

WITSIE AT THE CUTTING EDGE: Researcher Profile

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Who are you and what is your academic/scientific background?

I grew up in Durban, in a liberal family. It was only as a young medical student visiting rural hospitals that I grasped where the majority of South Africans actually lived. I soon learned how outstanding work in primary health care had collapsed under the weight of the apartheid regime, only to reappear as the Alma Ata Declaration on primary health care.

In the middle of medical training I had an opportunity to study philosophy and economics at Oxford. Aside from gaining insights that would inform my future work in population health, I found the humanities a great complement to clinical studies, ever useful when facing ethical dilemmas.

A few years earlier, fascinated by our human origins, I did a further year of paleoanthropology, anatomy and physiology. This led to my first paper:

Tollman SM, Grine FE, Hahn BD. Ontogeny and sexual dimorphism in *Aulacephalodon* (Reptilia, Anomodontia). *Annals SA Museum* 1980; 81 (4):159-186 In another life I would love to do more!

Following a Masters in Public Health at Harvard, I joined the Secretariat of the Commissions on Health Research for Development which introduced me to a world of 'international health and research'. The commissioners were outstanding and many have remained mentors and role models. More recently, I specialised in Public Health Medicine and belatedly completed a PhD through Umeå University in Sweden.

In a nutshell I have had the privilege of studying in South Africa, England, Sweden and the USA, all of which provided contrasting perspectives on population health around the globe. Much of my professional life is focused on rural health and development, both in South Africa and on the continent. It is heavily influenced by the belief that health is a prerequisite for human and social development.

What is the nature of the research which you are currently undertaking?

South Africa and the continent are in the midst of rapid, complex, sometimes unpredictable, social transitions. These have major effects on health at all ages. Complicating the picture is the co-existence of HIV/TB. All together we confront chronic medical conditions at an unprecedented scale and intensity.

Our current work seeks to understand how important social determinants, like migration or employment influence cardiometabolic outcomes, whether in older people or their precursors in adolescents or even children. Such work is inherently interdisciplinary as we endeavour to grasp both biological and social pathways, and where and how to intervene most effectively.

What do you think is the most significant contribution you have made to research/science?

Let me tackle this from three angles:

Firstly, the effort to establish a longitudinal, evidence-based research environment that can contribute a robust understanding of health and population dynamics in rural South Africa. This is a prerequisite if health care is to have a meaningful impact.

Secondly, working with close colleagues to multiply such research platforms across the continent through leadership in the INDEPTH Network

Thirdly, to recognise- partly by design and partly by chance- before most others, that the cardiometabolic transition was well underway decades ago. That aging in rural populations was a reality and that an agenda of critical interventions was needed.

Did you have a particular mentor or supervisor who inspired you in research?

Curiously, it was only as I entered my forties that I realised I might become a scientist! Till then research and publication were simply a necessary element in the battle for democratic development when I worked at a rural hospital. But working with colleagues in Bangladesh, Senegal and elsewhere helped me appreciate the potential power and necessity for research.

Along this road I encountered outstanding mentors ranging from John Gear, Tom Bothwell, John Pettifor to Lincoln Chen and Ade Lucas at Harvard. The most formative influence was from the late Sidney and Emily Kark whose interdisciplinary efforts in community-oriented primary care (COPC) were nothing short of inspiring. They gave freely and generously of their understanding, born mainly in Polela in rural KZN.

Tell us about what you do when you are not busy at work and carrying out cutting edge research?

I love 'time out' and Durban is still my home town. Road running and reading are a part of most weekends and I particularly enjoy reading biographies of scientists and political and social leaders.

[Read one of Stephen's papers:](#) Tollman SM, Kahn K, Sartorius B, Collinson MA, Clark SJ, Garenne ML. Implications of mortality transition for primary health care in rural South Africa: a population-based surveillance study. Lancet 2008; 372: 893-901.