



ECONOMIC IMPLICATIONS OF INCREASED LONGEVITY IN THE UNITED STATES

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■ **Abstract** The elderly population in America is growing in size owing to declining death rates, increasing life expectancy, and the aging of the baby boomers. Although the prevalence of chronic illness and disability increases with age, successful aging in the elderly population is widespread, and the elderly are generally healthy. Indeed, the prevalence of disability among the elderly is declining, and expenditures for their care are increasingly concentrated at the end of life rather than during extra years of relatively healthy life. Nevertheless, health care costs will undoubtedly increase during the next 30 years as a result of the baby boomers entering late life. The economic and social impact of future growing health care expenditures for the elderly will be significant. Important policy issues will include the continued viability of the Medicare and Social Security programs, future needs for long-term care, improvement of the health status of the elderly, technological advances, the need for a geriatric work force, and development of viable strategies to pay for escalating medical care costs.

Americans are living longer today than ever before in history. Improvements in living conditions and life styles, and advances in science, technology, medical practice, pharmaceuticals, and other interventions, have resulted in tremendous reductions in morbidity and death from formerly fatal infectious diseases, dramatic gains in life expectancy, and a rapid growth in the number of older Americans. Our population is aging, and this demographic change has important implications for the cost of providing health care, and for the nation's health, social, and economic institutions.

Aging is a process that continues over the entire life span, but the rate of aging varies considerably among individuals and among population groups. The elderly, however, are more likely than younger people to suffer from chronic conditions causing limited or total disability. The probability of increasing disability and the need for medical care is greater for aged persons with multiple chronic conditions. An important issue is whether increased longevity holds the promise of improved health status and quality of life in later years. Increasing life expectancy also will have substantial consequences on medical care costs. This paper examines the current evidence with respect to demographic and morbidity patterns among the elderly and their impact on

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medical care use and expenditures. It describes and critically evaluates the scope and content of the research literature that pertains to the cost of increasing longevity in U.S. society.

GROWTH OF THE ELDERLY POPULATION

Population aging in America is a demographic certainty (45a, 83). During the last century, the distribution of the population in the U.S. shifted with considerable rapidity in both the number and the proportion of the population aged 65 and over. This population group has grown and will continue to grow at a rapid rate well into the twenty-first century.

At the turn of the twentieth century, there were only 3.1 million elderly people, which represented 4% of the total population. Fifty years later, persons aged 65 and over numbered 12.3 million, or 8.1% of the population. By 2000, the elderly population grew to 35 million persons, comprising 12.4% of the total population. Over the next three decades the United States will experience a major demographic shift as the largest birth cohort in our history grows older (18). By the year 2030, owing to the aging of the 76 million baby boomers born from 1946 to 1964, and to increased longevity, more than 1 out of 5 Americans—70 million individuals—will be 65 years or older (76, 83).

Within the age group of 65 years and over, the number and proportion of the oldest-old population have also increased rapidly and will continue to increase at an increasing rate. In 1900, less than 125,000 persons were 85 years and over, comprising 4% of the elderly; by 2000 there were 4.2 million persons in this age group, or 12% of the elderly. By 2030, the number of persons aged 85 and over is projected to double to 8.9 million (83). Manton (41) and others (33) point out that although the quantitative dimensions of population aging are well known, an understanding of the impact of an aging population on the nation's health and health care needs is far less clear. Because elderly persons use more health care services than younger persons, many authors have suggested that the implications of population aging for increasing health care expenditures may be profound (77).

HEALTH OF THE ELDERLY

The demographic and socioeconomic characteristics of the elderly are associated with their health status and use of health care services. Therefore, these statistics serve as a basis for understanding the magnitude of the problem of providing medical and long-term services to the increasing number of persons that live to an age at which they are vulnerable to chronic illnesses that can cause limited or total disability.

In 2000, 27% of the noninstitutionalized elderly population reported that their health is fair or poor compared with other people their age, and 35% of the

noninstitutionalized elderly population reported limitations of activity due to chronic diseases (54). The prevalence of chronic illness increases with age and is a major cause of disability that requires medical care. The prevalence of specific chronic conditions causing limitations of activity among the noninstitutionalized elderly population is high: 49% have high blood pressure, 37% have arthritis, and 34% have heart disease. Many elderly persons suffer from hearing impairments (41%) and 18% have visual impairments (55).

The number of people with chronic conditions is rapidly increasing. In 2000, 125 million persons, 45.4% of the population, reported they had a chronic condition. By 2030, when most of the baby boomers will have reached age 65, the number is projected to be 171 million, 49.2% of the population (1). Not surprisingly, older persons who suffer from chronic and disabling conditions are the heaviest users of health care resources. Almost all (96%) of the people that have home health visits have chronic conditions. Eighty-eight percent of prescriptions written, 72% of physician visits, and 76% of inpatient stays involve treating chronic disease. The 44% of the noninstitutionalized population that has one or more chronic conditions incurred 78% of health care spending. Clearly, elderly persons with chronic conditions incur significantly more costly medical care services than their healthier counterparts.

It is generally recognized that many people, especially the elderly, suffer from multiple conditions and disability. Health care spending increases with the number of chronic conditions. Spending for people with 5 or more chronic conditions amounted to \$11,500 per capita, 6 times that for persons with one condition. More than half of health care spending is on behalf of people with multiple chronic conditions (1).

Nevertheless, many researchers suggest that the prevalence of disability among elderly persons is declining (13, 43). Waidmann & Liu (86), for example, using data from the 1992–1996 Medicare Current Beneficiary Survey, report that the decline in disability prevalence in recent years appears real and that the trend toward a more educated elderly cohort explains some of this decline.

MORTALITY

Mortality rates from all causes have fallen steadily over the last century. In 2000, deaths of persons aged 65 and over totaled 1.8 million, or 75% of all deaths. The leading causes of deaths among the elderly are heart disease, malignant neoplasms, cerebrovascular diseases, chronic lower respiratory diseases, influenza, and pneumonia (52). Death rates for all causes, especially heart disease and stroke, have been declining. Factors responsible for the substantial decline in mortality from heart disease and stroke during the past three decades include improved medical care and interventions, greater availability of coronary care units, advanced surgical and medical treatment of coronary heart disease, improved control of high blood pressure, decreased smoking, modified eating habits, increased exercise, and healthier lifestyles.

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LIFE EXPECTANCY

Since the turn of the twentieth century, more than a quarter century (27.7 years) has been added to life expectancy at birth, and 6 years have been added at age 65. Based on mortality experience in 1900, an individual born in that year could expect to live an average of 49.2 years; by 2001 life expectancy reached 76.9 years. Although improvements in life expectancy at the beginning of the twentieth century resulted largely from the reduction in infant mortality accompanying the control of acute infectious diseases, recent improvements are due to declining mortality from chronic diseases among older individuals. In 1900, an elderly person could expect to live an additional 12 years; by 2000 life expectancy at age 65 increased to 17.9 years. Thus a person reaching age 65 in 2000 will survive on the average to about age 83. Life expectancy at age 75 is 11.3 years, and at age 85 it is 6.3 years (53). Mean life expectancy has been projected to increase to age 86 by the year 2070 (88). Currently, estimates of the upper limit of average human life expectancy range from 85 to 100 years (14, 45, 58).

SUCCESSFUL AGING

The concept of successful aging was first described by Rowe & Kahn in 1987 (67). The term, which arose out of a study of 1000 healthy elders, challenged directly the prevalent and paradoxical biomedical view of the time that aging, though a “normal” (healthy) biological process, was nevertheless a disease (8, 10). Indeed, during the early 1980s, geriatrics and gerontology research largely characterized the aging process as a chronic, progressive, irreversible, and degenerative syndrome that universally and inevitably culminated in death. This pessimistic view of aging was fortified by biological, medical, and social science research that cataloged a lengthy list of putative bodily insults, declines, and failures that were associated with aging (20, 87). In sum, the notion of successful aging provided a new overarching theoretical framework for investigating empirically the normative good health of the elderly population, and for understanding all aspects of aging, especially the malleable effects of lifestyle and other psychosocial factors on the aging process (68).

Although the meaning of successful aging has been debated (60), most definitions embrace three essential characteristics: (a) maintaining a low risk of disease and disease-related disability (a health status component); (b) maintaining a high level of mental and physical functioning (a functional component); and (c) maintaining an active engagement with life (a social or life satisfaction component) (16, 22, 30, 62). Additionally, Rowe & Khan (68) make the distinction between successful aging and “usual” aging, which refers to the large proportion of elderly individuals that “are functioning well” but are still at “substantial risk for disease or disability” (p. 54). The effects of usual aging, they point out, are reversible and remediable through having access to and using health care, eating healthfully,

exercising vigorously, having social support, and avoiding obesity and alcohol and drug abuse.

Currently, a great deal of empirical research confirms the salience of the concept of successful aging and the widespread occurrence of successful aging in the elderly population. Rowe & Khan (68), for example, argue that older Americans, even in late old age, are generally healthy and have little functional disability; that mental acuity endures into late life; that, due to reductions in the prevalence of precursors to disease such as high blood pressure, high cholesterol level, and smoking, the prevalence of arthritis, atherosclerosis, stroke, emphysema, and hypertension has been decreased; and that older adults can recover function and decrease risk of disease and disability through diet, exercise, and lifestyle modifications. Indeed, they point out that relatively few older adults are in nursing homes, that 73% of elders between 75 and 84 years of age report no disability, and that even at 85 years and above, 40% of the population is fully functional.

Their findings are corroborated by much current research that reports that many physical and mental diseases and disabilities once thought to be age related or determined, including osteoporosis, cancer, cardiovascular disease, and memory loss (4, 26, 42, 75, 79), are in fact preventable, deferrable, or modifiable through (a) physical activity, good nutrition, not smoking, and other lifestyle factors (29, 46–49, 61, 84); (b) modern pharmacology (5); (c) improved governmental policies and dissemination of information about aging (69); and (d) increased access to and use of community resources (2).

COMPRESSION OF MORBIDITY

Changing morbidity and mortality play an important part in estimating future illness patterns and projections. There is considerable conjecture and controversy regarding future morbidity patterns. Fries (13) holds that improvements in lifestyle will delay the onset of disability leading to a reduction in the prevalence of morbidity from chronic disease and a compression of morbidity at the older ages. This trend is characterized as a “rectangularization of the morbidity curve” (13), which predicts a continuing decline in premature death and emergence of a pattern of natural death at the end of a natural life span. According to Olshansky (57), empirical evidence for both mortality and morbidity compression does not exist, although there is empirical evidence to document the shifting of survival curves toward older ages.

At the other extreme, Kramer (28) argues that chronic disease prevalence and disability will increase as life expectancy increases, leading to a pandemic of mental disorders and chronic diseases. Thus, the extension of life will presage an extension of chronic disease and disability, a phenomenon termed “the failures of success” (17).

Evidence to support the contention that the elderly are becoming more disabled has been reported by Colvez & Blanchet (9) and Verbrugge (85). A review of the evidence by Schneider & Brody in 1983 (70) concluded that the number of

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very old people is increasing rapidly, the average period of diminished vigor will probably rise, chronic diseases will probably occupy a larger proportion of our life span, and the needs for medical care in later life will likely increase substantially. It is, of course, quite possible that both of the following phenomena will take place simultaneously: There may be an increasing proportion of individuals in quite good health nearly up to the point of death and an increasing proportion with severe functional limitations at the end of life. The effect on the prevalence of morbidity would, of course, depend on the relative magnitude of the various changes (63). In the 1980s there seemed to be a consensus among most epidemiologists and social scientists that there was no clear-cut evidence of significant improvement in the health of the elderly at advanced ages associated with the increases in life expectancy at those ages (39), and that we may be trading off longer life for worsening health (59).

Haan et al. (19) found evidence for increases in both hospital discharges and outpatient utilization in the elderly population in their examination of the use of medical services by Kaiser Permanente members between 1971 and 1980. They concluded that increases in the numbers of older people will be accompanied by rising morbidity and increased demand on Medicare and other public programs.

DECLINING DISABILITY AMONG THE ELDERLY

It became clear that for research on the elderly to forecast future trends in prevalence, incidence, disability, risk factors, health services use, and economic consequences, adequate data, especially longitudinal data, were needed (64). A number of continuing and new surveys have been conducted in the past two decades that focused on disability trends, including the National Long-Term Care Surveys (NLTCs), the Longitudinal Study on Aging (LSOA), a supplement to the National Health Interview Survey (NHIS), the Survey of Income and Program Participation (SIPP), and the Medicare Current Beneficiary Survey (MCBS).

These surveys have yielded an abundance of data on the disability status of the elderly population and have confirmed a consistent decline in disability rates during the 1980s and 1990s. For example, the first NLTC that examined changes in functional status of the elderly population between 1982 and 1984 showed significant improvements in functioning even at very high levels of impairment (38, 40). The evidence from the 1982, 1984, and 1989 NLTCs continued to show significant declines in the net prevalence of chronic disability (90+ days) between 1982 and 1989: an absolute decline of 1.88 percentage points and a relative decline of 8.1% (44). The prevalence of disability estimates for 1994 was 3.6% lower than the 1982 age-standardized rate (42). Finally, the 1999 NLTCs reported continued disability declines. The disability decline from 1982 to 1989 was 0.26% per year, from 1989 to 1994 it was 0.38% per year, and from 1994 to 1999 it was 0.56% per year (43).

Other data sets also have shown some evidence for improving disability status among the aged, although a clear trend is lacking. The NHIS, for example, reports somewhat lower rates of disability among the elderly in recent years (11), but the

LSOA data report increased disability for some dates after 1984. In both data sets, there is fluctuation rather than a clear trend in the prevalence of disability.

A recent analysis of declining disability among the elderly by Cutler (12) added data from the National Nursing Home Survey (NNHS) to the NLTCs, NHIS, LSOA, and SIPP to obtain samples of the entire aged population. All of these surveys revealed significant reductions in dependence among the elderly as measured by limitations in activities of daily living (ADLs) and instrumental activities of daily living (IADLs). The NLTCs indicated that dependency decreased nearly 2% annually from 1984 to 1999. Dependence rates in NHIS, SIPP, and MCBS also fell between 0.9% and 2% per year. Measures of functional limitations showed declines of 0.5% to 3.2% per year depending on the measure and the survey.

We conclude from the array of available data from multiple sources that disability is declining among the aged population. A variety of factors account for this improvement in health of the elderly including: (a) advances in medical technology and consequent improvements in medical care; (b) changes in health behavior including declines in smoking and in salt and fat consumption; (c) use of supportive aids; (d) growing affluence; (e) changes in disease exposure over the lifespan, especially infectious diseases; and (f) enhanced social support and networks (12). The important question is: What are the implications of declining disability for future medical care use and costs?

LONG-TERM CARE

Trends in long-term care, especially nursing home care, are essential to understanding the economic implications of aging. According to the 1999 NNHS, 1.5 million persons, about 4.3% of the elderly aged 65 and older and 18.2% of persons aged 85 years and older, were in nursing homes (56). Other chronically ill elderly persons were in psychiatric or other chronic disease hospitals, Veterans Administration hospitals, and other long-term care facilities. Generally, elderly residents in nursing homes and other long-term institutions suffer from multiple chronic conditions and functional impairments. The risk of nursing home use in later life is high: More than one half of women and almost one third of men turning 65 in 1990 are expected to require a nursing home stay sometime before they die (51). However, data from the 1985 and 1995 NNHS suggest that use of nursing homes by the elderly population is decreasing. Several factors account for this reduction in nursing home use: decline in the prevalence of disability among the elderly, the changing focus of nursing home care on patients with greater disability and postacute care needs, shortage of nursing home beds, and utilization of alternatives to nursing home care such as home-delivered care and assisted living (6). As noted above, Manton and colleagues reported declining disability rates among the elderly. They estimated that the disability decline between 1982 and 1994 reduced the population in institutions by 400,000, saving \$17.3 billion in nursing home costs in 1994 (42).

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According to the Centers for Medicare and Medicaid, spending for long-term care (home health and nursing home care) amounted to \$132.1 billion in 2001, about 9.6% of the \$1.2 trillion national personal health care expenditures (31). The aging of the baby boomers and the continuation of recent trends in health care cost growth will have an enormous impact on the future costs of long-term care (3, 50). Barring dramatic changes in health status or other factors, population aging will make nursing home costs a growing share of national health spending (78). Stone (80) sees long-term care as one of the major challenges of the twenty-first century.

EXPENDITURES FOR MEDICAL CARE

The economic implications of living longer must be viewed in the larger context of total spending for health care in the United States. Expenditures for medical care have increased at a rapid rate for many years. In 1929, the earliest year for which medical care expenditure data are available, the cost of medical care totaled \$3.6 billion, or 3.5% of the gross domestic product (GDP). In 1950, medical care spending amounted to \$12.7 billion and represented 4.4% of the GDP; in 2001 these costs totaled \$1.4 trillion, 14.1% of the GDP, or \$5035 per capita (31). By 2011, medical care expenditures are projected to rise to \$2.8 trillion, 17.0% of the GDP (21). Various factors account for the rapid growth in health care spending during the twentieth century: population growth and growth in the elderly population in particular; economic inflation especially in the health care sector; increase in per capita utilization of medical care; increased demand for medical services; growth in private health insurance and prepayment plans; increased public support for medical care for elderly, disabled, and poor; the transition from acute care to more expensive chronic care; growth in the use of high-cost drugs; improvement and growth of high-cost technology; increased supply of medical care providers; and high wages in the health care industry.

The elderly population consumes health care resources in amounts disproportionate to their numbers in the U.S. population. Although the Medicare population aged 65 and over comprised only 13% of the total population in 1999, they consumed 31% of national health care spending. According to the 1999 Medicare Current Beneficiary Survey (CMBS), total expenditures for beneficiaries 65 years and over amounted to \$324 billion, of which Medicare paid 55%, Medicaid 10%, private insurance 12%, out-of-pocket 20%, and other sources 2% (34).

MEDICAL EXPENDITURES IN THE LAST YEAR OF LIFE

Various studies have shown that elderly people approaching death have very high utilization of and expenditures for medical care (36, 65, 66, 72, 73, 82). In one of their earliest studies, Lubitz & Prihoda (36) found that in 1978 1.1 million

Medicare enrollees were in their last year of life. Although they represent 5.9% of all enrollees, they accounted fully for 28.2% of program expenditures. The amount paid by Medicare for the elderly in their last year was about four times the amount paid for services provided to survivors. In a later study, Lubitz & Riley (37) found that the percentage of total Medicare dollars spent for decedents changed little, fluctuating between 27.2% and 30.6%, and that the percentage that decedents represented of all enrollees fluctuated between 5.1% and 5.4%.

A recent study of Medicare claims and eligibility data for 1993 through 1998 reaffirm earlier data. About 5% of Medicare beneficiaries die each year, and spending in the last year of life accounts for 27.4% of all Medicare outlays for the elderly, similar to the 26.9% to 30.6% range reported in earlier decades (23). Another recent analysis of medical expenditures during the last year of life from the 1992–1996 MCBS reported that last-year-of-life expenditures constituted 22% of all medical spending and represented 26% of Medicare spending, 18% of non-Medicare spending, and 25% of Medicaid spending (24).

These studies show that the elderly approaching death or institutionalization have very high expenditures for medical care. The high medical costs at the end of life are not a new phenomenon, and available data do not support the assumption that high medical expenses at the end of life are due largely to aggressive, intensive treatment of patients who are moribund. Rather, the data suggest that most sick people who die receive the level of medical care that is generally provided to the sick, and sick care is expensive.

Several researchers have found that medical expenditures in the last year of life among the elderly vary by age group. Lubitz & Riley (37), for example, reported that per capita annual Medicare payments in 1988 varied inversely with age: \$15,632 for individuals 65–74 years, \$13,887 for individuals 75–84 years, and \$10,208 for individuals 85 years and older. Scitovsky (74) estimated per capita medical care charges in the last year of life including nursing home payments that are very high for the oldest-old population. Her results showed that when nursing home charges are included, per capita charges rise slightly with age, from \$18,441 for the youngest group, to \$18,720 for those 75–84 years, and to \$18,810 for the oldest-old, 85 years and over.

Using Medicare claims for 1993–1998, Hogan et al. (23) also report declining per capita Medicare payments with increasing age. Hoover et al. (24), analyzing the MCBS data from 1992 to 1996, corroborate earlier study results for the Medicare population in which last-year-of-life expenditures decline with increasing age, from \$27,832 for the youngest group to \$18,226 for the oldest old. Total non-Medicare expenditures, out-of-pocket, Medicaid, and supplemental insurance payments, were slightly higher for persons aged 75–84, \$37,043, than for those aged 65–74, \$38,529, but less than for those aged 85 years and over, \$36,985. These studies show clearly that Medicare expenditures in the last year of life decrease with age for both sexes, for both Black and White beneficiaries, and for those in hospice as well as for those in conventional care, regardless of the degree of comorbidity and the cause or place of death. This decrease is due in large part

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to the diminishing aggressiveness of medical care in the last year of life as age increases (32).

FUTURE EXPENDITURE PATTERNS

There is little dispute that health care costs will increase during the next 30 years as a result of the large number of baby boomers entering late life during this period. By 2031, the first baby boomers will turn 85 years old, and by 2040, the level of Medicare spending may increase sixfold (in constant 1987 dollars) (71). Fuchs (15) forecasts that if spending for medical care continues to grow at the same rate as in the past owing to technological change in medicine, health care for the elderly will require 10% of the GDP in 2020, compared with 4.3% in 1995.

The effect of longevity on expenditures for acute care differs from its effect on expenditures for long-term care. Increases in longevity after the age of 65 years may result in greater spending for long-term care, but the increase in the number of elderly persons has a more important effect on total spending (35, 77). Although total costs will clearly increase in the future, the expected increase in per capita health care expenditures caused by greater longevity of Medicare beneficiaries will be less than expected because of the concentration of expenditures at the end of life rather than during extra years of relatively healthy life (86, 88). Substantial evidence also indicates that, on average, health care expenditures rise with age. Developed countries with a high percentage of elderly people have higher health care expenditures than countries with a small percentage of elderly people (88). In addition, health care expenditures of the population over age 65 have been found to increase faster than those of the nonelderly population in the United States.

One measure of the future economic burden of an aging society is the dependency ratio: the ratio of workers aged 20–64 to the elderly aged 65 years and over. This ratio is projected to decline from 5.7 in 1960 to 2.7 in 2030, thus placing a very large burden on the working population. However, if children and adolescents aged 0 to 19 are included in the denominator with persons 75 years and over, the dependency ratio actually improves between 1960 and 2030, rising from 1.4 to 1.8 (27). These researchers conclude that the economic burden of aging in 2030 should be no greater than the economic burden associated with raising large numbers of baby-boom children in the 1960s.

The first wave of the estimated 76 million baby boomers will turn 65 in 2011. Financing of their care will begin shifting from the employment-based private insurance system to the publicly financed Medicare program. Medicare spending will begin to increase significantly. The larger numbers of people joining the program, rather than more spending per capita, will cause most of the increase in Medicare spending (81). The 2003 Annual Report of the Medicare program issued by the Board of Trustees projects a steep increase in Medicare costs between 2010 and 2030 because the number of people receiving benefits will increase rapidly as the large baby-boom generation retires. Medicare currently comprises 2.6% of the GDP, but it is projected to more than triple to 9.3% of the GDP in 2077 (45a).

OFFSETTING FUTURE MEDICAL CARE COSTS THROUGH LATER RETIREMENT

Given current improvements in the health and functioning of members of the baby-boom generation, their increased longevity and independence, their high level of education and employment experience, and support from the Age Discrimination in Employment Act (ADEA), which outlaws age-based mandatory retirement for most workers, some researchers and policy makers (15, 56a, 74a) suggest that extending the term of employment beyond age 65 is a feasible approach to pay for increased health care expenditures. When people live longer in a less-disabled state, they can work longer, and thereby raise their incomes and increase the overall productivity of the economy, be self-sufficient longer, and pay more taxes to support the Social Security and Medicare systems.

Whether or not older workers actually will over the next 25 years participate in the work force to a greater extent than at present is conjecture and depends not only on the health, inclination, and economic circumstances of elderly workers, but also on unpredictable macroeconomic forces, particularly the strength of the U.S. and world economy and the demand of the United States and world labor markets. Certainly, current trends do not support this proposition.

Indeed, over the past half century, fewer, not more, workers have remained in the workforce past age 65. In 1950 nearly half (46%) of men age 65+ were in the labor force; by 1993 only about 16% were in the labor force (83a). In 2000, the participation rate in the civilian labor force of individuals age 65+ years was 17.5% for men and 9.4% for women (83b). Gendell (15a) reports a similar trend. His data indicate that during the period 1950–1955 the median age at exit from the labor force was 66.9 years for men and 67.6 years for women; in the period 1995–2000, median age at exit from the labor force declined to 62.0 for men and 61.8 for women. Furthermore, recent data suggest that participation of workers age 65+ in the labor force is currently limited to those workers in the highest income brackets, a small proportion of the total labor force (2a).

CONCLUSIONS AND POLICY IMPLICATIONS

We conclude that successful aging in the elderly population is widespread and that the elderly are generally healthy and have little functional disability. We have witnessed a compression of morbidity in older ages wherein death rates from all causes, especially heart disease and stroke, have been declining, and life expectancy has increased. Most importantly, the prevalence of disability and dependence has declined significantly among the elderly. These trends will affect future health expenditures for the aged. Nevertheless, the elderly population consumes health care resources in amounts disproportionate to their numbers in the total population. In addition, various studies have shown that elderly people approaching death have very high utilization of and expenditures for medical care, although

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Medicare expenditures in the last year of life have been shown to decline with age owing to the decrease in aggressiveness of medical care delivered to the oldest old. The large number of baby boomers entering late life is the major contributing factor to the future growth of medical care costs under public and private programs.

What is at issue, however, are the economic implications of future growing expenditures for the elderly on the health care system, long-term care, and the public and private sectors of the economy. Following are selected policy issues to be faced in the future.

Viability of the Medicare and Social Security Programs

The Medicare hospital insurance and the Social Security programs are financed from payroll taxes paid by the working population and matched by employers. The pending retirement of the baby boomers and their eligibility for benefits under these programs will place a large burden on workers aged 20 to 64. The 2003 annual reports of the Board of Trustees of the Medicare insurance trust funds declared that these programs are not sustainable over the long-term and that basic changes need to be made. The challenge is to protect and preserve the Social Security trust funds for future beneficiaries while we look for appropriate and equitable ways of maintaining the nation's future economic security.

Future Needs for Long-Term Care Services

The growing number of chronically ill and disabled elderly demonstrates an increasing need for a variety of long-term care services to maintain independence at home and to avoid institutional placement. The challenge is to support the functional independence of elders by making available day care, home health care, homemaker services, respite care, rehabilitation services, and others. Almost half of the costs for nursing home care were paid by the Medicaid program in 2001. As the oldest-old population increases, many of which will require nursing home care, the Medicaid program, which is financed by both state and federal funding, will come under increasing fiscal pressure.

Continued Improvements in Health Status of the Elderly

Although many elderly persons suffer from one or more chronic conditions, the health of the elderly has improved during the past two decades. We must continue to promote good health in older Americans by promoting healthy lifestyles. People who are physically active, eat a healthy diet, do not smoke, and practice other healthy behaviors reduce their risk for chronic diseases. Fewer older people with chronic diseases will mean lower use of health care services and slower spending growth. Prevention of health problems is one of the few known ways to stem rising health costs.

Technological Advances

The invention of new pharmaceuticals, surgical procedures, and diagnostic techniques has been a major factor in rising health care costs; it has also contributed to longer and improved quality of lives for the elderly. Medicare does not provide coverage for outpatient prescription drugs, although it may soon do so pending current legislation. Rising out-of-pocket expenditures for health care by the elderly, mainly for prescription drugs, is a major concern to policymakers. Without changes in benefits of the Medicare program, out-of-pocket costs are likely to grow significantly in the future for the aging baby boomers.

Need for a Geriatric Work Force

The challenge for the health care system is to educate and train a geriatric work force to meet the complex health care needs of the growing number of older Americans. Steps need to be taken now to attract new students to the field of geriatrics, including practicing physicians, nurses, therapists, pharmacists, and social workers (25).

Paying for Future Higher Medical Care Costs

A variety of methods have been identified, many of which are unpalatable and have important political and social ramifications: raising tax rates to maintain the government's current share of costs, reducing benefits by increasing the age of eligibility for Medicare benefits thereby increasing labor force participation at older ages, increasing regulation of prices for medical care services, and encouraging savings prior to retirement.

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