SHORT COMMUNICATION

Adults aged 70 years and older face a global, regional, and national burden of disease and injury

Chris Johnson

Johnson C. Adults aged 70 years and older face a global, regional, and national burden of disease and injury. J Health Pol Manage. 2022;5(2): 16-17.

ABSTRACT

To estimate mortality and disability trends for the population aged 70 and examine patterns in causes of death, disability, and risk factors using data from the Global Burden of Diseases, Injuries, and Risk Factors Study 2019 (GBD 2019). Since 1990, the global population of older adults has grown, but all-cause mortality rates for men and women have dropped. However, between 1990 and 2019, the number of people who died as a result of falls grew. The risk of death among people aged 70-90 has decreased, owing to lower rates of no communicable diseases. Globally, functional decline, visual and hearing loss, and pain symptoms were the leading causes of disability. Globally, life expectancy at 70 years old has continued to rise, owing to a decrease in chronic diseases. Adults over the age of 70 who live in the highest life expectancy and healthy life expectancy were observed in high-income countries and regions with greater healthcare access and quality.

Key Words: *Global burden; Adults; Injuries*

INTRODUCTION

Most infants may live into their 70s and beyond for the first time in history. With the world's population living longer, the health and well-being of older persons is critical in order for them to remain active members of society. However, if additional years are spent in poor health, health-care costs will rise as a result of greater demand. A variety of ageing indicators have been created to conceptualize years of life spent in excellent health. Healthy and effective ageing, as well as frailty, predict high or low wellbeing in the elderly. Functional decline and health loss, rather than chronological age, appear to be more reflective of healthy ageing, according to study. As a result, monitoring the health of the elderly is critical in determining their age. There are various definitions of old age that take into account chronological age or remaining life expectancy [1]. Population ageing patterns are shifting, according to epidemiological data, with those aged 70 to 90 being the fastest growing sector in Europe, Asia, and the United States. In 1950, older persons accounted for 5% of the global population; by 2050, this number is expected to climb to 16%. As a measure, the health and well-being of the elderly has become a major public health concern with far-reaching economic ramifications that include medical care, in-home care and support, and health providers [2].

The burden and duration of no communicable illnesses are expected to rise as the population ages. According to the Global Burden of Disease (GBD) 2010 data, musculoskeletal disorders, cardiovascular illnesses, diabetes, and neurological disorders were the leading causes of impairment in persons aged 60. The World Health Organization designated the growth in chronic illnesses among the elderly to be a global epidemic in 2015 [3]. In both high-income and low-to-middle-income regions, the management of accumulated chronic illnesses is projected to put a strain on healthcare financing in the next decades. Low- and middle-income countries are dealing with an on-going epidemic of communicable diseases, and they will have to deal with the increased burden while working with limited resources and infrastructure. Understanding and minimizing the burden of disease among the elderly is crucial for reducing the economic cost of ageing and ensuring the global health system's long-term viability for future generations [4]. While policymakers and stakeholders are paying more attention to the issue of ageing, worldwide epidemiological data on the burden of disease in older persons is sparse. Although there are studies from high-life-expectancy populations, the majority of them are based on small sample populations with no extensive assessments of persons over the age of 70. WHO epidemiological studies, such as the recently released World Report on Ageing and Health, have emphasized the world's rapidly ageing population and the need for immediate public health measures. The Global Burden of Diseases (GBD) 2019 study updates global, regional, and national population data on mortality, 369 diseases and injuries, and 87 risk factors in 204 countries every year. As a result, it offers a unique opportunity for global and regional systematic investigation of the causes of fatal and non-fatal health loss, as well as risk factors in old age group [5].

The overall goal of this study was to use GBD 2019 data to describe levels and trends in death and disability burden in the population aged 70. We came up with a number of new measures and assessments based on the GBD 2019 results. These assessments included calculating healthy life expectancy at age 70 (HALE-70), calculating life expectancy at age 70 (LE-70), calculating the probability of death between the ages of 70 and 90 (20q70), assessing diseases and injuries leading to changes in 20q70 through causal decomposition [6], and calculating the proportion of remaining years in poor health at age 70 (PYIH-70). To put these findings in context, we looked at the historical relationship between LE-70, HALE-70, and PYIH-70 using two social development proxies: the socio demographic index (SDI) and the healthcare index (HI). The HAQ index measures access and quality. The data coverage that supports the GBD estimations was also evaluated. Overall, this study provides a thorough and extensive assessment of older persons' health.

DISCUSSION

Methods of determining mortality have been well-documented elsewhere. In a nutshell, all available global data was discovered, retrieved, and standardized, including vital registration, sample registration, household surveys, censuses, disease registries, notification systems, and police records. Then, using standardized methodologies, internal consistency estimates of population, fertility, net migration, all-cause mortality, and cause-specific mortality were produced. Estimates of all-cause mortality for each place, gender, and year were used to calculate overall life expectancy and LE-70 [7]. The number of years of life lost was calculated using cause-specific mortality rates and the remaining GBD standard life expectancy at death. The methodologies for estimating risk factor exposure, relative risk, and population attributable fraction have all been extensively documented previously. Exposure models, in a nutshell, used the same data sources as non-fatal estimates. Using ensemble distribution methods developed for GBD, a continuous distribution of exposure was estimated for many risk variables (e.g., high BMI) known to have a spectrum of related severity and outcome. Exposure data was modeled using either spatiotemporal Gaussian process regression or DisMod-MR 2.1 Bayesian statistical models for risk factors [8].

Editorial Office, Journal of Health Policy and Management, United Kingdom.

Correspondence: Chris Johnson, Editorial Office, Journal of Health Policy and Management, United Kingdom, E-mail editor.jhpm@scholarlymed.com

Received: 23-Feb-2022, Manuscript No. PULHPM-22-4486; Editor assigned: 25-Feb-2022, PreQC No. PULHPM-22-4486(PQ); Reviewed: 9-Mar-2022, QC No. PULHPM-22-4486(Q); Revised: 11-Mar-2022, Manuscript No. PULHPM-22-4486(R); Published: 23-Mar-2022, DOI: 10.37532/pulhpm.22.5(2).16-17

In practically every country, adults over the age of 70 lived longer in 2019 than they did in 1990. In the global population over the age of 70, a total extension of life of over two years (LE-70) was observed, or nearly 1.5 years of disease-free life (HALE-70). Although disease burden was linked to societal development and overall healthcare quality, LE-70 showed relatively little regional variability starting at the age of 70, which could be attributable to a lack of variance in the SDI and HAQ index within areas [9]. Women lived longer on average, but spent a disproportionate proportion of those years in poor health. Even before 1990, steady increases in LE-70 were reported, with life expectancy assumed to be a complicated consequence of age-specific mortality, risk factor exposures, and biological advancements. This backs up our findings of little geographical variation in life expectancy after the age of 70. Furthermore, there is evidence that influences as broad as lifestyle and socioeconomic development have predictable effects on healthy ageing. Our research found significant reductions in cardiovascular and chronic respiratory disorders, as well as several malignancies. Nonetheless, neurological disorders, falls, and several cancer types that have not previously been addressed by prevention programs were discovered to be the cause of an increase in mortality [10].

In various countries, the fatal and non-fatal burden of injuries caused by falls has increased, implying that functional loss will play a role in the disease burden among the elderly. To change this tendency, interventions targeting disorders that progressively degrade physical capability may be required. Disorders of functional status (e.g., Alzheimer's disease and other dementias, and stroke), conditions associated with long-term pain (e.g., low back pain, neck pain, osteoarthritis, road injuries), sensory organ dysfunction (e.g., age-related hearing loss, blindness, and vision loss), and oral disorders were the main disability drivers globally. Alzheimer's disease and other dementias play a significant impact in people's functional status and, according to our findings, are contributing to greater death and morbidity rates among the elderly than would be predicted [11]. Physical function limitations, pain complaints, and sensory organ deficiencies were the leading causes of morbidity among the elderly. Importantly, our global analysis revealed that four of the top ten causes of death and disability were the same: blindness, hearing loss, low back pain, respiratory disease, oral disorders (total tooth loss), and falls. These are the causes of direct functional decline, whereas other causes of years lived with disability, such as diabetes, are indirectly related to disability and functional loss. Sex stratified analysis revealed a similar pattern, with falls for older women and strokes for older men as main factors.

There are three major implications for health policy and data gathering from the current findings. First, while tracking regional estimates, country-specific standards can be utilized to plan and implement health intervention programs to address and minimize the burden of disability in older persons. These programs must account for the rise in healthcare spending that comes with population ageing, particularly in the area of long-term care [12]. Even in socioeconomically developed countries, a projected shortage of long-term care services could overwhelm the hospital system if it is not planned for in advance. Second, the findings of this study's cause and risk analyses might be used to create policies aimed at preventing functional loss and disability advancement among the elderly, with a focus on men and women of various socioeconomic levels. Policy initiatives to limit smoking exposure and ambient and household air pollution have yielded positive results, and they should be maintained and expanded. With mounting evidence that older people are particularly vulnerable to environmental risk factors, similar widespread efforts are required to address increased exposure to other risk factors, such as the oncoming effects of climate change, such as extreme weather events, natural disasters, and wildfires [13].

CONCLUSION

Adults aged 70 lived significantly longer in 2019 than they did in 1990, owing to reductions in death due to cardiovascular diseases and chronic respiratory disorders. However, disability burden rates have remained consistent, owing primarily to functional decline, falls-related injuries, hearing loss, and back discomfort. Monitoring mortality and morbidity risk factors on a global scale is critical for sustaining and advancing research and health policy among the elderly. Regions with lower socio demographic development and healthcare quality did worse, indicating the areas that require the most attention. Our findings suggest that we should devise and implement specific ways to address functional abilities, sensory organ deficiencies, pain complaints, and unintentional falls. Because universal plans may be ineffective, programs must address country-specific socio demographic and cultural development. To be successful, public health policies will need a well-coordinated ageing health policy, focused data coverage, and persistent engagement among stakeholders. The current estimates could be used as a healthy ageing benchmark by countries attempting to focus ageing policies on major risk factors and determinants, enhance healthcare access and quality, and reduce healthcare expenditures.

REFERENCES

1. Knickman JR, Snell EK. The 2030 problem: caring for aging baby boomers. Health Serv Res. 2002;37(4):849-884.
2. Crow RS, Lohman MC, Titus AJ, et al. Mortality risk along the frailty spectrum: Data from the National Health and Nutrition Examination Survey 1999 to 2004. J Am Geriatrics Soc. 2018;66(3):496-502.
3. Rowe JW, Kahn RL. Successful aging 2.0: Conceptual expansions for the 21st century. J Gerontology: Series B. 2015;70(4):593-596.
4. Caballero FF, Soulis G, Engchuan W, et al. Advanced analytical methodologies for measuring healthy ageing and its determinants, using factor analysis and machine learning techniques: the ATHLOS project. Scientific Rep. 2017;7(1):1-3.
5. Scherbov S, Sanderson WC. New approaches to the conceptualization and measurement of age and aging. J Aging Health. 2016;28(7):1159-1577.
6. Prince MJ, Wu F, Guo Y, et al. The burden of disease in older people and implications for health policy and practice. Lancet. 2015;385(9967):549-562.
7. De Nardi M, French E, Jones JB, et al. Medical spending of the US elderly. Fiscal Stu. 2016;37(3-4):717-747.
8. Parekh AK, Barton MB. The challenge of multiple comorbidity for the US health care system. Jama. 2010;303(13):1303-1304.
9. Olaya B, Moneta MV, et al. Latent class analysis of multimorbidity patterns and associated outcomes in Spanish older adults: a prospective cohort study. BMC Geriatrics. 2017;17(1):1-10.
10. Tyrovolas S, Koyanagi A, Olaya B, et al. Factors associated with skeletal muscle mass, sarcopenia, and sarcopenic obesity in older adults: a multi‐continent study. J Cachexia, Sarcopenia Muscle. 2016;7(3):312-321.
11. Gijón-Conde T, Graciani A, Lopez-Garcia E, et al. Frailty, disability, and ambulatory blood pressure in older adults. J Am Med Direct Assoc. 2018;19(5):433-438.
12. Williams JS, Kowal P, Hestekin H, et al. Prevalence, risk factors and disability associated with fall-related injury in older adults in low- and middle-incomecountries: results from the WHO Study on global AGEing and adult health (SAGE). BMC Med. 2015;13(1):1-2.
13. Vos T, Lim SS, Abbafati C, et al. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020;396(10258):1204-1222.