

The cardiology chief at Nelson Mandela Academic Hospital, NMAH, in Mthatha, Dr Khulile Moeketsi, is a physician with a passion for reducing the large burden of heart disease in the Eastern Cape. The hospital where he works serves the needs of a population of some 3.2 million people.

Giving
his heart to the
old Transkei

Khulile has devoted most of his medical career to researching heart disease and building up appropriate and sustainable care for locals suffering from the most prevalent heart conditions.

He is also an investigator of the multi-centre cardiomyopathy registry. Using the local, inter-provincial and national relationships he's developed over his 13-year association with NMAH, Dr Moeketsi has built his tertiary cardiology unit from scratch, sourcing funding and then coordinating, co-designing and directing the installation a R30 million catheter laboratory that is now the backbone of the region's cardiology service – with the assistance of the CEO of NMAH, Mrs Makwedini. He also recruited many doctors to the Eastern Cape as part of a human resource development initiative, headed then by Dr Rolene Wagner, the province's vibrant new Deputy Director for Hospital and Support Services.

Basic cardiology skills-building programme

Dr Moeketsi was elected, through a Discovery Foundation and peer review process, as a Top Young Leader in Cardiology under the age of 40 earlier in 2019.

His latest initiative, using an existing teaching platform, is an outreach and in-reach basic cardiology skills-building programme that will include all 12 district and regional hospitals.

Using three vital new echocardiograph machines, Dr Moeketsi and a technologist will travel to offer on-site training on how to use the machines. They will also provide direly needed teaching in cardiology clinical signs and symptoms to improve diagnosis, treatment and referrals.

"There's a growing burden of cardiovascular disease in the rural Eastern Cape, the most common being hypertensive heart disease, valvular heart disease and cardiomyopathy. More and more black people are suffering heart attacks, which was rare 20 years ago. Clearly there's a lot of urbanisation with the accompanying diets and less-healthy habits, along with significant obesity and diabetes. Of course, HIV increases the risk of coronary artery disease by either upping the thrombotic burden or through some ARV medicines that cause dyslipidaemia (clotting of the vessels)," Dr Moeketsi explains.

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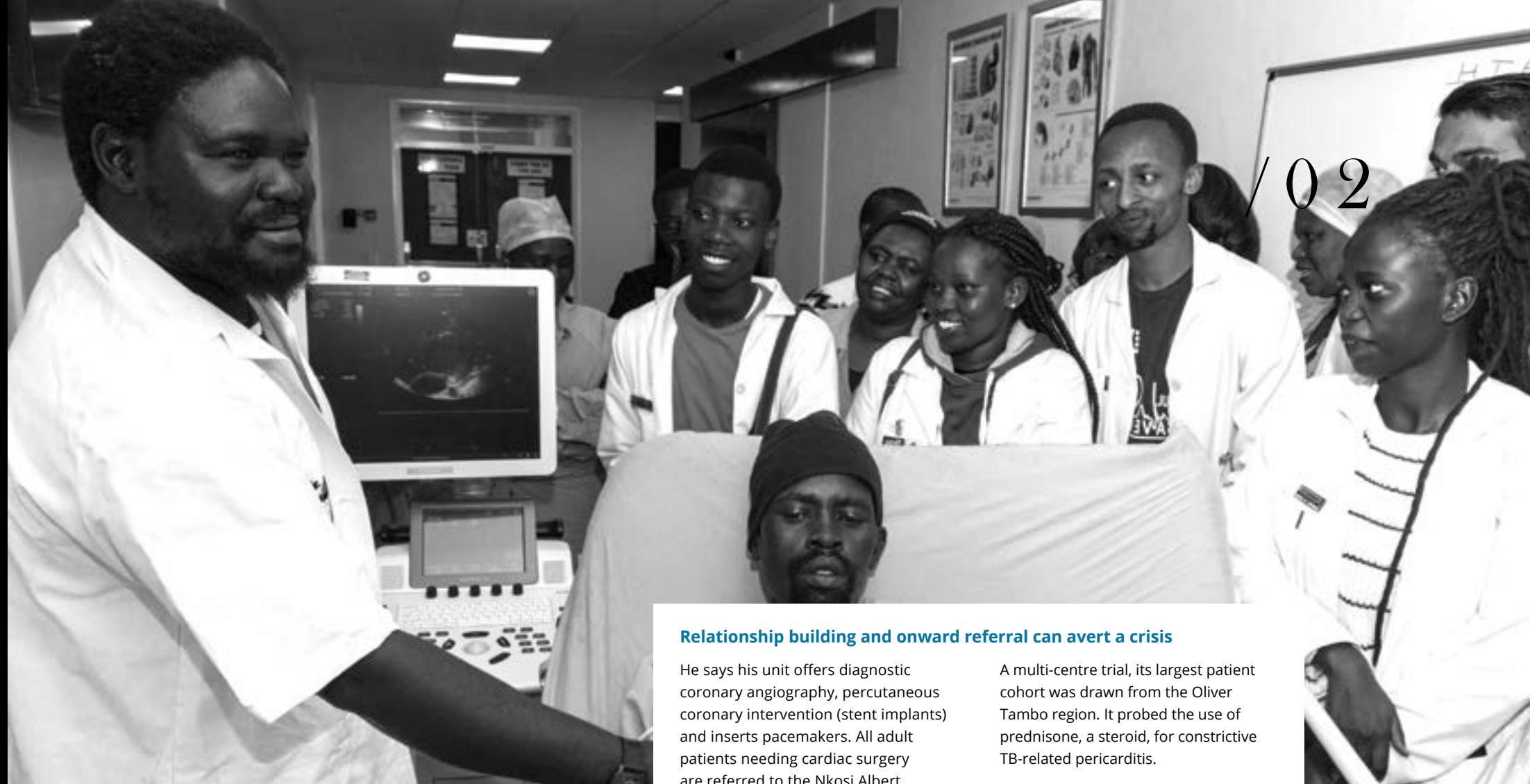
DR KHULILE MOEKETSI

Rural Institutional Award

Walter Sisulu University

To support the implementation of a project that would capacitate medical doctors in rural hospitals with basic cardiology skills by offering tutorials and practical hands-on training on echo, as well as giving bedside teaching on cardiology clinical signs and symptoms.

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Targeted, prioritised intervention

Dr Moeketsi's training team will prioritise district hospitals with consistently high numbers of cardiology patients and the least echo-cardiograph training.

"We know the high and low risk districts because they all refer patients to us. Staff at some well-developed district hospitals like Zithulelele and Madwaleni, (on the coast, 99km south-east of Mthatha), know how to do basic echocardiography, so they're not a priority. We'll still get to them to upskill their doctors sufficiently to pick up the more complex cases, which they may not be doing," he adds.

Starting in 2019, Dr Moeketsi's team will schedule regular visits over the next three years to three or four district hospitals annually, eventually covering all of them.

They will piggy-back on a community clerkship programme that is currently run between Walter Sisulu University and Nelson Mandela Academic Hospital for fifth-year medical students and Cuban-trained doctors spending six months at a time in district hospitals. Consultants from various disciplines at NMAH already travel to different district hospitals to mentor this cohort of over 100 doctors. "All we need do is put the mobile echo-machine in the boot," Dr Moeketsi enthuses.

"The problem is that medical officers tend to leave. So for training, we'll identify those MOs likely to stick around. Once they're properly trained, it's amazing how quickly they become enthusiastic and far more dynamic," he adds. Dr Moeketsi says medical students already attend NMAH's inpatient and outpatient echocardiography service. The new programme will build on this.

Relationship building and onward referral can avert a crisis

He says his unit offers diagnostic coronary angiography, percutaneous coronary intervention (stent implants) and inserts pacemakers. All adult patients needing cardiac surgery are referred to the Nkosi Albert Luthuli Academic Hospital, and heart transplant patients are transported to Groote Schuur Hospital in Cape Town.

"We have patients being transferred by ambulance to Durban almost every alternative day. Without Nkosi Albert Luthuli Hospital's sterling support, we'd probably have a crisis. Emergency surgeries are usually done there within a week," he says.

Dr Moeketsi has initiated a WhatsApp mobile phone group between the emergency medical services, the district hospitals and his unit, which has significantly improved scheduling and transporting of patients.

He cites the late Professor Mayosi as his biggest inspiration. "He was meticulous, his passion and love for patients and medicine, his humility and most importantly his integrity, all impacted me hugely," he says. Dr Moeketsi, with the selfless collaboration of the decorated and globally celebrated cardiologist, Professor Bongani Mayosi, initiated ground-breaking clinical cardiology trials. One was the world's largest study of pericarditis (IMPI 1).

A multi-centre trial, its largest patient cohort was drawn from the Oliver Tambo region. It probed the use of prednisone, a steroid, for constrictive TB-related pericarditis.

"The Medical Research Council flagship-grant trial (IMPI 2) will provide vital data on new potential strategies to treat constrictive pericarditis and re-accumulation of cardiac tamponade. We also hope the new strategy will reduce mortality and morbidity of pericardial disease," he adds.

The Mthatha-born Dr Moeketsi, initially studied chemical engineering, garnering six distinctions before falling in love with medicine through interaction with medical students. He says his teacher-parents backed his direction-change.

Besides having invested four difficult years in setting up the NMAH cath-lab, his other dream is to see rural cardiac patients getting the healthcare they deserve "and no longer sleeping in corridors and on chairs". As his colleague, Dr Ben Gaunt, Principal Medical Officer at the exemplary Zithulele Hospital, is so fond of saying; "If you don't have a dream, how can you ever have a dream come true?"