



CAPRISA

CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA

Newsletter

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Study shows Omicron marked a change in the SARS-CoV-2 epidemic curve, clinical profile, and deaths in South Africa

In this Issue

On page 1 we feature a recent observational study published in the journal, *The Lancet Global Health* that shows Omicron marked a change in the SARS-CoV-2 epidemic curve.

We congratulate Prof Salim Abdool Karim who was awarded the CMSA's highest award on page 2. We feature the International Science Council's (ISC) report on Covid-19 launched in Geneva.

Page 3 reports on Prof Quarraisha Abdool Karim's participation at the 7th Annual Multi-stakeholder Forum on Science, Technology, and Innovation for the Sustainable Development Goals held at the UN headquarters.

On page 4 we congratulate Prof Tulio de Oliveira who features on *TIME* Magazine's top 100 most influential people; and report on Prof Kogie Naidoo's appointment as a member of the National DR-TB Clinical Advisory Committee; and Mr Patrick Mdletshe, Head CAPRISA Programmes appointment to the HIV Prevention Technical Team.

According to a recent study titled, *Clinical severity of COVID-19 in patients admitted to hospital during the omicron wave in South Africa: a retrospective observational study*, published in the journal *The Lancet Global Health*, the fourth Omicron-dominated wave was far less severe than the preceding three Covid-19 waves that marked a significant shift in the trend of the disease.

This was likely due to increased immunity from previous SARS CoV-2 infections and vaccinations; and a less severe variant observed the researchers. This retrospective observational study aimed to assess the clinical severity of patients admitted to hospital during the Omicron fourth wave with SARS-CoV-2 infections compared to patients of the previous three waves.

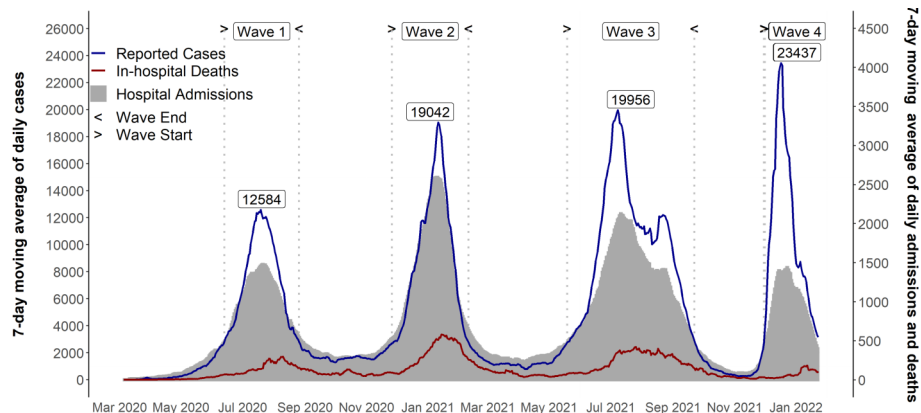
The findings showed that a lower proportion of patients had severe disease or required hospitalisation. The in-hospital case-fatality ratio and disease severity were almost two-fold higher in the three

preceding first waves compared to the Omicron wave. Data on Covid-19 hospital admissions were collected through DATCOV, an active national surveillance database established to monitor Covid-19 hospitalisation; and from daily laboratory reports on rPCR and antigen-positive SARS-CoV-2 cases.

"The DATCOV surveillance system has been useful in rapidly providing data on the trends in hospitalisation, severity and mortality, to enable an understanding of the characteristics of new SARS-CoV-2 variants" explained lead author Dr Waasila Jassat of the NICD.

The authors concluded that Omicron marked a change in the SARS-CoV-2 epidemic curve, clinical profile, and deaths in South Africa and extrapolations to other populations should factor in differing vaccination and previous infection levels.

To read more see: *Jassat W, Abdool Karim SS, et al. Lancet Global Health 2022 May. doi: 10.1016/S2214-109X(22)00114-0. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9116895/>*



7-day moving average of new cases, hospital admissions and in-hospital Covid-19 deaths up to - 23-01-2022

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SA's official body for medical specialists confers its highest honour on Prof Salim Abdool Karim

Professor Salim Abdool Karim, CAPRISA's Director was awarded the Honorary Fellowship of the College of Pathologists in Virology - the highest award of the Colleges of Medicine of South Africa, on Thursday 19th May.

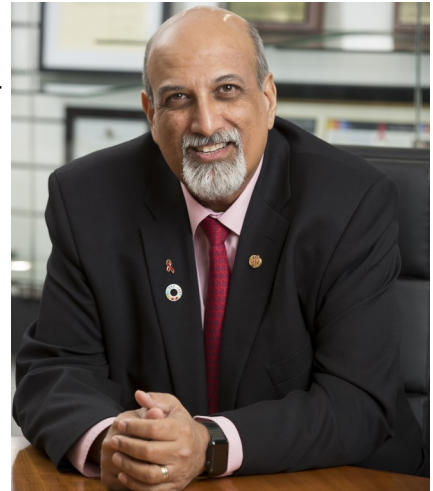
The award recognizes his exceptional scientific knowledge generation and his national and international scientific leadership in virology.

The Colleges of Medicine of South Africa (CMSA) is an institution of medical and dental specialists whose purpose is to promote the highest degree of skill, efficiency, ethical standards, and professional conduct for the benefit of humanity and to promote the honour of the medical and dental profession.

"We believe that you have not only distinguished yourself in the incredible work that you do nationally, regionally, and internationally, said CMSA President, Prof Flavia Senkubuge, "but certainly we recognise your enormous achievements in scientific leadership and knowledge generation in virology, strategy, and policy

formulation. We further remain inspired by your seminal contributions regarding global health issues such as the HIV/AIDS epidemic and more recently the COVID-19 pandemic," she said.

Abdool Karim is globally recognised for his seminal contributions in viral diseases, particularly HIV and Covid-19.



He currently serves as a Vice President of the International Science Council and is a Member of World Health Organization's Science Council and the Lancet Commission on COVID-19.

ISC report calls for multilateral cooperation to address global emergencies



Professor Salim Abdool Karim served on the oversight committee of the international Science Council Covid-19 report titled, *Unprecedented and Unfinished – COVID-19 and Implications for National and Global Policy*, which calls for the establishment of a UN Science Advisory Board to inform future pandemic response, natural disasters, or the impact of climate change.

The report launched on 17th May in Geneva calls for renewed global cooperation to address the vast inequalities in societies and the 'wide-ranging, long-term impacts on the entire global community from Covid-19'.

At the launch, Sir Peter Gluckman President of the International Science Council; Ms Mami Mizutori the Special Representative of the United Nations Secretary-General (SRSG) for Disaster Risk Reduction; Prof Salim Abdool Karim, Director CAPRISA and Dr Soumya Swaminathan

Chief Scientist WHO; outlined the key findings of the report and responded to questions from the media.

The report highlights the economic impact of the Covid-19 pandemic. In 2020, more than 8% of working hours were lost, equivalent to 255 million full-time jobs.

Furthermore, the report highlights a need to address the challenges of disinformation, and to strengthen diverse scientific advice systems to increase trust in science, thereby protecting societies from acute health risks and the breakdown of social cohesion.

"We must not take a narrow view of the pandemic or minimize its impacts beyond public health, otherwise inequities will grow, and the broader consequences will be felt in every society in every country," said Sir Peter Gluckman, President, International Science Council (ISC), underlining the need for a more holistic, multilateral approach to crises. He said the report "aims to assist all governments in exploring appropriate responses in the broad interests of all their citizens and societies." Read the report [here](#)

In the Photo: (L-R) Sir Peter Gluckman, Ms Mami Mizutori, Prof Salim Abdool Karim & Dr Soumya Swaminathan

Prof Quarraisha Abdool Karim at the 7th United Nations Multi-Stakeholder Forum on Science, Technology, and Innovation for the SDGs



On 5th – 6th May, Professor Quarraisha Abdool Karim, Co-chair of the UN 10-Member-Group (above in the photo at the Forum) of high-level representatives appointed by the Secretary General, participated in the 7th Annual Multi-stakeholder Forum on Science, Technology, and Innovation for the Sustainable Development Goals (STI) hosted by the UN Economic and Social Council at the UN Headquarters in New York with online participation.

The UN Interagency Task Team for use of STI for the SDGs (UNIATT) through the leadership of the Chairpersons of the 2022 STI forum, Ambassador Kennedy Gastorn (Tanzania) and Ambassador Sergiy Kyslytsya (Ukraine); the UN Secretary General's 10 Member Group, and DESA and UNCTAD, developed the agenda for this forum.

The Forum deliberated on the role of science, technology and innovation for “building back” from the COVID-19 pandemic and for accelerating progress towards the SDGs, with an emphasis on SDG4 on quality education, SDG5 on gender equality, SDG14 on life below water, SDG15 on life on land, and SDG17 on partnerships - the in-focus SDGs under review at 2022 High level political forum (HLPF) this year.

Abdool Karim delivered invited interventions in three sessions: the virtual exhibition featuring the winners of UN distinctive science and innovation awards that profiled three distinguished women scientists; reflections on the Technology Facilitation Mechanism (TFM) and the concluding session on reflections on lessons learnt at this forum.

In addition, she moderated thematic session one on STIs at the Covid-19 conjuncture that concluded,

among other issues, that while major progress is being made in research on new kinds of vaccines that will protect against COVID-19 and other coronaviruses, and on ways to prevent continued infections; global cooperation on research and deployment and much increased levels of funding is urgently needed, to make sure the world is prepared and able to provide access to vaccines and related medical supplies for all.

The Forum provided a timely opportunity to identify solutions to a number of challenges the world is cur-



Abdool Karim moderates thematic session one on STIs

rently facing, ranging from the COVID-19 pandemic to the impacts of artificial intelligence, education and technology gaps, climate change, as well as the wider global impacts related to the war in Ukraine.

These crises have been stopping or reversing years of development progress in many countries, threatening to put the SDGs out of reach, and to trigger a lost decade for developing countries. The Forum highlighted science, technology, and innovation solutions to support the achievement of the SDGs.

Among other issues, the Forum examined the actions needed for enhancing national, regional, and global innovation ecosystems and research cooperation and partnerships; the promises and potential risks of emerging science and technologies; and technology divides.

It highlighted concrete solutions in the areas of carbon dioxide removal technologies and identified lessons-learnt for policymakers from the latest sustainable development scenarios.



Prof Tulio de Oliveira named in *TIME* magazine's top 100 most influential people of 2022

Professor Tulio de Oliveira, Director of CERI and KRISP as well as CAPRISA's honorary senior scientist, was named one of *TIME* magazine's top 100 most influential people in the world in the category, Pioneers. CAPRISA's Director, Prof Salim Abdool Karim, congratulated Prof de Oliveira on a 'wonderful and truly deserved recognition.'

'This annual list features individuals who have made the most significant contributions to our world, as identified and voted for by *TIME* magazine's international network of editors, thought leaders and past recipients of this prestigious accolade.'

De Oliveira is a professor of Bioinformatics and holds a joint appointment at Stellenbosch University's (SU) School for Data Science and Computational Thinking, in the Faculty of Science and the Faculty of Medicine and Health Sciences. The recognition was for his Omicron research conducted at the KwaZulu-Natal Research and Innovation Sequencing Platform (KRISP).

TIME selected de Oliveira with Dr Sikhulile Moyo – who was his PhD student for their work in the field of genomics and epidemiology. In November 2021, they led



Photo: Professor Tulio de Oliveira participates in the discussions at CAPRISA's Strategic Planning meeting

the multidisciplinary team who discovered the Omicron variant of SARS-CoV-2, which quickly became the dominant variant of the virus globally. Moyo currently serves as laboratory Director at the Botswana Harvard AIDS Institute Partnership (BHP). Read the *TIME* magazine article [here](#)

Prof Kogie Naidoo serves on the National Drug-Resistance Tuberculosis Advisory Committee



Professor Kogie Naidoo (*left in the photo*), CAPRISA's Deputy Director has been appointed by the National Department of Health as a clinical member of the National DR-TB Clinical Advisory Committee for a period of 5 years. Naidoo has extensive experience in drug resistance TB research and is CAPRISA's Head of TB and HIV Treatment Research.

"Your technical, clinical, research and professional input to the committee will be appreciated," said Dr Sandile Buthelezi, Director General of the Department of Health.

The Committee of experienced clinicians and experts will advise the National TB Cluster in the formulation of policies and strategies of new DR-TB regimens and treatment guidelines. In addition, the committee will monitor new treatment regimens and provide oversight on the clinical management of complex individual patients with DR-TB.

Patrick Mdletshe appointed to national HIV Prevention Technical Team

The South African AIDS Council (SANAC) invited CAPRISA's Head of Community Programme Mr Patrick Mdletshe (*right in the photo*) to serve on the HIV Prevention Technical Team providing technical



guidance and support to guide the development of the 5th generation National Strategic Plan (NSP) for HIV, TB and STI's 2023-2025. The NSP is a key strategy for South Africa's response to HIV, TB and STIs and is critical to accelerating progress toward ending AIDS as a public health threat by 2030.

Mdletshe currently serves as co-chair in the KwaZulu Natal (KZN) Provincial Council on AIDS and is the Chairperson of the KZN Civil Society.



“Breaking barriers...not just about quotas but creating space.”



Dr Nonhlanhla Yende-Zuma, Head of Biostatistics at CAPRISA was a panellist in a thought-provoking seminar on gender inequality that women continue to face in South Africa 28 years into democracy held in Richmond, KwaZulu-Natal. She was invited by KwaZulu-Natal Legislature Commonwealth Women Parliamentarians (CWP) to the event attended by members of the KZN Legislature, academics, Mayors, farmworkers, and domestic workers. Yende-Zuma’s talk focused on “breaking barriers...not just about quotas but creating space.” She shared her personal journey of a young girl from rural Kwazulu-Natal, despite all odds, did receive the necessary encouragement, guidance, and opportunity to pursue her dreams.

“So, our role is simple: to give young women the opportunity to receive mentoring, coaching, and training in their first roles from professional women who have walked the path they are embarking on, she said.”

CAPRISA Recognition Awards

The province of KwaZulu-Natal experienced unprecedented rainfall from 8th – 13th April resulting in flooding with devastating human and infrastructure loss. CAPRISA paid tribute to 5 staff members recognised for demonstrating steadfast commitment and initiative during extremely trying conditions. The CAPRISA recognition awards were presented to: Mr Samukelo Booi, Quality Control Officer; Ms Kayleen Pillay, Research Pharmacist; Ms Victoria Nxumalo, Driver; Sr Jabu Malunga, Professional Nurse, Prince Mshiyeni Memorial Hospital – Harvest study site; Ms Radha Narasimmulu, Enrolled Nurse, CAPRISA Springfield Research Clinic.

Unrelated to the floods, a recognition award was presented to Mr Handry Nosenga, a security guard for his initiative in monitoring equipment at a research site.



Photo: Bottom Row (L-R):

Photo left: Mr Samukelo Booi Quality Control Officer (left) receives the award from Prof Daya Moodley, Project Director Umlazi Clinical Research Site (right). Photo middle: Ms Kayleen Pillay Research Pharmacist (left) with Prof Daya Moodley (right).



Photo; Top Row (L-R) Photo left: Sr Jabu Malunga, Professional Nurse (middle) receives the award from Dr Bongeka Hlabisa, Research Clinician (right), Prof Kogie Naidoo (left); Photo middle: Ms Radha Narasimmulu, Enrolled Nurse (middle) receives the award from Dr Gillian Dorse, Research Clinician (right), Prof Kogie Naidoo (left); Photo right: Ms Victoria Nxumalo, Driver (right) receives the award from Prof Kogie Naidoo, Deputy Director

Photo right: Dr Gillian Dorse, Research Clinician (middle) presents the award to Mr Handry Nosenga, Security guard (right), Prof Kogie Naidoo(left).



A selection of scientific papers published in 2022

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