

Early alarm bells sound for Fifth Wave

South Africa braces for another barrage as Covid-19 cases rise and wastewater has new subvariant. By Estelle Ellis

Early warnings – including a rise in the rate of positive tests and the presence of the SARS-CoV2 virus in the country's wastewater – indicate the arrival of a possible Fifth wave, winter Covid-19 wave.

However, the head of South Africa's National Institute for Communicable Diseases (NICD), Professor Adrian Puren, said on Thursday, 21 April, that it was not clear at this stage whether the currently dominant Omicron subvariant BA.2 was being replaced by a different one.

Two subvariants, BA.4 and BA.5, are currently being tracked by the World Health Organization. More cases of these subvariants have been found in other countries but Puren added that there was no clear evidence that the Omicron variant BA.2 was being displaced as the significant circulating variant.

Puren on the case numbers it looks like cases are increasing rapidly with an increase in the number of positive tests in the country.

"The public should exercise caution in interpreting these data as there may be changes in test patterns. An early warning indicator, wastewater detection surveillance, shows an increase in Gauteng," Puren said.

On Thursday, the NICD reported that 10.6% of Covid-19 tests were positive in the past seven days, which was 2.6% higher than the previous week.

But the number of tests done across the country was lower than the previous week. Gauteng has the highest number of people testing for Covid-19 and Limpopo the lowest.

But despite relatively low testing numbers, the percentage of positive tests increased in all provinces except in North West, Mpumalanga and Limpopo, where it was unchanged. The Western Cape had the highest percentage of positive tests with 14.4% of tests, followed by Gauteng at 11.7% and KwaZulu-Natal at 10.8%.

Gauteng was again showing a marked increase in Covid-19 cases with the province reporting the highest weekly incidence risk (27.4 cases per 100,000 people), followed by



A lab technician carries out Covid-19 polymerase chain reaction (PCR) tests at a laboratory in Johannesburg. South Africa's National Institute for Communicable Diseases is bracing for another Covid-19 wave of infections. Photographer: Waldo Swiegers/Bloomberg

the Western Cape (23.4 cases per 100,000), and KwaZulu-Natal (13.4 cases per 100,000).

Young teenagers were the age group with the highest number of positive tests.

The country's early Covid-19 outbreak alarm system, the wastewater monitors, also reported a marked increase in cases, with scientists isolating the BA.4 variant.

According to the latest report published on Thursday, wastewater levels of the coronavirus are increasing in Gauteng, KwaZulu-Natal, Free State and Western Cape.

In Gauteng, ongoing increases have been observed at Rooiwal and Sandspuit, (Tshwane North), Vlakplaats (Ekurhuleni South), JP Marais (Ekurhuleni North), and stable higher levels are observed at Daspoort (Tshwane South), Hartbeesfontein (Ekurhuleni North) and Goudkoppies (Johannesburg South). Sustained increases were observed in eThekwinini (Northern and Central) and in Cape Town (Borchers Quarry and Zandvlei).

An analysis of these viruses found that most were of the Omicron variant.

Internationally, scientists are studying whether the two subvariants BA.4 and BA.5 have mutated to increase the virus's ability to escape previously acquired immunity.



A worker monitors the Johnson & Johnson Covid-19 vaccine production line at the Aspen plant in Gqeberha. Photographer: Waldo Swiegers/Bloomberg/Getty Images

At this stage it is not clear if the subvariants (either BA.4 or BA.5) will cause more severe disease than others.

Sequencing data from two weeks ago (up to 14 April) showed that Omicron sublineages (BA.4 and BA.5) increased in prevalence in March (15%), and appeared to be dominant in April, although additional sequencing data is needed for this period.

A new report for the week of 21 April has not been published yet.

Dr Waasila Jassat from the NICD said there was evidence of small increases in Covid-19 hospitalisation in Gauteng, Free State and KwaZulu-Natal but no increase in Covid-19-related hospital deaths.

Researchers added in their report that they also found some Delta variant virus-

es in Johannesburg's wastewater but the "significance of these remains unclear".

National Department of Health spokesperson Foster Mohale said the department had noted the increased number of cases with concern.

"Our experts and the NICD are closely monitoring the situation. This is probably driven by subvariants of Omicron. We remind and urge unvaccinated and partly vaccinated people to get vaccinated and have booster shots in order to protect themselves," he said.

Mohale said that it was too early to tell if this was the beginning of an anticipated Fifth Wave. But coronavirus might not be the only reason for people falling ill as there has also been an increase in the number of flu cases.

"The respiratory syncytial virus (RSV) season is ongoing and we have noticed sporadic cases of influenza. Influenza vaccinations are therefore strongly encouraged for all high-risk groups like healthcare workers in the workplace, people age 65 and older, women who are pregnant and individuals with comorbidities such as heart disease, high blood pressure, chronic respiratory diseases, cancer and diabetes," said Dr Sibongile Walaza, medical epidemiologist at the NICD's Centre for Respiratory Diseases and Meningitis.

In its weekly update on the pandemic, the World Health Organization said that both new cases and deaths were continuing to decline since the end of March.

Between 11 and 17 April 2022, more than five million cases and 18,000 deaths were reported globally – a decrease of 24% and 12% respectively, compared with the previous week.

In his weekly newsletter, infectious disease expert Professor Salim Abdool Karim said that there have only been three truly global variants during the pandemic – the Beta, Delta and Omicron variants.

"If the next variant is going to displace Omicron, it will likely become the 4th global variant. ... In case you heard someone say that new variants are unlikely because of widespread vaccination, think again," Karim said, quoting the latest research published in the *Journal of Infectious Diseases*, which showed that vaccinations are not generating protective immunity in a high proportion of immunocompromised people.

"They are at risk of getting infected and if they do get infected with persistent infection, there is a good chance that the virus will be exposed to low levels of vaccine-induced antibodies, driving immune escape. And this is the group we are most concerned about – because immunocompromised individuals may be a source of new variants," he added.

According to the latest statistics from the Department of Health, just under half of adults (49.14%) have been fully vaccinated against Covid-19. **DM168**

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