COVID-19: South Africa’s lengthy third wave may have extended the timing until the fourth, and while we expect it as early as January, it will be variant dependent with vaccination levels still too low to prevent it.

Source: National Department of Health

Source: National Department of Health
Regional daily case increase in Covid-19 cases – 7 day rolling average – first 5 000

Source: National Department of Health

Daily new cases in the Western Cape with 7 day rolling average – 9 September 2021

Source: National Department of Health
South Africa’s third wave has proved more severe than the first two but has also seen less harm vested on the economy, with more sensible lockdown restrictions. However, the harm done from the first lockdown on employment is still in the system.

While lockdown restrictions are expected to fall to level two fairly soon, the real changes needed to repair the damage to employment in SA, both from lockdowns and the lost decade of the 2010s, is structural reforms, which remain too slow.

All provinces have now seen a subsidence in their seven day rolling averages of new daily COVID-19 infections, as South Africa’s third wave is working its way out the system, with the number of new deaths each day recorded from COVID-19 notably easing as well.

South Africa’s total seven day rolling average of new COVID-19 infections has dropped to 6,662 from 8,776 last week and 11,706 a week before that, while Gauteng is down to a seven day rolling average of 514, the Western Cape 1,347 and the Eastern Cape 1,245.

Kwa-Zulu Natal has the highest cases still, at 1,757 on a seven-day rolling average, with the other provinces below 1,000. Vaccinations administered are at 14.3 million, covering 13.8% of the population, with an estimated sixteen months now to 75% coverage (Bloomberg).

Vaccine fear, hesitancy to just outright disinterest continues to be the major factors impeding SA’s vaccine rollout, with insufficient vaccines likely delivered in time to prevent a fourth wave of infections in SA, which could now make itself felt as early as January.

The lengthy period of the third wave has pushed out the timing of SA’s likely fourth, although this will also be highly dependent on the timing of a virulent variant. The third wave is being driven by the delta variant, and SA’s second wave by the beta variant.

The World Health Organisation’s (WHO) current variants of concern (VOC) are alpha, beta, gamma and delta, and variants of interest (VOI) are eta, iota, kappa, lambda and mu, although the WHO is tracking these to determine if any should become VOCs.
The most recent identified VOI was mu on 30th August 2021, and retains some risks of developing into a VOC. The delta variant became a variant of concern on 11th May 2021, just over a month after becoming one of the WHO’s variants of interest on 4th April 2021.

Please scroll down to the second section below

South Africa vaccination rate

![Graph of South Africa vaccination rate]

**Source:** Bloomberg Vaccine Tracker, 10 September 2021

Note: Immunity calculations take into account the number of doses required and the current rate of administration for each vaccine type. The ‘daily rate estimate’ is a seven-day trailing average; interpolation is used for countries with infrequent updates. Data from Bloomberg’s Covid-19 Vaccine Tracker.

Daily new deaths in Gauteng with 7 day rolling average – 9 September 2021

![Graph of daily new deaths in Gauteng]

**Source:** National Department of Health
While SA’s first wave was driven by the original SARS-CoV-2 virus, multiple waves are feared from evolving variants, but not every variant proves strong enough, and some just remain variants of interest, with eta and iota identified in March this year but still not of concern.

Kappa too was identified as a variant of interest in April this year, and on the same day as delta, but never developed any of the characteristics to define it as a variant of concern. These include an “(i)increase in transmissibility or detrimental change in COVID-19 epidemiology”.

Or an “(i)increase in virulence or change in clinical disease presentation”, or a “(d)ecrease in effectiveness of public health and social measures or available diagnostics, vaccines, therapeutics” – WHO definitions – with a VOC having one or more of these characteristics.

While mu is now being closely watched, particularly for a demonstration of a decrease in vaccine efficiency in combatting it, it is not seen as transmissible as delta, although mu has been reported in forty-two countries so far.

However, the key concerns scientists have around mu that it possesses many mutations, particularly ones which may potentially help it evade immunity gained in individuals who have had prior infections or been vaccinated.

The European Medicines Agency has said mu may become a variant of concern, although it is not spreading sufficiently to potentially become a VOC so far (its global prevalence is below 0.1% - WHO), with the delta variant still the dominant strain of COVID-19 globally.

Further variations, particularly which increase transmissibility would be of great concern, with some studies warning that mu (or B.1.621) may be very resistant to both the sera (essentially immunity gained) from vaccinated and recovered COVID-19 patients who had other strains.

Consequently, COVID-19 remains a threat to health on ongoing mutations of its genetic material, and so a threat to economic growth and recoveries. Harsh lockdowns are harmful, but even herd immunity could be at risk if variants like mu persist and strengthen.
• There is no certainty that a variant which combines both characteristics of mu and delta will not emerge and further waves of COVID-19 would then consequently be a risk even for highly immunised countries, and require ongoing vaccine research and development.

Uneven access to vaccines

The least wealthy 52 places have 3.2% of the vaccinations...

Vaccines
- Least wealthy
- Least wealthy
- Mainland China
- US.

Population
- Least wealthy
- Least wealthy
- Mainland China
- But 20.5% of the world’s population

Source: Bloomberg, 10 September 2021

Note: Vaccine access calculations account for the number of doses needed for full protection; some vaccines require a two-dose regimen while others require just a single dose. Countries and regions are ordered by GDP per capita (PPP).

Global daily cases with 7 day rolling average – 9 September 2021

Source: Our World In Data
Global daily deaths with 7 day rolling average – 9 September 2021

Source: Our World in Data

Covid-19 dashboard: cases newly reported in the last 24 hours: SA returns to highest category

Source: World Health Organization