

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

South Africa responds to new SARS-CoV-2 variant



Land borders have been closed and restrictions continue as a new variant stresses the health system. Munyaradzi Makoni reports.

On Jan 11, 2021, South Africa closed 20 land border posts for general entry and departure until Feb 15, as COVID-19 cases surged because of the spread of a new variant of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

The move comes amid rising infections and deaths, especially as people return to work following the festive season. As a regional economic hub, South Africa attracts many migrants. Land border crossings have been hugely congested, particularly the busiest six: Beitbridge, Lebombo, Maseru Bridge, Oshoek, Ficksburg, and Kopfontein. Many people were exposed to COVID-19 infections as they waited many hours to cross the border. The UN Food and Agriculture Organization (FAO) has warned that the restrictions have particularly affected landlocked Lesotho, which imports the bulk of its goods and services from South Africa. It says that more than 580 000 people out of a population of 2.2 million are food insecure.

"It has been difficult to ensure that the health requirements for entry into South Africa are met, with many people arriving without proof of COVID-19 tests", said South African President Cyril Ramaphosa, in a televised national address.

In South Africa, COVID-19 has claimed the lives of more than 37 000 people and more than 1·3 million COVID-19 cases have been recorded in the past 10 months. More than 148 000 people have been admitted to hospital with the disease.

"The pandemic in our country is now at its most devastating. The number of new infections, hospital admissions, and deaths is higher now than it has ever been since the first case was recorded in our country in March, 2020", said Ramaphosa. A new SARS-CoV-2 variant (501Y. V2) that was first discovered in South Africa has raised concern over new infections. In November, 2020, clinicians alerted South African scientists about a rapid increase in the number of people with COVID-19 in the Nelson Mandela Bay region in the Eastern Cape

"...the new variant circulating in the region has been detected in Botswana, The Gambia, and Zambia..."

province, leading to the identification of a new variant of the virus in South Africa. Since Jan 1, the country has recorded nearly 190 000 new SARS-CoV-2 infections and more than 4600 COVID-19 deaths so far this year. The WHO Regional Office for Africa says that the new variant circulating in the region has been detected in Botswana, The Gambia, and Zambia, but preliminary studies show no evidence that this variant causes more severe disease.

"We do know that this new variant of the virus spreads much faster than the earlier variants. This explains the fact that many more people have become infected in a far shorter space of time", said Ramaphosa.

The spread of the new variant puts more pressure on the health system because the number of cases increases so rapidly and the hospitals get full more quickly, but the transmission of the new variant can be prevented using exactly the same measures that we have been using for protection against the virus all along, said Ramaphosa.

"[The situation is] terrible, how more transmission [ends] up with much more deaths, even if the variant is not more pathogenic", said Tulio de Oliveira, director of the KwaZulu-Natal Research Innovation and Sequencing Platform

and principal investigator of the Network for Genomic Surveillance in South Africa in a post on Twitter. "People need to realise that when hospitals get overwhelmed, deaths increase very fast", he added.

GISAID, a global initiative that promotes sharing of sequence data, says that new variants of SARS-CoV-2 have also been reported in Brazil, France, Australia, Germany, Switzerland, Japan, Sweden, South Korea, Finland, Ireland, the Netherlands, and the UK.

To curb the spread of the second wave, South Africa has maintained restrictions such as the ban on sale and movement of alcohol and a limit on the number of people allowed to attend public gatherings. Most indoor and outdoor gatherings remain banned, including religious and political events, but not funerals—despite evidence for an increased risk of transmission at these events—which are limited to 50 people and strict protocols including physical distancing, hand sanitising, and mask wearing being observed.

To date, South Africa has secured 20 million doses of vaccine from different manufacturers, to be delivered mainly in the first half of 2021. Earlier in January, Health Minister Zweli Mkhize announced that South Africa would be receiving 1 million doses in January and 500 000 doses in February of the AstraZeneca-Oxford vaccine from the Serum Institute of India. The priority for vaccination would be front-line health workers.

"We will undertake a massive programme of COVID-19 vaccination", Ramaphosa said. South Africa is estimated to need 67% of the population (40 million people) vaccinated to achieve herd immunity to reduce spread, he said.

Munyaradzi Makoni