



South Africa's top coronavirus adviser: 'Our epidemic could exceed a million cases'

More than half of Africa's 800,000 or so reported cases of COVID-19 are in South Africa, where the official death toll is nearing 7,000. A five-week lockdown from 27 March has helped to keep numbers low, but that became economically ruinous as 3 million South Africans lost their jobs. Nature spoke to Salim Abdool Karim, an epidemiologist and the chair of the health ministry's scientific advisory committee. A veteran of the AIDS crisis, Karim talks about his hopes and fears, and why he thinks South Africa's *ubuntu* tradition — of communities looking out for each other — is key to the country's response.

South Africa's present situation looks dire. How did the country get here?

We had our first case on 5 March. In the first three weeks after that we had a rapidly growing epidemic; the cases were doubling every two days. By declaring a state of disaster, closing the country's borders, and implementing the lockdown on 27 March, we slowed the transmission to a doubling time of 15 days. If we hadn't implemented these measures, we would have had the situation we have now back in April.

How much worse is it likely to get?

Since there are communities in South Africa where social distancing and frequent hand

washing is not feasible, mainly in informal settlements, I am expecting the number of cases to rise substantially, possibly exceeding a million. I thought that this would occur within two to three months of the first case.

Has the epidemic surprised you so far?

I expected the epidemic to take off big time in Gauteng [a province that includes Johannesburg and Pretoria] in late April as we eased the lockdown. Gauteng has so many travellers, so much density — this is the New York of Africa. I was completely wrong! Instead, the first large outbreak was in Cape Town. But we always thought that when it eventually did hit Gauteng it was going to grow, and that's what we're seeing now. The president is talking about a 'storm' — we are seeing 5,000 to 6,000 new cases in Gauteng per day. Even so, our epidemic is smaller than I thought it would be by now. I had thought that by May, we would be reaching serious numbers.

To what extent was the slow spread in South Africa the result of 'exceptional' factors such as Africa's young population, or its climate? Or is it a result of limited testing?

I never believed that Africa was exceptional. But I don't have the answer. There is no reason why this epidemic should not have spread faster in some countries, such as

Nigeria. Some people say it's because those countries don't test enough. But even if you don't test, you still will see an increase of hospital admissions and deaths. So that's not the real reason. At the moment, it's an enigma. The reason will reveal itself in due course.

The South African government, like many others, says it locked down to buy time to prepare the health system, rather than to stop the virus from spreading. Is this true?

Yes, the primary goal of the South African COVID-19 response is to slow the spread of infections to enable the health system to prepare and cope better. This would not necessarily equate to fewer infections. Containment was still on the table early on, but it was a long shot. So, we had to plan that we would not be able to contain it, while hoping that we would. But when I presented the likely scenario to politicians and later to the public around Easter, I explained that we had to face "a difficult truth" — that we were not likely to be able to contain the virus, and that the spread would probably rise exponentially as we eased lockdown restrictions. It was really difficult to say that to the entire nation.

What happens now?

We are 'building the ship as we are sailing it'. This virus exposes the fault lines in our society. But I think when we get to a point at which sufficient numbers of people have a relative, or family member, or someone in their neighbourhood who has been sick or died from the virus, individuals are moved to collective action so that they can stand united again. When the problem didn't seem so serious, when the lockdown slowed transmission, people questioned the restrictions as those of a nanny state. But I think we are going to realize pretty soon that the best protection we have from this virus is *ubuntu* — a South African word that means 'I am because you are'. I am safe because you are safe. I saw that in HIV: when people saw the deaths of those close to them, it pushed a change in behaviour. We as a country are built on the principle of *ubuntu*. We have to rediscover that, or we won't defeat this virus.

Interview by Linda Nordling and edited for length and clarity.



A person who died of COVID-19 is buried in Johannesburg on 22 July.