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# Promoting Interventions for Healthy Ageing in South Africa: A Groundwork

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**Abstract**

Over the past three decades, scientific efforts to slow human ageing have focused on reducing the onset of age-related and non-communicable or lifestyle diseases such as diabetes, neurodegenerative disorders, and cardiovascular conditions. In South Africa, where life expectancy averages 61.5 years, these illnesses pose a growing public health challenge. This paper is a groundwork to establish research for healthy ageing in South Africa. We adopt a philosophical-phenomenological approach to argue that interventions to slow ageing and combat non-communicable diseases, and if effective, would reduce healthcare burdens, improve health outcomes, and enhance the quality of life of older citizens (the primary target population of this research) within the context of South Africa. The interventions that we proposed to be enforced into policy in South Africa are diversified dietary and physical activities – interventions that have been successfully implemented in countries like Japan (our primary country of reference). We maintain that this approach is preferable to treating individual lifestyle and non-communicable diseases. However, several obstacles may persist in South Africa: cultural and normative differences in healthcare practices, limited resources for geriatric research in a health system already strained by HIV and AIDS, mental illness, and TB. Despite these concerns, we conclude that the potential benefits of geriatric interventions justify further exploration within the South African context.

*Keywords:* Ageing; longevity; South African public health; communicable diseases; geriatrics

## Introduction

The World Health Organisation (WHO) has designated 2020–2030 as the Decade of Healthy Ageing, a response shaped by the COVID-19 pandemic, which highlighted the social and economic value of people of all ages (Rudnicka et al., 2020; Farrelly, 2021). Research points to the direction of a global increase in the number of older adults from 600 million in 2000 to 2.1 billion by 2050 (Tshivhase, Marumo-Ngwenya & Oosthuizen, 2024). As such, ageing is progressively becoming a universal issue, moving from being seen as an issue exclusive to the first world and not so much for the developing world (Tunzi & Simo-Kengne, 2020). According to WHO, 47.8% of the world's elderly population is living in low- and middle-income countries (LMICs), and this refers to citizens

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at the age of 60 and above (Tshivhase, Marumo-Ngwenya & Oosthuizen, 2024). For biogerontologists and geriatricians, citizens of this age bracket must be given care and attention.

Biogerontologists argue that achieving healthy ageing requires slowing or retarding the ageing process. Ageing is typically marked by physiological decline, particularly sarcopenia, which increases vulnerability to lifestyle diseases such as diabetes, hypertension, and cardiovascular conditions, alongside cancers and psychological disorders such as dementia (Blagosklonny, 2012; Capurso et al., 2019). At this stage, morbidity and mortality rise sharply due to weakened physiology and cellular degeneration. Healthy ageing is therefore defined as the absence of chronic disease and a significant decline in physical, cognitive, or mental functions.

Age-related diseases carry substantial social and economic costs, including increased healthcare expenditure, workforce losses through retirement, diminished expertise, and strain on pension systems. Robin Holliday (1999), one of the earliest scientists to apply molecular medicine to ageing, argues that prevention is more cost-effective than treatment. Preventive strategies, such as caloric restriction, dietary interventions, and physical activities, can extend life and health span. Research also shows that lifestyle and cardiovascular diseases are shaped by genetics, diet, and exercise (Sekome et al., 2024). In South Africa (SA), these factors are particularly significant given the burden of lifestyle diseases, like high consumption of processed foods. While primary health programmes often prioritise youths' healthcare, dementia and degenerative disorders are increasingly prevalent among the elderly, contributing to some of the leading causes of death.

Slowing ageing is thus a pressing concern in a society where social and structural determinants strongly shape the health of older people. Gerontologists and geriatricians aim to slow ageing and prevent associated diseases while prolonging life expectancy (Longo et al., 2015). Globally, individuals over 65 years are especially vulnerable to frailty, morbidity, and chronic illness (Ehni, 2018). Life expectancy has risen significantly in sub-Saharan Africa: in SA, from 55.5 years in 2000 to 61.5 years in 2019 (World Health Organisation, 2020). This trend is expected to continue to roughly 7 million elderly persons by 2030, compared to the 4 million in 2011 (Statistics South Africa (SA), 2016; Tunzi & Simo-Kengne, 2020). This demographic shift has increased the proportion of older citizens and, with it, the prevalence of age-related disease.

Against this backdrop, we ask: i) Do we have a duty to slow human ageing in South Africa? ii) If so, is this duty necessary? iii) What resources should be allocated to advancing gerontological and geriatric research? iv) What is the ultimate goal of slowing ageing?

We respond to the first two questions affirmatively. We situate our argument within a philosophical and normative framework. Using the aforementioned, we claim that South Africa should invest (financially and through policies) in preventive medicine, including biogerontological interventions, which can assist in circumventing financial pressures to mitigate poor health outcomes and high mortality rates associated with its ageing population and the ubiquity of lifestyle and non-communicable diseases. However, two challenges must be acknowledged. First, cultural and normative diversity in healthcare may affect the acceptance of such interventions. Second, a system that is underprepared, with limited infrastructure, financial constraints, and existing burdens of HIV/AIDS, mental illness, and tuberculosis (TB).

To address the aforementioned challenges, we propose that SA enact stringent policies on lifestyle interventions such as dietary changes and physical activities similar to those of Asian countries like Japan. We use Japan's Shokuiku framework as a yardstick, given its effectiveness. We spell out, in full, what the Shokuiku framework is later in the paper. For now, the reader must note that "Shokuiku" means food or dietary education (cf. Keiko et al., 2017). We provide a broader justification for choosing Japan later in the paper. However, very briefly, in the G7 countries, Japan has the longest average life expectancy, with 81 for men and 87 for women (WHO, 2020). As a result, Japan presents itself as a country to mirror when it comes to ageing research. Our proposed approach, using the framework in Japan, may be challenging, but it could offer a lesser financial burden to the SA healthcare system. We outline some of the challenges (infrastructure and finances) associated with using the Shokuiku framework. Nonetheless, as this current paper is a groundwork, we believe that the Japanese style could be a way to start, given the reasons spelt out in the paper. Our rationale for this intervention is justified because senior citizens in South Africa have not enjoyed healthcare benefits compared to the young population due to systemic injustices in the past. As a result, it is a matter of justice to ensure that both younger populations and older citizens are afforded the best healthcare services.

It is important that we clearly spell out the following to the reader: First, this paper is a groundwork; we take a philosophical approach with a gerontological/geriatrics theoretical framework, and the argument that we establish is strictly normative. Second, while our primary focus population is senior citizens in SA, the proposed interventions are beneficial to all populations. Undoubtedly, senior citizens are at risk of lifestyle and non-communicable diseases, which in some instances are age-related. However, younger populations are now increasingly exposed to lifestyle and non-communicable diseases in the current social milieu. As a result, while our target is the senior citizens in SA, and we propose later that the policies should prioritise older citizens, the interventions can also be applied to younger populations. Third, our strategy is to deal with age-related diseases, given that lifestyle/non-communicable diseases are also related to ageing, our intervention methods can address both age-related diseases and non-communicable and lifestyle diseases that are not caused by ageing.

This paper first outlines SA's healthcare landscape for older people, assessing current biogerontological interventions and considering their potential benefits for public health. Second, we discuss some of the benefits of geriatric interventions. Furthermore, using a hypothetical case study, we justify why senior citizens should be prioritised in developing policies for healthy ageing in SA. Third, we discuss how geriatric interventions can be adopted in SA; we draw specifically from the Japanese Shokuiko framework. Finally, we conclude with policy recommendations for integrating such approaches into South Africa's healthcare system.

**An Overview of Non-Communicable Diseases and Ageing in South Africa**

South Africa's average life expectancy has risen from 55.8 years in 2000 to 61.5 years in 2019 (WHO, 2024). This demographic shift has increased the proportion of older citizens, consistent with Statistics SA's 2018 projection, which indicated that older citizens would make up 9.1% of the population by 2022, a forecast confirmed in the mid-year estimates (Statistics SA, 2022).

While this is a commendable achievement, longer lifespans place added strain on public healthcare. Age-related conditions such as dementia, cardiovascular disease, and diabetes are rising, with billions of rands already spent

annually on diabetes and cardiovascular treatment. Neurodegenerative diseases like Alzheimer's and Parkinson's remain incurable, and the cost of long-term management risks overwhelming public healthcare if the prevalence increases further.

Studies by the Global Burden of Disease, Injuries and Risk Factors in 2019 claim that infectious diseases like pneumonia, HIV, and TB are no longer the most significant healthcare threats in the current century (cf. Dicker et al., 2019). Some authors argue that so-called "lifestyle diseases," which we explain shortly, pose a significant threat to public health (cf. Davies & Wagner, 2019). These lifestyle diseases are hypercholesterolaemia (high cholesterol), diabetes (high blood sugar) and hypertension (high blood pressure) (Davies & Wagner, 2019). These diseases are on the rise globally, leading to symptoms like obesity.

In 2022, the World Health Organisation (WHO) declared obesity an epidemic due to the high death rate of at least 2.8 million annually. In SA, the World Obesity Atlas shows that more than half of South African adults (23%) are overweight. Furthermore, lifestyle diseases like high body mass index (BMI), which are preventable non-communicable diseases, account for 22% of deaths in the African continent (Davies & Wagner, 2019; Price, 2024; Montwedi, 2024). It is imperative that we put the dangers of these non-communicable lifestyle diseases in a clear perspective by drawing from the global research before addressing the South African context.

Studies from the Global Burden of Disease Study (2017) showed that unhealthy dietary habits are the primary causes of lifestyle-related diseases like obesity, heart disease, diabetes, and strokes. The study showed that 7.4% of health loss globally is associated with unhealthy dietary habits, an aspect which we seek to address in this paper within the context of South Africa. In their study, Akindele and Useh (2021) state that out of the 57 million global deaths in 2008, 63% of the death cases were tied to non-communicable lifestyle diseases like diabetes, cardiovascular diseases and chronic respiratory diseases (cf. Alwan, 2010). Additionally, it was previously projected by Ezzati et al. (2002) that in 2030, the major causes of mortality will be tied to non-communicable lifestyle diseases. The causes of these diseases were predicted to be tobacco smoking, alcohol consumption, and high cholesterol and blood sugar, in both low and high-income countries (Ezzati et al., 2002; Akindele & Useh, 2021).

In their systematic literature review, Murray et al. (2010) and the WHO (2014) mapped out the variations and the risk factor prevalence of chronic diseases in different geographies. The main argument presented in these studies was that the variations of these diseases are caused by the differences in cultural values, genetic dispositions and health behaviours of different societies (cf. Akindele & Useh, 2021). In the context of SA, Norman et al. (2007) reported that issues such as alcohol consumption, high blood pressure, high BMI, tobacco smoking, low physical activity and high cholesterol were the common causes of death. However, as Nomura et al. (2024) posit, diets are essential for enhancing well-being and social relationships. Studies from Bascunan-Wiley (2022), Snuggs et al. (2023), and Harrison et al. (2025) variously show that healthy dietary experiences (consuming healthy meals) together with frequent family meals have an impact on aspects of health like preventing violent behaviours, suicide, reduction in drinking and smoking, and preventing mental health disorders. While we are aware that there are variations across cultures on dieting, such that Western findings are not directly relevant for Asian or African

locales (cf. Banna et al., 2016), we underscore that it is imperative to learn from interventions from other countries like Japan to address similar problems within the context of South Africa.

Between the years 1997 and 2018, there has been a drastic increase in the rate of death caused by non-communicable diseases like cardiovascular diseases, chronic lower respiratory diseases, and diabetes in SA. The death rate has been between 103,428 in 1997 and 164,205 in 2018 (Stats SA, 2023). According to Statistics SA, a government research body, the median age for these deaths has been 65 years for those who identify as males and 69 years for females. The data from Statistics SA (2023) shows that between 2008 and 2018, cardiovascular diseases increased by 12.9% in 2008 to 17.6% in 2018; with those who identify as Black Africans accounting for 203.46 per 100,000, Asian and Coloured populations at 170.63 and 168.23 per 100,000, and the White population at 111.14 per 100,000. Cases of diabetic-related deaths increased from 19,692 in 2008 to 26,880 in 2018 (Stats SA, 2023). Concerning the demography of death, the Asian population accounted for 80.79 per 100,000, Whites 20.4 per 100,000, and the Black and Coloured population had less than 20.0 per 100,000. Finally, chronic lower respiratory diseases comprised 2.4% of mortality in 2008 and 3% in 2018 (Stats SA, 2023). The above statistics present a growing concern: SA faces a growing burden of chronic disease (Bradshaw et al., 2010; Davies & Wagner, 2019; Akindele & Useh, 2021; Stat SA, 2023; Price, 2024; Montwedi, 2024), with ageing and unhealthy lifestyles accelerating, conditions such as diabetes, hypertension, and lower respiratory diseases are becoming very popular.

As the statistics above indicates, diabetes is especially prevalent among those aged 60 and above (Bradshaw et al., 2010; Davies and Wagner, 2019; Akindele and Useh, 2021), placing further pressure on an already stretched healthcare system (Sifunda et al., 2023). Poor diet and obesity are key risk factors; urbanisation and migration are fuelling widespread consumption of processed foods high in salt, sugar, starch, and oil (Davies & Wagner, 2019; Akindele & Useh, 2021; Sekome et al., 2024). These dietary patterns drive chronic non-communicable illnesses, including hypertension, one of the country's most serious public health challenges.

It is important to note that hypertension is typically defined as systolic blood pressure above 139 mmHg or diastolic pressure above 89 mmHg (Zhou, Bentham et al. 2017). In 2008, 77.3% of South Africans over 50 were estimated to be hypertensive (Peltzer & Phaswana-Mafuya, 2013), rising to 77.9% in 2014 (Lloyd-Sherlock et al., 2014). The contributing factors of hypertension include ageing, urbanisation, lifestyle changes, and psychosocial stress (Ibrahim & Damasceno, 2012). Rural studies confirm similarly high prevalence, with the province of Limpopo reporting 41% among those over 15 years old (Ntuli, Maimela et al., 2015) and Mpumalanga recording 40% among women and 30% among men (Clark et al., 2015). As mentioned previously, the risk factors of these conditions in LMIC's include obesity, older age, tobacco smoking, less physical activity, and alcohol consumption (Ntuli et al., 2015). These issues are amplified by poor diets, especially in SA. We note that the above data indicate that these lifestyle diseases are prevalent in both urban and rural areas of South Africa. Without drifting from the main aim of our current paper, we underscore that future research can examine the blurry lines outlined above.

Despite the aforementioned challenges of lifestyle-related diseases, awareness and treatment have improved. At the Dikgale Health and Demographic Surveillance Site, 64.4% of those over 40 were aware of their blood pressure status; of these, 89.3% received medication and 45.8% achieved control (Sekome et al., 2024). However, treatment

rates decline significantly across the population, with nearly half of those aware of their condition remaining untreated (Jardim et al., 2017; Davies & Wagner, 2019). Additionally, lifestyle and dietary interventions have been promoted, but cultural resistance is often encountered (Jardim et al., 2017). While we engage with the issues of cultural resistance, we propose that future research on the cause of the decline in treatment and issues of cultural resistance. We state clearly that the above is one limitation of our current research.

Nonetheless, alongside hypertension and diabetes, dementia is increasingly prevalent. Around 6% of older South Africans are estimated to live with dementia, a figure expected to rise with life expectancy (Edmunds, 2023). Care is costly: a geriatric psychiatric consultation averages R3,000 per session, while home nursing ranges from R8,000 to R25,000 per month and residential facilities from R25,000 to R75,000 (Card, 2021). Although these estimates are not based on large-scale studies, they highlight the scale of financial strain. However, SA lacks a national dementia policy and widespread public awareness campaigns. Nonetheless, to limit the scope of our current paper, we focus on issues such as hypertension, diabetes, and cardiovascular diseases that require urgent lifestyle changes to achieve treatment. We turn to the gerontological framework to examine which interventions have been identified and to understand the likelihood of their application in the South African context. Additionally, we note that the Japanese Shokuiku interventions may not have been explicitly framed as a geriatrics framework, but we believe they could be explained within such a framework.

**The Promises of Biogerontological Framework and Intervention**

The aspiration to modify the biological processes of ageing, thereby delaying age-associated diseases and compressing morbidity and mortality, is increasingly within reach. As pointed out in the previous section, such interventions could significantly benefit SA, given its rising burden of chronic and degenerative illnesses.

Modern biogerontology can be traced to McCay and colleagues' seminal 1935 study, which showed that restricting caloric intake in rats extended lifespan (McCay et al., 1935). Subsequent research has confirmed the link between ageing, age-related disease, frailty, and calorie intake, with caloric restriction shown to mitigate many age-associated conditions (Ehni, 2018; Farrelly, 2021). In the context of our paper, we show how the Japanese Shokuiku intervention has worked out well in this regard. One central lesson from laboratory studies is that ageing is not an immutable process. Thomas Kirkwood, a leading gerontologist, has emphasised that human life expectancy can be extended, with the delay of ageing offering profound individual and societal benefits (Kirkwood, 2008).

> The clear consensus now exists that ageing is caused by the gradual, lifelong accumulation of a wide variety of molecular and cellular damage . . . But if ageing is a matter of things falling apart, can research realistically hope to achieve anything useful? The answer is emphatically yes – there is plenty of evidence that it is possible to intervene in the underlying causative mechanisms […] it seems possible to slow the rate at which damage accumulates (2008: 644).

Theorists in geriatrics argue that slowing ageing by as little as seven years would yield greater gains in health and longevity than eliminating individual age-related diseases such as dementia, cancer, or heart disease (Butler et al.,

2008). The contention is that tackling such diseases in isolation is less effective than addressing ageing, which could collectively prevent, delay, or even eliminate these conditions. As this paper will make clear, our goal is to propose that, while we tackle current age-related diseases in older populations through stringent healthcare policies, the lifestyle interventions we propose can also benefit younger populations in ageing healthily. We show how our proposed lifestyle interventions have been effective in Japan to bolster our argument.

Ageing carries profound adverse effects, rendering individuals more susceptible to frailty and chronic illness. Globally, nearly half of people over 85 years suffer from Alzheimer's disease, while around half of those over 75 years live with multiple chronic conditions that limit daily functioning (Farrelly, 2010; Ehni, 2018). In SA, approximately 10% of the population is over 61.5 years old, which translates into rising age-related disease risks. It seems counterintuitive to devote vast medical resources to treating individual illnesses rather than targeting the underlying ageing process, especially in societies like SA, where the number of older citizens is steadily increasing. Like Japan, we believe that the intervention in SA must begin at the policy level, specifically targeting dietary changes.

We underscore that the final years of life are those most vulnerable to morbidity and mortality. Nevertheless, the aim of longevity science is not only to improve the senescent phase but to enhance health across the entire adult lifespan. For example, slowing ageing by seven years reduces the risks of frailty, disability, and death by almost half at every stage of adulthood (Butler et al., 2008; Ehni, 2018). Such an intervention would bring immense benefits by reducing the incidence of diabetes, stroke, cancer, heart disease, and other age-related conditions simultaneously.

Even though biogerontology has advanced, no safe anti-ageing medicine has yet been produced. Several interventions, such as caloric restriction, genetic modification, pharmaceutical treatments, and stem cell therapies, have been explored to slow ageing (Longo et al., 2015; WHO, 2020). Caloric restriction, dietary diversity and physical activities have proven the most effective in countries like Japan. Furthermore, Japan is not the only country to have called for dietary interventions; other countries, such as the US, have been implementing them. For example, in the 1980s, the US dietary guidelines recommended a diversified diet as a cornerstone of healthy eating. The above is not only peculiar to the US but also to other national and international dietary guidelines for food (cf. Verga et al. 2021). However, it is worth noting that there is no objective definition of what constitutes a diversified diet, as this is culturally dependent on specific dietary patterns. Additionally, there is no consensus on what dietary diversity represents or on the operationalisation of measurements (WHO, 1996; Montagnese et al., 2015). Nonetheless, regardless of what constitutes dietary diversification, dietary diversity indicators are considered more promising tools for measurement than other complex quantification methods (cf. Verger et al., 2021), given their ease of implementation in developing countries. While challenges in implementing dietary diversity, indicators are often due to a lack of infrastructure, expertise, or finances (cf. Verger et al., 2021), a problem SA faces, we argue later that it is the best option at the moment. Furthermore, we outline why and how SA could benefit from biogerontological and geriatrics interventions.

**The Possible Promises of Geriatrics Research in the South African Public Healthcare**

South Africa's healthcare system already struggles with major burdens such as HIV, AIDS, and COVID-19 (Cluver et al., 2022). This is an avoidable challenge that plays some role in the intervention which we propose for healthy ageing in the next two sections. Many adolescents live with these conditions alongside mental health challenges and further vulnerabilities, including exposure to violence, substance abuse, stigma, and discrimination. However, services remain limited, mainly due to financial constraints. These realities raise an important question: is it justifiable to prioritise age-related diseases in such a resource-limited system, and do we have a duty to provide healthcare for older citizens?

As stated in the hypothetical case study and this section, we answer both in the affirmative. First, using research associated with the Japanese dietary framework, we show that dietary policies in SA are the most plausible approach, as they may mitigate some of the problems raised above. Following theorists like Fontana and Partridge (2010; 2013), we argue that longevity interventions, specifically dietary interventions, could reduce the prevalence of age-related diseases, including cancers and neurodegenerative conditions, and other conditions like exposure to violence, substance abuse and mental health. This would ease suffering and allow older citizens (extended to younger citizens as well) to enjoy healthier and pain-free lives. We claim that just as younger citizens deserve access to care, as we have justified in the previous sections, older citizens, especially within SA, should be given priority in healthcare as a way of redress, due to historical injustices. The growth of age-related conditions such as diabetes and dementia in SA, driven by population ageing, and in some instances linked to lifestyle diseases, further strengthens this case (Mchiza et al., 2015; Samodien, Abrahams et al., 2021). Providing healthcare for all age groups with priority for the elderly in the most cost-effective way possible is a moral and practical imperative.

As we have already established in the first section, the major causes of death are associated with lifestyle and non-communicable diseases. For instance, we pointed out that, in their study, Akindele and Useh (2021) state that, out of the 57 million global deaths in 2008, 63% of the deaths were linked to non-communicable lifestyle diseases such as diabetes, cardiovascular diseases, and chronic respiratory diseases (cf. Alwan, 2010).

Therefore, we argue that it would be more cost-effective to invest in geriatrics and gerontology research, particularly on dietary interventions, to address these lifestyle and non-communicable diseases, which are also age-related diseases, collectively, rather than treating them individually under the current model. The financial challenge is not unique to SA; developed countries also struggle, but research into slowing ageing and the proposed interventions offers significant benefits in our healthcare system (Farrelly, 2021). For instance, recent studies by Szymanska (2025) show that population ageing is an important determinant of social expenditure in OECD countries, a problem we believe can be extended to SA. One of the most efficient interventions is to address the lifestyle factors that cause ageing and age-related diseases, such as caloric restriction, dietary interventions, and physical activity. We draw on the Shokuiku framework in Japan and apply lessons to dietary policies in South Africa. We also address some of the challenges that may stem from the above framework.

One of the most efficient interventions is addressing the lifestyle that causes these diseases through strategies like caloric restriction, dietary schemes, and physical activities. We claim that these interventions are cost-effective and can be deployed and enforced through reasonable healthcare policies in South African healthcare. To make our argument convincing, we will show how my prioritised strategy has been implemented in Asian countries like

Japan, China, Sri Lanka, and India, and what the results have yielded. We proposed that SA could learn from these countries in terms of dietary policies and also implement physical exercise policies in their healthcare system.

**Towards Dietary Policies in South Africa: Lessons from the Japanese Shokuiku**

The World Health Assembly (WHA), a section of the World Health Organisation (WHO), in 2012 launched a Global Nutrition target to be achieved by 2025 as part of the Sustainable Development Goals (SDGs) agenda 2030. 18 countries in South Asia have adopted this toolkit, while other Asian countries, such as Japan, have developed strong dietary policies. For example, in 2005, Japan enacted the first phase of its Basic Law on Dietary Education to promote healthy eating and dietary education to mitigate unhealthy eating habits and combat lifestyle diseases (Zheng et al., 2023). The Japanese Ministry of Education and Science promoted a program to train staff to become diet nutritionists in primary schools to achieve their goals. The aim was to enhance and promote dietary diversity amongst its citizens. Dietary diversity entails the consumption of a variety of foods with different nutritional sources within a particular diet. We briefly outlined the Japanese measures below.

The promotion of a healthy diet in Japan is linked to the rise of obesity and non-communicable diseases in the country prior to 1978, shortly before the Japan Health Promotion Plan was rolled out to the public. The 1978 health promotion plan focused on healthy eating, while the 1988 one focused on promoting healthy physical activities. In 2000, Japan launched the third health promotion plan, which focused on promoting a healthy social environment and life expectancy. Additionally, to further tackle nutrition challenges, Japan has enacted several acts, including the Dietitians Revised Act of 2000, the Long-Term Care Insurance Act of 2000, and the Health Promotion Act of 2013. This move is also similar to 18 other South Asian countries that have enacted Dietary and Nutrition Acts in 2020 that align with their dominant diets (Wali et al., 2023; Zheng et al., 2023). However, we stick to the case of the Japan Shokuiku.

Shoku in Japanese means diet, and iku means education and growth (cf. Miyoshi et al., 2012; Keiko et al., 2017). The Basic Law of Shokuiku promotes knowledge about food and nutrition so that people make appropriate food choices and follow a healthy diet (Miyoshi et al., 2012). Its aim is physical, intellectual, and moral growth. It also governs diets and eating habits in Japan.

Several studies have examined the link between dietary knowledge and healthy eating among adults in the United Kingdom (cf. Parmenter & Wardle, 2000). Parmenter and Wardle (2000) found robust evidence that greater dietary knowledge is associated with a healthier diet. Adults who knew more about healthy eating consumed more vegetables and less fat. Similar studies have been conducted in Australia (Peters et al., 2013) and Turkey (Alsaffar, 2012), but our current paper focuses on Japan.

A comparative analysis of mortality statistics in the G7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States), using World Health Organisation data, shows that Japan has the highest average life expectancy and low mortality from ischaemic heart disease, breast cancer, and prostate cancer (Tsugane, 2020). Both men and women in Japan live long lives, with women living longer on average. Japan has the lowest mortality from cancer and ischaemic heart disease among the G7, although cerebrovascular and infectious respiratory diseases remain relatively common (Tsugane, 2020). Cancer has been the leading cause of

death since 1981, accounting for 27% of all deaths in 2018, followed by heart disease at 15% (Tsugane, 2020). In the early 1960s, Japan had the shortest life expectancy in the G7. Life expectancy rose sharply, and by the 1980s Japan had the highest life expectancy, largely due to reductions in mortality from ischaemic heart disease, cancer, and cerebrovascular disease to levels comparable with Western countries. In 2016, life expectancy in Japan reached about 81 years for men and 87 years for women, and by 2020, mortality from ischaemic and other heart diseases was at its lowest level (Tsugane, 2020). The Shokuiku programme is one way Japan addresses diet-related diseases.

Grosso et al. (2013) reported that better dietary knowledge among children and adolescents improves dietary habits. In Japan, Keiko et al. (2017) found that parents' and guardians' dietary knowledge significantly influenced children's diets. Higher parental knowledge about vegetable intake was associated with higher vegetable intake in children. The study used vegetables, soybeans, and fish as indicators of healthy eating, and snacks and sweets as indicators of unhealthy eating. Keiko et al. (2017) also showed that higher fish intake among both boys and girls was linked to greater dietary knowledge.

Food and Agriculture Organization data show that, among the G7 countries, Japan consumes less red meat, dairy products, sugar and sweeteners, potatoes, and fruit, but more fish and seafood, green tea, rice, and soy products. This pattern lowers saturated fatty acid intake and increases n-3 marine polyunsaturated fatty acid intake (Yamagishi et al., 2013; Yamagishi et al., 2015). As a result, the risk of ischaemic heart disease is lower, given the established association between saturated fatty acids and ischaemic heart disease (Yamagishi et al., 2013; Yamagishi et al., 2015). However, this pattern may also be linked to higher cerebrovascular mortality, as low red meat and high fish intake have been associated with cerebrovascular disease (Tsugane, 2020).

Soybeans, widely consumed in Japan, are a major source of isoflavones, which have anticancer and cardioprotective effects (Tsugane, 2020). High isoflavone intake is associated with lower risks of breast and prostate cancer (Yamamoto et al., 2003; Kurahashi et al., 2007; Xie et al., 2013). Soy and isoflavones are also inversely associated with cardiovascular diseases such as myocardial and cerebral infarction (Kokubo et al., 2007). Katagiri (2020) found that fermented soy product intake was inversely associated with cardiovascular mortality. As soybeans are a key source of plant protein, higher plant protein intake is linked to lower cardiovascular mortality, and substituting 3% of red meat protein with plant protein is associated with reduced cancer and cardiovascular disease risk (Budhathoki et al., 2019).

Lower intakes of potatoes and sugar sweeteners and higher consumption of green tea may contribute to Japan's relatively low prevalence of obesity and obesity-related diseases, including ischaemic heart disease and breast cancer (Malik et al., 2010; Hruby et al., 2016). Green tea intake has been reported to be inversely associated with mortality from various causes, including cardiovascular disease (Saito, 2015; Abe et al., 2019).

A varied diet including grains, vegetables, fish, meat, fruit, and dairy products may also help explain health outcomes in Japan. Studies by Kurotani et al. (2016) and Kobayashi et al. (2020) showed that adherence to the post-war Japanese Food Guide Spinning Top, which promotes this balance, was associated with increased life expectancy and large reductions in mortality from infectious diseases. According to the 2017 National Health and Nutrition Survey, men's mean body mass index has risen since the post-war period but remains well below that observed in Western countries.

Studies by Bascunan-Wiley (2022), Snuggs et al. (2023), and Harrison et al. (2025) show that healthy eating experiences and frequent family meals are associated with fewer violent behaviours, lower suicide risk, reduced drinking and smoking, and reduced risk of mental health disorders. These findings are consistent with the Japanese context. In Japan, although hypertension prevalence (systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg) is intermediate in both sexes, obesity levels and average body mass index remain relatively low even though men smoke more than women (Japan Health, 2019). Tobacco use rose from 1920, fell temporarily during the Second World War, and then peaked in the mid-1970s (Japan Health, 2019). Since then, it has declined. The Organisation for Economic Co-operation and Development (OECD) reports that the smoking rate in men fell from about 80% in the 1970s to 30% in 2013, while in women it fell from 15% to 8% (OECD, 2019).

These findings together suggest that Japan's nutrition education policies, dietary patterns, and family eating practices contribute to better health outcomes and lower mortality. They provide a useful basis for drawing parallels with South Africa and identifying elements that could be adapted.

A Case of Japan introduced Shokuiku primarily to curb rising obesity and non-communicable diseases, the same health challenges facing South Africa.

In South Africa, deaths from non-communicable diseases such as cardiovascular disease, chronic lower respiratory disease, and diabetes increased sharply between 1997 and 2018. Statistics South Africa reports that between 2008 and 2018, deaths from cardiovascular disease rose from 12.9% to 17.6%, while chronic lower respiratory diseases increased from 2.4% to 3% of all deaths. With an ageing population and increasingly unhealthy lifestyles, conditions such as diabetes, hypertension, and chronic respiratory disease are becoming more prevalent; for example, an estimated 77.9% of South Africans over 50 were hypertensive between 2008 and 2014, driven by ageing, urbanisation, lifestyle changes, and psychosocial stress. Although South Africa cannot simply copy Japan's interventions because of socioeconomic differences, there are clear policy lessons given these similar trends.

Research by Baden et al. (2019) shows that dietary diversity in Japanese meals, particularly plant-based foods such as rice, legumes, tea, and vegetables, reduces the risk of lifestyle-related diseases such as cardiovascular disease. This aligns with evidence from Shokuiku, where nutrition education and culturally embedded practices support healthier diets. Japan, for example, promotes tea consumption, especially green tea, as a social and cultural practice; studies such as Nie et al. (2021) suggest that green tea consumption lowers the risk of type 2 diabetes, a form of diabetes that is rapidly increasing in South Africa and Nigeria. Such dietary changes can help restrict energy intake, control obesity, regulate insulin, and reduce inflammation, thereby slowing age-related disease progression (Blagosklonny, 2019). Importantly, this approach shifts some responsibility for healthy ageing to individuals, rather than relying solely on healthcare providers.

Dietary diversity as an intervention is not new in South Africa. It appears in the South African Food-Based Dietary Guidelines (2003, revised 2012), the National Policy on Food and Nutrition Security (2014), and the National Department of Health's Guidelines for Healthy Eating (2013). The National Policy on Food and Nutrition Security, drawing on the Bill of Rights, affirms that every citizen has the right to sufficient food and water and that the state must take reasonable legislative and other measures, within available resources, to achieve the

progressive realisation of these rights. The Food and Nutrition Security Policy further states that all spheres of government have a constitutional duty to promote healthy eating, and one of its strategic goals is to ensure that safe, nutritious food and water are available, accessible, and affordable for all households.

What is missing, in our view, is systematic implementation. Unlike Shokuiku in Japan, South Africa's commitments to dietary diversity and nutrition education have not been translated into a coherent, well-resourced policy framework. We argue that government should invest in implementing basic, nationwide dietary measures modelled on successful elements of Shokuiku, adapted to South Africa's context. Before outlining concrete policy recommendations, however, it is necessary to consider potential objections and practical challenges to this approach and to suggest responses to them.

**Some Possible Challenges**

Implementing interventions to slow ageing in SA faces several challenges. A critic might argue that finance is already burdening the public healthcare system while dealing with communicable diseases such as HIV/AIDS and TB (Mabaso et al., 2014; Stats SA, 2022). These immediate priorities often leave little space for interventions targeting ageing and age-related diseases. Second, the critic might further argue that addressing the health of older citizens, though important, should not be the priority of public health. The South African healthcare system ought to address other issues, especially the high HIV/AIDS incidence amongst the younger generation. The argument here may rest on the claim that younger citizens are South Africa's future and should be prioritised. Finally, the critic may claim that despite my proposal to adopt the Japanese Shokuiku framework, such as healthy dieting and exercise, such approaches may face cultural resistance, especially caloric restrictions through healthy dieting. For example, in rural SA, for instance, dietary changes are often impractical or unaffordable: a study in Agincourt showed low-sodium salt could reduce hypertension, but participants could not sustain it due to poor availability (Llyod-Sherlock et al., 2018). Successful interventions, therefore, require sensitivity to cultural practices, daily routines, and socio-economic realities (Faber & Wenhold, 2012; Dhar et al., 2017; Abrahams-Gessel et al., 2023). For example, physical activity is already embedded in rural life through labour-intensive tasks like farming or collecting firewood (Shackleton et al., 2007).

The objections outlined above raise serious concerns that warrant careful and proportionate response. However, none is sufficient to justify abandoning the interventions which we propose.

First, we respond to the first objection by arguing that it rests on a false trade-off**.** It assumes that ageing interventions would necessarily divert scarce resources that ought to be for HIV/AIDs and TB towards controlling lifestyle/communicable diseases. This assumption is misleading. The interventions proposed here, healthy dieting, are preventive and cost-containment strategies rather than additional fiscal burdens. Lifestyle-related non-communicable diseases already impose high downstream costs on SA's public healthcare system. Preventive dietary interventions can mitigate these costs over time and, crucially, do not require large infrastructural investments from the onset; given that we suggest a policy and education interventions as the first phase. We acknowledge two things: first, Japan's Shokuiku framework emerged in a far wealthier context, which is not the same as SA. Second, in light of the objection above, we acknowledge that financing the aforementioned framework will be expensive. SA's citizens may not have the financial capacity to sustain such frameworks; this is evident

from the Agincourt study cited above. However, we still maintain that initiating policy conversations on healthy eating is justified precisely because inaction carries long-term financial consequences for the healthcare system. Perhaps, policy and education talks on healthy dieting may yield positive pathways.

Responding to the second objection, we argue that prioritising younger citizens over older citizens is normatively unfair. While younger populations face urgent health challenges, particularly with respect to HIV/AIDS, prioritising the health of older citizens does not entail neglecting younger generations. Rather, in the South African context, targeted attention to older adults can serve as corrective redress, given their historical socio-economic marginalisation and lifelong exposure to structural disadvantage. Moreover, older persons play crucial relational roles within households and communities as caregivers and sources of income, especially in townships and rural settlements. Neglecting their health undermines intergenerational wellbeing. Importantly, our proposed interventions are not age-exclusive: improved dietary practices generate benefits across the life course. Thus, prioritising geriatric health in this limited, preventive sense strengthens rather than competes with broader public health goals.

Finally, our response to the last objection is that there can be educative engagements around cultural sentiments about food. We acknowledge that cultural practices surrounding food in SA are sometimes shaped not only by tradition but also by affordability and availability, especially in rural and township settlements. The widespread consumption of highly processed, carbohydrate-dense foods in the aforementioned settlements is often driven by cost rather than cultural preference. This suggests that cultural practices could be responsive to structural conditions. As a result, we posit that policy-guided dietary education, implemented through schools, community organisations, and faith-based institutions, can support gradual, locally adapted changes without displacing culturally meaningful practices. Such education should emphasise realistic adjustments using locally available foods rather than idealised dietary models. Additionally, given affordability concerns, when policies are made, the government could structurally subsidise healthy food for low-earning citizens. Further empirical studies should be conducted around these areas to assess feasibility.

**Recommendations and Policy Implications**

This paper has significant implications for dietary policies in SA. We propose the following recommendations and policies to drive the achievement of a healthy diet and dietary diversity, and physical activities as interventions for combating lifestyle diseases and promoting healthy ageing.

First, it is imperative that there is a promotion of diversified agricultural production in SA by the government. Researchers like Mehraban and Ickowitz (2021) demonstrated that a significant decline in household agricultural production in Indonesia led to reduced dietary diversity and a corresponding decrease in the consumption of nutrient-rich foods. They therefore recommended the promotion of diversified small-scale farms to enhance households' capacity for adequate daily nutritional intake. In the South African context, similar outcomes could be achieved through targeted governmental programmes and incentives. For example, the government could provide subsidised land to retirees, particularly those looking forward to building their retirement homes, to enable the establishment of household gardens or small farms. Such measures would not only improve food security but also promote physical well-being among older citizens through their farming activities. Additionally, young people

growing up within such environments may begin learning and drive the culture of small measures like the above to tackle healthy dieting. Additionally, policymakers should strengthen agricultural market structures to ensure resilient supply chains that support small-scale farmers, like our aforementioned retirees seeking to commercialise their production. Again, we underscore that this approach must begin at a policy-level discussion.

Third, drawing from interventions in Japan, the South African government should embed nutrition education and awareness programmes within schools. Such initiatives would promote understanding of the importance of dietary diversity among learners. Implementation could begin at the local and municipal levels before being scaled nationally. The rationale is that informed learners can serve as agents of change, influencing health practices within their households. Additionally, the government should support community-based awareness campaigns involving local leaders, faith-based organisations, and civil society groups to reinforce these views at the community level. We believe that this is an efficient cost-effective way to begin.

**Conclusion**

In this paper, we have examined the potential of geriatric interventions and, drawing on the Japanese Shokuiku framework, as viable forms of preventive medicine capable of addressing the health needs of South Africa's growing ageing population. We spelt out that such interventions can contribute to mitigating both the rise in age-related diseases and the increasing prevalence of lifestyle or non-communicable diseases, which represent a major public health concern in the country. We argued that addressing lifestyle and non-communicable diseases inherently contributes to healthier ageing, thereby reducing the incidence of age-related conditions across both older and younger populations. We proposed the enactment of policies on dietary diversification, dietary education as a starting point, given the financial constraints of SA. While these interventions primarily target older adults at higher risk of age-related diseases, their adoption can yield significant health benefits for younger populations susceptible to lifestyle-related diseases like diabetes, cardiovascular diseases and lower respiratory diseases. Drawing on successful lifestyle interventions implemented in countries such as Japan, this paper also provides pragmatic policy recommendations tailored to the South African context. Finally, given that our current paper is merely a groundwork with normative implications, we have identified several areas throughout the paper for future empirical studies to address the challenges we raised.

## Declarations

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