



## SCARCITY OF DISEASE BASED AGING: AN INDIAN PERSPECTIVE

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The older population of India is: 140 million people-aged 60 and above (compared to 250 million people in China), currently the world's second-largest. Compared to the overall population, the average annual growth rate of the older population is almost three times. This population dynamics foretells that the proportion of aged population in India (60 and above) will more than double, from 9% in 2015 to 19% in 2050). As a result an older population of more than 320 million, almost equal to the entire (current) population of the USA is predicted.<sup>(1)</sup>

The decade of 2021-2030 has been declared as the 'Decade of Healthy Ageing' by The World Health Organization and the United Nations.<sup>(1)</sup> An Indian's average lifespan was only 32 years in the 1950's which has increased to 70 years in 2020 because of constant efforts and economic growth by the Indian government. With the increasing life expectancy in India, a challenge with the aging population is taking place. The aging of a population occurs due to two processes:

1. Aging at the base of the population: Due to a decrease in fertility.
2. Aging at the apex of the population: Due to a decrease in mortality among the elderly.<sup>(5)</sup>

This combination of low fertility and low mortality during the twentieth century resulted in substantial and rapid increase in the older populations. This will have paralyzing effects on national output, public health, and sustainability of social security and health system. These demographic shifts have prompted the declaration of the period 2021–2030 as the “Decade of Healthy Ageing.” This is a research, policy development, and outreach initiative mainly aimed at understanding and communicating the aging experience and the needs of aging populations in the public health ecosystem.<sup>(5)</sup>

The geriatric population is associated with high risk of Health problems due to diseases, disabilities, and low quality of life<sup>(5)</sup>. Aging has a predisposition to specific health, social and economic challenges. These can be in the form of increasing prevalence of non-communicable diseases, including cardiovascular disease, cancer, respiratory diseases, diabetes and mental health issues. The diseases such as hypertension and diabetes are often under diagnosed (whose increase is seen due to the lack of health literacy and weak health-seeking behaviors) along with a lack of quality and accessible healthcare services, have intensified the health-related challenges of population aging.<sup>(1)</sup> Even though the incidence of NCDs is increasing; the country still suffers at the hands of widespread communicable diseases, with higher incidence in its slums and rural areas. The “double burden of diseases” can be judged from the fact that while all five of the leading sources of disease burden in the nation in 1990 were communicable illnesses, three of the top five causes in 2016 were NCDs (chronic obstructive pulmonary disease, ischemic heart disease, and cerebrovascular disease), while the other two were communicable disorders (diarrhea and lower respiratory infections).<sup>(5)</sup> The aged are more likely to be victims of poor mental health, besides physical illnesses, which arises from senility, neurosis and extent of life satisfaction. Functional disorders precede organic disorders, which are frequent beyond seventy. Hence there is a need that the health status of the aged should occupy an important place in any study of the elderly population.<sup>(6)</sup> In case of NCD's like Diabetes, Hypertension and Cancer the heterogeneity of health status of older adults and the significant lack of evidence from clinical trials present challenges to determining standard intervention strategies that fit all older adults.<sup>(11)</sup> Communicable diseases like HIV, respiratory, gastrointestinal infections need studies to determine specific risk factors. In those aging with these infectious Diseases, the isolation of specific risk factors is very difficult.<sup>(12)</sup>

The significant decline in physical and mental capacity limit older people's ability to care for themselves and to participate in society.

Although India has implemented numerous changes and healthcare programs in recent decades and there has been an improvement in health indicators, in some indicators it still fares unfavorably to other low and middle income countries (LMICs). There are basic issues with the access, affordability, competency, and accountability which still plague the nation's healthcare system. Health disparities at State-level, rural-urban, and socioeconomic class-based are still significant.<sup>(5)</sup>

The stigma of aging, along with health and social conditions the elderly commonly face like dementia, depression, incontinence, or widowhood, is another social barrier to access of health, which manifests in the Indian case scenario in unique ways. Patel and Prince's qualitative study revealed that certain mental health deficits were not acknowledged as health needs. Dementia is viewed as normal aging and depression as the result of neglect by family. “Dependency anxiety” was a common phenomenon among the elderly.<sup>(7)</sup>

Many of the routine data collection procedures (National Sample Surveys, Census data, or death certificates) in India neither capture pathological progression nor do they disaggregate morbidity and disability outcomes among the elderly.<sup>(7)</sup> The emerging epidemic of chronic disease has barely been addressed.<sup>(10)</sup>

Medical gerontologists as well as Clinicians foresee the following chain of health outcomes being faced by many of them.



This sequence considers pathology (e.g., chronic disease) as the ultimate source of disability that progresses to further complications and eventually turns into functional dependence, reducing physical autonomy while performing activities of daily living. Here arises the need of creation of a public-funded geriatric health-care system, especially in the demographically more advanced states. Services from voluntary and community-based organizations may also be used to complement the public health-care system. However this needs a large data base, preferably longitudinal, having considerable understanding about geriatric health; specifically, how it moves from one stage to another and under what circumstances.<sup>(8)</sup> A familiarity with the medical profile of the elderly is essential for planning and implementation of policy related to healthy old age.<sup>(9)</sup> Access to good-quality long-term care is essential for such people to maintain their functional ability, enjoy basic human rights and live with dignity.<sup>(3)</sup>

To begin with, a nationwide research tracking mechanism should be developed in order to fund and commission high-quality research into the major under-represented causes of disease burden and in to the health-system issues which are neglected. A systematic plan is needed in order to make research initiatives more interactive, so that research is more relevant for the health system and policy, and the knowledge thus generated is used more often by policy makers. Also a rigorous evaluation research should become an essential component of all major population health programs and policies, to understand how these could be refined to improve health outcomes and how the underserved segments of the Indian population could be better reached to improve health equity. For these goals to be achieved, the major national organizations which attempt to strengthen health research in India should come together to provide effective collaboration.<sup>(10)</sup>

Due to the paucity of data for care in older adults, treatment decisions are often made with considerable uncertainty. Shared decision making is a novel approach to improve the preference-sensitive medical

decisions. The key components are:

- 1) Build an ongoing partnership between patient and healthcare provider,
- 2) Exchange of information,
- 3) Selection of treatment as per choice,
- 4) Action on the decisions taken<sup>(11)</sup>

In the setting of losses in capacity, supportive physical and social environments are also important. The availability and accessibility of public buildings and transport, and places that are easy to walk around, are examples of supportive environments. To develop a public-health response to ageing, we must consider individual and environmental approaches that ameliorate the losses associated with older age and also those that may reinforce recovery, adaptation and psychosocial growth.<sup>(4)</sup>

The solutions for India have to be tailor-made with the circumstances; there are useful lessons to be learnt from the systematic efforts of other countries aimed at matching research with public health priorities to more effectively improve population health.<sup>(10)</sup>

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