



Review Article

A comprehensive review of health challenges faced by older population in India

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Abstract

India is experiencing a rapid demographic shift with its elderly population projected to exceed 300 million by 2050, posing significant health, social, and economic challenges. Older adults in India face a complex health burden characterized by a high prevalence of chronic non-communicable diseases such as hypertension, diabetes, arthritis, and cardiovascular conditions, alongside communicable diseases exacerbated by weakened immunity and poor living conditions. These health issues are compounded by social determinants including isolation, financial dependency, and inadequate healthcare infrastructure tailored to geriatric needs. Despite existing government initiatives like the National Programme for Health Care of the Elderly, gaps remain in accessibility, affordability, and quality of care, especially among rural and marginalized groups. The transition from traditional joint family systems to nuclear families further intensifies the vulnerability of the elderly by reducing familial support. This comprehensive review synthesizes findings from national surveys and empirical studies to highlight disparities in health outcomes across gender, geography, and socio-economic status. It underscores the urgent need for a holistic healthcare approach encompassing preventive, promotive, curative, and rehabilitative services, strengthened policy implementation, and capacity building for geriatric care professionals. Addressing these multifaceted challenges is crucial to ensuring dignity, well-being, and improved quality of life for India's aging population.

Keywords: Aging, Chronic Disease, Healthcare Accessibility, Geriatric Care

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1. Introduction

Globally, countries are witnessing a rise in both the number and proportion of elderly individuals.¹ Over the age of 60, there is a notable rise in the incidence of disabilities in the geriatric population, largely as the consequence of decreased cognitive and physical functioning and a greater chance of undesirable health incidents.² With aging physiological impairment may lead to common conditions such as hearing loss, cataracts, refractive errors, back pain, neck pain, osteoarthritis, chronic obstructive pulmonary disorder, frailty, urinary incontinence, falls, peptic ulcer cancer,¹ diabetes, cardiovascular diseases, musculoskeletal, neurodegenerative disorder.³ Genetic conditions like Down syndrome.⁴ Mental health impairments such as depressed mood, sleep disturbance, dementia, Alzheimer's disease,⁵ atherosclerosis, obesity, and physical illness are more likely

to experience several conditions at the same time.⁶⁻⁷ The prevention, assessment, and management of their specific health problems across the disease trajectories, including the physical, mental, social, and spiritual dimensions, are focused on.⁹ Aims associated with positive conceptions of aging, such as "active aging," "healthy aging," "productive aging," or "positive aging," are generally intended to be accomplished.⁹ Healthy aging is implemented by the WHO and declared by the United Nations.²

WHO data show that every year over a million falls globally result in fatalities, with most of those falls occurring in people 65 years of age or older. According to the Global Burden of Diseases 2017 assessment, India saw 990,9501 deaths overall, with the elderly responsible for almost 59% of the total deaths.¹⁰ According to the Alzheimer's Association, around 10 million individuals worldwide have dementia

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annually, affecting 55 million people overall. By 2050, an additional 88 million people will be added to this figure.¹¹ In older adults aged 50 years and above, CVD, including ischemic diseases (17.8% of total deaths), stroke (7.1%), hypertension (1.3%), rheumatic heart disease (1.1%), chronic obstructive pulmonary disease, diabetes, asthma, chronic kidney disease, or inflammatory bowel disease, as well as infectious diseases, experience an increase.¹² The 2011 Indian National Census revealed a consistent increase in the old population, which is more noticeable in the last ten years than in the preceding ones.¹⁰

Health promotion involves enabling individuals to enhance their abilities in order to sustain and improve their well-being.¹³ The aim of the global strategy and action plan on aging and health (2016–2020) is to guarantee that all elderly individuals worldwide enjoy a long and healthy life.¹³ To lower the risk of non-communicable diseases, improve physical and mental well-being, and delay the need for long term care, it is important to maintain healthy behaviours throughout life. In particular, eating a balanced diet, getting

regular exercise, and not using tobacco products are vital.² The National Programme for Health Care for the Elderly' was aimed at providing, reachable, cost effective, premium, comprehensive, and dedicated care services to an aging population.¹⁴

2. Materials and Methods

This review focused on the geriatric population, their common problem, and also the health policy or program to improve them. PubMed and Google Scholar were used to identify relevant information for this review by using various keywords such as geriatric population, elderly people, age-related disease, and health challenges. Some additional filters are used such as free full text, English language articles are added only and others are irrelevant articles are excluded. To ensure the broad records of the original study, review articles and government documents are included in the study. The Medical Subject heading is also used for the search strategy.

Table 1: show the inclusion of the study

| Sr. No | Author Name | Type of study | Year | Findings |
|--------|---------------------------------|------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Cordes T et al. ¹ | Study protocol | 2019 | The outcomes of this experiment will add to the body of knowledge on multicomponent workouts, with a particular emphasis on the role of cognitive-motor strategies in preserving both physical and mental functioning. |
| 2 | Bartke A. ³ | Review | 2019 | The exploration of the possible utility of Growth hormone in the treatment of sarcopenia and frailty remains to be conducted. |
| 3 | Sahu D. ⁴ | Review | 2021 | This provides clear and current information about how Internet of Things (IoT) technology helps take care of older people's health |
| 4 | Kritsilis M et al. ⁵ | Review | 2018 | Evidence of senescence in neurons and glia in multiple sclerosis is provided for the first time, utilizing the novel GL13 lipofuscin stain as a marker of cellular senescence. |
| 5 | Park M et al. ⁷ | Study Protocol | 2015 | This covers how depression shows up in older adults, its link with diabetes, why treating it is key to managing diabetes well, and the best current treatment methods. |
| 6 | Ting KK et al. ⁸ | Review | 2021 | Cell aging is involved in body wide changes in metabolism and is connected to long-term diseases like diabetes, obesity and artery problems. |
| 7 | Duplaga M et al. ⁹ | Scoping Review | 2015 | Health promotion for elder adults involves positive lifestyle changes providing clear health information to good wellbeing.. |
| 8 | Malik C et al. ¹⁰ | Review | 2021 | Primary care doctors need more awareness, training, and skills to take better care of older adults. |
| 9 | Bhatti GK et al. ¹¹ | Original article | 2020 | This article explores how non drugs treatment can help manage Alzheimer's disease. These approaches may help slow down memory loss and reduce chances of developing Alzheimer's, potentially improving the overall quality of life |
| 10 | Vora A et al. ¹² | Review | 2021 | Promoting vaccine awareness and increasing vaccination rates among older adults is a key move towards better public health in India. |
| 11 | Pandey NM et al. ¹³ | Original article | 2022 | Despite the high demand, there are limited resources and services dedicated to supporting the mental health of the elderly. |
| 12 | Sahoo PM et al. ¹⁵ | Review | 2023 | Strong national policies focusing on universal access to critical care, especially geriatric and palliative care, must be accommodated by reforms in the country's healthcare system. |

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|----|--------------------------------------|------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13 | Batsis JA et al. ¹⁶ | Review | 2018 | The outline focuses on the main treatments, especially calorie control, adding protein to diet and doing both aerobic and strength exercises. It also highlights the research and support these methods. |
| 14 | Higgins-Chen AT et al. ¹⁷ | Original article | 2021 | Ultimately, successfully slowing down aging and managing age-related diseases will depend on having a strong and detailed understanding of how these biomarkers work. |
| 15 | Briggs AM et al. ¹⁸ | Original article | 2020 | A decade-long focus on health policy is needed to support musculoskeletal health and promote high-quality musculoskeletal care. |

3. Discussion

3.1. Demographic trends and aging

In developing countries like India, 7.5% of the population consists of aging individuals, with two-thirds residing in villages and nearly half belonging to underprivileged backgrounds. Half of the Indian elderly are dependent, often as a result of widowhood, divorce, or separation are prevalent circumstances, with women comprising the majority accounting for 70% of those affected. Among the minority of elderly individuals living alone, women make up a larger percentage, 3.49%, compared to men, who constitute 1.42%. Therefore, most individuals in later life dwell in non-urban region, belong to low socioeconomic status, and depend on their families.¹⁹ In the field of Historical Demography, Indian civilization has been described as a long-standing, unchanging system where centuries passed with minimal or no significant transformation.¹⁵ The unevenness and complexities of the demographic transition are influenced by economic disparities and distinct cultural norms, and political contexts.¹⁹ An integrated framework encompassing pensions, social security and food security would significantly meet the diverse needs of elderly. As emphasized above, this population faces various vulnerabilities apart from healthcare problems, including their place of residence (rural versus urban), literacy, gender, and dependency on children.¹⁰ If declines in physical and mental capacity dominate these added years, the implications for older people and society become more negative.² However, the Oxford Institute of Population Ageing concluded that population aging has slowed considerably in Europe and will have the greatest future impact in Asia, especially considering that Asia is in stage five of the demographic transition model, characterized by very low birth rates and low death rates.²⁰ Many elderly individuals are also eager to engage in community and advocacy organisations to enhance their wellbeing, contrast to the perceptions of old age by writers aged 80 years and above came to be negative.²¹

3.2. Biological change and age-related condition

Aging is a lifelong journey characterized by continuous physical, psychological, and social transformations. These changes, including those in body composition, are driven by a range of factors. With advancing age, the immune system also undergoes gradual modifications, such as shifts in immune cell populations. Over time, this process contributes

to immune system aging known as immune senescence leading to a decline in immune function.¹² For instance, reaction time may decline with age, whereas memory and overall knowledge often improve. An increased risk of morbidity is associated with aging.²² Although many individuals manage to avoid severe health complications as they grow older, a mild decline in cognitive abilities is considered a natural part of aging. This makes it crucial to identify and address the harmful biological processes associated with aging in order to maintain brain health. Among all organ systems whether cardiovascular or neurological aging is recognized as the leading factor contributing to disease development.¹⁷ Doctors need to consider the possible risks of screening before conducting it on elderly patients. It is essential to consider family preferences regarding treatment if a disease is detected, and the patient's functional status, comorbid conditions, and predicted life expectancy.²³ Older adults undergo various physiological changes affecting multiple organ systems such as decreased the mechanical and contractile efficiency, increased smooth muscle tone, Cardiac hypertrophy, increased risk of atrial fibrillation, in respiratory system include poor lung expansion, Reduced arterial oxygen tension, in digestive system, constipation, appetite, Decreased saliva production, Decrease in liver and pancreas size, urological system Age-related changes in kidney function can interfere with medication metabolism, fluid homeostasis, and regulation of blood pressure. Structural modifications in the bladder and reproductive system may contribute to difficulties with elimination, such as incontinence or urinary retention. Furthermore, deterioration in the musculoskeletal system increases the likelihood of decreased strength, limited mobility, falls, injuries, and persistent pain disorders. In the integumentary system common changes include altered nail thickness and colour, and skin thinning, decreased elasticity, reduced subcutaneous tissues, and prolonged healing time, endocrine system, glucose maintenance, reproductive functioning, and calcium metabolism and less clear in adrenal and thyroid function, hematologic and immune systems, impaired macrophage function, Increased autoimmunity.²⁴ Some people notice that their gums start to pull back from their teeth as they age²⁵

3.3. Psychological and mental health challenges

Mild cognitive impairment, dementia, insomnia, and depression are the most common psychological and mental

health challenges in the elderly population.²⁶ Loss of brain function is the biggest fear among the elderly which includes loss of the very person from dementia.²⁷ Biological aging is associated with reduced cognitive abilities and a higher likelihood of developing psychiatric conditions, which may increase the risk of death. Timely identification and appropriate treatments, including psychotherapy and antidepressant medications, can help lessen these impacts.¹⁷ Various validated tools are used to check cognitive function such as the Mini-Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA), and Patient Health Questionnaire are mostly used for depression in older patients.²⁶ Enhancing mental well-being in the elderly requires fulfilling key needs such as financial stability, proper housing, social support networks, comprehensive healthcare services, and safeguarding against age discrimination and mistreatment.¹³ It undermines and poses risk to the standard of living for both the affected individuals and their caregivers.²⁷

3.4. Healthcare promotion and health access

The National Programme for Health Care of the Elderly in 2011 with the vision to: (1) provide accessible, affordable, and good quality long term, comprehensive, and dedicated care services to an aging population; (2) construct a new “architecture” for aging; (3) build a framework to create an enabling environment for “a Society for all Ages,” and (4) To promote the concept of “Active and Healthy Aging.”¹⁵ The National Programme for Health Care of the Elderly focuses on offering specialized health services to people above 60 years of age through a state-driven approach, primarily at different levels of primary healthcare. Convergence with National Rural Health Mission, AYUSH, and other line departments like the Ministry of Social Justice and Empowerment.¹⁴ The definition of senior citizen status differs across contexts. In governmental settings, it generally refers to the age when individuals qualify for pension schemes or healthcare services designed for older adults.²¹ The Government of India is implementing various schemes and programs to provide healthy, happy empowered dignified, and self-reliant life to senior citizens, along with strong social and inter-generational bonding.²⁸ Certain schemes and programs for Geriatric assessment should include a detailed medical history and physical examination, with a particular focus on problems specific to the elderly such as vision, hearing, nutrition, fall prevention, urinary incontinence, osteoporosis, and preventative health.²⁶ Healthy nutritive food components, such as omega-3 fatty acids, nutraceuticals, minerals, micronutrients, and vitamins have been examined for their roles in health and disease an ameliorative role in the pathophysiology of diabetes, obesity, Cardiovascular diseases, and cancer.¹¹ It is recommended to consume calcium and vitamin D found in milk, curds, cheese, small fish, and certain green vegetables. Exposure to sunlight is necessary to make the skin produce vitamin D. The routine prescription of multivitamins is to be avoided, but

vegetarians require vitamin B12 supplementation.¹³ Engaging in social activities like volunteering has been shown to positively influence depression outcomes in older adults.⁷ As a result, designing effective health promotion and public health strategies calls for the specialized knowledge of professionals experienced in geriatric healthcare and education.²⁹

The transition from the 20th to the 21st century has brought notable changes in global health policies, reflecting substantial shifts in population health trends.¹⁸ Training and continuous education about the approach and management of common problems like hypertension, diabetes, heart disease, stroke, and common neurological and mental health problems should be prioritized.⁴ India has implemented numerous changes and healthcare programs in recent decades and there has been a corresponding improvement in health indicators.¹⁵ A comprehensive public health response must address this wide range of older people’s experiences and needs.² Figure 1 shows a program started and carried out by the Government of India.

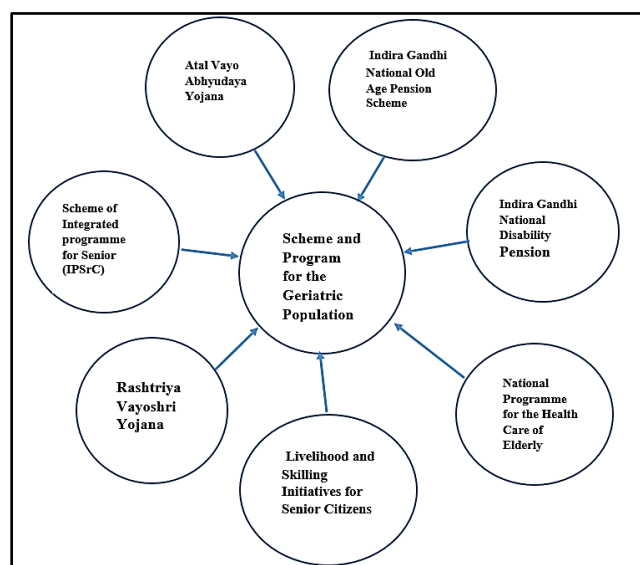


Figure 1: Scheme and program for the geriatric population.

4. Conclusion

Managing common illnesses among the elderly is a challenging and complex task. There is a pressing need for targeted healthcare interventions at both policy and programmatic levels, with a special focus on the aging population. Improved coordination and integration of care services are essential to address the unique health needs of older adults. A comprehensive public health strategy for aging should not only aim to reduce the negative impacts of aging on individuals and their surroundings but also support recovery, adaptability, and mental well-being.

By recognizing the elderly as a priority group, health systems can build more inclusive and resilient care models that enhance their quality of life and promote healthy aging.

5. Source of Funding

None.

6. Conflict of Interest

None

Reference

1. Cordes T, Bischoff LL, Schoene D, Schott N, Voelcker-Rehage C, Meixner C, et al. A multicomponent exercise intervention to improve physical functioning, cognition and psychosocial well-being in elderly nursing home residents: a study protocol of a randomized controlled trial in the PROCARE (prevention and occupational health in long-term care) project. *BMC Geriatr*. 2019;19:369.
2. Ageing and health. 2024. Available from: <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>
3. Bartke A. Growth Hormone and Aging: Updated Review. *World J Mens Health*. 2019;37(1):19–30.
4. Sahu D, Pradhan B, Khasnobish A, Verma S, Kim D, Pal K. The Internet of Things in Geriatric Healthcare. *J Healthc Eng*. 2021;2021:6611366.
5. Kritsilis M, V. Rizou S, Koutsoudaki PN, Evangelou K, Gorgoulis VG, Papadopoulos D. Ageing, Cellular Senescence and Neurodegenerative Disease. *Int J Mol Sci*. 2018 ;19(10):2937.
6. Geriatric palliative care: a view of its concept, challenges and strategies - PMC. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6148954/>
7. Park M, Reynolds CF. Depression among older adults with diabetes mellitus. *Clin Geriatr Med*. 2015;31(1):117–37.
8. Ting KK, Coleman P, Zhao Y, Vadas MA, Gamble JR. The aging endothelium. *Vasc Biol*. 2021;3(1):R35–47.
9. Duplaga M, Grysztar M, Rodzinka M, Kopec A. Scoping review of health promotion and disease prevention interventions addressed to elderly people. *BMC Health Serv Res*. 2016;16(5):278.
10. Malik C, Khanna S, Jain Y, Jain R. Geriatric population in India: Demography, vulnerabilities, and healthcare challenges. *J Family Med Prim Care*. 2021;10(1):72–6.
11. Bhatti GK, Reddy AP, Reddy PH, Bhatti JS. Lifestyle Modifications and Nutritional Interventions in Aging-Associated Cognitive Decline and Alzheimer's Disease. *Front Aging Neurosci*. 2020;11:369.
12. Vora A, Di Pasquale A, Kolhapure S, Agrawal A. Vaccination in Older Adults: An Underutilized Opportunity to Promote Healthy Aging in India. *Drugs Aging*. 2021;38(6):469–79.
13. Pandey NM, Tripathi RK, Kar SK, Vidya KL, Singh N. Mental health promotion for elderly populations in World Health Organization South-East Asia Region: Needs and resource gaps. *World J Psychiatry*. 2022;12(1):117–27.
14. Directorate General of Health Services. Available from: https://dghs.gov.in/content/1359_3_NationalProgrammeHealthCareElderly.aspx
15. Sahoo PM, Rout HS, Jakovljevic M. Consequences of India's population aging to its healthcare financing and provision. *J Med Econ*. 2023;26(1):308–15.
16. Batsis JA, Villareal DT. Sarcopenic obesity in older adults: aetiology, epidemiology and treatment strategies. *Nat Rev Endocrinol*. 2018;14(9):513–37.
17. Higgins-Chen AT, Thrush KL, Levine ME. Aging Biomarkers and the Brain. *Semin Cell Dev Biol*. 2021;116:180–93.
18. Briggs AM, Shiffman J, Shawar YR, Åkesson K, Ali N, Woolf AD. Global health policy in the 21st century: Challenges and opportunities to arrest the global disability burden from musculoskeletal health conditions. *Best Pract Res Clin Rheumatol*. 2020;34(5):101549.
19. Dey S, Nambiar D, Lakshmi JK, Sheikh K, Reddy KS. Health of the Elderly in India: Challenges of Access and Affordability. In: *Aging in Asia: Findings From New and Emerging Data Initiatives*. National Academies Press (US); 2012. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK109208/>
20. Population ageing. In: Wikipedia. 2024. Available from: https://en.wikipedia.org/w/index.php?title=Population_ageing&oldid=1208883838
21. Old age. 2024. Available from: https://en.wikipedia.org/w/index.php?title=Old_age&oldid=1213267279
22. Ageing. 2024. Available from: <https://en.wikipedia.org/w/index.php?title=Ageing&oldid=1212149392>
23. The Geriatric Assessment | AAFP. 2024. Available from: <https://www.aafp.org/pubs/afp/issues/2011/0101/p48.html>
24. Hebdon M. Physiologic Changes That Occur in Geriatric Patients. Springer Publishing Company; 2023. Available from: <https://connect.springerpub.com/content/book/978-0-8261-2772-3/part/part01/chapter/ch01>
25. Contributors WE. WebMD. 2024. Health Issues in Older Adults. Available from: <https://www.webmd.com/healthy-aging/health-issues-in-older-adults>
26. Ghimire K, Dahal R. Geriatric Care Special Needs Assessment. In: *StatPearls*. Treasure Island (FL): StatPearls Publishing; 2024. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK570572/>
27. Amarya S, Singh K, Sabharwal M, Amarya S, Singh K, Sabharwal M. Ageing Process and Physiological Changes. In: *Gerontology*. Intech Open; 2024. Available from: <https://www.intechopen.com/chapters/60564>
28. Schemes for The Welfare of Senior Citizens. 2024; Available from: <https://pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=1806506>
29. Physiopedia. 2024. Older People - Health Promotion and Public Health. Available from: https://www.physio-pedia.com/Older_People_-_Health_Promotion_and_Public_Health

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