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Trends in the Health of Older Americans
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Abstract

National health data show that Americans are living longer than ever and continued declines in adult mortality suggest that longevity will increase in the future. The number and proportion of persons 65 years of age and older continues to grow as does the oldest segment, those 85 years of age and older. Trend data for a number of key indicators present a complex picture of the health status of older Americans; results from national surveys provide important evidence that their general health and physical functioning is improving, although there remain important differences between the sexes and across racial and ethnic groups. Moreover, little is known about the trend in mental health, particularly cognitive functioning. Data indicate that a growing proportion of older Americans are taking advantage of important disease prevention strategies including immunization and disease screening; however, obesity and sedentary lifestyles remain major health risks for seniors.

In general, both utilization of health care services and overall health expenditures have risen as the number of older Americans has increased. Over the decades, inpatient care has evolved; the average length of stay in hospital for major chronic conditions continues to decline and restorative procedures are an even more important component of inpatient care. Over the long term, utilization rates for nursing homes appear to have declined, even though the changing definition of long-term care complicates any assessment, and residents are now older and more disabled. Formal home health assistance has become an important component of the health care system, although there has been a decline in use in recent years. As per capita health care costs

have increased, older Americans relied upon Medicare as their major source of payment. Medicare HMO's became an important source of care in the last decade of the 20th century.

Introduction

Improving the health of older Americans has long been an important public health goal, but as the graying of America continues, this task has become even more urgent. This report attempts to document progress in this effort by focusing on important health trends, ongoing and emerging. Data are drawn largely from the latest national and state data archived in the National Center for Health Statistics' Data Warehouse on Trends in Health and Aging *(www.cdc.gov/nchs/agingact.htm.)*. The Warehouse was developed by the National Center for Health Statistics with support from the National Institute on Aging.

Offering trends in a dozen key indicators, this report seeks to provide answers to two critical policy related questions: Is there evidence of healthy aging among older Americans, and is there evidence of change in the patterns of use and cost of health care among the elderly? This review highlights both long-term changes in older adult health in the second half of the 20th century as well as important trends in the last several years.

Data

The Data Warehouse contains data from a variety of collection systems including vital records, the US Census, population-based health surveys, and surveys of administrative records. In most cases, the data come from official government surveys that generate national estimates. Each data system used in the report has repeated cross-sectional measurements over time and has collected some information on the health of the elderly. Appendix A provides a brief summary of the major data sets used in the Annual Report and identifies additional informational resources. Similar information is on the Data Warehouse website, (www.cdc.gov/nchs/agingact.htm).

To enhance comparability in the report we use, wherever possible, similar demographic categories and roughly similar points in time. The age groups 65-74, 75-84 and 85 years and older are often displayed in tables along with the broader categories *65 years and over* and *85 years and over*. In the analysis, those 65 and older will be identified as "older persons," "the elderly" or "seniors"; these terms will be used interchangeably. Those persons who have reached the age of 85 will be considered the "oldest-old." These definitions although somewhat arbitrary are commonly used in the literature.

Because the age composition of older persons differs among racial groups and over time, we age-adjust percentages and rates using the year 2000 standard population (ref.). Race and ethnic detail are presented for several indicators but for most of the indicators, the analysis is limited to comparisons of white and black seniors. More demographic detail may be found on many of the relevant tables in the Data Warehouse.

The tables accompanying this report and the Warehouse tables referenced reflect the fact that data collection systems have different starting points and periodicities. Some series such as life expectancy and mortality have a relatively long historical record and regular annual estimates. Others are relatively new and the data collection is irregular. Furthermore, changes in either collection strategies or taxonomy, for example, revising the classification of deaths by cause, may have a profound effect on the comparability of estimates over time, producing major dislocations in the temporal record. In the report we make note of important changes in collection or classification both in the supporting tables and in Appendix A.

Results

Health, population growth and diversity

Changes in the health of older Americans are significant indicators of national well being, and take on enhanced importance as the demographic profile of the United States changes. Most notably, the number and proportion of older persons in the United States continues to grow. In the mid 20th century there were slightly more than 12 million persons 65 years of age or older, at century's end the number had grown to 34.5 million, and Census Bureau estimates place the number at 70 million by the 4th decade of this century (US Census Bureau, 2000). Correspondingly, the proportion of older adults in the total population has grown from 8 to 13 percent today, and is predicted to increase to 20 percent in 2030. Thus the rewards and pleasures of aging, as well as the challenges will continue to affect a growing number of Americans well into the 21st century. Equally as important, the face of older America, like that of the population as a whole, is changing; it has become older—roughly12 percent of older Americans 65 and over are now 85 years of age or older--more female--roughly 60 percent--and is racially and ethnically diverse (Link to Warehouse population table)

1. Mortality and life expectancy: Reductions and delays in deaths from circulatory diseases continue to be major contributors to increasing longevity

Enduring declines in adult mortality over the past half century have been a major contributor to the steady increase in life expectancy at birth. Increases in life expectancy at age 65 and 85 illustrate progress in reducing mortality at the older ages.

Chronic illnesses especially circulatory diseases and cancer are responsible for most deaths of older Americans. For example, in 2001 heart disease, cancer, and cerebrovascular disease (stroke) together were the underlying cause of almost two-thirds of all deaths to persons 65 years of age or older. Key to the reduction in mortality among older adults in the latter part of the 20th century, were sharp decreases in deaths from circulatory diseases, especially heart disease and stroke, although there were slight discontinuities in the trend due to changes in classification schemes (Table 1).[1]

Heart disease - Between 1990 and 1998, the age-adjusted death rate from heart disease declined by an annual average of about 1.6 percent for older women and more than 2 percent for older men. And the rates declined further between 1999 and 2001, the first three years of the new international classification of deaths, the ICD-10. Death rates from heart disease declined even among the oldest old, persons 85 years of age and older, and the average annual decline across both the longer and shorter intervals was significant for both women and men. But older men remained at greater risk of dying from heart disease than older women.

Examined over a much longer period—crossing several disease coding regimes--heart disease death rates display differential patterns of change across subpopulations, although for all sex/race groups rates were lower at the end of the century than 30 years earlier (Table 2). In particular, the dramatic declines experienced by older white persons in the 1970's and 1980's, most notably men, were not evident for older blacks, where rates were initially lower but declined much slower (Table 2). At the end of the century, older blacks had significantly higher rates of heart disease mortality than older whites[2].

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[1] Trends are evaluated from1970, when deaths were classified under the 8th revision of the International Classification of Death, through ICD-9, and three years into the new 10th revision of the ICD. Interpretation of the mortality trend over a long period is complicated by revisions in classification; however profound changes, for example the decline in deaths from infectious diseases in the early part of the 20th century or in this case the drop in deaths from circulatory diseases in the second half of the century are apparent across these changes in classification.

[2] Data gaps and reporting inconsistencies have made it difficult to evaluate long-term mortality trends in other race and ethnic subpopulations. Over the years, estimates of mortality for American Indians and Alaskan Natives (AI/AN) were affected by a marked increase in their estimated population, the result of better enumeration and increased self-identification. The expanding population base combined with evidence of underreporting of race on death certificates has lead to some concern regarding the accuracy of death rates for American Indians and Alaska Natives. Until recently, Hispanic ethnicity was not reported on the death certificate in many states, including states

Stroke - Death from stroke among the elderly also declined in the 1990's but more modestly and less regularly than that from heart disease. The change in classification schemes that occurred between 1998 and 1999 appeared to cause some disruption in the trend, but stroke death rates again dropped significantly during the 3-year period after the introduction of ICD-10. Dramatic declines in stroke mortality were evident in the 1970's and 1980's; in that 20-year interval the death rate was cut in half for both older men and older women.

After more than three decades of declines, the age-adjusted death rate from stroke for persons 65 and older was nearly the same for men and women. This overall rate, however, masks age differences, where rates are higher for women than men at ages 85 and older, but lower at ages 65-74 and 75-84. Most race and ethnic groups appeared to benefit from the overall reduction in stroke mortality. The trend among older white persons paralleled that for the population as a whole. Older black men experienced a decline in stroke mortality, but at a slower pace than that for older white men so that by 2001 their age-adjusted death rates remained significantly higher (518 vs. 397 per 100,000).

The gains made against circulatory diseases are dramatic, but not all causes of death have shown prolonged declines. For example, diabetes mellitus has increased steadily as an underlying cause of death over the past two decades and cancer death rates were on the increase into the 1990's. Mortality from Alzheimer's disease increased dramatically through 1998, and continued to grow during the first 3-year interval of ICD-10. The long-term increase may be due in part to improvements in diagnosis and disease reporting and wider knowledge of the condition within the medical community. Chronic bronchitis, emphysema, and other chronic lower respiratory conditions increased as causes of death, especially among women, between 1981 and 1998; a portion of the increase may have been the result of changes in reporting practices. However, between 1999 and 2001, the death rate declined for a similar, although not comparable classification of lower respiratory diseases.

It is also important to know how many older Americans are living with major chronic illnesses. Regular estimates from a national survey that asks community respondents about a number of chronic illnesses will become an important barometer of the level and trend in disease prevalence. Early results from a brief 5-year interval suggest that the proportion of older adults living with most chronic diseases surveyed, including hypertension, heart disease, and arthritis decreased, although the proportion living with diabetes and older men living with prostate cancer showed signs of increasing. These modest increases may reflect several factors including an increased number of cases due to improved screening as well as older Americans living longer with these illnesses. It should be stressed, however, that the series is relatively short and

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with large Hispanic populations; not until 1997 was Hispanic origin of the decedent reported in all 50 States and the District of Columbia.

additional years of data will be needed before any trend can be scientifically documented. CHECK TABLE HERE

In 2000-2001, roughly half of all older persons reported having hypertension, about one third were living with arthritis, and about one-fifth with some form of coronary heart disease.

(Link to Warehouse NHIS chronic disease table)

(Figure 1 goes about here)

2. <u>The general health of older Americans is improving</u>

(Link to Warehouse NHIS self-reported health table)

Another way of gauging the health of a population is to ask representative members how they feel. An examination of the trend in the proportion unwell, those reporting "fair "or "poor health," offers important insight into the pattern and direction of health status within the older population.

There has been a modest but significant downward trend in the estimated proportion of older persons in fair or poor health between 1990 and 2001 (from 28.3 to 26.2 percent for women; 28.3 to 27.9 for men). In the last several years the proportion in fair or poor health has stayed about the same. The trend over a longer period, 1982 to 2001, charts a continued decline in the proportion in less than good health. Differences across the sexes in the proportion in fair or poor health are not statistically significant.

However, notable differences were evident between whites and blacks (Figure 2). Older blacks were much more likely to be in less than good health in the 1980's, and even though the proportion in fair or poor health declined for both races, the relative difference remained about the same in 2001. In 2001, approximately 44 percent of older black women judged themselves to be in fair or poor health compared to 24 percent of older white women. Similar disparities existed among the oldest-old; for example, more than half of all black women 85 years of age or older regarded their health as fair or poor compared to less than one-third of white women of similar age.

(Figure 2 goes here)

3. <u>Older Americans may be having fewer problems with daily activities</u>

(Link to Warehouse tables..NHIS routine needs[NHII01]; MCBS table on ADLS[ADLD]

Another important aspect of health is the ability to carry out either routine household activities (IADL's), such as house cleaning, shopping or getting around outside, or more

essential personal activities of daily living (ADL's), such as eating, using the toilet, dressing, bathing, getting out of a bed or chair, or walking. Older persons who because of health problems need help to perform household activities may be at risk of losing the ability to live independently in the community. Persons who have difficulty carrying out basic personal activities often need continuing care, either at home or in a long-term care facility.

Trend data from the National Health Interview Survey (NHIS) show that the proportion of non-institutionalized older Americans who need help with household chores showed evidence of a decline between 1997 and 2001 for older adults in general, although the downward trend was statistical significant only for those 85 and older (Table 3). For the more basic personal activities, estimates from another national survey, the Medicare Current Beneficiary Survey (MCBS), for all non-institutionalized older persons and those 85 and older (Table 3) show a decline in the proportion who had difficulty performing one or more of these six ADL's. Between 1992-1999, the proportion of older persons who were functionally limited declined by about 13 percent (from 32.0 in 1992 to 27.7 in 1999); declines were evident for both women and men.

Trends and patterns are markedly different for institutionalized and non-institutionalized elders. The vast majority of older persons in long-term care facilities, irrespective of age or sex have difficulty with at least 3 ADL's (approximately 75 percent in 1999); this proportion remained fairly constant through the 1990's. For older community dwellers, the absolute level of ADL difficulty is dramatically lower, with a much lower proportion having difficulty with 3 or more activities.

Not surprisingly, the proportion of all older persons having difficulty with one or more ADL's increases with age. In 1998, roughly 18.5 percent of those 65-74 years of age were functionally limited; that proportion increases to 34 percent for those 75-84 years of age and to 61 percent for those 85 years of age or older. At all ages, older women are more likely to have difficulty than men; among the oldest-old, roughly two-thirds of women, but only about half of men had difficulty doing one or more ADL's.

Health risks and behaviors

The relationship between certain personal behaviors and health has been extensively examined. Persons who use tobacco, abuse alcohol, live a sedentary life style, maintain an unhealthy body weight, or fail to obtain regular preventive care are at greater risk of adverse health consequences. In this section we evaluate the trend over the past several decades in several health risks and positive behaviors among older persons. We also include some information on middle-aged adults because trends at younger ages may provide important insight into the future health of aging cohorts.

4. Obesity continues to increase among middle-age and older adults

The body weight profile of Americans has been undergoing a significant change over the past several decades. After remaining roughly stable or gradually increasing in the 1970s, the proportion of non-institutionalized obese middle-aged and older women and men (a BMI[3] greater than or equal to 30) jumped dramatically between 1976-80 and 1999-00; most notably it more than doubled for men 60-74 years of age. Over a similar period the proportion obese increased by about 85 percent among men and women 40-59 and women 60-74.

Throughout this period, the more rapid increase in obesity in older men has resulted in a reduction in the gender disparity. In 1971-74, the proportion of older men who were obese was about two-thirds as great as that for older women, but by 1988-94 the percent obese was close to parity. Middle-aged women still were more likely to be obese than middle-aged men.

Figure 3 goes here

5.Physical activity: Roughly one-fifth of older Americans exercise regularly

(Link to new NHIS Warehouse table on physical activity)

Although research has consistency shown the value of regular exercise for older adults, until recently there have been no recurring national estimates of the proportion of elderly Americans engaged in physical activity. Estimates from the NHIS are that about one-fifth of community-based older adults, 65 and over regularly engage in moderate or vigorous physical exercise; younger seniors were more likely to engage in recurring physical activity than older seniors.[4] There are no statistically significant trends for the period 1997-2001, although there is the appearance of a slight increase in regular physical activity among adults 65-74 years of age. An even smaller proportion of older Americans, about one-tenth, report that they regularly engage in activities such as lifting weights or calisthenics that enhance and maintain muscular strength and endurance.

Text table 1: Regularly engaged in exercise

[3] BMI is a measure that adjusts bodyweight for height. It is calculated as weight in kilograms divided by height in meters squared.

[4] The definition used in the NHIS is "engaging in light-moderate leisure time physical activity for greater than or equal to 30 minutes at a frequency greater than or equal to 5 times per week, or engaging in vigorous leisure time physical activity for greater than or equal to 20 minutes at a frequency greater than or equal to 3 times per week."

	1997	1998	1999	2000	2001
65-74	25	24	26	27	27
75+	16	14	15	16	15

Source: National Center for Health Statistics, National Health Interview Survey

6. Preventive health care: A growing proportion of older Americans vaccinated for flu and pneumonia

(Link to new NHIS Warehouse table on immunization)

Vaccination against influenza and pneumococcal disease has a direct and positive impact on the health of older persons. Recognizing the benefits, Medicare has covered the cost of these vaccinations for beneficiaries with Part B coverage since 1993. Estimates for the period 1989-2000 show that coverage significantly increased against both illnesses within the non-institutionalized population (Figure 4). In 2000, 64 percent of persons 65 years of age or older reported that they had received their annual influenza vaccination; Although the level of coverage was stable between 1998 and 2000, it more than doubled over the 11-year period from 1989 to 2000 (30 percent in 1989). The proportion of seniors who had ever received pneumococcal vaccine increased from 14 percent in 1989 to 46 percent in 1998 and 53 percent in 2000. There were no significant differences in coverage between older men and women.

(Figure 4 goes here)

Vaccination rates varied widely across race/ethnic groups. Whereas two-thirds of all older non-Hispanic whites had received an annual flu shot in 2000, slightly less than half of older non-Hispanic blacks and about 56 percent of older Hispanics received the vaccine. The same disparities were evident for pneumococcal vaccinations; over half of older non-Hispanic whites but less than one-third of older non-Hispanic blacks and Hispanics had ever been vaccinated.

7. Regular mammography screening now common

The level of mammography screening has dramatically improved for all non-institutionalized middle-aged and older women. Screening increased over the most recent 3-year interval, and between 1987 and 2000 the proportion of middle-aged women 50-64 who reported receiving a mammogram in the past two years more than doubled (from 32 percent to 79 percent). Mammography screening for women 65 years and over nearly tripled (Table 4).

In 2000, about three-fourths of all non-institutionalized older women 65-74 years of age and 61 percent of those 75 years and over reported having a mammogram in the past two years. At younger ages, white non-Hispanic women were slightly more likely to have been screened

than either Black non-Hispanic or Hispanic women; by age 65, however, rates of screening were roughly the same for all race/ethnic groups.

Health Care

8. Nursing home residents are now older and more disabled

(Link to NNHS Warehouse table on characteristics of nursing home residents)

The level of nursing home use is an important indicator of utilization of high-cost institutional health care in the United States; trends in nursing home use may also provide insight into transitions in the general health and well being of the older population as well as clues as to changing patterns of support for those in declining health.

The most recent national survey of nursing home use, the National Nursing Home Survey (NNHS), was conducted in 1999. In that year there were an estimated 1,470,000 older nursing home residents, or about 43 per 1,000 population 65 and older. Between 1997 and 1999, the resident rate remained roughly constant for men and women at all ages; however, over several decades the rates have declined. There also has been an important shift in the characteristics of nursing home residents (Table 5). In 1999, residents were older, roughly 52 percent were 85 years and over compared to 45 percent in 1985. Moreover, severe functional limitations have become more common in these facilities; those needing assistance with bathing and showering, dressing, and eating increased between 1985 and 1999.

The trends in nursing home resident rates for white and black persons 75 and older appear markedly different, although estimates for the oldest black men for the two earliest surveys are not available. Older white persons showed declining institutionalization between 1977 and 1999 at all ages, but the rate rose by 33 percent for the black elderly of both sexes age 75-84; by 78 percent for black women age 75-84 and 19 percent for black women 85 and older. By 1999 the resident rate of 55 per 1,000 for black seniors 65 and older was significantly higher than the rate of 43 per 1,000 for white seniors.

9. After considerable growth, utilization of home health care services declined

(Either link to new Warehouse table on current patients or change text)

Tending to the health needs of dependent older persons in the familiar surroundings of the home is often a more congenial and less costly alternative to institutional care. Traditionally, family and friends provided the care, but in recent times there has been a trend toward formal paid delivery of services such as nursing care, physical therapy, and housework.

On an average day in 2000, approximately 1.4 million persons 65 years of age and older were home health care patients, or approximately 277 patients per 10,000 population (Table 6). Most patients were women. During the last decade of the 20th century, the total number of visits and the rate significantly increased between 1992 and 1996, then sharply declined returning to earlier levels. Between 1996 and 2000, the age-adjusted rate for all persons 65 and older declined by 50 percent, from about 547 to 277. And rates were lower for both men and women at all ages.

The major reason for the decline was no doubt the introduction of the Medicare interim system under the Federal Balanced Budget Act of 1997. In October 2000 a new Medicare prospective payment system was implemented for home health care.

10. Shorter hospital stays for most illnesses

(Link to Warehouse table on hospital discharge by length of stay)

Over the past several decades there has been a profound change in hospital use by older Americans. A number of important medical procedures are now outpatient procedures, taking place outside the traditional hospital setting. Moreover, the average time spent in a hospital has steadily declined for a wide range of conditions that are common to older Americans (Table 7). Long stays of two or more weeks for such life-threatening conditions as heart attack or stroke or incapacitating events such as hip fracture, common in the 1970's, have been reduced to average stays of no more than a week. In 2000, the average length of stay for all diagnosis for those 65 years of age or older was about 6 days. This was true for both men and women. Between 1998 and 2000 the average length of stay showed some sign of continued decline for hospital rates for cancer, stroke, pneumonia, and hip fracture, but remained roughly constant for overall heart disease and AMI. Comparable trends were evident for persons 85 and older.

11. Restorative hospital procedures on the rise

(Link to Warehouse table on hospital discharge by medical procedures)

Over the last several decades, a number of medical procedures designed to prevent acute events or restore functioning have further transformed nature of hospital care received by older Americans (Figure 5). Revascularization procedures have become widespread in recent years; coronary angioplasty was introduced in the late 1970's, and by 2000 the rate for older persons had grown to 1,506 procedures per 100,000 population. Between 1997 and 2000, the rate increased by 50 percent. The rate for bypass surgery also increased substantially during the last two decades of the 20th century. Procedures related to insertion, replacement or removal of pacemakers also became commonplace; between 1970 and 2000, that rate increased tenfold, from 83 to 785 per 100,000. However, for both bypass and pacemakers the frequency of use remained roughly stable over the last several years.

(Figure 5 goes here)

Total knee and hip replacement, two procedures designed to enhance or restore movement also grew dramatically. For older persons, total knee replacement grew three-fold between 1980 and 1990 and nearly doubled again over the next 10 years. Hip replacement among persons 65 years of age or older increased throughout the 1970's, 80's and 90's, although the sharpest increases occurred in the first two decades. In fact, between 1998 and 2000 there was a significant decline in the rate of hip replacement per 100,000 population.

The above procedures are all performed in an inpatient setting; but for other restorative procedures there was a dramatic shift from inpatient to outpatient, especially after the introduction of Medicare Prospective Payment System for inpatient payments in 1983. For example, until then cataract extraction was done on an inpatient basis; but it shifted to an outpatient setting and by 1996 only 1 percent of the 2.4 million such operations were done in the hospital.

12. As health expenditures rise, Medicare HMO's become a popular alternative to traditional fee for service coverage

(Link to Warehouse tables on Medicare expenditures and insurance coverage)

Rising health care costs affect all Americans, but are of particular concern to older persons who are major consumers. The Medicare law of 1965 committed the federal government to pay much of the cost of medical care for the elderly; however, many older Americans have other resources including health plans funded by employers, "Medigap" insurance plans, and state Medicaid coverage to pay for care not covered by Medicare. That mix of sources varies significantly by age and by race/ethnicity. Black and Hispanic elderly rely more heavily on Medicare and Medicaid; in 1999, it was estimated that these programs accounted for approximately 63 percent of all health expenditures for non-Hispanic whites, compared with 78 percent for non-Hispanic Blacks and 77 percent for Hispanics; those proportions remained roughly stable between 1992 and 1999.

In recent years there has been a change in the type of insurance coverage held by older Americans. Most notably the proportion of older persons covered under Medicare HMO's, significantly increased through much of the 1990's, then showed some signs of falling off at the end of the decade, perhaps as a result of payment changes made by the Balanced Budget Act of 1997 (Jim has reference). This trend was common among all race/ethnic groups, but the growth appeared to be most dramatic among older black persons

(FIGURE 6 GOES HERE)

Among older whites, movement into the HMO Medicare plans seemed to have come largely at the expense of coverage through traditional fee for service Medicare plans bundled with private "Medigap" or employee sponsored plans. Among blacks, the proportion in fee for service plans only declined significantly, while among Hispanics, the proportion of older persons depending on Medicaid coverage dropped.

(FIGURE 7 GOES HERE)

Discussion

As a public health objective, *healthy aging* embodies the dual goals of increased longevity and sustained health. As for increased longevity, there is a consensus that life expectancy at birth and at old age will continue to increase, though some would argue that the gains cannot be sustained without major biological or medical breakthroughs. Evidence for the existence of enhanced health as it relates to older adults has been more elusive. In part this has been the consequence of an absence of data on older adults until relatively recently; however, an early analysis in the 1980s using data from the NHIS suggested that health was not keeping pace with life expectancy (Crimmins, et al., 1989). Researchers have noted that without improvements in health, older adults spend more years of life in poor health and disabled states (Crimmins, et al., 1994. Added years of infirmity likely translate into increased health care utilization and costs. If this were to happen at the same time as the demographic tidal wave know as the "baby boom generation" passed through old age, Medicare, the social program which helped to lift many older Americans out of poverty by covering basic health costs, would face an uncertain future. In recent years this demographically spawned potential crisis in health care has not gone unnoticed by prognosticators, policy analysts and politicians; their concern has resulted in a number of commissions and government reports and repeated prophetic warnings.

Our review of selected data trends has uncovered a dynamic era in health for older Americans. There has been a significant relative increase in life expectancy for those living to 65 and to 85 years of age. Enhanced life expectancy is a consequence of declining mortality, which at the older ages has been evident over the last three decades. Reductions in mortality from cardiovascular diseases, specifically heart disease and stroke, have been a major source of life enhancement. However, some major causes of death, most notably Alzheimer's disease, chronic

lower respiratory disease and diabetes have increased. Mortality rates for cancer have only recently begun to decline, and at century's end remained higher than rates several decades earlier. Inequality persists across race/ethnic groups, although in the last decade-and-a-half of the 20th century all major demographic groups appeared to experience declines in overall death rates and higher life expectancy. Reducing disparities in mortality as well as other important health indicators is a fundamental goal of US public health policy (USHHS, 2001); continuing monitoring of important subpopulations is necessary to assess progress toward reaching that goal for older Americans.

But, what of the general health of older Americans; is there evidence that they feel healthier or are less restricted or more active than before? Analyses of data from the NCHS archive provide evidence of recent substantial improvement. Based upon self-reports of how they feel and function, older Americans appear to be growing healthier. This is an important way to measure health because research has shown that self-assessments can be good predictors of future well-being; prospective studies have shown that persons who report poorer health have significantly higher mortality and are at increased risk of deterioration in physical functioning (Idler and Benyamini, 1997; Idler and Kasl, 1995).

Findings here point to a decline in those who believe they are in fair or poor health. Moreover, data from two important surveys suggest that the proportion of older persons who say they need assistance to do important activities around the house and say they have difficulty carrying out basic personal activities declined. A decline in old age disability was first reported by Manton and colleagues in 1993, using data from the National Long Term Care Survey; since that time a number of other studies, most based on large, representative national surveys, using varied approaches have all identified a modest, but significant downward trend (Manton, et al., 1993; Manton and Gu, 2001; Freedman and Martin, 1998;Schoeni, et al, 2001). The importance of these findings cannot be underestimated. If these results are a true gauge of improving health and the trend continues, the impact on projected health care spending assuming constant levels of illness and disability may be substantial. The relationship between good health, longevity and lifetime health care costs has recently been examined and results indicate that longer life when associated with better health may not cause a significant increase in health care spending (Spillman and Lubitz, 2000; Daviglus, et al., 1998; Miller, 2001; Lubitz, et al., 2003).

Much additional work needs to be done to more fully document the trend in functioning. It is important to note that not enough is known yet about differentials in physical functioning across important subpopulations, particularly race/ethnic groups. Much of what we know relates only to the non-institutionalized population; data from studies that include nursing home residents underscore the obvious fact that these older adults have much higher levels of disability than community-based residents. Physical activity is only one dimension of healthy functioning,

and we are just beginning the process of developing population-based measures of cognitive functioning and charting trends over time. Moreover, little is known as yet about population trends in affective and social functioning or about changes in the proportion of older persons living with pain.

When it comes to living healthier lives, results are mixed. On the positive side, current levels and trends in alcohol abuse and cigarette smoking, not reported here, indicate that older Americans are a relatively low-risk population, although improvements can still be made. Furthermore, the proportions of older persons participating in disease prevention activities such as vaccinations and, for women, breast cancer screening has increased. However, there has been a dramatic increase in the proportion overweight and obese, and new estimates of exercise over a relatively short period point to a high and relatively stable level of inactivity. Although much more needs to be known about the complex relationship between diet, body weight and health among the elderly, public health experts stress that a healthy body weight combined with regular exercise, reduces the risk of chronic illness and promotes good health. Continued surveillance will measure the success in implementing programs to achieve healthier life styles among Older Americans (Office of the Surgeon General, 1988) (BRFSS paper)

Health care use and spending has greatly increased over the past several decades as the elderly population has grown. There are now more hospital stays and physician office visits than in the past, and a formal home health care sector has emerged as a major alternative to more costly institutional care. At the same time Medicare spending has risen from over 10 billion dollars in the mid 1970's (0.6 percent of GDP), to approximately 140 billion dollars (2.3 percent of GDP) in 1999.(**need reference**)

A closer inspection of some of these trends using age-standardized and age-specific utilization rates and per capita expenditures provides a more complex picture. Trends in hospital discharge rates have to some extent been affected by changes in disease prevalence; but inpatient care has also been affected by the introduction of a number of new restorative procedures, by changes in treatment settings, and by Medicare policy changes most notably the introduction of the Prospective Payment System. One thing is clear; the time spent in a hospital has been dramatically reduced for nearly all types of inpatient visits.

The downward trend in institutionalization, characterized by nursing home resident rates, may reflect healthy aging, alternative community-based approaches to care for the infirmed elderly, changes in the way nursing homes are surveyed, or a combination of these factors. More surveillance is necessary to see if this downward trend continues and what might be the true cause. What is striking is that residents are older and more infirmed than before. One reason for this is that older persons are living longer at home, with the help of new medical devices, family assistance and formal health care, before resorting to institutional care. Indeed, home health care

showed strong growth through much of the first half of the 1990's but then declined when a new Medicare reimbursement policy limited payment for some home health care expenses.

Per capita health care expenditures in the United States dramatically increased over the last several decades. During this period older Americans have relied upon Medicare to cover a major component of the health care costs. The particular mix of coverage, Medicare supplemented by public or private plans, has shown some variability over time and across major subpopulations. This dynamism may continue for several decades as seniors and the nation as a whole deal with challenges brought about by the population aging.