Dragon slayer in a time of dragons: Dr Nomathemba Chandiwana battles "SA's new HIV epidemic"

Ufrieda Ho, *for Spotlight*

The obesity epidemic will hit SA hard on top of our high HIV burden, but advocate, researcher and scientist Dr Nomathemba Chandiwana says she is ready to fight back harder. She speaks to Ufrieda Ho about her journey from working in state hospitals to transitioning into obesity medicine, and her move to Cape Town.

For the briefest moment, Dr Nomathemba Chandiwana could have had a career in music – guitar in her arms, singing songs of being far from home but being lost in the best way possible.

The chief scientific officer at the Desmond Tutu Health Foundation has carved out a career in public health for over a decade. Her focus has been on HIV and most recently, bringing the insights from HIV research into tackling SA's high rates of obesity.

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But in her late teens, her undergrad years were spent at Northeastern University in Boston, USA, pursuing a Bachelor of Science in behavioural neuroscience. Her degree included a guitar credit, as well as hours spent wandering through museums.

"They were some of the best experiences of my life really – because I could be just another kid in just another college town. I got to learn that life isn't just for learning, it's also for learning about life," she tells *Spotlight*.

It was the perspective she needed, so that by the time she enrolled at Wits Medical School in 2006 for her third degree, it wasn't merely to tick boxes on the expectations of a kid who got good grades – the daughter of a prominent virologist, and the graduate accepted to study medicine in the USA.

She would learn another lesson about expectation when frontline medicine didn't turn out to be her career path after all. She was well into her journey to becoming a paediatrician, and had worked as a medical officer at three different state hospitals in Johannesburg, when she says a series of devastating public service strikes, culminating in tragedy in 2012, "broke" her.

A health system failing people

Nurses couldn't come to work and there were deaths, she recalls. "I was young, barely out of medical school and I was in charge of kids in high care. In one week, 12 babies passed … and one of the nurses was killed," says Chandiwana.

She adds: "It was the health system that failed people; it wasn't the doctors and nurses. It was so clear to me that we have to fix the healthcare system."

Her move from healthcare provider to researcher started with joining Wits RHI – a leading research institute that specialises in HIV, TB, sexual and reproductive health, vaccines and infectious diseases. Here she worked in health systems strengthening, focused on maternal, child and adolescent health. She says arriving at public health research has been her "happy place".

Chandiwana helped to write the chapter on HIV treatment in the National Strategic Plan (NSP) for HIV, TB and STIs 2023 -2028, and contributed to treatment guidelines on TB and sexually transmitted infections such as syphilis.

Working at Wits' Ezintsha Research Centre with Prof. Francois Venter, one of the foremost HIV research scientists in SA, Chandiwana was part of a team that conducted a landmark study that confirmed the safety and efficacy of HIV treatment that includes the antiretroviral (ARV) drug dolutegravir. Since then, over 4 million people in SA have started taking dolutegravir-based HIV treatment.

Raising the profile of African research

"This was African-led research and data. So you're helping your own people with real answers that they need – it's not research for research's sake," she says.

"Less than 2% of research output is from Africa, yet we are the continent with one of the highest disease burdens, from COVID-19 to TB, HIV and malaria," she says.

African researchers, she says, have real challenges compared to their Global North colleagues. She points out, for instance, that some medical journals have fees for publishing that run into the thousands of dollars – fees that are hard to pay given the very tight budgets most local researchers have to work with.

"If you're an African researcher, it's not like you're doing just research. You're probably writing the protocol, you're looking for funding, you are training and teaching," she says.

But Chandiwana also says difficulties build resilience and adaptability – she calls it "Africa's spunk". She adds that publishing should not, in any case, supersede the goal of conducting research that has real impact. Chandiwana goes as far as saying that publishing in high-impact research journals is great, but publishing in medium-impact journals is important too. And that's not where it ends, she says, adding that social media messaging also has its role.

A growing threat

Around 2018, some of the groundbreaking research that Chandiwana was involved with at Ezintsha demanded just such a wider audience. She and her colleagues were seeing a peculiar but clear correlation between people with HIV taking certain ARVs and gaining weight. Researchers are still figuring out to what extent this weight gain is due to people simply putting on pounds because the ARVs are helping them get healthier, and to what extent some ARVs might contribute to weight gain in other ways.

It was an important finding, potentially affecting many of the over 6 million people on HIV treatment in SA (there are a total of around 8 million people living with the virus). The picture is further complicated by the fact that SA's population of people living with HIV are ageing, and therefore at greater risk of developing conditions such as obesity and diabetes simply because they are living longer.

In March 2024, Chandiwana and Venter wrote an editorial in the South African Medical Journal calling obesity "SA's new HIV epidemic". The editorial warned that the lessons and missteps of the HIV response in the late 1990s and early 2000s should be a wake-up call for the country's response to fighting obesity.

"As with the HIV epidemic in the 1990s, we are facing a calamitous threat to the health of the population that has been ignored for too long," they wrote. "Weight-related diseases have eclipsed tuberculosis and HIV as leading causes of morbidity and mortality. Over two-thirds of SA women are overweight or are living with obesity," they warned, explaining that type 2 diabetes, stroke and heart disease are conditions all directly linked to obesity. "They account for three of the top four causes of death nationally, and incur massive health system costs," they wrote.

Dr Nomathemba Chandiwana

Chandiwana and Venter also slammed the sluggish response from government that even now has not reined in industries that prop up ultra-processed food systems through policies or regulations.

"This is how I transitioned into obesity medicine," says Chandiwana, who since the end of 2024 has been based at the Desmond Tutu Health Foundation in Cape Town, led by Prof. Linda-Gail Bekker. She counts Venter and Bekker as mentors and value-based leaders she admires.

'Obesity is the disease of our time'

Chandiwana says that obesity research is still a relatively new field, and there is currently no specific formal training on obesity in local medical schools. As such, her work is intertwined with advocacy, shaping policy direction and putting in place planning to push for equitable access to new drugs, treatments and therapies for obesity.

"Obesity is the disease of our time, all throughout the world. Every country in the world has an obesity issue, but low- and middle-income countries are most affected. So we have to ask questions about the environment in which people live, the role of fast foods and ultra-processed foods, the built environment, the levels of safety and security in neighbourhoods and how this impacts things like how people feel about exercising outdoors, their quality of sleep, and their access to places where they can access nutritious foods," she says.

The other strand in tackling obesity, she points out, is the rise of a new class of type 2 diabetes drugs called glucagon-like-peptide-1 receptor agonists (GLP-1 RAs), increasingly also used to treat obesity. For instance, the diabetes medication Semaglutide can work to reduce appetite, help people feel fuller for longer and slow down gastric emptying, thereby promoting weight loss.

These drugs are gamechangers, Chandiwana says. With treatment available, it means obesity can be seen and treated as a chronic metabolic disease. It helps

to shed the stigma that obesity is simply an affliction caused by poor willpower and bad lifestyle choices.

But the catch is the high price of the drugs, making questions about fair access to treatment top of mind for Chandiwana.

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As an HIV physician and research advocate, there are many parallels Chandiwana draws about these new drugs and ARVs in the early days of getting treatment to people living with HIV. Ultimately, it's about who gets left behind. And once again, even in the case of obesity in SA, she says it's black women most at risk.

"My research interest is therefore also about how to make sure we have comprehensive treatment plans that include looking at environment, food and lifestyle. Everyone should be allowed to increase not just their lifespan but their health-span, including through access to ARVs, anti-obesity drugs, diabetic drugs or hypertension drugs," she says.

Putting people at the heart of research

Chandiwana says that her research approach is shaped by community strategies, building advocacy and training others, and locally appropriate solutions and interventions. One project she highlights is the work that the Desmond Tutu Health Foundation does at the Mpilo Health Park in Masiphumelele, Cape Town. This is where youth can access sexual and reproductive health services and also use an onsite gym and sports grounds. The idea is that combining services means looking to more holistic interventions to improve health, wellbeing and even access to secure recreational spaces for young people.

"There is no research without communities. They are the people who say yes to being part of research – yes, they'll help us find answers. It is not researchers doing it by themselves," she says.

Chandiwana is intentional about putting people at the heart of research. She says people know what works best for them, ultimately, and people, when they're heard, are who can sway governments.

"As a researcher, I believe I am a storyteller. Research is not something abstract or just about the data, for me it's people's stories that I am telling," says Chandiwana.

Falling in love with Cape Town

Her own story now has seen her becoming a Capetonian. It was unexpected, she says, and so was becoming a Capetonian with a dog who enjoys going on long hikes, she jokes. But the die-hard ex-Joburger admits to falling in love with Cape Town more deeply each day. It's home now for her, husband Zviko Mudimu, their two children, and nanny Thembi Ndlovu.

"I was one of those people who said I could never live in Cape Town," Chandiwana says of the city's notoriously blatant racial and wealth divides.

"One of the things I remind myself of in Cape Town is that I might be pushing into spaces that I've been told are not meant for me. I have to remind myself that it's my country too, and I am allowed. Some things about Cape Town do need a shake-up," she says. She calls for dragon slayers in a time of dragons – drawing an analogy from her soft spot for high fantasy and science fiction.

But she also admits that Cape Town has made her check her assumptions and expectations, and it's surprised and shaken her up too. Reciprocal action after all, can be how change gets made. And change in the right direction is what keeps her going, or as she puts it on her WhatsApp status, to "chop wood, carry water".

Chandiwana adds: "The whole point of the work we do is that we believe we're leaving our corner of the world a little better off. Sometimes it's about pushing back, becoming a bigger advocate and working with imperfect allies. In the end, it's about finding more ways to walk this road we're on."

Source: Spotlight, *20 August 2025. https://www.spotlightnsp.co.za/2025/08/20/dragon-slayer-in-a-time-of-dragons-dr-nomathemba-chandiwana-battles-sas-new-hiv-epidemic/.*

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