



ALBERT EINSTEIN, UNIVERSALLY ACKNOWLEDGED AS ONE OF THE GREATEST PHYSICISTS OF ALL TIME.

If we knew what it was we were doing, it would not be called research, would it?

South Africa's voice of reason

It's been 35 years of studying epidemics

CARLOS AMATO

Epidemiologist Salim Abdool Karim, the scientific leader of South Africa's Covid-19 pandemic response, is amused by the common public perception of how scientific progress works. In this imagined version of the process, sombre eggheads nod gravely over each other's infallible findings in a march of relentless consensus. "People get worried when they hear that we disagree on some things," he says. "The scientists are fighting!" he will say. And I always say to them, listen, if the scientists don't fight, you're in big trouble." Karim, or "Slim" as he is widely known, is much less amused by another wrong idea that has seized the public imagination in South Africa

lately: the belief that any delay in the delivery of Covid-19 vaccines represents a shameful national failure. "We want to jump the queue and get vaccines before anyone else. I saw that attitude rear its ugly head in December and January. 'Me first, to hell with everyone else. I don't care if they have vaccines or not — that's their problem. I want my vaccine and I want it now!'"

This fever of fearful impatience — inflamed by the media and opposition parties everywhere — has led to a global outbreak of "vaccine nationalism" in the corridors of state power. "I am very deeply disturbed by what's going on," says Karim, who shares the dismay at the aggressive

chaos of the vaccine race with World Health Organisation (WHO) director-general Tedros Adhanom. "Even as we speak about equitable access, we are going around the back of the Covax process, prioritising bilateral deals, driving up the prices," says Karim. "And our own country has been doing that."

"I found this deeply distressing. Here are people who should know better. There is a mistaken belief in some countries that you can vaccinate your own population and you'll be safe. That is simply not true. In the world of the coronavirus, nobody is safe until everybody is safe."

"There is no endgame scenario in which your country is successful in controlling the virus while it runs rampant in the rest of the world. Because we now understand that such rampant spread creates variants which can bypass vaccine immunity. There's only one way to deal with this: you deal with a pandemic as a pandemic. And that, to me, means we need to stand together!"

TRUSTED FIGURE

Karim spells out this deeply tough reality in his inimitably authoritative voice. You need one to be a national killjoy. It's a warm voice but uncompromising: every word is enunciated with surgical, oracular clarity. His verbal precision and honesty, visually corroborated by his manicured *look-bianjie* and Christopher Reeve jawline, has made him a deeply credible and trusted figure across the political spectrum. During the frightening weeks of the hard lockdown, he helped millions of us under-

stand what lay ahead. That represents a heroic service in itself, quite apart from his influence on life-saving policies. He owes some of his precision to his mother. Both his parents had to leave school in Standard 2 (now Grade 4) in order to work. At 10, his mother had to start helping out at her father's vegetable stall at Durban's morning market. His father had to start work at the family shop. So when they had children, both prized their educational dreams. And his mother, in particular, insisted on their fluency in the language of power.

"My parents would speak to each other in Urdu or Gujarati, but would speak to us only in English. So they would avoid exposing us to the vernacular. And she said to us, 'You have to speak clearly. You must say your words properly.'" So he did.

Picking Karim to lead the government's advisory committee was a no-brainer for Minister of Health Zweli Mkhize. The two go way back to the medical school of what was then the University of Natal in the early 1980s, when Mkhize was president of the student representative council, both were student activists, and Karim operated an illegal pamphlet-printing press in his bedroom. But Karim's credentials for the job go way beyond personal trust or comradeship.

He has been battling viral epidemics since the mid-1980s as a young doctor in Durban, where he worked on measles and polio before turning to the then mysterious spectre of HIV.

"I've been doing this a long time," says Karim. "I think people don't get a sense of that. You don't wake up one day and say, okay, now I'm going to deal with an epidemic. It's a long road. In my case, 35-odd years. So when HIV came along, I was doing my virology training in 1985, so I was swept up in it. My wife [Quarraisha Karim] and I went to study in New York at Columbia University at the end of 1988, and we knew we were going to see an HIV epidemic here when we came back."

"In New York, HIV was everybody's conversations every day and people were dying in droves. Activists were fighting the government. So the first thing we did when we returned was to set up a programme trying to understand HIV, and one of the first community-based HIV studies in Africa at the time."

DEFENDING TRUTHS

About a decade and many thousands of deaths later, an epidemic of denialism deepened the Aids tragedy. Karim and his mentor, Hosen "Jerry" Coovadia, were central to the hosting of the 13th International Aids Conference in Durban in 2000. As vocal defenders of the medical truth, they were lightning rods for the imperious dissent of then president Thabo Mbeki.

"At no stage did I ever feel that I was threatened or personally attacked," recalls Karim. "[Mbeki] didn't really have much to do with the fight; he pronounced then sat back. He left [his Health minister] Manto Tshabala-Msimang, his foot soldier, to implement his ideas. He gave her carte blanche. And she had her own weird ideas around garlic and lemon and African potatoes that she was concocting. So we moved from denialist to really weird in our proposals for action."

During the climax of the conference, Coovadia and Karim were summoned to a meeting at the Hilton Hotel in Durban.

"We didn't realise it was going to be in a hotel room. And in that meeting she had several [KwaZulu-Natal members of the executive council] there, including Zweli, who was the Health MEC. And she proceeded to attack us, she felt that we were deliberately trying to show her up and put the country in a bad light. And we said it's not us doing that, it's her doing that." Coovadia, speaking to News24's Sarah Evans, remembered a Bond-villainish barb that Tshabala-Msimang made that day: "You

two, you are here now, but tomorrow all your friends will be gone. And then there will be me, and then there will be you?"

Then, as now, Karim's role was political as well as scientific. He and Coovadia asked Mbeki to speak during the opening session of the conference, hoping he would have a Damascene moment and signal a fresh start. No luck. "He spoke before [11-year-old Aids activist] Nkosi Johnson, and he quoted an outdated WHO report saying HIV is not a major cause of death. He missed the point." Mbeki never really got the point, despite being overruled on treatment policy by the relentless pressure of a powerful social movement and its supporters, and the then robust internal democracy of the ANC.

PRESENT DANGERS

But Karim doesn't believe Mkhize and President Cyril Ramaphosa's decisive Covid-19 response was directly shaped by the traumatic arc of the national Aids story, or by the extraordinary tension of that meeting at the Hilton Hotel.

"I don't know if any of us thought about HIV. For me, when I went to the first meeting they called, it was very clear that Mkhize saw this virus as a clear and present danger. He brooked no waver in the matter. He knew what was happening in Italy and what was starting to happen in New York, and he was not going to sit by and let it happen here. He wanted to be proactive. But he didn't know what to do. So he wanted us to say what we thought should be done. And that's what we did. We were given the space and we had to rise to the occasion."

Karim's projections of what the virus would do in South Africa were largely accurate, until the summer. "I would say about three of the four things I thought would happen did happen. But the piece that really floored me was the variant."

"[Bioinformatician] Tulio de Oliveira started doing sequencing in April. And every month he comes to my office and he sits down and goes through what the gene sequences are. And there's no change. Month after month. Maybe one mutation, or sometimes two. I told him in September this is very underwhelming. It's getting a bit boring looking at the same virus over and again."

"In November, Tulio came to my doorway athen-faced, tired. He just walked in, put his computer on and said, 'Look at this! And wow. Twenty-three mutations. From a virus that doesn't change. He was shocked, and I was completely taken aback. It changed everything. It's hard to explain to people because it's such a technical thing that happened. But for me, until that day, we had an endgame for the coronavirus. It was quite simple. We had highly effective vaccines — the Pfizer and Moderna results were out. And we just needed to vaccinate. And if we did that, then we would get to a point where we could live with the virus. But on that day of the 23 mutations, it became clear to me that a simple vaccination endgame was no longer a viable option."

"Because it's now clear this virus can mutate and escape both natural immunity and vaccine immunity. So we were now looking at a different scenario. Our future was looking different."

"We had to find a new way of thinking!" Global solidarity and collaboration, in vaccination, treatment and travel policies, represent the only way forward, Karim says.

SHOES AND HULLABALOO

Unlike Anthony Fauci, his long-suffering counterpart in the United States, Karim has not had to contend with a president who actively fans the flames of the pandemic. But he has had to put out small fires. For example, when lockdown shopping policies took an *Alice in Wonderland* turn in the winter, one of Karim's two daughters was the first to let him know. "She came down

for breakfast and said, 'Did you see the new regulations that just came out? They are nonsensical!' And I said, what do you mean? And she said, 'Well, you know, you can now buy open-toed shoes but not closed-toe shoes.'"

He immediately called a meeting of the Covid-19 ministerial advisory committee, which agreed to submit an advisory to the government opposing such intricately illogical bans. Glenda Gray, a former protégé of Karim's in HIV and Aids research, was tasked with writing the advisory.

"But before that she went to talk to the media about it. And that came as a bit of a shock to me, before conveying our views to the government, even though I completely agreed with her view on the matter. It was a storm in a teacup. And we moved on."

The media responded to this hullabaloo, however, by speculating about toxic divisions in the pandemic brains trust, which exasperated Karim. "I've been in academia for almost four decades, and in academic leadership differences of opinion are pretty standard. It would be unusual if we go to a senate meeting and there aren't five different viewpoints. And people all jockeying for their views. It was no big deal on our committee."

"We had many differences. That was one of our strengths, that it was never personal. We would agree on some issues and not on others."

A LOVE OF SCIENCE

Karim's marriage to Quarraisha is just as prone to fierce intellectual sparring. Quarraisha is just as acclaimed a researcher as her husband, not least for her momentous study in 2010, which demonstrated for the first time that antiretrovirals can prevent HIV infection as well as treat it.

"We've been working together since about two years after we got married," he says. And they have worked together ever since. "Her office at Capriva [Centre for the Aids Programme of Research in South Africa] is opposite mine, with a common secretary between us."

"When we have a study team meeting, we have quite robust discussions and some of the youngsters look at us and think, what's going on here?"

"But for us there's absolutely no problem. At home we also talk shop occasionally, and our children point that out to us. Sometimes over dinner we'll be talking about condoms or anal sex, and this or that study approach, and they will let us know this is all a bit much," he laughs.

All three of their children have circled back to the world of public health after studying other fields. His eldest daughter Safarisa is a lawyer investigating Covid-19 and human rights, middle daughter Aisha is a journalist at health reporting centre Bhekisiza, and their son Wasim is in his final year of computer science at the University of Cape Town, but wrote a paper on Covid-19 in 2020 while doing a holiday job for De Oliveira.

Like many elite scientists, Karim is not afraid to trumpet his many victories and is deeply proud of his and his colleagues' legacy in training hundreds of HIV and Aids researchers, including Gray and the current head of HIV at the Medical Research Council, Anemona Goga.

But he also regrets a failure: to make that output of expertise transformative. "I have been deeply concerned that the HIV researchers and infectious disease research units are largely run by white people and the occasional Indian."

"That is a weakness. That not one is run by an African person is a negative reflection on us — that we haven't been able to advance somebody to that level. We do have some top-notch black scientists and they are coming through, and they will one day lead our country's research."

"But I just think that I didn't do enough, that our country didn't do enough, to generate a more diverse set of senior scientists."

— This article was first published by *New Frame*.



Professor Salim Abdool Karim.