economic burden. Some others too have shown resilience in their response thus, leading to somewhat effective results.

In Nigeria and elsewhere in Africa, the poor state of health facilities is well known. The capacity to test, trace and treat patients was clearly lacking and deficient thereby, leading

to publishing of incidence figures that are questionable. The politicization and securitization of the entire process was brought to bear in the enforcement of the COVID-19 protocols. The lockdown particularly was adopted without considering the contextual peculiarities in Nigeria. With this measure, poor and vulnerable Nigerians that account for over 70% of the population were meant to comply and be confined at home. In absence of economic palliative to alleviate the impact of this confinement, public compliance was difficult.

The global health security at the wake of the pandemic, no doubt was securitized. This securitization was used to provide legitimacy for the state to employ extraordinary (most times military) as well as raise the public's sense of urgency. Using military forces to support authorities was the result.

Nevertheless, the roles of the military in Nigeria's security community differed from the European examples. In most cases, the security apparatus' involvement in Europe was limited to fulfilling auxiliary logistical roles such as transporting equipments (France) or manning call centres (Germany). In Africa nay Nigeria, the military took a leading role in crisis management, enforcement of lockdown as well as responsibility over core strategic tasks that, in most countries were fulfilled by public health professionals. This was a clear demonstration of securitization in practical terms. The securitization of this process thus, led to massive deployment of security forces to enforce compliance albeit, with maximum force. The result was human right abuse, extortion and corruption that tainted the enforcement processes.

In addition, public mistrust on transparency and sincerity of government in respect to economic interventions, palliative distribution and some other policies adopted in response and particularly in mitigation of the impact proved to be costly in terms of public compliance to protocols. Most Nigerians were not too sure if actually the financial figured bandied to have been spent by the government was real. Continuous home-grown feeding, Conditional Cash Transfer, food ration subsidy and palliatives were executed in a questionable manner. This was evidenced by the results obtained in this study wherein, majority of the public interviewed accused the government of corruption and securitization of this process.

Though, the prevalence of this disease in the country is low when compared to other developed and developing countries of the world, but the mere fact that the pandemic is not over yet, calls for caution. To be sure, the securitization of the pandemic and the attendant issues surrounding the containment, mitigation and management processes need to be evaluated. Lessons must have been learnt and this is expected to guide against future outbreak of this virus or any other for that matter. This is largely dependent on the roles of state actors and key health stakeholders hence, the recommendations that follow.

5.3 Recommendations

As at June 15, 2021, the NCDC reports that Nigeria recorded 19 new cases, 167,078 confirmed cases and 2,117 deaths (NCDC, 2021). This suggests that despite the anecdotal public perception that the pandemic is over in Nigeria, it is very much around. With the new variant of the disease coming up in some other countries like India, UK and even

South Africa, and the difficulty the country is experiencing accessing the vaccines, the need to sustain the containment and preventive measures is preponderant.

In essence, achieving public health security amidst the horrendous impact of COVID-19 requires a holistic consideration of the following recommendations:

1. The ranking of Nigeria by the WHO as number 143 out of 195 WHO member countries with the worst health systems (GBD, 2016) is indicative of the near total absence of health care facilities and highlights the level of pre-COVID-19 preparedness. To address this, there is need for the government at all levels to increase their budgetary allocations to health, monitor its utilization and evaluate the outcome periodically. Important components of the nation's health security budget would include increased funding for state and local hospitals, scientific research on emerging and zoonotic diseases, epidemiological surveillance and incentives for health workers.

2. Preparedness of healthcare institutions to manage any outbreak of public health significance is a measure of several factors – adequate space for isolation of infected patients, capacity for clinical staff to manage the infection, training on bio-safety issues, institutional diagnostic capacity, availability of personal protective equipment (PPE), motivation of the healthcare workers and many more. The federal and state governments should emphasize and prioritize this in readiness for emergencies.

3. Government should as a matter of urgency endeavour to build trust with the population. This can best be achieved through responsive, responsible and accountable

governance. This way, public compliance to COVID-19 protocols and understanding of the attendant securitization will be possible.

4. The provision of social safety nets to lessen the hardship burden on the poor and vulnerable should be proritised on sustainable basis across the three tiers of government. Public compliance and acceptance of public security measures guidelines can simmer better with financial palliatives distributed in a transparent manner and feedback taken and evaluated accordingly. Partisan, ethnic or religious sentiments should not prevail in the selection and distributions to beneficiaries.

5. It is recommended further that as a public–private partnership approach was efficiently used to more effectively disseminate public health communication and prevention messages; the Nigerian Government should expand this collaboration to improve the quality of services provided in other areas of COVID-19 outbreak management. Community Based Organisations and Faith-Based organizations should be mainstreamed into the advocacy and management processes of the pandemic.

6. Federal government should adopt a comprehensive national strategy for pandemic preparedness, organize itself for success, and craft a budget commensurate to the challenge.

7. Different States could upgrade the Epidemiology Unit domiciled within the State Ministry of Health (SMoH) to a full-fledged State Center for Disease Control (SCDC). The SCDC should be equipped with full capacity to detect, diagnose and manage disease

outbreaks at the state level; strategize for pandemic preparedness thereby augmenting the structures put in place by the government at the center to curtail epidemics.

8. The Nigerian government should initiate a review of the responsibilities for pandemic preparedness and response among public health authorities at the federal, state, local, and tribal level, so that federalism becomes an asset rather than a liability to achieving public health security in Nigeria.

5.4 Recommendations for further research

It is further recommended that researchers can look into the government policies and responses at all levels and the extent to which it has helped in mitigating the spread of the Covid-19 pandemic. The effect of a comprehensive public-private partnership in the fight against the pandemic could be adequately looked into. Having talked about the ranking of Nigeria by the WHO as number 143 out of 195 WHO member countries with the worst health systems (GBD, 2016) which shows the near total absence of health care facilities and highlights the level of pre-COVID-19 preparedness; what the government is doing to follow up is a matter of great concern for further research.

5.5 Contribution to knowledge

The contemporary nature of the COVID-19 pandemic justifies the media attention given to the topic. Most of what is found in the public domain has been more of journalistic presentations highlighting on daily prevalence and response measures across the globe (NCDC, 2020, WHO, 2020, Gruyter, 2020, REACH, 2021). While this is important in respect to updating the public on the trajectories and incidences of the pandemic, it is not

sufficient and in most cases, these works are unnecessarily journalistic and anecdotal lacking analytical debt and empirical fecundity.

Besides these media reports and few other researches approaching the problem from global, regional and disciplinary perspectives, no known systematic research in the mode that accounts for Nigeria's experience exist. Some of the studies that accounts for Nigeria's experience focused more on the socio-economic impacts of the pandemic and not necessarily on the securitization and effect on public security. Hence, the novelty of this study and its contribution to knowledge.

Though the evolving nature of this pandemic will not permit prediction on its impact with precision at the moment, however, this study will serve as one of the pioneering works and is expected to add to existing knowledge in the area of securitization of the pandemic and public security.

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APPENDICES
APPENDIX 1
INTERVIEW GUIDE

Lead Questions

1. What do you know about the novel COVID-19 pandemic?

2. Do you think that the pandemic is real in the context of low rate of cases being recorded in Nigeria?

3. Would you attribute the low rate of transmission to the proactive response of the Nigerian government through the NCDC?

4. How would you rate the response of government in terms of preparedness to combat the disease, declaration of state of emergency, lockdown, palliative distribution and other interventions?

5. Do you share the opinion with public perception that the lockdown measure has done more harm than good? If yes, explain and if know, justify.

6. Do you think there is any justification for continued home-grown school feeding policy of the government even when school children are at home?

7 With vaccines being developed, would you voluntarily get the jab? Give reasons for your choice

8. What message do you have for Nigerians, Government and other Health stakeholders?

APPENDIX II: List of Personalities Interviewed

Serial	Personality	Relevant Appointment	Remarks
(a)	(b)	(c)	(d)
Key Information Interviewees			
1.	Dr. Chikwe Ihekweazu	Director General NCDC	
2.	Dr. Faisal Shuaibu	Exec. Director, National Primary Health Community Development Agency	
3.	Dr. Fiona Braka	WHO Ag. Country Representative and member Presidential Taskforce on COVID-19	
4.	Sadiya Umar Farouk	Hon. Minister of Humanitarian Affairs	**Through her CS**
5.	Sen. Lanre Tejuosho	Senate Committee Chairman on Health	
6.	Bashir Nura Alkali	Perm. Sec. Ministry of humanitarian affairs	
Other Interviewees considered incidental to the study			
7.	Dr. Nkem Nwodo	Director Social Services, Ministry of humanitarian affairs	
8.	John Oladejo	Director, health emergency preparedness and response dept. NCDC	

9.	Elsie Ilori	HOD, Surveillance and Epidemiology, NCDC	
10	Some selected residents in Abuja, Lagos, Calabar, Markudi and Lafia		

Abbreviations/acronyms

APHA- American Public Health Association

CDC- Centre for Disease Control

US FDA- United States Food Drug Administration

GHS- Global Health Security

IHR- International Health Regulation

INHSI- International Health Security Initiative

NASEM- National Academies of Science, Engineering and Medicine

NCDC- Nigeria Centre for Disease Control

PHEOC- Public Health Emergency Operations Center

SARS- Severe Acute Respiratory Syndrome

WHO- World Health Organization

APPENDIX III:

Covid-19 Countries' Resilience Ranking

Rank	Change	Economy	Bloomberg Resilience Score	1-Month Cases Per 100,000	1-Month Fatality Rate	Total Deaths Per 1 Million	Positive Test Rate	People Covered by Vaccines
1	▲1	New Zealand	80.8	1	0%	5	0.1%	4.8%
2	▼1	Singapore	79.4	15	0.2%	5	0%	29.9%
3	–	Australia	79.1	1	0%	36	0%	7.1%
4	–	Israel	75.4	16	4%	740	0.1%	58.3%
5	▲1	South Korea	73.8	34	0.7%	38	2.3%	5.4%
6	▲3	Finland	73.8	107	0.5%	168	1.4%	24.1%
7	▲8	Norway	72.2	222	0.4%	144	2.1%	21.9%
8	▲6	Denmark	71.4	458	0.1%	433	0.4%	26.1%
9	▲3	Mainland China	71.4	0	0%	3	0.1%	17.8%
10	–	Hong Kong	71.3	1	1%	28	0%	14.3%
11	▲7	U.K.	70.9	88	0.5%	1,885	0.2%	45.4%

Rank	Change	Economy	Bloomberg Resilience Score	1-Month Cases Per 100,000	1-Month Fatality Rate	Total Deaths Per 1 Million	Positive Test Rate	People Covered by Vaccines
12	▼4	U.A.E.	70.7	477	0.2%	167	1.2%	56.3%
13	▲4	U.S.	70.3	324	1.7%	1,782	3.8%	44.5%
14	▼7	Japan	68.1	123	1.5%	97	6.1%	3.2%
15	▼10	Taiwan	67.8	12	0.2%	1	1.7%	0.6%
16	▲5	Switzerland	66.8	472	0.4%	1,245	4.8%	23.3%
17	▲7	Spain	66.6	359	1.2%	1,703	0.1%	25.8%
18	▲1	Canada	66.1	494	0.7%	668	4.8%	27.6%
19	▼3	Saudi Arabia	65.6	85	1.2%	208	1.4%	18.9%
20	▲3	Portugal	65.3	110	0.5%	1,669	1.1%	23.6%
21	▲7	Austria	63.8	382	1.4%	1,171	0.3%	25.7%
22	▲3	Ireland	63.4	176	0.8%	1,001	2.3%	19.9%
23	▼12	Vietnam	62.6	2	0.3%	0	0.5%	0.5%
24	▲18	France	61.9	683	1.2%	1,660	4%	25.8%
25	▲6	Belgium	61.1	663	1.1%	2,143	5.7%	26.3%
26	▼4	Russia	60.9	167	4.3%	798	2.7%	8.2%

Rank	Change	Economy	Bloomberg Resilience Score	1-Month Cases Per 100,000	1-Month Fatality Rate	Total Deaths Per 1 Million	Positive Test Rate	People Covered by Vaccines
41	▲5	Turkey	51.5	706	1.4%	549	5.2%	16.8%
42	▼8	Indonesia	50.9	51	3.5%	180	10.7%	4.6%
43	▲2	Philippines	50.5	174	1.7%	182	13.2%	1.5%
44	▼1	Iraq	49.2	355	0.7%	403	12.4%	0.7%
45	▼7	Egypt	49	32	5.3%	144	—	0.7%
46	▼11	Pakistan	46.5	50	2.9%	92	8%	1.2%
47	▲1	Mexico	46.3	53	9.8%	1,719	17.4%	10.2%
48	▲1	Iran	46.1	542	2.1%	936	8.8%	1.4%
49	▼2	Peru	46	506	5%	2,057	15.4%	4.7%
50	▼20	India	43.9	719	1.1%	217	15.4%	7.1%
51	▲2	Brazil	43.4	835	3.4%	2,113	—	14.9%
52	▼2	Colombia	39.4	934	2.9%	1,665	26.6%	8.2%
53	▼2	Argentina	36.4	1,535	1.8%	1,639	30.6%	12.3%

Source: *https://www.bloomberg.com/graphics/covid-resilience-ranking/#ranking*

Key: Worse- red, orange and pink

Better- sky blue, light blue and blue