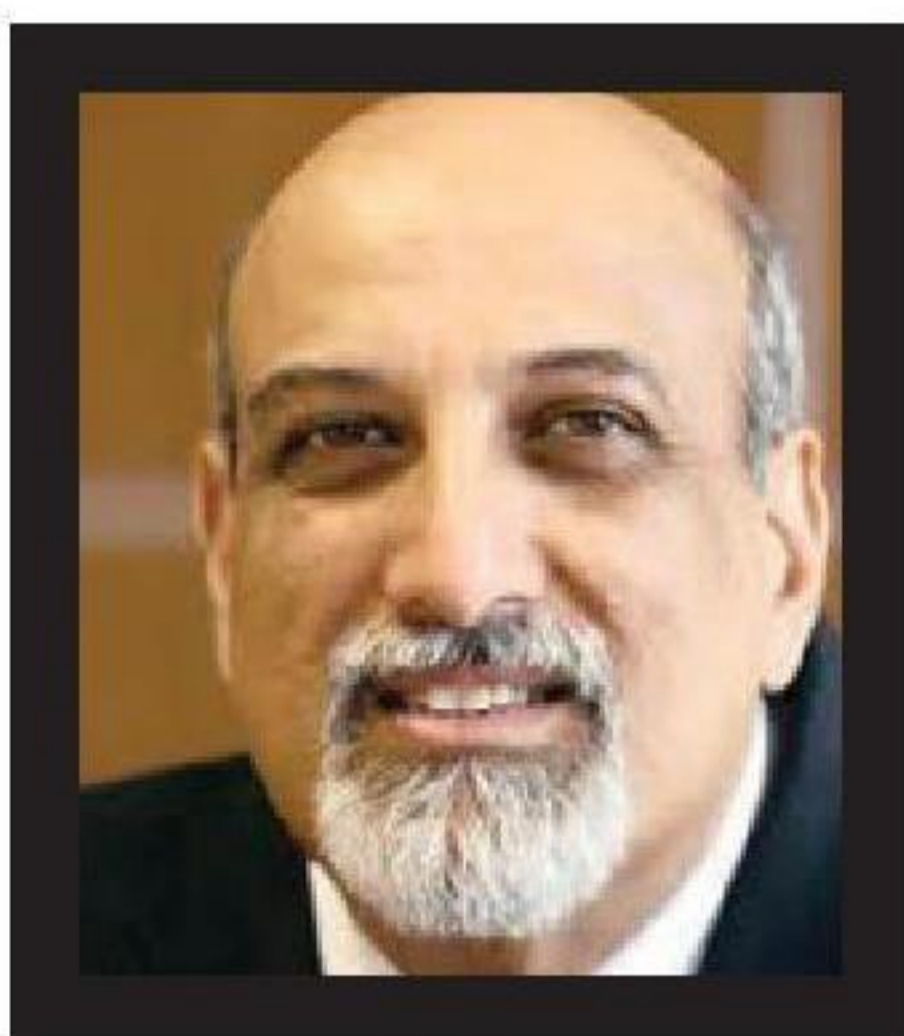


SA hoping to flatten the curve after taking swift, decisive action

COMMENT



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SWIFT and decisive. These words aptly describe the South African Government's response to curtail the spread of Covid-19 currently ravaging the world, wreaking havoc on the best of health systems and causing untold human suffering.

Currently, on day 41 of a national lockdown which started on March 26, South Africa has employed a raft of measures to ensure that it does not suffer similar disasters with infections spread rapidly and accompanied by a high fatality rate, as experienced in Europe and the US.

In December 2019, the first cases of a new respiratory disease, later named Covid-19 by the World Health Organization, were reported by doctors from Wuhan, China. It was subsequently reported that the cluster of pneumonia cases in Wuhan were caused by a novel coronavirus, which has since been named SARS-CoV-2. Less than five months later, SARS-CoV-2 transmission has resulted in more than 3 million cases of Covid-19, reported in 185 countries worldwide.

The epidemic has spread rapidly,

with several countries experiencing exponential growth in just weeks.

The US and Italy, for example, have recorded more than 100 000 Covid-19 cases within weeks of their first cases.

Both countries have been particularly hard-hit, recording tens of thousands of deaths by the end of March 2020. Yet some countries, like South Korea and New Zealand, have successfully managed to contain their epidemic, probably through the massive scale-up of testing and isolation of cases. In China, the epidemic was curtailed only after a country-wide lockdown was implemented to reduce the interaction between infected and uninfected persons.

In South Africa, the first case of Covid-19 infection was reported on March 5 and the numbers continue to grow daily. While it took 14 days to reach the first 100 cases, the first 1 000 cases were reached just nine days later. Although most of the cases were initially in individuals who had recently travelled to Europe or the US, there is clear evidence of growing community transmission. Given that South Africa already has a high burden of both HIV and tuberculosis, Covid-19 is likely to add severe strain to our already overburdened health care system.

Data derived from other respiratory illnesses, such as influenza, suggests that people with compromised immunity, such as those living with HIV, particularly those with low CD4 T-cell counts, might be at higher risk of developing severe Covid-19 illness and would have a greater need for hospitalisation.

To mitigate the potential impact of the Covid-19 epidemic, the South African government has responded



A HEALTH worker takes swabs during Covid-19 community screening and testing in Kleinveil. | BRENDAN MAGAAR African News Agency (ANA)

swiftly and decisively to curtail the spread of Covid-19 infections. The first stage of the government's response was focused on preparation and establishing testing capacity, which was put in place even before the first case of Covid-19 was detected in the country. During this phase the testing capacity was established mainly at the National Institute for Communicable Diseases. Once the first case of Covid-19 was reported, the response shifted to the implementation of social distancing and hand-washing policies.

On March 15, President Ramaphosa declared "a national state of disaster" and a number of regulations were put in place, including a partial travel ban, closing of schools and restriction of gatherings to less than 100 people.

The escalation in the response resulted in the president's announce-

ment on March 23 of an unprecedented nation-wide lockdown starting on March 27 to reduce interactions between people and break the chains of transmission.

The country only has a short window of opportunity to "flatten the curve" prior to the inflection point, by reducing interactions between infected and uninfected people.

The next phase of the response shifted to focusing on rapidly scaling up community-based Covid-19 screening and testing. The approach draws heavily on our country's experiences in managing the tuberculosis and HIV epidemics, and includes the basic elements of infectious disease control – screening, diagnosing, isolating and contact tracing.

The community-based response involves five key components:

- National voluntary coronavirus surveillance through a cellphone app that people can use to check if they need to be tested based on symptoms of the coronavirus infection.

- House-to-house visits by community healthcare workers screening for symptoms of coronavirus in vulnerable communities throughout the country.

- Widespread coronavirus testing for those with symptoms.

- People positive with the coronavirus to initiate self-isolation or assisted isolation at designated centres, if needed.

- Self-quarantine of household and other contacts of people with the coronavirus infection.

This community-based approach was developed to assess community transmission and identify where the virus was spreading to effectively control the epidemic. Testing people with symptoms for the coronavirus, which was an important part of response in countries like South Korea, which successfully "flattened the curve", is an essential part of the South African response. It is still too early to tell if this approach will be successful in helping South Africa to flatten its Covid-19 epidemic curve, but it is providing valuable information of the transmission of the virus within the community.

Professor Karim is the director of the Department of Science and Innovation-National Research Foundation's Centre of Excellence in HIV Prevention, and is currently the chairperson of the Ministerial Advisory Committee for Covid-19 advising the South African government on the Covid-19 response.