Nigeria's financing of health care during the COVID-19 pandemic: challenges and recommendations

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Abstract

An analysis of the financing of Nigeria's health care system in response to the COVID-19 pandemic, using three key health care financing indicators: revenue collection, pooling, and purchasing was conducted. Nigeria projected that it would need US$330 million to control its COVID-19 pandemic. However, it raised more than US$560.52 million, of which more than 90% came from the private sector and the donor/philanthropist community. The pooled COVID-19 fund is mainly being expended on temporary public health and clinical care measures, with little invested to strengthen the health system beyond the pandemic. The poor turn-around time for COVID-19 test results and the huge stigma associated with the disease results in most persons with mild to moderate symptoms seeking care from alternatives to the healthcare institutions designated for COVID-19 health care. The huge out-of-pocket expenses, and the inability of most Nigerians to earn money because of measures instituted to contain the pandemic, will likely cause many Nigerians to become economically impoverished by the COVID-19 pandemic. COVID-19-related commodity procurement was least responsive to the needs of those most in need of care and support. The government needs to institute several fiscal policies to improve funding of the health sector. These include taxing of diaspora remittances; swopping debt reduction for domestic investment in health systems; auctioning or sale of emissions permits; trading of Special Drawing Rights; effective collection of corporate and business taxes; and addressing cross-border tax fraud, evasion, and avoidance. Immediate response to ease the financial impact of COVID-19 is inclusion of COVID-19 management in health insurance packages and increase in domestic government health spending to at least 5% of gross domestic product. The long years of neglect of the health system in Nigeria makes it unprepared to meet the demands that COVID-19 has placed on it. Multiple mechanisms for resourcing healthcare are still open to the government of Nigeria. Universal health coverage should be a priority response as a measure to mitigate the impact of COVID-19, especially on the most vulnerable citizens.

JEL classification: I10, I18

Keywords: Health care financing; COVID-19; Coronavirus; SARS-CoV-2; Disease outbreak; Pandemic; Public health emergency; Health policy; Universal health coverage; Nigeria

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1. Introduction

Coronavirus disease 2019 (COVID-19) is an ongoing global public health crisis resulting from the outbreak of the novel severe acute respiratory syndrome coronavirus 2 (SARSCoV2) infection, which began in Wuhan, Hubei Province, China, in December 2019. It is an international public health emergency (Wilder-Smith et al, 2020; World Health Organization, 2020a). As of 1 September 2020, there have been 25,590,668 confirmed COVID-19 cases, with 852,985 deaths, globally (Centre for Systems Science and Engineering, 2020). Nigeria recorded its first COVID-19 case on 27 February 2020 and has 54,247 confirmed COVID-19 cases and 1023 deaths as of 1 September 2020 (Nigeria Centre for Disease Control, 2020).

Countries, including Nigeria have adopted several public health measures, based on World Health Organization recommendation, to control the spread of COVID-19. The measures include individual practices, such as regular hand washing, wearing of face masks in public places, and physical/social distancing. Countries have also instituted public health measures, such as widespread testing, isolation of patients, contact tracing, and quarantine. Community-wide containment include partial or complete lockdowns of the economy, restrictions on travel and movement, and banning or limiting public gatherings (Andam et al, 2020; Wilder-Smith et al, 2020).

The severity of the COVID-19 outbreak in Nigeria has not been as serious as the outbreaks in Europe and North America and in other countries in Africa. A few reasons for these differences have been proffered, none of which include effective health-systems response (Ugwu et al, 2020). The inefficient systems may account for the poor performance of the country in containing the epidemic when compared with that of other countries in the region; Nigeria has the second highest number of COVID-19 cases in sub-Saharan Africa and the highest number of deaths in Western Africa (Centre for Systems Science and Engineering, 2020).

Before the COVID-19 outbreak, Nigeria's response to disease outbreaks was rated poor by the 2019 Global Health Security Index and World Health Organization's Joint External Evaluation of International Health Regulations core capacities (Center for Health Security, 2020; Kandel et al, 2019; World Health Organization, 2017). The country's response to the COVID-19 pandemic has been undermined by its poor health system, which is the result of chronic low government spending on health, delay in government responses to the virus, low rates of COVID-

19 testing, and poor transparency and accountability. The country's surveillance system and contact tracing may be effective for dealing with small pockets of outbreaks but are not effective for dealing with large-magnitude disease such as COVID-19. Health-sector allocation as a percentage of the total federal budget was less than 5% in 2020 (BudgIT, 2020), a health investment that is below the minimum 15% annual health budget recommended by the African Heads of State (United Nations, 2001). In 2020, the revised budget allocation to the Basic Health Care Provision Fund was reduced by more than 40% from N44.4 billion (US$116.84 million) to N25.5 billion (US$67.11 million) (Budget Office of the Federation, 2020).

Delay in public-health response also contributed to the poor response. While the World Health Organization declared COVID-19 a Public Health Emergency of International Concern on 30 January 2020 (Wilder-Smith et al, 2020), the Presidential Task Force on COVID-19 was not set up until 7 March 2020 (Andam et al, 2020); the closure of land and air borders was delayed until 25 March 2020 (Andam et al, 2020), and the lockdown of states was initially limited to the three states, with evidence of rapidly advancing community transmission of COVID-19 (Lagos, Ogun, and the Federal Capital Territory) on 28 March 2020 (Andam et al, 2020). COVID-19 testing was initially limited to persons with severe symptoms, an ineffective containment approach for a disease in which 80% of those infected are asymptomatic yet with a high transmission rate of 3.5 persons to one infected person for persons who are both asymptomatic and symptomatic (World Health Organization, 2020b). As of 1 September 2020, the country has only tested 405,916 of its 206 million population (Centre for Systems Science and Engineering, 2020).

The COVID-19 response has also been accused of being bedevilled by corruption in the Nigerian health sector (Folorunsho-Francis, 2020), which has undermined efforts to cushion the effect of COVID-19 (Dixit et al, 2020). The inadequacy of the COVID-19 response in Nigeria reflects the consequences of an un-strengthened health system that performed poorly during peace time and is now performing dismally during a health crisis. This paper examines the funding of the national healthcare response during the COVID-19 pandemic in Nigeria, and it makes recommendations for increased government health spending to strengthen local health security and universal health coverage. Adequate health financing strengthens the delivery of primary health care services in general, which then is capacitated to respond to the needs of the country during health emergencies like that of the COVID-19 pandemic. The analysis of health care financing during the COVID-19

pandemic in Nigeria was based on the key indicators of health care financing: revenue collection, pooling, and purchasing (McIntyre, 2007).

2. Revenue collection for the COVID-19 pandemic control in Nigeria

Prior to the COVID-19 pandemic, the sources of financing for the Nigerian health-care system were general tax revenue, out-of-pocket payments, social health insurance, private voluntary health insurance, community-based health insurance, and donor funding. Yet, the COVID-19 pandemic required more funding to ensure a comprehensive public health and clinical care response, as well as to bolster the economy and ensure value for money while minimizing fraud and corruption (Gurazada et al, 2020). The federal government projected that US$330 million would be needed to procure medical equipment, personal protective equipment, and medicines for control the COVID-19 pandemic in Nigeria (Dixit et al, 2020).

In response to this critical need, funds were collected to control the COVID-19 outbreak at the national and sub-national levels in Nigeria, most of which were from external sources with limited domestic funding. Sources of funds were the Nigerian government, which approved US$2.3 million for the management of coronavirus in the wake of the epidemic as its fiscal stimulus package in April 2020 (Adejumo, 2020; Ibrahim and Olasinde, 2020); it provided a N10 billion (US$26.32 million) grant to Lagos State (Omilana, 2020) and N6.5 billion (US$17.11 million) emergency intervention fund to the Nigeria Centre for Disease Control (Iroanusi, 2020) for COVID-19 response. The Central Bank of Nigeria also contributed, with a N100 billion (US$ 263.16 million) credit to the private health sector to support health infrastructure development, implementation of service delivery models that reduce the cost of providing healthcare services, and support of indigenous pharmaceutical companies to expand and comply with the World Health organization's good manufacturing practices (Central Bank of Nigeria, 2020).

The private sector also contributed to the COVID-19 response in Nigeria through the Private-sector Coalition against COVID-19 (CACOVID), launched on 26 March 2020. The Coalition donated over US$55.7 million as of 6 April 2020. Dangote and the Central Bank donated US$5.1 million each (African Business Magazine, 2020) for the provision of medical facilities and equipment (UNDP, 2020a). State governments received several cash donations from philanthropists (UNICEF, 2020). In addition, the Nigerian National Petroleum Corporation and other oil companies have pledged US$30 million to the Nigeria Centre for Disease Control to

improve patient care and purchase medical supplies and equipment. The Dangote Foundation built and equipped a laboratory in a public health institution in Kano to ramp up testing (Dangote, 2020). A basket fund was set up by the United Nations system in Nigeria in collaboration with the federal government to mobilize resources and strengthen the COVID-19 response (World Bank, 2020). The basket fund supports the rapid implementation of the country's National COVID-19 Multi-sectoral Pandemic Response Plan (United Nation Nigeria, 2020). The United Nations had mobilized US$61.3 million into the basket fund as of 20 June 2020, which is inclusive of US$2 million made and 50 million Euros by the European Union as of the 08 May 2020. Donations were made by other multilateral and bilateral donors as well as by private donors, foundations, and philanthropists (CACOVID, 2020). The World Bank approved US$114.28 million financing to boost state-level COVID-19 response (CovidFundTracka, 2020), and the Global Fund for HIV, Malaria and Tuberculosis reprogrammed US$5.1 million for the country's COVID-19 response, with the focus on purchase of gene-expert testing machines.

The United Nations system in Nigeria collected most of the donor funds, and the funds were allocated by a board consisting of the Honourable Ministers from relevant Federal Ministries and representatives from contributing donors, the Nigeria Centre for Disease Control, and the United Nations in Nigeria (United Nations, 2020). Also, the government instituted mechanisms to ensure transparency and accountability of COVID-19-related expenditures by domiciling COVID-19 funds in the Treasury Single Account at the Central Bank of Nigeria, with sub-account domiciled in Zenith Bank, Access Bank, Guarantee Trust Bank, United Bank for Africa, and First Bank (Adejumo, 2020). The Treasury Single Account enables the government to have an overview of cash available at any time, manage cash, and ensure liquidity for COVID-19 operations, thereby ensuring efficient and sound cash management.

3. Pooling of COVID-19 financial resources

Pooling of funds refers to the accumulation of prepaid health care revenues on behalf of a population (Kutzin, 2001) for the purpose of spreading the risk of incurring unexpected health care costs across the population so that no individual carries the full financial burden (World Health Organization, 2020c). It is estimated that the pooled resources from the COVID-19 revenue-collection process were N213 billion (US$560.52 million) as of 13 July 2020 (Folorunsho-Francis,

2020). More than 90% of these funds came from donors, whereas domestic resources accounted for less than 10% of the pooled resources.

The funds for the COVID-19 response were largely used for procurement of medical equipment, personal protective equipment and commodities; purchase of test kits; and covering the cost of health care for individuals who test positive for COVID-19 or have severe COVID-19 infection. Citizens are not required to pay for COVID-19 testing and care provided in public-health institutions (Health wise, 2020). The health system's lack of readiness for a pandemic made it necessary for the country to use revenue it had generated for construction of temporary structures to serve as isolation centres in almost all of the 36+1 States in Nigeria.

Despite the sizable pool of funds, it was insufficient to cover the COVID-19-related costs. The cost of managing COVID-19 treatment per patient in isolation centers in Nigeria range from N100,000 (US$263.16) per day for mild-to-moderate cases to N1,000,000 (US$2631.58) per day for severe cases (Adejoro, 2020a; Muanya, 2020). The average cost for a COVID-19 test in public health laboratories ranged from N40,000 (US$105.26) to N50,000 (US$131.58) and from N60,400 (US$158.95) to N100,400 (US$264.21) in accredited private laboratories (Adejoro, 2020b).

Patients can receive COVID-19-related care either in designated isolation centres or in private hospitals. Isolation centres are few, and the turn-around time for COVID-19 tests results is up to two weeks (All Africa, 2020). These issues, coupled with the policy of testing only sick persons and the huge stigma associated with the disease (Healthnews.ng, 2020), meant that many people sought private care for mild-to-moderate and, sometimes, even severe COVID-19 infections (Sahara Reporters, 2020). The cost of such care is huge for the many Nigerians who lack insurance coverage - less than 5% of the population has health insurance and the national health insurance package does not include funding for COVID-19 management. Moreover, a large proportion of the population (102.1 million people) lives in extreme poverty (World Data Lab, 2020). The COVID-19 pandemic made it impossible for the working poor – the over 90% working in the informal sector who earn enough for daily living (International Labour Office, 2018) -- to cover the unexpected cost of testing and treatment. It is estimated that 27 million Nigerians were pushed into poverty because of the COVID-19 outbreak (Andam et al, 2020).

4. Purchasing for COVID-19 response

Purchasing is key to providing health care services to both COVID-19 and non-COVID-19 patients. The pooled resources for the COVID-19 response were largely expended to strengthen service delivery to patients with COVID-19 to the exclusion of the private healthcare sector and the management of non-COVID-19-related diseases. The capacities of laboratories were increased to support testing for COVID-19. As of 2 September 2020, 54 laboratories were approved to conduct COVID-19 diagnostic testing; these few laboratories serve the teeming Nigeria population spread across 774 local government areas.

Pre-determined budgets, salaries and medical supplies were the provider payment mechanisms used to transfer pooled funds from governments to public health care providers for the purchase of COVID-19 related health care services: very little COVID-19 related purchases were made through contractual and payment arrangements between the government and providers (Mbau et al, 2020). This passive purchasing approach prevented efficient, equitable, and quality financial responsiveness of the Nigerian health-care system, which otherwise could have been achieved through strategic purchasing, with determination of which health care services should be purchased, from what health care providers, and at what cost (Mbau et al, 2020). Also, the use of a historical budgeting approach, rather than a needs-based resource allocation mechanism, taking into account geographic disparities in health care resources, limited the use of available resources for the COVID-19 response (McIntyre, 2007).

5. Discussion

The federal government of Nigeria generated more than 100% of its anticipated budget for responding to the COVID-19 pandemic from the private sector and donor/philanthropist community. These funds constituted most of the funding for the COVID-19 public health and clinical-care response. The poor preparedness of the Nigeria health sector for an emergency response, least of all for a disease of the magnitude of COVID-19, necessitated using most of the pooled resources for building temporary structures, such as isolation centres, and providing clinical care; on the other hand, this expenditure has done little to strengthen the general health system. The poor national COVID-19 testing coverage makes it difficult to accurately estimate the number of persons who have COVID-19 and to estimate the number who paid out-of-pocket for COVID-19 care in institutions not in the public and private healthcare centres designated by the government

for COVID-19-patient care. The combination of the National Health Insurance Scheme not providing coverage for COVID-19- related care, the huge out-of-pocket expenses patients incurred for health care, and workers' loss of income because of the government-mandated lockdown measures to control the pandemic may impoverish countless Nigerians.

The government must institute measures to prevent worsening of the current health crisis in Nigeria, which may be exacerbated by large numbers of people needing chronic medical care as a result of COVID-19 infection. Need for hospital care likely will increase due to deteriorating health of many chronically ill persons who received insufficient attention to their health needs at the height of the pandemic (Amu et al, 2020); this population will add to the number of COVID-19 survivors who will need continued health care because of the complications associated with the disease (Carfi et al, 2020).

It is therefore imperative for governments at the national and sub-national levels in Nigeria to increase their investment in health of the Nigerian people. The nation has huge untapped mechanisms for making this investment, such as public-private health financing partnerships (UNDP, 2020b) and taxing diaspora remittances. Nigeria has one of the highest remittance rates as a share of gross domestic product, and remittance is three times higher than all Official Development Assistance to Nigeria (World Bank, 2019). These funds, however, are used more for education and infrastructure development than for the health sector (Daramy, 2016).

Other sources of revenue, that could be explored to generate revenue to strengthen the health sector include specific tax levies, such as airline ticket or telecommunication taxes; debt2health initiatives (swopping debt reduction for domestic investment in health systems); co-financing (domestic funding set to match international commitments); and blended financing (public-private partnerships to stimulate development). Government bonds and guarantees, which are units of debt that a government, can sell to raise funds (they currently form 65% of the IF market not because they are innovative per se, but because they are seldom used by governments for health and development) Emissions permits (every government is supposed to allocate a set amount of environmental emissions permits for each harmful emission) can be auctioned or sold as countries can trade (sell or buy) these permits to those who require them more, thereby raising funds which can be used for development (Global Development Incubator, 2014). In Addition, Nigeria could trade of Special Drawing Rights allocated by the International Monetary Fund for normal funds for investment in health (International Monetary Fund, 2017). Most of these innovative financing

instruments have are not in use in Nigeria (Accountability International and Society for AIDS in Africa, 2019).

Monitoring, control, and enforcement of punitive measures for corruption, such as cross-border tax fraud, evasion, and avoidance, could also result in savings that could be invested in the health system. Illicit outflows from Nigeria to foreign countries is a huge source of lost revenue – revenue that could be used on financing health responses. Money lost through illicit trade, mis-invoicing, and the lost taxes could be recouped. Transparent financial reporting could help create a taxing system that would track illicit flows and create more income, which could be channeled to strengthening health systems (Kar, 2011; Kar and Spanjers, 2015).

Effective collection of corporate and business taxes on items such as profits from natural resources (including oil); mobile phone use; luxury goods (such as cars, yachts and private jets); unhealthful foods; tourism and imported goods (such as salt, plastics, cereals, machinery, frozen fish, vehicles, iron and steel); and special levies on large and profitable companies, currency exchanges, financial transaction flows, diaspora bonds and luxury air travel (Aregbeshola, 2018; Taskforce on innovative international financing for health systems, 2009; World Health Organization, 2010), could provide the needed investment in health of the Nigerian people. Governments at the national and sub-national levels should take the lead in financing response to the COVID-19 outbreak. Effective response to the COVID-19 outbreak will require investment beyond the current budgetary allocation to health.

Universal Health Coverage, measured either by the World Health Organization coverage index or by the Global Burden of Disease effective coverage index, indicates that coverage in Nigeria is less than 45% (GBD 2019 Universal Health Coverage Collaborators, 2020; World Bank, 2017). The poor health coverage hinders effective response to the COVID-19 outbreak and disproportionately exposes the poor, vulnerable, and informal-sector populations to the catastrophic, impoverishing effects of high out-of-pocket expenses (Aregbeshola, 2018). It is difficult to achieve Universal Health Coverage through contributory insurance schemes in countries with a large informal sector (Aregbeshola, 2018). In addition, social health insurance takes many years before universal health coverage can be achieved (Akazili, 2010; Aregbeshola, 2018; McIntyre, 2007). The tool left open to Nigeria to help it achieve Universal Health Coverage by 2030 is the tax-based health financing system. In the short-term, the Nigerian government should spend at least 5% of its gross domestic product on health to improve financial protection

for the most vulnerable populations, increase coverage of basic health care services, and reduce the widening social disparity in health access, In addition, since COVID- 19 is likely to be a disease we will live with for the long term (AFP, 2020), health insurance packages need to include support for COVID-19 management.

6. Conclusion

Longstanding poor health care financing in Nigeria poses a major challenge to the COVID-19 pandemic response. The many years of insufficient government investment in health have rendered the health care system unprepared to meet the demands that COVID-19 have placed on it. Thus, even the large sums collected for the emergency response are inadequate and having been used for temporary infrastructure, are unavailable for long-term investment in the nation's health care. Poor access to insurance coverage has challenged the poor and vulnerable, who need care for COVID-19 infections and, at the same time, care for other medical problems during the pandemic. The process for COVID-19-related commodity procurement was least responsive to the needs of those most in need of care and support. Multiple unexplored mechanisms are available for funding healthcare in Nigeria to ensure universal coverage and strengthen the health system. However, for the short-term and to enhance the COVID-19 pandemic response, domestic government spending on health as a percentage of gross domestic product must be increased.

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