

sa **Insight**

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THEY CALL HIM 'SLIM' Epidemiologist and director of the Centre for the Aids Programme of Research, professor Salim Abdool Karim, chairs the government's Covid-19 ministerial advisory committee. Picture: Sandile Ndlovu

This is not his first pandemic, but this time Salim Abdool Karim — one of the government's chief advisers on the coronavirus — is giving counsel to leaders who respect science, writes **Zimasa Matiwane**

Outsmarting corona

Two decades ago, professor Salim Abdool Karim and his former PhD supervisor, Jerry Coovadia, were summoned to a Hilton Hotel suite filled with health officials, among them Zweli Mkhize. There they were branded traitors, accused of being disloyal and told to "shut up and listen" by a beet-faced Manto Tshabalala-Msimang, the minister of health at the time.

Their crime: using their scientific and political activist credentials to stem the infectious spread of Aids denialism advocated by then-president Thabo Mbeki and Tshabalala-Msimang by shaming them at a global gathering of scientists and policymakers — the International Aids Conference in Durban in July 2000.

Coovadia, who had co-chaired the conference, and Abdool Karim, who was the scientific programme chair, had succeeded in their mission to counter the government position, reinforced by a moving speech by 11-year-old Aids activist Nkosi Johnson and closing remarks from former president Nelson Mandela.

'This crisis is teaching us about what it means to an entire nation to have strong, enlightened leadership'

Mkhize, who is now health minister and facing a pandemic of his own, was a local government representative in the room on the day. His support would have been with the two men facing the minister's wrath, men with whom he had common roots at what was then the University of Natal medical school.

It was under Coovadia's eye that he and Abdool Karim had cut their teeth on virology and immunology, as much as they did on discussing social democracy and apartheid. Abdool Karim, who is known worldwide by his nickname, "Slim", given to him during his medical school days, has lived up to the reputation associated with the Afrikaans word for clever.

That Abdool Karim knows his stuff in the world of epidemiology and fighting viruses is beyond dispute. His career spans three decades, with experience gained at Columbia and Harvard universities, the South African Medical Research Council, UNAids, the World Health Organisation and now the Centre for the Aids Programme of Research in SA (Caprisa).

Last year he was inducted into the fellowship of the Royal Society, the prestigious science academy that counts among its fellows Sir Isaac Newton, Charles Darwin, Albert Einstein and Stephen Hawking. →

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The day South African scientist Gita Ramjee died of Covid-19 related complications in Durban. Professor Salim Abdool Karim recruited her to do HIV research while he was president of the South African Medical Research Council, and she succeeded him as head of HIV research there. He said Ramjee was “an outstanding scientist, a scholar of note. She will be remembered as the person in South Africa who made an enormous contribution to HIV control, especially for women”

Work starts at 6am and ends after midnight

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This vast experience, coupled with a friendship that has spanned their professional careers, prompted Mkhize to ask Abdool Karim to lead SA's response to the pandemic.

As chair of the Covid-19 ministerial advisory committee, Abdool Karim leads a team of 50 scientists tasked with advising the government on strategies to combat the spread of the disease.

He says South Africans should regard themselves as fortunate to have an enlightened political leadership that is not afraid to confront the novel coronavirus or to prepare for the “inevitable Covid-19 peak”, which he said is yet to come.

“I have seen how this crisis, in the form of a little virus that comes from a seafood market, is teaching us about what it means to an entire nation to have strong, enlightened leadership. I watched the two biggest disasters – in the way this has been dealt with in the US and UK – and I thank God I am in SA.

“We have good leaders who know what they need to do and are not scared to do it, instead of downplaying, denying it, like the Mbeki approach,” he told the Sunday Times from a safe distance in his Caprisa office on Thursday.

Abdool Karim is a towering presence, intimidating even from a distance, but his smile is disarming and he has the singular ability to relate as much to an auditorium full of the best scientific minds in the world as to an ordinary person.

As global statistics of confirmed cases dipped on the wrong side of 2-million and edged towards a death toll of 150,000, Abdool Karim explained that a government's approach to science is critical in responding to a pandemic.

“Mbeki changed everything. For a country that was trying to grapple with HIV, working under Mbeki's government was very much like how they have to work with [US President Donald] Trump right now.

“You have somebody who does not understand science but thinks he does and thinks he is correct, and when you try to point out the abnormality in their viewpoint, it is viewed as if you are challenging authority when you are just trying to help the authority to be correct. It is not a political issue but a scientific one.

“Trying to address HIV under Mbeki and Covid-19 under [President Cyril] Ramaphosa is like night and day. Ramaphosa has been proactive, he is thinking ahead of the problem, he collects a lot of information and he assimilates information from many sources, and he is considering how he wants to move forward. He does not waste time,” said Abdool Karim.

Time, he said, is something that has temporarily lost meaning as he and the team work night and day – analysing data, formulating solutions, combing through research and consulting international counterparts – to advise the government on how to fight the virus.

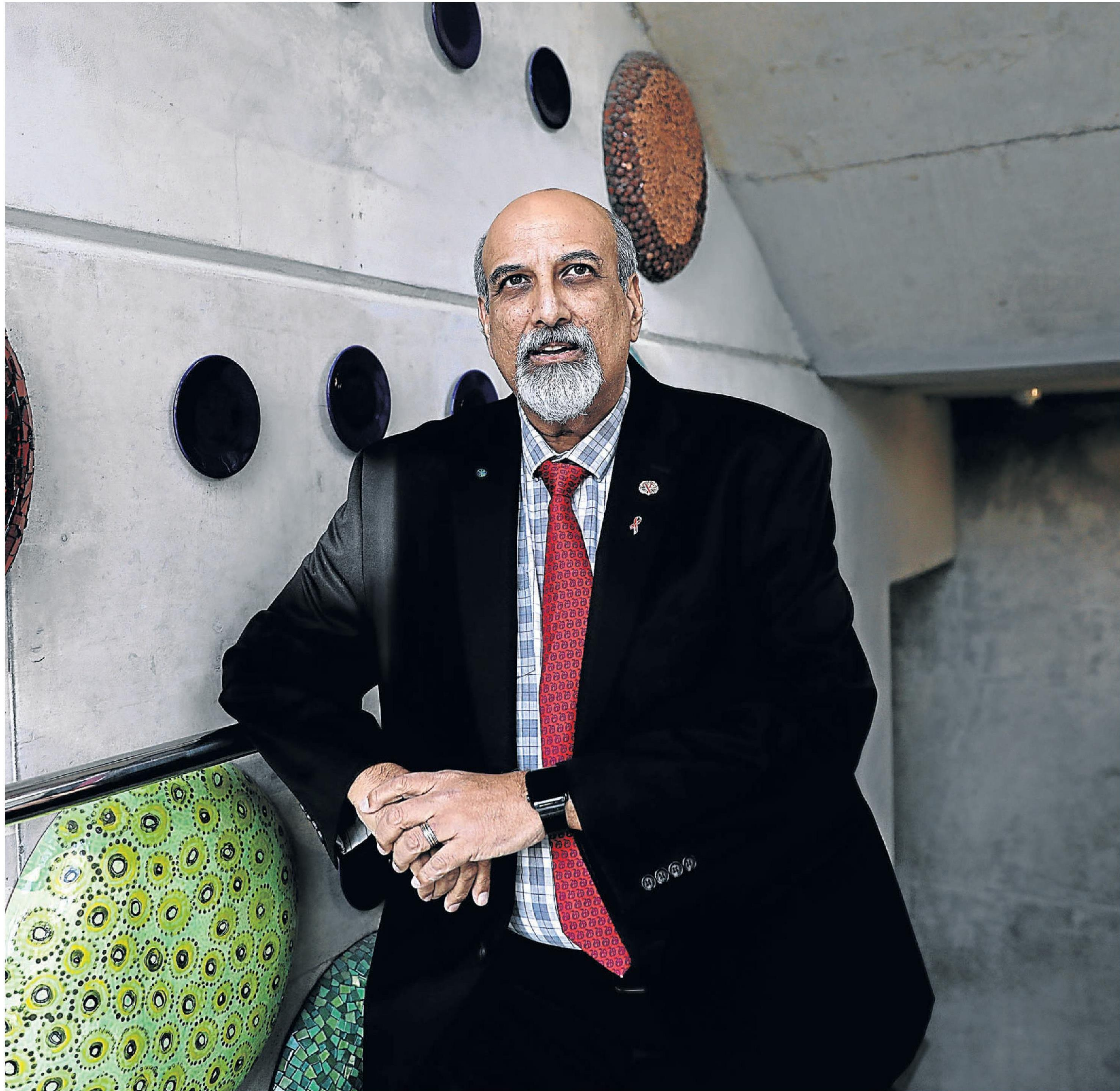
“Many of the people on the committee are leading scientists, people that I know very well, and I thought it would be an honour to serve but I am not sure, if I knew how much the work would be, that I would have said yes.

“The work starts at about 6am and finishes at about 1am. There are things to do all the time.”

The work comes in the form of questions from the health ministry that need urgent answers. The scientists' turnaround period is 24 hours.

He has broken the committee into small groups. “When he [Mkhize] gives us questions, we put a small team together to go and do all the investigation, because so little is known about the virus. They will write a report and, based on that report, we will then have a discussion and submit the advice.

“We do high-level and detailed questions. Answers have led to things like community screening, a systematic approach of lifting the lockdown, but we



DISMAL DENIALISM Working on HIV/Aids under Mbeki's government was what it must be like to work with Donald Trump now, says Salim Abdool Karim. Picture: Sandile Ndlovu

are very clear that we are advisory. The politicians rely on us for advice but they don't have to take it,” he said.

The team's goal and mandate is to ensure that the government is provided with the most scientifically accurate and up-to-date information available so that the minister and the president can make decisions

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that are informed by science.

The groups meet individually – sometimes three meetings in one day. The last meeting the committee had with the minister and provincial health MECs was on Wednesday night and lasted about four hours.

On Thursday, SA recorded its biggest rise in the number of deaths since the outbreak, to take the toll to 48. The number of confirmed cases increased by 99 to 2,605. However, Abdool Karim said he believes that the lockdown has contained the virus.

“We want those few thousand infections we are seeing to become a dead end,” he said.

“Community transmissions are at a low level. The

lockdown bought South Africa important time but the way forward will be determined by community transmission.

“A high number will mean a longer lockdown, a low one will mean easing of the lockdown can be considered.

“As soon as we lift the lockdown [transmissions] will go up, but we will be prepared,” he said.

Preparation for the peak period of the virus included creating space for makeshift hospitals to avoid collapsing the existing infrastructure.

“I shared a picture with the president of Central Park in New York being converted into a field hospital, because they had to keep the hospital clear. You protect the hospital because the system will collapse.

“Sites are being selected – in Durban we looked at several sites. The final choice was the International Conference Centre and the exhibition centre, to not overburden hospitals when we get to the peak. What we told the minister and the president is that it is inevitable that we are going to have a severe epidemic, no-one else has avoided it.”

It's a topic that is hotly debated in the Abdool Karim household. His wife, professor Quarraisha Abdool Karim, one of the world's leading Aids researchers, is also among the team assembled by Mkhize to advise the government.

Their three children are public health lawyer Safura, medical journalist Aisha, and Wasim, who is studying computer science.

“My son, Wasim, published a paper on the gene sequence of the virus. He did one of the first studies in January; he is a computer science student at UCT. My

young daughter is a journalist at Bhekisisa, a health publication, and she has written dozens of articles – sometimes we do interviews 10 minutes apart on television – while my eldest daughter is a lawyer. She does health law so she is writing articles on law and Covid, and in fact she has helped me draft the affidavit on why the ban on alcohol should not be lifted.”

'The first thing we do, when we get a question, we look at what the Chinese have said'

One of Abdool Karim's strengths is that he can call on experts and friends such as the head of the Chinese Centre for Disease Control and Prevention (CDC), George Gao, and US infectious diseases control specialist Dr Anthony Fauci to help him in the South African government's fight against Covid-19.

He and his team regularly call Gao and his counterparts for information.

“We use a lot of their published articles; they have information that almost nobody has. The first thing we do when we get a question, we look at what the Chinese have said. I call him, I e-mail him. Whatever we want he is assisting. The minister also arranged a

meeting with the CDC in China. It took four hours and they went through what they did wrong, what they did right, so that we are better prepared.”

Abdool Karim said that, based on international experience and research, the team's advice to the government is not to end the lockdown abruptly.

“Don't tell people it is ending today, that everybody must go to work tomorrow.

“That is trouble. That will spread the virus and undo all the work. It should be done in a systematic way and they should consider, if it is ending at the end of the month, how do they start and how do they get to that date?”

Scientists are catching up with the virus, conducting clinical trials for vaccines and treatment, but there is still no conclusive evidence that re-infection does not lead to getting sick again.

“We know everyone, based on China, develops antibodies. What we don't know is whether antibodies protect you from getting sick or infected,” said Abdool Karim.

“Early information suggests patients who had Covid don't get sick again. We think you have it [again] but it does not cause infection.”

It also seems that those infected for a second time “are not infecting others, from what we can gather”.

Abdool Karim is optimistic that treatment is likely to come before a vaccine, but a vaccine is more critical because it will protect everyone, while treatment is an individual approach.

For now, he urged people to stay at home when they can and be cautious when they are out. This way, the chances of contracting the virus are slim.

A colossus in his field

Salim Abdool Karim has made seminal contributions to HIV prevention and treatment globally.

His clinical research showed that antiretrovirals prevent sexually transmitted HIV infection and genital herpes in women.

He is an inventor of patents used in HIV vaccine candidates and antibody-based passive immunisation strategies.

His TB-HIV treatment studies have shaped international guidelines on the clinical management of co-infected patients.

He chairs the UNAids Scientific Expert Panel, the World Health Organisation's (WHO's) HIV Strategic Advisory Committee and serves on the WHO TB-HIV Task Force.

He sits on the boards of several journals, including the New England Journal of Medicine, Lancet Global Health, Lancet HIV and mBio.

He is a member of the US National Academy of Medicine, the American Academy of Microbiology, the African Academy of Science, the Academy of Science of SA and the Royal Society of SA.

Among his many awards he is a recipient of the World Academy of Sciences' prize in medical science and the African Union's Kwame Nkrumah scientific award, the most prestigious scientific award in Africa. — Source: The Royal Society