

# AGEING POPULATIONS AND GERIATRIC HEALTH: A GLOBAL REVIEW OF BURDEN, PREPAREDNESS, AND POLICY RESPONSES

Abeer M. Alghamdi<sup>1\*</sup>, Amal H. Alshubeki<sup>1</sup>, Amnah M. Alanazi<sup>1</sup>, Ghadah A. Alzahrani<sup>2</sup>, Hadeel M. Almutairi<sup>1</sup>, Joud A. Basfar<sup>1</sup>, Muhannad I. Alhussaini<sup>1</sup>, Nawaf A. Alghamdi<sup>3</sup>, Fawaz H. Modahi<sup>1</sup>

<sup>1</sup>King Abdulaziz Medical City for National Guard, Riyadh, Saudi Arabia,

<sup>2</sup>Prince Mohammed bin Abdulaziz Hospital, Riyadh, Saudi Arabia,

<sup>3</sup>Marley Clinics, Riyadh, Saudi Arabia,

\*Corresponding Author: Abeer M. Alghamdi

## ABSTRACT

This review intends to consolidate the evidence available in the world regarding the epidemiological, clinical, social and policy aspects of population ageing to emphasize its increasing burden and its impact on health-system preparedness. Based on a narrative review methodology which uses international databases, peer-reviewed literature and large organizational reports in 2000–2024, the research presents significant patterns of multimorbidity, non-communicable diseases, frailty, cognitive decline, social determinants, and gaps in geriatric care provision. Findings indicate that the accelerated pace of demographic ageing, particularly in low- and middle-income nations, has exacerbated the prevalence of chronic illnesses, functional impairment, and caregiving; and has revealed laggards in the current state of long-term care systems, labor shortages, disintegrated service provision, and endemic ageism. Solutions that have emerged, such as the integrated, person-centered care model, age-friendly environment, and technological innovations to aid in managing chronic diseases, are also observed as part of the analysis. The review finds that to deal with the multi-sectoral, equity-based solutions needed to face the complex challenges of global ageing, the health systems, social protection, and community structures need to be aligned to improve resilience, functional ability, and dignified and healthy ageing among diverse groups of people.

**KEYWORDS:** Ageing, Geriatric Health, Multimorbidity, Functional Decline, Long-Term Care, Health-System Preparedness, Healthy Ageing.

## INTRODUCTION

Population ageing has been one of the most dramatic changes in the demographics of the twenty first century and it still continues to transform societies, economies, and health systems worldwide. It is mostly the outcome of incredible medical research and enhanced access to medical care, successful preventive measures against diseases, and a wide socioeconomic development process which, together, has significantly increased the human life expectancy to unprecedented levels (Sperber, 2023). Contrary to the fact that during the majority of the second half of the twentieth century, life expectancy in the world was still less than half of the world population, currently, life expectancy has reached above seventy years in most parts of the world. This continual rise in survival coupled with a decreasing fertility rate has dramatically increased the percentage of the older adults in national populations (Cheng et al., 2022). The elderly population has become the most rapidly increasing group of the population in most countries, and this situation is projected to increase even more in the next several decades.

Projections further suggest that by the year 2030, a sixth of the world population would be sixty years or above in age, with age distribution structures undergoing a structural change which is mostly irreversible. The number of older adults in the world is expected to rise to about 2.1 billion by 2050, and in low and middle-income nations, the rise in the absolute number of older adults is at the fastest rate (Spitzer and Reiter, 2024). Many lower resources countries are being confronted with demographic ageing at a faster rate compared to other countries that are experiencing ageing as their populations were getting older over a long period of time, and thus they had time to build institutional, economic, and health systems to cater to the ageing population (Jane Osareme et al., 2024). This accelerated change results in little time to change the health systems, educate specialized professionals, increase the availability of long-term care, and/or, put in place comprehensive social protective systems that are able to meet the demands of the ageing populations. Due to this, demographic ageing introduces a distinct set of vulnerabilities to these countries, which compound existing disparities in health and make the attainment of universal health coverage more difficult (Kowal et al., 2023).

Ageing is a complex biological process, which is characterised by progressive decrease in physiological reserves, decreased homeostasis maintenance capability and vulnerability to external stressors. The increased chronic disease burden found in the elderly is based on these biological changes. Multimorbidity refers to the presence of two or more chronic illnesses and increases with age and in geriatrics, tends to overlap with geriatric syndromes including frailty, mobility impairment, sensory and polypharmacy (Baré et al., 2021). Especially frailty increases susceptibility to acute illness, falls, functional disability and hospitalization. Simultaneously, such cognitive disorders like dementia occur more frequently, which introduces the health systems and families with significant emotional, financial, and caregiving responsibilities. Depression and anxiety in later life, which are also affected by mental health issues, further undermine independence, social engagement and add to the decrease in quality of life (Umegaki, 2025).

The social determinants of health influence the health and wellbeing of the older adult significantly besides the biological processes. The income security, education level, occupation history, housing situations, family composition and social network have powerful cumulative effects throughout the life course (Ortiz and Bellotti, 2021). Socioeconomically disadvantaged or low access to health promoting resources individuals is more likely to enter older age with worse health status, increased disability rates, and less support systems. Older adults are particularly susceptible to social isolation which has been strongly associated with increased risks of depression, cognitive impairment and even premature death (Guarnera et al., 2023). The conditions of the environment such as availability of transport, community walking-friendliness, exposure to pollution and the security of the living conditions are also additional factors in heterogeneity of experiences of ageing.

Considering such complicated interactions, ageing has now become a social issue and interest of the public health issue, which needs a multisectoral approach to be addressed. It has been reiterated by the world bodies like the World Health Organization and the United Nations that healthy ageing is not only a factor of medical attention but rather the result of integrated policies that come up with health systems, social services, economic safeguards, and community settings (Rahman, 2025). The WHO Decade of Healthy Ageing (2021-2030) is a form of a holistic framework that aims to enhance functional ability, lessen inequalities, suppress ageism, and make long-term care systems stronger. Nonetheless, the implementation is still unequal and limited due to the lack of resources, shortage of workforce, poor care systems, and continued social and structural disparities that disfavor older adults (Shelley, 2021).

The greater need to tackle the problem of population ageing is compounded by the fact that the demographic transition is coinciding with high rates of non-communicable diseases, increased demand on care-giving, and increased financial strains to health systems. The longer people live, the more chances they have to spend later years with chronic diseases that cannot be treated in isolated and sporadic ways but in integrated, consistent treatment (Volkow and Blanco, 2023). The acute-oriented nature of most health systems is ill-suited to the long-term, integrated, and person-focused models of care that are required to advocate ageing populations in any meaningful way. This mismatch brings about inefficiencies, more avoidable hospitalism and compromises the autonomy and wellbeing of older adults (Elovainio et al., 2023).

The review presents a synthesis of the existing evidence on epidemiological, clinical, social, and policy levels to give a whole picture evaluation of ageing as a health and development challenge the world faces. It looks at the magnitude and characteristics of ageing in the population, the factors that impact health in adulthood, the increasing prevalence of chronic ailment and comorbidity, how health systems are getting ready and what mechanisms are currently in place to enhance resilience and healthy ageing (Gianfredi et al., 2025). This review aims to promote more informed policy making, bolster health system reactions, and inform further research that will promote equitable, dignified, and healthy ageing in all individuals by highlighting the issues and the opportunities linked to longevity.

## **METHODOLOGY**

This narrative review is based on the findings of major international databases, peer-reviewed studies, and official reports created by such major organizations as the World Health Organization, the United Nations, and Alzheimer Disease International. The period of literature reviewed was 2000 to 2024 and terms like geriatric health, ageing populations, non-communicable diseases, frailty, cognitive disorders, long-term care, and health system preparedness were used. The studies were eligible that were all about adults aged sixty years and more and covered epidemiological trends, disease burden, mental health, functional decline, health systems, or policy responses. Quantitative and qualitative articles were also included as well as narrative and systematic reviews.

The review does not boast of exhaustive synthesis but seeks to bring together regular patterns, to come up with global similarities and regional variations and explain the adhesions that demographic ageing imposes on social and health systems. Formal grading of quality of the studies was not done as this was a narrative and not a systematic review. In its turn, it focused on the rigor, consistency, and applicability of the results to geriatric health in international settings. Through this method, the interrelations between the factors influencing ageing all over the world can be explored broadly but in detail and both challenges and the strategy promising to work in various regions can be understood.

## **Critical Analysis**

### ***Ageing and Global Epidemiological Trends.***

The rate at which population is growing old is increasing at a high rate worldwide and this is one of the largest demographic transitions in the recent past. It has been faster and bigger than any earlier rate foreseen and has fundamentally redefined the national age formations and with very extensive implication to the health systems, social policies and economic steadiness. Presently, it is estimated that close to one billion people were at least sixty years and above in 2020 and this figure is estimated to increase to about 1.4 billion by the year 2030 and beyond two billion by the year 2050 (Paul and Nag, 2024). This population change is due to long-term positive changes in the survival of young people in early life, treating infectious diseases, low rates of maternity and child mortality, improved sanitation, and significant advances in medical care. This has led to an increase in the lifespan of more individuals than ever in the history of humankind.

Countries with high income are still undergoing the most progressive phases of population ageing and the populations of Japan, Italy or Germany have one of the highest percentages of individuals aged above sixty-eight years in the world. The gradual demographic transitions experienced in these countries over decades have given them the time to cope with the changes through the provision of more pension programs, medical infrastructure and long care services (Jane Osareme et al., 2024). Nevertheless, the highest ageing populations can today be observed in low- and middle-income areas, where the rate of demographic change is really challenging. The two countries, China and India, represent a high percentage of the older population in the world, and their population will increase dramatically as life expectancy rates continue to be raised (Hertog et al., 2023). Due to the aging population, these nations experience massive strain to increase geriatric healthcare, establish social protection regimes and meet the demands of older members of the population who do not typically have a comprehensive health cover.

The continent, Africa, is the youngest in demographic terms, but it is likely to experience one of the most significant relative growths of older populations. Advances in the prevention of infectious diseases, increase in life expectancy, and the changing patterns of fertility are some of the factors that have led to a rising number of older persons (Grinin and Korotayev, 2023). Despite the fact that absolute percentage of older people is still low in comparison to other parts of the world, the rate of change is so high that most African countries will find themselves facing the issues associated with ageing without proper systems in place to handle it health and socially. The trend reflects a wider international tendency of demographic ageing where the steepest demographic ageing is observed in the areas with a low level of health infrastructure and financial means.

The other critical issue that goes hand in hand with global ageing is the increasing disparity in life expectancy and healthy life expectancy. Although individuals are indeed living longer it is not necessarily so happily. The older adults are subjected to long-term disability, chronic illness, and impaired functional ability (Dimwobi et al., 2021). Worldwide, healthy life expectancy has been estimated to be 10 years below total life expectancy, which means that a significant part of later life is either diagnoses or hindrances in day-to-day operations. This gap highlights the need to support a change in the way the priorities are set when it comes to addressing the area of public health by focusing not on the way to extend life but on the quality of the years one has to live.

The growing ageing population is imposing unprecedented pressure on health and social systems that necessitate major changes in the mode of care delivery. The model of healthcare needs to shift towards non-acute and episodic treatment approaches into long-term management, which can support the complex health requirements related to ageing (Watkins et al., 2025). Social systems should also adapt towards the growing needs in pension funding as well as care giving and proper housing and age friendly centers. With the demographic environment undergoing continuous changes, nations will require setting adaptive policies that generate sustainability, equity and resilience in the event of an Avalon of population ageing.

### ***Geriatric Health Determinants.***

Biological, environmental, behavioral, and social factors that are accrued over the life course are the determinants of health of older adults. Biological ageing is a progressive alteration at the cellular and molecular stages of impaired mitochondrial function, genomic instability, defective cell repair, and immune senescence (Wu et al., 2024b). All these physiological changes lead to lowering the ability of the body to react to stress, combat infections and physical stability and hence higher exposure to chronic diseases, frailty and functional decline. Low-grade continuous inflammation, otherwise known as inflammageing, also adds to the risk of being prone to cardiovascular diseases, diabetes, neurodegenerative disorders, and musculoskeletal disorders (Di Micco et al., 2021).

Nevertheless, the process of ageing cannot be explained only by biological mechanisms. Social determinants have significant and long-term health trajectories. The educational attainment determines lifelong health literacy, career prospects, and socioeconomic stability, which determine health behaviors and healthcare services (Mozaffarian et al., 2022). The quality of nutrition, living standards, and access to medical care depend on the income levels, whereas the level of safety, movement, and social interactions is defined by the level of housing and neighborhood infrastructure. Those that have had poverty or social exclusion throughout their lives are more likely to start older age with several chronic conditions and poor functional reserve.

A social relationship is also very important in the process of developing geriatric health. Well-developed social networks offer emotional comfort, assist in alleviating stress, and support more healthy lifestyles (Kim et al., 2023). On the other hand, social isolation and loneliness, which are prevalent among the older adults because of widowhood, migration of younger adults in the family, or limited mobility, are also linked with the risks of depression, cognitive impairment, cardiovascular disease, and even untimely death. Social isolation is as harmful to human health as previously established behavioral risk factors and is known to be one of the greatest public health issues among ageing populations (De Guzman, 2024).

Accumulated behavioral factors during the life span have a strong impact on the outcomes of ageing. Sedentary habits are a cause of frailty, sarcopenia, obesity and cardiovascular disease. The use of tobacco and the overuse of alcohol are also major contributors to increased rates of cancer, becoming chronically ill, and having poor cognition (Muhammad et al., 2021). On the contrary, regular exercise, optimal nutrition, and elimination of toxins promote metabolic wellness, muscle maintenance, and cognitive stability. The said lifestyle behaviors not only enhance good health but also contribute to the compression of morbidity, giving people a better chance to spend a larger part of their lives in good health (Anderson et al., 2023).

Another primary determinant of geriatric health is the access to healthcare and in most of the low- and middle-income countries, there are financial barriers, geographic and cultural barriers that limit individuals to access vital services. In the richer areas, disjointed health systems and long queues would delay care. Disparities are further exacerbated by ageism in healthcare that occurs in the form of stereotyping or under-treatment of older adults (Landi et al., 2021). The lack of investment in geriatric training of healthcare providers leads to misdiagnosis, inappropriate prescription and sub-optimal management of multimorbidity.

The health outcomes are also determined by environmental conditions such as quality of the air, fluctuations in climate, exposure to noise, and urban space design. Elderly people are sensitive to environmental risks which include heat waves, pollution and insecure structures especially. The environments that are friendliness to the elderly with easy travel systems, good pavements, and access to the important social amenities are crucial in fostering independence and social engagement (Antal and Bhutani, 2023).

All these determinants demonstrate that ageing is not just a biological process but a progressive manifestation of lifelong inequalities, opportunities, and exposures. Responses to the ageing of the population have to be effective in this regard that they should not only be clinical in nature, but also social policy, community building and environmental intervention to enable healthier, more fair ageing among the population.

### ***The burden of Multimorbidity and Non-Communicable Diseases.***

Most of the health issues that are associated with older adults are non-communicable diseases with over seventy percent of deaths occurring among the older adults being attributed to non-communicable diseases. Ischemic heart disease or stroke is the cause of the highest rate of death, increased by hypertension, diabetes, dyslipidemia and protracted exposure to unhealthy behaviors (Omran, 2024). Diabetes increases significantly with age, and approximately every fifth person in the world over the age of 65 years has the disease and is therefore more susceptible to neuropathy, kidney disease, eyesight problems, and infections. The age factor is also strongly correlated with cancer incidence, and the majority of new cancer cases and deaths are made up of older adults (Ju et al., 2023). Older people are disproportionately affected by chronic respiratory diseases, in particular, chronic obstructive pulmonary disease, owing to cumulative exposures to tobacco smoke and environmental pollutants.

Osteoarthritis and osteoporosis are musculoskeletal disorders that have a major effect on functional independence and mobility. Osteoarthritis disorder is also one of the common causes of pain and disability, and osteoporosis causes fractures, especially hip fractures that may cause long-term dependency and high mortality rates (Hasan, 2024). Multimorbidity is a characteristic of geriatric health whereby the individuals have multiple chronic conditions concurrently. Multimorbidity enhances complexity of treatment, leads to the frequency of hospitalizations, and necessitates long-term coordination of care. The related polypharmacy subjects the elderly to risks of adverse drug reactions, drug errors, and cognitive dysfunction (Yu et al., 2024). With the increasing percentage of older adults, the burden of chronic disease and multimorbidity will only increase and strain health systems which are poorly equipped to deliver long-term and integrated management.

### ***Mental Health and Cognitive Disorders in Ageing.***

Mental illness and cognitive impairment are significant morbidity causes in elderly individuals, but they are frequently underscored compared to physical disease. Dementia is one of the greatest conditions that accompanies ageing and is observed to affect over fifty-five million individuals across the world with estimates that the figure may reach almost three times more by the year 2050 (Westphal Filho et al., 2025). The disease has severe effects on memory, behavior and functional ability, which are accompanied by great family, caregiver and health system burdens. Depression is no exception and it is very prevalent, yet underdiagnosed, in part due to its symptoms being partially confounded by ageing, in addition to being obscured by comorbid diseases. Chronic illness, social isolation, bereavement, and

physical impairment are highly correlated with late-life depression, that is, it is a risk factor that enhances the use of healthcare provisions, worsens quality of life, and high mortality (Bickford et al., 2021).

The interplay between physical and mental health makes ageing processes more complex. The elderly with multimorbidity are at a higher risk of depression, and mental illness complicates the situation in dealing with chronic diseases. Early signs of dementia are cognitive impairment which disrupts adherence to medications and predisposes to adverse outcomes (Zaidi et al., 2021). Given that formal support mechanisms are minimal, caregivers of patients with dementia or chronic mental conditions are prone to serious psychological and physical stress. Since mental health constitutes a significant percentage of the world burden of disease in later adulthood, it is necessary to increase the detection, treatment, and integrated care.

### ***Functional Decline, Frailty, and Disability.***

Ageing is characterized by frailty and functional decline, which are critical predictors of dependency and need of long-term care. Frailty is a condition, which is less physiological reserve, weak, slow, fatigued, unintentionally loses weight and performs less. It is more common with age and is particularly high in people that live in institutions. Sarcopenia, which is the process of progressive loss of muscle mass and power, is another cause of gait disorders, falls, and lack of independence (Rodrigues et al., 2022). Such conditions overlap chronic disease and disability and form a loop that speeds down the rate of decline and makes it more difficult to recuperate the illness or injury.

Osteoarthritis and osteoporosis are some of the common musculoskeletal disorders that cause disability in elderly people. Osteoarthritis restricts movement and causes chronic pain whereas osteoporosis does cause fractures requiring hospitalization and prolonged rehabilitation. The social and environmental context of functional limitations are also indicative of a broader context; resource inadequate housing, improper nutrition, and inaccessibility of rehabilitation services, further inhibit disability especially in resource-restricted environments (Fuggle et al., 2025). The current discrepancy between life expectancy and healthy life expectancy explains why many years of life have often been characterized by heavy functional load. The treatment of frailty and disability demands that it be regularly detected, prevented through preventive measures such as exercise and nutrition and provision of a supportive environment that aids in maintaining independence (Kim et al., 2022).

### ***Issues In Health System preparedness to ageing.***

Ageing populations have been rapidly increasing, and this fact has revealed the stark inadequacies of health system capacities across the globe. The structure of many health systems continues to be based on acute and episodic care instead of the long-term, interdisciplinary care that is needed with chronic illness conditions prevalent in older adults (Thinley, 2021). Lack of coordination between primary care, hospitals, rehabilitation, and social services cause gaps and hospitalizations that can be prevented, sub-optimal use of resources, and ineffective care transitions.

The biggest problem is the lack of trained geriatric practitioners in the world. Even in developed nations, geriatricians, geriatric nurses, physiotherapists, and social workers are not enough to cater to increasing demand. The disparity in low- and middle-income countries is much more evident, and much of geriatric care has been left to general practitioners and informal caregivers with only basic training (Pereira et al., 2025). There is also a lack of long-term care systems development in most areas and families are left with most of the caring processes that lack financial, social and institutional support. The financial constraints also restrict the access to care especially in situations in which out of pocket spending is high sending older households into poverty. Ageism, in terms of negative stereotyping and a lower preference in the priority of the older population, impedes the formulation of age-friendly policies, as well as prevents older people seeking care. The accessibility of other facilities and the availability of rehabilitation services also limit the capacity of the health systems to deliver complete geriatric care due to infrastructure deficits (Morris et al., 2021).

### ***New Paradigms of Geriatric Care.***

Nevertheless, new concepts of geriatric care are emerging in the global environment despite the ongoing difficulties. The approach to integrated care highlights the holistic, person-centered care that is in line with the multifaceted demands of the elderly. Multidimensional diagnostic process Comprehensive Geriatric Assessment, a medical, functional, psychological, and social assessment that evaluates the medical, functional, psychological, and social domains of diagnosis, has been shown to enhance outcomes, decrease hospitalization and assist patients in living independently (Mañas et al., 2022). Numerous nations are developing home based and community-based care initiatives offering nursing services, rehabilitation, and caregiver support outside the hospital walls. These methods are especially crucial in environments where the institutions lack the capacity to engage, and provide cost-efficient alternatives to keep individuals in their communities (Wu et al., 2024a).

The notion of age-friendly environments has become a worldwide trend, facilitating the availability of housing, secure transit, and communal involvement possibilities that endorse independence and involvement. Developing technological innovations such as the telemedicine, remote monitoring devices and assistive technologies also increase the capacity of older adults in managing chronic conditions, taking medications and age safely in their own homes

(Salmistu and Kotval, 2023). The strategies are an indication of transitioning to disease-based models to holistic strategies focusing on functional ability, inclusion, and wellbeing. The implementation however, requires proper financing, development of the workforce, and political desire to make ageing a national agenda to become a successful implementation.

### ***Senescence, Policy Responses and Global Strategies for Healthy Ageing.***

Following the awareness of the scale of demographic ageing, international and domestic organizations have developed various policy frameworks to facilitate healthy ageing and support system resilience. According to the WHO World Report on Ageing and Health, the most important indicator of healthy ageing is functional ability, not the chronological age (Zhang and Wang, 2025). Based on this, the WHO Decade of Healthy Ageing suggests action in four domains, namely, fighting ageism, creating age-friendly places, providing whole person care, and making long-term care affordable. The objectives are very close to the United Nations Sustainable Development Goals, which focus on health and wellbeing at all ages, less inequalities and universal coverage of health.

A number of developed nations have elaborate strategies which combine health, social protection and long-term care. The long-term care insurance system of Japan is one of the best examples offering organized community and institutional care programs. The models of community-based elder care and home-based services have been implemented in European countries (Zhou and Zhang, 2022). Conversely, most low- and middle-income nations are at the nascent policy formulation stage, many of them may not have formalized long term care system, universal health insurance or coordinated ageing policy. This inequality gives rise to an emergency equity issue because as these areas are rapidly ageing, there are scarce resources and competing health priorities. Implementation of the policy needs a multisectoral cooperation, long-term funding, and monitoring mechanisms and ageism opposition and empowerment of the elderly (Lucantoni et al., 2022).

### **CONCLUSION**

The review concludes that global ageing of populations is a fast-growing problem that should be addressed with multi-sectoral and immediate response. With the increasing prevalence of chronic diseases, multimorbidity, frailty, and cognitive impairments, health and social systems, particularly in low- and middle-income countries, are finding it challenging to satisfy the increased demand of long-term, combined, and individualized care. Enhancing geriatric training, increasing the community and home-based services, lessening ageism, and providing supportive environments are the key points in enhancing functional ability and wellbeing. Longer life expectancy and longer life span is important not only to be extended but also lived with dignity, independence, and enhanced quality of life which will be achievable through sustainable policy frameworks and equitable distribution of resources.

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