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## Letter to the Editor

## COVID-19 in South Africa: lockdown strategy and its effects on public health and other contagious diseases



The current global pandemic of the novel coronavirus disease 2019 (COVID-19) is severely affecting the global health system. There is no treatment or vaccine available for COVID-19 yet. Since the World Health Organization announced the pandemic of COVID-19, many countries have announced new social distancing and lockdown rules to control the spread rate of the deadly COVID-19 virus. According to the International Health Regulation monitoring and evaluation framework, some African countries such as South Africa, Egypt, and Algeria have demonstrated the highest risk of importation rate and an average risk profile to fight against highly contagious diseases.<sup>1</sup> African countries, with previous experiences on the outbreaks of other infectious disease and pandemic situations, including HIV, malaria, and Ebola, have limited financial, physical, and medical resources. In addition, there have been major problems related to the weak public health care and healthcare management systems in countries across Africa.<sup>2</sup>

In many low- and middle-income countries, the lockdown strategy was implemented to decrease the rate of the COVID-19 outbreak. Although lockdown strategies across many countries have been effective for decreasing the spread rate of contagious viruses, there have been other negative impacts reported globally; these concerns become worse in countries across Africa, including South Africa. For example, it has been reported that HIV care has been negatively affected by the current COVID-19 pandemic. In addition, HIV transmission accelerated among poorer people and young women during lockdown.<sup>3</sup> There are also psychological problems associated with long-term lockdown strategies.<sup>4</sup>

In South Africa, the government announced a nationwide lockdown to manage the pandemic situation and decrease the spread rate of the COVID-19 outbreak. However, due to limited available resources, as well as negative impacts of the lockdown strategy, the lockdown levels have been eased, twice. With regard to the current global situation during the COVID-19 pandemic, different concerns in the public health system of South African people have been raised. The major concerns are summarized in the following paragraphs.

First, South Africa's national lockdown started on the 15th of March. Owing to various deficiencies, limited resources, and financial means, the South African government has no other option but to ease the lockdown strategy and related rules. Currently, the level of lockdown in South Africa is at level three of five levels of severity.

However, according to South Africa's National Institute for Communicable Diseases (<https://nicd.ac.za>), the spread rate of the COVID-19 outbreak is increasing.

Second, the lockdown strategy, social distancing rules, and community containment measures for COVID-19 have negatively impacted the diagnosing and treatment of other contagious diseases, including HIV and malaria.<sup>5,6</sup> In addition, in this pandemic situation, allocating resources for HIV care, including antiviral medication and allocating hospital beds for patients with HIV, would be more limited.

Third, more than 1000 children aged younger than 9 years have tested positive for COVID-19 already. The COVID-19 pandemic is severely affecting the young population of South Africa, including new born and infant children.<sup>4</sup>

Fourth, in South Africa, the winter season is starting. Studies already undertaken reported the correlation between the sunlight and the rate of COVID-19 recovery;<sup>7</sup> the studies suggest that sunlight exposure increases the rate of recoveries in patients with COVID-19. Therefore, a longer recovery period for patients is anticipated.

With regard to the concerns raised and the results of analyzed data, it can be predicted that the situation of South Africa in fighting against COVID-19 will become worse in the future. The daily fatality rate and the number of daily confirmed COVID-19 cases is starting to increase dramatically. Therefore, we urge a global collaboration in terms of providing essential resources and developing novel solutions to fight the COVID-19 pandemic in South Africa. We recommend that all governments and organizations start an international collaboration to maintain the healthcare plans across the world to avoid disruption of the routine healthcare services.

COVID-19 is a global pandemic; the reaction to this situation should be at global levels. Science and state-of-the-art technologies in all the scientific and social fields need to be combined to produce effective solutions to fight the COVID-19 pandemic. Many low- and middle-income countries, including African and Middle Eastern countries, lack essential resources. In the COVID-19 pandemic, increasing the outbreaks of viral infections in any country would affect the global health system negatively. Therefore, measures, prevention solutions, resources, medical equipment, and medication should be developed and provided to people equally all across the world.

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