



Even if the decision on wearing masks is driven by where South Africa is in its epidemic, masks are still going to be sticking around in some contexts and that's because they work. PHOTO: Jessica Wiggs/TB Alliance

COVID-19: What role for masks, sanitising, and ventilation in the new normal?

News & Features

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South Africa's fifth wave of COVID-19 infections was comparatively small and is already abating. As with the fourth wave, infection was much less likely to result in hospitalisation or death than in the first three waves.

The fifth wave, driven by BA.4 and BA.5, sub-variants of Omicron, was also the smallest wave so far in terms of infections. At its peak, this wave saw **7 685 new cases** reported on 11 May. This is around a third of the peak seen during South Africa's fourth wave, driven by the original Omicron variant, which reached **20 638 new cases** reported on 18 December.

Despite the boom in cases it sparked in December, Omicron was shown to **cause less severe disease** when compared to other **variants of concern**, like **Delta** which drove South Africa's third wave. As the latest variant to drive cases in the country, Omicron marked a shift in the trend set before it by seeing a faster peak with fewer hospital admissions, as shown in **South African data** published in *The Lancet Global Health* on 18 May.

Here's where South Africa is at right now. The recent wave was driven by less intimidating and deadly **variants**, and the country ended its **state of disaster** in April. There are also high levels of immunity both from **vaccination** and people getting infected with the virus, with blood donor data estimating that as many as **87% of people in South Africa** have been exposed to SARS-CoV-2, the virus that causes COVID-19.

Still more to learn: How to spot a trend

So does all this mean that it's time to let go of the remaining pandemic restrictions?

Unfortunately, the answer is not yet, according to Professor Barry Schoub, chair of the ministerial advisory committee on COVID-19 vaccines. As Schoub explains, it's still too early to be making any kind of assumptions about what this virus could look like in the future.

"We can't base our predictions just on Omicron," says Schoub. "It's too premature. Once we get to a period of time where we've got a better handle on the potential of this virus then we can start relaxing [safety measures] but I think it's too early at this stage. I think we're still in a transitional phase."



A vaccination site in Khayelitsha. PHOTO: Nasief

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Getting a handle on the virus, according to Schoub, means understanding what this bug is capable of – how it can evolve and change to outsmart the body's natural defences as well as how serious the disease it causes can be. He estimates that we could know as soon as six months' time or a year from now.

But until then, the country needs to be ready to continue with certain pandemic protocols like mask-wearing indoors and getting vaccinated.

Can we go back to normal now?

Two years on, the one thing we can learn to appreciate is that context is everything.

Curbing the risk to people's health has come at a high cost to their lives and this is something that needs to be balanced, argues Schoub. In periods between waves, he says, where the risk is lower there is no harm in relaxing some restrictions, as has been happening already.

While we continue to assess the virus, Schoub advocates for the continued use of masks indoors and limiting the size of gatherings, particularly in spaces where there is little ventilation and the virus can spread rapidly.

In this way, policies can help balance people's desire to return to a normal pre-pandemic life while also helping retain steps that can help them stay safe as the virus continues to circulate.



Enthusiasm for mask-wearing has dropped since April last year. PHOTO: Nasief

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Pandemic fatigue is also a very real concern to contend with – where people are simply tired of hearing about or dealing with COVID and are less likely **to adhere to safety measures**.

While people tend to be on high alert during a wave, their willingness to continue with steps drops almost immediately afterward. The most **recent South African Health Review** found that mask uptake increased substantially from May 2020 to May 2021, going from just over half to 83% of all adults wearing a mask. The review found that despite initial differences between areas, once the second wave hit at the start of 2021, everyone became more compliant with donning a face covering. This, however, didn't last long and the enthusiasm for masks had **dropped back down by April 2021**.

To accommodate this, we could begin to “give people a break during periods of low transmission,” says Professor Koleka Mlisana, who co-chairs the ministerial advisory committee on COVID-19.

The trouble in switching to situation-dependent measures is whether or not they'll be enforceable, she warns.

“When you tell people don't wear masks outside but put them back on when you're inside then there's always a concern about how to maintain that switching on and off,” Mlisana explains. “Then if there's a new variant, how do we bring it back?”



Discarded masks, gloves, and other medical waste. PHOTO:

Black Star/Spotlight

Masks up, down, or on the ground?

Even if the decision is driven by where South Africa is in its epidemic, masks are still going to be sticking around in some contexts and that's **because they work**.

In July 2021, a review of the evidence on masks for COVID-19 was **published in the *American Journal of Infection Control***. The researchers evaluated six different studies and found that masks helped protect people from getting COVID. In fact, the role of masks was most apparent in healthcare workers, where masks helped lower the risk of being infected by almost 70%.

When it comes to masks, the protection they afford is not all equal.

An N95, for example, is an incredibly secure mask that filters extremely tiny particles and offers the best protection. It's also more difficult to get a hold of. **Existing evidence** doesn't suggest there's much of a difference when it comes to the **protection offered by surgical masks** (which can be purchased from a pharmacy) when compared to a more fitted option like the N95.

At the bottom of the pecking order is cloth masks, as these aren't really doing much in terms of filtering the air that you're breathing in. A paper from December 2020 published in *JAMA Internal Medicine* found that the ability of cloth masks to filter the air (the researchers measured something called filtration efficiency) **varied from 25% to 79%**, depending on the type of material used and the number of layers in the face covering.

In South Africa, though, it's simply not practical to expect everyone to have surgical-grade masks, let alone an N95, says Mlisana.

"Think of it like a loaf of bread. I'd rather give someone half a loaf than none at all. It's the same with masks, some protection is better than nothing. I would not want us to completely do away with masks just because not everybody can afford even a surgical mask."

So from Mlisana's point of view, if all you have is a fabric face covering, you should still continue to use it.

Not everyone is on the same page, though.

Professor Robin Wood, an infectious disease specialist and emeritus professor at the University of Cape Town, says that we would do better to do away with masks altogether, given that some have little value — especially if worn incorrectly.

“The mask is trying to decrease a person’s exposure to infectious particles but how much it does so will depend on the quality of the mask,” says Wood. “The time you spend in an environment is also a factor because if you’re somewhere for a very long time then the mask isn’t going to make any difference.”

That said, Wood acknowledges that masks are “particularly important for limited exposures” and that they have the most value in healthcare settings.

It goes hand in hand: Relearning about clean air

It’s not all bad news, though. As we learn more, there are some things that can safely be left behind and other lessons to take going forward.

“One of the lessons that I would want people to remember is that ventilation is an important factor,” says Wood.

Ventilation helps keep the air in a room clean and healthy. This is achieved by bringing air from outdoors into a building or room air and making sure the air is circulating properly within an enclosed space. You can properly ventilate a space through design, like including windows, or through machines, like fans in air ducts.

“When you have crowded areas,” Woods says, “you’re essentially coming down to how much air people are swapping between themselves. People in more urban settings would probably swap about 20 liters of air a day, people living in crowded townships swap about 40 to 100 liters per day, and people who are incarcerated in prisons are probably swapping 2 000 liters a day.”

Increasing airflow in spaces like that then becomes a critical step, not just for COVID but also for preventing the spread of other diseases. This isn’t just for buildings but also applies to enclosed spaces, such as buses and other forms of public transport.

“We need to relearn this, buildings aren’t designed on the basis of health and that needs to change,” Wood says. “We should be improving those sort of environmental factors, especially where there are crowds.”

But that’s not a process that can happen overnight because buildings can’t immediately be changed to create more ventilation.

It’s for this reason that Mlisana emphasises that “when we talk about mask-wearing, it always has to go with the poorly ventilated buildings we have”.

“We need more open space because we don’t have that much, and to find a way to improve the ventilation of our buildings,” she says.



Some experts agree that temperature screening does not serve any meaningful purpose as a COVID-19 preventative measure. PHOTO: Gauteng Health

It's time for some measures to go

Not all prevention measures are worth sticking to. The experts interviewed by Spotlight were broadly in agreement on the following advice.

One of the first measures that should go is temperature screening. Those infrared guns that get pointed at your forehead or hand at a store or building entrance **aren't actually giving any useful information about your body temperature**. At the end of the day, they don't serve a purpose and aren't helping so why bother keeping them around?

Next up is sanitiser. There's no need to be sanitising your packages or even getting a routine chemical spray every time you walk into a shop. The virus is more likely to spread from one person to another than it is to launch a sneak attack from your vegetables. It's highly unlikely that you're going to get COVID from touching a doorknob because the virus **doesn't seem to last that long on surfaces**. This means that deep cleaning isn't really something we need to do — but it may still be the next best option to consider **in places without good ventilation**.



Although deep cleaning of surfaces is no longer needed to prevent COVID-19, handwashing remains a must to prevent disease from spreading. PHOTO: GCIS

Handwashing is a totally different ballgame and a valuable exercise when it comes to general hygiene. Regularly washing your hands **helps kill germs and protects you from any number of diseases** so don't go throwing out your soap just yet.

Keeping your distance from others, on the other hand, all depends on the time and place. **Physical distancing** is all about limiting your contact with other people. The practice has its **pros**, particularly in crowded and poorly ventilated in-door areas. The con is that it can lead to isolation and take a toll on people's **mental health**.

As with everything, it comes down to evaluating your personal risk. During periods when the virus is spreading, maybe take a rain check on going to a large event but in between waves, if you're taking the necessary precautions, then you should be okay to attend that dinner party.

The take-home message: Do what you can to stay safe. Get vaccinated, wear a mask indoors and if you want to be around people, it's better to do so outdoors where there's lots of fresh air. If you have to meet in-doors, try to keep windows and doors open as far as possible.

Mlisana cautions: "We really are not over COVID because we still see these blips and we still need to gain more understanding of what they mean, particularly in the long-term."