

SAMA INSIDER

APRIL 2022

**Digital SAMF – a
“game-changer”**

**For some South Africans
there's more to healing
than medicine**



PUBLISHED AS A SERVICE TO ALL MEMBERS OF
THE SOUTH AFRICAN MEDICAL ASSOCIATION (SAMA)

**SOUTH AFRICAN
MEDICAL ASSOCIATION**

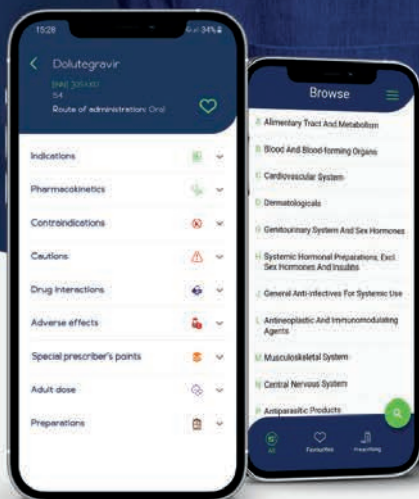
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Diane de Kock
Editor: *SAMA INSIDER*

A broader view

Welcome to the April issue of *SAMA Insider*. This month we are taking a broader view: healthcare and world views, new initiatives, the importance of sociocultural nuances within biomedicine, the accelerating health effects of climate change and the challenges presented by communication networks when manipulated by psychopaths, among other issues.

We introduce "SAMA in the News" (page 4), a brief look at SAMA's position on issues in SA healthcare. Dr Mvuyisi Mzukwa, SAMA chairperson, talks about the association's challenges in the future (page 5), and we unpack the digital version of SAMF, a groundbreaking move for SA's healthcare sector (page 6).

Improving patient safety and clinician wellbeing is a core value for the MPS Foundation, a new global, not-for-profit research initiative to fund ambitious research (page 7).

International research on COVID-19 is discussed in two articles: "COVID: Risk of severe disease could be in your blood" (page 8) and Gerry Wright's article on future infectious diseases (page 10).

Bringing together biological, psychological, social and spiritual approaches could afford patients a more complete form of care, according to the results of a study in Soweto (page 9).

Climate change and health continue to challenge healthcare systems around the world. Stefan Wheat and Jay Lemery's article (page 11) draws attention to the importance of focusing on "the clear human health implications posed by climate change".

Recently, social media has been alive with discussions and debate about the Netflix documentary "The Tinder Swindler". Psychiatrist Prof. Renata Schoeman maintains that it is not as straightforward as assuming the women were merely gullible (page 13).

Healthcare in the rural communities of SA continues to be a challenge. The Tshemba Foundation's outreach programme, which relies on volunteers, goes a long way in addressing this need. "Spending time in areas that are so deeply in need of interventions reminds us of what our purpose is and how fulfilling it can be," says Godfrey Phillips, co-founder and director at the foundation.

We hope you enjoy the read – your feedback is always welcome and appreciated.

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23 March: SAMA delighted at HPCSA's fees reversal

SAMA welcomes the HPCSA's decision to reverse its fee increases for doctors by 13%. The annual fees will now only be increased by 5.7%, in line with inflation. SAMA says the move for revision was a collective effort and it acknowledges all of those, including the Minister of Health, who played a part in reaching this revised, and better, position.

23 March: SAMA welcomes easing of COVID regulations

SAMA welcomes the announcement by President Cyril Ramaphosa of relaxed regulations relating to the management of COVID-19 in SA. The announcement is a positive development for the country's economy, and appropriate given the current state of the pandemic.

Efforts to ensure higher rates of vaccination must continue, and SAMA will play whatever role necessary to make this happen. Along with these efforts, a better understanding of what is driving vaccination hesitancy in the country is also needed.

SAMA notes that the requirements for vaccine-based entry to public facilities and events are in line with global regulations, and a positive step that will benefit the tourism, entertainment and sporting sectors and, ultimately, employment in the country.

Given the developments in the country's management of COVID-19 announced by the president, SAMA feels there is good scientific evidence to completely abandon quarantine and contact tracing requirements. Similarly, routine PCR testing of asymptomatic people is a frivolous waste of resources. SAMA remains concerned that there continue to be mixed messages from government on the regulations, particularly as they relate to venue capacity.

The investment in hospitals in SA will be a legacy that will benefit millions of South Africans into the future. Ending the national State of Disaster will further benefit the economy, and the time is right for the easing of this legislation. The COVID-19 pandemic is now being better controlled and managed, and the country's healthcare system is better placed to deal with the virus than before.

3 March: SAMA assessing situation of medical students in Ukraine

SAMA says it is busy collecting data on SA medical students in Ukraine.

The association says it will, where possible, reach out to the families of these students with a view to determining what assistance it can offer.

Membership of SAMA was opened in 2020 to include medical students and, as such, SAMA will do whatever it can to assist those students still in Ukraine, or those fleeing to other countries to seek refuge from the conflict.

Anyone with information on SA medical students in Ukraine is urged to contact SAMA.

2 March: SAMA infuriated by HPCSA fee increases for 2022

SAMA says professional fee rates recently announced by the HPCSA are unfair and not justifiable.

The association says the increases comes at a time when many doctors are still recovering from the financial impact of COVID-19, and are trying to rebuild their practices. SAMA further notes that these increases come after a 15% increment last year, and a 13% increment the year before: effectively a 30% 2-year increase. In addition, both increases are more than double inflation.

This is seen as a callous disregard for the effect the protracted pandemic has had on the medical profession. SAMA says these drastic increases demonstrate an unwillingness, on the part of the HPCSA, to assist doctors – many of whom remain unemployed – in either resuming employment, or financially managing their practices effectively.

In the context of the current economic situation in SA, SAMA says the fee increases cannot be defended and should not go unchallenged.

SAMA says it will engage with the HPCSA with a view to addressing its concerns and those of its members.

24 February: Some good developments in Budget, but more is needed – SAMA

SAMA welcomes, in part, the Budget delivered by Finance Minister Enoch Godongwane yesterday, and is specifically pleased at the ZAR3.3 bn allocation for medical interns and

community service doctors. However, the association remains concerned about the ongoing lack of funding that leads to the disruption of service delivery, and about the proper distribution of funds and resources to this category of employees.

In addition, SAMA remains worried about the lack of funded posts for community doctors, which is leading to these doctors sitting at home while other doctors are suffering from burnout due to working long hours, and massive shortages of staff and resources.

Another area of concern is the serious shortage of medical specialists in SA, which was not addressed in the minister's speech. SAMA says the lack of funding for registrars must be dealt with as a matter of urgency. This, SAMA believes, must form part of a broader approach by government to address the low doctor-to-population ratio in SA, which is well below the standards of the WHO.

17 February: SAMA concerned by another attack on healthcare worker at public hospital

SAMA is gravely concerned about yet another attack on a healthcare worker at a public hospital.

On 15 February, a doctor at the Mapulaneng Hospital in Mpumalanga was attacked while on her way to the doctors' residential quarters after her shift. She was hijacked and robbed at gunpoint, and the perpetrators attempted to rape her. The doctor is extremely traumatised by this experience.

This incident follows the killing of a nurse at Tembisa Hospital earlier in February.

SAMA is concerned that doctors working in public sector hospitals live and work in constant fear, and in general feel unsafe within their working environments. SAMA has on many occasions in the past raised concerns regarding the issue of safety at public hospitals. The association has proposed that stringent security measures be implemented for the protection of healthcare workers, and patients in dire need of medical services.

SAMA is taking the issue of safety and security seriously, and urges all stakeholders to collectively acknowledge the extreme level of the problem, and to find solutions in the

Let's use our collective wisdom to solve the challenges of our profession



Dr Mvuyisi Mzukwa

Health systems around the world are still under immense threat from COVID-19. This, unfortunately, has resulted in some buckling under pressure due to poor planning, poor management, political interference and the scourge of corruption. This has had a negative impact on the psychological and emotional wellbeing of healthcare professionals, who themselves were not spared the brunt of physical illness either. Unlike other industries, the healthcare space didn't and doesn't allow much of remote working and other flexible work scheduling.

Our country, too, was not spared COVID atrocities. The pandemic period revealed the true colours of many big corporates, political leaders and some government officials. Corruption during this deadly pandemic has cost lives of healthcare professionals, healthcare workers, patients and the general citizenry. During the time of writing this piece, the Gauteng Department of Health was facing unprecedented challenges caused by corruption affecting Charlotte Maxeke Academic Hospital, Chris Baragwanath Hospital and others. Again, this has cost lives of fellow citizens who depend on the healthy status of these healthcare institutions. The collaborative efforts and activism shown by healthcare professionals and workers is commendable. It is a painful reminder that we shouldn't, at any point, let our activism guard down.

It is clear that we must stand ready to fight against abuse of office by the HPCSA. The increase of registration fees by almost 30% at the height of a pandemic, for 2 consecutive years, was extremely insensitive to doctors and dentists who are facing a plethora of challenges. These range from unemployment, low morale, economic downfall, lack of leadership and management support to safety and security. This has been compounded by a lack of transparency on budget issues in the agency. The call of the profession is loud and clear: the HPCSA must be unbundled as per the Mayosi Ministerial Task Team and the Presidential Summit on health in 2018.

As we begin to see light at the end of COVID tunnel, we need to deal decisively with the unemployment of health personnel. These are young professionals who have been trained using the country's fiscal purse but find themselves sitting on the sidelines while the healthcare challenge rages, leading to limited access to healthcare of many deserving South Africans. As we continue with our discourse around and approach to universal health coverage, we need to strengthen the human resource pillar, without which we cannot achieve this much-desired basic need for the entire globe. We need to assess our progress on the latest version of the Human Resource Plan for Health. Are we getting any closer, or are we drifting away by introducing moratoria on the employment of healthcare personnel?

There is a heightened need to belong to a professional association, for many career and professional reasons. As is often said, there is strength in numbers, and we need unity of mind to fight for our professional independence. Advocacy within our profession needs to be taken to new heights. With the introduction of policies such as NHI, we cannot allow politicians to decide on the issues of our profession while we sit on the sidelines as professional spectators. Each one of us must find a platform within the association where (s)he can raise his or her voice in a co-ordinated way and propel the interests of the profession forward. We are grateful to our young lions in JUDASA who have continued to work hard dispelling the notion that young people are apathetic. The creativity and innovation that is inherent in this category of professionals is encouraging.

SAMA must endeavour to create a supportive environment to nurture this valuable group of colleagues. It is also encouraging to note that there are colleagues who are advanced in age who have served the profession selflessly. As we speak, we are reaping the fruits of their hard labour and dedication. Most of these colleagues lost family time, finances and many other things in propelling the association forward. To all who belong to this category, we are very grateful. We have learnt that doctors must be their own Messiahs. Complaining about any and everything doesn't help – doing something to address the challenges is what makes a huge difference.

We cannot allow politicians to decide on the issues of our profession while we sit on the sidelines as professional spectators

Belonging to a professional association helps develop one's leadership skills. Serving at a branch level or on provincial councils, board committees, *ad hoc* task teams or the board of directors helps a great deal to sharpen one's leadership skills. This does not only help to advance SAMA – it assists with getting ready to take on other leadership tasks outside of the association, and we have plenty of references in this regard. Let's all use our collective wisdom to solve the challenges of our profession.

Lastly, this country has a very divided past. It is the duty of all members of SAMA to work collaboratively with everyone, regardless of their race, religion, gender, age, culture, etc. SAMA is a broad church with diverse membership, as alluded to above. Our communities are looking for a professional association that respects the law, and follows and advances science, united in its diversity to advance the objectives of civilisation and social cohesion. We all belong to this noble profession, and we must work as advocates for justice in healthcare, being mindful of the vulnerabilities our communities are facing.

Novel digital medicines information platform – a “game-changer” for sector

Niémah Davids

In a groundbreaking move for SA's health-care sector, the *South African Medicines Formulary* (SAMF) – the gold standard for medicine information in the country – has gone digital. The SAMF website and mobile application (app) have been designed to keep up with the modern technology-driven world, streamline its service offering and extend its reach beyond SA's borders.

SAMF is an initiative of the University of Cape Town (UCT)'s Division of Clinical Pharmacology based in the Department of Medicine in the Faculty of Health Sciences. The book, published in hard copy for more than three decades, is considered the holy grail for clinicians. It contains a plethora of medicine information, which includes detailed explanations on what certain medicines can be used for and what not, as well as the required dosage for different patients.

A mammoth project

For those SAMF loyalists who have long been using hard copies of this medicines guideline, the digital platforms have not replaced the book – not yet at least. Instead, the app and website have been described as extensions of the book, and have been developed to provide users with on-the-go access to the information they need in real time.

The mammoth project has been in the works for the past 2 years, and is carried out in partnership with UCT's Research Contracts and Innovation (RC&I) office, Aviro Health (the team of developers) and SAMA.

"It's an absolutely wonderful initiative that is guaranteed to benefit hundreds of thousands of doctors and pharmacists in SA, on the continent and around the globe. After 33 years, there's no need to haul out the book any more. The information you need is right on your phone," said Prof. Marc Blockman, SAMF managing editor and the director of UCT's Medicines Information Centre (MIC).

Valuable resource

Typically, medical and pharmacy students are introduced to SAMF relatively early on in their studies, and the resource acts as a go-to guide during their rotations, and long after they graduate and move on to become doctors and pharmacists.



SAMF managing editor, Prof. Marc Blockman, with SAMF digital project manager, Annoesjka Swart (photo: Nasief Manie)

SAMF has been described as “incredibly valuable” and multifaceted. It's completely independent and impartial, and in no way linked to the pharmaceutical industry. Like the book, the app and website are divided into sections, and each section contains comprehensive information and guidelines on how to manage conditions such as TB, hypertension and benign prostatic hyperplasia, and even how best to treat cases of poisoning. In addition, the resource also incorporates detailed information on how to help clinicians prescribe safely in certain high-risk groups such as children, as well as in patients with liver and renal failure.

But that's not all. The app also boasts a novel voice-search feature. This means that users can request the information they need by speaking directly into a built-in microphone. The feature is especially useful to doctors during ward rounds. One striking difference between the book and the digital platforms is that the latter will be updated every 6 months to remain relevant, while the book is updated and published every 2 years.

The nitty gritty

Prof. Blockman said a beta testing version of the app was launched last year, and users were invited to use and test it free of charge and

provide suggestions and recommendations on how to improve the platform. He said thousands of people signed up to use the app during the beta testing stage – one of the final steps of software development before a product goes live. Subsequently, in August 2021, during a dark launch, the app was added to Google Play and the App Store. The app costs ZAR79.99 per month and ZAR809.99 per year. Currently, 250 “by chance” paid users have already downloaded the app.

“Because it's a paid-for service, we wanted to make 100% sure that everything worked the way it should before we officially launched the product. And aside from a few teething problems, which we are working hard to resolve, we are well on our way,” he said.

Purchasing a subscription on Google Play or the App Store means that users automatically gain access to the SAMF website. One subscription allows users to access the app on three devices simultaneously – a mobile phone, tablet and laptop. Currently, clinicians from Namibia, Botswana and the USA have already bought the app, and their number is expected to increase exponentially in the coming months.

“We want to see it fly across Africa and beyond our continent's borders. The potential is enormous; there are thousands of SA

doctors and pharmacists all over the world who grew up with SAMF. Now they can access it wherever they are," Blockman said.

Ploughing back

Blockman said that one of the primary aims with both digital platforms is to get large private hospital and pharmacy groups on board at a reduced rate, with the hopes of increasing efficiency within their organisations, and streamlining their overall health service offering.

"We want to create a sustainable income stream so that we can keep providing this unbiased medicine information offering for generations to come."

Further, the success of this digital project also means that the MIC can continue its essential work – providing updated unbiased medicine information to those who need it. The centre is based in the Division of Clinical Pharmacology, and provides healthcare workers with up-to-date, well-researched and free drug information. The MIC also runs the National HIV and TB Health Care Worker Hotline, which is available to all healthcare workers in SA, and to remain on track, the centre regularly receives input from a multidisciplinary team of health professionals within the university community.

The RC&I was roped in on the SAMF digital project in September 2020. Their role included

helping the team create a sustainable business model, assisting with setting up the necessary deal structuring processes between UCT's MIC and SAMA, implementing the correct governance structure and supporting the deployment of the new SAMF digital platforms to the market. Going forward, RC&I will continue to support the SAMF team to grow the number of product users and to reinvest proceeds into research and development, to improve access to medicines information in Africa.

Source: UCT News, 24 February 2022. <https://www.news.uct.ac.za/article/-2022-02-24-novel-digital-medicines-information-platform-a-game-changer-for-sector>.

MPS launches ambitious research initiative to improve patient safety and clinician wellbeing

SAMA Communications

On 2 March, the Medical Protection Society (MPS) launched the MPS Foundation, a new, global, not-for-profit research initiative to help shape the future of patient safety through the funding of ambitious research.

The foundation will invest in research and analysis, with the key focus being on areas of patient safety and clinician wellbeing – both medical and dental.

The foundation is part of MPS – the world's leading protection organisation – which currently supports around 30 000 healthcare professionals in SA. Globally, MPS supports more than 300 000 doctors, dentists and healthcare professionals, and has almost 130 years of global healthcare experience and expertise.

The MPS Foundation is being launched across each of the countries and regions where MPS has a member base, including SA, the UK, Ireland, Australia, New Zealand, Hong Kong, Singapore, Malaysia and the Caribbean, and is open to applications from both members and non-members.

The research projects supported by the MPS Foundation will have to be academically robust and evidence-based. Available funding will range from GBP5 000 to GBP200 000, or the equivalent in local currency, depending on the scale, focus and duration of the proposal.

Dr Graham Stokes, MPS Foundation chair, said: "Patient safety is dear to the heart of all healthcare professionals. By establishing the MPS Foundation, MPS will support research to help improve patient safety and care, enhance clinician wellbeing and reduce clinical risks.

"As the world's leading protection organisation, our aim is simple: to create sustainable global change through ambitious research.

The total number, location, focus and value of the projects funded will be based on quantity and quality of applications

"The MPS Foundation will develop an international knowledge base that can be applied locally, leveraging our organisation's global reach.

"I am proud to launch the MPS Foundation, which will help both members and other healthcare professionals navigate the

challenges of modern practice and find research solutions.

"All projects must be academically robust and evidence based. While funding will be available up to GBP200 000, smaller grants from GBP5 000 will also be available, and I would strongly encourage healthcare professionals to consider applying for support whatever the scale of their proposal."

MPS Foundation funding is focused in four main areas:

- the impact of human factors on patient safety, outcomes and risk
- the impact of processes and delivery models on patient safety, outcomes and risk
- the personal and professional wellbeing and development of clinicians
- the impact of digital integration and technology on patient safety, outcomes and risk.

The MPS Foundation welcomes proposals that are original, evidence based and focused on applied research. The Foundation also favours projects that focus on private hospital, outpatient practice and dental care environments, and will give priority to proposals that involve and affect more than one country or region.

Healthcare professionals can register their interest by visiting www.thempsfoundation.org and entering their details via the online grant portal.

COVID: Risk of severe disease could be in your blood, new research finds

Alish Palmos, postdoctoral research associate, King's College London, **Christopher Hübel**, research associate in medicine, psychology and behavioural genetics, King's College London, **Vincent Millischer**, resident in psychiatry, Medical University of Vienna

Multiple factors play a role in complex diseases such as COVID, and knowing what they are is important for predicting how different people will be affected. Early on in the pandemic, being older, overweight or smoking were identified as increasing your risk of developing severe COVID. This then informed public health decisions – the elderly were prioritised in the vaccine rollout, for example.

But there are other biological factors involved in COVID that are less well understood. Consider, for example, the thousands of proteins with different functions that circulate in your blood. Some play a role in the body's defence against viruses, while others transport molecules around the body or act as messengers to distribute information.

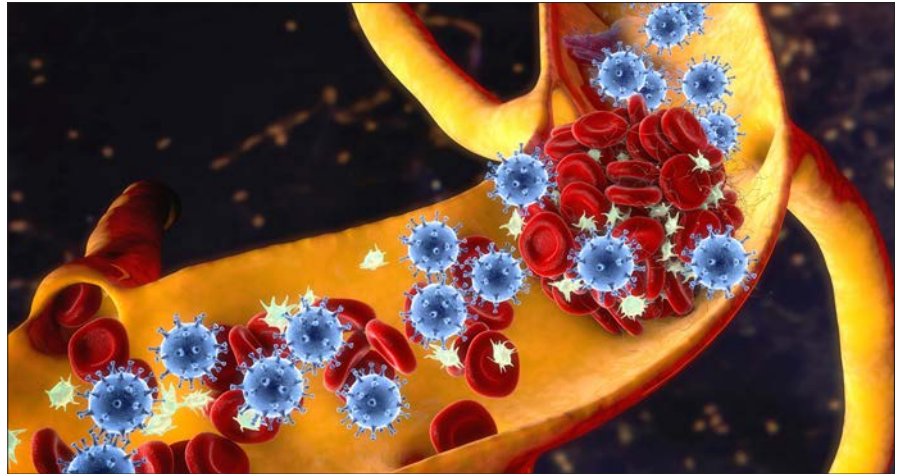
Through these functions, these proteins can impact the development and severity of COVID – and crucially, we don't all have the same amounts of them inside us. This is why people develop different forms of COVID: some get a runny nose or fever, while others need to go to hospital. An unlucky few may need intensive care, and in the severest cases, some may die.

As the number of proteins in the human body is so large, it's difficult to pinpoint the exact proteins and biological systems that cause these different outcomes. Nevertheless, this is what our team aimed to do.

We explored more than 3 000 blood proteins using a technique called Mendelian randomisation. This is where, instead of directly measuring something that you think has an effect on a disease (in this case, a blood protein) and then seeing if levels of it correlate with disease severity, you instead look at variation in the genes that influence that substance's levels, and examine how this affects disease outcomes.

For Mendelian randomisation, you need to know which genes influence the variable characteristics that you're investigating.

This is because if you look at blood protein levels directly, you can't be sure that other outside factors – such as lifestyle choices, or even having COVID – aren't affecting them at the point in time when you're measuring them. Genes, on the other hand, don't change during



someone's lifetime. They therefore allow you to more reliably identify people with high and low levels of the substances you're interested in, and so make more robust estimates of how something like a blood protein affects a disease like COVID.

First, we had to identify which genes are associated with different blood proteins. We did this by looking at the results of genome-wide association studies. These are large pieces of research that look at genetic and biological differences across many people, to trace the links between genetic variants and certain characteristics. Large-scale genome-wide results have also been able to trace links between genes and the risk of severe COVID.

Analysing this data, we identified several proteins that potentially increase or decrease the risk of severe COVID. For example, we found that increased levels of a protein called FAAH2 may increase the risk of someone needing hospital treatment for COVID. FAAH2 causes cells to absorb and inactivate substances called endocannabinoids. These have anti-inflammatory effects, and studies have even suggested they could be used as treatments for COVID. This would explain why having more proteins that remove them is problematic – this potentially lessens the body's ability to control inflammation caused by COVID.

High levels of the ABO enzyme coinciding with severe COVID strengthens the idea that blood type influences COVID.

Another influential protein that we identified was the ABO enzyme. This determines your blood group, and is a hot topic in COVID research. Our study showed that having higher levels of the ABO enzyme appears to increase the risk of being hospitalised with COVID and subsequently needing intensive care. Previous small studies have shown that blood group A is more common in those with severe COVID. Our findings strengthen the case that the ABO enzyme and blood type influence COVID severity.

COVID can also cause disease in the blood vessels, particularly when severe. But we found that proteins that attract white blood cells to the wall of blood vessels appear to be protective against severe COVID. Attracting more white blood cells like this has long been known to improve the immune response in blood vessel walls, and in COVID specifically this seems to help fight off infection.

Identifying these risk factors may help scientists develop new treatments, as these proteins could be targeted by new medicines (or existing ones that have been repurposed). It has also allowed us to draw up a list of proteins that can be prioritised by other researchers, so that in future we can understand even more about what the biological risk factors for COVID are.

Source: The Conversation, 7 March 2022. <https://theconversation.com/covid-risk-of-severe-disease-could-be-in-your-blood-new-research-finds-178347>.

God and illness: for some South Africans, there's more to healing than medicine

Edna N Bosire, postdoctoral research scientist, Georgetown University (USA) and Kamuzu University of Health Sciences (Malawi), researcher, DPHRU, University of the Witwatersrand (SA) and Brain and Mind Institute, Aga Khan University, East Africa, University of the Witwatersrand, Emily Mendenhall, professor, Georgetown University, Lindile Cele, research associate, SAMRC Developmental Pathways for Health Research Unit, University of the Witwatersrand

For many people, familiarity breeds trust. Hospitals and clinics can be places of mistrust or uncertainty, in part because they are outside people's daily lives. Instead, people around the world may place more trust in prayer, worship and other forms of religious practice and healing when facing physical or mental distress.

Anthropologists have long explained that biomedicine faults on trust because of its focus on fixing bodies as opposed to caring for whole people. This is partly because in many cultures, health is perceived as a state of equilibrium. Fixing a part of the body does not necessarily restore balance as the patient perceives it.

It is not uncommon for people to believe that the cause of their illnesses is a result of curses or punishment from a deity or witchcraft.

Individuals may also prefer care from non-medical providers who are part of their culture, speak their language and understand the social issues related to their illnesses. Thus, many people trust cures that are socially or spiritually linked, such as traditional herbs, incantation, prayers or soothsaying.

Some South Africans have rejected biomedicine because of historical aggressions from clinics and mistrust of clinical care. This includes discrimination under apartheid as well as persistent systemic failures, such as long waiting times, drug stockouts, inadequate equipment and poor doctor-patient relationships.

But not much is known about what happens to people's health in the long term once they abandon biomedicine. We wanted to know more about how people coped with chronic illness.

We interviewed 88 people recruited from a large disease surveillance study in Soweto, SA. Anyone who participated in the larger surveillance study was invited to participate in qualitative interviews. Forty-eight of the people we interviewed had been diagnosed with a chronic illness; the others had never been diagnosed with a chronic illness. Those with chronic illness revealed that they did not rigidly adhere to one system of care but moved between church healing, spirituality and biomedicine.

Social and spiritual factors influenced the choices that people in this study made to attain health or healing. Recognising the central role of prayer and spirituality in healing is crucial for

clinicians and healthcare providers to understand why treatment focused on self-care and physical repair may not be effective.

God, church water and spirituality

God was at the centre of the participants' conceptualisation of health, illness or death. There was a common belief that God was a supernatural being who determined what happened to people's lives. Individuals were not able to attest to visible signs of healing brought about by prayer, faith or spirituality. But they still trusted and had faith that they were or would be healed: "I do tell myself that I was not born with high blood pressure, I was not born with diabetes. I know God will heal me."

Almost half of participants believed that illnesses were linked to cultural or spiritual causes – such as bad spirits, curses, bad luck or being bewitched – and that only spiritual interventions and prayers would heal a person.

As a result, people mentioned that they had developed faith and a close relationship with God – through prayers and reading the Bible individually or communally, and drinking church water for healing and wellbeing.

For example, drinking church water or what some called "holy water" or "tea", locally called *indayelo*, emerged strongly as one way of attaining healing in Soweto. Church water was described as a liquid mixture of water, oil, tea and some herbs, prayed over by a church minister, pastor or *omama bomthandazo* ("mothers/women of prayer"). This was served at church or prepared for participants to take at home. This was a common practice among members of the Zion Christian Church.

Church water was said to be helpful in calming the body, or it induced vomiting. This process of *ukukhipha inyongo*, which means "excreting gall or bile", was associated with eliminating disease within the body.

Other than trusting in God and drinking church water, some of the study participants coped through practices such as spending time alone and meditating.

Our findings confirmed that mistrust of hospital care in Soweto influenced some people to seek alternative care. An elderly man

managing diabetes and hypertension said: "I went to the clinic this month and the pills were finished, the metformin pills for diabetes were not there. I decided to use traditional medicine and church water."

Other participants revealed that they had stopped taking hospital medication because they trusted in the church to heal them.

Thinking about how and where people heal is a fundamental goal of the healthcare system. Yet because so much self-perceived healing occurs outside of the hospital and clinic, state programmes must recognise that the overuse of metrics and outcomes to mark the health or sickness of the nation overlooks how people feel heard, heal and live well. Recognising the many ways people live with multiple conditions is also crucial to look beyond clinical metrics and recognise how and why people depend on family members, neighbours or institutions such as the church to live well and stay healthy.

Sociocultural nuances and biomedicine

Our study sheds light on the role of sociospiritual factors in people's understanding of illness and health, and how they influence the choices people make to attain health or healing.

Recognising the role of sociocultural nuances – from prayer to ritual – may not only enhance mental health for people with chronic illnesses, but also truly improve physical outcomes. For example, a study among cancer patients found that patients who reported a greater overall religiousness and spirituality had better physical health, greater ability to perform their usual tasks and fewer physical symptoms of cancer and treatment. Spirituality has also been important in helping patients retain social roles and relationships in the face of illness.

Thus, integrating sociocultural nuances within biomedicine could afford patients a more complete form of care, bringing together biological, psychological, social and spiritual approaches.

Source: The Conversation, 27 February 2022. <https://theconversation.com/god-and-illness-for-some-south-africans-theres-more-to-healing-than-medicine-176180>.

Future infectious diseases: Recent history shows we can never again be complacent about pathogens

Gerry Wright, *professor of biochemistry and biomedical sciences, McMaster University*

As we move into the third year of the global pandemic caused by COVID-19, it's important to ask what we have learned and what we have done to prepare for the next infectious-disease crisis.

It could be an outbreak of Lyme disease, an epidemic of measles or another full-blown global pandemic of influenza or coronavirus. It could be a threat that emerges from the ongoing challenge of antimicrobial resistance and the steadily fading power of established antibiotics.

One thing is certain: COVID-19 will not be the last challenge of our time, and even while we are striving to tame the current pandemic, we need to prepare for the next challenge, using evidence and knowledge.

Infectious diseases

For most of human history, infectious diseases have been the leading cause of death, preying mainly on the very young, the old and the most vulnerable among us. Scientific advancements in the 20th century reversed this historical trend – at least for a time.

Our ability to control infection through public health measures such as clean water, and by developing vaccines, antibiotics, and antiviral and antiparasitic agents has changed the way we live – and the way we die.

Statistics Canada data show that controlling infectious diseases has bought us more than two decades of extra life, on average. It's a remarkable achievement, and as a result, diseases of ageing – cancer, cardiovascular illness, chronic ailments and degenerative neurological diseases such as Alzheimer's – are now the major causes of death.

What we should have learned over the last few decades, however, is that our control over infection is illusory, and that we remain vulnerable.

The 1970s saw the emergence of swine flu and Legionnaire's disease. The 80s brought HIV/AIDS, the 90s witnessed Ebola and the early 2000s brought the return of influenza with H1N1, the first SARS crisis and Middle East respiratory syndrome (MERS).

During that same period, the pharmaceutical industry put antibiotic discovery on the back

burner, favouring the invention of more profitable treatments for chronic diseases, with their endlessly renewable prescriptions.

Without alternatives to penicillin, antimicrobial resistance has become, like climate change, a slow-moving but inexorably advancing global crisis.

Infection control

The current pandemic has forced governments, public health officials and the healthcare sector overall onto a prolonged emergency footing, showing us very clearly that we cannot take infection control for granted.

At the same time, we have been able to benefit from ongoing advancements in fundamental research and development. These advancements have enabled swift response to the current crisis, with multiple vaccine platforms, do-it-yourself diagnostic tests featuring unprecedented sensitivity, new antiviral drugs and antibodies and the real-time production of robust evidence and information to keep pace with every turn in the pandemic saga.

Information technology has developed with amazing speed, providing the opportunity to disseminate critical information instantly. The complete genome sequence of SARS-CoV-2, for example, was available to researchers across the globe well before the COVID-19 virus arrived on their doorsteps.

Still, this same technology has also provided a platform for those who would discredit these scientific advances, oppose public health sector leaders and even interfere with frontline workers caring for patients.

One Health

Infectious diseases are almost always what we call One Health problems. The term refers to the intimate link between human and animal health, agriculture and the environment.

Microbes that cause disease often move easily between reservoirs in the environment, animals and people. Human encroachment into previously remote regions continues at

an alarming rate, exposing us to previously isolated viruses, bacteria and parasites.

Climate change is creating new vectors to spread these diseases, such as ticks and mosquitoes migrating into newly warmed environments.

As climate change continues and the demand for nutrition grows, strains on the environment will generate new infection challenges. Seeing three unique, novel coronaviruses (SARS, MERS and SARS-CoV-2) jump from environmental reservoirs into humans in the space of two decades should have spurred us to be vigilant, alert and prepared, yet we still aren't ready enough.

Complacency

Public health infrastructure, research into infectious diseases and the development of new therapies have been neglected for decades.

Before the pandemic, our increased lifespans and ability to neutralise some infections with preventions and treatments had lulled us into complacency regarding the infectious diseases we had once rightly feared.

With such easily accessible global travel and a standard of living that relies on international trade, turning back the clock is impossible.

We must anticipate and prepare for more outbreaks, epidemics and pandemics.

We need to establish robust research networks and be able to mobilise them quickly when new problems emerge.

We need to invest in biomedical and biomanufacturing infrastructure that can respond urgently to these challenges, enabling us to rapidly produce new vaccines and drugs.

If we do not invest continuously in these platforms, we will doom ourselves to still more crises that we could have anticipated and prevented.

Source: The Conversation, 2 March 2022. <https://theconversation.com/future-infectious-diseases-recent-history-shows-we-can-never-again-be-complacent-about-pathogens-177746>.

A new era of climate action calls for climate doctors

Stefan Wheat, Jay Lemery

Over the past year, we have borne witness to the accelerating health effects of climate change, and how it is undermining global public health. We have seen the most comprehensive reports yet showing that our ecosystems are under such stress that widescale human suffering is all but a certainty.

Despite years of sobering warnings of this existential threat and the clear human health implications posed by climate change, the medical community has been slow to respond, offering little training in medical schools or early medical career programmes on climate-linked illnesses. And limited medical research has been conducted in this area. Yet health is increasingly an important lens through which to measure the effects of climate change – making climate change more salient and tangible to the public and policy-makers.

COVID and climate change

The COVID-19 pandemic has exposed the inadequacies of our public health system to perform the most basic functions of its mission, but on the other hand, it has revealed society's capacity to rally for collective actions that protect our health. We have reached an inflection point – a moment when a response to climate change is called for. Consider the past year: the Biden administration in the USA has placed climate and health at the forefront of its policy agenda, and the National Academy of Medicine (NAM) launched its "Grand challenge on climate change, human health, and equity", which it describes as "a multi-year global initiative to improve and protect human health, wellbeing and equity by working to transform systems that both contribute to and are impacted by climate change". It explicitly identifies education about the climate crisis as a public health and equity crisis as one of its strategic objectives. The 2021 UN Climate Change Conference (COP26) meeting in Glasgow, Scotland – often maligned as incommensurate with the urgency and scale of the need – was widely viewed as the first COP conference where health played a prominent role, and it included a high-profile meeting, convened by the WHO, at which nations, including the USA, committed to healthcare decarbonisation and climate resilience.

We are encouraged by this movement toward meaningful climate action at the national and international levels, and the increased recognition of the greater imperative to act upon record heat exposures, flooding episodes, wildfires, hurricanes and forced displacement – which all place, and will place, new demands on global health systems. But the medical profession is suffering a knowledge gap: who within medicine has the expertise, credibility, knowledge and leadership skills to synthesise this complex landscape and craft a path forward?

Resilient health systems

The Lancet declaration bears repeating: climate change not only represents the greatest threat to global health of the 21st century, but also the greatest opportunity. Climate change disproportionately leaves its mark on certain vulnerable populations and exacerbates systemic inequalities, and our response to the climate crisis affords us the opportunity to rebuild our health systems to be more resilient, socially just and equitable. The process of building climate-resilient health systems constitutes one of the most profound and complex challenges ever confronted by the healthcare community. As with any humanitarian response, this process must be informed by and take into consideration local structures of healthcare governance and implementation. Restructuring healthcare systems must involve stakeholders, including physicians, who can guide the process and ensure a safe and patient-oriented transition.

Greening the house of medicine

At the recent COP26 Conference in Glasgow, assistant secretary for health for the US Department of Health and Human Services, Dr Rachel Levine, pledged to ensure a low-carbon, equitable and resilient health system as part of the nation's broader set of COP26 climate commitments. The pledge includes a reduction in emissions at federal health facilities, and will provide incentives, guidance and assistance to private healthcare systems.

President Biden's recent executive order, "Catalysing clean energy industries and jobs through federal sustainability",

operationalises this vision. However, uncertainties remain on which incentives or regulations will be brought to bear to realise the goal of healthcare system decarbonisation. The NAM "Action collaborative on decarbonising the US health sector" represents one path forward. This climate collaborative seeks to address

Educating this generation of physicians in climate resilience is critical

the significant greenhouse gas emissions of the healthcare sector while simultaneously strengthening the sector's resilience to climate hazards. Here again, physicians from all specialties will be important stakeholders in shepherding the transition, helping to develop new approaches that still ensure safe and equitable healthcare delivery. If doctors want to help direct this transformation of the healthcare sector to inform smart, patient-centric policies, then it's time to scale up our own workforce through education, and close this leadership gap.

A path forward

Physicians are particularly well-positioned to address issues at the intersection of climate change and health equity. In 2017, the University of Colorado School of Medicine developed a novel graduate medical education fellowship in climate and health science policy designed to train a new generation of physician leaders and equip them with the skills to tackle this far-reaching crisis. Fellows are embedded in major federal policy organisations, including the Environmental Protection Agency, the US Global Change Research Program, the National Oceanic and Atmospheric Administration and the Office of Climate Change and Health Equity at the Department of Health and Human Services. Fellows also partner with non-profit organizations, such as the Nature Conservancy and others, to become fluent in utilising multi-modal strategies to engage the public and other physicians on issues at the intersection of climate and health.

The success of the pilot cohorts, coupled with the adoption of the virtual classroom and workplace, facilitated expansion of this model programme to a national fellowship model, hosting five fellows in various medical specialties.

However, the efforts of this fellowship are slim compared with the growing need for skilled clinicians capable of navigating the dizzying interplay between public health, geopolitics, earth science, government and medicine. A recent editorial, published in 200 international health journals, including *The Lancet* and *The New England Journal of Medicine*, warned of “catastrophic harm to health that will be impossible to reverse”. Such a warning should serve as a call to arms for health professionals. But it also implies an impending workforce shortage in climate-related health roles.

There are some sparks of educational innovation available to clinicians, including codification of core competencies for health professionals at Columbia University, a global nursing initiative through Health Care Without Harm, a public health-based certificate course at Yale and a comprehensive diploma in climate medicine at the University of Colorado. The UK National Health Service leads in scalable training impact through its

chief sustainability officer’s clinical fellowship, offering clinicians a 12-month apprenticeship to develop their leadership skills and positively impact the NHS’s “green agenda”.

COP26 was widely viewed as the first COP conference where health played a prominent role

Despite these nascent efforts, a boots-on-the-ground workforce of climate-savvy clinicians will remain conspicuously absent for the foreseeable future.

In the 1980s, the International Physicians for the Prevention of Nuclear War (IPPNW) and its US affiliate, Physicians for Social Responsibility (PSR), rallied health practitioners behind a common, essential purpose: to help patients and the broader community better understand the extraordinary danger posed by nuclear weapons. The critical role physicians played in building public awareness and placing pressure on governments to end the nuclear arms race was recognized when

the IPPNW and PSR were awarded the Nobel Peace Prize in 1985. Physicians are now faced with a similar existential threat in the form of climate change. The critical difference is that climate change is already harming the health of people around the world.

As the USA and other nations mobilise to respond, physicians will need to help craft the narratives and policies that build climate resilience in the context of a post-pandemic world. Climate doctors can be trusted resources and advocates for climate-resilient policies, help health systems adapt to climate shocks, credibly address deeply rooted environmental justice issues and effectively lead healthcare systems to decarbonise. Even during the height of discord during the pandemic, our healthcare workers were universally recognised and praised for their professionalism and indefatigable support of communities under threat. We hope that a new generation of physicians will be inspired to help elevate the voices of our healthcare workforce to promote patient-centric climate education, clinical practices and policies that address the unprecedented challenges to come.

Source: Think Global Health, 15 February 2022. <https://www.thinkglobalhealth.org/article/new-era-climate-action-calls-climate-doctors>.

Overcoming the challenges of rare disease diagnoses

SAMA Communications

Patients with rare diseases present unique challenges to healthcare professionals (HCPs). Obstacles to caring for them include diagnostic delays and a lack of information, expertise and treatment options for many rare diseases. HCPs play a vital role in enhancing the quality of life for patients and families living with a rare disease, by making appropriate referrals to specialists, helping to co-ordinate care, and assisting patients in obtaining the proper support. A disease is defined as “rare” when it affects fewer than 1 in 2 000 people.

Over 7 000 rare diseases have been described to date, affecting over 350 million people worldwide. While most (70 - 80%) rare diseases are genetic and inherited, some may be acquired, and 70% are exclusively paediatric in onset.

Recent surveys show that those living with rare diseases have a significantly higher

prevalence of anxiety and depression compared with the general population. Levels of high stress can become even worse for carers when the person they are supporting has a diagnosis with no available treatment option.

Monique Nel, medical advisor – rare diseases at Sanofi, says: “Sanofi has been dedicated to researching and developing innovative treatments for rare diseases for 40 years. Currently, Sanofi has one of the largest rare diseases pipelines in the industry, across multiple diseases and modalities.”

“Our rare disease patient registries have grown to represent one of the largest collections of real-world data for rare diseases collected over the past 30 years. We have a presence in 68 countries worldwide, with more than 920 participating sites and more than 17 800 patients enrolled.”

These registries have helped researchers to publish studies describing the underlying

biology of disease, identify risk factors impacting treatment outcomes and share guidelines for monitoring and treatment.

A further useful resource for HCPs and patients is the list of rare diseases maintained by the Genetic and Rare Diseases Information Center of the US National Institutes of Health.

Says Nel: “We understand the difficulty that healthcare professionals face when it comes to patient diagnosis of a rare disease, and that a co-ordinated approach to diagnosis and care for people living with rare diseases is needed. Rare diseases deserve the same amount of time, resources and dedication to finding effective treatments and therapies as any other conditions, which is a mission that Sanofi strives to promote every day, to help HCPs to improve diagnosis.”

References available on request.

How to protect yourself from the Tinder Swindler

SAMA Communications

The global hit Netflix documentary “The Tinder Swindler” has sparked massive debate and interest around the lies and swindling of Simon Leviev, with many commenting that “the women should have known better.”

However, psychiatrist Prof. Renata Schoeman, head of the MBA Health Care Leadership programme at the University of Stellenbosch Business School, says it is not as straightforward as assuming the women were merely gullible.

The exploitative tactics used by Leviev, real name Shimon Hayut, to identify vulnerable targets, and his predatory drive for domination, financial extortion and deceit, indicate psychopathic behaviour.

“It’s enormously difficult to catch a psychopath in the act. They are pathological liars and purposefully deceive people to conceal their *modus operandi*. They strategically plan their deceitful stories and use their superficial charm to get one addicted, leaving you doubting your valid suspicions and ending up as the victim.”

Prof. Schoeman points out that psychopaths are ruthless when pursuing something that they want, without any concern for those around them.

“They are very status conscious and their behaviour involves extreme egocentricity, severe lack of empathy for the feelings of others and a willingness to engage in immoral behaviour for short-term gains, exploiting others while doing so.

“Many will claim that something similar could never happen to them, yet cases such as these are not as uncommon as we think. Psychopathic behaviour is also not only reserved for romantic encounters; psychopaths stalk office corridors too, with lasting mental health impacts on their victims.

“The manipulation, deception, inflated self-opinion and back-stabbing of the corporate psychopath can cause work-related depression, anxiety disorders, burnout and physical illnesses, conditions that cost the SA economy more than ZAR40 billion annually,” Prof. Schoeman said.

She said that Leviev’s deceit, manipulateness, indifference to the consequences of his actions, superficial charm, lack of empathy and lack of remorse are all classic signs of a psychopath.

“Psychopaths tend to have a higher IQ and are more conscientious than those with a criminal record. They are less impulsive, negligent and

irresponsible, and are really good at covering their tracks,” she said.

“Leviev is obviously a charismatic man who knows just when to turn on the charm and when to display what appears to be genuine vulnerability. His deception has been thorough, luring his victims by going to great lengths to portray a credible profile of success and a lavish lifestyle that would attract their interest and admiration. It was all premeditated and extremely well planned.”

In what she calls “the curse of confidence”, Prof. Schoeman comments that many of the characteristics of psychopaths – such as charm, fearless dominance, boldness and a “grandiose sense of self” – are also traits that help people to get ahead in business and in life, making it sometimes difficult to identify the true psychopath. “Successful psychopaths have the ability to very tactically assess the psychological strengths and weaknesses of those around them, manipulate others to bond with them by feeding them carefully crafted messages, using their victims’ feedback to build and maintain control, and then abandoning them when they are no longer useful.

“They are extremely efficient at using and manipulating communication networks to enhance their own reputation, creating and maintaining conflicts and rivalries among acquaintances or colleagues and creating a sense of trust with those they encounter. They are excellent at spreading disinformation, while covering up their own association with this false information,” she said.

The warning signs

Psychopaths can disengage and detach themselves from relationships just as quickly as they attached themselves in the first place. Due to their inability to truly connect with people, they will abruptly, coldly and ruthlessly drop anyone if they are not useful any more. They have superficial charm and a false, inflated sense of self driven by their disproportional ego, along with a sense of entitlement.

Psychopaths show a need to impress you or those they meet. Look out for patterns of steering or starting conversations that would positively influence your opinion of them. They are incapable of love or showing remorse. They may display excessive impulsivity and, at times, reckless behaviour. Psychopaths also experience sudden rages when you cross them or things

don’t go their way; however, they display cool, calculated calmness in times when other people might be under stress.

Look out for constant conversations about their own achievements and good fortune, with a preference for discussions that centre around the materialistic. Most people have holistic conversations – about something they read, their family or friends or their journey in life. Also be aware of patterns of calculated manipulation of people or situations for their own benefit.

Watch their body language – most people mimic behaviour, in that if someone, for example, speaks softly, you will too. Psychopaths, however, lack empathy, so they will be oblivious to signs like these and will not adjust to the situation.

They will have unstable relationships, or a lack of any relationships. Psychopaths are not able to maintain friendships, don’t have good ties with their family and have no mutually appreciative long-term connections. Their relationships are shallow and purely for the short term in order to reach their self-serving goal. Psychopaths rarely share their journey, goals or dreams with you. They have a calculated plan and want to make sure you are not privy to this information, in case you become suspicious, or worse, you steal their idea.

How do you safeguard yourself?

- If it seems too good to be true, it probably is.
- In romantic relationships, keep some mystery about yourself, and refrain from sharing too much, too soon.
- Don’t move too fast in a relationship – even if he has a jet, take your time before joining him on a trip.
- Trust your gut – if you feel that you are being manipulated, you probably are.
- Seek out the opinion of your friends and family, and in the office context, your colleagues or a mentor. They can be objective and offer perspective to help you stay true to yourself.
- Romance can literally sweep one off one’s feet! But try to stay level-headed, maintain your independence and don’t attach yourself to this person’s life too quickly.
- If you suspect anything untoward, keep a record of all communications.
- Never part with your personal information or money at the start of a new relationship. You can offer support without putting yourself at risk.

Finding the right fit: Why SA won't be using this COVID pill

Aisha Abdool Karim, senior health reporter at Bhekisisa

A new COVID treatment pill called molnupiravir works (it makes you less likely to end up in hospital with the disease or die of it). But will it work for us?

A committee of experts that advises the government on treatment choices says no, despite it having been approved in SA in February.

It's not because molnupiravir isn't a good drug – in fact, the WHO backs it (albeit with some conditions). But it's not the right drug for SA's public health sector. This means that the government will likely not be rolling it out at state clinics.

In SA, there are two bodies that have a say about whether a COVID treatment could be available in the country.

The first is the SA Health Products Regulatory Authority (SAHPRA), which looks at whether a medication is safe and effective. For the public sector, there is another group: the National Essential Medicines List Committee on COVID-19 Therapeutics (COVID-19 NEMLC), whose role is to say whether a COVID drug would be a good option for SA.

But even if both SAHPRA and this advisory committee back a medicine, it's then still up to the national or provincial health departments to choose whether to actually buy it or not.

Understanding the system

SAHPRA makes sure that every type of health product in SA – things like medicines, vaccines, supplements, diagnostic tests or medical devices – is safe, works the way the manufacturer says it does and is of good quality. Without SAHPRA approval, a health product cannot be sold legally in the country.

For the review process, a manufacturer has to provide a stack of paperwork that includes the raw data for all the clinical and quality tests done up to that point.

Properly assessing a product “means looking at absolutely everything”, Marc Blockman, a professor of clinical pharmacology at the University of Cape Town, previously told Bhekisisa.

That means that every piece of information available is given to the regulator to look through, from cell and animal studies to the human trials and quality control tests. Providing raw data also means that reviewers



are able to assess much more than would be published in a scientific journal.

But going through everything in that level of detail can take some time, which is why some reviews may take longer than others.

“You can't sacrifice safety for speed,” explains Blockman.

SAHPRA can use something called a reliance mechanism, which allows them to look at the analysis by another trustworthy regulatory body, such as the US Food and Drug Administration or the European Medicines Agency, to help them make their decision faster.

If a product is considered safe and effective and meets SAHPRA's requirements, it gets approved for use in the country.

Finding the right fit

Getting SAHPRA approval is the first test any medicine has to pass to get rolled out in the country. But when it comes to COVID treatments (which exclude vaccines), the expert committee set up specifically during the pandemic looks at whether it will be practical for a specific drug to be used in SA.

They ultimately consider whether the potential benefit from the drug would be worth the money and effort needed to dispense it at clinics or public hospitals. Although the final say about buying a drug lies with the health

department, the committee's input helps the government to decide whether or not it will be money well spent.

Since April 2020, the committee has looked at 26 possible COVID treatment options, and submitted their recommendations to the department.

They keep their eye on a “watchlist” of possible drugs, says committee chair Andy Parrish. If new data are published, in the form of a scientific paper or a regulatory review, a treatment can move up the evaluation list if the evidence about its safety and how well it works (efficacy) is sound.

And that's exactly what happened at the end of last year, when the results of a clinical trial of molnupiravir, which involved close to 1 500 participants, were published in *The New England Journal of Medicine*. The study found that the drug would benefit 3 people for every 100 who received it.

But even though the results showed that the drug is safe and effective, and SAHPRA has since approved the brand-name version of the pill, called Lagevrio, the advisory committee did not recommend it for use in SA.

Why molnupiravir isn't right for us

To approve a drug, SAHPRA only needs to confirm that it's safe and works as the

manufacturer claims it does. Molnupiravir ticks both these boxes.

The pill is meant to lower the chance of someone who is unvaccinated and has a high risk of getting very sick from COVID ending up in hospital or dying. And in that group of people, it works.

However, when the COVID-19 NEMLC looks at the efficacy of a drug, they consider how many people will benefit from within a SA environment.

And, for a pill that could only help **3 people for every 100 treated**, molnupiravir came with a few too many conditions.

1. The available data only apply to unvaccinated people

Molnupiravir was tested only in unvaccinated people who had a high risk of getting very ill because they were elderly or had another health condition such as diabetes.

Although the clinical results showed that the drug can protect people in this group against serious illness, it's unclear how much it would benefit people who already have some immunity from being vaccinated.

"There just isn't data on the population that we're interested in at the moment," explains Parrish. This includes people who have either been vaccinated or have developed natural immunity through exposure to the virus, which is estimated to be **at least 60% of South Africans**.

Just over **two-thirds of people older than 60** have already been vaccinated in SA, and can also **get booster shots**. This means that the pool of people the drug would help the most (because **age is the strongest indicator** of how sick someone will get with COVID) is already quite small.

But vaccinated people can still get infected with the COVID virus (these are called breakthrough infections), as we saw **during SA's Omicron wave**. That means we would **need more information** around how well molnupiravir works in those who are already immunised.

Things might change, though. As the drug is rolled out in other countries, new data could be published on how well the pill works in vaccinated people. If that happens, the committee will re-assess whether they should change their recommendation.

2. It's not clear if the drug will be safe for pregnant women

Clinical trials **generally don't include pregnant women** because of unknown effects

on a developing fetus. So there isn't any information yet about how the medication affects this group.

But animal studies have thrown up **a red flag**. Merck, the original developer of the medication, reported that studies in rats and rabbits found that the drug could lead to **developmental problems with the fetus**, such as bones or some organs not growing correctly, and in some cases, death.

Because of these safety concerns, SAHPRA (along with **other regulatory bodies**) **approved molnupiravir on the condition** that it should not be given to pregnant women. Another rule is that women who could get pregnant should be on contraception while taking these COVID pills, and for another 4 days after finishing the treatment.

This is a responsible condition for a regulator to put in place, but it makes implementation impractical.

Why? Every woman who'd need the treatment would either have to be screened to make sure she's not pregnant, or be sure to use some form of contraception, which could add additional pressure on the public health system (for example by having to prescribe birth control or doing extra tests).

Parrish explains that the advisory committee had to consider the practical implications of rolling out the treatment. "So that's where things become very problematic," he says.

3. The window from testing to treatment is very small

For molnupiravir to lower your chances of falling very ill from COVID, you have to start taking the pills **within 5 days of showing symptoms**. This means you have to get tested and get a confirmed result within that period.

In general, it takes **around 1 day to get a COVID test result** in SA. But Parrish says that based on their experience, the wait can be longer in the public sector. The longer it takes to know if you have COVID, the less time there is to start taking the tablets.

In addition, the drug can only be used in people who have mild to moderate symptoms. So if you're in hospital already, it's too late for the pills to work.

This introduces a potential problem, as it's uncertain whether people with few symptoms will get tested soon enough, or whether they'd even want to take the medication given that they are not yet seriously ill.

An **ongoing analysis** that monitors infection levels in SA shows that only around 10% of actual COVID cases in the country are reported. That's because many people have no or only mild symptoms, and so don't bother to get tested.

4. It comes with an unknown price tag

Buying the brand-name pills (which is the version currently approved by SAHPRA) will likely be pricey.

Based on how much the USA spent on the medicine – it **could cost up to ZAR10 000 to treat one person** with molnupiravir – **the SA health department is unlikely to be able to afford it**.

Although cost is not the most important factor when it comes to the advisory committee's recommendation, it can play a big role in whether the health department decides to buy the drug.

For example, last year the committee **recommended a medication called baricitinib** as a suitable COVID treatment option. But despite **strong evidence** backing its use, including support from the **WHO** and a **positive recommendation** from the COVID-19 NEMLC, it never actually made it to public hospitals and clinics.

That's because even with the go-ahead from the national health department, it was up to each province to decide if their budget would allow for the extra expense, says Parrish.

Could SA still buy it?

Although a cheaper, generic version of the brand-name molnupiravir pill **could become available**, the government can't even consider buying it until it too gets SAHPRA's stamp of approval.

And even then, the health department's communications director, Foster Mohale, says: "There is no immediate decision and plan to procure the treatment because the evaluation showed that it is not significantly better than how we treat COVID-19 at the moment."

But this constraint does not apply to the private sector, because they're not bound by the advisory committee's recommendations.

Says Parrish: "The bottom line is that the private sector has no obligation whatsoever to even read, let alone follow, a recommendation in the public sector."

*This story was produced by the **Bhekisisa Centre for Health Journalism**.*

South Africa's mRNA hub progress is foundation for self-reliance

World Health Organization

In February, Dr Tedros Adhanom Ghebreyesus, Director-General of the WHO, Buti Manamela, Deputy Minister of Higher Education and Training of SA, Dr Blade Nzimande, Minister of Higher Education, Science and Technology of SA, Dr Joe Phaahla, Minister of Health of SA and Meryame Kitir, Minister of Development Co-operation and Urban Policy of Belgium visited a number of public and private sector partners that are collaborating to develop and build the WHO's global mRNA vaccine technology transfer hub in SA.

For most of 2021, limited global vaccine supply led to huge disparities in COVID-19 vaccine access, leaving billions of people – especially in low- and middle-income countries (LMICs) – unprotected against serious disease and death from COVID-19. Low levels of vaccine coverage also provided the ideal conditions for new variants to develop. While supply has now increased, access to any new formulations of COVID-19 vaccines – tailored specifically to new variants – will likely also be inequitable, because manufacturing capacity remains limited to only a small handful of companies and countries.

"COVID-19 has demonstrated the importance of investments in science, technology and innovation. Therefore, preparing for future pandemics is key, and so the WHO mRNA global hub is a critical building block to ensure that SA and the whole continent has the production capacity that is essential for equitable vaccine rollout," said Dr Blade Nzimande. "The mRNA technology is not only for COVID-19, we hope it can be adapted to help us in the fight against HIV, TB and malaria, which is why we're investing heavily, alongside international partners, in this initiative."

Based on the vision of the governments of SA and France for diversifying vaccine manufacturing, and specifically accelerating vaccine production in Africa, a consortium including the Medicines Patent Pool, Biovac, Afrigen Biologics and Vaccines, SA's Department of Science and Innovation, the SA Medical Research Council, a network of universities and the Africa Centres for Disease Control and Prevention are driving the initiative forward.



Dr Tedros Adhanom Ghebreyesus, Buti Manamela, Dr Blade Nzimande, Dr Joe Phaahla and Meryame Kitir visited a number of public and private sector partners that are collaborating to develop and build the WHO's global mRNA vaccine technology transfer hub in SA



Tedros Ghebreyesus WHO Director-General and Meryame Kitir, Belgian Minister of Development, watch a vial-labelling machine at work, during a visit to Biovac in Cape Town

The central aim is to develop a training facility where mRNA technology is developed to the scale required for mass production of vaccines, and then for that full package of technology to be transferable to multiple recipients in LMICs.

"We're not out of the woods yet, and we are likely to be hit by new COVID-19 variants and a fifth wave that coincides with our winter season, which would compound our flu and cold season. However, we can reduce the impact by ensuring most people are vaccinated, especially the most vulnerable groups," said Dr Joe Phaahla. "The new hub is not just for SA: it provides a one-stop shop for LMICs across the world to benefit from

the technology transferred, along with the know-how, so they can also produce mRNA vaccines, which is critical if we are to end vaccine inequity."

Afrigen, which is part of the WHO's mRNA consortium, gained international plaudits as it announced it had developed its own version of an mRNA shot, based on the publicly available data on the composition of the Moderna COVID-19 vaccine, which will be tested in the coming months.

"This virus shows how interconnected we all are, and I am proud that Belgium – and other EU countries – are now collaborating to build vaccine capacity everywhere," said

Meryame Kitir, Minister of Development Co-operation and Urban Policy in Belgium. "Going forward we need more sharing of licences, technology transfer and know-how so that in this pandemic and future ones, we can roll vaccines out quickly and equitably to the whole global population."

The mRNA global hub is designed to serve LMICs, and will empower countries not only to make their own mRNA vaccines, but ultimately to have the choice of which vaccines they want to make. Manufacturers from LMICs are therefore encouraged to express their own interest so they can receive training, technology transfer and any necessary licences. The WHO and partners will bring in the production know-how, quality control and necessary licences to a single entity to facilitate a broad and rapid technology transfer to multiple recipients.

"The pandemic has highlighted the need for increased local production of vaccines

globally, especially in LMICs," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "The WHO mRNA global hub is a major step in that direction, by sharing technology and building on the capacity and scientific expertise that already exists in SA."

The global hubs will act as training facilities where technology is established at industrial scale, and clinical development performed. The WHO will complement this activity and assist other countries in Africa and other LMICs to strengthen biomanufacturing capacity as well as regulatory capacity.

Dr Matshidiso Moeti, regional director of the WHO Regional Office for Africa, said: "The mRNA hubs provide an unprecedented opportunity for capacity development, putting Africa on the path to self-reliance. This initiative will enable the continent to better protect against outbreaks, control the COVID-19 pandemic and develop new vaccines, accelerating the elimination of deadly diseases such as HIV,

malaria and TB. We are opening the door to better health and wellbeing for our people."

"At Medicines Patent Pool, we are thrilled to be able to offer the mRNA hub our expertise on intellectual property management and voluntary licensing. It is impressive how working in partnership and in a very short time, we have established the firm base from which this new technology can be shared across LMICs," said Charles Gore, executive director, Medicines Patent Pool. "The SA government and partners have shown extraordinary commitment, and of course this has only been made possible thanks to our funders, who through rapidly mobilising resources have demonstrated such strong support for the project."

The visit included the Centre for Epidemic Response & Innovation, which is at the heart of SA's world-class viral genomics surveillance programme, meetings with civil society groups and visits to vaccination centres in Cape Town.

Moderna set for clash with WHO over SA COVID patent applications

SAMA Communications

There's a clash looming between Moderna, the SA government and the WHO over patent claims that could threaten Africa's access to COVID-19 vaccines, writes Bloomberg.

Health and relief groups such as Doctors Without Borders (MSF) have appealed to the vaccine-maker to abandon three patent applications filed years ago in SA, saying they could impede a WHO-backed effort to make messenger RNA (mRNA) shots for low-income countries at a hub in Cape Town.

The patents give Moderna the right to stop anyone from making or selling an mRNA vaccine in SA, said Charles Gore, the director of the Medicines Patent Pool, which is helping the WHO to establish the mRNA hub.

Bloomberg reports that Moderna has already rebuffed Afrigen Biologics & Vaccines, part of the mRNA hub, when it asked for assistance to produce a low-cost version of the vaccine for distribution in poor nations. While Afrigen now says it can make the shot based on publicly available information,

Moderna's patent filings in SA hang over the humanitarian effort.

The drug-maker had originally said it would not enforce its patents during the pandemic, and that it was "committed to continuing to be part of the solution in terms of the equitable access" to COVID-19 vaccines, and its intellectual property (IP) would not "create a barrier to equitable mRNA COVID vaccine access in those countries most in need".

But vaccine advocates say that Moderna can decide on its own when it sees the pandemic as having ended, at which point it could potentially try to legally block copycat vaccines. It might then ask Afrigen to pay for a commercial licence, hiking the cost of the shots for some of the world's poorest nations.

"Our preference is a royalty-free voluntary licence for low- and middle-income countries, or a revocation of that claim," said Afrigen MD Petro Terblanche.

SA's patent office is at the root of the problem, as it accepts applications without scrutiny as long as the paperwork is in order

and the fees are paid, said Jetane Charsley, a director of regulatory and compliance affairs at the government's National Intellectual Property Management Office. In most other countries, patents are examined, and rejected when they are too broad.

Moderna's patents, which will start expiring in 2034, cover the method of production of an mRNA vaccine and gene sequences used in that vaccine.

Nicholas Crisp, deputy director-general in the SA Health Department, said if no solution is found, the government might try to revoke the patents or issue a compulsory licence, allowing the hub to produce an mRNA vaccine. Both could lead to long, expensive procedures.

Sources: Bloomberg, 4 March 2022. <https://www.bloomberg.com/news/articles/2022-03-04/moderna-who-set-for-vaccine-clash-as-patents-threaten-mrna-use>. Medical Brief, 9 March 2022. <https://www.medicalbrief.co.za/moderna-set-for-clash-with-who-over-covid-patent-applications-in-sa/>.

Volunteers proactively support holistic rural healthcare through outreach programmes

SAMA Communications

Busisiwe is 9 years old. She lives in rural Acornhoek in Mpumalanga, and she attends her local school. Unfortunately, she struggles to see what her teacher writes on the blackboard, and her writing, spelling and reading skills are suffering. By the time she's 12 years old, she will be a few years behind her peers. By the time she's 17, it will be a challenge to pass matric.

Busisiwe's situation is far from unique. If she lived in an urban area, her eyesight would be tested during routine eye exams at her school. She would already have glasses, and her school career would be taking a completely different direction. Unfortunately, there are many healthcare challenges that rural areas face, from local healthcare capacity to the distances that parents must travel to access healthcare. The result is that proactive healthcare is often not an option.

For Busisiwe, this means not receiving the glasses she needs. For some of her classmates, it means not receiving TB medication, or not having a treatable illness diagnosed. Busisiwe and her friends face another challenge as well. For many of them, one meal per day is normal, and they are growing up and trying to concentrate at school without sufficient nutrition, even though many of their parents work long hours and some even hold more than one job.

"Across SA there are dedicated school nurses, hospitals and community health workers who focus on outreach programmes that go into rural communities to provide proactive healthcare," says Dr Inez Allin, clinics co-ordinator at Tshemba Foundation. "These programmes screen for TB, HIV and COVID, and perform routine healthcare checks. The challenge is capacity – SA's rural areas are vast and populous, and seeing everyone regularly is difficult."

The COVID-19 pandemic has diverted already-scarce resources as well, with the necessity for screenings and vaccinations overburdening already stretched school outreach programmes.

To support the existing infrastructure as much as possible, the Tshemba Foundation, a medical volunteer programme that attracts healthcare professionals from around the world to share their knowledge, skills and



experience, is now focusing on an outreach programme over and above the volunteers who routinely spend time at Tintswalo Hospital, the district hospital in Acornhoek.

Rural communities have broad healthcare needs

"When the Tshemba Foundation was launched, our focus was on bringing general doctors and specialists to Tintswalo to support diagnostics and surgeries in the hospital. Over the years, this has grown into a far more holistic and long-term vision for the region," says Godfrey Phillips, co-founder and director at the Tshemba Foundation and the founder of the foundation's outreach programme.

"We no longer want to only support the medical side of healthcare. Our goal has grown to have a more holistic, long-term impact on the community, by laying the foundations for happier, healthier and better-educated children. This first step is currently in progress. Tshemba and our volunteers are going into local communities, visiting schools and working with local support structures to deliver proactive health screenings. Long-term, however, our goal is to establish permaculture programmes that feed more children at schools, giving these communities the foundations to nutritionally feed themselves.

"We also want to bring learning development specialists and psychologists into these areas to help teachers identify and support children with learning and behavioural difficulties. Right now, many classrooms hold up to 100 students. The

burden teachers are under is extreme, and children are slipping through the cracks. The beauty, however, is that there are so many volunteers who can add value if we can connect them and build long-term programmes and training initiatives. We can change these communities from the ground up, and provide thousands of children with a better future."

Building communities from the inside out

"Outreach programmes are an important element in primary healthcare," explains Dr Allin. "Rural communities face many barriers to accessing healthcare. Children cannot take themselves to clinics, and most caregivers struggle to take the time off work to travel long distances to their local clinic or hospital. Transport can also be prohibitively expensive, and this is even if someone wants to go to a clinic or hospital. Many residents will only go to a healthcare facility once they are extremely ill – often too ill to receive care. This has led to distrust of hospitals, which creates even more barriers."

The result is that treatable illnesses go undiagnosed without outreach programmes that go into communities, taking healthcare to the people instead of waiting for the people to come to the healthcare.

"Every volunteer adds immeasurable value," says Phillips. "For example, a generalist doctor who spends 2 days at Tintswalo hospital will also spend 2 days in the outreach programme, and they will not only diagnose patients, but can help educate the community and

motivate healthcare workers, who benefit from fresh, motivated faces as well.

"Things that are taken for granted in urban areas, such as having dental work done or being able to see an ophthalmologist, gynaecologist or a host of generalists, can change a life in a rural setting. We've seen older family members have their sight restored through routine cataract surgery that is anything but routine in these areas, children who are healthier after simple dental work – and whose pain is removed – and young women receiving their first gynaecological exams."

It's a deeply rewarding experience, for Phillips and Dr Allin, but most especially

Become a volunteer with the Tshemba Foundation

While the Tshemba Foundation's volunteer programme is best suited for longer stays, there are short-term opportunities available that can accommodate busy schedules while still maximising the impact of volunteering at Tintswalo and the local clinics in the area and contributing meaningfully to the outreach programme.

for the volunteers who frequently return to Tshemba after their first volunteering experience.

"The graciousness and gratitude of communities who deeply appreciate the support, assistance and care that our volunteers show them is both humbling and a real joy," says Phillips. "We often forget that

the healthcare profession is a calling, in the day-to-day 'busyness' of working. Spending time in areas that are so deeply in need of these interventions reminds us of what our purpose is and how fulfilling it can be."

To find out more, visit <https://www.tshembafoundation.org/volunteer-programme>.

Patient interests top priority for pharmaceutical industry representative body

SAMA Communications

While playing a key role in the fight to control the COVID-19 pandemic, the local pharmaceutical industry, through the Pharmaceutical Task Group (PTG), is responding to existing public health priorities and patient access needs and supporting SA's economic reconstruction and recovery plan.

The PTG is an umbrella body representing more than 80% of the total pharmaceutical business in SA. Member companies are involved in the manufacture or sale and distribution of health products in SA.

In elections held in January, Aspen Pharmacare's Dr Stavros Nicolaou's chairmanship of the PTG was extended for a further year, while Rhulani Nhlaniki, Pfizer's cluster lead for sub-Saharan Africa and country manager for SA, was elected vice-chairperson of the organisation. Nicolaou and Nhlaniki hold the leadership roles in PTG member associations Pharmaceuticals Manufactured in South Africa (PHARMISA) and the Innovative Pharmaceutical Association South Africa (IPASA), respectively.

"The locally-based pharmaceutical industry has played a key role in the containment of the COVID-19 pandemic, and we are now poised to support the economic recovery by continuing to promote access to affordable medicines, as well as contributing to our country's investment and export objectives,"

said Nicolaou. "A sustainable local industry that is fully engaged with society and focuses on the welfare of patients is a constant goal of the PTG membership," he continued.

The PTG promotes growth and investment in the SA pharmaceutical industry, and interacts with relevant stakeholders on behalf of the membership. A key function of the PTG is to interact with the various regulators and

to respond to legislation and regulation as required.

"In making strides towards economic recovery, the underlying need for pharmaceutical interventions to contain the pandemic must be recognised. As the PTG we have set our priorities accordingly, and seek to support the path towards recovery for the country," concluded Nicolaou.

About the Pharmaceutical Task Group (PTG)

www.ptgsa.co.za

The PTG, established in 2004, is an umbrella body that represents pharmaceutical associations on issues of common interest. The associations, in turn, have members that are involved in the manufacturing and/or sale and distribution of health products within SA.

The purpose of the PTG is to consider and to respond to issues of common interest to the member associations and the SA pharmaceutical industry. Some of these issues may be predetermined, and others are determined by the PTG executive committee from time to time.

The members of the PTG contribute toward an environment that promotes growth and investment in the SA pharmaceutical industry. The PTG strives to facilitate broad access to medicines in the best interests of the patient and within the legal framework, while promoting behaviour that adheres to the highest ethical standards and is founded on credibility, trust and transparency.

The following associations are members of the PTG:

- Generic and Biosimilar Medicines of Southern Africa (GBMSA)
- Innovative Pharmaceutical Association SA (IPASA)
- Pharmaceuticals Manufactured in SA (PHARMISA)
- Self-Care Association of SA (SCA).

Compulsory retention of clinical records – a brief overview of POPIA and the HPCSA Ethical Guidelines

Hanneke Verwey, *senior associate, MacRobert Attorneys*

While it is common knowledge that healthcare practitioners have a duty to keep health records and to retain these for a period of time, there is often some doubt regarding the exact retention periods prescribed in law. There is also some uncertainty among practitioners regarding the implications of the Protection of Personal Information Act (POPIA) No. 4 of 2013, and whether the Act has amended the position under the HPCSA's Guidelines on the Keeping of Patient Records (booklet 9, 2016).

According to the HPCSA's guidelines, "health records" refers any relevant records made by a healthcare practitioner at the time of or subsequent to a consultation and/or examination, or the application of health management. Health records include, but are not necessarily limited to the following:

- handwritten contemporaneous notes taken by the healthcare practitioner
- notes taken by previous practitioners attending to healthcare or other healthcare practitioners, including a typed patient discharge summary or summaries
- referral letters to and from other healthcare practitioners
- laboratory reports and other laboratory evidence such as histology sections, cytology slides and printouts from automated analysers, X-ray films and reports, ECG traces, etc.
- audio-visual records such as photographs, videos and tape-recordings
- clinical research forms and clinical trial data
- other forms completed during the health interaction such as insurance forms, disability assessments and documentation of injury on duty
- death certificates and autopsy reports.

The guidelines provide that health records should be stored for a period of not less than 6 years from the date they became dormant, that is, generally the date of last contact with the patient. The guidelines provide for a number of exceptions where practitioners

should keep the records for a longer period. These include:

- in the case of minors, until the minor's 21st birthday – this would apply equally for obstetric records
- for mentally incompetent patients, for the duration of the patient's lifetime
- in terms of the Occupational Health and Safety Act No. 85 of 1993, for a period of 20 years after treatment.

POPIA confirms that records of personal information, which include health records, must not be retained any longer than is necessary for achieving the purpose for which the information was collected or subsequently processed, unless:

- retention of the record is required or authorised by law: an example would be the HPCSA's ethical guidelines, which require that clinical records be kept for at least 6 years from the date they become dormant
- the healthcare practitioner reasonably requires the record for lawful purposes related to his or her functions or activities
- retention of the record is required by a contract between the parties thereto
- the patient or a competent person (where the patient is a child) has consented to the retention of the records.

Once the prescribed period has passed, healthcare practitioners may destroy any dormant clinical records. Healthcare practitioners may nevertheless choose to retain records for a longer period. Although there are no clear rules in this regard, there may be a number of factors that require health records to be kept for longer periods. For instance, certain health conditions take a long period to manifest themselves (e.g. asbestosis), and records of patients who may have been exposed to such conditions should be kept for a sufficient period of time. Practitioners may also choose to hold on to records longer if the patient has suffered an adverse event, and there are risks resulting from the handling or complications of the

case. In these circumstances, healthcare practitioners should, however, satisfy themselves that the extended retention of the health record is indeed reasonably required for lawful purposes related to their professional functions or activities. While the main function of clinical records is to facilitate continuity of care, there are many legitimate secondary uses as well. Records should, however, not simply be stored indefinitely without good reason.

The ethical guidelines provide that healthcare practitioners may also choose to retain healthcare records for longer periods based on the value of the record for academic or research purposes. These guidelines should be read with section 14(2) of POPIA, which confirms that records of personal information may be retained for longer periods for historical, statistical or research purposes, provided that appropriate safeguards against the records being used for any other purposes have been established.

In terms of POPIA, a responsible party must destroy or delete a record of personal information or de-identify it as soon as reasonably practicable after the responsible party is no longer authorised to retain the record. The destruction or deletion of a record of personal information must be done in a manner that prevents its reconstruction in an intelligible form. Although not a legal requirement, it is advisable to keep a record of all healthcare records that have been destroyed. The record should include, at minimum, the patient's name, date of birth, the start and end dates of the practitioner's clinical involvement, the date of destruction of the records and, if applicable, the name of the destruction company.

The provisions of POPIA are thus entirely reconcilable with, and have not amended the position as set out in the HPCSA's guidelines, insofar as it concerns the required period for the retention of health records. Healthcare practitioners and their staff should be encouraged to familiarise themselves with the relevant regulatory framework in order to ensure continued compliance.

Lost opportunity

The Medical Protection Society shares a case report from their files

Ms C, a 43-year-old smoker who was otherwise well, presented to her GP Dr Q complaining of a few days discolouration to the tip of her right index finger. She explained that her fingers have always felt cold, and often turn white and go numb when she is outside.

When Dr Q examined the finger, there was purplish discolouration of the tip, and it felt cold. He noted the presence of good peripheral pulses. Dr Q advised her to stop smoking, and made a non-urgent referral to the vascular team.

Nine days later, the patient consulted a second GP, Dr P, as the fingertip had become painful. The records of this consultation were limited, but he diagnosed cellulitis and prescribed flucloxacillin, with an appointment for review in 10 days.

When Ms C returned for review, her finger was much better, but she now complained of tiredness with some back pain, which she thought was related to her periods. Dr P arranged some investigations, including full blood count, urea and electrolytes (U&Es), liver and thyroid function tests, and planned a further review with the results.

The results were available the next day, and alarmingly revealed some abnormalities. Her eGFR was just 22, urea 14 (2.8 - 7.2); creatinine 211 (58 - 96); albumin 33 (35 - 52). The results were reviewed by a third doctor, Dr B, who arranged to see Ms C the next day. As there were no previous U&Es, Dr B arranged for repeat set of bloods, including erythrocyte sedimentation rate (ESR). He also arranged an urgent renal ultrasound scan.

The repeat bloods showed creatinine 216, urea 10.7 and ESR 104. These were reviewed by Dr P, who took no action, as the renal ultrasound scan was to be carried out 3 days after that and the patient was due to be seen by Dr B for review thereafter.

At that review, 8 days later, Dr B noted that the U&Es were still abnormal, and decided to await the results of the ultrasound scan. The ultrasound result was delivered the next day, and stated that "both kidneys demonstrate slight increase in cortical brightness; otherwise both kidneys are normal size, shape and morphology with no pelvi-calyceal dilatation." The results were filed by Dr P as no major abnormality was demonstrated.



One-and-a-half months later, Ms C was admitted to hospital with a subarachnoid haemorrhage. On admission, her Glasgow coma scale (GCS) was 11, blood pressure 175/103 and creatinine 573, urea 50 and albumin 29. The patient was referred to a neurosurgeon, who organised a CT scan, which confirmed blood in the intraventricular systems. An angiogram was performed, which revealed a left pericallosal aneurysm, which was successfully embolised. There were also noted to be other aneurysms. Ms C was initially aphasic with significant neurological impairment after the first procedure.

Ms C was also seen by a nephrologist in light of her significant renal impairment. She was found to have +++proteinuria and +++blood in her urine. Further investigation revealed raised inflammatory markers, mild anaemia and the presence of antinuclear antibody. A repeat renal ultrasound showed two normal kidneys. A renal biopsy was performed, which revealed acute necrotising glomerulonephritis.

A potential diagnosis of systemic vasculitis was made. She was commenced on peritoneal dialysis, high-dose oral prednisolone and cyclophosphamide. Ms C eventually required renal transplantation, 3 months after the presentation with subarachnoid haemorrhage. Her kidney function stabilised thereafter.

In conjunction with renal support, Ms C was successfully treated for the multiple aneurysms, and recovered from her aphasia. Her neurological deficit improved such that she was able to mobilise, albeit with assistance.

Following discharge from hospital, Ms C brought a claim against Dr P and Dr B, alleging that they failed to refer her to a renal specialist when the abnormal U&E results were initially found.

The Medical Protection Society instructed experts in general practice, nephrology, neurology and radiology to assist in managing the claim.

Expert opinion

The GP expert opined that a reasonably competent GP should have checked the patient's urine on the first consultation after the increased creatinine was noted, as proteinuria and blood in the urine would more than likely have been present. Urgent referral to a renal specialist would have been appropriate at that stage. He was critical of Dr B for waiting for a second blood sample and ultrasound. Furthermore, when the second set of blood results were reviewed and then the ultrasound report received, Dr P should have referred the patient.

The nephrologist expert considered that end-stage renal failure would have been deferred but not avoided if the patient had been appropriately diagnosed and treated earlier. As there was no evidence of polycystic renal disease, he did not consider that there was any connection between the kidney disease and the cerebral aneurysms. However, it is noted that although the pre-subarachnoid haemorrhage blood pressure was not available, the blood pressures at the time of the haemorrhage were elevated. It was felt that if Ms C had been referred earlier, any hypertension would have been treated aggressively. The neurologist expert considered that strict control of blood pressure would have been sufficient to prevent the subarachnoid haemorrhage.

On the basis of the critical expert reports, the case was settled for a substantial sum.

Free State branch host successful intern function

The SAMA Free State branch hosted a very successful and well-attended intern orientation event at the PPS Office Block in Bloemfontein on 24 February 2022.

Dr Bennie de Bruin, Free State JUDASA chairman, delivered a presentation on SAMA member benefits and spoke about the importance of joining JUDASA, and Mrs R Rademan, a clinical dietician, enlightened the intern doctors on a clinical topic: "Food for thought".

More than 80% of the intern doctors present joined SAMA.



Dr B de Bruin (JUDASA FS chairman) delivering a presentation to the intern doctors



At the intern function, from left to right: Mrs Samantha Booysen (Efficient Wealth assistant manager), Mrs Riette Rademan (clinical dietician), Mr Johan Crous (Efficient Wealth financial advisor), Ms Marlene van der Merwe (PPS investment specialist), Dr Chantelle van der Bijl (specialist family physician) and Mr Corne Nel (PPS manager)

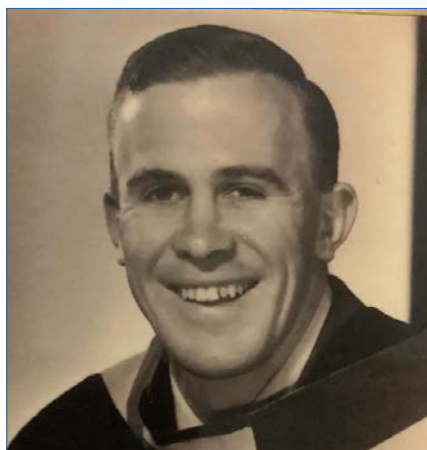
Dr H C Liebenberg, 20 March 1929 - 26 January 2022

In January, SAMA's Gauteng branch bid a sad farewell to Dr "Boet" Liebenberg, a branch member who was made a life member of the association in March 1993.

Hendrik Christoffel (Boet) Liebenberg was born on 20 March 1929. He attended school at Roberts Heights (Pretoria), East London and Bloemfontein before he matriculated at Pretoria Boys' High in 1945 at the age of 16. He graduated MB ChB (Pretoria) in 1951.

He was a fantastic short-distance track athlete, and played rugby for Tukkies. He was part of the first tour team to Namibia in 1945 and later played for the under-20 varsity team. He never played first team as the rules stated that one had to be 21 years of age, and he was too young during his career at university.

After being a GP in Villiers in the Free State (1953 - 1957), he spent postgraduate time in the surgical departments at Pretoria General and King Edward VIII hospitals before he was appointed as registrar in urology at Karl Bremer Hospital, Bellville, in July 1960. He obtained his MMed (Chir) in 1963. In 1964, he was a resident at the University of Columbia,



New York, under Perry B Hudson. He joined James Jordaan in practice at the Brenthurst Clinic in 1965, but relocated to Garden City Clinic when the extra-corporeal shockwave lithotripter (ESWL) was installed there.

Dr Liebenberg regularly attended overseas congresses and visited many clinics to keep abreast of new developments in urology. In 1980, at the Durban Congress, he was

appointed chairman of the 14th Congress of the Urological Association of Southern Africa (UASA), which was scheduled for Sun City in 1982. At Sun City he was the first individual to be elected as president of UASA for a 4-year term, when this office was divorced from that of chairman of the ensuing congress. He served from 1982 to 1986 as president. Dr Liebenberg expended much effort in promoting the status of private urological practice in SA. He was also a member of the executive of the SA Akademie vir Wetenskap en Kuns (SA Academy of Arts and Science), and spent time on his farm (plantation farming) at Piet Retief in the Eastern Transvaal (Mpumalanga). He retired in 2002 and continued to live in Johannesburg.

He was a huge inspiration and also a mentor to numerous young doctors, not least of whom his three daughters, who all followed in his medical footsteps.

He is survived by his wife, Suzanne, his three daughters, five grandchildren and three great-grandchildren.

He will be dearly missed.



Welcome to SAMA

SAMA welcomes the following new members who joined our association in February 2022.

Cape Western branch

Jessica Kristin Andras
 Kristin Arends
 Sanri Bezuidenhout
 Daniella Margaret Carvalheiro
 Chad Marc Centner
 Marko Combrink
 Sharne du Plessis
 Shaaiah du Tort
 Alexa Haasbroek
 Karabo Kekana
 Naledi Khoali
 Jane Lambrechts
 Sandra le Roux
 Martha Loots
 Cecil Lwana
 Tshepo Norman Magwaba
 Jeremias Jacobus Marais
 Luthando Terrence Sphumelele Mngomezulu
 Sibulele Mpu
 Kimberley Caitlin Naidoo
 Thamsanqa Immanuel Ngcobo
 Shanel Odendaal
 Lara Posthumus
 Elizabeth Grace Prentice
 Melandé Stadler
 Hilde Turkstra
 Imran van der Ross
 Palesa Mandie van Rooyen
 Shaun Abraham Varghese

Eastern Highveld branch

Dimitri Austen
 Dheshini Chonan
 Sean Mukhethwa Mashau
 Zinhle Shabalala
 Matthew van Welie

Eastern Province branch

Kim Tammy Beeka
 Megan Justine Slyper

Free State branch

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Four travel hacks for you, as a Locum

Healthcare professionals are often drawn to Locum work for the travel opportunities that come with the job. As a Locum, you get to choose when and where you'd like to be temporarily relocated – from mountainous small towns with plentiful outdoor activities to busy cities with incredible nightlife opportunities, and everywhere in between. Whether you're taking an assignment during the holidays or considering a future travelling Locum opportunity, LocumBase has put together four tips to make your travel less stressful.

Comfortable stay

Staying comfortably is the most important part of your travel. Here are a few hacks for that:

How to get quality hotels:

- The best way to look for hotels is to look them up on TripAdvisor or Google Travel. You can find the Google Reviews for a business. Try avoiding any hotel that has a rating of less than 4 out of 5.
- Also, check out the "travellers" photo section to get an idea of what to expect.

Step up your game – sweet stay in a suite:

- The benefit is that when you stay in a suite, you don't just have more space, you are guaranteed to have a better sleep.

Pick your room like a pro:

- Not only do you need to stay in a more spacious room, but it is also a good idea to pick your room's location.

- Make sure to call the hotel or B&B reception a few days in advance and let them know your preferences, such as wanting to stay on the highest floor possible or far away from the elevator and also facing off the road.
- If they cannot satisfy all these requirements, at the very minimum you should avoid the ground floor like the plague: you'll be distracted by cars, lights, people talking, etc.
- This makes even more sense if you work night/evening shifts and need to sleep during the day.

Long stay = Airbnb or furnished apartment

Now, if your Locum assignment is longer than a couple of weeks at a time, we would recommend staying at one of the "home-like" settings. Renting an Airbnb or furnished corporate apartment would be the best option.

Packing

Never spend more than 5 minutes getting ready for your travelling. Here's the trick to pack quickly: unpack as little as possible after you are back home from your trip. Basically, the only thing that you remove from your suitcase is your laundry. Everything else should stay there, e.g. toiletries, gym shoes, utensils, lab coat, stethoscope, pager, badge, etc. This way it will only take you a few minutes to pack your clean clothes next time, and you are good to go.

Beating "cabin fever"

Cabin fever is real! Just imagine that you are away from home, from your usual circle of

friends and family, your favourite hobbies and activities, sometimes for months and months on end.

We understand that some medical professionals start to feel lonely, isolated and cut off from the world. Fortunately, the solution is very simple: you **must get out** of your room and go places.

Take a walk outside in the park, hike in the woods and breathe some fresh air. Drive around a little bit, or even better – socialise with other Locums, if possible. The key is to change the environment and your surroundings when you are off work to keep your "battery" charged and stay sane.

The best ways to prevent and beat cabin fever: get out of your hotel, change the scenery and socialise with other people.

LocumBase is a software as a service platform that connects medical professionals and practices directly, with no hidden fees. We have over 4 000 medical professionals signed up to our system across industries, and over 500 active medical practices.

Sign up to LocumBase as a medical professional [here](#) to start earning and saving!

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CPD

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Assisting health professionals to maintain and acquire new and updated levels of knowledge, skills and ethical attitudes that will be of measurable benefit in professional practice and to enhance and promote professional integrity. The SA Medical Association is one of the institutions that have been appointed by the Medical and Dental Professions Board of the Health Professions Council of SA to review and approve CPD applications.

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 - Excellent Service
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As a registered REC with the National Health Research Ethics Council (NHREC), the Council reviews biomedical research proposals for research to be done in the private sector.

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