

# South Africa has entered a new phase of the COVID pandemic: what that means

Saturday 21 May 2022, by [GROOME Michelle J.](#), [PULLIAM Juliet](#), [SILAL Sheetal](#) (Date first published: 18 May 2022).

**Repeated resurgences of SARS-CoV-2 transmission are expected in the years to come.**

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Confirmed cases of SARS-CoV-2 have been increasing in South Africa in [recent weeks](#). This has been largely driven by two offspring – known as the BA.4 and BA.5 sub-lineages – of the Omicron variant first identified in South Africa late last year.

What's notable about the most recent spike is that there are a number of differences between what the country is currently experiencing and the first four waves of COVID-19 in South Africa.

Firstly, nearly all South Africans now have some form of immunity. This is due to either having been exposed to the virus, or being vaccinated, [or a combination of both](#).

Secondly, the current resurgence has only seen a small increase in hospitalisations. And, so far, a [very minor increase in excess mortality](#).

Thirdly, the current resurgence is the result of a [sub-lineages of the variant \(Omicron\) that caused the fourth wave](#). The shift to resurgences driven by sub-lineages rather than new variants potentially heralds a change in the evolutionary pattern of the virus and a move to it becoming endemic.

Lastly, the country currently has the lowest level of restrictions in place compared to any period since the start of the pandemic.

These differences matter because they have important implications for interpretation of COVID-19 trends and the associated response. They show that South Africa appears to have entered a new phase of the epidemic.

In this new phase, the high population-level immunity in South Africa likely means that in the absence of a new, more severe variant, future spikes in infections are unlikely to result in large increases in hospitalisations and deaths.

This makes it increasingly difficult to use the same definitions and interpret the data in the same way as during the past two years. And it means that the country needs new ways to monitor risk which, in turn, will inform potential policies to protect the health system as well as individual risk mitigation.

For example, the current patterns demonstrate that in a context such as South Africa with high

levels of population immunity, it is possible to have a substantial surge in transmission that does not overwhelm the health system, even without putting new restrictions into place.

## **What next**

Current short term trends in [case numbers](#) and the [proportion of tests that are positive](#) suggest that there is a high level of virus transmission. But changes in testing patterns through time mean these numbers are no longer directly comparable to previous waves.

The most recent data also suggest that the rate of increase of new cases is beginning to slow. Over the next few weeks, we could see a peak and decline in reported cases and test positivity, as we've grown accustomed to seeing, or an extended plateau with a relatively high level of transmission.

Moving forward, we expect that case numbers will rise and fall. However the peaks and troughs of transmission will be less dramatic than previously seen. And it's possible that periods of high transmission may become seasonal in nature, as seen with other respiratory viruses.

The exact SARS-CoV-2 transmission patterns will be driven by a complex interplay between seasonal influences, viral evolution, waning of immunity against infection (and perhaps disease), and demographic processes that drive long-term changes in population susceptibility.

The availability of vaccinations and booster doses, and high rates of infection in the population to date, will mean that reported case numbers will become less reliable as an indicator of infection risk or a predictor of hospital admissions and deaths.

What matters now is whether there is sufficient monitoring in place to detect major changes in time to respond. Changes could include increases in disease severity or susceptibility. Such monitoring will help ensure that the country's health system doesn't become overwhelmed.

It is also important that individuals have enough information to make decisions to protect themselves. Assessment of individual risk factors will also inform individuals' behaviour (such as mask wearing and amount of contact with others). Those at the highest risk of severe disease may choose to avoid high-risk situations, particularly when transmission is high.

## **What matters**

No perfect metrics exist for monitoring the force of infection. But there are several indicators that may be useful.

First, the proportion of tests that are positive is a valuable indicator of short-term trends, with changes generally correlated to increasing or decreasing transmission.

Similarly, sustained increases in case numbers, or [resurgences](#), remain good indicators of short-term increases in transmission because they focus on increases relative to very recent observations.

Over the longer term, however, other time-varying factors come into play. These include:

- the proportion of tests that are PCR vs antigen
- changes in reporting practices.

Both of these factors affect the likelihood that someone infected with SARS-CoV-2 will be detected and counted as a case, changing the meaning of reported case numbers with respect to underlying circulation of the virus.

Finally, data on the concentration of SARS-CoV-2 genomic material in wastewater can be used to assess trends in community-level transmission. The South African Medical Research Council [provides a dashboard](#) showing trends in SARS-CoV-2 RNA concentration for many of the country's most populous districts. The [NICD also releases weekly reports](#) showing longer-term trends and the genomic breakdown of samples detected and [an interactive dashboard](#).

All of these indicators provide useful information about the trajectory of community level transmission. But none of them translates into individual infection risk, risk of severe disease, or risk of overwhelming the health system.

Use of masks and avoiding crowded or poorly-ventilated indoor spaces and large gatherings can still be important tools to reduce risk of infection during times of relatively high transmission. In addition, vaccination remains the most effective tool for reducing individual-level risk of severe illness. <http://theconversation.com/republishing-guidelines> —>

[Michelle J. Groome](#), Head of the Division of Public Health Surveillance and Response, [National Institute for Communicable Diseases](#); [Juliet Pulliam](#), Director: SACEMA, [South African Centre for Epidemiological Modelling & Analysis \(SACEMA\)](#) et [Sheetal Silal](#), Director: Modelling and Simulation Hub, Africa (MASHA), [University of Cape Town](#)

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- [Michelle J. Groome](#), [National Institute for Communicable Diseases](#); [Juliet Pulliam](#), [South African Centre for Epidemiological Modelling & Analysis \(SACEMA\)](#) et [Sheetal Silal](#), [University of Cape Town](#)