NSTF
National Science & Technology Forum

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Healthy Ageing in South Africa (SA): Leveraging science, engineering, technology (SET) and innovation for longer, healthier and more independent lives

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Concept document

1. Background

The NSTF 2026 Special Annual Theme, **Healthy Ageing**, aligns with the United Nations (UN) Decade of Healthy Ageing (2021–2030), which calls for coordinated action to improve the lives of older persons, their families and their communities. The Decade focuses on four interconnected areas of action: changing how people think, feel and act towards age and ageing; developing age-friendly environments; delivering person-centred integrated healthcare; and improving access to long-term care. [imamediafrica.wordpress.com], [who.int]



The World Health Organization (WHO) defines healthy ageing as the process of developing and maintaining the functional ability that enables wellbeing in older age. In this context, healthy ageing is not only about living longer; it is about ensuring that older persons can remain healthy, independent, active, socially connected and able to contribute meaningfully to society. [who.int]

SA is experiencing a gradual but significant demographic transition. Statistics South Africa (Stats SA) reports (according to the Marginalised Groups Series VIII – Healthy Ageing in SA, 2024) that the population aged 60 years and older increased from approximately 3.6 million people (or 7,7% of the population) in 2002 to 6.6 million people in 2025, representing 10.5% of the national population. This shift reflects longer life

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expectancy and declining fertility rates, and signals the need for stronger planning across healthcare, social development, infrastructure and economic systems. [statssa.gov.za], [statssa.gov.za]

As SA ages, SET and innovation will become increasingly important in addressing the health, social and economic challenges associated with ageing, while enabling older persons to participate fully in society and maintain their dignity, autonomy and quality of life.

2. Context and rationale

Healthy ageing is both a public health priority and a development challenge.

Older South Africans face a growing burden of non-communicable diseases (NCDs), including hypertension, diabetes, cardiovascular disease, hearing impairment, dementia and cancer. Research highlights that multimorbidity and chronic disease are increasingly common among older adults, placing pressure on healthcare systems, families and public resources. [one-health.panafrican-med-journal], [pmc.ncbi.nlm.nih.gov]

At the same time, many older persons continue to play critical roles as caregivers, income providers and community leaders. According to Stats SA, older-person-headed households often support extended family structures and depend heavily on social grants for household survival. This highlights the importance of viewing older persons not only as recipients of care, but also as contributors to household resilience and community wellbeing. [statssa.gov.za], [statssa.gov.za]

Despite these challenges, SA has several notable strengths and achievements:

- Ageing and population-health research programmes, including HAALSI and the Agincourt research platform.
- Growing national datasets and evidence on ageing and wellbeing.
- Expanding research into dementia, chronic disease management, nutrition, mental health and healthy lifestyles.
- Increasing recognition of age-friendly environments and integrated care approaches.
- Emerging health technologies, assistive devices and digital health solutions that support independence, access to care and quality of life.
  [linkedin.com], [who.int]

The challenge now is to harness SET and innovation more effectively so that research, policy and innovation translate into practical, scalable solutions that improve the lives of older persons.

3. Purpose of the Discussion Forum

The purpose of the discussion forum is to:

- Explore the state of healthy ageing in SA
- Examine current and emerging challenges facing older persons
- Showcase achievements, research advances and innovations contributing to healthy ageing
- Highlight the role of SET and innovation in improving health, wellbeing, independence and dignity
- Identify opportunities for collaboration between government, academia, industry and civil society
- Stimulate dialogue that supports evidence-based policies and interventions for healthy ageing

4. Proposed Focus Areas

4.1. Healthy longevity and prevention of NCDs across the life-course

Healthy ageing begins long before old age. A major challenge in SA is the prevalence of NCDs and lifestyle-related risk factors. Research increasingly shows that prevention, early intervention, nutrition, physical activity and lifelong health promotion are essential for reducing the disease burden later in life. A life-course approach also acknowledges that social conditions, access to healthcare, education, income security and safe environments influence health outcomes in older age.

[one-health.panafrican-med-journal], [pmc.ncbi.nlm.nih.gov]

Discussion topics:

- Preventing NCDs across the life course
- Nutrition and healthy ageing
- Physical activity and functional ability
- Mental health and cognitive wellbeing
- Life-course approaches to healthy ageing

4.2. Technology and innovation for independent living

Technological innovation offers significant opportunities to help older persons maintain independence and quality of life. Emerging technologies include digital health platforms, telemedicine, hearing technologies, mobility devices, artificial intelligence (AI), remote monitoring systems and assistive technologies that support daily living. These innovations are especially important for under-served and rural communities, where distance, transport costs and limited specialist services can restrict access to care.

Discussion topics:

- Digital health and telemedicine
- Assistive technologies and mobility innovation
- Smart homes and age-friendly technologies
- AI applications (apps) for healthy ageing
- Innovations for sensory impairments, including hearing and vision

4.3. Strengthening healthcare systems for an ageing population

Healthcare systems must evolve from acute-care models to integrated, person-centred approaches that address the complex needs of older adults.

The WHO identifies integrated care as a key pillar of healthy ageing. SA faces challenges including workforce shortages, fragmented services and unequal access to healthcare, particularly in rural areas. Strengthening primary healthcare, referral systems and community-based services will be essential for supporting older persons with multiple and long-term health needs. [26ThemeConceptNoteHealthyAging | Word], [who.int]

Discussion topics:

- Integrated care for older persons
- Geriatric medicine and workforce development

- Community-based healthcare models
- Long-term care systems
- Innovations in primary healthcare

4.4. Dementia, cognitive health and ageing with dignity

Dementia is emerging as one of the major global public health challenges associated with ageing. SA requires stronger research, diagnosis, support services and awareness programmes to address dementia and related conditions while reducing stigma and caregiver burden. This focus area should also consider ethical issues, including autonomy, consent, dignity, inclusion and support for families and caregivers.

Discussion topics:

- Dementia research and innovation
- Early detection technologies
- Support systems for caregivers
- Brain health and healthy ageing
- Ethical issues in ageing and cognitive decline

5. Expected Outcomes

The discussion forum should:

- Improve understanding of healthy ageing challenges and opportunities in SA
- Showcase SET-driven solutions and innovations
- Strengthen networks among researchers, policymakers, industry and civil society
- Identify priority research and innovation opportunities
- Raise awareness of the UN Decade of Healthy Ageing
- Promote evidence-informed strategies that support healthy ageing nationally
- Encourage practical follow-up actions after the forum