Clinical Care of the Aging Population: Implications and Opportunities

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Introduction

The aging population is changing the landscape of healthcare in the United States. Expectations of health, wellness, functional status, and quality of life have changed in the last 50 years; we can anticipate a continued evolution in the next decades due to changes in demographics, medical care, and social supports. For these reasons, it is critical that healthcare providers, policy makers, and other stakeholders understand the factors that led to the rapid aging of the population, the health status and clinical conditions most associated with the aging population, and the associated healthcare policy challenges. Thought leadership and innovation offer opportunities to deliver the triple aim of healthcare for the growing aging population.

Demographics of the Aging Population

The population of the United States is aging rapidly, primarily due to the baby boom generation. The baby boomers are those individuals born in the United States between 1946 and 1964.1 This generation was characterized by a substantial increase in birth rates at the end of World War II compared with prior generations. The National Center for Health Statistics recorded 3.4 million births in 1946 compared with 2.9 million the prior year, a nearly 20% increase in 1 year. In total, there were 76 million births during the baby boom generation.

The baby boom generation changed the demographics of the United States. Baby boomers started turning 65 in 2011, leading to the growth of the population of individuals age 65 years and older. In 2015, 14.9% of the US population was in this age group.2 The median age of the United States is also steadily increasing. A 2016 report from the US Census Bureau3 found that 95.2% of all US counties experienced increases in median age between 2000 and 2016, raising the median age per county from 35.2 years in 2000 to 37.9 years in 2016.3

The global population is also aging. The global increase in the population of older people is mainly driven by increased fertility rates approximately 60 years ago and an increased likelihood that those birth cohorts would survive to old age in many parts of the world. The United Nations
reports that the number of people age 60 years and older is anticipated to rise from 0.9 billion in 2015 to 2.1 billion in 2050, representing an increase from 12% to 22% of the total global population. The subset of this population age 85 years and older, known as the “oldest old,” is also experiencing rapid growth. Globally, the number of people age 85 years and older is projected to increase 151% between 2005 and 2030, compared with a 104% increase in the population age 65 years and older. This trend holds true in the United States as well.

Clinical Conditions of the Aging Population

These demographic changes represent a triumph of medical, social, and economic advances over disease. However, this unprecedented growth has also led to a shift in disease burden and causes of morbidity and mortality from infectious diseases to noncommunicable diseases and chronic and degenerative diseases—a type of change known as an “epidemiological transition.” This development presents a challenge to the healthcare system as it adapts to better support the needs of the older population.

As the population ages, the prevalence of chronic medical conditions increases, leading to increased morbidity. Data from the Centers for Medicare and Medicaid (CMS) on the prevalence of chronic disease in Medicare beneficiaries age 65 years and older report that hypertension is the most prevalent condition, affecting 58% of beneficiaries. Hyperlipidemia is reported in 48% of beneficiaries, arthritis in 31% of beneficiaries, and ischemic heart disease in 29% of beneficiaries. According to a 2014 report from the Centers from Disease Control and Prevention (CDC), the leading causes of death in individuals age 65 years and older were diseases of the heart, malignant neoplasms, chronic lower respiratory diseases, and cerebrovascular disease.

These conditions do not occur in isolation. Two-thirds of individuals age 65 years or older have 2 or more chronic conditions; 15% have 5 or more chronic conditions. As the number of comorbid chronic conditions grows, the utilization of medical services increases. In 2010, beneficiaries with 6 or more chronic conditions accounted for 70% of Medicare readmissions. For beneficiaries with 6 or more chronic conditions, Medicare spending was more than 3 times greater than the average spending for a Medicare fee-for-service beneficiary.

Many chronic diseases are associated with modifiable risk factors, defined as “a behavioral risk factor that can be reduced or controlled by intervention, thereby reducing the probability of
disease." Physical inactivity, tobacco use, alcohol use, and unhealthy diets are the most important modifiable risk factors, according to the World Health Organization. Impacting modifiable risk factors is a critical part of providing effective care for any population, including the aging population.

In 2015, the CDC found that 59% of people age 65 years and older did not meet the aerobic activity or muscle strengthening guidelines described in the 2008 Physical Activity Guidelines for Americans report. Tobacco use has declined for the US population overall, but the decline has been more modest in individuals age 65 years and older compared with the general population. Subgroup analysis of 2015 data demonstrates an increase in tobacco use among men age 65 years and older. Alcohol use has increased overall for the US population; between 2001-2002 and 2012-2013, alcohol use increased 22% in individuals age 65 years and older. The prevalence of obesity is also increasing among people age 65 years and older, with 27.5% of adults in this age group categorized as obese. The National Health and Nutrition Examination Survey found that the largest increase in the prevalence of obesity between 1988 and 2012 was in women age 65 to 74 years, from 27% to 44%.

Also impacting the health and well-being of the aging population are the social determinants of health, defined by the CDC as the conditions in the places where people live, learn, work, and play that affect a wide range of health risks and outcomes. Key issues, such as changing family structures, can have a significant impact on the elderly; as people live longer and have fewer children, family structures are transformed, leaving older people with fewer options for support and personal care. Leaving the workforce can have profound implications financially, socially, and emotionally. Racial and economic disparities among people age 65 years and older can influence health and access to care.

**Resource Challenges**

The national health expenditure in the United States was $3.3 trillion in 2016. Health spending is expected to grow 1.0 percentage point faster than the gross domestic product (GDP) per year from 2017 to 2026; health spending as a percentage of GDP is anticipated to rise from 17.9% in 2016 to 19.7% in 2026. In 2016, Medicare spending was $675 billion.
In 2011, the first baby boomer turned 65. Since then, 10,000 people per day have been aging into Medicare; this rate is expected to continue until 2030. It is estimated that Medicare enrollment will increase by almost 50% from 2015 to 2030.\textsuperscript{19}

Medicare spending is projected to grow 8% per year from 2019 to 2020; this accelerated growth will be driven by incentive payments from the Medicare Access and Children’s Health Insurance Program Reauthorization Act of 2015 (MACRA) plus increases in the volume and intensity of services. From 2021 to 2026, Medicare spending is anticipated to continue growing an average of 7.7% per year.\textsuperscript{17} Projected spending growth will be driven by increased intensity of care and higher prices for medical goods and services as well as the increased volume of individuals using Medicare.\textsuperscript{20}

The burden of disease and shifting demographics contribute to the increasing cost burden on Medicare. As previously noted, a significant proportion of people age 65 years or older have multiple chronic conditions; there is significant cost associated with caring for these chronic conditions. In 2015, 75% of Medicare fee-for-service spending went to the 35% of beneficiaries with 4 or more chronic conditions.\textsuperscript{7} The population age 85 years or older, known as the “oldest old,” is anticipated to grow significantly as the baby boomers continue to age. This group was 1.8% of the population in 2010 and is projected to grow to 2.5% of the population in 2030 and 4.5% of the population in 2050.\textsuperscript{21} In 2016, the Medicare per-beneficiary spending for individuals age 85 years or older was $17,267, compared with $9870 for those age 65 to 84 years.\textsuperscript{22}

\textbf{Policy Challenges}

Although the United States spends the highest percentage of its annual GDP on healthcare, the quality of healthcare in the United States lags behind that of other developed countries when measured by most morbidity and mortality outcomes.\textsuperscript{23} This discrepancy between healthcare spending and quality has pushed healthcare policy makers to find ways to increase the quality of healthcare without increasing costs. This goal was instrumental in the development of many of the healthcare reforms included in the Patient Protection and Affordable Care Act. In an effort to improve quality, CMS has also instituted its own quality goals through the CMS Quality Strategy. These goals include promoting the prevention and treatment of chronic disease and addressing social determinants of health; initiatives include working with communities to promote best practices of healthy living and strengthening both patient and family engagement as partners in healthcare.\textsuperscript{18}
Policies directed at increasing quality and decreasing costs will affect all those involved in providing healthcare to the aging population; Medicare Advantage programs will play a critical role in these policies. The percentage of Medicare beneficiaries enrolled in Medicare Advantage has steadily increased, from 17% in 2000 to 33% in 2017. In addition, Medicare Advantage plans receive the largest share of Medicare benefit payments. In 2016, 30% of the total Medicare benefit payment of $675 billion went to Medicare Advantage programs.

Medicare Advantage programs currently compete on the basis of service, provider networks, and quality. This model currently focuses on a limited number of interventions and outcomes for specific chronic diseases; it also addresses specific screening tests for malignancies. Understanding that this population has a high burden of chronic disease, and that a significant segment of the population has multiple chronic diseases, should shape the future interventions and outcomes for quality programs in Medicare Advantage. The design of the program should be based on an analysis of the prevalence and cost of the conditions, as well as an understanding of which interventions can improve meaningful outcomes and healthcare spending. Additionally, given that modifiable risk factors contribute directly to chronic disease, even in the older population, Medicare Advantage should specifically address these risk factors; as the population continues to live longer, this approach may be cost-effective both in individuals with current disease and in those who are relatively healthy.

To support this effort, it is critical that research continue to evaluate effective chronic care interventions in the older population; well-designed studies that assess specific initiatives in this population will help shape the design of quality initiatives. Research must focus on community and population impacts as well as individual outcomes.24

Conclusion

The unprecedented rapid growth of the US population during the last century, fueled by the baby boom, has led to a new challenge: effectively managing the healthcare of an aging population. Advances in healthcare have allowed individuals in the United States to live longer, but the successes of modern medicine have led to public health and policy concerns.

The overall health of the aging population is increasingly affected by multiple chronic diseases. Many of these can be impacted by modifiable risk factors, such as tobacco use, alcohol use, and physical activity. There is also increasing recognition that social determinants of health play
an integral role in the outcomes of chronic disease and should be considered in management plans.

Providing healthcare to the growing population of older Americans is a daunting task. Delivering high-quality care to this group will require a population-based approach that evaluates the data, provides thoughtful and careful solutions, and continually evaluates the outcomes of interventions. Medicare Advantage plans will play a key role in addressing the need to improve the quality of healthcare for this population while managing costs. These plans have the opportunity to drive interventions to treat chronic disease and manage modifiable risk factors.

Understanding where evidence-based strategies exist, and how to implement them effectively, will be paramount in improving outcomes on both an individual and a population level. Collaboration between physicians, policy makers, payers, and researchers will provide this generation—and generations to come—with the ability to live long and healthy lives.

References


