

South Africa's COVID-19 vaccine rollout amid the emergence of Omicron

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Dear Editor,

The COVID-19 pandemic continues to plague every part of the world. The effect of the current pandemic continues to threaten livelihoods through social, cultural, economic, and physical instability. Confirmed active cases have nearly reached 280 million, and unfortunately almost 5.4 million deaths due to COVID-19¹. On a positive note, nearly 250 million recoveries have been recorded¹.

The adverse effects of this unprecedented global health crisis are exacerbated by the emergence of new SARS-CoV-2 variants in different parts of the world. The recent South Africa discovery of the B.1.1.529 variant, now classified as a variant of concern by the World Health Organization and termed as 'Omicron', hinders the country's efforts to speed up the vaccination program². Omicron has spread to more than 60 countries and is becoming the dominant variant globally. Herd immunity, a concept explained by many global health agencies, such as the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC), is defined as achieving enough protection of the population so that the balance of the population is protected. WHO warns that if herd immunity is not achieved, by vaccinating most of the global population, then new mutations of SARS-CoV-2 will arise and prolong the efforts to end the pandemic³.

An exponential rise in the infection rate has resulted in many people going into self-isolation and quarantine. Consequently, the number of people presenting themselves to the vaccination sites has decreased. South Africa currently has an increase of approximately 20000 new daily COVID-19 cases with positivity averaging 25%⁴. As many European

countries face a resurgence of COVID-19 cases, some have reinstated lockdown measures to curb the spread of COVID-19. South Africa, however, has not reimposed additional restrictions and maintains the existing lowest level of lockdown⁵. This is viewed in light of the economic recovery process that the South Africa Government has undertaken to revive businesses and ensure that the burden of the pandemic is alleviated⁶. Hence, Omicron continues to challenge humanity's efforts to end the pandemic⁷.

South Africa and the African continent at large had initially struggled to secure adequate vaccine doses for their population. Initially, vaccine nationalism and the inequitable distribution of vaccines with limited supply to South Africa resulted in high transmission rates of SARS-CoV-2 on the continent, unabated⁸. Now that enough vaccine doses have been secured by South Africa, the challenge to get these vaccine doses to rural townships and villages has proven to be a challenge beyond what was expected. Multiple interventions, such as mobile vaccination campaigns and transportation assistance to nearby vaccination sites, have been implemented to address this challenge.

It is widely reported that South Africa and the African continent are least prepared when preparing, responding, and recovering from health challenges such as disease outbreaks. With the burden of multiple epidemics on the African continent, such as HIV, TB, malnutrition, and other infectious diseases, managing the COVID-19 pandemic is a more significant challenge⁹.

As of 12 January 2022, a mere 27% of the South African population had been fully vaccinated, as the Omicron

variant ravages many provinces of the country. Additionally, a challenge that further impedes the vaccine update and coverage in South Africa is that many people who are suspected or confirmed to be infected with COVID-19 have to wait for a period of 30 days before receiving their vaccine¹⁰. This is the recommendation by the World Health Organization and implemented by the South Africa National Department of Health. The rationale behind this 30-day policy is to allow for the body's immune response to fully clear the virus from the body with no external agent interfering during this period. Once the antibody levels have settled post-acute infection, the vaccine is to be administered.

Given Omicron's high transmission rates, booster shots of the COVID-19 vaccine are needed to restore protection with high levels preventing severe disease, hospitalization, and death¹¹.

The South Africa Health Products Regulatory Authority (SAHPRA) has approved both a Pfizer and Johnson & Johnson booster shot¹². This is to enhance and bolster efforts in ensuring sufficient protection of the general population.

Early data show that Omicron-driven fourth wave in South Africa does not result in severe disease and has a 3-fold reduction in the rates of hospitalization and the need for ventilators¹³. The need for ramping-up the vaccination program in South Africa is indeed urgent. The protection of the population, particularly the elderly and those with comorbidities, is a priority.

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CONFLICTS OF INTEREST

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