

## LEARNING OBJECTIVES

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At the end of this chapter, the reader will be able to:

- Review statistics related to aging in the United States.
- Describe social and economic issues related to aging in the United States.
- Discuss aging across different cultures.
- Recognize differences between aging in the 21st century and aging in the past.
- Critically evaluate successful aging.

## KEY TERMS

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Aging in place

Baby boomers

Centenarian

Chronic disease

Cohort

Demographic tidal wave

Elderly

Foreign-born

Graying of America

Native-born

Older adult

Oldest old

PACE

Pig in a python

Seniors

Silver tsunami



# Chapter 2

[Competency 19]

## The Aging Population

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**U.S. society, and indeed, U.S. families, will be greatly challenged by the *graying of America* over the next few decades.** A steadily growing aging population has the potential to affect social policy, societal resources, businesses, and communities, not to mention healthcare systems.

### The Numbers

More than one out of every eight Americans is age 65 or older. This older population numbered 40.4 million in 2010, an increase of 5.4 million or 15.3% since 2000. In this same decade, 2000–2010, the number of Americans ages 45–64—who will reach 65 over the next two decades—increased by 31%. The 65 or over population has increased from 35 million in 2000 to 40 million in 2010 (a 15% increase) and is projected to increase to 55 million in 2020 (a 36% increase for the decade). The population of the *oldest old* (85+ years) is projected to increase from 5.5 million in 2010 to 6.6 million in 2020 (a 19% increase for the decade) (Administration on Aging, 2011a). It is anticipated that by 2018, older adults will outnumber children under the age of 5 in the world for the first time in history (Kinsella & He, 2009).

### Why the Increase in the Number of Older Adults?

The trend of increasing numbers of *older adults* in the United States can be attributed to two main causes: the increased life expectancy of our *seniors* and the fertility of the U.S. population at various points in time.

In 1935, when Social Security was enacted, the life expectancy for someone who was 65 years old was 12 additional years for males (or 77 years total) and 13 additional years for females (or 78 years total). This has risen to 17.9 and 20.3 additional years, respectively. By 2080, the additional life expectancy for a 65-year-old is expected to have

## Notable Quotes

“The hard fact is that aging will bring unpleasant changes, among them, aches and pains; decreased vigor, healing ability, sensory acuity, muscle tone, bone density, and sexual energy; memory deficits; wrinkles; loss of beauty, friends, family, and independence; increased reliance on doctors and pills; and social isolation. We can mask the outward sign of the process and try to keep up old routines in spite of it, but cannot change the fact that we are all moving toward physical decline and death.”

—Andrew Weil, MD, best-selling author, from his book *Healthy Aging*

increased to 20 years and 23 years, respectively (Centers for Disease Control and Prevention [CDC], 2009). There is less of a racial difference in life expectancy than in other parameters of aging. In 2006, life expectancy at birth was 5 years higher for Whites than for Blacks, but at age 65, Whites could expect to live for 1.5 years longer than Blacks. For those who live to age 85, the life expectancy for Black people is slightly higher than for Whites (Federal Interagency Forum, 2010).

Changes in life expectancy throughout the 20th century were mainly due to improved sanitation, advances in medical care, and the implementation of preventive health services (Merck Institute of Aging and Health [MIAH], CDC, & Gerontological Society of America, 2004). In the early 1900s, deaths were mostly due to infectious diseases and acute illnesses. The older population of today, however, must deal with challenges that would be unfamiliar to their own parents: dealing with *chronic disease* and affording healthcare services. The average 75-year-old now suffers from three chronic diseases and uses five prescription drugs (MIAH et al., 2004). Modern treatments for diseases that used to kill older adults, such as myocardial infarction and stroke, as well as the improved technical procedures for health services such as transplants and intensive care, have contributed to the increased longevity of the population. Healthcare costs, including medication costs, have thus become a primary issue for many seniors. The repercussions of rising healthcare costs have been felt within the state and federal governments, as they seek to help support their senior citizens' health. Nearly 95% of healthcare expenditures for older Americans are for chronic diseases (MIAH et al., 2004).

Fertility of the population also affects the number of older adults. The fertility rate in the United States has been steadily falling for the past 200 years. In 1800, the average woman had 7 children; by the end of World War II, this had decreased to 2.4 children. However, in the two decades after the war, the fertility rate increased to 3.5 children (Munnell, 2004). Of course, one could argue that some of these changes have less to do with fertility rate and more to do with the influence of other factors such as the acceptance and use of birth control as well as the changing values of different generations.

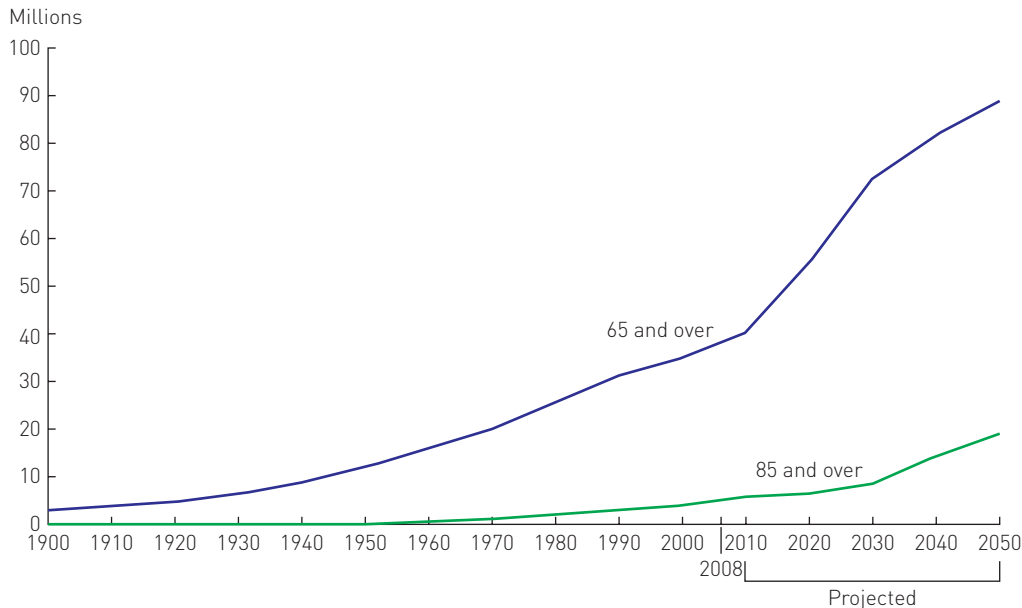
The growth of the older population slowed somewhat during the 1990s because of the relatively small number of babies born during the Great Depression of the 1930s. However, the older population will explode between 2010 and 2030, when the *baby boomer* generation reaches age 65. This extremely large segment of the U.S. population, who were born between 1946 and 1964, started turning 65 in 2011. This anticipated increase has been called both a *demographic tidal wave* (MIAH et al., 2004) and a *pig in a python* (meaning a bulge in population moving slowly through time) (Munnell, 2004).

Beginning in 2012, nearly 10,000 Americans will turn 65 every day (MIAH et al., 2004). By 2030, the older population will comprise 20% of the total population of the United States (which will comprise about 72 million people) (Federal Interagency Forum, 2010; MIAH et al., 2004). This group of older adults will be the “healthiest,

longest lived, best educated, [and] most affluent in history” (Experience Corps, 2005). After 2030, the population of oldest old (those over 85 years) will grow the fastest. According to the Federal Interagency Forum (2010), the U.S. Census Bureau projects that the population of those 85 or older could grow from 5.7 million in 2008 to 19 million by 2050 (see **Figure 2-1**). Some research has raised new concerns about future increases in life expectancy in the United States as compared to other high-income countries. Poor lifestyle choices such as smoking and current obesity levels, especially for women age 50 and over, may negatively impact life expectancy of the current generation of older adults (National Research Council, 2011).

## The Distribution of Seniors in the United States

The distribution of older Americans varies across the United States, due in part to patterns of migration after retirement. It is also caused by birth and death rates in the various states and regions. In 2010, one-half of persons age 65 or older lived in 11 states: California, Florida, New York, Illinois, Texas, Pennsylvania, Ohio, Michigan, North Carolina, Georgia and New Jersey. Persons aged 65+ constituted approximately 14% or more of the total population in 17 states in 2010: Florida (17.4%), West Virginia (16.1%), Maine (15.9%), Pennsylvania (15.5%), Iowa (14.9%), Montana (14.9%), Vermont (14.6%), Hawaii (14.5%), North Dakota (14.5%),



NOTE: Data for 2010–2050 are projections of the population.  
Reference population: These data refer to the resident population.

**Figure 2-1** Population age 65 and over and age 85 and over, selected years 1900–2008, and projected 2010–2050.

Source: Data from the U.S. Census Bureau. Decennial census. Population estimates and projection.

Rhode Island (14.4%), Arkansas (14.4%), Delaware (14.4%), South Dakota (14.3%), Connecticut (14.2%), Ohio (14.1%), Missouri (14.0%), and Oregon (14.0%). In 13 states, the 65+ population increased by 20% or more between 2000 and 2010: Alaska (50% increase), Nevada (47%), Idaho (32.5%), Arizona (32.1%), Colorado (31.8%), Georgia (31.4%), Utah (31.0%), South Carolina (30.4%), New Mexico (28.5%), North Carolina (27.7%), Delaware (26.9%), Texas (26.1%), and Washington (25.3%). Most persons aged 65+ lived in metropolitan areas in 2010 (78.9%). About 64% of older persons lived in the suburbs, 36% lived in central cities, and 20% lived in nonmetropolitan areas (Administration on Aging, 2011a).

The *elderly* are less likely to change residence than other age groups. From 2009 to 2010, only 5.8% of older persons moved, as opposed to 16.9% of the under-65 population. Most older movers (58.7%) stayed in the same county and 78.2% remained in the same state. Only 21.8% of the movers moved out of state or abroad (Administration on Aging, 2011a).

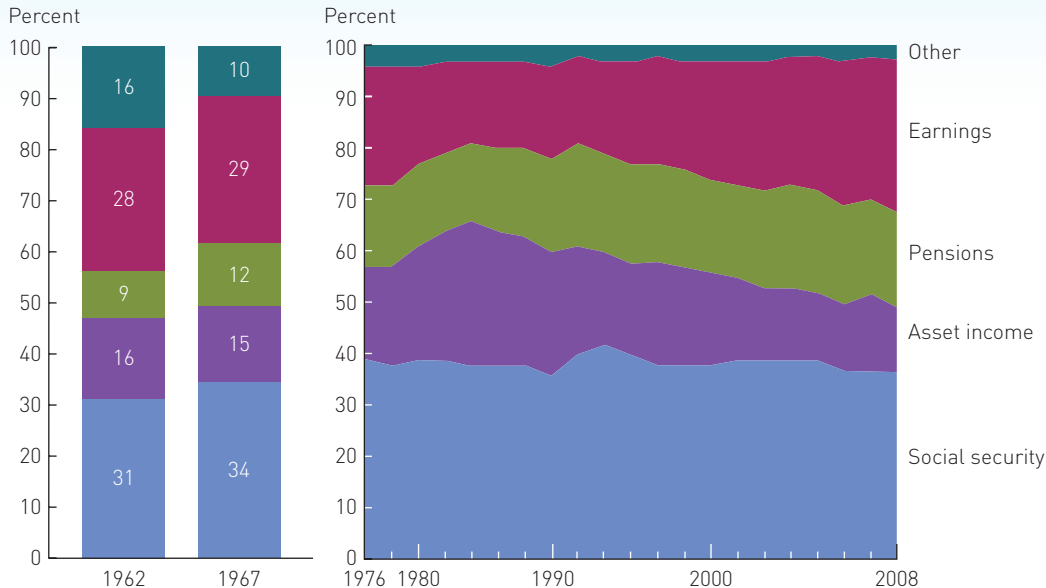
## Issues of Gender

Women outnumber men in the United States, a trend that is expected to continue. In 2010, there were 23 million older women in the United States, compared to 17.5 million older men. This is a ratio of 132 women for every 100 men. The female to male sex ratio increases with age. For the age group 65–69, it is 112:100; for those 85+, it is 206:100 (with more than two females for every male). In 2009, a 65-year-old female could be expected to have an additional 20 years of life expectancy; for males, it was 17.3 years (Administration on Aging, 2011a).

In 2010, 72% of older men were married, compared to 42% of women. Only 37% of women ages 75–84 were married; this dropped to 15% in the 85 or older age group, while 55% of men 85 years and older were married. Four times as many women as men were widowed (8.7 million women; 2.1 million men). Divorce is more unusual in this age group. In 2010, 12% of older men and 13% of older women were divorced. A smaller proportion of older adults had never been married (Administration on Aging, 2010; Federal Interagency Forum, 2010).

## Education

Level of education attained can affect the socioeconomic status of the older adult. **Figure 2-2** shows sources of income for groups of older adults. Those with more education tend to have more money, higher standards of living, and above-average health. The comparisons over the years are interesting. In 1965, 24% of the older adults in the United States had graduated from high school and 5% had at least a bachelor's degree. In 2010, however, 79.5% of older adults had graduated from high school, while 22.5% of older adults had at least a bachelor's degree. Differences also exist in education between ethnic groups. In 2010, 84.3% of older non-Hispanic Whites, 73.6% of older Asians, 64.8% of older Blacks, and 47% of older Hispanics had completed high school (Administration on Aging, 2010; Federal Interagency Forum, 2010).



NOTE: A married couple is age 65 and over if the husband is age 65 and over or the husband is younger than age 55 and the wife is 65 and over. The definition of "other" includes, but is not limited to, public assistance, unemployment compensation, workers compensation, alimony, child support, and personal contributions.  
Reference population: These data refer to the civilian noninstitutionalized resident population.

**Figure 2-2** Sources for income for married couples and non-married people who are age 65 and over, percent distribution, selected years 1962–2008.

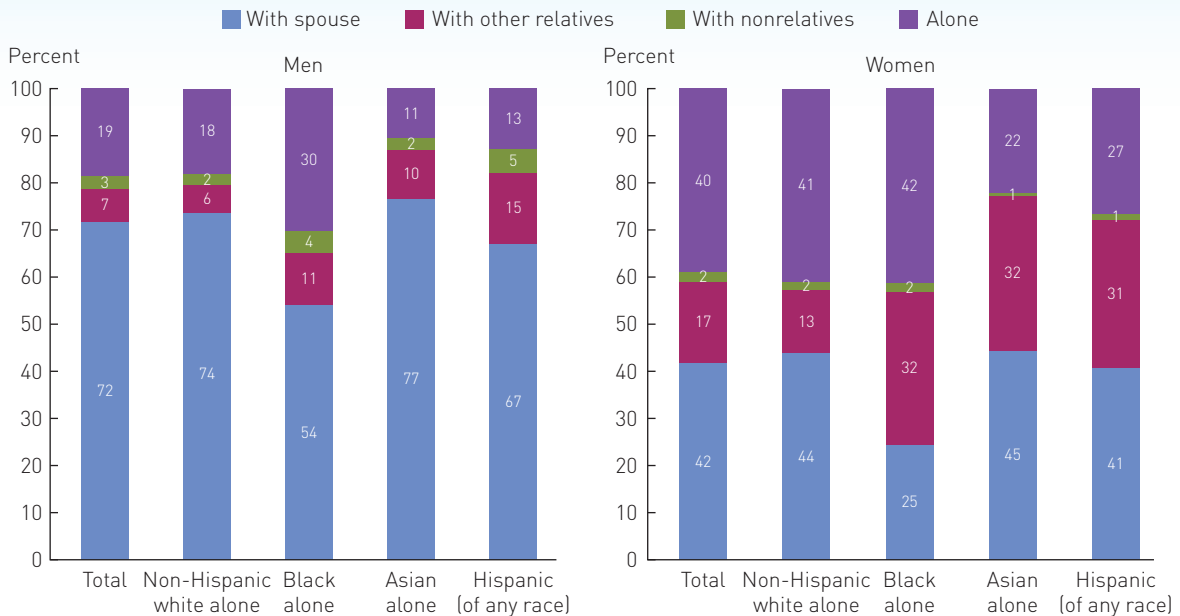
Source: Data from the U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 1997–2009.

## Living Arrangements

Living arrangements of older adults are linked to income, health status and the availability of caregivers. Older people who live alone are more likely than their married counterparts to live in poverty. Over one-half (55.1%) of noninstitutionalized older adults lived with their spouse in 2010. In that year, older men were more likely to be living with a spouse than were older women (69.9% compared to 41.3%; see **Figure 2-3** for statistics through 2008). Only 30.4% of women age 75 or older lived with a spouse, and older women were twice as likely as older men to be living alone (37.3% compared to 19.1%). The likelihood of living alone increases with age: among women age 75 or older, 47% lived alone in 2010.

A total of about 1.94 million older adults lived in households with a child present in the house in 2010. About 485,000 of these were grandparents over 65 years of age with the primary responsibility for their grandchildren who lived with them (Administration on Aging, 2010).

Although only a small percentage (4.1%) of older adults resided in nursing homes in 2009, the percentage increases with age. This ranges from 1.1% for persons



NOTE: Living with other relatives indicates no spouse present. Living with nonrelatives indicates no spouse or other relatives present. The term “non-Hispanic white alone” is used to refer to people who reported being white and no other race and who are not Hispanic. The term “black alone” is used to refer to people who reported being black or African American and no other race, and the term “Asian alone” is used to refer to people who reported only Asian as their race. The use of single-race populations in this report does not imply that this is the preferred method of presenting or analyzing data. The U.S. Census Bureau uses a variety of approaches.

Reference population: These data do not include the noninstitutionalized group quarters population.

**Figure 2-3** Living arrangements of the population age 65 and over, by sex and race and Hispanic origin, percent distribution, 2008.

Source: Data from the U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2008.

ages 65–74, to 3.5% for persons ages 75–84, and to 13.2% for persons ages 85+. Another 2.4% of older adults lived in “senior housing” in 2009, which often offers supportive services to residents (Administration on Aging, 2011a).

Living arrangements, like education, also vary by race and ethnicity. In 2008, older Asian women were more likely than older women of other races to live with relatives other than a spouse. Older non-Hispanic White and older Black females were more likely than others to live alone. Older Black men lived alone three times as much as older Asian men. Older Hispanic men were more likely than other races and ethnicities to live with relatives other than a spouse. The chance of living alone increases as age increases.

Older people who lived alone had higher poverty rates than those who lived with their spouse. In 2010, 16% of older persons who lived alone lived in poverty, but only 5% of older married men and women lived in poverty (Federal Interagency Forum, 2010).

## Effects of Ethnicity

The growing aging population consists of a significantly increased proportion of minorities. Minority elders will make up 42% of the elderly population over the

next 40 years (Vincent & Velkoff, 2010). The diversity as well as the vast increase in number of this group provides a distinct challenge to meeting healthcare needs. The losses (spouses, friends, independence, levels of function, status in society) often encountered in aging coupled with low socioeconomic status and lifetime racial discriminations put this group at increased risk for poor outcomes (Markides & Miranda, 1997). An understanding of cultural diversity and the unique challenges it poses is needed to address health issues and promote wellness.

The older population in the United States is growing more racially and ethnically diverse as it ages. In 2010, 80% of U.S. older adults were non-Hispanic Whites, 8.4% were Black, 3.4% Asian, and 6.9% Hispanic (see **Table 2-1**). By 2050, the composition of the older population will be 59.4% non-Hispanic White, 19.8% Hispanic, 11% Black, 8.6% Asian, and 1% American Indian and Native Alaskan (Administration on Aging, 2010; Federal Interagency Forum, 2010).

## African Americans

The number of African American elders is projected to increase from 3.2 million in 2008 to over 9.9 million by 2050. In 2008, African Americans comprised 8.3% of the older population. By 2050, this is expected to increase to 11%. The poverty rate for older African Americans was 20% in 2008, compared to 9.7% for the total elderly population. Households containing families headed by African Americans age 65 years or older reported a median income of \$35,025 in 2008, compared to \$44,188 for all older households. The median personal income for African American men was \$19,161, and \$12,499 for African American women, compared to \$25,503 for

**TABLE 2-1 U.S. Population Age 65+ by Race and Hispanic Origin, 2010**

	Numbers	Percentage
Black Alone, Not Hispanic	3,374,381	8.4%
Native American Alone, Not Hispanic	179,819	0.4%
Native Hawaiian/Pacific Islander Alone, Not Hispanic	29,568	0.1%
Asian Alone, Not Hispanic	1,376,471	3.4%
Two or More Races, Not Hispanic	316,690	0.8%
Hispanic	2,781,624	6.9%
Total Minority Population Age 60 and Older	8,058,553	20.0%
White Alone, Not Hispanic	32,209,431	80.0%
U.S. Total 65 and over	40,267,984	100.0%

Source: Data from the U.S. Census Bureau, Administration on Aging.



all elderly men and \$14,599 for all elderly women (Administration on Aging, 2010). There is also a great disparity in net worth between Black and White households headed by older Americans. In 2007, net worth among older Black households was estimated to be \$46,000, compared to \$280,000 among older White households (Federal Interagency Forum, 2010). The lack of economic resources and poor access to health care add to the increased incidence of disease with greater complications in this subgroup (see **Case Study 2-1**).

Higher rates of diabetes, hypertension, and chronic kidney disease are seen in African Americans (Ross, 2000). While 26.9% of older Americans aged 65 and over are estimated to have diabetes, there is a racial difference, with 10.2% of non-Hispanic Whites over age 20 and 18.7% of non-Hispanic Blacks over the age of 20 having diabetes (CDC, 2011). African American men have higher incidences of lung and prostate cancer as compared to Whites, and African Americans' overall risk to develop kidney disease is highest of the senior groups.

Among the most frequently occurring chronic conditions in the African American elderly in 2005–2007 were hypertension (84%), arthritis (53%), heart disease (27%), diabetes (29%), sinusitis (15%), and cancer (13%). This generally compares negatively to the following figures for all older persons in the United States: hypertension (71%), arthritis (49%), heart disease (31%), diabetes (18%), sinusitis (14%), and cancer (22%) (Administration on Aging, 2010).

African Americans often do not use routine preventive services at recommended rates and are less likely to have a regular provider of health care, opting instead for hospital outpatient departments, historically known for long waits and inconsistent providers (Markides & Miranda, 1997). The top five causes of death among African

### Case Study 2-1



Mrs. Johnson is an 87-year-old African American female admitted to the hospital from her home. She is widowed and has no children. Her neighbors watch out for her, bringing her groceries and making sure that she's OK each day. Mrs. Johnson's neighbor, Mrs. Edwards, accompanies her to the hospital.

Mrs. Johnson is admitted for shortness of breath, attributed to nonadherence to her medication regimen for congestive heart failure. She is alert, oriented, and very pleasant.

Mrs. Edwards takes you aside and tells you that she is concerned about Mrs. Johnson's home situation.

### Questions:

1. What might you suspect about Mrs. Johnson's financial situation?
2. What might you suspect about Mrs. Johnson's home situation?
3. How might these factors contribute to her hospital admission?
4. Based upon your suspicions, what questions might you ask Mrs. Johnson as you admit her to your unit?

Americans are heart disease, cancer, stroke, diabetes, and unintentional accidents (CDC, 2005). From these statistics, it is evident that preventive services have the potential to affect the longevity of this population.

## Hispanics

The Hispanic population is now the largest ethnic minority in the United States (Porter, 2011). The over-65-year-old Hispanic population is the fastest growing segment of the total U.S. population; by 2019, the Hispanic population age 65 or older is projected to be the largest racial/ethnic minority in this age group (Administration on Aging, 2010). By 2050, Hispanic elderly will make up 19.8% of all U.S. elderly, adding up to 17 million Hispanics over the age of 65 (Administration on Aging, 2010). The Hispanic population in the United States consists of a diverse population from Mexico, Cuba, Puerto Rico, the Dominican Republic, and other countries of Central and South America. The poverty rate in 2008 for Hispanic elderly in the United States was nearly twice that of the total older population, 19.3% compared to 7.6% (Administration on Aging, 2010).

The chronic diseases of cardiovascular disease, diabetes, cancer, and cerebrovascular disease are seen in significant numbers in the Hispanic population. Centers for Disease Control and Prevention (2005) data show Hispanics are less likely to obtain preventive services such as flu and pneumonia vaccines and mammograms as compared to Whites. In 2008, 10.7% of Hispanics over 65 years old were diagnosed with diabetes, as compared to 6.9% of non-Hispanic Whites and 10.9% of African Americans (Administration on Aging, 2010). Hispanics also have higher rates of cervical, esophageal, gallbladder, and stomach cancer as compared to Whites. Poverty levels, only slightly lower than for African American elderly, and language barriers are often impediments to accessing healthcare coverage and healthcare services (Ross, 2000). The top five causes of death among Hispanics are heart disease, cancer, unintentional injuries, stroke, and diabetes (CDC, 2010).

In 2008, 70% of Hispanics age 65 or over lived in four states: California, Florida, New York, and Texas (Administration on Aging, 2010). Hispanics in general receive assistance in the home, versus long-term facilities, when functionally declining (Angel & Angel, 1997). Family members frequently act as their caregivers, and multi-generational families under one roof are common. On average, Hispanic families and households are larger than non-Hispanic families and households (Aranda & Miranda, 1997). Overall, the percentage of Hispanic elderly living alone is lower than that of the general population (Administration on Aging, 2010). Older Hispanics are more likely to be married and to rely on family over friends when compared to White elderly.

## Asians and Pacific Islanders

This subgroup actually is composed of 40 different ethnic groups with various economic, educational, and health profiles (Ross, 2000). Some identified ethnicities include Chinese, Filipino, Japanese, Pacific Islander, and Hawaiian. National data, however, do not necessarily discern between ethnicities, which complicates

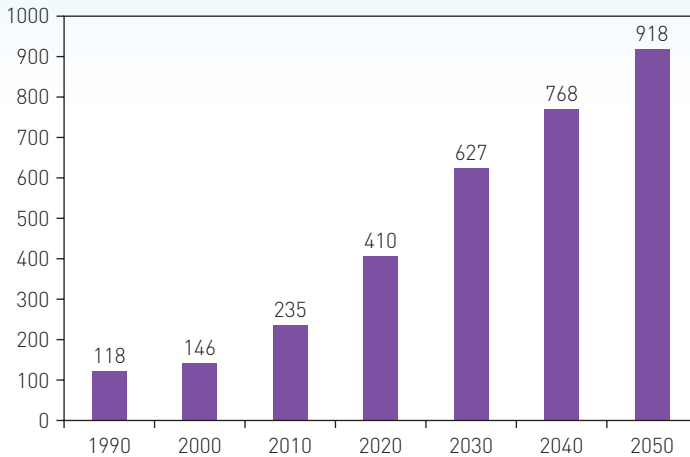
identifying demographics and patterns for each culture. The Asian American and Pacific Islander population has been the fastest growing racial/ethnic group in the United States recently, having increased 141% between 1970 and 1980 and 99% between 1980 and 1990 (Elo, 1997). According to the U.S. Census Bureau, projections for the years 2010–2050 include population increases for Asian Americans and Pacific Islanders from 3.4% to 8.6% of the U.S. population (Administration on Aging, 2010).

Life expectancy data have historically shown an advantage for the Asian American and Pacific Islander population. Census data from 1995 showed life expectancy at birth of Asian Americans and Pacific Islanders to be 79.3 years for males and 84.9 years for females, as compared to 73.6 and 80.1 for White males and females, respectively. Elo (1997) questions inconsistencies in the data due to the heterogeneity of the group. The evaluation of mortality data did place Chinese, Japanese, and Filipinos well below White Americans. As a whole, cancer and heart disease contribute less to all-cause mortality in the Asian American and Pacific Islander population than in Whites. Cerebrovascular disease, however, is a more prominent cause of death for some subgroups of Asian Americans and Pacific Islanders (Elo, 1997). Discrepancies are seen in mortality causes depending on whether persons are native or foreign-born, pointing to the impact of acculturation in U.S. society. Overall, though, the top five causes of death among Asian Americans or Pacific Islanders are heart disease, cancer, stroke, unintentional injuries, and diabetes (CDC, 2010).

Kitano, Tazuko, and Kitano (1997) note the inconsistency of this minority group's use of community-based professional resources. Dependence on familial and informal ethnic resources is seen more often than use of traditional health resources. Length of the family's time in this country (recent arrival vs. present for a century) impacts comfort and ease of resource use. Healthcare providers will need to address not only the diversity within this minority group, but also the time or extent of acculturation and assimilation within each subgroup.

### American Indians and Alaskan Natives

The category of American Indians and Alaskan Natives (AI/ANs) represents 500 nations, tribes, bands, and native villages in which 150 languages are used (Kramer, 1997). Overall, the 2005–2007 Current Population Survey found that the AI/AN population has larger families, less health insurance, and twice the level of poverty as the rest of the American population (Indian Health Service [IHS], 2012). The 2000 Census found that the AI/AN population is younger than all races of the United States, with a median age of 25 years, compared to the U.S. population's median of 35 years. This population is also living longer than in the past: In 1972–1974, the life expectancy at birth was 63.6 years; it is now 72.6 years, 5.2 years less than the general U.S. population. Leading causes of death in this population are heart disease, cancer, unintentional injuries, diabetes, and cerebrovascular disease. “The American Indian and Native Alaskan older population (non-Hispanic and Hispanic) was 212,605 in 2007 and is projected to grow to almost 918,000 by 2050” (Administration on Aging, 2011b). See **Figure 2-4**.



**Figure 2-4** Past, present, and future: American Indian and Alaskan Native persons 65+, 1990–2050 (numbers in thousands).

Source: Data from the U.S. Census Bureau, Administration on Aging, Retrieved from: [http://www.aoa.gov/AoARoot/Aging\\_Statistics/Minority\\_Aging/Facts-on-AINA-Elderly2008-plain\\_format.aspx](http://www.aoa.gov/AoARoot/Aging_Statistics/Minority_Aging/Facts-on-AINA-Elderly2008-plain_format.aspx)

Historically, political developments forced the concentration of American Indians first onto reservations west of the Mississippi and then to more urban areas (Chapleski, 1997). Due to these relocation efforts, AI/ANs are not necessarily in close proximity to IHS facilities, and thus may have difficulty with accessing preventive care. In 2009, 50% of AI/AN elders lived in six states: California, Oklahoma, Arizona, New Mexico, Texas, and North Carolina (Administration on Aging, 2011b). Although many AI/ANs live in rural areas, many have moved to urban areas, where 57% of the population currently resides (IHS, 2012). Chronic disease prevalence in AI/AN increased significantly in the 20th century (see **Case Study 2-2**).

## Case Study 2-2

Mr. Andrew Crow is a 67-year-old American Indian. He has been unemployed for the past 5 years. He lives on a reservation in Oklahoma with his wife and three teenage children. Mr. Crow came to the health clinic for a routine checkup. You note that he is overweight.

### Questions:

1. How should you focus your physical assessment?
2. What chronic diseases might Mr. Crow be at high risk for?
3. What are the implications for his family?
4. Develop a plan of care for Mr. Crow and his family members.

Studies indicate that older AI/ANs have higher rates of hypertension, diabetes, back pain, and vision loss than the general U.S population. Nationally, more than one in five AI/AN elders has diabetes. Goins and Pilkerton (2010) found the following rates of disease in older American Indians compared to the general population (general population percentages in parenthesis):

- Diabetes 42% (16%)
- Hypertension 58% (47%)
- Vision loss 31% (14%)
- Back pain 37% (29%)

Goins and Pilkerton also found evidence that American Indians at age 55 were experiencing disease states such as cataracts more frequently found in the 70-year-old general population.

American Indians and Alaskan Natives have the highest rates of diabetes in the United States (IHS, 2012). Diabetes is seen very frequently in the younger age groups, with grave implications as the population ages. The AI/AN population also has higher rates of obesity, substance abuse, and mental health problems. According to the IHS, geographic isolation, economic factors, and suspicion toward traditional spiritual beliefs are some of the reasons why health among AI/ANs is poorer than other groups.

In the 2000 Census, AI/ANs reported the highest rates of functional limitation, particularly in the age 55–64-years group. Disability is one of the strongest predictors of the need for nursing home admission in the older adult. This trend is “becoming increasingly important because the number of AI/ANs aged 75 years or older who will need long-term care will double in the next 25 years” (Goins, Moss, Buchwald, & Guralnik, 2007, p. 690) and Congress has a history of providing poorer funding to the healthcare services for AI/ANs compared to other U.S populations.

## Other Minorities

### The Older Foreign-Born Population in the United States

The *foreign-born* are those people who are living in the United States who were not U.S. citizens at birth. The 2003 Annual Social and Economic Supplement to the Census found that 10.8% of the elderly population in the United States was foreign-born (He, Sengupta, Velkoff, & DeBarros, 2005). Thirty-five percent of these older adults were born in Europe, and 57.8% were born in Latin America or Asia. Nearly 70% of the older foreign-born population were naturalized citizens. The largest region of birth for this population (53%) was Latin America, while 28% were born in Asia, 12% in Europe, 4% in Africa, and 2% in North America. Of the Latin Americans, 55% were born in Mexico. Foreign-born persons comprised 12.4% of the over-65 population at the time of the 2010 Census. More than 28% of the population born in Europe was aged 65 and over (Grieco et al., 2010).

Nearly 66% of the older foreign-born in the United States have lived here for more than 30 years. The older foreign-born are twice as likely to be naturalized citizens as the foreign-born of all ages (see **Table 2-2**). Almost 50% of the older foreign-born have not completed high school (compared to 29% of *native-born* older Americans). Older foreign-born are more likely than native-born elders to live in multigenerational family households, and their poverty rate is also higher than for native-born U.S. citizens. They are also less likely to have health coverage (He, 2000). A language other than English is spoken in 12.6% of the homes of the foreign-born elderly. Less than one-half of the older adults who spoke another language at home spoke English very well (He et al., 2005).

## U.S. Veterans

There are currently three *cohorts* of aging veterans: those who served in World War II, those who served in the Korean War, and those who served in Vietnam. Changes in the population of older Americans who are veterans of the armed services are expected to continue as the Vietnam-era cohort ages. In 2000, there were 9.8 million veterans age 65 or older in the United States—two of every three men 65 or older were veterans. More than 95% of these veterans were male. Between 1990 and 2000, the number of male veterans age 85 or older increased from 142,000 to 400,000 (**Figure 2-5**). There is a projected increase after 2010 as the Vietnam-era cohort ages. The number of veterans 85 or older is expected to increase steadily to a peak of 1.2 million in 2012 (Federal Interagency Forum, 2010). This increase in the number of veterans will challenge the U.S. Department of Veterans Affairs, which has traditionally supplied a major proportion of the health care that veterans receive.

## Notable Quotes

“They are our storytellers—our elderly are meant to be those who share the secrets of wisdom and knowledge and life with our youth.”

—Cameron Diaz

**TABLE 2-2 Population 65 and Over by Citizenship Status—March 2009**

Age Group	Native Population	Foreign-Born	Naturalized Citizen	Not a Citizen
65 to 69 years	10,583	1,438	965	473
70 to 74 years	7,711	1,225	830	395
75 to 79 years	6,356	826	568	258
80 to 84 years	5,143	640	480	161
85 years and over	4,233	460	347	114

Source: Data from the U.S. Census Bureau.



Reference population: These data refer to the resident population of the United States and Puerto Rico.

**Figure 2-5** Percentage of population age 65 and over who are veterans, by sex and age group, United States and Puerto Rico, 2000 with projections for 2010 and 2020.

Source: Data from the U.S. Census Bureau, Decennial Census and Population Projections, Department of Veterans Affairs.

Changes in the healthcare systems of the military are currently being seen as a direct result of the Iraq and Afghanistan wars. It is unknown how the numbers of wounded military personnel from these wars will affect the U.S. Department of Veterans Affairs in the short or in the long term. It can be anticipated, however, that the number of veterans with significant physical and emotional disabilities will increase and that their needs for health care will also increase as this newest cohort ages. The greater incidence of those with polytraumatic injuries and multiple limb amputation who have survived the advanced weapons of war will pose an additional challenge to the healthcare system as they age. The impact on the healthcare system of the unusual deployment of older troops to Iraq and Afghanistan is also unknown.

### The Aging Disabled Population

Advances in health care have increased the life span of persons with disabilities. These include those traumatically injured as well as those born with or who acquired a disability.

Traumatically injured persons are now more likely to receive expert emergency services at the time of their accident. Advances in intensive care services, surgical services, diagnostic services, and the knowledge and skills of healthcare workers have combined to prolong the lives of persons who used to die within days or months of their traumatic injuries. For the first time in history, persons with spinal

cord injuries and brain injuries are living to become elderly. They are truly entering a time in their life that is unpredictable, because they are the first to reach these advanced ages. Unforeseen effects of aging in persons with spinal cord injury, for example, include shoulder injury (from repetitive movements related to wheelchair mobility) and increased risk of pressure ulcers.

Developmentally disabled individuals are another special aging group. Technological advances and improvements in health care are prolonging the lives of those with disabilities such as mental retardation. Twelve percent of persons with developmental disabilities are now 65 or older; this translates to between 200,000 and 500,000 people. There are great implications for the U.S. healthcare system as this population continues to age, grow, and outlive their parents. Unforeseen secondary health problems are beginning to be seen in this older population, including obesity, chronic skin problems, and early aging (Connolly, 1998).

## Elderly Inmates

One oft-forgotten segment of the elderly population in the United States is the prisoners. As of 2010, there were 26,100 inmates over the age of 65 in federal and state prisons, a 63% increase from 2007 (Human Rights Watch, 2012). There are two older populations in our prisons: those serving long and/or life sentences who committed crimes when young and those who are older when the crime was committed. The length of incarceration is therefore different between these two groups, and the effects of incarceration on the aging process may be different as well. There is often little motivation and power to release aged and infirm prisoners before their sentence is completed, adding to the increasing numbers of elderly and disabled inmates in prisons in the United States (Human Rights Watch).

Not all elderly prisoners are violent offenders. California's three-strikes law has resulted in 4,431 nonviolent offenders in the system who will be serving sentences of 25 years to life; the average age of these prisoners is 36 years (Human Rights Watch, 2012). "Leandro Andrade is one. At 37 he was convicted of stealing \$150 worth of videotapes from two different stores. These convictions counted as his 'third' strike and he received a sentence of two consecutive 25-years-to-life sentences. The earliest he can be released will be when he is 87 years old" (Human Rights Watch, p. 29).

Elderly even has a different connotation in the world of jail cells and prisons. Due to the stressors related to incarceration, as well as the increased likelihood of an unhealthy lifestyle preceding incarceration, prisoners aged 50–55 experience physical and mental changes normally associated with free-world citizens at least 10 years older. Substandard environment, nutrition, exercise, and medical care during incarceration likely helps to accelerate the aging process, as does the violence, anxiety, and stress associated with prison life (see **Case Study 2-3**).

A 50-year-old inmate may have a physiological age that is 10–15 years older than his or her biological age due to the use of illicit drugs, alcohol intake, and limited access to preventive care and health services. It can cost three times as much to



### Case Study 2-3



Mr. Everett is a 62-year-old inmate in a state penitentiary, admitted to your unit for hypertension, heart failure, and chest pain. He is accompanied by a prison guard, who watches your every move. The guard has handcuffed Mr. Everett to the bed.

This is the first prisoner that you've ever cared for. You are surprised at how old Mr. Everett looks.

You complete your admission assessment and talk to him about the plans for his care.

#### Questions:

1. Why might this patient appear to be older than his stated age?
2. How could his social situation affect his plan of care, hospital stay, and recovery?

care for an older inmate as compared to a younger one. Inmates age 55 or older tend to have at least three chronic conditions, and up to 20% have a mental illness (Mitka, 2004). Aged inmates can require such complicated and costly procedures as dialysis three times weekly, special diets, and expensive medications. Adaptive equipment, such as walkers and wheelchairs, may also be needed for mobility. In 2003 in Texas, 1,159 inmates over the age of 65 required 24-hour skilled nursing care (McMahon, 2003).

Prisoners have been called the only population in the United States with a legal right to health care. Due to these legal rights and the expanding aging prison population, combined with tight federal and state budgets, it is no wonder that some think that the U.S. prison system is overdue for a healthcare crisis (Mitka, 2004). Some states, like Texas, have developed separate facilities for their geriatric prisoners. Others have integrated telemedicine into their facilities or developed chronic care clinics. Some, recognizing the likelihood of inmates not only aging in place in prison but also dying of chronic disease while in prison, have implemented hospice programs for their dying, elderly prisoners.

### Health Disparities

Health disparities have been defined as “preventable differences in the burden of disease, injury, violence, or in opportunities to achieve optimal health experienced by socially disadvantaged racial, ethnic, and other population groups and communities” (CDC, 2012, p.1). Not all older adults in the United States have benefited from recent advances in health care because of factors such as age, gender, race, and economic circumstances.

Substantial disparities have been documented by the CDC (2012) in vaccine administration, colorectal cancer screening, coronary heart disease and stroke, preventable hospitalizations, hypertension, and hypertension control based on race, ethnicity, and gender. While funding (i.e. Medicare) expands healthcare access

for the older adults, it does not address older adults who do not meet criteria for Medicare funding.

In one study, older women saw their physician as much as men did, but did not receive the flu vaccine and cholesterol screening as frequently as older males (Cameron, Song, Manheim, & Dunlop, 2010). Males in that study also tended to be admitted to the hospital more frequently. In other studies, when hospitalized, women tended to have shorter lengths of stay. While there may be social reasons for the healthcare discrepancies between genders, it is disturbing to think that older women as a group may not receive needed preventive services because of gender rather than lack of need.

Racial and ethnic disparities in health care have also been documented for the older adult population. The core of this issue is likely complex and multifaceted, with caregiver bias, poverty level, language, literacy, and other as-yet-unidentified factors playing a role.

## Mortality and Morbidity

### Causes of Death

The leading cause of death for older adults in 2006 was diseases of the heart, followed by malignant neoplasms, cerebrovascular diseases, chronic lower respiratory diseases, Alzheimer's disease, diabetes, and influenza and pneumonia (see **Table 2-3**). Death rates for diseases of the heart and cerebrovascular diseases decreased by 50% from 1981 to 2006, while age-adjusted death rates for diabetes mellitus increased by 29% and death rates for chronic lower respiratory diseases increased by 50% during the same time period. Diseases of the heart and malignant neoplasms are the top two causes of death for people age 65 or older in the United States, regardless of race, gender, or ethnic origin. Race and ethnicity do play a part in other causes of death, however. In 2001, diabetes mellitus was the fifth leading cause of death among Black men, the fourth among Hispanic men, and the sixth among White men and men of Asian or Pacific Islander origin. For women aged 65 or older, diabetes mellitus was the fourth leading cause of death for Hispanics and Blacks, and the seventh leading cause of death among Whites (Federal Interagency Forum, 2004).

### Chronic Diseases

The prevalence of chronic diseases increases with age. Six of the seven leading causes of death among older Americans are chronic diseases such as heart disease, stroke, cancer, and diabetes. Older women report higher numbers of chronic diseases such as hypertension and arthritis, whereas men report more heart disease and cancer (see **Figure 2-6**). Ethnic and racial differences also exist in the prevalence of chronic diseases. Older Blacks report higher levels of hypertension and diabetes than non-Hispanic Whites, whereas Hispanics report higher levels of diabetes than

**TABLE 2-3** Number and Share of Elderly Deaths Attributes to Leading Causes of Death, 1980 and 2004

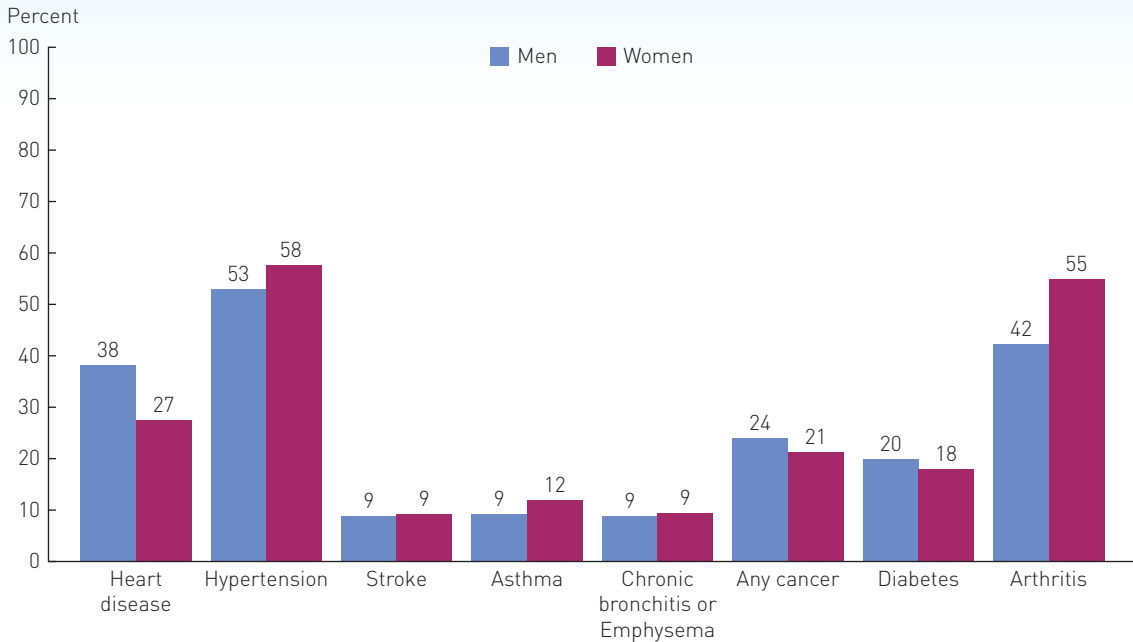
Cause	1980		2004	
	Deaths	Percentage	Deaths	Percentage
Heart disease	595,406	44.4	533,302	30.4
Cancer	258,389	19.3	385,847	22.0
Stroke	146,417	10.9	130,538	7.4
Chronic lower respiratory disease	43,587	3.2	105,197	6.0
Alzheimer's disease	1,037	0.1	65,313	3.7
Diabetes	25,216	1.9	53,956	3.1
Influenza/pneumonia	45,512	3.4	52,760	3.0
Nephritis (renal conditions)	12,968	1.0	35,105	2.0
Accidents	24,844	1.8	35,020	2.0
Septicemia	6,843	0.5	25,644	1.5
<b>Subtotal (top 10 causes of death)</b>	<b>1,166,078<sup>a</sup></b>	<b>86.9</b>	<b>1,422,682</b>	<b>81.0</b>
<b>All causes</b>	<b>1,341,848</b>	<b>100.0</b>	<b>1,755,669</b>	<b>100.0</b>

Source: CRS compilation from National Center for Health Statistics, Health, United States, 2006, available at <http://www.cdc.gov/nchs/data/health/06/06.pdf>

non-Hispanic Whites. Both diabetes and hypertension are increasing among older Americans (Federal Interagency Forum, 2010).

Sensory impairments and oral health problems become more frequent with aging. Early detection can prevent or postpone the physical, social, and emotional effects that these changes have on a senior's life. In 2008, nearly 42% of older men and nearly 30% of older women reported difficulty with hearing. Those age 85 years or older reported more difficulty than those ages 65–74. Vision trouble affects about 18% of older adults. In 2008, 19% of women and 15% of men 65 or over reported trouble with vision. Common eye conditions resulting in vision loss include glaucoma, macular degeneration, and cataracts. Thirty-four percent of persons 85 years of age or older reported edentulism (lack of teeth). Poorer older adults were less likely to have teeth than those above the poverty threshold (42% compared to 23%) (Federal Interagency Forum, 2010). Glasses, hearing aids, and dentures can be difficult to obtain for financial reasons: They are expensive and they are not covered services under Medicare. Thus, many older adults may not possess these assistive devices, or may have out-of-date or ill-fitting devices, which can affect cognitive status (hearing aids and glasses), nutritional intake (dentures), and likelihood of falling (glasses).

Memory loss is not unusual in the older adult. Older men are more likely to experience moderate or severe memory impairment than older women. In 2002,



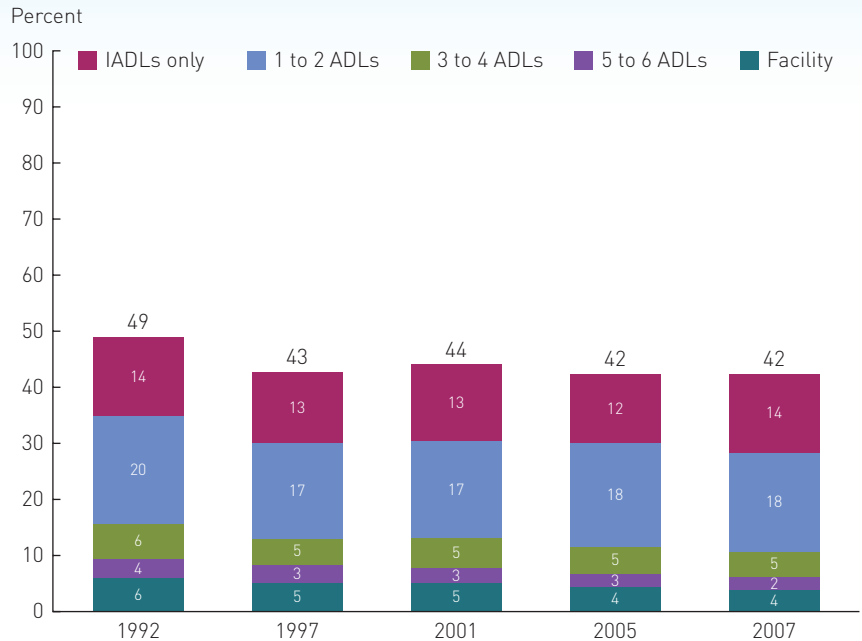
NOTE: Data are based on a 2-year average from 2007–2008. See Appendix B for the definition of race and Hispanic origin in the National Health Interview Survey.  
Reference population: These data refer to the civilian noninstitutionalized population.

**Figure 2-6** Chronic health conditions among the population age 65 and over, by sex, 2007–2008.

Source: Data from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

15% of men age 65 or older and 11% of women of the same age experienced moderate to severe memory impairment. At age 85 or older, nearly 33% of both women and men suffered from this impairment. In 2002, the proportion of people age 85 or older with moderate or severe memory impairment was 32%, compared to 5% of people ages 65–69 (Federal Interagency Forum, 2004). As the elderly U.S. population grows, the number of individuals with dementia will also increase, making planning for the long-term care needs of those individuals increasingly important (Plessman et al., 2007)

Many people feel that older age is highly correlated with disability. The age-adjusted proportion of people in the United States age 65 or older with chronic disabilities actually declined from 1984 to 1999. Due to the population growth, however, the actual numbers of older persons with chronic disabilities increased from 6.2 million in 1984 to 6.8 million in 1999. Older women reported more difficulties in physical functioning than older men. In 2007, 32% of older women reported that they were unable to perform at least one of five activities, compared to 19% of men (see **Figure 2-7**). Those aged 85 years or older had more physical limitations



NOTE: A residence is considered a long-term care facility if it is certified by Medicare or Medicaid; has 3 or more beds and is licensed as a nursing home or other long-term care facility and provides at least one personal care service; or provides 24-hour, 7-day-a-week supervision by a caregiver. ADL limitations refer to difficulty performing (or inability to perform for a health reason) one or more of the following tasks: bathing, dressing, eating, getting in/out of chairs, walking, or using the toilet. IADL limitations refer to difficulty performing (or inability to perform for a health reason) one or more of the following tasks: using the telephone, light housework, heavy housework, meal preparation, shopping, or managing money. Rates are age adjusted using the 2000 standard population. Data for 1992, 2001, and 2007 do not sum to the totals because of rounding.

Reference population: These data refer to Medicare enrollees.

**Figure 2-7** Percentage of Medicare enrollees age 65 and over who have limitations in activities of daily living (ADLs) or instrumental activities of daily living (IADLs), or who are in a facility, selected years 1992–2007.

Source: Centers for Medicare and Medicaid Services, Medicare Current Beneficiary Survey.

than those between 65 and 74 years. Physical functioning is also somewhat related to race and ethnicity. Nineteen percent of non-Hispanic White males were unable to perform at least one physical activity, compared to 26% of non-Hispanic Blacks. For women, no significant difference was noted among non-Hispanic Whites, non-Hispanic Blacks, and Hispanics in inability to perform at least one activity (Federal Interagency Forum, 2010).

## Genetics and Genomics

Genomics is the identification of gene sequences in the DNA, while genetics is the study of heredity and the transmission of certain genes through generations. Both genomics and genetics play a role in health and longevity for older adults. Some studies in this field have to do with the origins of disease: Alzheimer's and asthma are

two examples. Other studies are examining the aging process itself: Are there certain genes, or sequences of genes, that assure healthy aging? Yet others are examining the complex interactions between environment, genes, and aging.

One clinically relevant field of study concerns the enzyme systems that contribute to the metabolism of medications, the Cytochrome P450 and related enzyme systems. It has been found that medications are metabolized by specific enzyme systems, and if the provider is aware of these systems, many drug interactions and adverse events could be prevented. This is especially important in the older adult population, which is much more likely to be prescribed multiple medications for multiple ailments. It is anticipated that during your own time as a nurse, this field will explode with knowledge that will directly affect your practice and your patients' health. Even now, genetic testing is becoming available, some of which is covered by insurance and Medicare, to ascertain the presence or absence of genetic variations that affect drug metabolism. One such test is for genetic variations affecting metabolism of warfarin (Coumadin).

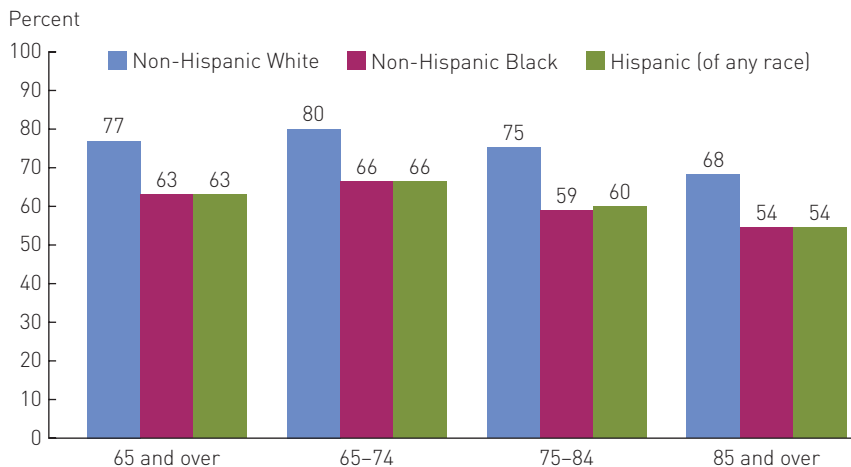
### Notable Quotes

"We are not victims of aging, sickness, and death. These are part of scenery, not the seer, who is immune to any form of change. This seer is the spirit, the expression of eternal being."

—Deepak Chopra

## Good Health in Aging?

Feeling depressed about aging and the aged? Although the statistics can sound grim, in actuality, aging is enjoyed by the vast majority of seniors. More than 72% of seniors report having good to excellent health (see **Figure 2-8** and **Table 2-4**). The number of seniors living in nursing homes declined from 5.2% in 1990 to 4.5% in 2000. Only 18.2% of those age 85 or older lived in nursing homes in 2000,



NOTE: Data are based on a 3-year average from 2006–2008. See Appendix B for the definition of race and Hispanic origin in the National Health Interview Survey.A

Reference population: These data refer to the civilian noninstitutionalized population.

**Figure 2-8** Respondent-reported good to excellent health among the population 65 and older by age group, race, and Hispanic origin, 2006–2008.

Source: Data from the Centers for Disease Control and Prevention, National Center for Health Statistics, Nation Health Interview Survey.

**TABLE 2-4 Percentage of Persons Age 65 or Older Who Reported Good to Excellent Health, by Age Group, Sex, and Race and Hispanic Origin, 2006 to 2008**

<b>Good to excellent health</b>				
Both sexes				
65 and over	74.5	76.7	62.5	63.4
Men				
65 and over	74.8	76.4	65.2	64.8
65–74	77.6	79.6	67.5	67.2
75–84	72.5	74.1	61.6	62.1
85 and over	64.9	66.3	58.0	53.1
Women				
65 and over	74.4	76.9	60.7	62.5
65–74	77.7	80.5	64.8	65.6
75–84	72.5	75.3	56.9	58.7
85 and over	67.1	68.7	52.1	54.5

NOTE: Data are based on a 3-year average from 2006–2008. See Appendix B for the definition of race and Hispanic origin in the National Health Interview Survey.

Reference population: These data refer to the civilian noninstitutionalized population.

Source: Data from the Centers for Disease Control and Prevention, National Center for Health Statistics, Nation Health Interview Survey.

compared to 24.5% in 1990. In 2000, 1 out of every 5,578 people was 100 years of age or older (U.S. Census Bureau, 2001). Older adults in the United States are, by and large, active and healthy.

## The History of Aging in the United States

### Pre-1900

Patterns of aging in the United States have changed throughout the years. From 1650 to 1850, older Americans made up less than 2% of the population (Fleming, Evans, & Chutka, 2003). Old age in those times was considered to start at 60 years of age. In colonial times, elders were greatly respected: They were given the best seats in church and Puritans taught youth how to behave toward their elders (Egendorf, 2002). By 1870, older adults made up 3% of the U.S. population, and only 0.37% were over the age of 80. Some older adults lived with nuclear families and were treated with great respect. Among the upper classes, the older adults tended to control the family's land and wealth, thus maintaining authority over the family. Poor people in those times often did not live to old age—old age was a privilege of

the rich. The elderly poor were seen as a burden on society, so if old age was attained by a poor person, it was accompanied by derision and scorn from other citizens (Fleming et al., 2003).

Youth came to be increasingly valued during the American Revolution, and older adults declined in status. Fashion favored a youthful look, and clothing flattered the younger frame. Claimed ages in the census drifted downward, because people did not want to acknowledge their actual age. Terms such as “old fogey,” “codger,” and “geezer” came into being. Retirement from public office became mandatory at age 60 or 70 in many states (Egendorf, 2002; Fleming et al., 2003).

By the end of the 19th century, age stratification was prevalent in American life. Activities like school attendance, marriage, and retirement became based on age. By the start of the 1900s there were increasing numbers of older adults. Cultural focus shifted to business, medicine, and scientific advances. Older adults were devalued (Fleming et al., 2003).

Throughout history, old age has often been associated with lack of income and dependency on others. Poverty was greater in the southern states, especially among widows and Blacks. Immigrants and Blacks were the least prepared for the lack of income after retirement. Here is a quote from a former slave:

When my mother became old, she was sent to live in a lonely log-hut in the woods. Aged and worn out slaves, whether men or women, are commonly so treated. No care is taken of them, except, perhaps, that a little ground is cleared about the hut, on which the old slave, if able, may raise a little corn. As far as the owner is concerned, they live or die as it happens; it is just the same thing as turning out an old horse. (Fleming et al., 2003, p. 915)

Harriet Jacobs (1861) noted:

Slaveholders have a method, peculiar to their institution, of getting rid of old slaves, whose lives have been worn out in their service. I knew an old woman, who for seventy years faithfully served her master. She had become almost helpless, from hard labor and disease. Her owners moved to Alabama, and the old black woman was left to be sold to any body who would give twenty dollars for her. (p. 27)

There were no national or state social supports for the poor in early America. Rather, the townships assisted the poor. In some communities, the rising taxes needed for relief of the poor led the communities to rid themselves of the poor by auctioning them off to farms for labor. Some communities even denied refuge to nonresidents, forcing the elderly to go from town to town in search of assistance. Citizens often divided the poor into two categories: the “worthy poor,” who were unable to support themselves because of illness, disability, or old age, through no fault of their own, and the immoral, lazy, alcoholic poor. The elderly who had failed to save for their older years were also deemed by some to be unworthy of assistance by the



community (Fleming et al., 2003; *The Poorhouse Story*, 2005). The poor were often sent to poorhouses, which were warehouses for the old, insane, widowed, unmarried mothers, criminals, and drunks. They were often filthy and unsafe. Physical abuse, lack of waste facilities, rats, and poor food made poorhouses dangerous places for the elderly, yet the poor elderly often ended up supported by the community and placed in the poorhouse.

## The 1900s

Military pensions were initiated by the U.S. government in 1861. In 1904, President Theodore Roosevelt established old age as a disability. By 1910, 25% of the elderly U.S. population (Northern White soldiers and their widows) was receiving military pensions, which accounted for 43% of federal expenditures. This first pension system did not last—it dissolved after supporting the last Union veterans and their families (Fleming et al., 2003).

After the Civil War, elderly Blacks worked as sharecroppers or became dependent upon their extended families. Black, White, and Hispanic tenant farmers worked well into their old age, lacking the education and resources to do otherwise. Older Blacks migrated to the cities as the mechanical cotton picker forced them from their land. Those who did not migrate to the cities suffered ever-worsening poverty (Fleming et al., 2003).

By 1900, poorhouses had changed into old-age homes. The costs of old-age homes became a burden for many counties, so in these counties elders were transferred to state-funded mental institutions. Charitable homes came into being, run by religious organizations, benevolent societies, and ethnic organizations. For-profit homes also developed, serving the chronically ill or disabled. Standards and oversight on all of these facilities were minimal (Fleming et al., 2003).

By the 1920s, the elderly population in the United States was increasingly seen as obsolete. The workplace denigrated older workers, seeing them as less productive and with too few attributes for working in the factories. Older workers were more likely to be injured on the job, and unions pushed for older workers to leave to make room for younger workers. Firms began to introduce mandatory retirement. Persons over 45 years of age began to have trouble finding work. Older workers suddenly found themselves without work, health insurance, unemployment insurance, or retirement savings (Fleming et al., 2003).

The 1920s also brought the fall of the stock market and inflation, which led to the Great Depression of the 1930s. In 1920, 25% of older adults were impoverished. This increased to 30% before the Depression, to 50% in 1935, and to 66% by 1940 (Fleming et al., 2003). There was mass unemployment, and poor families could no longer afford to support their elders. Old people became dependent upon local and state governments for support.

Franklin Roosevelt signed the Social Security Act in 1935. This act provided income assistance for the elderly. Roosevelt's purpose was to enact a law that would give some measure of protection to the average U.S. citizen and his or her family against a poverty-ridden old age. However, medical costs began to rise, forcing the elderly to again rely on the government for assistance. Medicare and Medicaid were signed into law in 1965 by President Lyndon Johnson. These programs offered a form of health insurance to those who previously had been seen as uninsurable families (Fleming et al., 2003).

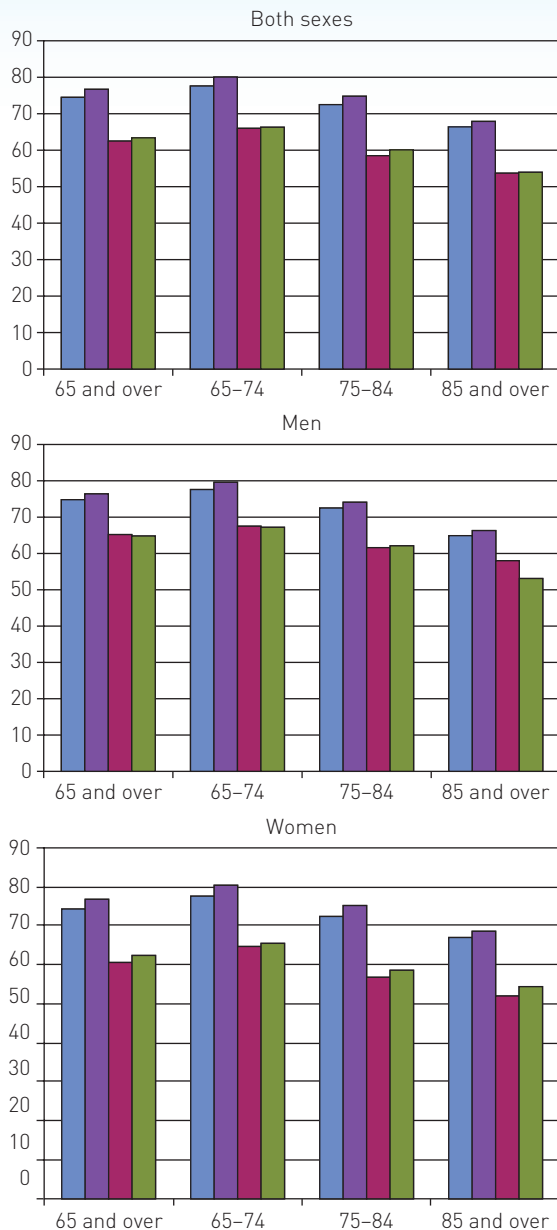
County "poor farms" continued to exist. The Social Security Act of 1935, however, denied funding to these facilities. Private care homes flourished in the 1940s, again with few standards or oversights. Social pressures begat the for-profit long-term care industry. In the 1950s, a federal relationship flourished with the providers. By 1960, however, there was still a shortage of 500,000 long-term care beds in the United States. By 1997, nearly 4% of the U.S. population was being cared for in nursing homes. Currently, about 55% of persons 85 or older are impaired and require long-term care (Carbonell, 2005).

In 1880, 75% of men 65 or older were employed, being too poor to retire. They only left work due to poor health or the inability to find work. With the emphasis on youth and the passage of the Social Security and Medicare/Medicaid bills, the number of older men who are employed has steadily dropped throughout the years. In 2003, less than 20% of men 65 or older worked full- or part-time (Carbonell, 2005).

## Aging Today

*Aging in place* is defined as the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level (CDC, 2011). Today, the majority of people would prefer to "age in place" because it promotes independence, autonomy, and connection to the social support of family and friends (Wiles et al., 2011). Remaining in one's homes and communities for as long as possible also avoids costly institutionalized care, an outcome favored by policymakers, health providers, and many older persons themselves (Wiles et al.) (see **Figure 2-9**). Challenges of aging in place include age-related changes (vision loss, hearing impairment, decreased strength, gait imbalance, mental process changes, and chronic diseases) impacting function and access to services. In order to meet these challenges, planning is crucial for the success of aging in place. Modifications to the home, utilization of assistive devices, and obtaining in-home services will be necessary with an increase in disability. Coordination of these needed adaptations can be overwhelming. Elderly individuals and their families will need to access assistance from social workers; geriatric care managers; and community, local, and federal government programs. The informal assistance from family, friends, and neighbors cannot be overlooked (National Institute on Aging [NIA], 2012).

Since the Older Americans Act (OAA) of 1965 was passed, the Administration on Aging (AOA) has provided elderly Americans services allowing them to age



NOTE: Data are based on a 3-year average from 2006–2008. See Appendix B for the definition of race and Hispanic origin in the National Health Interview Survey.

Reference population: These data refer to the civilian non institutionalized population.

**Figure 2-9** The majority of older adults are healthy, active, and continue to be engaged in society after retirement.

Source: Data from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

in their homes. Through the Aging Services Network, a range of community-based services such as home delivered and congregate meals, case management, transportation, and homemaker and caregiver support are funded, targeting the most vulnerable elderly (Barrett & Schimmel, 2010). One of the programs to provide comprehensive care for older adults trying to age in place is The Program of All-inclusive Care for the Elderly (*PACE*) model.

*PACE* was first developed in the 1970s and is a model focused on the concept that the well-being of seniors with chronic care needs and their families are best served in the community whenever possible. *PACE* serves individuals who are age 55 or older, certified by their state to need nursing home care, able to live safely in the community at the time of enrollment, and live in a *PACE* service area. Services include all medical and social supports, including: adult day care, medical evaluations, meals, prescription medications, therapies, in-home personal care and homemaking, respite care, and hospice. Eighty-two programs are now in place in 29 states (National *PACE* Association, 2002).

An inaugural survey conducted by National Council on Aging (NCOA) and United Healthcare examined seniors' outlook and preparedness for aging. The survey evaluated individual readiness for aging and perceptions of their community's ability to meet their needs as they aged. The survey sample had 40% of its respondents make low to moderate incomes (\$30,000 or less per year). This group was most likely to have little confidence that they will be financially prepared for their long-term care; however, overall one-third of the survey respondents felt financially unprepared (NCOA, 2012). These data emphasize the need for those providers of care to the elderly to better educate elders on services available and that proactive measures must be taken in order to age in place successfully.

## Centenarians

*Centenarians* make up the fastest-growing segment of our population in the United States, with the



**Figure 2-10** The majority of people are healthy, active, and continue to be engaged in society after retirement.

over-85-year-olds making up the second-fastest-growing segment (Figure 2-10). The U.S. Census Bureau (2011) estimates that there were 71,991 centenarians in the United States on December 1, 2010 and it is expected that there will be 601,000 centenarians in the U.S by 2050. The U.S. Census of 1990 found that four in five centenarians are women, and 78% of this age group are non-Hispanic White. African Americans make up the second largest group at 16%; this correlates with 76% and 12% of the total population, respectively. In the next 40 years, the number of centenarians may reach as many as 850,000, depending upon changes in life expectancy over these years. Hispanics and Asian Americans will share a greater percentage of this age group, with non-Hispanic Whites nearing 55%.

Centenarians were found to be a predominately lower educated, more impoverished, widowed, and more disabled population as compared to other elderly cohorts (U.S. Department of Health and Human Services, 1999). The lower education level of this cohort is not surprising considering the increase in levels of education noted over the span of the past century. The marital status of centenarians was overwhelmingly widowed, with 84% of 100-year-old women widowed as compared to 58% of men. Poverty status is more varied in this group and is dependent on race. Women generally were more likely to live in poverty in this age group. White centenarians were less likely than other races except Asian and Pacific Islanders to live in poverty. Disability, identified as having mobility and self-care limitations, was seen across all races. Not surprisingly, consistent with disability trends, all races of centenarians

### Notable Quotes

“Aging is an inevitable process. I surely wouldn’t want to grow younger. The older you become, the more you know; your bank account of knowledge is much richer.”

—William Holden

## Notable Quotes

"I am not afraid of aging, but more afraid of people's reactions to my aging."

—Barbara Hershey

except American Indians and Alaskan Natives were noted to be not living alone. The increased likelihood of living in a nursing home at this age was noted in all race categories.

The New England Centenarian study was a population-based study conducted within the New England area. The researchers noted a surprising heterogeneity in this group, including a wide range of economic statuses, educational attainment, racial backgrounds, and origins of birth. Physical status varied widely as well. Fifteen percent of centenarians in this study were still living independently at home, while 50% lived in nursing homes and the remainder lived with family. Three-quarters of the study group suffered from some form of cognitive impairment. Health histories noted 95% of subjects enjoyed unimpaired health well into their ninth decade (Perls, Silver, & Lauerman, 1999). Most notable in this study is the observation that the older one gets, the healthier one has been. It is suspected the centenarians have not necessarily survived disease but have avoided chronic/acute diseases, successfully navigating through obstacles and the physical/psychosocial challenges of their lives (Griffith, 2004).

## Summary

This chapter has reviewed some of the important facts and statistics about the aging population, a.k.a. the "*silver tsunami*." Aging in the United States will greatly impact society as the baby boomers enter the older age group. Health disparities already exist among minority elderly groups and are likely to continue (AHRQ, 2008). Other groups considered vulnerable older adults include U.S. veterans, those with disabilities, and prisoners. Finally, successful aging is thought to be possible with wise lifestyle choices and avoidance of risk factors. These are further discussed throughout this text.

## Resource List

### Aging Statistics

Administration on Aging:

<http://www.aoa.gov/>

American Association of Retired Persons:

<http://www.aarp.org>

American Geriatrics Society:

<http://www.americangeriatrics.org>

Centers for Disease Control and Prevention:

<http://www.cdc.gov/aging/>

Federal Interagency Forum on Aging-Related Statistics:

<http://www.agingstats.gov>

Gray Panthers:

<http://www.graypanthers.org>

Merck Manual of Health and Aging:

[http://www.merck.com/pubs/mmanual\\_ha/sec1/ch03/ch03a.html](http://www.merck.com/pubs/mmanual_ha/sec1/ch03/ch03a.html)

National Institute on Aging:

<http://www.nia.nih.gov/>

Online Journals

BMC Geriatrics:

<http://www.biomedcentral.com/bmcgeriatr>

Geriatrics:

<http://www.geri.com/geriatrics/>

Geriatrics and Aging:

<http://www.geriatricsandaging.com>

Longevity

Estimate your longevity potential by accessing the Life Expectancy Calculator at:

<http://www.livingto100.com>

CDC/National Center for Health Statistics:

<http://www.cdc.gov/nchs/fastats/lifexpec.htm>

## Critical Thinking Exercises



- 1. You will be one of the nurses caring for the baby boomers as they age.** How will the prevalence of aged patients affect your nursing practice? What are the implications for your ongoing nursing education?
- 2. Healthful living becomes ever more important to prevent the chronic diseases** of the aged. Fewer chronic diseases in the aged could mean that more healthcare services are available for those without chronic diseases. What is healthful living? What will your role be in promoting healthful living to your patients? Should nurses be responsible for promoting healthful living when they could be caring for sick patients?
- 3. The health care of the baby boomers will likely be affected by changes in Social Security, Medicare, and Medicaid.** What implications does this have for your nursing practice? How might you address this issue as a nurse? How might you address this issue as a citizen?
- 4. The population of the United States is becoming ever more ethnically and culturally diverse.** What healthcare issues can you foresee as this ethnically diverse population ages?
- 5. Think about older celebrities in the United States and abroad,** and compare your thoughts about them to your thoughts about older people in general. Do you have different thoughts and feelings about Bill Clinton and George W. Bush (former presidents, both age 65 in 2012) than you do about a nursing home patient? How about those celebrities who are growing older—Cher (singer, age 65), Barbra Streisand (singer, age 70), Colin Powell (general, age 75), Dan Rather (newsman, age 80), Cloris Leachman (actress, age 85)? Compare and contrast a well-known senior celebrity with an aged patient you have recently met.

## Personal Reflection



The aging of America will affect you both personally and professionally. Government resources will become more and more strained as the baby boomers become elders and begin to use these resources. Medicare, Medicaid, and Social Security may not continue to exist as we know them. There will be fewer beds available in both acute and chronic care facilities to care for the growing aged population. There may not be enough geriatric specialty physicians and nurses

to care for the vast numbers of older adults. How could these circumstances affect you and your family? What are your personal plans for your own aging? Have you started to save money for retirement? Are you living a healthy lifestyle, eating “right,” and exercising? Are you or your children overweight? Do you smoke or drink alcohol excessively? Are you ready to become involved in the political process so that your opinion is heard?

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