Profile

Refiloe Masekela: building access to care for childhood lung disease

University of KwaZulu Natal

"In the 2000s, when the AIDS pandemic hit South Africa, we were seeing a lot of children dying from HIV. That was just before antiretroviral treatment had become fully accessible for people in the state sector", recalls Refiloe Masekela, a paediatric pulmonologist who is Dean of the School of Medicine at the University of KwaZulu Natal and a faculty member at the Africa Health Research Institute (AHRI) in Durban, South Africa. At the time, she was still completing her paediatric training at the University of Pretoria. But, with a colleague, she "started a small pot to help fund antiretroviral treatment for children", and soon after joined the university's first paediatric HIV clinic.

Masekela, who now lives with her young son in Durban, comes "from a family of many teachers" from Soekmekaar in Limpopo, South Africa. She recalls choosing a different route at a young age. "My mother's younger brother was the first doctor in the family, and when he went to study medicine, I was probably 4 years old. But since then", she laughs, "I've always said I want to be a doctor, and it's never really changed."

Although she is now a clinician–researcher, Masekela considers herself "a clinician first", because "it's when you see patients that you generate questions, and you try to answer those questions by doing the research. The science is driven by the clinical space." Her entry into research was inspired by her experiences in that first paediatric HIV clinic. Accustomed to seeing children with HIV and severe hypoxic pneumonia, Masekela also began noting substantial numbers of "children with chronic lung disease, bronchiectasis, severe lung damage from multiple infections, as well as what was probably post-tuberculosis infections"; because of this, she began to "think of possible interventions in an understudied area, to see if there was anything we could do to minimise the number of infections these kids with chronic lung disease were getting."

Towards this she completed a PhD in chronic inflammatory lung disease in children with HIV at the University of Pretoria in 2012. As a Fellow in pulmonology, part of her training took place in Leuven, Belgium where she gained new insights. But Masekela always knew she would return to South Africa. "For me, what really drives me is making a real impact in people's lives, by trying to find solutions that are tailor-made for my context. South Africa has a lot of potential, and many opportunities to actually drive change."

At the University of KwaZulu Natal and AHRI Masekela worked on asthma epidemiology and interventions to improve lung health in children. For around a decade and a half she has also been "involved in a lot of work across the African continent, where access to treatment and a lack of universal health care impacts how disease management works in practice, at the primary care level. I look at how people can access medicines in an affordable way", she explains, "so that there's equitable access". Her current research focuses on chronic lung disease with asthma. As part of this work she is heading a "clinical trial to test whether globally accepted interventions in high-income countries could be applicable, affordable, and attainable in South Africa". For Masekela, "what is important is embedding health economics, and the reality of our context to see if interventions can be applicable here". On the policy level, she has also been "working with WHO to have real, relevant, affordable asthma guidelines that are able to provide for all countries—even those with the least resources—the best quality care to all people suffering from asthma". As part of the Forum of International Respiratory Societies, the Pan African Thoracic Society (PATS), which Masekela leads as its President, made a "case for access to inhaled medicines for everybody with asthma and chronic obstructive pulmonary disease at a UN high level meeting. These are the most common non-communicable respiratory diseases", she says, and yet, "there has been very little research into these in the African context. Impact at that strategic level is important. That filters down to communities, where research is translated into action."

Masekela is also deeply committed to training. For the past 7 years she has co-directed a global training course, led by the American Thoracic Society MECOR Program through PATS. "We have an African component in that course, training people on how to conduct good quality, clinical or operational research, so that we can build a cadre on the continent who can do the work, be able to answer questions, and most importantly, build their research portfolios. Embedded in this programme, we've also started women's leadership training. We ensure that people we train now, who are going to be future research leaders, have all the requisite skills."

This work has never been more important. As the burden of asthma rises across Africa, Masekela and her team are trying to understand why. "We don't know whether it's because of changes in environment, diet, exposures… there's likely multiple factors influencing this. We don't know the role of genetics, for example." She will soon begin studying "the genetic profiles of children's genes in terms of responses to various drugs", and is turning her focus to the "impact of climate on future lung health and what that will look like", she explains, "because in Africa, climate disasters are becoming more frequent, and we need to find solutions. How will we respond not only from a health system perspective, but at the community health care level in the least resourced settings?"

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