



# COVID-19: a narrative review of the national COVID-19 guidelines in Africa

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**Background and Objective:** The World Health Organization (WHO) proclaimed coronavirus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) virus, a pandemic on March 11, 2020. This resulted in various forms of lockdown being implemented in almost all nations worldwide which affected multiple facets of global life. The goal of this study is to compare the various ways that African nations have responded to the pandemic.

**Methods:** We used a qualitative analytic strategy to conduct a rapid document review of guidelines from a random sample of 15 African countries out of 54 countries in Africa. In addition to PubMed, and Google, searches were conducted on the websites of pertinent national health departments, such as Ministries of Health or Public Health, or Centers for Disease Control.

**Key Content and Findings:** Africa began to prepare for the eventual introduction of the first cases that would result from its close ties to China, a major trade partner, and host to more than 80,000 African students. Immediately, enhanced airport surveillance commenced on January 2, 2020, screening all passengers with a recent history of travel to China. The majority of African countries had established guidelines stating screening patients at the point of first contact when they present to any health care center. Contact tracing was conducted in a manner that safeguarded the privacy of affected individuals and adhered to all applicable laws and regulations in line with the WHO guidelines. The use of personal protective equipment (PPE) before triaging cases of COVID-19 was unanimously encouraged. Unfortunately, in many parts of the globe, especially Africa, vaccination reluctance has become a significant barrier.

**Conclusions:** Going forward, responses to COVID-19 epidemic waves and any other public health emergencies must be based on evidence generated locally. It is also essential for African researchers and public health authorities to communicate past and present experiences in order to inform the present and future. It is, therefore, necessary that health care providers should discuss vaccinations with patients while informed with the most recent evidence and prepared to appeal to each patient's unique motivations.

**Keywords:** Africa; coronavirus disease 2019 (COVID-19); primary care

Received: 02 October 2023; Accepted: 04 January 2024; Published online: 15 January 2024.

doi: 10.21037/jphe-23-113

View this article at: <https://dx.doi.org/10.21037/jphe-23-113>

## Introduction

The World Health Organization (WHO) proclaimed coronavirus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) virus, a pandemic on March 11, 2020. This resulted in various forms of lockdown being implemented in almost all nations worldwide.

Multiple facets of global life were impacted by the COVID-19 pandemic lockdowns, including food security, the global economy, education, tourism, hospitality, sports and leisure, and healthcare (1).

People's first point of contact with a country's healthcare system is the primary care system, with face-to-face consultations serving as the foundation of the clinician-patient relationship and the traditional method for assessing and managing the majority of health problems. Primary care is essential to optimizing a nation's response to a pandemic such as COVID-19 (2). In the early months of 2020, the pandemic exerted a tremendous amount of pressure on healthcare systems. Countries around the world have responded to this demand and prepared for future surges by promptly constructing tertiary care facilities and other treatment facilities. Nevertheless, some health systems may not be equipped to increase hospital and health workforce capacity rapidly (3).

A well-developed and well-equipped primary care infrastructure is essential for addressing COVID-19 at the local and national levels. COVID-19 revealed that countries differed with respect to pre-existing universal health coverage, pandemic preparedness, and government and public support for public health measures, not only in public health, acute and long-term care but also in primary care (2,4). Therefore, since secondary and tertiary hospitals are overburdened with patients needing intense treatment, primary care is positioned to play a bigger role in the COVID-19 response in both high-income and low-income and middle-income countries (3).

During pandemics, robust and encompassing guidelines are required to support the response of primary care providers (5). Nevertheless, current guidelines are heterogeneous and cover care provided in primary care, home care, and isolation guidance. Rapid research and synthesis are required in order to inform the establishment of recommendations to assist healthcare practitioners in providing high-quality treatment during the pandemic since the major goal of guidelines is to enhance the quality of care that patients receive (6). This review aims to study available

national guidelines for COVID-19 in Africa and investigate how these guidelines assist health care facilities in meeting the demands of the COVID-19 pandemic. We present this article in accordance with the Narrative Review reporting checklist (available at <https://jphe.amegroups.com/article/view/10.21037/jphe-23-113/rc>).

## Methods

To facilitate narrative data synthesis, we utilized a qualitative analytic strategy to conduct a rapid document review. In addition to PubMed, and Google, searches were conducted on the websites of pertinent national health departments, such as ministries of health or public health, or Centers for Disease Control. We used guidelines from a random sample of 15 African countries out of 54 countries in Africa, sources were majorly from official websites from ministries of health. These countries were Benin, Rwanda, Sudan, Ghana, Egypt, Kenya, Gambia, South Africa, Algeria, Malawi, Nigeria, Ethiopia, Uganda, Tunisia, and Zimbabwe. To allow for a well-rounded comparison, we included articles and guidelines that focused on these domains: coordination, planning and monitoring, policy framework, risk communication, surveillance, and rapid response teams.

### *Infection prevention and control*

Our investigation spanned from January 1, 2020, to May 30, 2023. We utilized the standard Boolean expression ('COVID-19' AND 'guidelines' AND 'Ministry of Health' OR 'Centers for Disease Control' AND country name) for the queries. In addition, we scoured the references of the chosen relevant policy documents for additional pertinent information (*Table 1*).

### **Initial response**

Africa began to prepare for the eventual introduction of the first cases that would result from its close ties to China, a major trade partner, and host to more than 80,000 African International University students (7).

Based on Chinese air travel data, statistical models have identified Egypt, Algeria, and South Africa as the African nations with the highest risk of initial introductions and subsequent disease dissemination (8). African Union (AU) Member States concentrated swiftly on preventing the importation of COVID-19 and containing its spread within

**Table 1** The search strategy summary

Items	Specification
Date of search	5/4/2023 to 5/30/2023
Databases and other sources searched	PubMed, Google, Ministries of Health, Centers for Disease Control
Search terms used	Boolean expression ('COVID-19' AND 'guidelines' AND 'Ministry of Health' OR 'Centers for Disease Control' AND country name)
Timeframe	1/1/2020 to 5/30/2023
Inclusion criteria	(I) Articles languages: English  (II) Article types: national document from Ministry of Health, systematic reviews, evidence-based guidelines
Selection process	The primary investigator conducted the selection of articles

COVID-19, coronavirus disease 2019.

countries (9). Ivory Coast began instituting enhanced airport surveillance on January 2, 2020, screening all passengers with a recent history of travel to China, followed shortly thereafter by other African nations (10). In response, the majority of African airlines ceased direct flights to and from China (11). This strategy initially appeared to be effective: on February 14, Egypt reported the first COVID-19 case on the continent. Nine African nations (Algeria, Cameroon, Egypt, Morocco, Nigeria, Senegal, South Africa, Togo, and Tunisia) had reported more than 40 cases by the end of the first week of March (12). On the 50th day after the first confirmed case in Europe and Africa, it was recorded that Europe had 36,264 cases, but Africa reported 7,405 cases. Several African nations implemented nationwide or partial lockdowns and nighttime curfews in order to significantly limit non-essential mobility. The use of these procedures may have directly contributed to the deceleration of the COVID-19 outbreak in Africa since the first confirmation of the first case (13).

## Surveillance

Ethiopia had a rumor investigation team set up to verify any rumor through toll-free numbers (14). Citizens of Uganda were also provided a toll-free number to call in case they developed symptoms of acute respiratory infection, including fever, cough, sore throat, and difficulty breathing. Daily monitoring via phone calls was also performed by the Ministry of Health in Uganda for the development of danger signs (15). In other parts of East Africa, such as Zimbabwe, there was more emphasis on self-isolation if symptoms developed and prompt identification and referral

of suspected cases to nearby isolation centers. There was also a provision for a toll-free number to call. In the event that the number to call could not be reached, the patient was instructed to meet with a community health worker and then later present at a nearby primary care clinic (16).

In Nigeria, the National Center for Disease Control (NCDC) is responsible for the surveillance of COVID-19 cases nationwide. A dedicated health worker liaises with a state case manager to provide real-time updates on the care of the patients involved. Several toll-free numbers were provided for the immediate transfer of both suspected and confirmed cases (17). Algeria, which has one of the best healthcare systems in Africa, had to resort to locally manufacturing COVID-19 test kits, which still underestimated the number of active cases in the country (18). The Kenyan government recommended testing only for diagnosis and not for assessing recovery (19).

The surveillance of COVID-19 in Ghana was performed at all levels of care, and psycho-social support and counseling were offered to patients and contacts who tested positive for COVID-19. Countries such as Nigeria, Ghana, and Uganda had guidelines stating screening patients at the point of first contact when they present to any health care center (15,17,20).

## Contact tracing

Due to their experience with previous significant outbreaks like the Ebola virus, some countries in the West (Liberia, Sierra Leone, and Guinea), Central (the Democratic Republic of the Congo), and East (Uganda) Africa had developed best practices for contact tracing. These practices

were modified for the COVID-19 response (21,22).

In Rwanda, contact with a COVID-19 case was defined as any individual who had contact with a COVID-19 case between 72 hours prior to the onset of symptoms and 14 days after the onset of symptoms. Contacts were then classified into high-risk and low-risk exposure. Tracing can be capital intensive; hence contacts are contacted through phone calls and text messages by local health authorities (23). Guidelines in Zimbabwe, recommend self-quarantine if an individual has been in contact with an infected person for a short period of time (16).

The medical advisory panel of the South Sudan Government emphasized that contact tracing must be conducted in a manner that safeguards the privacy of affected individuals and adheres to all applicable laws and regulations. International contact tracing can also be performed using rapid information sharing via the international network of National "WHO International Health Regulations (IHR)" IHR Focal Points (NFPs) (24). Guidelines in Kenya recommended individuals who had been exposed to COVID-19 should be quarantined for 14 days and tested if they developed symptoms (19).

The Gambia COVID-19 preparedness and response project had a budget of 2.7 billion US dollars (USD) and planned to train at least 80% of its rapid response team within 6 months to effectively perform contact tracing across the country (25). In Ethiopia, contact tracing was done by searching for social events the case attended, beginning with the date of symptom onset, identifying potential contacts, thoroughly checking household contacts and guests, and searching for contacts from workplaces and even within health facilities (14). The majority of African nations have inadequate health systems, limited or nonexistent diagnostic capacity, ineffective reporting systems, and insufficient medical personnel, all of which contribute to the low incidence of COVID-19. The COVID-19 pandemic has generated significant strain on finite resources and poses a grave threat to the majority of African nations, encompassing both urban and rural regions (26).

## Infection control

Effective hand cleansing with water and detergent for at least 20 seconds is one of the protective health behaviors against the spread of infection (6). During the heat of the pandemic, WHO suggested alcohol-based hand sanitizers for frequent hand sanitation, which are primarily composed

of ethanol, isopropyl alcohol, and hydrogen peroxide in various combinations (27).

Guidelines in Malawi recommend that after coming into contact with a COVID-19 suspect, hands and skin should be disinfected with detergent and water or a hand disinfectant containing greater than 60% ethanol or 70% propanol. Proper hand hygiene must be performed immediately before and after contact with a patient, before putting on or removing personal protective equipment (PPE), and after contact with potentially infectious material, such as respiratory or other secretions, in healthcare contexts (28). The South Sudan government focused on creating signs and posters to raise awareness of effective hand-washing techniques, the need to increase hand-washing frequency, the need to avoid contacting the face, and the need to cough or sneeze into a tissue that is safely discarded or into the hollow of your sleeved arm if there is no tissue available (24).

PPE is designed to prevent infectious agents from contacting the wearer's skin, eyes, mucous membranes, airways, and garments. The majority of the countries in Africa have guidelines stating the use of PPE before triaging cases of COVID-19 (17,28). In South Sudan, it was recommended that reusable PPE be thoroughly cleansed, decontaminated, and maintained after each use (24). Importantly, the use of PPE was not to be a replacement for appropriate infection prevention and control practices. For instance, the use of gloves cannot replace hand hygiene (28). Uganda's health workers are required to carry out a fitting test in order to find the best match of PPE for the user (15).

Vaccines against SARS-CoV-2 have been shown to substantially reduce incident infection, symptomatic and severe disease, hospitalizations, intensive care unit admissions, and mortality from severe disease (29). The COVID-19 vaccinations in Kenya, which target high-risk populations including healthcare professionals, those over 58, and people with comorbid conditions like diabetes mellitus and hypertension, have added another prong to COVID-19 preventative strategies (19).

Unfortunately, in many parts of the globe, especially Africa, vaccination reluctance has become a significant barrier. Perceptions to the health hazards of COVID-19 were not influenced by religion or gender, but however information from mobile communication networks and social media (30).

The vaccine approval rate varied between 6.9% and 97.9% among studies conducted in Botswana, Cameroun, Cote D'Ivoire, DR Congo, Ghana, Kenya, Morocco, Mozambique, Nigeria, Somalia, South Africa, Sudan, Togo,

Uganda, Zambia, and Zimbabwe (31).

Southern Nigerians believed that COVID-19 vaccinations would be difficult to implement because they were suspicious of the government's motives (32). It is, therefore, necessary that primary care providers should discuss vaccinations with patients while informed with the most recent evidence and prepared to appeal to each patient's unique motivations (33).

## Conclusions

In responding swiftly to a public health disaster of unparalleled scope, Africa has shown unity and collective leadership. Africa has also invested in preparedness and response initiatives for various epidemics (including Ebola virus disease, Lassa fever, polio, measles, tuberculosis, and human immunodeficiency virus) on the continent.

Going forward, responses to COVID-19 epidemic waves and any other public health emergencies must be based on evidence generated locally. It is also essential for African researchers and public health authorities to communicate past and present experiences in order to inform the present and future.

## Limitations

Accurate information regarding COVID-19 at the community level could not be obtained due to limited available health information data.

## Acknowledgments

*Funding:* None.

## Footnote

*Provenance and Peer Review:* This article was commissioned by the Guest Editor (Victor O. Kolade) for the series "Primary Care and Public Health in the Wake of the COVID-19 Pandemic" published in *Journal of Public Health and Emergency*. The article has undergone external peer review.

*Reporting Checklist:* The authors have completed the Narrative Review reporting checklist. Available at <https://jphe.amegroups.com/article/view/10.21037/jphe-23-113/rc>

*Peer Review File:* Available at <https://jphe.amegroups.com/>

[article/view/10.21037/jphe-23-113/prf](https://jphe.amegroups.com/article/view/10.21037/jphe-23-113/prf)

*Conflicts of Interest:* All authors have completed the ICMJE uniform disclosure form (available at <https://jphe.amegroups.com/article/view/10.21037/jphe-23-113/coif>). The series "Primary Care and Public Health in the Wake of the COVID-19 Pandemic" was commissioned by the editorial office without any funding or sponsorship. The authors have no other conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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doi: 10.21037/jphe-23-113

**Cite this article as:** Oyeleye OA, Alugba G, Roberts AA, Adetunji EA, Oyeleye OE. COVID-19: a narrative review of the national COVID-19 guidelines in Africa. *J Public Health Emerg* 2024;8:6.