



Profile

Ana Mocumbi: cardiologist tracking NCDs of poverty

When Ana Mocumbi graduated with an MD from Eduardo Mondlane University, in Maputo, Mozambique, in 1992, she could not train in cardiology, her specialty of choice. At the time, it was compulsory for medical graduates in the country to take up a rural post to address the scarcity of doctors and to pay back their years of initial training to the state. Mocumbi went to the Sofala province, which was badly affected by Mozambique's civil war, and worked as a general practitioner in its capital, Beira. But with so few doctors in the country, many graduates were asked by the government to take on health leadership and governance roles. Mocumbi became Provincial Chief Physician and Provincial Director of the Health Department in Sofala. "I had to deal with the reconstruction of the health services and the redesign of policies in the aftermath of a 16-year civil war, without having any experience because I was coming directly from medical school and from living in a city", she recalls. It was a life-changing experience. "Being in a scene of such poverty is probably what made me then decide to work in poverty and neglected diseases because that province had been severely affected by the war and had the worst poverty in the country...I would say that shaped my career from the beginning."

Today Mocumbi is the Lead Researcher in the Non-Communicable Diseases (NCDs) Division at Mozambique's National Public Health Institute (NPHI), an Associate Professor of Cardiology at Eduardo Mondlane University, and Affiliated Professor at the Global Health Department of the University of Washington in Seattle, USA. Her research focuses on NCDs affecting the poorest people, with particular emphasis on neglected cardiovascular diseases, such as endomyocardial fibrosis and rheumatic heart disease, as well as chronic infectious diseases of the heart. "We are also starting to explore other very common diseases in Mozambique such as hypertension, which happens in very young people and is very badly controlled because of our weaknesses in the health systems and our poverty. People are not able to manage the disease properly and are sometimes not able to prevent it too", she says.

After her rural community service, Mocumbi returned to Maputo and was keen to work on cardiovascular diseases of children and neglected populations. A government scholarship took her to René Descartes University in Paris, France, where she trained in paediatric cardiology. Back in Mozambique, Mocumbi founded the Heart Institute (Instituto do Coração, ICOR) in Maputo with Maria Beatriz Ferreira in 1999 and became its first Deputy Director and Director of Research. The non-profit institute provides services for children from poor families who cannot not pay for cardiac surgery. "The project had the

component where adults with ischaemic heart disease... would contribute and pay for their services so that we could operate on the children with congenital heart disease, rheumatic heart disease, and endomyocardial fibrosis", she says. At ICOR, Mocumbi led a project to set up a centre in Inharrime for research into endomyocardial fibrosis. "It's a disease of unknown aetiology, no treatment, and very poor prognosis, and a disease that kills children from this specific area a lot", she explains. Her knowledge of this disease developed when a scholarship from Imperial College London, UK, enabled her to do a PhD on endomyocardial fibrosis under the mentorship of cardiothoracic surgeon Magdi Yacoub. Subsequently, Mocumbi and colleagues' work has improved care for endomyocardial fibrosis, including by defining diagnostic criteria using ultrasound and introducing new surgical techniques for early management. Mocumbi left ICOR in 2011 to work at NPHI and complete postdoctoral research on NCDs at the University of California, San Francisco, USA. She now divides her time between her research and clinical roles.

Gene Bukhman, Director of the Center for Integration Science at Brigham and Women's Hospital and Associate Professor at Harvard Medical School, Boston, MA, USA, co-chaired the *Lancet* Commission on NCDs and injuries (NCDIs) with Mocumbi. He recalls first meeting her in 2007 at the Pan-African Society of Cardiology meeting in Nairobi: "It was clear even at that time that Ana was one of the leaders of a new generation of cardiologists in Africa that were focused on the neglected diseases of the rural poor. Since 2015, I've had the amazing experience of working closely with her on both the *Lancet* Commission on reframing NCDs and injuries for the poorest billion, and the 23-country NCDI Poverty Network that is now driving implementation of the Commission's recommendations. Ana is one of the biggest reasons that this movement for global health equity is gaining traction."

Mocumbi and her colleagues are now approaching funders and advocating for financial support to tackle NCDIs of poverty in low-income countries because, she says, "by themselves these under-resourced settings will never be able to develop adequate programmes that can cover all the population that is in need. NCDs are a major determinant of poverty, as they may lead to catastrophic spending in populations in need of interventions that cannot be planned or are very expensive. Moreover, due to the large variety of these NCDs, there is a need to aggregate interventions in packages that can be delivered at peripheral levels of the health systems in order to become sustainable."

Udani Samarasekera

