

# Burundi's 'Worst Enemy': the Country's Fight Against COVID-19

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## Abstract

Coronavirus disease 2019 (COVID-19) has proved to be a severe global public health threat, causing high infection rates and mortality worldwide. Burundi was not spared the adverse health outcomes of COVID-19. Although Burundi's initial response to the COVID-19 pandemic was criticized, hope arose in June 2020 when the new government instituted a plan to slow virus transmission that included public health campaigns, international travel restrictions, and mass testing, all of which proved effective. Burundi has faced many challenges in containing the virus, the first of which was the lack of initial preparedness and appropriate response to COVID-19. This was exacerbated by factors including shortages of personal protective equipment (PPE), limited numbers of life-saving ventilators (around 12 ventilators as of April 2020), and the presence of only one COVID-19 testing center with less than ten technicians in July 2020. Moreover, as Burundi is amongst the poorest countries in the world, some citizens were unable to access necessities such as water and soap, required for compliance with government recommendations regarding hygiene. Interestingly, Burundi did not implement a nationwide lockdown, allowing mass gatherings and public services to continue as usual due to a firm belief in God's protection. As the daily confirmed cases have tripled since December 2020, Burundi must prepare itself for the threat of a new wave. Establishing precautionary measures to contain the virus and strengthening the health surveillance system in Burundi would significantly positively impact the prevention and management of COVID-19.

Keywords: Burundi, challenges, COVID-19, health policy, strengths

## Introduction

Coronavirus disease 2019 (COVID-19), caused by the novel coronavirus, had spread rapidly worldwide since December 2019, when it was first detected in China. The World Health Organization (WHO) declared COVID-19 a pandemic on March 11, 2020. African countries were severely affected and struggled to cope with the new challenges presented by this unprecedented outbreak. The landlocked country of Burundi is amongst the poorest countries in Sub-Saharan Africa and the world, with a dense population of around 12 million.<sup>1</sup> Burundi reported its first two COVID-19 cases on March 31, 2020. The virus was thought to originate from Rwanda and Dubai, with the infected individuals testing positive on March 30, 2020.<sup>2</sup> As of May 24, 2021, Burundi has had 4,494 cumulative confirmed cases with six deaths.<sup>3</sup> Burundi has made great efforts and faced significant challenges in its response to COVID-19, and the authors aimed to comment on both these aspects in this paper critically.

## Efforts

Burundi started the fight against COVID-19 on March 18, 2020, when testing and limited preventive measures were implemented by the Ministry of Public Health and the Fight Against AIDS. The preventive measures to contain the virus included handwashing with soap and clean or chlorinated water and avoiding physical contact through handshakes or hug.<sup>4</sup> Burundi continued to run elections and other activities in the midst of the pandemic, and the limited preventive measures instituted under the presidency of Peter Nkurunziza (who died on June 8, 2020, a few days after the elections) in response to the COVID-19 pandemic were criticized by the global health community as downplaying the outbreak and underestimating its risks.

Fortunately, the new president, who came into power in June 2020, devised a new plan for instituting preventive measures and declared COVID-19 as Burundi's 'worst enemy.'<sup>5</sup> This act moved the narrative away from the in-action of the previous government, creating a sense of urgency and issuing a call to action.

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An essential step in the fight against the novel coronavirus was achieved by initiating public health campaigns and mass public testing, including 30,000 students residing in boarding schools.<sup>6</sup> The impact of these measures in containing the virus is indisputable. As of May 18, 2021, 302,488 tests have been performed in public testing centers and health districts. The testing campaigns covered suspected cases, contact tracing, and international travelers. The treatment was provided in hospitals to symptomatic individuals free of charge. Positive cases were managed in isolation rooms in public health facilities while some asymptomatic patients isolated themselves at home.

Interestingly, on April 20, 2021, Burundi inaugurated the public health emergency operations center, coordinating activities and responses to health emergencies.<sup>7</sup> Its campaign included advice on social distancing, self-isolation in case of symptoms, wearing masks, and hand-washing. Furthermore, stricter preventive measures were announced, including the closing of all borders. This measure was the second time reinstated this year as COVID-19 cases begin to rise in some parts of Africa, with a seven-day quarantine requirement for anyone arriving in the country. Finally, communicating information about the virus, such as the numbers of newly confirmed cases and deaths and news about the state of the pandemic locally and worldwide, gained importance in raising awareness and promoting public health through the education of Burundi's citizens.<sup>8</sup> As a result, more cases were detected and quarantined, preventing others from acquiring avoidable infections (Figure 1).

### Challenges

COVID-19 hit Burundi when leaders were mainly concerned with communal, legislative, and presidential election campaigns. In addition, Burundi previously

faced challenges in coping with other epidemics, including measles, malaria, and cholera, as well as floods that severely damaged the country.<sup>9,10</sup> With a low health index score of 8.9 on the Global Health Security Index and insufficient health infrastructure, Burundi was not initially well prepared to respond to the outbreak. It is not surprising that cases went unreported because residents of Burundi struggled to get tested for COVID-19 in the early months of the outbreak despite showing COVID-19-like symptoms.<sup>11</sup>

Burundi's response to COVID-19 from March to June 2020 was controversial, though the outcomes could have been worse. Two presidents passed away, each of whom ruled the country for at least ten years. The former president, Pierre Buyoya, died outside Burundi, with the cause of death officially documented as COVID-19 infection.<sup>12</sup> Of note, the cause of death of President Peter Nkurunziza, who ruled from August 2005 until his death on June 8, 2020, was officially documented as a heart attack. Thus, Burundi lost two presidents during the COVID-19 era in a matter of months.

Although the first case of COVID-19 was reported at the end of March 2020, no clear response plan was set in motion until June of the same year. The government was accused of not providing fact-based information on COVID-19.<sup>13</sup> This led to the circulation of false rumors about the disease, contributing to widespread misconceptions about COVID-19 and creating an air of uncertainty and fear amongst the population. During this period, healthcare workers noticed an increase in the number of patients presenting with COVID-19-like symptoms. However, few cases were reported. This may be related to a limited testing capability, as only one testing center with less than ten technicians analyzed test samples taken all over the country.<sup>14</sup> Similarly, many healthcare professionals faced infrastructural problems

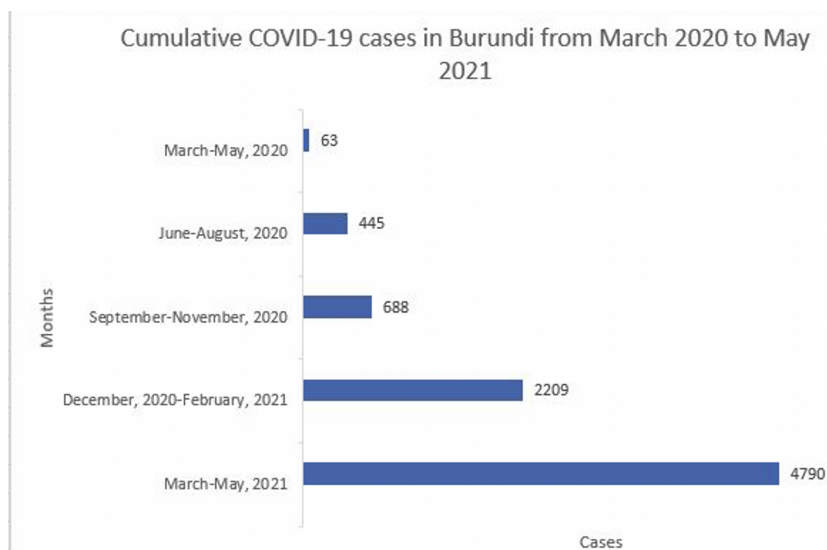


Figure1. Progress of COVID-19 Cumulative Cases in Burundi from March 2020 to May 2021

within hospitals, such as shortages of personal protective equipment (PPE) and availability of only 12 life-saving ventilators.<sup>11</sup> Burundi also faced challenges to COVID-19 testing when case numbers were on the rise. The paucity of reagents required for the polymerase chain reaction (PCR)-based COVID-19-specific tests has been a barrier to providing reliable results.<sup>15</sup> Furthermore, lack of cooperation with WHO representatives expelled from the country after being accused of spreading false information formed a barrier to a global partnership and response.<sup>9</sup>

As Burundi is amongst the poorest countries in the world, some of its residents were unable to access necessities such as water and soap required to comply with the preventive measures.<sup>16,17</sup> Interestingly, Burundi did not implement a nationwide lockdown, allowing mass gatherings and public services to continue as usual. This unpopular measure is related to the authorities' firm belief that God protects Burundi.<sup>9</sup> Moreover, one can assume that this measure was taken to preserve the country's already vulnerable economy and citizens, most of whom depend on daily wages. It was estimated that 80% of the population relies on subsistence agriculture without any social support.<sup>18,19</sup>

Furthermore, some COVID-19 treatment centers were overloaded and could not admit additional patients, resulting in inequitable management of people who tested positive for COVID-19.<sup>20</sup> Crucially, residents blame local public health leaders for failing to implement strict measures to contain the virus.<sup>21</sup> The infection rate has tripled since December 2020, and COVID-19 has spread all over the country as of today. Burundi has also not yet received the COVID-19 vaccine. The WHO declared Burundi ineligible for the global vaccine sharing scheme COVAX (COVID-19 Vaccines Global Access) and did not provide any COVID-19 vaccine thus far.<sup>22</sup>

In addition, instead of presenting to healthcare centers, people with COVID-19 symptoms chose traditional "food medicines," including ginger, lemon, and eucalyptus leaves.<sup>23</sup> Though such traditional "food medicines" are crucial tools of cultural importance in communities' response to health crises, their usage has public health implications. It can prevent people from consulting healthcare professionals and receiving the necessary and appropriate treatment, thus contributing to higher mortality rates and the uncontrolled spread of COVID-19. Developing an unambiguous evidence-based use of such remedies in the prevention and treatment of COVID-19 would greatly benefit the people who choose traditional food medicines or cannot afford modern healthcare.

## Discussion

Given the current situation, the government of Burundi and public health leaders need to take responsi-

bility for this pandemic and aim to adopt the WHO's preventive measures while adjusting them to an appropriate and practicable level for the country.<sup>24</sup> Reinforcement of the committee in charge of the COVID-19 pandemic response at different health system levels is also needed. Moreover, it is necessary to ensure the availability of laboratories for screening, adequate PPE, and enough trained personnel to lead pandemic preparedness initiatives and form an appropriate body to monitor the implementation of public health measures and testing.<sup>25</sup> Involving community health workers (CHWs) can be essential in responding to the surge in cases. They can raise awareness in their communities regarding effective response measures to slow the COVID-19 transmission. CHWs play a crucial role in ensuring clinical and community care by reducing the healthcare delivery time as they are present locally, contact tracing and supporting the continuation of the health system.<sup>26</sup>

Notably, specific national public health measures must be established. For example, social events should be minimized, travel into and out of the country reduced, and church services and meetings be given clear guidelines, including increased capacity for contact tracing any positive cases of COVID-19. Moreover, Burundi should embrace vaccination campaigns to ensure that the population is immunized against the virus, like other African countries.<sup>27</sup> Finally, it is critical to establish a country-specific database regarding COVID-19 management as a platform for independent clinical research to provide evidence-based information for public health policies and political decision-making for further improvement in out-break management.<sup>28</sup> Additional global considerations to support and strengthen Burundi's economy and health system could help devise a comprehensive national response plan to tackle COVID-19 and other epidemics.

## Conclusion

Burundi's response to the COVID-19 pandemic during the first four months of the outbreak was controversial. However, Burundi has made notable progress from June 2020, expressing urgency and taking significant action against the outbreak. Furthermore, measures including public health campaigns and control of international travel alongside mass testing have had a substantial positive impact. However, Burundi has to face challenges with other preventive measures, such as the availability of soap and handwashing, due to the financial limitations of its citizens. The establishment of specific public health measures will be indispensable in containing the virus.

## Abbreviations

COVID-19: Coronavirus disease 2019; WHO: World Health Organization; COVAX: COVID-19 Vaccines Global Access; CHWs: Community Health Workers.

#### Ethics Approval and Consent to Participate

Not applicable.

#### Competing Interest

The authors declare no conflicts of interest.

#### Availability of Data and Materials

Not applicable.

#### Authors' Contribution

EM: Conceptualization and design. HR, EM, EU, TU, AK, SAP, SSR: Data collection and literature review, writing- Original draft preparation and visualization. AA, BN, SMSI, DELP: Supervision, writing- reviewing, editing and proofreading.

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