National and subnational governance and decision-making processes during the COVID-19 pandemic in Nigeria: an empirical analysis

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ABSTRACT
Governance of the COVID-19 pandemic required decision-makers to make and implement decisions amidst uncertainty, public pressure and time constraints. However, few studies have attempted to assess these decision-making processes empirically during health emergencies. Thus, we aimed to understand governance, defined as the process of decision-making and implementation of decisions, during the COVID-19 pandemic in Nigeria. We conducted key informant interviews and focus group discussions with national and subnational government officials, civil society organisation (CSO) members, development partners and academic experts. Our study identified several themes on governance and decision-making processes. First, Nigeria established high-level decision-making structures at the federal and state levels, providing clear and integrated multisectoral decision-making mechanism. However, due to the emergence of conflicts between government levels, there is a need to strengthen intergovernmental arrangements. Second, while decision-makers relied on input from academic experts and CSOs, additional efforts are required to engage such stakeholders in decision-making processes, especially during the early stages of health emergencies. Third, Nigeria’s previous experiences responding to disease outbreaks aided the overall response, as many capacities and coordination mechanisms for cohesive action were present. Fourth, while decision-makers took a holistic view of scientific, social and economic factors for decision-making, this process was also adaptive to account for rapidly evolving information. Lastly, more efforts are needed to ensure decisions are inclusive, equitable and transparent, and improve overall public trust in governance processes. This study provides insights and identifies opportunities to enhance governance and decision-making processes in health emergency responses, aiding future pandemic preparedness efforts.

WHAT IS ALREADY KNOWN ON THIS TOPIC

- The COVID-19 pandemic has uncovered substantial gaps in health emergency preparedness components at both the national and international levels.
- Evaluations of national and global response have identified governance and decision-making as overlooked components of health emergency preparedness and response.

WHAT THIS STUDY ADDS

- Through the collection and analysis of empirical data, this study provides an in-depth analysis of the key decision-making processes in Nigeria. Decision-making during the pandemic involved a cross-governmental approach with high-level decision-making bodies established with multisectoral involvement. Decision-makers leveraged existing capacities, and adapted decisions based on evolving scientific data and other information.
- This study also provides insights into how decision-makers incorporated elements of governance in decision-making processes such as accountability, adaptability, transparency, equity and collaboration.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- This study can help develop adaptable governance and decision-making frameworks appropriate for health emergency response in different countries, leading to a more effective and timely epidemic response.

INTRODUCTION
Governance, which is defined as the process of decision-making and how decisions are implemented,1 is a critical aspect of preparing and responding to public health emergencies. Indeed, governance of public health emergencies often involves crisis decision-making, wherein decisions are made in short timelines and in the context of incomplete or evolving information.2 The COVID-19 pandemic presented such a scenario, where decision-making was complex and challenging due to its widespread geographic reach, impact on multiple sectors, and the unknowns...
associated with a novel virus. Due to the nature of these uncertain and unpredictable scenarios, management of these crises requires sound governance strategies that are adaptable, agile and pragmatic, and the availability of institutions, processes and arrangements that can facilitate decision-making ensuring state continuity and integrity of government response. As described by Global Preparedness Monitoring Board (GPMB) and others, public health decision-making that includes key elements of governance, including accountability, transparency, equity, participation and the rule of law increases public trust. This, in turn, results in greater public compliance with public health policies, thus contributing to a cohesive pandemic response.

The emergence and global spread of the novel SARS-CoV-2 virus, the causative agent of COVID-19 disease, resulted in numerous challenges in governance and decision-making, hindering efforts to effectively contain the spread of the disease. In such crisis situations, decision-makers’ abilities to integrate and make sense of information have been deemed critical for crisis control, with information-processing errors such as failure to search for and share information, and failure to update decisions based on emerging data hindering the management of health crises. Studies have also attempted to assess crisis decision-making in different contexts by studying policy actions in terms of risk cognition, effective communication, coordination, and control and continuity of state operations. Previous studies in the literature have also attempted to study factors associated with efficient government management of the pandemic, which requires unprecedented degrees of coordination, efficient management of resources, political will and elements of governance. For example, Assefa et al note that effective pandemic management depends on adaptive, collaborative and ethical governance. Additionally, Bunyavejchewin and Sirichuanjun report that governance quality may influence how governments respond to the COVID-19 pandemic and that political regime types (democratic vs non-democratic) have an impact on the quality of governmental communication in the context of the COVID-19 pandemic. Other studies highlight the importance of coherent leadership and trust in governance processes as key to an effective pandemic response. Indeed, Martínez-Córdoba et al report that female leadership and greater compliance with the rule of law resulted in more efficient management of the COVID-19 pandemic. While the aforementioned studies have provided insights into factors associated with effective governance, few studies have provided an in-depth empirical analysis of the governance of the COVID-19 pandemic related to how public health decision-making occurred. One such study, conducted by Warsame et al, evaluated COVID-19 decision-making in Somalia, and reported that decision-makers struggled to handle the uncertainty associated with the rapidly changing information landscape and were constrained by numerous factors including the lack of resources. Additionally, in Singapore, the presence of an existing interdepartmental crisis body called the Homefront Crisis Executive Group, which was formed in 2004, has been noted to have greatly aided in facilitating strategic decision-making during health emergencies.

The Federal Republic of Nigeria was considered by the WHO, in early 2020, as one of the top priority countries in the African region to ramp up COVID-19 preparedness efforts due to its direct links and high volume of travel with China, prompting WHO to recommend Nigeria increase its early preparedness efforts. Additionally, Nigeria’s under-resourced health system combined with economic, political, social and security issues has been thought to potentially hinder the epidemic response in the country. Despite these hurdles, Nigeria has responded successfully to previous disease outbreaks such as the Ebola virus disease (EVD) in 2014, with factors such as existing institutional architecture, and strong political and technical leadership playing a significant role in controlling the outbreak, despite gaps in governance and health system delivery. The presence of existing coordination mechanisms due to Nigeria’s polio programme infrastructure has also been credited to have aided in the containment of the 2014 EVD outbreak in Nigeria. Furthermore, findings from Otu et al on Nigeria’s response to EVD highlighted the need for a multi-sectoral approach to crisis management and the need for ensuring the presence of formal working arrangements to respond to health emergencies.

While studies have documented Nigeria’s public health response to the COVID-19 pandemic, no study, to our knowledge, has specifically looked at decision-making processes during the COVID-19 pandemic in Nigeria. Furthermore, although the WHO provides guidelines for countries to prepare and respond to health emergencies and disasters, the lack of international guidelines on how decision-making should be conducted in such crisis situations detrimentally impacts countries’ abilities to prepare and respond to pandemics and other public health emergencies. Thus, by assessing how public health decision-making was conducted in Nigeria, we aim to obtain an accurate picture of Nigeria’s response to the COVID-19 pandemic. This study has two major objectives: (1) to provide insights into the governance of the COVID-19 pandemic by the federal and state governments in Nigeria by assessing how decision-making was conducted and (2) to assess the elements of governance that were incorporated during decision-making. As a federal country, Nigeria provides a useful case study to understand the public health decision-making processes at different levels of government during a health emergency.

**METHODS**

**Study design**

We used a case study approach to gain an in-depth understanding of the governance and public health decision-making processes employed during the COVID-19 pandemic in Nigeria. As a federal country, Nigeria provides a useful case study to understand the public health decision-making processes at different levels of government during a health emergency.
pandemic at the federal and state levels in Nigeria. Case studies are an empirical inquiry which investigates a phenomenon in its real-life context and uses multiple methods of data collection to provide an in-depth overview of the phenomenon. Thus, this approach was selected for our analysis as it allowed for the production of detailed qualitative results on how the COVID-19 pandemic was governed in Nigeria using the following data collection methods: (1) in-depth semistructured interviews and focus group discussions (FGDs) and (2) review of documents.

Data collection
Sources of data
We used a combination of desk reviews of documents, remote and in-person interviews with key informants and FGDs to collect data for the study. While all sources of data contributed to providing an overview of this case study, the primary source of data were in-depth interviews with key informants and FGDs. A detailed methodology according to Consolidated criteria for Reporting Qualitative research guidelines is provided in the online supplemental methods.

Review of documents
A non-systematic review of documents and literature was conducted to: (1) identify potential key informants, (2) provide country context and (3) extract information on existing capacities that aided in pandemic preparedness and response. We chose a non-systematic review over systematic and scoping review methods as our objective was to identify stakeholders and gain insights into key policy decisions. Information was extracted from: (1) academic journal publications, (2) websites and published reports from Nigeria’s federal and state governments, (3) websites and reports from local and international organisations, non-governmental organisations and civil society organisations (CSO) and (4) local and international news media reports. Through this search, we identified relevant policy statements, press briefings/releases, guidelines, government reports and journal articles. Please refer to the online supplemental methods for detailed information on search strategy.

Individual key informants and FGDs participants
Participants were identified through desk review of documents and through networks with the Georgetown Global Health Nigeria office. Participants were purposively and iteratively sampled, until saturation was reached, to represent a wide range of organisation affiliations, experiences and views of the COVID-19 pandemic response in Nigeria. We contacted participants who were directly involved in the COVID-19 pandemic response at the federal and state government level, and representatives from CSOs, development partners and academic experts who were engaged in COVID-19 pandemic efforts in Nigeria. A total of 54 participants were invited to participate, of which 24 agreed to participate. At the state level, we applied a convenience sampling approach to contact government officials from five states (Kano State, Gombe State, Ekiti State, Bayelsa State and Lagos State) which represented different geographical regions. Since we did not receive responses from Lagos State government officials, we excluded Lagos State from our analysis. A full list of participant types and primary data collection method is provided in figure 1.

Methods of data collection
In total, 20 individual semistructured interviews with key informants and 1 FGD were conducted in English between June 2022 and September 2022. Interviews were either conducted virtually through Zoom platform or in person with members of the research team. Each interview took approximately 30–60 minutes, while the FGD...
took approximately 120 minutes. The interviews and FGD were guided by a semi-structured interview guide and supplemented by follow-up questions, probes and comments. The interview guide is provided in online supplemental methods.

**Data analysis**

Interviews were recorded for transcription and analysis purposes; Otter.ai software (Mountain View, California) was used for transcribing interviews. Interview and FGD transcripts were first checked for validity, reliability and completeness. Next, for thematic content analysis, a combination of inductive and deductive approaches was used, and transcripts were coded into broad themes, subthemes and codes by four investigators. Due to the open-ended nature of the semi-structured interviews, the inductive approach allowed for themes and subthemes related to decision-making and governance to emerge when analysing raw contextual data. However, since we used a combination of inductive and deductive approaches, the analysis also considered previous frameworks to guide the interview questions and analysis: (1) GPMB framework for elements of governance and (2) Warsame *et al* COVID-19 decision-making framework which combined Cynefin framework for decision-making and adaptive epidemic response framework. The GPMB framework outlines the five elements of governance for analysing preparedness to public health emergencies (accountability, transparency, equity, participation and rule of law). The Warsame *et al* framework outlines the dimensions for decision-making for epidemic response (sense-making of the crisis, influencing, constraining and contextual factors affecting decision-making, analysis process, response decision, refinement of decision). To develop the initial codebook, two investigators independently reviewed and coded a subset of transcripts to identify the key concepts, themes and patterns that emerged. Discrepancies in developing the initial codebook were resolved by consensus by the two investigators and the codebook was finalised. If additional themes, subthemes and codes emerged while coding remaining transcripts, these were added to the codebook after reaching consensus among all investigators. Please see online supplemental methods for the codebook used in the analysis.

**Patient and public involvement**

As this was not a patient-focused study, it was not appropriate to involve patients in the design, execution or dissemination of the study. Study participants were invited to review and approve the final draft of this manuscript, to ensure their quotes were appropriately contextualised and represented.

**RESULTS**

**Key actors in decision-making at the federal and state levels**

Before its first case of the SARS-CoV-2 virus on 27 February 2020, Nigeria established the National COVID-19 Preparedness Group on 26 January 2020 by the Nigeria Centre for Disease Control and Prevention (NCDC), which aided in coordination of early preparedness efforts. This was done prior to the WHO Director-General’s determination of a Public Health Emergency of International Concern on 30 January 2020. However, due to the widespread implications of the COVID-19 pandemic on sectors beyond health, stakeholders emphasised that a multisectoral approach with ‘whole-of-government’ involvement was required. Thus, on 9 March 2020, the President of Nigeria established the Presidential Task Force (PTF) on COVID-19 to coordinate and supervise Nigeria’s multisectoral and intergovernmental measures to contain and mitigate the effects of the COVID-19 pandemic. The PTF provided strategic direction and oversight on high-level policy decisions based on a multisectoral response plan. Stakeholders emphasised the importance of establishing a decision-making body at the highest level of government due to its convening power and political authority to execute decisions.

The key reason why the PTF was set up was because we needed an extra ministerial entity to run the pandemic. The Federal Ministry of Health did not have the capability or the legal framework to invite ministers to sit on a committee. What we needed was a presidential entity, an entity with authority at the cabinet level, to be able to convene a meeting with members of cabinet and other partners to come together. The biggest advantage that the PTF had over the Ministry of Health and over NCDC was its convening power. It’s very similar to UNAIDS for instance - it’s the ability to convene people of like minds, people who had the skills, people who had the experience, to be able to sit down together and to take a decision and to coordinate in a very multi-sectoral way.—Government Official 6

Governance of the COVID-19 pandemic also occurred at the state level due to Nigeria’s federated government structure. Most states cooperated with the federal level for resources and implementing public health measures, although these decisions may not have aligned completely with guidelines from the federal level depending on state context and capacities. Similar to the PTF, all 36 states established COVID-19 Task Forces or similar bodies to prevent, prepare and respond to the COVID-19 pandemic in their respective states (online supplemental table 1). State-level stakeholders emphasised that the difference in levels of authority, where elected state officials have political authority over jurisdictions, did not allow for a ‘top-down’ direct authority from the federal level, impacting the measures and decisions implemented through the country. Although certain federal powers did come into play through the issuance of emergency regulations (COVID-19 Regulations 2020) under the Quarantine Act 1926 to implement emergency lockdowns in some states. Figure 2 provides an overview of the key decision-making and operational organisation structures in Nigeria and the coordination mechanisms at different levels of government to respond to the pandemic. While coordination between decision-making bodies at the federal and state levels between the PTF and state governors occurred through forums such
as the Nigeria Governor’s Forum, the NCDC also played a role in coordination with state actors through state Public Health Emergency Operations Centers. Additionally, stakeholders highlighted that coordination between different states enabled sharing of data, good practices and strategies to contain and mitigate the effects of the pandemic.

**Process of decision-making during the COVID-19 pandemic**

Decision-making in Nigeria followed a hierarchical approach where decisions were made based on formal positions of authority, as seen with the PTF and state COVID-19 Task Forces. Within these decision-making bodies, decision-makers were presented with various information including technical and scientific reports, economic considerations and information on public opinion. Some situations resulted in deliberative processes, wherein decision-makers discussed crucial COVID-19 measures by considering various perspectives to form opinions and guide decision-making, including inputs from technical expert advisory groups comprising of independent academics such as the PTF Advisory Group (‘Tuesday Evening Group’), or CSO representatives. For example, decisions related to lockdown measures were debated between members of the PTF based on different scenarios, such as the overall impact of tightening or relaxing lockdown measures and evidence in

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**Figure 2** Decision-making and operational organisation structures for COVID-19 pandemic preparedness and response at the federal and state level in Nigeria.
the form of disease metrics, before a decision was made. In many instances, decisions were reached through group consensus after the inclusion of various perspectives on decision points; however, stakeholders also highlighted instances where if no consensus was reached, the final decision was made by the highest authority figure in the taskforce or by experts under whose purview the decision under consideration fell under. A critical facet of the decision-making process was the need for continued reconsideration and adaptation of decisions implemented based on evolving and emerging evidence. This frequent revisitation of decisions created a feedback loop providing insights from emerging data and earlier decisions that could be used to adapt future decisions to tackle the health emergency crisis.

The data was being reviewed from time to time to support whether you need a lockdown, or whether you need to unlock a lockdown, whether you need to make vaccination a condition for certain activities, etc. So, it’s the daily data that was coming to the NCDC laboratory and the NCDC platform, and these data are presented at the EOC (Emergency Operations Center) which is discussed, and then the conclusion comes in. And this conclusion is what the Honorable Minister will take to their discussion to the Presidential Task Force.—Government Official 5

Factors affecting decision-making during the COVID-19 pandemic

The COVID-19 pandemic required policy-makers and decision-makers to implement critical, unfamiliar and high-stake decisions based on frequently evolving and incomplete information amidst immense uncertainty, public pressure, time constraints and the growing infodemic. During this crisis, decision-making in Nigeria was influenced by multiple factors, concerns and interests including technical information, economic or social considerations and availability of resources (figure 3). Our study found that Nigerian decision-makers relied on scientific evidence and data emerging from multiple sources. Due to Nigeria’s history of responding to public health emergencies, the presence of existing capacities, processes and institutions such as the Surveillance Outbreak Response Management and Analysis System helped generate local disease metrics and data used in decision-making (online supplemental table 2). However, Nigeria also relied on global sources of information for making decisions. For instance, before the first case of COVID-19 was identified in Nigeria, decision-makers relied on information and guidelines from the WHO regarding early preparedness efforts. Additionally, emerging evidence and data from other countries such as China, Italy and the USA also played a role in influencing policy decisions; in some cases, Nigerian decision-makers emulated policies adopted in different countries (online supplemental table 3). For example, Nigeria updated and adapted decisions regarding case management definitions and the use of masks based on emerging data and evidence from local and global sources. Subsequently, when evidence was coming out from other countries, from WHO & the US CDC that cloth (masks) could also help, we now encouraged people to start using cloth facemasks.—Government Official 1

Past experience in making decisions and responding to previous outbreaks emerged strongly as a key factor that aided decision-making during the COVID-19 pandemic,

![Factors Affecting Decision-Making](http://gh.bmj.com/)

Figure 3 Summary of factors which influenced decision-making of Nigeria’s COVID-19 pandemic measures. PPE, personal protective equipment; SOP, standard operating procedure; SORMAS, Surveillance Outbreak Response Management and Analysis System.
with 11 stakeholders, affiliated with the government, CSOs, development organisations and academic institutions highlighting its importance. Nigeria’s previous experiences with diseases such as Ebola virus disease, Lassa fever, cholera, polio and HIV not only provided decision-makers with the ability and experience to implement decisions related to containing outbreaks, but also helped establish coordination structures, working networks and partnerships that stakeholders considered crucial to mounting the COVID-19 response (online supplemental table 2).

So that culture of decision-making is how you learn decision-making, you don’t learn it when there is a pandemic. The biggest lesson for me really is that you must have a group of people that are constantly putting evidence in a structured or unstructured way together to make a decision. And then, you start learning what you need to make these decisions when there are big events.—Government Official 7

With respect to contextual factors that played a role in decision-making, Nigeria’s federal structure proved challenging as states did not enact public health measures uniformly and, instances of conflicts between levels of government, resulted in difficulties in policy harmonisation. Additionally, stakeholders considered that the presence of other concurrent emergencies and crises in Nigeria could have impacted the prioritisation of the COVID-19 pandemic. Thus, stakeholders indicated that policy-makers’ and decision-makers’ commitment and political will to combat the COVID-19 pandemic, and their trust and reliance on scientific evidence, played a significant role in dictating how decisions regarding COVID-19 pandemic management were taken.

In Nigeria, fortunately for us, we had high-level commitment towards the pandemic response. The Presidential Task Force that came into force was provided by the Office of the President himself, which ensured that we’re able to rally together high-level sources and particular materials to respond to the outbreak.—Government Official 3

Emerging elements of governance in decision-making during the COVID-19 pandemic

Our analysis found that in addition to the five common elements of governance previously described by the GPMB, namely accountability, transparency, equity, participation and collaboration, and the rule of law, adaptivity and agility arose as an important sixth element of governance during this health emergency. Table 1 provides a complete overview of elements and examples of governance approaches used by Nigeria during the COVID-19 pandemic.

Accountability

In our study, several examples of the incorporation, or lack thereof, of measures to ensure that the public health response was accountable were identified. For example, stakeholders indicated that Nigeria’s involvement in the

Open Government Partnership to improve fiscal transparency and advocacy efforts from CSOs pushed the Nigerian government to create a fiscal transparency dashboard to provide the public with information on planned spending for COVID-19 management, thus safeguarding public accountability and maintaining institutional legitimacy. However, CSO representatives highlighted the need for additional efforts on behalf of the government to improve commitments to fiscal transparency due to technical challenges in accessing information from the transparency dashboard.

Because we belong to the Open Government Partnership, (the government) set up a dashboard, where they were meant to upload information on how to spend money. And this was a direct result of the pressure CSOs put on them during COVID-19.—CSO Representative 3

Furthermore, stakeholders emphasised that the PTF demonstrated ownership and accountability by serving as the ‘visible face’ of Nigeria’s COVID-19 response through frequent communication with the public about implemented decisions and measures. While such measures helped in government accountability and to build trust between the government and its citizens, a key element for a successful public health response, stakeholders highlighted the need for sustained efforts by the Nigerian government to reverse the trend of declining public trust, by incorporating accountability, transparency and equality with the communities they serve through long-term commitments in all aspects of public policy.

The thing about public trust is that it is not something that happens in one day. This is something that comes a long way. People are perceiving our governance right from when the candidates were chosen, right from the elections. If few (communities) are misrepresented or not properly represented, they would never buy into whatever the government is presenting – so there’s always been an issue. The whole thing about proper democracy and proper selection process is very key.—Government Official 11

Adaptive and agile

Although adaptivity and agility was previously not identified as an element of the GPMB framework, the incorporation of flexibility, adaptability and agility was observed throughout Nigeria’s governance of the pandemic. For a crisis that required a quick response, existing structures and tools in Nigeria facilitated adaptivity and agility. For instance, the availability of the Nigeria National Pandemic Influenza Preparedness and Response Plan and risk communication structures such as the National Risk Communication Technical Working Group enabled Nigerian decision-makers and health officials to adapt measures for COVID-19 pandemic management.

We leveraged existing structures in place. We already had a risk communication (structure) that we put in place, we already had collaborations with a lot of partners that supported us. We have systems and mechanisms to address this, all we did was to look at the current situation and
Table 1: Emerging elements of governance in Nigerian decision-making during the COVID-19 pandemic and examples of governance approaches

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<tr>
<th>Emerging governance elements</th>
<th>Definition*</th>
<th>Examples of governance approaches in Nigeria</th>
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| Accountability               | There are entities responsible for successes and failures in health emergency response, with expectations that decisions are explained and justified, and processes in place to ensure clarity of responsibility and decisions implemented. | ► The Presidential Task Force demonstrated ownership and responsibility of health emergency response through frequent communication with the public and by explaining rationale behind decisions taken.  
► The government demonstrated fiscal transparency by informing citizens how funding for health emergency operations was spent using budget and funding dashboards published on government websites.  
► Civil society organisations (CSOs) played a role in ensuring government accountability by assessing how effectively decisions and measures for COVID-19 response were being implemented. |
| Adaptive and agile           | Government makes sound and urgent decisions by being flexible or adaptable using existing or modifying, or establishing new structures, processes and arrangements in the face of the complexity and uncertainty associated with health emergencies. | ► Adapting existing pandemic influenza working groups to form COVID-19 working groups.  
► Adapting treatment centres for other diseases (eg, Lassa fever) to COVID-19 treatment and isolation centres.  
► Adapting and updating existing decisions (eg, case management definitions, use of masks) based on emerging data and evidence from local and global sources.  
► Adapting the existing event based management system used for systematic data collection on events to combat misinformation and disinformation by collecting and characterising rumours.  
► Adapting and modifying existing guidelines for other diseases (eg, influenza, viral haemorrhagic fevers) to develop guidelines for COVID-19 management.  
► Agile assembly of incident action plans before identification of index case in Nigeria for early preparedness efforts at national and subnational levels.  
► Agile release of funds and treasury operations by Presidential Task Force for health emergency operationalisation with minimum bureaucratic layers. |
| Participation and collaboration | Involvement of external actors, community workers, private sector, CSOs, commercial sector and academia in the development of policies, laws, or decisions related to health emergencies, through representation and consultation. | ► Inviting business sector for consultations for their input on business and economic impact of the COVID-19 pandemic and collaboration with the Coalition Against COVID-19, a private sector led organisation.  
► Involvement of community leaders, and local leaders in decisions to halt community transmission.  
► Involvement of religious leaders in decisions regarding places of worship and religious institutions.  
► Use of external independent advisory groups composed of multisectoral technical experts to advise Presidential Task Force and state-level COVID-19 taskforces on measures and decisions.  
► Involvement of CSOs in decisions or measures to take services to people in the community due to CSO expertise in providing such services.  
► Collaboration between government and universities on research efforts to form the Nigeria COVID-19 Research Consortium. |
| Rule of law                  | All actors, including institutions and states, are accountable under the laws and rules that have been established in a manner that is equally enforced, independently adjudicated and consistent, thus ensuring that actions and decisions during health emergency have legal basis. | ► Presence of enabling legal and policy frameworks such as the Nigeria Centre for Disease Control (NCDC) and Prevention (Establishment) Act of 2018 detailing functions and powers of the centre to prevent and control diseases of public health importance.  
► Agencies such as the NCDC and the Nigerian Institute of Medical Research enacted decisions and measures in accordance with their mandates.  
► The inclusion of elected political officials on the Presidential Task Force and state level COVID-19 taskforces aided in enforcement of decisions and measures due to political authority of the body.  
► The inclusion of elected political officials on the Presidential Task Force provided authority and convening power to the body to convene multiministerial meetings which was needed for a cross-sectoral response. |

Continued
Additionally, decision-makers needed to contend with the unpredictability of the crisis and adapt decisions based on rapidly evolving evidence and data about the virus including the mode of virus transmission, evolving case definition and using face masks as a non-pharmaceutical intervention.

The government was very flexible during that time. There was a built-in flexibility for the government to respond and react as things changed because it got to a point where we realised that there’s not really an end point, we’re going to keep evolving. One of the benefits of the government’s response was that they were able to see that and adjust accordingly.—CSO Representative 2

Participation and collaboration

Through our study, stakeholders emphasised that the COVID-19 pandemic required unprecedented cooperation between the Nigerian government, its citizens and multiple stakeholders to implement decisions and measures. For example, to control the spread of the virus at the local and community levels, the PTF consulted local leaders, community leaders and religious leaders during decision-making.

We visited not only (state) governors but also community leaders. We had lots of meetings with religious groups and decisions in terms of opening religious institutions, places of worship, what percentage of people will be allowed into enclosed places of worship. For instance, those decisions were taken together with the head of the Islamic faith, and representatives from the Christian faith, because we needed their buy-in. Without their buy-in, it wouldn’t have been successful.—Government Official 6

Additionally, while the Nigerian government collaborated with additional stakeholders such as CSOs, developmental partners and the private sector for the availability of resources and operationalisation of measures, the government heavy response resulted in lower participation and involvement by CSOs during decision-making processes.

(During) the preparation stage for COVID-19, the government neglected civil society. There was no civil society.—CSO Representative 6

Rule of law

Ensuring that measures implemented during an exigent crisis such as the COVID-19 pandemic are in accordance with the rule of law is a crucial aspect of governance. The establishment of the NCDC through the NCDC (Establishment) Act of 2018 provided the national public health institute with legal functions and powers to mitigate the impacts of communicable diseases of public importance. Stakeholders considered the Act a major strength in Nigeria’s COVID-19 response because it mandated the NCDC to respond to outbreaks and pandemics. For example, the Act allowed the NCDC to ‘collaborate with Port-Health Services to operate quarantine services including inspection, isolation, detection and management of quarantine stations at points of entry into Nigeria’, a measure that was adopted during the COVID-19 pandemic.

One thing, I think, also helped was that the NCDC had been set up properly after Ebola. It was there before Ebola, but the (NCDC) Act [of 2018] came in and they started functioning and they were working. So, it helped.—Academic Expert 1

Transparency

In addition to employing measures such as fiscal transparency dashboards, and regular updates by the PTF about decisions regarding COVID-19 control, NCDC officials frequently provided updates to the public about COVID-19 status and burden through media appearances.

identify a strategy that will help us to respond to a pandemic.—Government Official 3

*Definitions adapted from the Global Preparedness Monitoring Board except for ‘adaptive and agile’ which is a newly emerged element of governance in our study- Governance preparedness: Initial lessons from COVID-19.*

**Table 1** Continued

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| Transparency                | There is open and available information about who makes decisions, how those decisions are made and what data are being relied on to make decisions. | 1. After the implementation of decisions and measures, the Presidential Task Force immediately informed the public about these decisions through press conferences or media appearances.  
2. Frequent updates to the public about COVID-19 status and burden by NCDC officials through media appearances and press conferences.  
3. The government demonstrated fiscal transparency by informing citizens how funding for health emergency operations was spent using budget and funding dashboards published on government websites. |
| Equity                      | Policies, laws and decisions are non-discriminatory in their impacts and incorporate the human right to non-discrimination, the right to life and the right to health. | CSOs played a role in gauging whether decisions and measures implemented during the COVID-19 pandemic were based on principles of human rights and civil rights. |
and press conferences. These measures facilitated transparency of government actions and provided insights into how public resources were being used for COVID-19 management. In turn, openness and transparency helped build accountability and trust, not just with the public but also with government partners such as the private sector, multilaterals and donors.

Now that transparency dashboard was so critical, because in developing countries, you always have a level of cynicism, when it comes to implementation, whether it’s a health program or development program, because of accusations of corruption etc. But those accusations only come in if you’re not transparent. Right from the beginning on public TV, we said: “this is the amount of money we’ve been given. We’re going to give the states a billion naira each. And here’s the dashboard with a link that you can go in and check what we’re spending”. And I think that gave confidence to the public sector. It also gave confidence to the multilaterals and the donors and to the general public that the right thing was being done.—Government Official 6

Equity
While equity did not emerge as strongly in our analysis, stakeholders highlighted the important role CSOs played in ensuring that decisions and measures implemented during the COVID-19 pandemic were based on principles of human rights and civil rights. More research is needed to understand if and how equity was incorporated into Nigeria’s COVID-19 pandemic preparedness and response.

DISCUSSION
The COVID-19 pandemic has exposed strengths and weaknesses in countries’ capability to respond to large-scale pandemic threats, with governance and decision-making emerging as crucial elements. This study allowed for the conceptualisation of the decision-making process in the Nigerian COVID-19 response, providing a glimpse into the actors involved, what factors impacted decision-making and how elements of governance emerged during this process (figure 4). During the pandemic, to make decisions on prevention, detection and treatment of the virus, adherence to public health interventions and risk communication, decision-makers analysed and integrated information from different sources, with various factors affecting decisions. This included decision-makers’ personal experiences, technical expertise, country context and political commitment to control the pandemic. While we did not classify these factors as ‘influencing factors’ or ‘constraining factors’ as done by the Warsame et al framework, stakeholders did highlight that some factors, such as the federal government structure, were challenging in the context of decision-making. At the PTF level, the involvement of

Figure 4  Overview of the process of decision-making established during the COVID-19 pandemic in Nigeria and incorporation of elements of governance in decision-making. The general process of decision-making employed by decision-makers that included identifying decisions to be made related to prevention, detection and treatment of the virus, gathering relevant information for making decisions and assessing decision options. This process was dynamic as decision-makers were constantly assessing the state of the pandemic and adapting decisions based on emerging and evolving information. Numerous factors such as scientific data, funding availability and economic factors were considered while making decisions on measures to implement to respond to the pandemic. PFT, Presidential Task Force.
the multidisciplinary ‘Tuesday Evening’ expert advisory group to gather, evaluate and synthesise evidence for decision-making has been previously noted in the literature to maximise the speed and relevancy with which the PTF took decisions on public health measures.\textsuperscript{35} Decisions made were reviewed and revised frequently to accommodate evolving information and outcomes. Throughout this process, it is critical for decision-makers to incorporate elements of governance in the decision-making process by ensuring that the process is participatory, accountable, transparent, effective, equitable and inclusive and respects the rule of law, especially in such crisis situations where emergency powers should be subject to constitutional checks and balances to prevent the abuse of power. Indeed, an assessment of COVID-19 taskforces in 24 countries found little transparency on sources of information used by country task forces for decision-making, and the overwhelming exclusion of civil society members in the decision-making process.\textsuperscript{36} Similar findings were observed in our study, as both government and CSO stakeholders highlighted the lack of inclusion of and engagement with members of CSOs during the early phases of decision-making on pandemic preparedness and response efforts. However, on recognising the need to include CSOs in the response, the Nigerian government collaborated with CSO members during the mid-phase and late phase of the pandemic response.

In Nigeria, decision-makers and health officials have long recognised the burden of infectious disease threats and the value of early preparedness efforts due to the country’s past experiences responding to infectious disease threats of various magnitudes. Indeed, studies note how past experiences dictated governance and management of the COVID-19 pandemic in other countries. For example, South Korea enacted legal, organisational, financing arrangements and governance reforms after the 2015 middle east respiratory syndrome outbreak which were leveraged during the COVID-19 pandemic.\textsuperscript{37-39} The Nigerian government also took a multisectoral and cross-governmental approach to tackling the pandemic, which was an important characteristic of the response and also employed by other countries worldwide.\textsuperscript{40,41} However, disagreements among various key decision-makers at different government levels, with differing political agendas, may significantly impact health emergency response dynamics resulting in polarisation of the pandemic as seen in other countries.\textsuperscript{42-44} In Indonesia, for instance, the lack of effective action by the national government during the initial phase of the response resulted in conflicting responses from subnational governments, hampering overall effective response to the pandemic.\textsuperscript{45} Additionally, previous studies have assessed the impact of Nigeria’s decentralised government system on the implementation of health programmes.\textsuperscript{46} Etiaba et al noted that governance characteristics such as fiscal centralisation, nationally designed polices and subnational powers did not allow for sufficient collaboration across government levels when it came to the implementation of maternal, neonatal and child health programmes.\textsuperscript{46} Thus, it is crucial that countries with multiple levels of government encourage cooperation and learning for multilevel pandemic governance and decision-making during health crises\textsuperscript{47} and account for necessary support to subnational governments for the implementation of national level policies, as subnational levels may not have adequate resources and capacities.

While our study did not aim to evaluate Nigeria’s COVID-19 response, stakeholders interviewed in this study perceived many strengths in Nigeria’s governance approaches aiding public health decision-making that resulted in an effective response to the COVID-19 pandemic. The severity of the pandemic in Nigeria has been less than expected, with the response described as effective and robust.\textsuperscript{41,35} despite Nigeria being classified as a country with high COVID-19 importation risk based on air travel to and from China, the State Party Self-Assessment Annual Reporting tool measuring functional capacity to respond to such health emergencies, and the Infectious Disease Vulnerability Index measuring indirect factors such as demographic, environmental, socioeconomic and political conditions.\textsuperscript{48} In addition to the presence of existing surveillance systems, emergency operation centres and a national public health institute, stakeholders emphasised the presence of existing governance networks, partnerships and coordination mechanisms between various actors to have been essential in facilitating the response. However, stakeholders emphasised the need to build public trust to ensure public compliance with measures, and thus facilitate an effective pandemic response. Previous studies have documented the negative impacts of health sector corruption, unaccountability and political distrust on the COVID-19 pandemic, as widescale corruption, unaccountability and lack of transparency fuelled public distrust of government protocols, thereby, reducing public compliance and facilitating the spread of the virus in Nigeria.\textsuperscript{49-51} Thus, the need for building public trust in institutions, governance mechanisms and in all aspects of public sector management is crucial for helping mount an effective public health response.

While our study provides in-depth insights into how Nigerian authorities approached decision-making during the COVID-19 pandemic, several limitations exist. First, the small sample size (n=5) of informants at the state level may not be representative of the experiences of all Nigerian states. Furthermore, their relationship and power dynamics with the federal government may potentially bias their responses about Nigeria’s COVID-19 response. Second, we did not assess governance and decision-making at the local government level (ie, below the level of state government) as it was beyond the scope of our study. The exclusion of decision-making at the local government level eliminates the inclusion of key perspectives to understand governance and decision-making occurring during health emergencies in decentralised governments. Third, we did not explicitly assess governance and decision-making at any particular stage of the response or over time, but instead
have attempted to provide a holistic overview of the overall pandemic response. There may therefore be temporal aspects to decision-making which we were unable to capture and which might have been difficult to achieve through our qualitative research design due to recall biases. Lastly, potential investigator bias may have also been introduced during the interview and FGDs due to potential probing or leading questions.

In the aftermath of the COVID-19 pandemic, countries will likely implement significant reforms in health emergency preparedness and response. Indeed, in Nigeria, proposals to update legal frameworks by repealing the outdated Quarantine Act 1926 with the Control of Infectious Diseases Bill 2020 have already been introduced.29 There is a strong need to reorganise or establish architectures to respond to large-scale health crises in between emergencies and not during them to allow relevant actors and decision-makers to familiarise themselves with these processes and governance mechanisms. While this study provides insights into how decision-making frameworks for health emergency response can be structured, additional research on governance and decision-making processes from other countries is required to develop decision-making frameworks that can be used in different country contexts during health emergencies.

Our findings provide insights into the successes and challenges in decision-making during a public health emergency, which can serve as a guiding framework for other countries as they evaluate their own governance processes and structures. Thus, based on our findings from this study, we synthesise seven opportunities for improving governance and decision-making processes for future health emergencies, presented in figure 5. Governance and decision-making arrangements have played a crucial role in countries’ response to the COVID-19 pandemic, resulting in vastly different responses and outcomes. While previous methods and indices to improve capacities to respond to infectious disease outbreaks and pandemics have focused on improving technical capacities such as surveillance capacity or health system infrastructure,52 53 it is important to recognise that many other factors contribute to preparedness and response. Governance and decision-making processes are the examples of such neglected elements of health emergency preparedness and response, at both national and global levels. Current national and global reforms to strengthen pandemic preparedness and response should include provisions to solidify governance mechanisms allowing for a coordinated, collaborative and cohesive response and ensuring that decisions to respond to health emergencies are centred on important elements of governance. By reflecting on how governance and decision-making can best be carried out during health emergencies, countries can use this information to assist them in responding effectively to future health emergencies.

Figure 5 Opportunities for improving governance arrangements during health emergency crises. PTF, Presidential Task Force.
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