

Healthcare Requirements of Aging Elderly Demographic in the Australasian Region

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RESEARCH

Please cite this paper as: John S. Healthcare Requirements of Aging Elderly Demographic in the Australasian Region. AMJ 2023;16(7):704-706.

<https://doi.org/10.21767/AMJ.2023.3964>

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ABSTRACT

The aging population in Australasian region is set to increase the proportion of people aged above 85 in next few decades, impacting the demographic of hospitalized patients, especially critically ill patients. The average age of critically ill patients is also rising with nearly one third of ICU admissions being aged 80 or older by the end of this decade. This shift is expected to change the focus of medical research and healthcare from acute illnesses to managing chronic disease exacerbations. A significant challenge in caring for critically ill older individuals is reduced resistance to disease marked by reduced ability to handle stressors. Frailty in critically ill individuals leads to higher mortality risk, functional dependence, increased healthcare utilization, and decreased quality of life. The prevalence of aging associate frailty among older patients and the implications for medical resources and outcomes remain largely unexplored in Australasian region.

Key Words

Public health, healthcare planning, Healthcare disciplines

Introduction

Based on available frailty data, Darvall et al have observed that, frailty is prevalent in ICUs of Australia and New Zealand, impacting nearly 40% of patients aged over 80 and a significant number of elderly critically ill patients in Australia and New Zealand are frail, associated with worse health outcomes such as higher in-hospital mortality and increased chances of moving to residential nursing care¹.

These findings hold important implications for public health. The study suggested that regular frailty screening for older patients could enhance outcome prediction and guide post-discharge intensive care and community healthcare planning.

Another concern among elderly is deficient sleep. Deficient sleep is a pressing health crisis in Australasian region particularly in Australia and New Zealand, exacerbating chronic diseases and mental health issues. However, healthcare disciplines are falling short on necessary training to tackle this crisis thus perpetuating the problem. Meaklim, et al. Examined the prevalence and impact of deficient sleep, insufficient sleep education in healthcare training, healthcare providers' lack of expertise in sleep disorders, sleep-focused education efforts, an action plan for improved healthcare sleep education in Australia and New Zealand. Considering domestic and international initiatives and involving general practitioners, pediatricians, psychologists, pharmacists, and nurses, theme guide action were emphasized like comprehensive training for students, ongoing development for practicing providers and translating evidence-driven practices. The study highlighted partnerships between professional associations, health agencies, and education providers as crucial².

Holt, et al. Reviewed the changing threat of COVID-19 among the elderly, leading to heightened mortality and various physical and mental health challenges. The study emphasized on the role of healthcare practitioners responsible for the routine well-being of senior population. COVID-19 displays varied clinical severity and has been linked to age-related mortality rates globally. Severe cases and fatalities often involve pre-existing conditions like hypertension, cardiovascular disease, and diabetes, but the exact physiological root causal links seems to be unclear. Effects of ACE inhibitors, ARBs, and NSAIDs lack sufficient evidence. Elderly individuals generally delay seeking care for non-COVID issues, enhancing risk of acute coronary syndromes and stroke due to pandemic-related changes. Restrictive measures in aged-care facilities raise

depression and anxiety risk. Elderly might not attain lasting immunity from SARS-CoV-2 vaccines due to immunosenescence. Moreover, resorting to unverified therapies like hydroxychloroquine should be avoided due to increased risks particularly in the elderly. Asymptomatic transmission is a substantial risk among the elderly and therefore the study recommended broad community surveillance beyond symptomatic cases as important³.

There have been several studies that explored short-term air pollution effects on hospital admissions, often focusing on urban areas, however raising concerns about generalizability and methodological differences. To address this issue, multi-city analyses have emerged, such as the National Morbidity, Mortality, and Air Pollution Study in the US and the APHEA studies in Europe. These studies have investigated associations between air pollutants and cardiovascular admissions. Despite these efforts, the strength of the link between outdoor air pollution and health effects remains unclear due to complex modeling issues. Multiple pollutants are often examined using multipollutant models, but these can be sensitive to assumptions. In this context, Adrian, et al. Evaluated acute exposures considering multiple factors, and then applying to analyzing air pollution's acute effects on health. The case-crossover method matches case and control days, controlling for slowly changing covariates, seasonality, and time trends in health events. The findings of the study indicated notable correlation between air pollution, originating from common sources like motor vehicle emissions (CO, NO₂, and PM), and cardiovascular hospital admissions in adults, particularly the elderly. These associations are observed even when air pollution levels are below established health guidelines. The study emphasized that safeguarding Australia's elderly population from outdoor pollution is crucial to mitigate cardiovascular disease risk⁴.

O'Connor, et al. mapped publicly funded aged psychiatry services in Australia and New Zealand. A comprehensive search was conducted through various channels, and service directors completed questionnaires about their services. Results revealed significant variations in the size, distribution, and community outreach of services. Victoria stood out with specialized, multidisciplinary teams across its major cities, while New South Wales, despite having the largest aged population, had relatively poorer performance. New Zealand performed well despite its smaller size and population dispersion. These findings emphasize the effectiveness of publicly funded aged mental health services, particularly for vulnerable elderly individuals lacking access to private health care. However,

service distribution in Australia was notably uneven at the time of the survey⁵.

Barak, et al. Examined the old-age structure indicators in Australia and New Zealand, given the projected rise in the elderly population in next three decades. Five indicators namely centenarian ratio, longevity index, longevity level, ageing tendency, and centenarity index were analyzed, revealing a more favorable ageing structure in Australia compared to New Zealand. Notably, indicators for the Māori in New Zealand and Aboriginal populations in Australia showed significant disparities compared to the general population. The study emphasized the need for public health policies targeting ageing, in New Zealand⁶.

Conclusion

Increase in the proportion of aging elderly population represents longevity and positive outcome of health care representing extension of population life span. However, it is also important to raise the quality of life among the elderly population. In the context of Australasian regional perspective, several studies have expressed the need to allocate medical resources for screening and surveillance of health status among elderly and provision of appropriate healthcare. Approaches based on association and partnership among health education providers, and health agencies were recommended. Mitigation of causal factors of chronic ailments among elderly has also been emphasized upon. A greater need for structuring of health policies aiming at better health outcomes among elderly population was expressed.

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