



**PMAC** PRINCE MAHIDOL  
AWARD CONFERENCE **2026**

**PL 2**

**DEMOGRAPHIC SHIFTS AND HEALTH SYSTEM TRANSFORMATION**

## | BACKGROUND

Global demographic transitions—including aging populations and declining fertility rates, youth bulges, and complex migration patterns—pose significant challenges to health systems worldwide[1],[2]. These will result in structural changes with around 55 per cent of the world's population living in towns and cities, projected to be 70 per cent by 2050[2]. However, changing demographics will impact health systems if we do not prepare; for example, countries with the most increase in non-communicable diseases, are least prepared to address in terms of their health systems[3]. Investing in health systems will be critical to tackle these challenges[4]. Key issues on demographic transitions relate to changing disease burden, healthcare infrastructure and access, aging population and long-term care, workforce and economic impact, maternal and child health, health policy and financing and technological advancements. In addition, there is a need to think of a life course approach to health and well-being and how health systems can be designed for this purpose[5]. Overall, there is therefore a need for a holistic approach to adapt health systems to respond to the shifts in demographics.

[1] PMAC 2026 overarching concept note: 1. PMAC2026 Concept Note as of 24 Jan (1).pdf

[2] Shifting Demographics | United Nations

[3] The Changing Demographics of Global Health

[4] Global health 2035: a world converging within a generation - The Lancet

[5] The life-course approach: from theory to practice: case stories from two small countries in Europe

## | OBJECTIVES

The objective of this plenary is to highlight the imperative for inclusive and sustainable health systems that are resilient to shifting demographics, recognising the need for multi-sectoral, life-course approaches in the context of current global developments, to improve population health and well-being.



## Speaker

### Ntobeko Ntusi

*President*

South African Medical Research Council (SAMRC)  
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Professor Ntobeko Ntusi is the President and CEO of the South African Medical Research Council (SAMRC) effective 1 July 2024. He joins the SAMRC from the University of Cape Town and Groote Schuur Hospital where he was the Chair and Head of the Department of Medicine. He is a distinguished and highly respected figure in the medical community as a key global opinion leader. His lifelong passion for evidence-based healthcare, health systems research, noncommunicable disease multimorbidity, and universal health coverage has positioned him as a trailblazer in medical research.

Prof. Ntusi is committed to advancing medical research and innovation; and is passionate about improving healthcare outcomes aligned with the SAMRC's mandate to advance the nation's health and quality of life. His leadership spans various national, regional, and international platforms, where he has played pivotal roles in shaping academic agendas, postgraduate medical education standards, and advancing key national strategic priorities. His commitment to mentoring young professionals and supervising postgraduate students underscores his passion for nurturing the next generation of medical leaders, instilling hope for the future of medical leadership.

Prof. Ntusi obtained a BSc(Hons) degree in Cellular and Molecular Biology from Haverford College, USA, and an MBChB degree from the University of Cape Town. He is a qualified physician and cardiologist, and holds numerous additional qualifications, including a DPhil in Cardiovascular Medicine from the University of Oxford, St. Cross College, and an MD in Cardiology from the University of Cape Town.

Through his research partnerships and collaborations, he has extensive experience with basic science, translational and clinical research. He has built strong links with colleagues in clinical medicine, immunology, molecular genetics, physics, biomedical engineering, and biomedical statistics; and he has shown capacity for performance in scientific investigational teams and is suited to being part of multi-disciplinary and multi-centre clinical studies.

Prof. Ntusi provides key scientific leadership globally through boards and scientific advisory committees of numerous organisations he serves on.