Chapter 1

DEMOGRAPHIC TRENDS OF AN AGING SOCIETY

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I refuse to take seriously society's idea that at the arbitrary age of 65 I am suddenly a lamp going out.
—Roger S. Mills, quoting an elder in History of Elder Hostel, *1993*

Chapter Outline

Behavioral Objectives

Upon completion of this chapter, the reader will be able to:

1. Describe why the "graying of America" is occurring.
2. Identify the fastest growing segment of the population.
3. Discuss life expectancy in terms of gender.
4. Contrast aging by races in the United States.
5. Identify the states where the largest number of individuals older than 65 years live.
6. Discuss older adults in context of their lifestyles (married or living alone).
7. Contrast the economic status of those older than 65 years in terms of race and marital status.
8. List disease conditions older adults are most likely to experience.

9. Discuss health care expenditures for those older than 65 years and the demand placed on the health care system by them.
10. Describe pertinent issues involving the long-term care of older adults.

Key Terms

Age cohort
Baby boom generation
Demographics of aging
Elderly, elders
Long-term care
Medicaid
Medicare
Old-old
Social Security
Third-agers
Young-old

AMERICA: AN AGING SOCIETY

The graying of America continues to accelerate as the first of the **baby boom generation** (those Americans born between 1946 and 1964) turned 60 years of age in 2006. From that time on, approximately one American will turn 60 years of age every 7.5 seconds for the next 18 years. This will have dramatic consequences on our entire society, especially our health care system.

In 1900, only 4%, or 1 in 25, of Americans were older than 65 years of age. The population of those older than 65 numbered 3.1 million in 1900. (See **Figure 1-1**.) As of July 2003, this same **age cohort** numbered 35.9 million, representing 12.7% of the total population. To put this in perspective, the population of those older than 65 years has increased by more than 2 million people (7% of the population) since 1990, while the younger-than-65 age group increased by only 4% (**Table 1-1**).

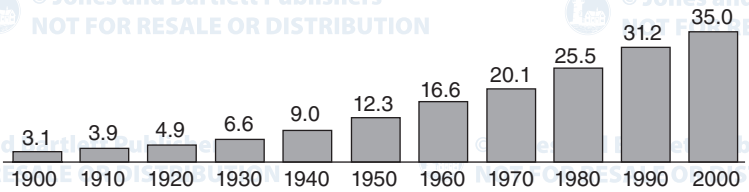

FIGURE 1-1 Population aged 65 and over: 1900 to 2000 (in millions).
Note: The reference population for these data is the resident population.
Source: 1900 to 1940, 1970, and 1980, U.S. Bureau of the Census, 1983, Table 42; 1950, U.S. Bureau of the Census, 1953, Table 38; 1960, U.S. Bureau of the Census, 1964, Table 15.5; 1990, U.S. Bureau of the Census, 1991, Table QT-P1; 2000, U.S. Census Bureau, 2001, Table PCT12.

TABLE 1-1 Total Population and Older Population by Age in the United States: 1900 to 2000 (in thousands).

Year and Census Date[1]	Total Population	65 and over							
		Total		65 to 74		75 to 84		85 and over	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
1900 (June 1)	75,995	3,080	4.1	2,187	2.9	771	1.0	122	0.2
1910 (April 15)	91,972	3,950	4.3	2,793	3.0	989	1.1	167	0.2
1920 (January 1)	105,711	4,933	4.7	3,464	3.3	1,259	1.2	210	0.2
1930 (April 1)	122,775	6,634	5.4	4,721	3.8	1,641	1.3	272	0.2
1940 (April 1)	131,669	9,019	6.8	6,376	4.8	2,278	1.7	365	0.3
1950 (April 1)	150,697	12,270	8.1	8,415	5.6	3,278	2.2	577	0.4
1960 (April 1)	179,323	16,560	9.2	10,997	6.1	4,633	2.6	929	0.5
1970 (April 1)	203,212	20,066	9.9	12,435	6.1	6,119	3.0	1,511	0.7
1980 (April 1)	226,546	25,549	11.3	15,581	6.9	7,729	3.4	2,240	1.0
1990 (April 1)	248,710	31,242	12.6	18,107	7.3	10,055	4.0	3,080	1.2
2000 (April 1)	281,422	34,992	12.4	18,391	6.5	12,361	4.4	4,240	1.5

[1] Data for 1900 to 1950 exclude Alaska and Hawaii.

Note: The reference population for these data is the resident population.

Sources: 1900 to 1940, 1970, and 1980, U.S. Bureau of the Census, 1983, Table 42; 1950, U.S. Bureau of the Census, 1953, Table 38; 1960, U.S. Bureau of the Census, 1964, Table 46; 1990, U.S. Bureau of the Census, 1991, Table QT-P1; 2000, U.S. Census Bureau, 2001, Table PCT12.

Growth of the older-than-65 cohort will continue to increase as baby boomers begin turning 65 in 2010. This will cause yet another rise in the **elderly** segment of the population.

Projections for the year 2030 estimate that 22%, or 70.2 million, of Americans will be older than the age of 65. To get a true feel for the changing demography of America, note the baby boom bulge on the population chart in **Figure 1-2**. You can easily envision the top-heavy appearance of this same chart 25 years from today.

An even more dramatic aging trend exists among those older than 85 years of age, often referred to as the old-old. This age cohort is expected to double—from 4.7 million in 2003 to 9.6 million in 2030—and double again to 20.9 million in 2050.[1] The number of those elderly exceeding 100 years of age reached 50,000 in 2000.[1]

Looking beyond the **demographics of aging**, let us now consider what the term *old age* implies. *Old age* is a difficult and complex concept to grasp because our idea of aging is constantly changing. What we thought of as old in the 19th century is considered middle age now. Policymakers have used the age of 65 as a marker in establishing policies affecting older adults. Some biologists, however, tell us that a person's biological age is more important than the person's chronological age when determining an individual's health status.[2] Bernice Neugarten was the first to coin the term **young-old**, which denotes relatively healthy and financially independent elders of any age, although usually those between 55 and 74 years of age.[2] The so-called **old-old** usually refers to those older than age 75 whose activities are often limited by functional disabilities. The French have a similar method of categorizing older adults. They use the terms **third-agers**, or *elder,* when referring to those persons 65 to 85 years of age. Their term *old-old* refers only to those individuals older than age 85.

Whatever classification of aging you choose to use is a matter of preference as long as you realize the limitations and variations implied by the term *old age.* The salient point to note is that there is a great amount of variability among *old-agers*. Whereas many individuals moving into the "third age" and beyond are of sound mind and body as well as financially secure, others in this same age cohort are experiencing functional declines as well as health care or financial needs.

GLOBAL AGING

In 2000, around the world, the number of persons age 60 years and older was 605 million. By 2050, that number is projected to reach 2 billion. This will make the over-60 population larger than the population of children (0–14 years) for the first time in human history.[2]

Approximately 60% of the world's older population now live in developing nations—an estimated 279 million people. This number is projected to increase to 690 million (71%) by 2030. A number of these less developed nations are also experiencing a downturn in natural population increase (births minus deaths). A similar decline has already occurred in the industrialized nations. As this rate of downturn in natural population

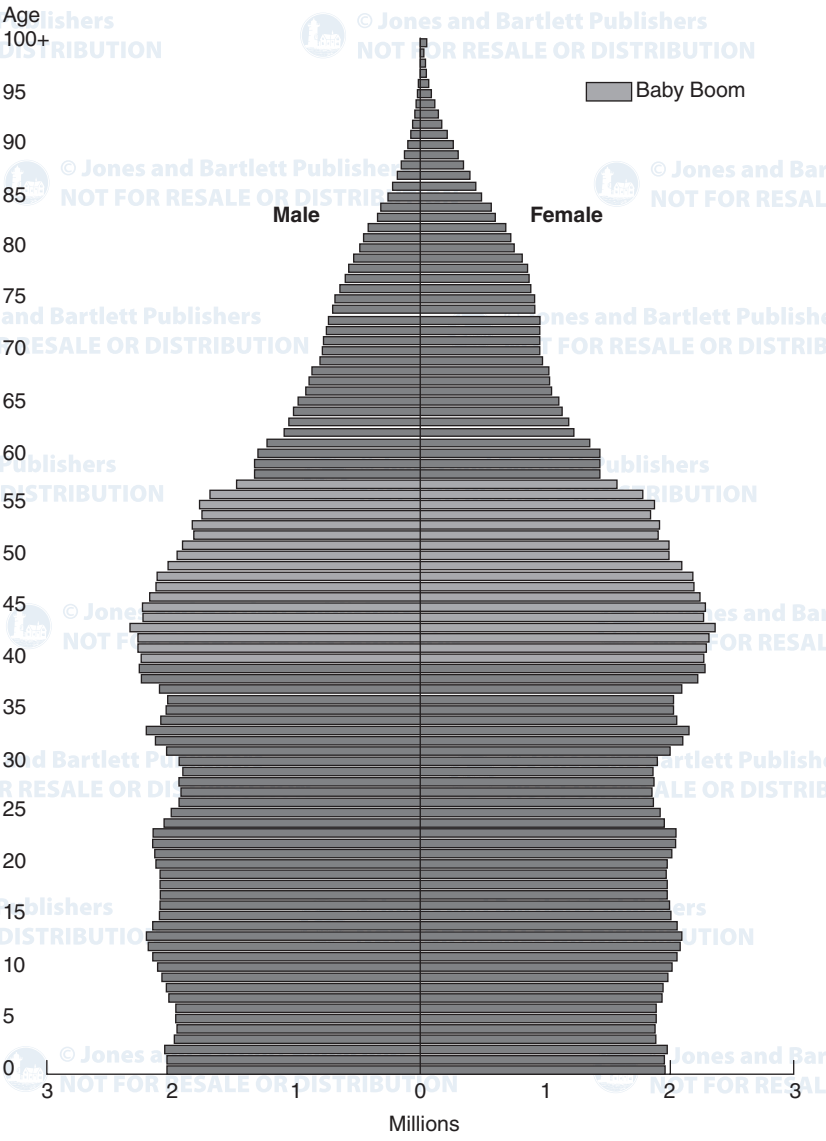

FIGURE 1-2 Population by age and sex: 2003.
Note: The reference population for these data is the resident population.
Source: U.S. Census Bureau, 2004.

continues to accelerate, elders will make up an ever greater proportion of each nation's total population.[3]

The world's oldest country is Italy, currently with 19.1% of its population over the age of 65. The world's 20 oldest countries are all in Europe (see **Figure 1-3**) except Japan, which is the second oldest with 19% of its population over 65.[3]

GENDER AND AGE

Women make up the majority of elderly people in almost every country in the world. Today in the United States, and throughout most countries, women can expect to live, on average, 7 years longer than men (Figure 1-2). As of 2003, life expectancy was 80 years for women and 74 years for men.[3] Life expectancy projections for 2020 are 81.8 years for women and 74.9 years for men.[4] This gender difference in life expectancy persists throughout the aging process.[1] In fact, among those 85 and older, there are only 46 men for every 100 women (**Figure 1-4**). This greater longevity in women is because heart

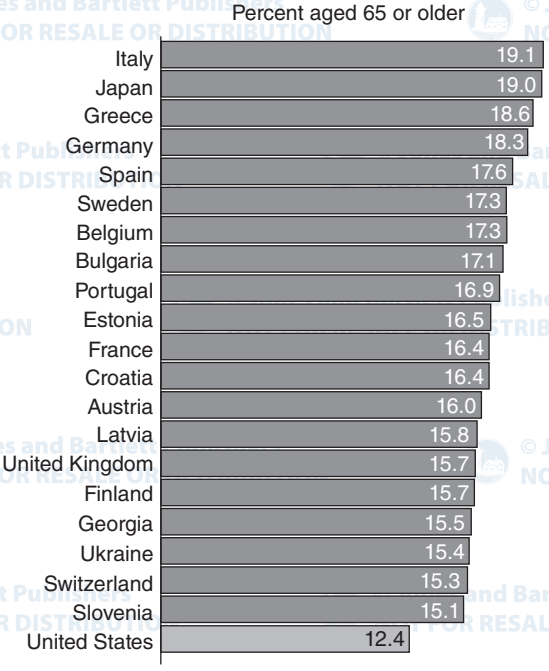

FIGURE 1-3 The world's 20 oldest countries and the United States: 2004.
Note: The United States ranks 38th.
Source: U.S. Census Bureau, International Data Base. Retrieved January 30, 2009, from http://www.census.gov/ipc/www/idbnew.html.

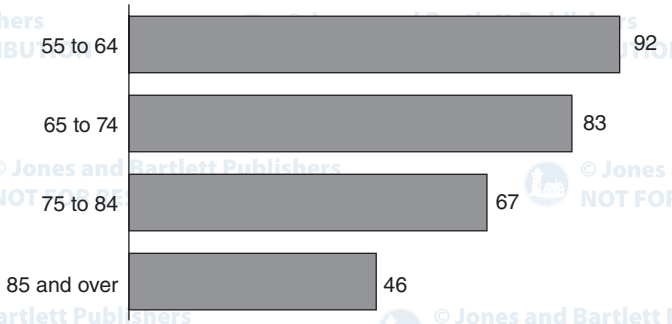

FIGURE 1-4 Sex ratio of people 55 years and over by age: 2002 (men per 100 women).
Source: U.S. Census Bureau, Annual Demographic Supplement to the March 2002 Current Population Survey.

attacks, cancer, and stroke—the major killer diseases—are or have been more common in men. Other factors influencing female longevity may have to do with women's greater sensitivity to changes in their body condition, which make them more likely to seek out earlier medical intervention. Women may also handle stress better and have better social support systems than their male counterparts do.

RACE AND AGING

The aging baby boomer generation will contain a far greater racial and ethnic mix than did any generation that preceded it. This results from both increasing immigration from primarily nonwhite countries and a lower fertility rate among the white population.[3] The U.S. Census Bureau predicts that nonwhite populations will account for approximately half (39%) of the U.S. population by 2050 (see **Figure 1-5**).[4]

Life expectancy for nonwhite Americans is less than it is for whites. African American men and women currently live on average 6 and 5 years less, respectively, than their white counterparts.[5] However, if a black person of either gender lives to age 65, his or her life expectancy is much closer to whites than it was at birth.[1] Other ethnic minorities in the United States, including Mexican Americans and Native Americans, have life expectancies lower than African Americans.[5] Even with their relatively low percentages, the population of minority older adults is growing at a faster rate than their white counterparts. The U.S. Census Bureau projects that minority populations will represent 25% of all the elderly people by 2030, up from 14% in 1990.[6] Examining this trend further, we see individuals older than 65 in specific ethnic groups increasing between 1990 and 2030 by the following percentages: Caucasians, 93%; Hispanics, 555%; African Americans, 160%; Native Americans, 231%; and Asians and Pacific Islanders, 693%.[3] Of these groups, Native Americans have the shortest life expectancy of any minority group (45–50 years of age) and also the lowest standard of living.

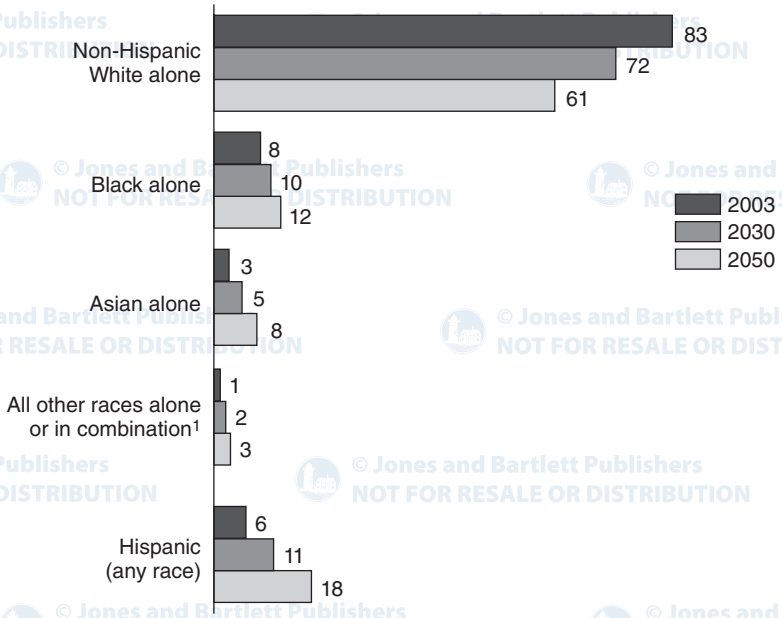

FIGURE 1-5 Population aged 65 and over by race and Hispanic origin: 2003, 2030, and 2050 (percentage of total population aged 65 and over).

[1]The race group "All other races alone or in combination" includes American Indian and Alaska Native alone, Native Hawaiian and Other Pacific Islander alone, and all people who reported two or more races.

Note: The reference population for these data is the resident population.

Source: U.S. Census Bureau, 2004.

As noted previously, besides an overall increase in the number of older Americans, there will also be a more heterogeneous mix of ethnic and cultural backgrounds. This will require health care providers to become even more culturally sensitive, acquiring new knowledge and skills to better recognize and respect cultural differences. Health care professionals will also need to understand the diseases, disorders, and concerns more common not only to specific age groups but to particular ethnic groups as well (**Table 1-2**).

In some elderly minority groups, social factors may play a role in reinforcing negative health patterns and behaviors. These factors may contribute to shorter life spans of certain minorities, as in the case of African Americans. Yet this same minority can expect to outlive their white counterparts if they live to age 80. At this point a racial mortality crossover phenomenon occurs in which life expectancy for blacks exceeds that of whites.

GEOGRAPHIC DISTRIBUTION: WHERE U.S. OLDER ADULTS LIVE

As of 2000, nine states had more than 1 million people aged 65 and over—California, New York, Florida, Pennsylvania, Texas, Illinois, Ohio, Michigan, and New Jersey. Cali-

TABLE 1-2 Prevalence of Selected Chronic Conditions by Race/Ethnicity in the United States: 1997–2006.

Condition	All (%)	Hispanic (%)	Non-Hispanic White (%)	Non-Hispanic Black (%)
All types of heart disease	31	22.5	32	26.9
Coronary heart disease	21.8	17.5	22.4	19.6
Hypertension	53.3	54.1	51.2	70
Stroke	9.3	6.4	8.8	16.4
Emphysema	5.7		6.3	
Asthma	10.6	8.5	10.6	12.6
Hay fever	7.5	10.8	7	6.5
Sinusitis	13.8	9.9	14.1	15.5
Chronic bronchitis	6.1	5.1	6.4	4.4
Any cancer	21.2	12.6	23.3	11.4
Breast cancer	3.4		3.7	1.5
Cervical cancer	1		1	
Prostate cancer	10.2		10.3	11.1
Colon/rectal cancer	2.4		2.7	
Uterine cancer	1.6		1.6	
Lung cancer	1.1		1.1	
Melanoma	1.6		2	
Skin cancer	6.1		7.3	
Diabetes	18.1	24.2	16.1	27.9
Ulcer	10.8	8.4	11.1	8.7
Kidney disease	3.4		3.4	4
Liver disease	1.5		1.4	
Arthritic symptoms	—	—	—	—
Chronic joint symptoms	43.4	40.8	43.5	49.6
Doctor's diagnosis of arthritis	49.6	38.7	50.4	56.2

Source: Centers for Disease Control and Prevention, National Health Interview Survey. Prevalence of Selected Conditions by Age, Sex, and Race/Ethnicity, 1997–2006.

fornia had more than 3.5 million elder Americans, and there were more than 2.8 and 2.4 million elders living in Florida and New York, respectively (**Figure 1-6**).

In 2000, Florida registered 17.6% of its population as older than the age of 65. On a percentage basis, other states with large elderly populations include Pennsylvania

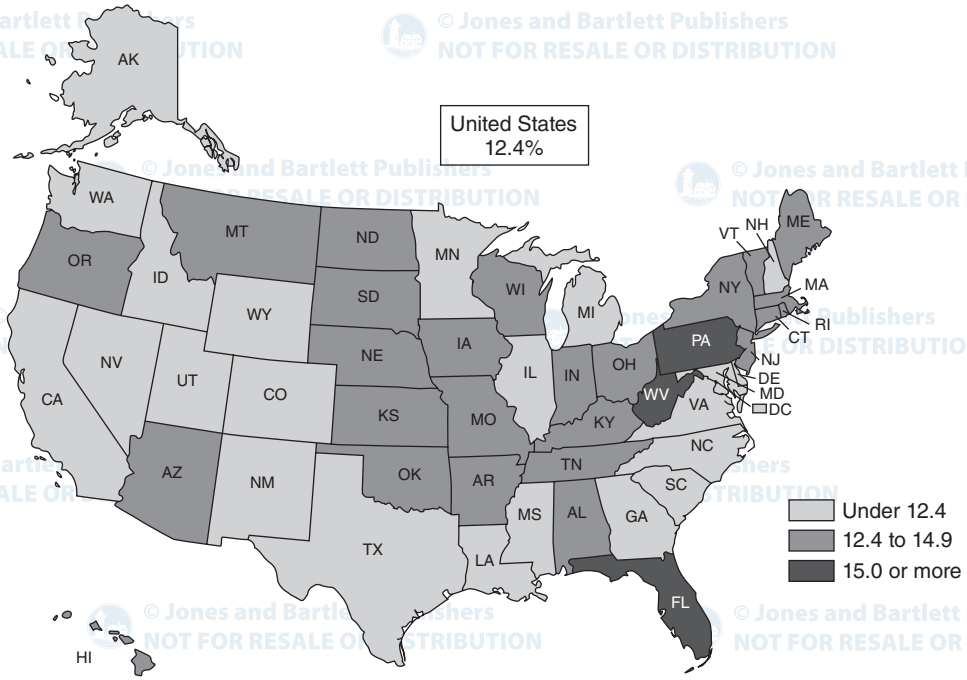

FIGURE 1-6 Percentage aged 65 and over of state population: 2000.
Note: The reference population for these data is the resident population.
Source: U.S. Census Bureau, 2001, Table P12.

(15.6%), West Virginia (15.3%), Iowa (14.9%), North Dakota (14.7%), Rhode Island (14.5%), Maine (14.4%), South Dakota (14.3%), and Arkansas (14.0%).

States experiencing a dramatic increase in their older-than-65 populations between 1994 and 2000 include Nevada (71.5%), Alaska (59.6%), Arizona (39.5%), New Mexico (30.1%), Hawaii (28.5%), Utah (29.9%), Colorado (26.3%), and Wyoming (22.2%).[1] (See **Table 1-3** for other locations.) This trend seems to indicate, for the most part, a continued movement toward warmer states, with the exception of Alaska and the Rocky Mountain states of Utah, Wyoming, and Colorado. It also points out the apparent appeal of living in less densely populated states, some of which also have lower costs of living. Older individuals moving to these states are generally affluent and well educated. They may also have existing ties to these new areas such as family, friends, or previously purchased retirement property. Many are also seeking escape from metropolitan life to the relative safety and comfort of rural or small-town USA.

In general, older Americans have a tendency to change residences less frequently than their younger counterparts do. The result of this has led to an increased "graying" of certain communities. A number of counties have elderly populations exceeding 20% of

TABLE 1-3 Population Aged 65 and Over and Percent Change for Regions, Divisions, and States: 1990 to 2000.

Region, Division, and State	65 and over		Change, 1990 to 2000	
	1990	2000	Number	Percent
West South Central	2,959,838	3,419,430	459,592	15.5
Arkansas	350,058	374,019	23,961	6.8
Louisiana	468,991	516,929	47,938	10.2
Oklahoma	424,213	455,950	31,737	7.5
Texas	1,716,576	2,072,532	355,956	20.7
Mountain	1,523,825	2,029,846	506,021	33.2
Montana	106,497	120,949	14,452	13.6
Idaho	121,265	145,916	24,651	20.3
Wyoming	47,195	57,693	10,498	22.2
Colorado	329,443	416,073	86,630	26.3
New Mexico	163,062	212,225	49,163	30.1
Arizona	478,774	667,839	189,065	39.5
Utah	149,958	190,222	40,264	26.9
Nevada	127,631	218,929	91,298	71.5
Pacific	4,249,538	4,892,283	642,745	15.1
Washington	575,288	662,148	86,860	15.1
Oregon	391,324	438,177	46,853	12.0
California	3,135,662	3,595,658	460,106	14.7
Alaska	22,369	35,699	13,330	59.6
Hawaii	125,005	160,601	35,596	28.5

Note: The reference population for these data is the resident population.
Sources: 1990, U.S. Bureau of the Census, 1991, Table P011; 2000, U.S. Census Bureau, 2001, Table P12.

the whole population. Many of these counties are located in the nation's predominantly agricultural heartland, where older persons have stayed on while the youth have moved on.

MARITAL STATUS

In 2003, 71% of elderly men were married, compared with only 41% of women.[7] What accounts for this, in large part, is the fact that women outlive men, thus increasing the ratio of widows to widowers. As of 2002, 41% of women aged 65 to 84 were widowed as compared to 11% of men in this same age group.[6] Worldwide divorce rates of older

persons is relatively low. In the United States, divorce in the over-65 population has remained relatively low (9% in 2003), but it is expected that this will increase dramatically.[3] To date, worldwide divorce rates of older people are relatively low because divorce is considered less socially acceptable by this earlier generation. However, in the United States and worldwide, the number and percentage of divorcing elders are likely to increase as younger generations, who tend to find divorce a more acceptable option, reach old age.

ECONOMIC STATUS

The economic status of elderly Americans is more varied than any other age group. Looking solely at income, on average persons 65 and older, receive less income than those younger than 65. In 2004, the median income of males older than 65 was $21,102 as compared to $12,080 for females.[7] These figures may be somewhat misleading, however, because older adults have greater tax advantages, often have their home mortgages paid off, and are covered by **Medicare** insurance.[8]

Sources of income for those 65 and older in 2003 were as follows: **Social Security** (39%), asset income (14%), public and private pensions (19%), earnings (25%), and all other sources (3%).[7]

As of 2005, poverty levels for older adults were 9.8%. In terms of race, poverty figures for those older than 65 show 7.5% of whites at the poverty level, compared with 23.9% of African Americans and 18.7% of Hispanics. Older women had almost twice the poverty rate of older men (12% to 7%). Because 62% of those older than 85 years of age are women, many of whom are widows, the economic hardships of this age group are likely to intensify. The highest poverty rate among the elderly (39.9%) was experienced by African American women who lived alone.[7]

HEALTH CARE

In a 2004 assessment of general health, 36.7% of noninstitutionalized persons age 65 and older claimed their health was good to excellent. This compares with individuals younger than 65, 66% of whom considered their health to be good to excellent.[7] There was not a significant difference between the genders. However, only 25.1% of elderly African Americans rated their health as good to excellent.

The majority (80%) of elderly persons have at least one chronic condition. In 2002–2003, the most frequently occurring conditions among older adults were hypertension (51%), diagnosed arthritis (48%), heart disease (31%), cancer of any type (21%), diabetes (16%), and sinusitis (14%).[7] Heart disease, cancer, and stroke account for 6 of every 10 deaths among those older than 65 years. Other diseases that rank high as causes of death in older adults include chronic obstructive pulmonary disease (COPD), pneumonia, influenza, and diabetes. According to the 2000 U.S. Census, 14 million non-

institutionalized elderly people have some kind of disability. The good news is that studies have shown, over the past two decades, a decline in the rate of disability and functional limitation in older persons.[1] Alzheimer's disease, confirmed on autopsy, is the leading cause of cognitive impairment in older adults.

Those 65 and older visit a physician, on average, 6.8 times per year as compared with 3.8 visits per year in the younger-than-65 cohort. In 2003, approximately 1 person in 3 (13.2 million total) older than the age of 65 had a hospital stay. This is three times the comparable rate for persons of any age. Average length of stay in the hospital was 5.8 days for those over 65 as compared to 4.8 days for persons of all ages.[7] By 2030, with an estimated 71 million Americans older than the age of 65, health care spending is projected to increase by 25%.[9]

Health care expenditures are unbalanced. Most health care dollars are spent near the end of a person's life. Health care spending per person for those over age 65 was $14,797 in 2004, which was 5.6 times higher than spending per child ($2,650 in 2004) and 3.3 times higher than spending in those aged 16–64 years ($4,511 in 2004).[10] It has been estimated that by the year 2025, nearly two-thirds of the U.S. health care budget will be devoted to services for older adults.[11] This will place incredible demands on the health care system and its professionals. The question remains as to whether we will be ready to handle this staggering demand for health care services, to say nothing of affording the astronomical costs!

LONG-TERM CARE

As of 1994, approximately 7.3 million persons older than the age of 65 required some form of **long-term care**, whether in a nursing home, assisted living center, or at home with some form of provider-based health care service.[12] It is estimated that by the year 2060 this number will increase to 24 million. Since 1966, when Medicare and **Medicaid** were introduced, the percentage of older adults requiring nursing home care has more than tripled from 2.5% to 9%. The average annual cost for a private room in a skilled nursing home is $76,460.[13]

In the population of those older than 85, one in four are eligible for placement in long-term care. Because this represents the fastest-growing segment of the population, the demand for nursing home beds will increase dramatically. Right now the number of nursing home beds is increasing by only half the rate at which this age cohort is increasing.

Elders who find themselves in long-term care facilities will, on average, use their life savings within 1 year. At that point they may become eligible for public assistance or Medicaid. Considering the sharp increase in need, the question that begs asking is, Where will the funds come from to continue support of this program? This presents another problem for our ever-aging society, especially considering the ongoing debates to cut health care benefits such as Medicare.

As a result of the trend to get patients out of the hospital and back home as soon as possible, home health care has seen a dramatic increase. Expenditures for home health services were $7.9 billion in 1990. This is expected to increase to $19.8 billion by the year 2020.[1] The advantage of home care is that it allows elderly persons to remain in the community, which can be more beneficial than living in a long-term care facility from both a personal as well as a financial perspective. With an ever-increasing need for efficiency as a result of runaway costs, health care providers are being asked to become ever more productive and proficient in their delivery of elder services in alternative settings.

SUMMARY

Demographics clearly indicate that the United States, as a nation, is growing older. On January 1, 2006, one American began turning 60 years of age every 7.5 seconds. This aging baby boom generation will effect massive societal changes. These changes will occur in terms of gender, race, geography, marital status, economics, and health care. The number of women will continue to surpass the number of men, with aging African Americans, Hispanics, Native Americans, Asians, and Pacific Islanders increasing by a greater percentage than whites. Some states will be harder hit by an aging boom than others. Social Security and other government entitlement programs are likely to be stretched perhaps to the breaking point, or at least to the point where they need major revamping. The health care system, perhaps most of all, will experience demands never previously encountered.

Health care professionals will be at the forefront of this aging tidal wave as it washes over and through our health care systems. Although hospital admissions and length of stays have been on the decline since 1996, this may not be the case from 2010 to 2030 as baby boomers descend upon health care institutions. Even without dramatic increases in hospital admissions, long-term care and home care are expected to experience a dramatic rise in patient volume. It is not unrealistic to expect that two out of three health care professionals will be working in either long-term care or home care in the future. The majority of the patients in these settings will be older adults. Therefore, it benefits health care professionals to have an understanding of trends and projections as they relate to the "graying of America."

Review Questions

1. As of January 1, 2006, one American will turn 60 every _____ for the next 18 years.
   A. 7.5 minutes
   B. 7.5 seconds
   C. Hour
   D. Week

2. The fastest-growing segment of the population consists of individuals who are
   A. 1–18 years of age
   B. 24–40 years of age
   C. 30–50 years of age
   D. 50–65 years of age
   E. Older than 85 years of age

3. The young-old, according to Bernice Neugarten, refers to those who are
   A. 45–55 years of age
   B. 55–74 years of age
   C. 65–75 years of age
   D. 60–80 years of age

4. Women can expect to live, on average, _____ years longer than men.
   A. 2
   B. 5
   C. 7
   D. 10

5. Which ethnic group of those older than 65 is expected to increase at the most rapid rate between 1990 and 2030?
   A. African Americans
   B. Native Americans
   C. Whites
   D. Hispanics
   E. Southeast Asians

6. As of 2000, the state that had the largest percentage of its population older than 65 was
   A. Rhode Island
   B. California
   C. North Dakota
   D. Florida
   E. Vermont

7. In 2002, widows exceeded widowers by a ratio of
   A. 1:2
   B. 1:3
   C. 1:4
   D. 1:8

8. Poverty levels for African Americans 65 or older are approximately
   A. 10%
   B. 15%
   C. 25%
   D. 50%
9. Health care spending in those older than 65 is _____ that of those ages 16–64?
   A. 2.2 times
   B. 3.3 times
   C. 5.6 times
   D. 8.0 times
10. What type of care is likely to increase dramatically in those over 85?
    A. Home care
    B. Medicare
    C. Long-term care
    D. All of the above

Learning Activities

1. List what you believe will be some trends set by the baby boomer generation as it ages.
2. Design an elder community in a United States location. What factors would you consider in the design? Where would you place this community?
3. Which health care services and/or products are likely to be required by an aging population?
4. What will be possible roles and responsibilities of future health care professionals in long-term care facilities and home care?
5. Visualize yourself and your friends as older than 65 years of age. Where will you be living? What will you be doing? What will be your hobbies/roles? What will society be like?

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