



## Guest editor, Sajidah Khan

Clinical Head of Unit, Department of Cardiology, School of Clinical Medicine, College of Health Sciences, University of KwaZulu-Natal and Inkosi Albert Luthuli Central Hospital, Durban, South Africa.

## Bridging the Divide

The theme for the 2014 congress “Bridging the Divide” was selected to highlight the idea that improving the overall health of a population requires partnerships and interdependence with structures within and outside the healthcare domain. A health care delivery system is thought to account for around 10% of preventable deaths with the remainder attributable to social and environmental determinants, personal behaviour and genetic predisposition.<sup>(1)</sup> This interdependence comes from the knowledge that increased life expectancy, on the one hand due to a reduction in premature mortality from improved sanitation, nutrition and vaccinations in the childhood years, at the other end is linked to the health and survival of the elderly due to innovations in science and technology.

Population ageing, whereby older individuals make up increasingly larger numbers in a given society, is a demographic trend worldwide that is not confined to the affluent nations. While we acknowledge the importance of investing resources in the childhood years, the healthcare and survival of the elderly has also become a pressing need. In addition, the population in the “middle years”, realising the potential of a long life, look to physicians to increase their “health-span”, i.e. the years of healthy living before the eventual decline sets in. Therefore, although as physicians our traditional role has been the treatment of disease, there is a growing acceptance that we need to be equally engaged in the preservation of health.

As developments in molecular science continue to unravel the complexities of the ageing process, there is increasing recognition that the common age-related disorders which include atherosclerotic cardiovascular disease, diabetes, cancer and Alzheimers disease, share a common biology. A growing body of evidence suggests that these disorders and the environmental risk factors that drive them, are associated with progressive DNA damage, which acts via a molecular circuit involving telomeres-p53-mitochondria and impacts on several signaling pathways to drive the ageing process. While this knowledge has led to the exploration of novel anti-senescence therapies for disease states, the quest for delaying physiological ageing as well as further extending human lifespan has gained unprecedented attention, so much so that venture capitalist companies including Google and Apple, have joined forces to make significant investments in the science of biogerontology.

However, while we endeavour to increase the lifespan of octo- and nona-genarians, we simultaneously grapple with diseases linked to a lack of basic amenities. While, as a society, we adopt guidelines of developed nations and hope to emulate their standards of care, our population, resources and geography dictate a different dictum. While we are quick to introduce high-end technologies for treating well-known diseases such as hypertension and heart failure, there remains disarray in basic

definitions and disagreement amongst experts and guideline-writing committees on treatment protocols. Nowhere is this divide more evident than in the confusion that is being witnessed regarding fundamental issues of what constitutes a heart healthy diet or appropriate exercise regimens that know the balance between endurance and resistance training. It is therefore understandable that there exists a thriving industry, shrouded in pseudo-science and without the requirements of scientific data and regulatory jurisdiction, advocating untested diets and offering a multitude of products such as antioxidants to neutralise free radicals, chelators to bind heavy metals, dehydroepiandrosterone to strengthen the immune system, growth hormone to increase muscle mass and a plethora of nutraceuticals to delay the ageing process. Indications are that while the more affluent sectors of our community appear to be succumbing to this subterfuge, the less privileged are even more vulnerable as they are undergoing not only a nutritional transition to the calorie-loaded fast-food-industry diets but are also falling victim to this marketing. This population who are dependent upon, and likely disillusioned with our ailing healthcare system, may be more susceptible to these 'alternative purveyors' of healthcare.

The planning of sessions and selection of topics for the congress were chosen to address some of these issues with the intention to bridge the divide between scientist and clinician, physician and surgeon, doctor and allied health professional, the industry vendor and the healthcare consumer, as well as between the state and private practitioner. Though we appear to come from dichotomous positions, acting from the vantage point of our specific field of interest, as several colleagues writing for these editorial pages have previously indicated, the future wellbeing of our patients as well as our discipline dictate that we create meaningful engagements and foster collaborative partnerships. Writing from the perspective of a state employee and to counter the prevailing pessimism descending into nihilism, it is instructive to heed the advice of the world's most foremost philanthropist "By almost any measure, the world is better than it has ever been.... The belief that the world can't solve poverty and disease isn't just mistaken, it is harmful." (Bill Gates January 2014).

## REFERENCES

---

1. McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. *Health Aff (Millwood)*. 2002;21(2):78-93.