

BA.4/5 Omicron subvariants produce a fifth wave of infection in South Africa despite 98 percent population immunity

Benjamin Mateus
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Since the advent of the Omicron phase of the COVID pandemic, the new variants of SARS-CoV-2 have evolved into far more contagious versions without losing any of their intrinsic pathogenicity or virulence. They have also proven to evade immunity provided by the current mRNA COVID vaccines. Effectiveness against symptomatic infection even after a booster is proving short and fleeting.

One of the leading examples of this process, South Africa, is currently riding out its fifth wave of COVID infection, with the new BA.4 and BA.5 variants dominant. A recent population-based COVID seroprevalence study (which reviews blood evidence from large populations rather than individuals), found that 98 percent of the population had significant antibodies either from vaccination or previous infection. But the presence of these antibodies was no barrier to the new infections.

The implication here is that no combination of previous vaccination and infection will ever bring the pandemic to an end. “Herd immunity,” the claim that rising antibody levels will reduce the population vulnerable to SARS-CoV-2 to such a low level that the virus will die out for lack of hosts, is a myth.

Against the claims by government officials and the corporate media that COVID-19 has become endemic, it would be more correct to say that the pandemic has become permanent.

The evidence is mounting that SARS-CoV-2 is proving to be a very fit pathogen. It adapts to population immunity while maintaining its intrinsic virulence. The politically convenient construct of coronavirus evolving into ever-milder versions, peddled incessantly in the corporate press, has proven false.

The researchers who investigated the estimate of prevalence of SARS-CoV-2 antibodies in South Africa in

March 2022 recently said in a press conference, “The infectious pressure of the Omicron variant was extraordinarily high to have produced such a significant bump in prevalence at this relatively mature stage of the epidemic. It is hardly possible to imagine much higher prevalence values.”

South Africa was the hardest-hit country on the African continent, with reported COVID deaths exceeding 101,000. However, the World Health Organization’s recent study on excess deaths from January 2020 to December 2021 found excess deaths in South Africa exceeded 239,000.

Since the new year, another 10,000 COVID deaths were registered, implying that the excess death toll is probably well over a quarter million for the nation with almost 60 million inhabitants. This puts South Africa’s COVID deaths per capita at one in every 240 people, ahead even the United States, which has a rate of one in every 330.

The nature of the evolution of these variants is critical to understanding the course of the pandemic into its third year.

In a new study uploaded on to the bioRxiv preprint server for biology by the Sato Lab, based at the University of Tokyo, found that the latest subvariants of Omicron, BA.4 and BA.5, as well as BA.2-related variants that have acquired mutations in the L452 amino acid residue of the virus’s spike protein, were more contagious than the original BA.2 variant.

More so, antibodies induced by previous infection with BA.1 and BA.2 are less effective against the BA.4 and BA.5 subvariants. Immunity based on recent prior infection with the BA.1 and BA.2 provides little protection against later variants.

In animal studies on hamsters, the BA.2.12.1, BA.4, and BA.5 appear to replicate more efficiently in lung cells

with stronger binding to these cells. Additionally, when these animals were sacrificed and their lungs evaluated under the microscope, there was more pathologic injury and inflammation to the vasculature and lung tissue from the newer variants than the original BA.2.

The authors wrote, “The relatively more severe disorders in the lungs of BA.4/5 infected hamsters than those of BA.2 infected hamsters were supported by the more efficient spread of BA.4/5 than BA.2 in the infected lungs. Altogether, these observations suggest BA.4/5 is more highly pathogenic than BA.2 in a hamster model.”

They warned, “A simplistic assumption without conclusive evidence implies that SARS-CoV-2 will evolve to attenuate its pathogenicity. However, we argue against this notion with at least three observations. First, the Delta variant exhibited relatively higher pathogenicity than the ancestral virus in an experimental animal model. Clinical studies also provide evidence suggesting the higher virulence of the Delta variant than the other prior variants including the Alpha variant. Second, although the Omicron BA.1 variant was less pathogenic than Delta ... Omicron BA.2 acquired the potential to exhibit higher pathogenicity than that of Omicron BA.1. Third, here we demonstrate that the Omicron BA.4/5 are more potentially pathogenic than Omicron BA.2. Therefore, our observations strongly suggest that SARS-CoV-2 does not necessarily evolve to attenuate its pathogenicity.”

In plain language, SARS-CoV-2 is not evolving in the direction of a relatively harmless seasonal flu, as the propagandists of “endemicity” claim. New variants are equal to or worse than their predecessors in terms of the damage they do to the human organism.

These laboratory studies are crucial. But real-world clinical data provides additional insight on the complexity of an ever-evolving dynamic between the viruses and the populations that are their hosts.

This week the *New York Times* published an important report that underscored how much deadlier the Omicron wave was for older people than Delta. As the Figure 2 below demonstrates, the death rate among those 65 years and older was 163 percent higher during the Omicron wave as compared to Delta, despite the increased immunization among the elderly.

The current BA.2 and BA.2.12.1 waves that are passing through the US have seen hospital admissions rise despite the greater prevalence of boosters among the elderly as compared to the population in general. Dr. Sharon Inouye, a geriatrician, and a professor of medicine at Harvard Medical school, told the *Times*, “I think we are going to

see the death rates rising. It is going to become more and more risky for older adults as their immunity wanes.”

The White House earlier in May admitted that their modeling for the fall and winter projected possibly 100 million infections, far more than recorded during the three months of the BA.1 wave. They also acknowledged the possibility of a considerable rise in fatalities.

In this regard, the elderly, who often have high co-morbidities, as well as the immunocompromised, face a significant threat to which both the Democrats and Republicans have no response. In the first three months of 2022, 40 percent of all COVID deaths were among vaccinated individuals. Indeed, officials of the White House coronavirus task force will resort to the usual “we could not have predicted things would get so bad” as they have repeatedly done in their press conferences. Additionally, as Inouye aptly stated, “It just seems that now the onus is put completely on the individual. It’s not like it’s made easy for you.”

With mask wearing completely falling off and any form of isolation or even serious restrictions at an end, without any meaningful evidence to base any risk assessment, the population is facing an endless assault as the society flies blind through the pandemic. Masses of people will be subjected to one or two COVID infections each year, with the concomitant risk of Long COVID and substantial deterioration of their overall health.

The recent experience in South Africa with BA.4/5 confirms that only an elimination strategy, carried out on a worldwide basis, can bring this pandemic in permanence to an end.



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