OPEN ACCESS

Saudi Journal of Humanities and Social Sciences
Abbreviated Key Title: Saudi J Humanities Soc Sci
ISSN 2415-6256 (Print) | ISSN 2415-6248 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

Original Research Article

Health Sector Readiness and COVID-19 Containment in Rivers State, Nigeria

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DOI: 10.36348/sjhss.2022.v07i08.001 | **Received:** 13.06.2022 | **Accepted:** 25.07.2022 | **Published:** 04.08.2022

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Abstract

This paper examined health sector readiness and COVID-19 containment in Rivers State, Nigeria. The study concerned itself with the responses from the health sector, which determines its readiness to contain the COVID-19 pandemic as a health emergency. The study was guided by contingency theory. Contingency theory argues that there is no specific and best way of solving problems affecting society and therefore lays emphasis on solutions to problems. Data was collected from secondary sources using content analysis. The analysis indicated that the post-epidemic level of preparedness was poor due to decades of neglect arising from leadership ineptitude, underfunding, and inadequate training in the health sector. However, post-epidemic response and containment efforts, which have kept the fatality rate at 1.3%, demonstrate the importance of prioritization of needs under resource constraint. The drastic contingency measures of sit-at-home, lockdown, and border closure, together with emergency purchase, donor and stakeholder funding, and assistance in the provision of required medical facilities, were an apt product of resilience and courage under fire. The study recommends, among other things, increased budgetary allocation for overall health sector development in line with international best practices. This must be driven by a visionary and pragmatic leader.

Keywords: Health sector readiness, Covid-19, containment, contingency.

BACKGROUND

The COVID-19 crisis (later pandemic) took the world by surprise. It came like a whirlwind, shaking both developed and developing countries with varying degrees of severity and impact. To contemplate that any country was prepared for the pandemic or ready to contain it is both an overstatement and erroneous. The prevention, control, and containment of COVID-19 is contingent on the response from the health sector. Both developing and developed countries exhibited shocks with a debilitating and destabilizing effect on their economies. In any case, the severity of the impact depends on environmental factors, timely response from the health sector, and state political will. The response, however, depended on the quality of health infrastructure and personnel upon which robust infection prevention and control (IPC) was premised. In the United States of America, a report of a national review of preparedness reported challenges related to patient care, expanding facilities, availability of personal protective equipment (PPE) and staff safety (Grimm, 2020). In Ukraine, less than 50% of hospitals lacked surgical masks for use by healthcare workers (WHO, 2020a).

The world was engrossed in crisis as the pandemic brought into focus the weakness in the health sector (Uwaezuoke, 2020). Nigeria, by all standards and especially going by the unpromising allocation to the health sector, initially showed a very high level of unpreparedness compared to the cases of the United States of America, Ukraine, etc. However, each passing week saw a significant improvement in the effort to contain the COVID-19 pandemic. Nevertheless, this was at the huge expense of all other areas of the socio-economic system. Understandably, it was an emergency and a crisis situation deserving of co-operation from all facets of society. Cooperation and commitment from all stakeholders in the health sector and the Nigerian project accounted for what would be described as the success story against the COVID-19 pandemic.

The response from the health sector made the COVID-19 pandemic become a threat to mankind. In Rivers State, it was more accentuated by the negligible

state of her health sector, infrastructure, and personnel following decades of neglect. Our leadership in health tourism is detrimental to the development and readiness of the health sector, which was further stressed by the COVID-19 pandemic. In their study on the COVID-19 pandemic and the Nigeria primary health care system: the leadership question, they observed the pathetic nature of the health sector caused by corruption and leadership ineptitude, resulting in a near total neglect of the sector which accentuated disease vulnerability. If health is wealth, then a state that neglects its health sector is poor and will have a weak workforce to handle any health emergency, as quality health is one of the indices on the United Nations Development Project (UNDP) Human Development Index (HDI). This perhaps provides a lucid explanation why countries such as the U.S.A, Canada, the United Kingdom, and the United Arab Republic, amongst other development-minded nations, pay greater attention to the development of their health sector. Such development includes training and enviable welfare for health personnel. Could the same be said of Rivers State and Nigeria? The constant brain drain of medical and health personnel to these developed countries is a testament to the above position given our lack of commitment to development, especially in the health sector. In particular, the health sector has suffered significant setbacks due to insufficient funding, mismanagement, deteriorating infrastructure, insufficient healthcare manpower, and a scarcity of health facilities (Marvel, 2019). The issue of incessant strikes in the health sector puts a question mark on the readiness of the health sector to contain the COVID-19 pandemic in Rivers State (Abdul, 2020). Today, the health sector is still receding and deteriorating. We can hardly esteem enough test kits, ventilators, bed spaces, and equipment to grapple with the COVID-19 pandemic.

Smitten like an Armageddon, COVID-19 was accentuated by the various conspiracy theories surrounding it within the state. Rivers State was categorized as one of the high-risk states for the spread of COVID-19. This categorization was premised on three conditions, viz., the weak health sector, a large population, and a sizeable traveling population (Gilbert *et al*., 2020). Uwaezuoke (2020) in his study on strengthening health systems in Africa: the COVID-19 pandemic fallout also highlighted a shift in the paradigm of strengthening health systems in the African setting in the wake of the COVID-19 pandemic. It is extensively argued, just as the present paper does, on the weaknesses of the health sector; inadequate funding for health infrastructure, erratic health policy, and the inability to meet Universal Health Coverage through health insurance policy. For him, strengthening the health sector requires upgrading the health-care system through increased funding for infrastructure, welfare improvement, and universal health coverage (UHC). Ogoina *et al*., (2021) in a national survey of hospital readiness during the COVID-19 pandemic in Nigeria averred that the COVID-19 pandemic had overwhelmed the health sector. From the above analyses, it is obvious that no serious attention has been given to the budgetary allocation to the health sector and the COVID-19 containment effort in Rivers State. This establishes a gap which needs to be filled; hence the present work. The present work therefore appraises the budgetary allocations to the health sector, its preparedness (readiness), response, and containment efforts in the face of the COVID-19 pandemic, from a purely theoretical standpoint.

Following the above, the problem of the present paper is to access the budgetary allocation to the health sector and its state of preparedness (readiness) to contain the COVID-19 pandemic. So, what was the pre-covid-19 outbreak preparedness in Rivers State, Nigeria? What were the post-outbreak response measures and efforts in Rivers State to contain the covid-19 pandemic? The objective is to appraise the budgetary allocation to the health sector, its preparedness, response and COVID-19 containment effort in Rivers State. In doing so, greater attention is paid to the effect of health sector readiness on the containment of COVID-19.

Conceptual Clarification

Health sector readiness

Health sector readiness and preparedness are used interchangeably in this study. The health sector as used in this study refers to institutions that provide medical services or facilitate the provision of healthcare to patients. Health sector readiness refers to the state of being ready and prepared to contain any health emergency. Health sector readiness is also seen as the ability of health institutions and healthcare givers to contain diseases and provide timely information aimed at containing possible disease outbreaks, among many other things (Stoller, 2009). As far back as 1975, the third National Development Plan lamented the poor state of the health sector and, in reaction thereto, designed a robust health sector improvement plan. This coincided with the World Health Organisation (WHO) declaration of ‘Health for All’ (WHO, 1978). This plan gave birth to the Primary Healthcare Centre (PHC) System. However, a visit to the PHCs, especially in the rural areas, will say if they have justified their creation. Meanwhile, the responsibility of infectious disease prevention and control falls within the purview of the National Primary Health Care Development Agency (NPHCDA), which was established in 1992. The Primary Health Centres are the primary vehicles for the implementation of the policies and programmes of the NPHCDA.

The primary health care 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; pp1-2).

The agency, that is, NPHCDA was saddled with the responsibility of coordinating all actions and programmes targeted at the containment of health emergences in Nigeria.

COVID-19

Coronavirus disease, otherwise called COVID-19, is caused by the severe acute respiratory syndrome virus 2 (SARS-COV-2) (WHO, 2020). It is basically transmitted through respiratory droplets. Covid-19 was declared a public health emergency of international concern on January 30, 2020 and subsequently declared a pandemic on March 11, 2020 (Jee, 2020; Cucinotta & Vanelli, 2020; WHO, 2020b). Its declaration as a pandemic gave countries the matching order to take urgent, drastic, and aggressive measures for its containment.

At the time of writing this paper, Rivers State has a total number of 16,685 confirmed cases with a death rate of 154. A total of 16,501 have been discharged while active cases stood at 30 (NCDC, 2022). There may be more to these figures. They may be underestimated. It is far from nearing national coverage due to limited testing, especially in the rural areas where the awareness and infection prevention and control (IPC) rates are lower. In the rural areas, the conspiracy theory of COVID-19 is also predominant; as such people are scared of voluntary testing. They also reject vaccination. The mortality rate of COVID-19 varies among countries. The state of countries' health infrastructure, quality of health personnel, and environmental factors account for the differences. Co-morbidities, i.e., the presence of prior underlying illnesses such as hypertension, cancer, diabetes, and other cardiovascular diseases, are opportunistic cases for the increase in fatality of COVID-19.

Theoretical Framework

The study is anchored on contingency theory. Contingency theory was developed by Fred Edward Fiedler in 1964 (Fiedler, 1993), as cited in Biesta and Burbules, (2003). Contingency theory advocates that there is no one best approaches to managing a situation, and actions must be appropriate to the given situation. In other words, managerial action is contingent upon the external environment and circumstances. This theory maintains that the core issue is to provide a practical solution to the situation at hand because there are no one best approaches for all situations. The core assumptions of contingency theory are that management of issues is externally situational: the conditions of the situation determine the approach to be applied in such a situation. Secondly, there is no one best way of solving a problem.

This theory is relevant to this study because it arises from various environmental factors that guide decision making for the result. The emphasis of this theory has been on solutions to problems and not necessarily the acceptability of the modus operandi. This element of the theory helps our argument. The understanding of the theory is that there is no specific and best way of solving a problem affecting society. The optimal course of action is contingent upon internal and external stimuli, and the focus is on whether solutions provide practical outcomes that solve human and societal problems; whether they provide a solution to an impending or current problem. These are the fundamental elements that fit our argument.

Faced with a national emergency, the Nigeria Centre for Disease Control and the Presidential Taskforce on COVID-19, as the arrow heads of the government in the response to the COVID-19 pandemic, adopted pragmatic and contingent approaches to contain the COVID-19 pandemic. What was paramount was the result. This guided all the measures adopted; the curfew, isolation, social distancing, sitting at home, lockdown, the emergency sourcing of funds, the supplementary budget, appeal for international and multilateral support, donor funding, domestic borrowing, corporate and philanthropic support and assistance, moratorium on loans, social support schemes, palliative, etc. It is against the above backdrop that our argument sees the contingent and pragmatic steps of the government in containing COVID-19 as worthwhile and commendable. There is no doubt that other facets of society suffered, but the steps and actions of the government were worthwhile to the extent that they led to an early exit from the many restrictive measures associated with the pandemic and its effect on an already dying economy.

METHODOLOGY

This study adopted a qualitative method. The data used was basically from secondary sources. The journal papers, newsletters, official documents, and releases of WHO and NCDC constituted the bulk of the sources of data used in this paper. Greater effort is therefore made to properly x-ray the responses to the COVID-19 pandemic using content analysis.

Funding in the health sector in relation to its readiness

Despite the rich resource fortune and revenue accrued from the resources, her healthcare system is one of the worst in the country. This heightened her vulnerability to COVID-19. It is pertinent to note that there is a geographic disparity in access to quality health care in River State, Nigeria; about 55 percent of

the population lives in rural areas, with limited access to secondary and tertiary healthcare facilities. The primary health centre is in a pitiable state. The ratio shows 3.8 physicians per 10,000 people and 15 nurses and midwives per 10,000, meaning an overall shortage of health care workers. This raises concern about the capacity of the health sector during the COVID-19 outbreak and portends an increasing risk of morbidity and mortality for the already vulnerable people (Olumade *et al*., 2020).

WHO recommended that countries allocate 13% of annual budgets to the health sector (WHO, 1978). In the 2001 Abuja Declaration, to which Nigeria, by implication, Rivers State and other forty-three African countries are signatories, stipulated that a minimum spending of 15% of signatory nations' annual budget should go into the public health sector (Yanusa, 2013). A cursory look at Rivers State and Nigeria's budgetary allocation to the health sector from 2000 to 2019 provides the answer on the readiness of the health sector to contain COVID-19 in clear and unambiguous terms. See Tables 1 and 2 below.

Table 1: Brief analysis of Rivers State Health Budget, 2000-2019

YEAR	Health Budget	% of Total State Budget
2000	17,114,684,155	3 .64
2001	19,612,000,000	4.00
2002	20,342,450,000	4.19
2003	12,679,100,000	4.1
2004	11,189,000,000	3.34
2005	13,333,000,000	3.98
2006	17,499,000,000	5.7
2007	16,450,000,000	3.5
2008	15,406,000,000	4.09
2009	19,055,000,000	4.4
2010	18,000,000,000	4.2
2011	16,800,000,000	4
2012	28,900,000,000	6.6
2013	10,000,000,000	2
2014	4,000,000,000	0.83
2015	2,000,000,000	0.6
2016	8,596,000,000	2.80
2017	27,000,000,000	5.8
2018	30,000,000,000	5.9
2019	25,300,000,000	5.27

Source: State Ministry of Budget and National Planning.

From Table 1 above, it is evident that Rivers State is not serious in terms of health expenditure. Juxtaposing the budgetary allocation to the health sector against the WHO's 13% recommendation as well as the Abuja declaration of 15% underscores the unpreparedness of Rivers State for any health emergency. Despite the fact that the third national development plan also acknowledged the pivotal role of quality health in human resource development and promised to step up health expenditure to global expectations, no concrete step has been taken. For decades after the third national development plan, WHO recommendation, and Abuja declaration, the budgetary allocation to the health sector had not reached the average bench mark of any of the protocols or agreements. The highest national budgetary allocation to the health sector was in 2012 at 6.6%. The least was in 2015 with 0.6%. In fact, the average allocation from table 1 above is 3.95%, proving a difficulty in the containment of any health emergency such as COVID-19.

Pre-Covid-19 Outbreak Preparedness in River State

In an assessment conducted at the onset of COVID-19 to determine the readiness status of states and countries, Nigeria's pandemic preparedness index was 37.8%. She ranked 9 out of 195 countries in the world that were surveyed (WHO, 2020; Cameron *et al*., 2019). Using the WHO checklist, Rivers State was also reported to have been unprepared in the areas of surveillance, case management, IPC, and rapid response teams (Dan-Nwafor *et al.,* 2020; Ogoina *et al.,* 2021). The general state of poor readiness of critical health infrastructure, human resources, staff welfare, and availability of critical items for COVID-19 containment accounted for the surge capacity at the early stage of the pandemic.

Following environmental factors, Rivers State became a high-risk area for COVID-19. Environmental factors such as atmospheric temperature, sunlight, and high humidity all played a role in whether COVID-19 was fatal or not. Ratnesar-Shumate *et al*., (2020) have

demonstrated in their research that sunlight and humidity inactivate SARS-Cov-2 rapidly on the surface. This is a serious containment factor in the case of Rivers State. However, people in the poor health sector are at risk of uncertainty due to prolonged health vulnerability occasioned by long years of neglect and eminent corruption. The actions and inactions of the health sector demonstrated a lack of preparation even after the release of the preparation plan by WHO in early February, 2020. Following the report of the first case of COVID-19, the Nigeria National Coronavirus Preparedness Group transitioned into a multi-sectorial Emergency Operation Centre (EOC) at the NCDC. Coordination, surveillance and epidemiology, case management laboratory, and point of entry risk communication were the pillars of the EOC. National multidisciplinary response teams were deployed to strengthen the coordination and response activities within the state. The goal was to ensure proper coordination of readiness efforts; monitor, assess, and report the risk of spread; and initiate measures for early detection and timely response for COVID-19 pandemic containment.

There was rather an inadequate public awareness for covid-19 until 25th March, 2020 when the first case of covid-19 was first confirmed in Rivers State (Adepoju, 2020). It was after the index case that public awareness began and government hurriedly began procurement of medical equipments for point of entry identification and testing of travelers arriving with symptoms. This was then followed by contact tracing. Exposed people were asked to self-isolate. But how effective and efficient were the testing kits. Was the contact tracing robust? In any case, public awareness and risk communication was aimed at limiting the spread of the coronavirus.

As Ilesanmi and Fagbale (2020) noted, poor covid-19 outbreak readiness on the part of the government contributed to the increased number of the infection. It does appear no lesson was learnt from the experience with Ebola outbreak. Rivers State had to initially face the realities of covid-19 pandemic unprepared with fragile and under-resourced public health infrastructure. Except for the Nigeria Centre for Disease Control (NCDC) which resurrected from its comatose state since the Ebola epidemic, there was strategically nothing on ground to face the pandemic. All the infrastructures established in the Ebola period faded away just like the Ebola disease that brought them. However, NCDC has to be immediately resuscitated and strengthened to enhance the diagnostic and surveillance capacity, albeit weak.

Post Outbreak Response Measures in Rivers State

There is no doubt that post-outbreak response measures also constitute government containment efforts. On April 9, 2020, an executive task force on COVID-19 was established to oversee and coordinate all efforts aimed at containing the COVID-19 outbreak and mitigating its impact on the economy. The first eighty cases were imported cases or those who got in contact with them. This necessitated a travel ban for people coming into the state from high-burden states and countries such as Lagos, China, Italy, and Germany (Kapata, 2020). Land borders were also closed. This was followed by sit-at-home orders and the cessation of non-essential movements. There was the closure of schools, markets, businesses, places of worship, social gatherings etc. Later, there was a curfew and restrictions on inter-state movement, and finally total lockdown. Despite the lockdown, the borders were porous, allowing movements.

Dan-Nwafor *et al*., (2020) noted that the lock down was a drastic measure aimed at two objectives. The first was to slow the spread of the virus across the state. The second objective was to buy time for the health sector to increase its readiness. By and large, there was quick establishment of screening, testing, and treatment centers across the state. COVID-19 caused an emergency improvement in some health infrastructure, especially those established as isolation centres. Some hospitals have had to hurriedly procure ventilators for the first time due to the COVID-19 pandemic (Ogoina *et al*., 2021). Despite these, there were limited numbers of beds, oxygen, and ventilators at the treatment center. Some corporate organizations, at the distress call of the government, also donated some medical equipment for the containment of the COVID-19 pandemic.

Health sector and Containment of Covid-19 Pandemic

From Table 1 earlier presented, the cumulative underfunding of the health sector undermined its functional capacity and affected its readiness, responses, and containment of the COVID-19 pandemic. In the wake of the emergency, the government had to raise a supplementary budget of N2.8 trillion to contain the COVID-19 pandemic and its effect on the economy (Agba, 2021).

Aside from the government borrowing to purchase the equipment and materials needed to contain the pandemic, donor funding and support also assisted the health sector in containing COVID-19. There was also support from the private sector for the containment of the COVID-19 pandemic (Unah, 2020). All these efforts aided the timely containment of the COVID-19 pandemic in Rivers State. To adequately prepare for the containment of COVID-19, the health sector also embarked on training and re-training of health workers; erection of isolation centers; and purchase of medical equipment for the containment of COVID-19 (Akpo, Uchendu, Otene, Ikubor, Orugbo, Odion-Obomhense, & Oriakhi, 2020).

By and large, Rivers State and Nigeria at large have significantly managed a hitherto catastrophic situation even before the arrival of the vaccine. This gain is premised on swift and aggressive action by the government, especially through drastic social protection mechanisms. Until December, 2021, Rivers State has only four (4) confirmed public-funded hospital-based COVID-19 treatment centers (Ogoina, 2021). However, Rivers State has performed relatively well in terms of timely containing each of the last two waves of COVID-19. Can we truly say that the health sector is prepared when River State has only four COVID-19 treatment centers?

Challenges faced in the containment of covid-19

Careful review of available data indicates that there was shortage of testing materials, limited health infrastructure, religion and over bearing religious sentiments, border control and corruption as some of the major problems faced in the containment of covid-19 pandemic. These resulted in preferential testing and treatment in the early period. Obi-Ani *et al.*, (2020) hold the strong view that the high potential false negative rate of diagnosis of COVID-19 could be attributed to these factors.

The distrust of people in leadership almost gave credence to the conspiracy theory surrounding COVID-19. This seriously affected the capacity of the health sector to satisfactorily and unbiasedly contain the pandemic. It also affected care-seeking behavior and public adherence to professional advisories on COVID-19. The issue of distrust is also compounded by religion and religious sentiment. The excessive religiosity and spiritualization of the private and public lives of citizens also undermined efforts to contain the COVID-19 pandemic. Politicians also use COVID-19 for selfish political reasons. One would then imagine how, at the peak of the pandemic during the 2020 Easter celebration, Rivers State approved church services and other religious activities in their full capacity without recourse to the transmissibility of COVID-19 in a crowd situation. Similar treatment was given to the Muslim community in the state. These types of religious sentiment had the potential to reverse the gains made by anti-pandemic measures. On the one hand, while there were strict border control measures in some places, the borders of some parts of the state remained loose, allowing for movement. No doubt, the challenge of a porous border undermines serious government effort, even in fighting insecurity in the state.

The general consensus on the issue of corruption has been that allocations, releases, funding, and donations should be used wisely. This was not so. There were undercover deals in the purchasing of equipment and other essential and non-essential materials needed in the period. There were cases of duplication and inflation of contracts for medical supplies. One of such cases was the award of a contract by the "National Primary Health Care Development Agency, NPHCDA, worth N840.6 million to purchase medical equipment which was inflated by 300%" (Agbo, 2020).

CONCLUSION AND RECOMMENDATIONS

Despite being a resource-constrained state with a particularly vulnerable health sector, Rivers State and Nigeria managed to handle the COVID-19 pandemic relatively well. Factors such as inadequate budgetary allocation, lack of investment in the health sector, inadequate diagnostic capacity, and shortage of medical professionals limited the readiness and containment of the COVID-19 pandemic. The highest post-outbreak readiness measure was in the area of Infectious Disease Prevention and Control (IPC) and surveillance. There is little doubt that COVID-19 necessitated some improvement in health infrastructure, especially in the establishment of isolation units and procurement of ventilators for the first time due to the COVID-19 pandemic. The health sector remained vulnerable. However, early preventive actions, implementing social protection measures, leveraging on existing epidemic preparedness and experience, and robust support from the private sector and other agencies have likely slowed COVID-19 transmission. This investigation revealed that global or regional health emergencies occur at intervals. They have occurred in the last century in quick succession. There was Ebola, bird flu, monkey pox, and now COVID-19. There may be another outbreak. This calls for urgent, radical, and consistent improvement and development of the health sector through improved budgetary allocation as contained in the earlier cited agreement and protocols to which she is a signatory.

Rivers State's experience demonstrates the important role of prioritization of needs under resource constrained situations. The haphazard and fire brigade approach with which the COVID-19 pandemic has been contained is not the best. At other times, this contingent and pragmatic approach may fail. The solution to the problem has since been provided by Chinua Achebe in his book, *The Trouble with Nigeria.* It lies in pragmatic leadership. Only with it would the underfunding and endemic corruption undermining the growth and development of the health sector be squarely tackled.

The study therefore recommends that

1. There is a need for health research, public health awareness, and constant training and retraining of health workers in case of another health emergency in Rivers State.
2. There is a need to maintain a sustainable intervention programme that will address the challenges in the health sector and the management of health care facilities, including

an improved welfare package for healthcare personnel in Rivers State.

3. There is a need for urgent, radical, and consistent improvement and development of the health sector through improved budgetary allocation in Rivers State.

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