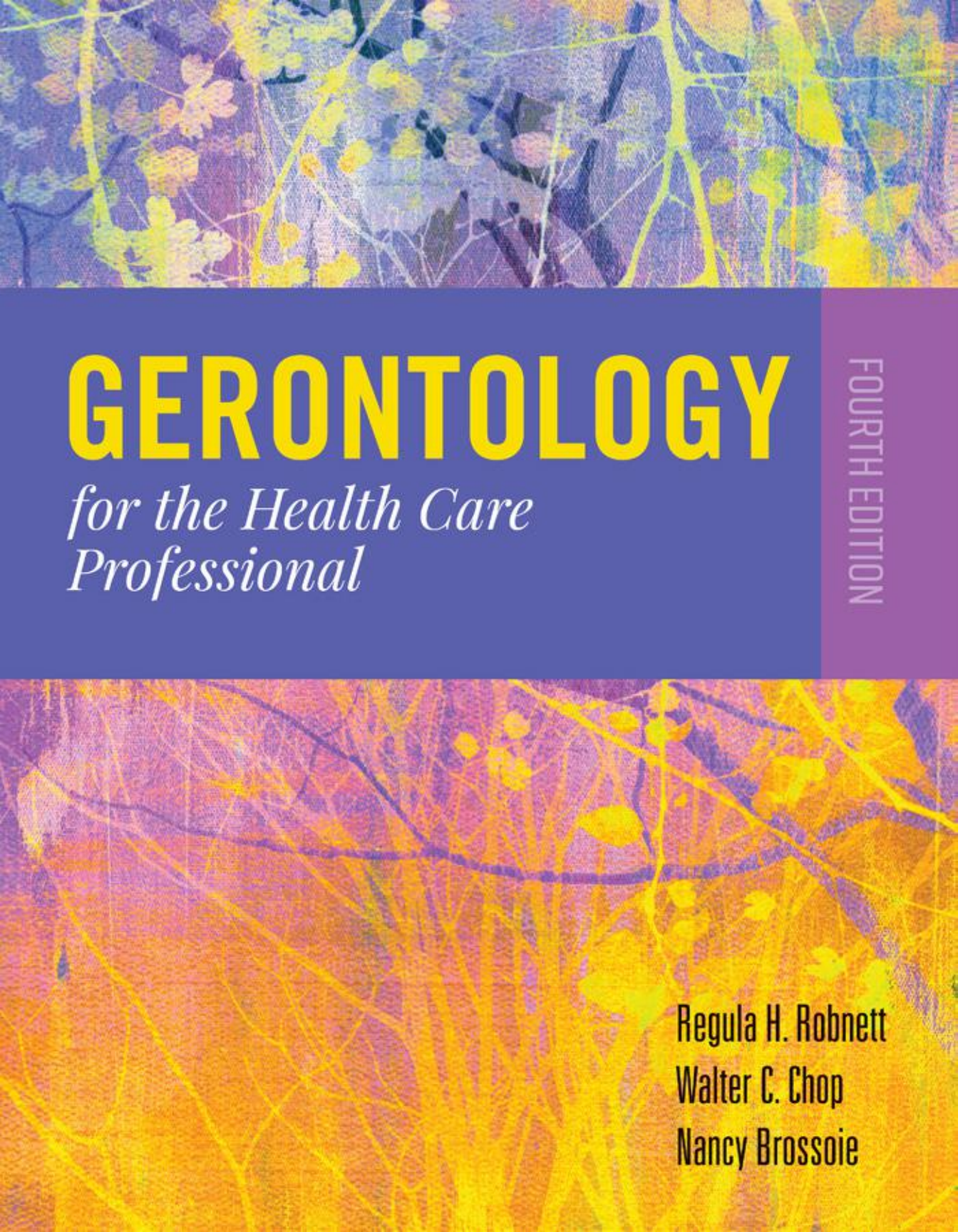
GERONTOLOGY
for the Health Care Professional
FOURTH EDITION
Regula H. Robnett
Walter C. Chop
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GERONTOLOGY

for the Health Care Professional

FOURTH EDITION

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Dedication

This edition is dedicated to:

The older adults who have shown us how to live productive, healthy, and happy lives and for reminding us that age is more than just a number.

Our authors for their tireless writing efforts and commitment in educating healthcare workers, from students to seasoned professionals.

Our families who sacrificed their needs and wants when our work on this edition had to come first.

We thank all of you.

–Regi, Nancy, and Walter

Brief Contents

Contents

Introduction

Thank you for choosing to open this textbook and read this page. *Gerontology for the Health Care Professional, Fourth Edition* is designed with you in mind. Our goal is to provide a textbook that is reader-friendly and includes information that easily translates to healthcare practices.

As you read each chapter, we encourage you to consider the interprofessional roles of each of the healthcare professions listed below. While this is not an exclusive list and, most of the time, only a small portion of all the possible professions will actually be involved in working with any given client, we encourage you to think about how each profession *could* be involved and when a consultation or referral would be in order. You may need to investigate some of the following professions to familiarize yourself with their roles and further research is certainly encouraged.

The most prominent healthcare professionals involved in gerontological care are:

- Alternative Medicine Practitioners
- Art Therapists
- Athletic Trainers
- Audiologists
- Cardiovascular Technologists
- Case Managers
- Counselors
- Dental Practitioners
- Dieticians/Nutritionists
- Emergency Medical Practitioners
- Gerontologists
- Horticulture Therapists
- Imaging Technologists
- Massage Therapists
- Medical Laboratory Practitioners
- Medical Records Health Information Specialists
- Music Therapists
- Neuropsychologists
- Nursing Practitioners
- Occupational Therapy Practitioners
- Orientation and Mobility Specialists (low vision)
- Orthotists
- Physical Therapy Practitioners
- Physician Assistants
- Physicians
- Polysomnographers
- Prosthetists
- Psychiatrists
- Psychologists
- Radiological Technologists
- Recreation Therapists
- Rehabilitation Teachers (low vision)
- Respiratory Therapists
- Social Workers
- Speech and Language Pathologists
- Visual Care Specialists

We are fortunate to be living in an information-rich age in which Internet resources are readily available as never before. Certainly not everything available online can be relied upon, and therefore we need to read what is out there in cyberspace with critical

and questioning eyes. However, for individuals who want to learn, the floodgates have opened and the world of information is there for the learning.

How This Text Is Organized

The *Fourth Edition* begins with chapters on the social, psychological, and biological aspects of aging, including:

- Demographics (Chapter 1)
- Social Relationships and Roles (Chapter 2)
- Community Living (Chapter 3)
- End of Life (Chapter 4)
- Communication (Chapter 5)
- Policy (Chapter 6)
- Physiology (Chapter 7)
- Cognition and Psychology (Chapter 8)

Later chapters explore issues that, although not exclusive to older people, are of primary importance to the older population. These issues include:

- Functional Performance (Chapter 9)
- Drugs (Chapter 10)
- Nutrition (Chapter 11)
- Oral Health (Chapter 12)
- Sexuality (Chapter 13)
- Future of Aging (Chapter 14)

What Is New to the Fourth Edition

- NEW! Now in FULL color with a new and expanded art program!
- REVISED! Chapter 1 on demographics of aging offers more information about aging worldwide and the factors that contribute to a growing worldwide population.
- REVISED! Chapter 2 on social gerontology includes an expanded section on elder abuse.
- REVISED! Chapter 3 on community living has been expanded to include more information on aging in place and the continuum of care.
- NEW! New Chapter 4 on Loss, Grief, Death, and Dying.
- REVISED! Chapter 13 on sex and gender issues has been revised to reflect the lives of the LGBTQ community and other hidden populations.
- REVISED! Chapter 14 on the future of aging examines aging issues using community, family, and individual perspectives.
- NEW AND REVISED! Case Studies have been revised and additional ones added so there are two per chapter.
- UPDATED DATA! All information is updated to reflect current census data and statistics.

How to Use This Text

Gerontology for the Health Care Professional, Fourth Edition incorporates a number of engaging pedagogical features to aid in the student's understanding and retention of the material.

BEHAVIORAL OBJECTIVES

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

1. Differentiate between average life expectancy and maximum life span.
2. Compare and contrast the genetic and environmental theories of aging.
3. Explain the possible role of free radical formation in the aging process.
4. Identify common age-related changes related to the cardiovascular, respiratory, gastrointestinal, genitourinary, musculoskeletal, nervous, sensory, endocrine, immune, and integumentary systems.
5. Discuss health promotion for the aging process in relation to prevalent chronic diseases.

KEY TERMS

Atherosclerosis
Average life expectancy
Cataract
Chronic bronchitis
Chronic obstructive pulmonary disease
Diabetes mellitus
Diaphragm
Diverticulosis
Dysphagia
Fecal incontinence
Free radical
Gastritis
Hyposmia
Hypothalamus
Kyphosis
Maximum life span
Metastasize
Myocardial infarction
Osteoarthritis
Osteoporosis
Peptic ulcers
Presbycusis
Presbyopia
Sarcopenia
Senescence
Urinary incontinence
Xerostomia

Introduction

For hundreds of years, people have sought ways to live longer and slow down the aging process. Remedies have been promoted through abundant advertising and have included therapies such as special diets, vitamin supplements, cosmetic measures, and various other aids to help reduce the impact of aging. Even though researchers may study specific aspects of aging associated with their particular fields, a commonly held opinion is that the aging process is not linear, but multifaceted and influenced by individual biopsychosocial factors as well as external factors such as context, environment, and technology.

The **average life expectancy** (**TABLE 7-1**) in the United States has risen from about 47.3 years in 1900 to 78.8 years in 2015 (National Center for Health Statistics, 2017). This increase can largely be attributed to improvement in water supplies, sanitation, health technology, disease control, health promotion, and lower infant mortality rates (Forsberg & Fichtenberg, 2013). However, during the same period, there has been no change in the **maximum life span** (MLS), that is, the oldest age reached by an individual in a population, which is estimated to be about 120 years (Hayflick, 1997; Schneider, 1985). Although improvements in our standard of living have helped spare us from several causes of premature death, such as cholera, tuberculosis, and influenza, changes have done nothing to slow down the inherent aging process. In fact, any medical intervention that claims to slow down human aging must be shown to increase the MLS potential. But, to date, none have done so.

Behavioral Objectives at the beginning of each chapter help you focus on the most important concepts and can be used as a study tool to assess comprehension.

Each chapter lists the Key Terms that are highlighted throughout the text.

TABLE 7-1 Life Expectancy at Selected Ages, by Sex: United States 1900, 1950, 2014, and 2015

	Life Expectancy at Exact Age (Years)					
	At Birth			At Age 65		
Year	Both Sexes	Male	Female	Both Sexes	Male	Female
1900[1,2]	47.3	46.3	48.3			
1950[2]	68.2	65.6	71.1	13.9	12.8	15.0
2014[3]	78.9	76.5	81.3	19.4	18.0	20.6
2015[4]	78.8	76.3	81.2	19.4	18.0	20.6

[1]Death registration area only. The death registration area increased from 10 states and the District of Columbia (DC) in 1900 to the coterminous United States in 1933. See Appendix II, Registration area.
[2]Includes deaths of persons who were not residents of the 50 states and DC.
[3]Life expectancy estimates for 2013 are based on final Medicare data. Life expectancy estimates for 2014 and 2015 are based on preliminary Medicare data. Data from National Center for Health Statistics. (2017). *Health, United States, 2016: With chartbook on long-term trends in health*. Hyattsville, MD: Centers for Disease Control and Prevention.

An unchanging MLS coupled with increasing life expectancy suggests two dimensions to the aging process. First, it supports the notion of distinguishing disease from aging. To illustrate, one of the most important chapters in the history of medicine has been the eradication of smallpox from the face of the earth through the use of vaccines. Although children who are immunized against smallpox have been spared a devastating infectious disease, they are not likely to age more slowly than nonimmunized children. Second, a MLS that has not likely changed in centuries points to the existence of a "biological clock" that predetermines humans' length of life. No such clock has been discovered, and it is perhaps an oversimplification of human physiology to suggest that one single mechanism in the body is responsible for aging. Nonetheless, it certainly appears that there are relatively fixed limits on how long the human body lasts.

A fixed life span, however, does not necessarily sentence adults to pain and suffering as they get older. Many of the physiologic changes associated with aging can be slowed to some extent with a healthy diet and consistent regimen of moderate exercise. Moreover, many of the chronic diseases prevalent in older adults are either preventable or modifiable with healthy lifestyle habits (**TABLE 7-2**). Reduction of dietary fat (especially saturated fats and cholesterol) lowers one's risk of coronary artery disease and stroke (i.e., occlusion or rupture of a cerebral artery) as well as breast and colon cancer (Spence, 2007; Tufts University, 2012). A program of increased physical activity increases one's resting and maximum cardiac output (the amount of blood pumped out of the heart per minute) while decreasing the chance of developing hypertension (American Heart Association, 2014). To the extent that exercise helps prevent obesity, it also

Oral Administration

Most drug absorption after oral administration occurs in the small intestine. Thus, the rate of gastric emptying needs to be considered. In the older patient, gut motility in general and gastric emptying in particular takes a longer amount of time (Cusack, 2004). However, research studies have resulted in mixed results as to the clinical relevance of these findings.

Generally, the slowed gastric emptying is reflected clinically in a time delay in attaining maximal drug concentrations in the blood without a change in maximal drug concentration. Studies on the absorption of drugs from the small intestine showed some changes in this parameter, but the changes uncovered were inconsistent and did not lend themselves to broad generalization. Thus, oral administration of drugs, in general, does not significantly affect the clinical response to drugs (Cusack, 2004; McLean & Le Couteur, 2004).

Transdermal Administration

Transdermal administration or medication administered through the skin, often through the use of a patch, is a convenient way to administer a steady amount of drug over a prolonged period (**FIGURE 10-2**). Examples of drugs administered though transdermal administration include estrogen (female hormone), fentanyl (an opioid painkiller), and scopolamine (treats motion sickness). Yet, as people age, they experience changes in the skin that can lead to changes in how drugs are absorbed through the skin. The outer layer or epidermis thins with age and becomes dryer, allowing for a decreased absorption of drug through the skin. Thus, use of transdermal medications in older adults may lead to lower concentrations in the blood.

FIGURE 10-2 Transdermal patches administer drugs (e.g., fentanyl and nicotine) over a prolonged period through the skin.
© Image Point Fr/Shutterstock

Drug Distribution

The next phase of pharmacokinetics is distribution. Drugs distribute throughout the body based on their **physicochemical properties**, that is, the relationship between the chemical structure of the drug and its interactions with the body. The most important of these properties is the **hydrophilicity** or **lipophilicity** of the drug—is it more attracted to water or to fat, respectively? As people age, lean body mass decreases, which leads to increased fat content in the body. With fat content increased, a fat-soluble drug will show a larger volume of distribution, which will lower its concentration and lower its therapeutic efficacy. The effect of aging on distribution is very much dependent upon the specific drug, so there is no consensus on the general effect of all fat-soluble drugs.

Drug Metabolism

Drug metabolism is an area where the complexities of pharmacokinetics in older people are most apparent. The liver is the major organ of drug metabolism, although the intestines, lungs, and kidneys also have important drug metabolizing enzymes. Fortunately, in the absence of disease, drug metabolizing enzymes are not significantly affected by aging (McLean & Le Couteur, 2004). Other changes, however, are more significant. One factor that relates directly to drug metabolism is blood flow through the

Tables and Figures throughout help with comprehension of key concepts and summarize important information for students.

Guidelines That Encourage Healthy Eating Patterns

1. Follow a healthy eating pattern across the lifespan. All food and beverage choices matter. Choose a healthy eating pattern at an appropriate calorie level to help achieve and maintain a healthy body weight, support nutrient adequacy, and reduce the risk of chronic disease.	Follow a healthy eating pattern over time to help support a healthy body weight and reduce the risk of chronic disease. ■ A healthy eating pattern includes: fruits, vegetables, protein, dairy, grains, and oils. ■ A healthy eating pattern limits: saturated fats and *trans* fats, added sugars, and sodium.
2. Focus on variety, nutrient density, and amount. To meet nutrient needs within calorie limits, choose a variety of nutrient-dense foods across and within all food groups in recommended amounts.	Choose a variety of nutrient-dense foods from each food group in recommended amounts. Examples include ■ Fruits: apples, grapes ■ Vegetables: lettuce, celery ■ Protein: chicken breast, unsalted walnuts ■ Dairy: fat-free milk ■ Grains: whole-grain bread ■ Oils: mayonnaise
3. Limit calories from added sugars and saturated fats and reduce sodium intake. Consume an eating pattern low in added sugars, saturated fats, and sodium. Cut back on foods and beverages higher in these components to amounts that fit within healthy eating patterns.	Consume an eating pattern low in added sugars, saturated fats, and sodium. Examples include ■ Saturated fats: ice cream, burger ■ Added sugars: aerated drinks, muffin ■ Sodium: pizza, sandwich
4. Shift to healthier food and beverage choices. Choose nutrient-dense foods and beverages across and within all food groups in place of less healthy choices. Consider cultural and personal preferences to make these shifts easier to accomplish and maintain.	Replace typical food and beverages choices with more nutrient-dense options. Be sure to consider personal preferences to maintain shifts over time. For example, replacing macaroni and cheese with vegetable salads.
5. Support healthy eating patterns for all. Everyone has a role in helping to create and support healthy eating patterns in multiple settings nationwide, from home to school to work to communities.	Everyone has a role in helping to create and support healthy eating patterns in places where we learn, work, live, and play.

FIGURE 11-3 Dietary Guidelines for Americans 2015–2020.
Reproduced from U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. 2015–2020 Dietary Guidelines. www.health.gov/dietaryguidelines/2015/

Review material is included at the end of each chapter for classroom use, homework, or self-assessment: Case Studies, Learning Activities, and Review Questions.

Summary 51

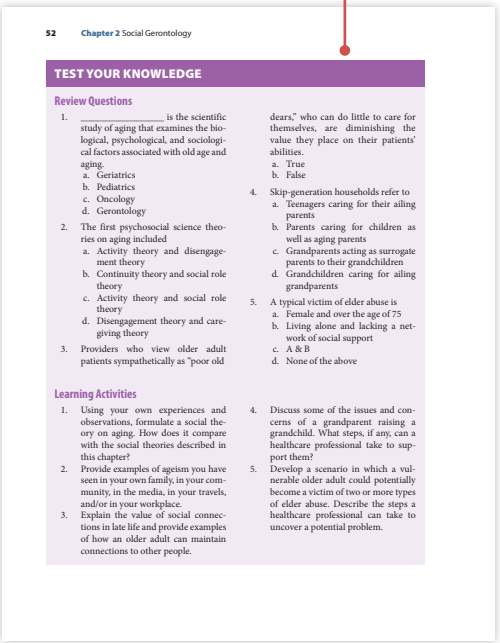
CASE STUDIES

Case 1: John and Jason are both 68 years old and have been an exclusive couple for 33 years. Although they cannot legally marry in their state, their lives are inextricably interwoven, even though many people are not aware of their relationship—only a handful of close friends know. John is a banker and commutes daily into the city to work. Jason is an instructor at a local community college and generally walks to his office. They have kept their relationship relatively secret because they fear that others will "out" them, which they fear will force them to leave the careers they adore. One day, Jason suffers a severe stroke and their carefully constructed world begins to unravel. As gay men, neither is provided the rights of a spouse in terms of overseeing medical care, and John is quickly pushed aside at the hospital as the staff ask who the next of kin is. As days go by, John remains at Jason's side, and one nurse in particular repeatedly makes comments about the two old gay guys and how they don't deserve her time or care. A doctor pulls John aside and advises him to start looking for a nursing home for Jason. The thought of losing Jason and placing him in a nursing home is more than John can bear. He believes the nursing home staff would be no different than the hospital staff and would not accept the men's relationship. John decides to quit his job to care for Jason at home. When his boss asks him why he is leaving, John lies and says his mother's health is failing and she needs him. The first 3 months of care go relatively well, but as Jason's health declines, John recognizes he needs help and a break from caregiving, but feels he has no one to turn to.

1. **How are John and Jason's challenges in providing Jason with care different from the challenges faced by a heterosexual couple?**
2. **What challenges do healthcare professionals face in providing care to same-sex couples?**
3. **What can healthcare professionals do to help couples like John and Jason successfully manage their healthcare challenges?**

Case 2: Barbara, age 42, is a lucky woman, or at least that is what everyone tells her. She has an adoring husband, smart children, a career as a store manager, and impeccable taste in fashion. Barbara has always been an excellent multitasker and has successfully balanced her marriage, family, and career for 20 years. She makes every task look effortless. So, when her mother started having health problems, Barbara was sure to set aside the time needed to help. She always assumed she would be the best one to help her mother, even though she lived 200 miles away, because she was reliable and dependable. Barbara has a brother and sister who could probably help, but they have their own careers and families and they are just fine letting Barbara take over. They trust Barbara. After a few months, Barbara thought that being a long-distance caregiver was not that hard. She struggled a bit at first, but soon organized all the information she needed about her mother's health problems and care. She was in touch with doctors on a regular basis and authorized whatever care was needed. Soon, she started managing her mother's finances. It did not cross Barbara's mind to call her siblings to update them, and they did not think to call her. Barbara was pleased that she could provide for her mother from a distance. Although long-distance caregiving was not convenient and often forced her to change her plans, she could not imagine not being available for her mom. One day, Barbara received a call that her mother had been hospitalized. She called her sister and they agreed to meet at their mother's home and travel together to the hospital. Secretly, Barbara was glad to meet with her sister because she was getting tired of having the extra burden of her mother's life on her shoulders alone. Last week at work, the regional manager told her that her enthusiasm and work performance had started to slip. Even her husband had made a few comments that she did not seem to have the time for him and their children anymore. Barbara knew things needed to change, but just was not sure what to do.

1. **What should Barbara do and why?**
2. **What steps does Barbara need to take to ensure her own needs are being cared for?**



52 Chapter 2 Social Gerontology

TEST YOUR KNOWLEDGE

Review Questions

1. _____ is the scientific study of aging that examines the biological, psychological, and sociological factors associated with old age and aging.
   a. Geriatrics
   b. Pediatrics
   c. Oncology
   d. Gerontology
2. The first psychosocial science theories on aging included
   a. Activity theory and disengagement theory
   b. Continuity theory and social role theory
   c. Activity theory and social role theory
   d. Disengagement theory and caregiving theory
3. Providers who view older adult patients sympathetically as "poor old dears," who can do little to care for themselves, are diminishing the value they place on their patients' abilities.
   a. True
   b. False
4. Skip-generation households refer to
   a. Teenagers caring for their ailing parents
   b. Parents caring for children as well as aging parents
   c. Grandparents acting as surrogate parents to their grandchildren
   d. Grandchildren caring for ailing grandparents
5. A typical victim of elder abuse is
   a. Female and over the age of 75
   b. Living alone and lacking a network of social support
   c. A & B
   d. None of the above

Learning Activities

1. Using your own experiences and observations, formulate a social theory on aging. How does it compare with the social theories described in this chapter?
2. Provide examples of ageism you have seen in your own family, in your community, in the media, in your travels, and/or in your workplace.
3. Explain the value of social connections in late life and provide examples of how an older adult can maintain connections to other people.
4. Discuss some of the issues and concerns of a grandparent raising a grandchild. What steps, if any, can a healthcare professional take to support them?
5. Develop a scenario in which a vulnerable older adult could potentially become a victim of two or more types of elder abuse. Describe the steps a healthcare professional can take to uncover a potential problem.

Instructor Resources

Qualified instructors will receive a full suite of instructor resources, including:

- More than 250 slides in PowerPoint format
- A test bank with chapter-by-chapter questions along with midterm and final tests
- Case studies along with potential answers
- An Instructor's Manual containing a summary, key terms and definitions, teaching tips, and a list of material and online resources

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It takes many individuals to create the final product that becomes a textbook. We thank everyone who has contributed to the process that has made the *Fourth Edition* of *Gerontology for the Health Care Professional* possible. Specifically,

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If we inadvertently left anyone out, we ask for your forgiveness.

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CHAPTER 1

Age Matters: Profiles of an Aging Society

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CHAPTER OUTLINE

BEHAVIORAL OBJECTIVES

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

1. Explain terms used to describe and classify age.
2. Describe how populations are aging around the world.
3. Explain the difference between the terms lifespan and longevity.
4. Describe three key factors that influence population aging.
5. Describe the general characteristics of the U.S. population of adults age 65 years and older.
6. Describe the most common chronic health conditions among older adults.
7. Explain the types of services provided by formal and informal caregivers.
8. Identify the most common causes of death among older adults.
9. Discuss the impacts the U.S. baby boom generation is having on U.S. society.
10. Explain how marital status, income level, sex, and race can affect quality of life.

KEY TERMS

Activities of daily living
Baby boom generation
Biopsychosocial
Centenarian
Chronological age
Formal caregivers
Functional age
Gerontology
Incidence
Informal caregivers
Instrumental activities of daily living
Life expectancy
Lifespan
Longevity
Old
Old-old
Prevalence
Quality of life
Snowbirds
Successful aging
Super-centenarian
Total fertility rate
Young-old

Introduction

We all start to age from the moment we are born. Aging is a lifespan process that influences every aspect of our lives. Yet, many people do not think about growing older or the issues that accompany growing older until they see their parents' health decline or experience health challenges of their own. The field of **gerontology** is the study of aging and age-related issues and the biological, sociological, and psychological (**biopsychosocial**) factors that influence aging and old age. As a heath care professional, you will need to have a basic grasp of aging and age-related issues, which this text attempts to provide.

The first step to learning about issues that influence and affect old age is to consider what the term "old age" implies. Old age is a subjective concept that can change over time and depends on cultural and social considerations. What we thought of as old in the 19th century is considered middle age now. What we considered old when we were 15, will vary greatly from when we are 40 or even 75!

Researchers define age in ways that help them study age in their fields of interest. Public health and health policy leaders rely on defining old age by **chronological age** (i.e., the length of time a person is alive) to inform policy and programs. Countries, including the United States use ages 60, 62, or 65 as benchmark ages or age eligibility thresholds for policies that affect older adults. Health scientists find **functional age** (i.e., the level at which a person can perform) is more useful than chronological age in determining an individual's health status. Social scientists often group

older adults into age groups (e.g., ages 50–64, 65–74, 75–84, and 85+) that reflect similar life experiences and obligations, historical memories, and health problems within each group. Similarly, some researchers may apply terms to age groupings such as **young-old** (i.e., 50–64), **old** (i.e., 65–84), and **old-old** or oldest of old (ages 85 and older) to describe the stage of members in very late life. Within the old-old age group are two well-studied sub-groups—**centenarians** (i.e., persons at least 100 years old) and **super-centenarians** (i.e., persons at least 110 years old). How and why centenarians have been able to reach old age continues to be of great interest to scientists.

Whatever classification for age you choose to use in your work is a matter of preference, as long as you realize the limitations and variations implied by the term. A salient point to note and what is stressed throughout this text, is that there is a great amount of variability among older adults. Older adults are a heterogeneous group. Some individuals retain a sound mind and body into late life, while other persons do not. Some people remain financially secure, while other individuals fall into poverty. While the aging process is not a one-size fits all experience, the fundamental processes are shared by all.

Global Aging

Age, Sex, and Distribution

The world population is growing larger and getting older every year. The United Nations Department of Economic and Social Affairs (2017) reported that by mid-2017, the world population exceeded 7.5 billion people, an increase of 1 billion people since 2002. There are slightly more males than females (i.e., 102 males per 100 females) worldwide and they are distributed relatively equally across age groups as illustrated in **FIGURE 1-1**. As a group,

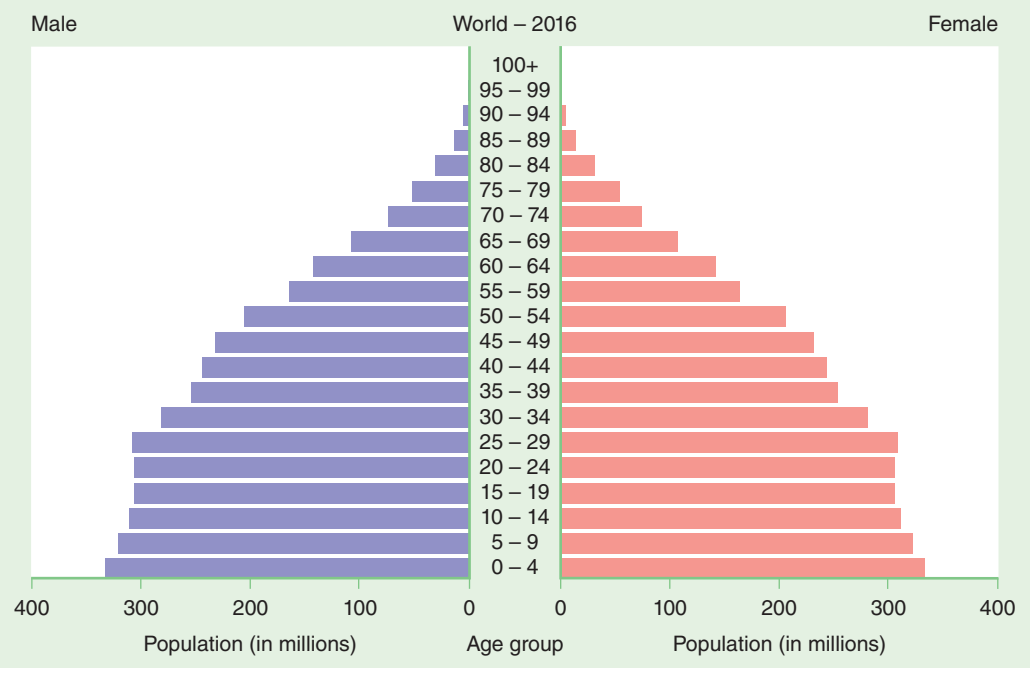

FIGURE 1-1 Worldwide population by sex and age group.

Reproduced from *The World Factbook 2017*. Washington, DC: Central Intelligence Agency, 2017. www.cia.gov/library/publications/the-world-factbook/index.htm.

females tend to live longer than males, explaining less decline in group size later in life. The median age (i.e., the age in which half of the population is above and below) of the entire world population is 30 years, which is also illustrated by the width of the age group bars in Figure 1-1.

Worldwide population growth is expected to remain steady as the population increases by approximately 83 million people each year. **TABLE 1-1** includes estimates for total population growth in 2030, 2050, and 2100 as well as population data by world region.

Conversations about world population can be more effective if the world is discussed by geographic regions, such as Africa, Asia, Europe, Latin America and the Caribbean, Northern America, and Oceania. Even though the governments and policies of countries within a single region may differ, their geographic location unites them by shared and common resources, climate, lifestyles, and cultures.

As shown in **TABLE 1-2**, 60% of the world population lives in Asia (4.5 billion). China and India are the most populated countries in the entire world and account for 90% of Asia's population. Within Asia, adults age 25–59 represent nearly half (48%) of the region's population (see Table 1-2). The second largest populated world region is Africa and it contains 17% of the world population (1.25 billion). Africa's population is relatively young with 40% of the population age 0–14 years. Only 5% of Africa's population is age 60+ years. Conversely, Europe (the third largest populated region) is the "oldest" region with 25% of its population representing adults age 60+ years and 16% of its population age 0–14 years. The population in Latin America and the Caribbean (646 million) is slightly less than Europe (742 million people), but one quarter of its population (25%) are 0–14 years old and it is home to half as many older adults (12%). Northern America, which includes the United States, ranks 5th in population size among regions and includes 361 million people. Only 22% of the North America population is 60+ years old. The least populated

TABLE 1-1 Population of World and Population by Region, 2017

Region	Population (in millions)			
	2017	2030	2050	2100
World	*7,550*	*8,551*	*9,772*	*11,184*
Africa	1,256	1,704	2,528	4,468
Asia	4,504	4,947	5,257	4,780
Europe	742	739	716	653
Latin America & the Caribbean	646	718	780	712
Northern America	361	395	435	499
Oceania	41	48	57	72

Data from United Nations, Department of Economic and Social Affairs. (2017). *World Population Prospects: The 2017 Revision, Key Findings and Advance Tables.* Working Paper No. ESA/P/WP/248.

TABLE 1-2 World Population and Population by Age Groups and Region, 2017

Region	Total Population (in millions)	Population by Age Group (%)			
		0–14	15–24	25–59	60+
World	*7,550*	*26*	*16*	*46*	*13*
Africa	1,256	41	19	35	5
Asia	4,504	24	16	48	12
Europe	742	16	11	49	25
Latin America & the Caribbean	646	25	17	46	12
Northern America	361	19	13	46	22
Oceania	41	23	15	45	17

Data from United Nations, Department of Economic and Social Affairs. (2017). *World Population Prospects: The 2017 Revision, Key Findings and Advance Tables.* Working Paper No. ESA/P/WP/248.

region is Oceania, which is home to 41 million people; 17% of whom are age 60+ years.

The population differences by region illustrate the fact that population size alone does not predict the age composition of a population. Instead, demographers look to three key and interrelated factors: fertility rate, longevity, and migration.

Fertility Rates

The number of older adults in the world today is directly connected to the **total fertility rate** (TFR; i.e., the average number of live births a child-bearing women would have in her lifetime) at the time they were born. In the 1950s, the TFR in the regions of Africa, Asia, Latin American and the Caribbean was approximately five live births per woman, a veritable population explosion when compared to Europe's TFR, which was less than three lives births per woman during the same years. Consequently, countries that experienced a high TFR in the mid-20th century are now faced with a growing economically inactive (i.e., retired or not working) older population that needs to be supported. Countries that experienced a low TFR at the same time, now tout a smaller aging population and are likely to be in a better position to provide members with economic and physical support.

War can dramatically impact TFR. During wartime, live births decrease because men and women are sent away from home to fight. However, post-war economies often generate socioeconomic growth that supports marriages, births, and an increased TFR. After World War II, the TFR skyrocketed in the United States and the large number of babies born between 1946 and 1964 have been subsequently referred to as members of the **baby boom generation**. Like the United States, South Korea also had a baby boom that is now entering old age. However, the years of birth for Korea's baby boomers (1955–1963) began

with the end of the Korean War and not World War II (Howe, Jackson, & Nakashima, 2007).

By tracking fertility rates in a region, policy makers and service providers can better predict the needs of a population and prepare for change. When countries experience sudden changes in fertility rates, it dramatically affects the population balance. For example, South Korea is the fastest growing aging society. It doubled its aging population from 7% (1999) to 14% (2017) in just 18 years and it continues to rise at a rapid rate (Klassen, 2010). Perhaps more troublesome is that the TFR in South Korea is the lowest in the world at 1.25; meaning that the population is barely able to replace people who die (referred to as the fertility replacement rate). Declining birth rates are expected to dramatically impact the size and productivity of the South Korean labor force and the national economy. Simply put, when older adults stop working, there will be few workers to replace them. One fear is if South Korean industry leaders are faced with a decreasing labor pool, they may seek laborers and manufacturing deals in neighboring countries, further reducing the nation's productivity. Moreover, the South Korean government faces challenges in meeting increased healthcare costs and the need to develop a system of services and supports to address the needs of the growing older population.

In 2017, the country with the oldest population was Japan. One-third (33%) of its residents were age 60+. Japan was closely followed by Italy, (29%), Germany (28%), and Portugal (28%). Each of these countries also represents developed societies (i.e., high socioeconomic development) that boast high gross domestic products (GDP; i.e., the value of everything produced in a country) per capita (i.e., per person). By maintaining a high GDP, a country is better positioned to access, maintain, and provide resources, economic trade, and opportunities, which contribute to population health and **longevity** (i.e., the length of time lived).

Still, GDP ranking is not enough to predict if a county has a large aging population. In 2017, the top five developed countries with the highest GDP per capita included the small governments of Qatar, Luxembourg, Macao, Singapore, and Brunei. The total populations of these countries were significantly different: 2.2 million, 590 thousand, 650 thousand, 5.6 million, and 423 thousand residents, respectively. Moreover, the percentage of the population aged 60+ in each country also varied considerably, ranging from 3% to 20%. Thus, wealth is also not a predictor for identifying if a country has a large population of older adults, even if that wealth can help provide services and products that promote longevity.

Longevity

Maintaining a healthy population across the **lifespan** (i.e., the period from birth to death) is directly influenced by access to health care (including pre-natal care), public sanitation, a well-balanced diet, education, and safe and secure communities. **Life expectancy** (i.e., the length of time a person is expected to live) is further influenced by the historical time in which a person lives, environment factors such as air and water quality, and any social and behavioral factors that affects the population such as smoking, obesity, homicide, and war.

Worldwide, life expectancy at birth is currently 70.8 years, an increase from 67.2 years since 2000. The greatest increases across world regions have occurred in Africa, which showed an increase of 6.6 years in the same period, after increasing less than 2 years in the prior decade. Despite the rapid increase, life expectancy in Africa is now just 60.2 years. The highest life expectancy is in Northern America (79.2 years) followed by Oceania (77.9 years), Europe (77.2 years), Latin America and the Caribbean (74.6 years) and Asia (71.8 years). When comparing population size with life expectancy, it become clear that population size alone does not translate to higher life expectancy. Clearly, other factors are at play.

Population Health

Obesity is becoming an epidemic health concern throughout the world with proportional increases in weight across all age groups and educational levels (Samper-Ternent & Al Snih, 2012). According to the World Health Organization (2017), the prevalence of obesity has tripled worldwide from 1975 to 2016, and is responsible for the deaths of at least 2.8 million people annually. The U.S. population leads the world in obesity for both men and women (**FIGURE 1-2**). By 2015, residents 50–74 years old had significantly poorer health with multiple health conditions compared to their British and European counterparts including hypertension, heart disease, diabetes, cancer, lung disease, and mobility impairments (National Institute on Aging, National Institutes of Health, & World Health Organization [2011]).

Since the 1980s, HIV/AIDS has been a worldwide health concern that is often overlooked in association with older adults. Human immunodeficiency virus (HIV) is a virus, which once acquired can be treated, but cannot be eradicated from the body. If left untreated, HIV can develop into acquired immunodeficiency syndrome (AIDS). Antiviral therapies (ART) have improved dramatically in effectiveness and can now control HIV so that it does not develop into AIDS. Persons affected can live long, relatively healthy lives with the virus largely under control (Centers for Disease Control and Prevention, 2017). About half of persons infected are already older than age 50 (Mills, Bärnighausen, & Negin, 2012). Undeveloped countries have not fared as well, especially sub-Sahara African countries where the prevalence of HIV among persons age 50+ is expected to exceed 10% by 2025. Moreover, persons over age 50 with HIV and receiving ART, still have a 30% higher risk of dying within 4 years compared to younger patients.

To combat population health problems, Mills et al. (2012) suggest that the world needs more geriatric clinicians. They are few in number in the United States and absent in many regions of the world. Training needs to include better geriatric training, improved rehabilitation services, and prevention outreach services to improve older peoples' ability to avoid disease and cope living with their health problems.

Migration

In addition to fertility rates and life expectancy, population size is influenced by migration patterns. In peaceful times, immigrants enter a country to gain education, engage in business, or to live with family members who have already relocated. Most countries have processes and procedures in place to regulate this form of immigration. Some immigrants stay for short periods of time, while others seek and obtain citizenship. A challenge for any society is when residents of a war-torn country or a country undergoing political unrest, want to leave and make their home in a neighboring country, as has been the case with Syrian refugees. As of 2015, an estimated 4.2 million people have fled the civil conflict in Syria and 2.2 million have settled in Turkey (Tumen, 2016). More often than not, immigrants are young adults with young families or with the intention of sending for them after getting settled. The persons left behind are people least able to support themselves and their communities such as women and children, older adults, poor people, and persons with disabilities.

The effect of mass migration on the departure and arrival countries can be staggering. Mass migration of a population places a strain on local and national economies, social services, housing, education, public health, and sanitation. In countries receiving large numbers of immigrants, the economy is unlikely to have job openings for all the new arrivals, resulting in increased enrollments in the public welfare system. In the country left behind, the future is also not bright for the persons who remained. The workers who used to support the economy and pay taxes to support community infrastructure (e.g., roads, hospitals, schools, and health care) are no

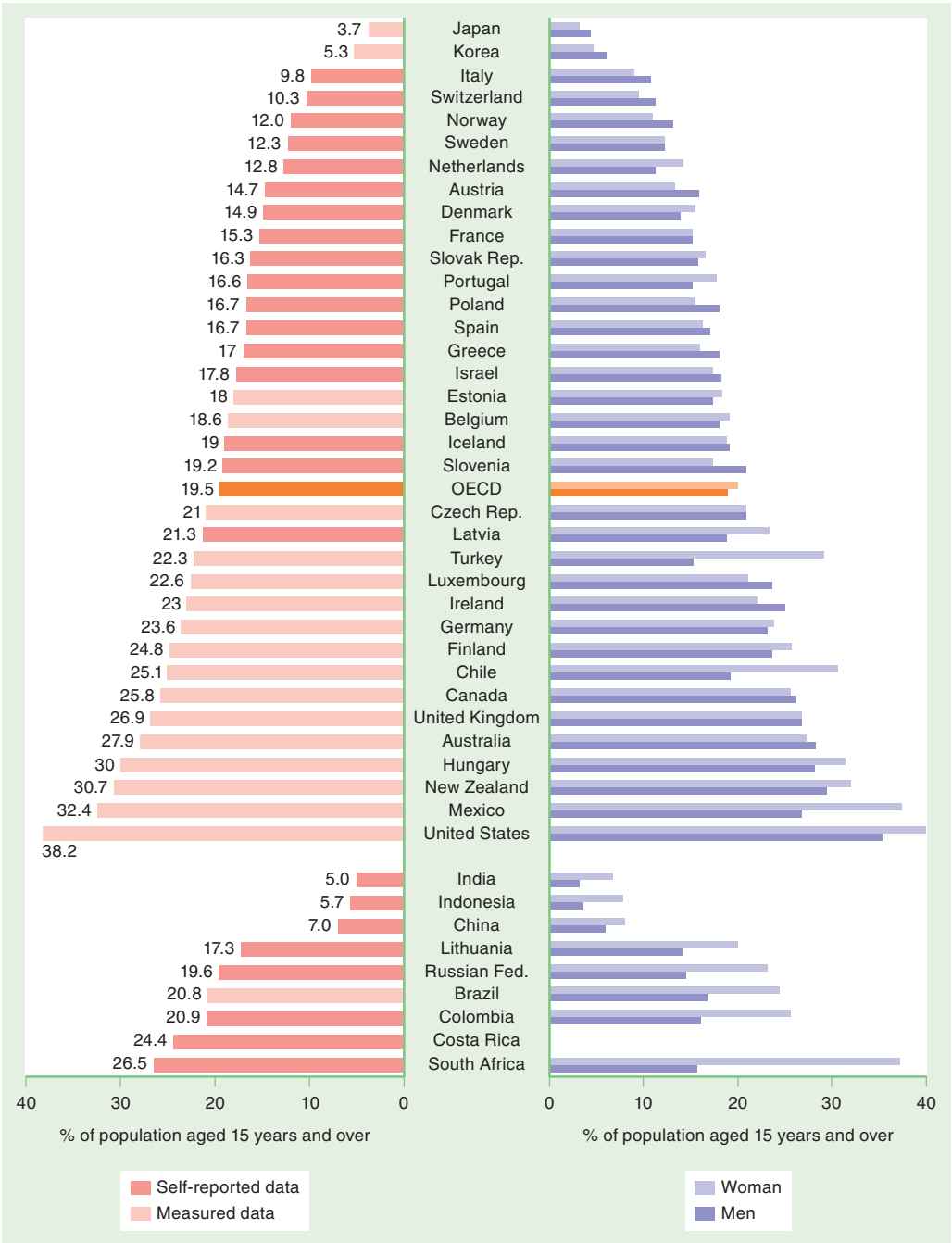

FIGURE 1-2 Obesity rates by country, 2015 or nearest year.

Data from OECD. (2017). Obesity update 2017. OECD Health Statistics. Retrieved from www.oecd.org/els/health-systems/Obesity-Update-2017.pdf.

longer contributing. The transactions of goods and services may stop. Older adults, who once depended on a state pension, may suddenly have no income. Without a large infusion of capital and manpower, many communities left behind after war and conflict simply fall apart and the population becomes impoverished and left with little hope for a better future.

Recognizing the influences on population size and health is needed to understand what it takes for people to age successfully. Gerontologists use population information as a guide to explore what it takes to provide a quality of life at the individual, societal, national, and global levels. A brief discussion about successful aging and quality of life is at the end of this chapter.

Aging in the United States

Age and Age Groups

The U.S. Census Bureau estimated that the national population in 2016 was slightly more than 323 million people (Federal Interagency Forum on Aging-Related Statistics, 2016). The median age in the United States was 37.9 years, seven years higher than the world population median age. Among the 50 states, Maine had the oldest population with a median age of 44.5 years, while Utah had the youngest populations with a median age of 30.7 years (Statista, 2017). The average life expectancy in the United States for both sexes in 2016 was 78.8 years.

In 2016, adults age 65 and older made up 15.2% of the population, an increase of 0.3% from the previous year. As aforementioned, members of the baby boom generation were born from 1946 to 1964 and include approximately 76 million people. The individuals born in 1946 started turning age 65 in 2011. Since then, approximately 10,000 adults turn age 65 each day until 2029. Therefore, it is important to any analysis of the older population to include members born in all years of the baby boom generation, even if they have yet to reach age 65, as the sheer number of adults reaching old age will impact social policy and services.

In 2016, the percentage of adults by age breakdown was as follows:

- Age 45–54 (13.3%)
- Age 55–64 (12.8%)
- Age 65–74 (8.9%)
- Age 75–84 (4.4%)
- Age 85+ (1.9%)

Geographic Distribution

Older adults live in communities all across the United States. Some individuals live in the same towns where they were born and raised, and other individuals relocate several times during their lives, even in late life. Not surprisingly, where the older population resides in the United States is heavily influenced by the economy, health, and weather.

The outmigration of young adults due to poor job and economic prospects has left some regions with increased numbers of older adults. When industries fold and are not replaced with new industries drawing on the same labor force, individuals tend to seek work in other regions thus, leaving the non-active workforce behind. The density of older populations in post-industrial areas, such as Appalachia and the Midwest shown in **FIGURE 1-3**, help emphasize the effect of outmigration.

Older adults who migrate to new regions in the country, generally do so after retiring from the workforce. The pull of a new community is generally tied to several factors: a lower cost of living than the pre-retirement community, warmer and drier climate, and proximity to friends and family. As can be seen in Figure 1-3, the warmer climes of Florida, Arizona, and southern Utah draw older persons and thus, have dense older populations. Florida has long been known for its older demographic. Eighty percent of Florida counties (i.e., 53 of 67) have an above average proportion of older adults. In Sumter County more than half of its residents are reportedly age 65+. In 2010, the southern

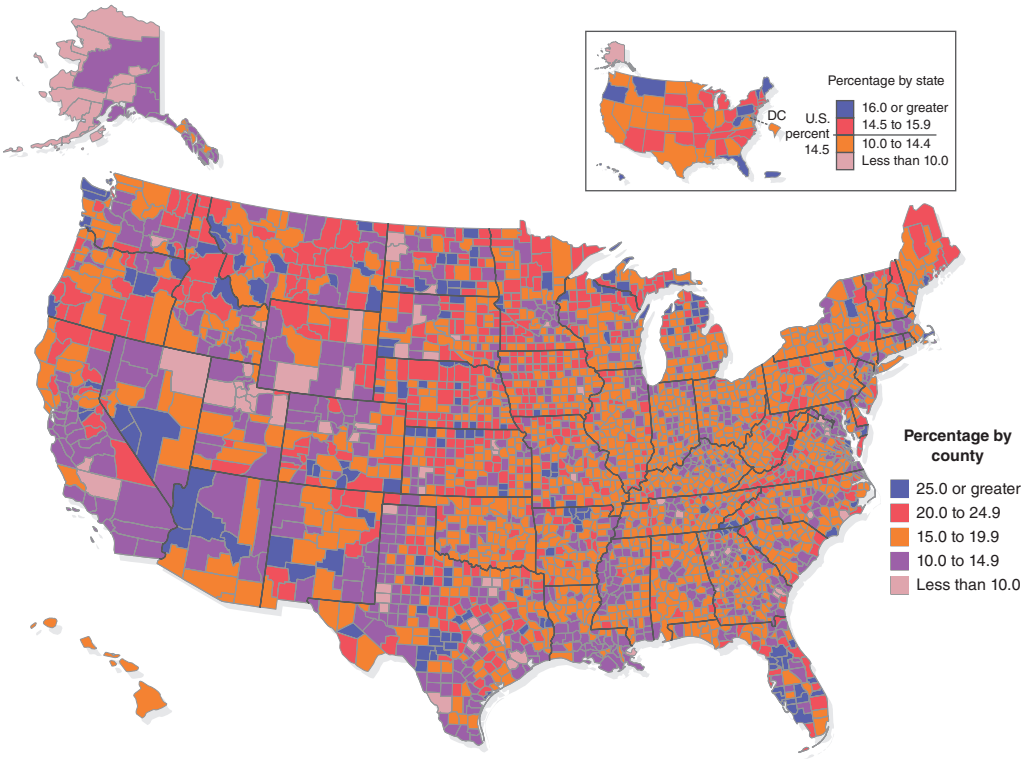

FIGURE 1-3 Percentage of population age 65+ by county and state in the United States in 2014.

Data from U.S. Census Bureau, Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010, to July 1, 2014 (PEPAGESEX).

regions of the U.S., had the largest number of individuals over age 65 whereas the northeast had the largest proportion of persons over age 65 (Statista, 2017).

However, not all persons relocate permanently to warmer states. The term **snowbirds** refers to older adults who move south for the winter to avoid the cold weather at home and all the heating bills and snow removal that accompany living in the cold. Many snowbirds make the trek south for a few years before settling down permanently in the south, while other snowbirds only want it to be an annual winter trip.

Sex

In contrast to the world population composition, in 2016, there were more females than males in the total U.S. population (i.e., 100 females per 96.9 males, or 50.8% females to 49.2% males). The gap widened between the sexes by age 65 with even fewer males (44.1%) than females (55.9%). Historically, this difference has been attributed to better health and health care among females, although with the rise in obesity, heart disease, and tobacco use in females, the gap has narrowed.

Race

The racial diversity of the older population in the United States is less diverse than that of the entire population and the younger population. Older adults are predominately White (78%) and non-Hispanic (92%). Only 9% of older adults are Black and 4% are Asian. This can be explained in part by the fact that the immigration rates of non-White and Hispanic populations into the

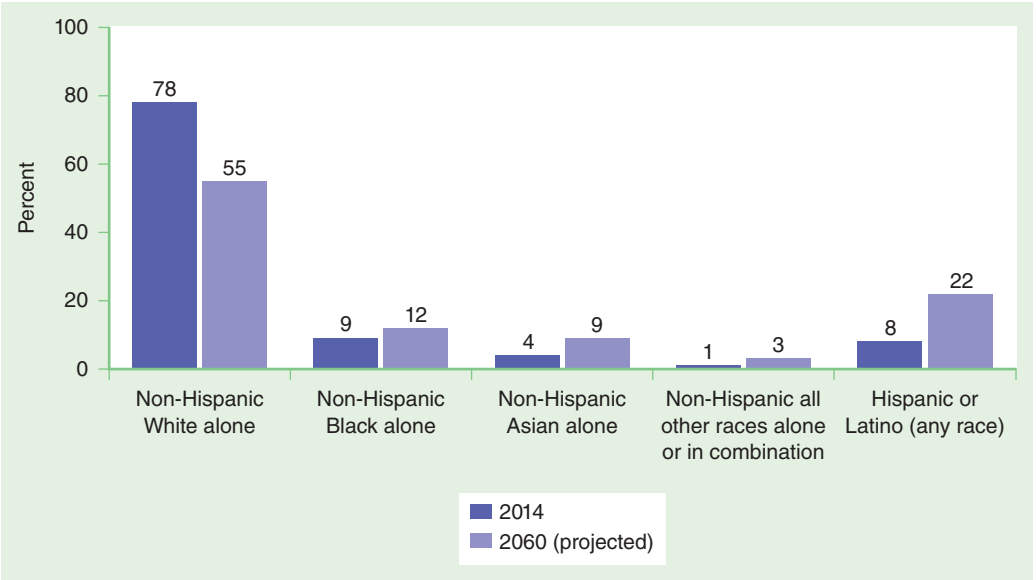

FIGURE 1-4 Older U.S. population by race and Hispanic origin.

Federal Interagency Forum on Aging-Related Statistics. (2016). *Older Americans 2016: Key Indicators of Well-Being*. Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office.

United States were much lower when today's older adults were young, and today's older immigrants of color are not numerous enough to influence the national data. It is also important to remember that interracial marriages were illegal at the time many of today's older adults were getting married, so they were unlikely to marry outside of their race. The racial profile of older adults in 2014 is illustrated in **FIGURE 1-4**.

Marital Status

An important influence on quality of life and well-being are social relationships, including marriage. Because there are more women than men and women tend to live longer than men, it stands to reason that a higher percentage of older men are married than older women. In 2015, among adults age 65–74 years, about 74% of men were married although only 58% of women of the same age were married. The increased rate of married men continues across age groups (**FIGURE 1-5**). Not surprisingly, more women than men were widowed. Seventy-three percent of women age 85+ years were widowed compared to 34% of men of the same age. What remains relatively consistent across age groups and sex are the rates of never married adults (3–6%) and divorced adults (6–17%). At the time of this writing, there is no reliable national relationship data on same sex marriages or partnerships among older adults.

Living Arrangements

One's living arrangement can also have a significant impact on health, quality of life and well-being. In 2015, 70% of men lived with a spouse yet, only 45% of women lived with a spouse. Expectedly, women were more apt to live alone (36%) than were men (20%). However, the trend for living alone has begun to decline after a fivefold increase (6–29%) from 1900 to 1990 (Stepler, 2016). Older persons of color are more apt to live alone than older White adults. Specifically, 46% of older Black women lived alone, and older Black men live alone three times more often than older Asian men. However, older men of color were more apt to live with relatives than their White

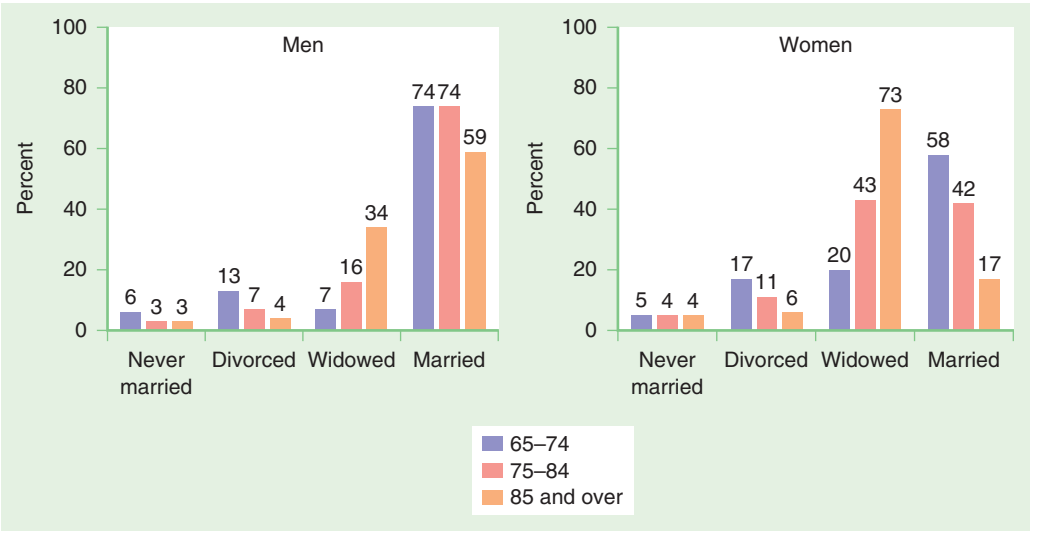

FIGURE 1-5 Marital status of older adults in the United States by sex and age group, 2015.

Federal Interagency Forum on Aging-Related Statistics. (2016). *Older Americans 2016: Key Indicators of Well-Being.* Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office.

counterparts. Approximately 14% of Black and Hispanic men of color lived with a relative other than a spouse compared to only 4% of While men doing the same. Older people living alone are three times as likely to live in poverty and less likely to view their economic status as "living comfortably" (Stepler, 2016).

Economic Status

Poverty

The economic status of older Americans is more varied than any other age group. Poverty among older adults was such a serious problem by the mid-20th century that in 1964 it was integrated into President Lyndon B. Johnson's War on Poverty legislation. This led to federal implementation of the Older Americans Act in 1965 in an effort to lift older citizens out of poverty. In 1966, 29% of people age 65+ years lived below the federal poverty threshold and 18% of children were deemed impoverished. By 2014, the rate for older adults in poverty dropped to 10–12% (depending on the measure used), although the rate for children has hovered around 20% (**FIGURE 1-6**).

Poverty in late life is experienced differently by gender, age, and race. Not only are older women likely to live alone, they are more apt to live alone in poverty (12%). Moreover, as time passes, the chances of an older adult becoming impoverished increases. In 2014, the overall poverty rate for adults age 65+ years was 9%, compared to 12% of adults ages 75 and older experiencing poverty.

Persons of color experience greater rates of poverty than White men (5%) and women (10%). In 2014, older Black men, Hispanic men, and Asian men experienced poverty rates of 17%, 16%, and 13%, respectively. Yet, older women of color still experience the highest rates of poverty in late life. Older Black women (21%) and Hispanic women (20%) are four times as likely to be in poverty as older White men and twice as likely as older White women. Older Asian women (16%) experience poverty at nearly the same rate as Asian men yet, their rate is still triple the rate of older White men. Lifting older adults out of poverty is connected to the provision

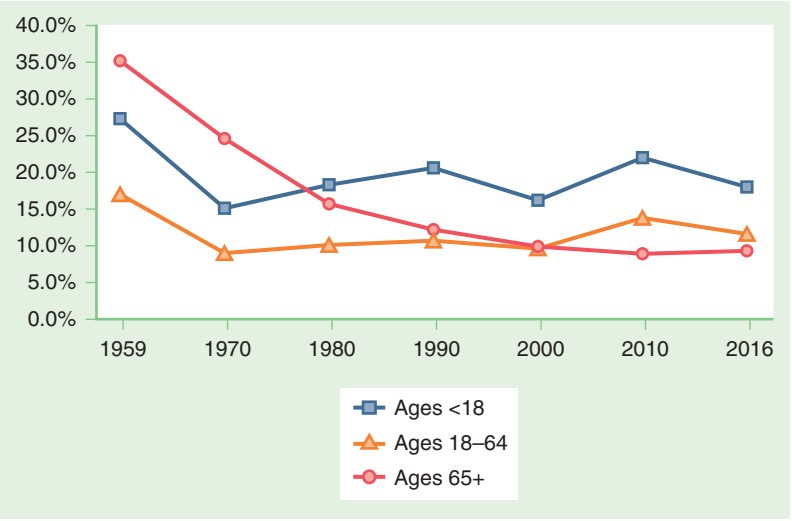

FIGURE 1-6 Poverty rates in United States over time.

Semega, J. L., Fontenot, K. R., & Kollar, M. A. (2017). *Income and poverty in the United States: 2016*. Report Number: P60-259. Washington, DC: U.S. Government Printing Office.

of need-based supplementary programs and services, discussed further in Chapter 6.

Income

Personal and household incomes of older adults are as diverse as they are among younger people. Due to many economic factors, the median income of older adults has risen in the past 40 years. In 1974 median income was reportedly $22,921 (in 2014 dollars) and by 2014, it reached $36,895. As **FIGURE 1-7** illustrates, the distribution of wealth among older adults is diverse. Using the federal poverty level as an income baseline, low income adults are identified as receiving income 100–199% above the poverty level, middle income adults receive 200–399% above the poverty level, and high income older adults receive income at least 400% above the poverty level.

Sources of Income

Variation in income size is reflective of the sources of income (e.g., personal savings, investments, retirement pensions, and Social Security). In 2014, nearly half (49%) of all households (including 86% of all older adults) received Social Security (i.e., an entitlement program that workers pay into and draw from upon leaving the workforce; see Chapter 6). By age 80, 90% of older adults receive Social Security. Less than half (41%) of older adults received income from a private retirement pension or annuity, and only 18% received income from a public pension fund. Selling or cashing in personal assets also provides a source of income and more than two thirds (67%) of older adults receive income from their assets. Conversely, 13% of older adults had little to no assets to draw upon and received public assistance (i.e., cash and non-cash) to supplement their income.

FIGURE 1-8 displays a chart comparing the sources of income by dividing the older population into quintiles (i.e., five graduated income categories with equal numbers of adults in each). The visual helps demystify the sources older adults rely upon for their incomes. Clearly, individuals with lower incomes rely more on Social Security than persons in the higher income groups.

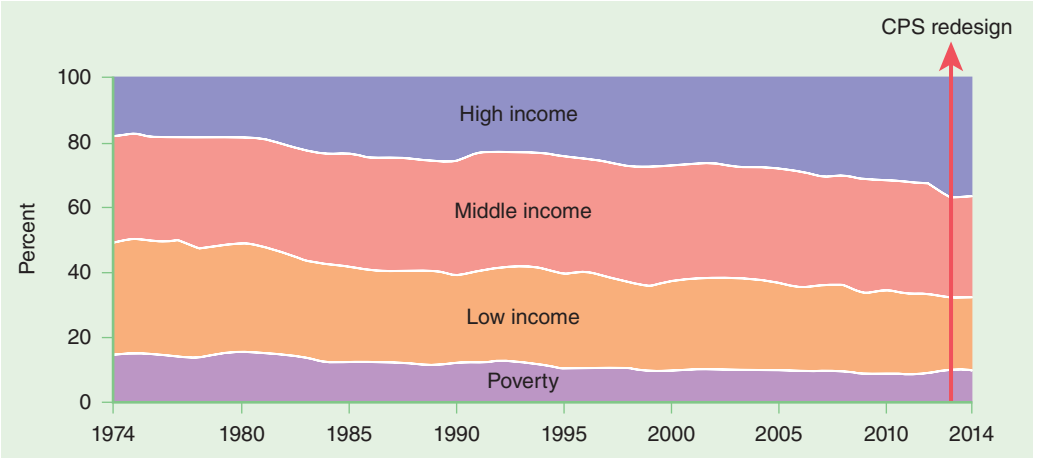

FIGURE 1-7 Income distribution in the United States among older adults, 1974–2014.

Federal Interagency Forum on Aging-Related Statistics. (2016). *Older Americans 2016: Key Indicators of Well-Being.* Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office.

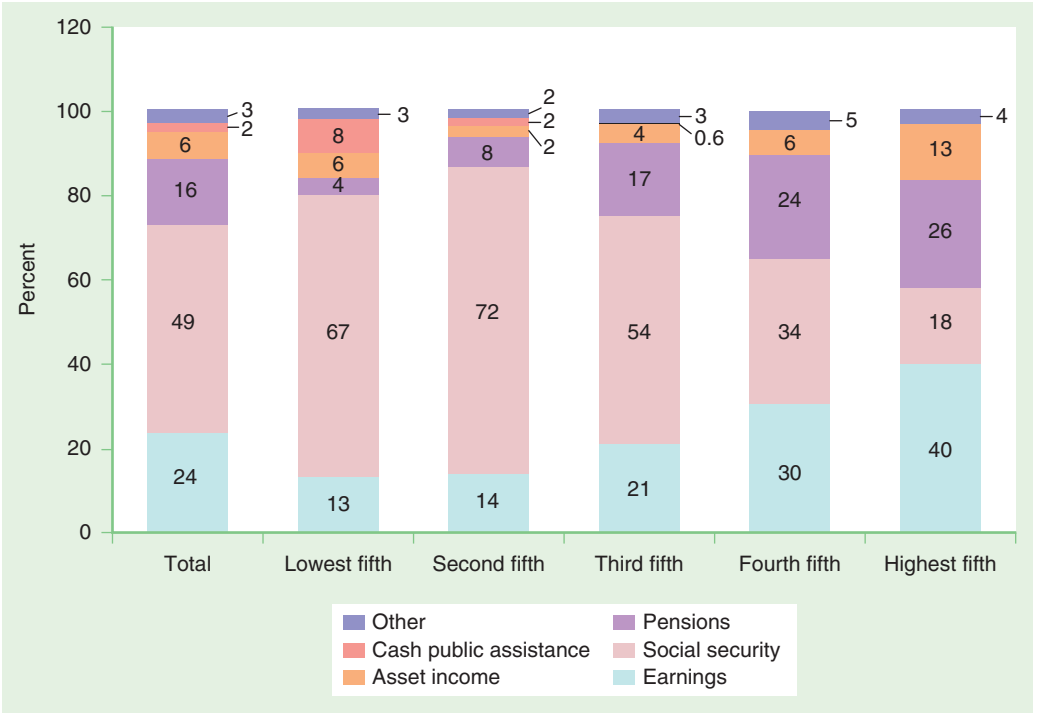

FIGURE 1-8 Percentile distribution of per capita family income for persons age 65+, by income quintile and source of income, 2014.

Federal Interagency Forum on Aging-Related Statistics. (2016). *Older Americans 2016: Key Indicators of Well-Being.* Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office.

Work and Retirement Status

Not all older adults leave the labor force once they reach age 65 or retire. Continued employment in some form can provide additional income, opportunities for socialization, and feelings of self-worth and contribution, which all contribute to improving quality of life and well-being. Approximately 29% of older adults have no retirement savings or pension plan (United States Government Accountability Office, 2015), which forces many people to continue to be active in the workforce. As illustrated in **FIGURE 1-9**, rate of participation of older adults in the workforce is expected to rise, whatever the reason.

Although finances are a leading factor for returning to or remaining in the labor force, other reasons cited for continuing to work included: boredom or extra time to engage, sought out by employer to train or mentor younger workers, and personal enjoyment and fulfillment (Tamburo, 2017). Additional information on work and retirement is presented in Chapter 2.

Health Status

The health of older Americans is frequently discussed in terms of the **incidence** (i.e., the number of new cases reported) and **prevalence** (i.e., the total number of cases reported) of chronic health conditions and communicable diseases, functional limitations, vaccination rates, and self-reported health status.

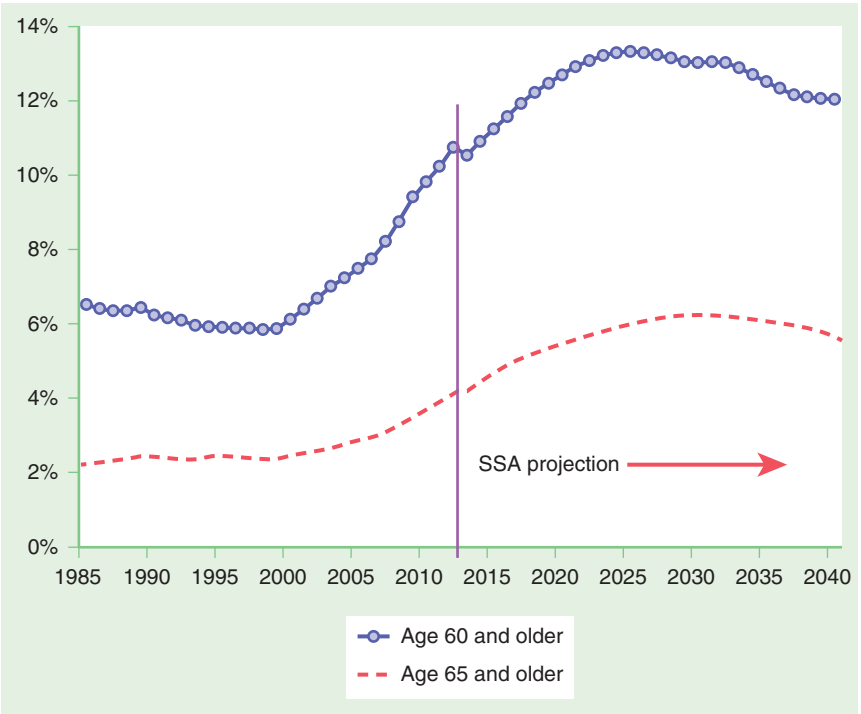

FIGURE 1-9 Percentage of older employed population age 60+.

Data from Burtless, G. (2013). *The impact of population aging and delayed retirement on workforce productivity.* (CRR WP 2-13-11). Chestnut Hill, MA: Center for Retirement Research.

Chronic Health Conditions

Chronic health conditions, such as heart disease, stroke, cancer, diabetes, and arthritis, are among the most costly health conditions to treat. Moreover, they are preventable if an individual commits to change the behaviors that lead to the condition. Multiple chronic health conditions are experienced by the majority of older adults; co-morbid conditions (i.e., multiple conditions at the same time) directly contribute to frailty and disability (**FIGURE 1-10**).

In 2014, the most frequently occurring health conditions for non-institutionalized older adults were uncontrolled hypertension (55.9%), diagnosed arthritis (49%), heart disease (29.4%), cancer of any type (23.4%), diabetes (20.8%), asthma (10.6%), and stroke (7.9%). Differences in prevalence rates between men and women were small. However, prevalence rates by race and ethnicity varied greatly for some conditions. White men and women led other races and ethnicities in the prevalence for heart disease (30.7%) and cancers (26%). However, Black men and women experienced hypertension (70.6%), stroke (10.6%), and diabetes (31.1%) more than other groups. Older adults of Hispanic origin (regardless of race) also had diabetes (32.3%) more often than other non-Hispanic racial and ethnic groups.

Functional Limitations

Functional limitations can be debilitating and thus, impact quality of life and well-being. In 2014, 22.6% of older adults reported a functional limitation that disabled them even if they used corrective devices (e.g., hearing aids, eyeglasses). More precisely, prevalence rates in functional limitations that created a disability (for both sexes and all races) included mobility (17.1%), hearing (4.2 %), vision (3.3%), self-care (3.0%), cognition (2.7%), and communication (1.2%).

Racial and ethnic differences emerged across some types of functional limitations. Specifically, non-Hispanic Black men and women were more likely to experience a disability in mobility (20.6%) compared to Hispanic older adults (16.9%) and non-Hispanic White older adults (13.3%). Additionally, Hispanic (4.6%) and non-Hispanic Black (4.0%) older adults were more than twice as likely

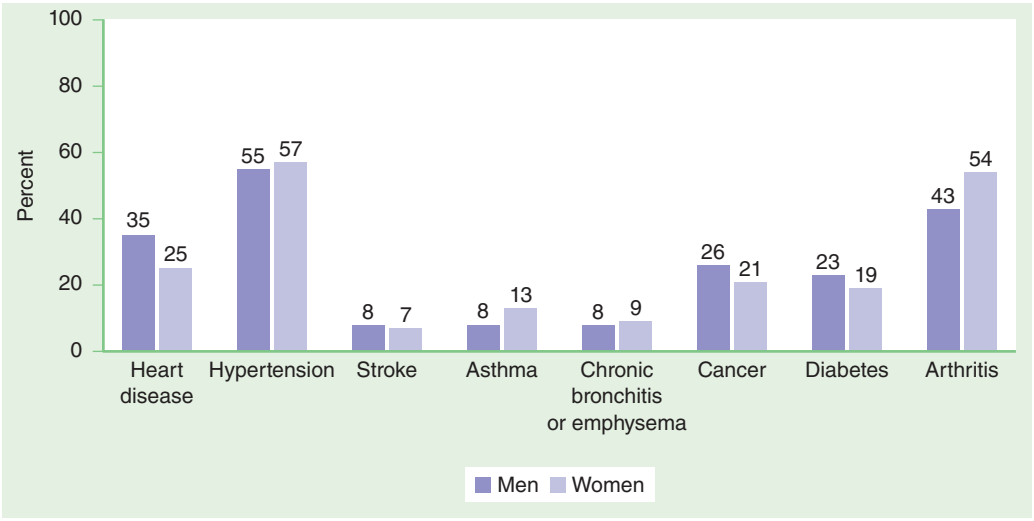

FIGURE 1-10 Percentage of people age 65+ who reported selected chronic conditions, by sex, 2013–2014.

Federal Interagency Forum on Aging-Related Statistics. (2016). *Older Americans 2016: Key Indicators of Well-Being*. Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office.

as non-Hispanic White (1.7%) older adults to have a disability with cognition. An overview of the functional limitations older adults can face at the individual level is presented in Chapter 9.

Vaccinations

Vaccinations against influenza and pneumococcal disease are critical to maintaining health in late life. A compromised or weakened immune system has trouble combating disease and if infected, can lead to death. One preventive measure undertaken frequently by local healthcare systems, public health departments, and pharmacies is to offer free vaccination clinics each autumn as a strategy to get older adults inoculated. In 2014, 70.1% of older adults reported being vaccinated against influenza and 61.3% were vaccinated against pneumococcal disease. Historically, Black men and women have been far less likely to receive an influenza inoculation than White men and women. In 2014, only 57.4% of Blacks and 60.5% of Hispanics (of any race) received an influenza shot compared to 72% of non-Hispanic White older adults. The disparity suggests continued and alternative education and outreach efforts need to target persons of color.

Self-Rated Health

Despite the high prevalence of chronic health conditions and diseases in the second half of life, many older adults do not perceive that their health is bad or problematic. In 2014, 77.5% of older adults rated their health status as either good or excellent. Even 68.1% of persons age 85+ rated their health status as good or excellent. The reason older adults frequently rate their health higher than the people around them might rate it is because they tend to compare their ability to function against the functional abilities they see in other people of their own age. As a result, everyone knows someone who is worse off, so they themselves must be doing well!

Caregivers

For many older adults, there comes a time when they need help with their **activities of daily living** (ADL; i.e., bathing, dressing, eating, toileting, and mobility) and **instrumental activities of daily living** (IADLS; housework, preparing meals, using a telephone, managing money, or shopping). Family caregivers frequently fulfill that role as an act of filial responsibility (or family obligation). Family caregivers are referred to as **informal caregivers** because they provide services without compensation.

Both care recipients and caregivers tend to be female (65% and 75%, respectively). Daughters (including biological daughters, step-daughters, and daughters by marriage) account for 19% of informal caregivers, followed by other relatives (22.3%), and spouses (21.2%). While the average age of the caregiver is 49.2 years, 35% of caregivers are age 65 or older. The average caregiver provides over 24 hours of care per week, and nearly one-fourth (24%) of caregivers provide care for more than 5 years. Fifteen percent of all caregivers provide care for at least 10 years.

Informal caregivers for persons with dementia (including Alzheimer's disease) provide on average, nine hours of service per day of care. Caregiving tasks include assistance with ADLs, IADLs, advocating for services and supports, and decision making on behalf of the care recipient (Family Caregiving Alliance, 2016). The challenges and stresses related to taking the responsibility for caring for a person with dementia are well documented as highly stressful and can negatively impact the health and well-being of the caregiver. In response, caregiver support groups and workshops are available to help caregivers cope successfully and maintain their own health.

If caregivers simply stopped performing caregiving tasks, the resultant demand for services and supports would overload the healthcare system in the United States. In 2013, the value of unpaid caregiving services was estimated to be $470 billion! That estimate is more

than was reimbursed in the same year for Medicaid and home and community-based services combined (Family Caregiving Alliance, 2016). More information about the types of home and community-based services available in the United States is provided in Chapter 5.

Long-Term Care Services

In 2014, approximately 9 million people (including older adults and young persons with extensive physical impairments and disabilities) were provided long-term care services through multiple service venues that included adult day service centers, home health agencies, hospice centers, nursing homes, assisted living facilities, and residential care communities that offered services and supports needed to function in daily life. Since 1966, when federal service programs (e.g., Medicare and Medicaid) were introduced, the number of older adults accessing services and supports has more than tripled from 2.5 million to 9 million. The workers employed by organizations offering such services are referred to as **formal caregivers** because unlike family caregivers, they are paid to deliver care.

Among the 9 million care recipients, approximately 1.2 million adults age 65 and older lived in nursing homes (Administration on Aging, 2015). Although this number includes only 1% of persons ages 65–74 years, it increases to 10% of persons age 85+. Overall annual resident rates usually include 5% or less of the general older population. Eligibility for nursing home admission is determined by an assessment of personal health needs, functional limitations, limitations with ADLs and IADLs, and available resources and supports in the community. Adults age 85 and older represent the fastest-growing segment of the population needing nursing home care and 25% are eligible for placement. Understandably, adults of that age are typically in declining health, have growing unmet needs, and dwindling resources. However, the number of nursing home beds is increasing at half the rate needed to meet the demands of this expanding age group and the need is expected to increase as baby boomers reach late life.

Older adults who become long-term residents of nursing homes will, on average, spend all their savings and assets within one year (Tamburo, 2017). In 2017, the average estimated costs for nursing home care was $235 per day ($85,775 per year) for a shared room, with the lowest costs for care in the south and mid-west ($165 per day; $60,225 per year) and the highest costs in the northeast ($350 per day; $127,750 per year; American Elder Care Research Organization, 2017). Once personal funds are depleted, a resident may become eligible for public assistance such as Medicaid, which helps pay for some care. In 2013, 62.9% of all nursing home residents were paying for their care using Medicaid.

Considering the sharp increased demand ahead for home and community-based care and institutionalized care, the question on the minds of all policymakers and service leaders is, “Where will the funds come from to continue funding long-term care services and supports?”

Death

Older adults generally experience health co-morbidities as they age and each health challenge affects another in some way. However, discussions about national mortality statistics necessitate that deaths are attributed to the primary cause of death listed on the death certificate and not to multiple health diagnoses. This can pose challenges in analyzing causes of death when an individual has been diagnosed with a primary health problem (e.g., Alzheimer’s disease or cancer) but dies from another (e.g., heart failure). In response, international rules of reporting deaths have been implemented to provide a system that will provide the most accurate profile of mortality as possible, while recognizing caveats in reporting.

Causes

The negative health impacts of chronic health conditions include death. In 2014, the six leading causes of death for persons age 65 and older included conditions and diseases that can be controlled to some extent through healthy behaviors. As shown in **TABLE 1-3**, heart disease was the leading cause of death in 2014, followed by cancer, chronic lower respiratory disease, stroke, Alzheimer's disease, diabetes, unintentional injuries, and influenza and pneumonia.

When compared to rates in 2000, death rates in 2014 declined by about 20% for all causes except Alzheimer's disease and unintentional injury, which both rose. Rates for Alzheimer's disease increased in part due to improved diagnosis and reporting. Historically, a diagnosis of Alzheimer's disease was confirmed only upon autopsy of the brain after death. Therefore, the inclusion of Alzheimer's disease on death certificates, from which this data was collected, was likely more limited in 2000 than today.

Mortality from heart disease and cancer does not differ a great deal by sex, race, and ethnicity, although, differences do exist for some other causes of death. Specifically, diabetes is the fourth highest cause of death for non-Hispanic Black older adults (212 per 100,000) and Hispanic (all races) older adults (155 per 100,000) yet, is the seventh highest cause of death for non-Hispanic White older adults (106 per 100,000). Women had higher rates of death from Alzheimer's disease (222 per 100,000) than men (161,000 per 100,000), although, men experienced higher rates of death from unintentional injuries (131 per 100,000) than women (36 per 100,000).

Knowledge about causes of death helps us better understand life. Information about mortality can be used to develop interventions to delay or prevent health challenges, especially

TABLE 1-3 Leading Causes of Death Among U.S. Adults Aged 65 or Older in 2000 and 2014

Cause of Death	2000 Rates of Deaths (per 100,000)	2014 Rates of Deaths (per 100,000)
Heart disease	1,707	1,062
Cancer	1,124	915
Chronic lower respiratory diseases	305	277
Stroke	426	247
Alzheimer's disease	141	200
Diabetes	150	119
Unintentional injury	89	105
Influenza and pneumonia	169	97

Data from Federal Interagency Forum on Aging-Related Statistics. (2016). *Older Americans 2016: Key Indicators of Well-Being.* Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office.

if we can connect them to client behaviors and habits. Our ability to "connect the dots" between the biopsychosocial influences in our clients' lives, will help us support them to age successfully and enjoy a quality of life.

Aging Successfully

Successful Aging

The concept of **successful aging** was first introduced over 50 years ago in response to negative social beliefs about age and growing older. In 1987, Rowe and Kahn took a biopsychosocial approach to develop their model for successful aging (Rowe & Kahn, 1997). The model included three key factors representing each domain. Rowe and Kahn proposed that individuals aged successfully if they:

- Lived free of disease and disability
- Retained high cognitive and physical abilities
- Maintained meaningful interactional social relationships

Each of the three domains interfaced with the other two. At first blush, the model seems ideal as it represents the best of a bio-psycho-social approach. However, critics argue that the model dismisses and diminishes people who do not live free of disease and disability, have low cognitive and physical abilities, or cannot maintain social relationships. Are we to conclude that they cannot and will not age successfully? Moreover, by what standards should society judge a person's ability to age successfully? Researchers continue to modify the model to address the criticisms and adapt the model to include other factors including spirituality. The overall concept is valid, yet for many researchers the focus of successful aging should focus more on quality of life.

Quality of Life in Old Age

Quality of life (QOL) is another subjective construct that is difficult to measure. Yet, researchers are in general agreement that it is influenced by the topics presented in this text, including but not limited to personal characteristics, living arrangement, physical and mental health status and health issues, social relationships, sexuality, and outlook on life. Because there is a lot of variance in rating quality of life, it is easy to understand how everyone can have a different sense of what it means.

The idea of living a quality life in old age is often dismissed by people who view it as a time of decline and suffering. Advertising campaigns, television, and social media tend to focus on "suffering" in old age (e.g., dementia, depression, cancer, arthritis, stroke), while ignoring evidence that people can live well and happily even with health problems. A recent study of centenarians found that a significant proportion of the oldest-old (over age 80) have lived with chronic health conditions (associated with the condition of "suffering") for decades. However, the majority of older adults do not "suffer" through life but rather learn to live well in spite of pain or bodily restrictions (Terry, Sebastiani, Andersen, & Perls, 2008). The word "suffer" should be used less frequently and only in regards to individuals who truly cannot enjoy life due to irascible pain or anguish. The vast majority of older adults do not fit into this mold.

Quality of life and what it means to individuals has been studied in different cultures around the world (Molzahn, Kalfoss, Makaroff, & Skevington, 2010). Findings indicated that older adults in developed countries often citied general health and attributes of physical health such as sleep quality, energy, and being free of pain as essential to having a good QOL. In contrast, older adults in less developed countries cited energy, happiness, and home environment as positive contributors to their QOL. Results from a study in the United States on QOL (Pew Research Center, 2013) showed that QOL cannot be tidily defined by older adults. **FIGURE 1-11** includes some of the indicators found to be important to U.S. older adults in achieving a good QOL.

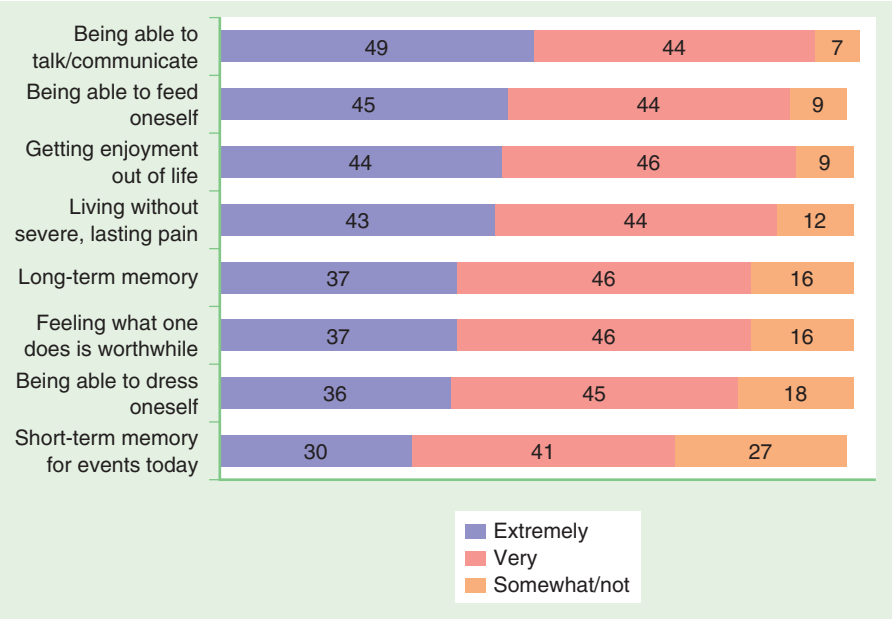

FIGURE 1-11 Quality of life indicators in old age. Percent of U.S. adults who say each of these is important for a good life in old age.

Data from Pew Research Center. (2013). *Views on end-of-life medical treatments*. Retrieved from: http://www.pewforum.org/2013/11/21/chapter-6-aging-and-quality-of-life/.

Specifically, being able to communicate with others, living without severe pain, and getting enjoyment out of life was identified more important; but, higher in importance to older women than older men.

Life Satisfaction

Life experiences and hardships can challenge an individual yet, offer opportunities to strengthen insight, wisdom, and faith, which can actually promote satisfaction with life. When conceptualized in that way, it is easy to understand why people who experience difficulties, continue to find their lives satisfying and fulfilling. This contrast—a high level of satisfaction with life despite ongoing experiences with loss—is aptly referred to as "the paradox of aging" (Carstensen, Mikels, & Mather, 2006, p. 346).

Being satisfied with one's life also contributes to QOL. Ardelt (1997) explored life satisfaction in old age in terms of wisdom (i.e., an integration of cognitive, reflective and affective elements including an awareness and acceptance of human limitations), which allows an individual to view life with humor, compassion, and detachment. The approach addressed some of the same issues brought forth by critics of Rowe and Kahn's model of successful aging (1997). That is, persons experiencing poor life conditions can still have high levels of life satisfaction. Ardalt's findings ultimately confirmed that participants' level of wisdom explained much of the variability in life satisfaction among older adults.

Well-being

Well-being is another subjective indicator often associated with quality of life. Steptoe, Deaton, and Stone (2015) theorized that well-being included three domains: evaluative well-being (i.e., life satisfaction), hedonic well-being (i.e., happiness, sadness, stress level, pain, anger),

and eudemonic well-being (i.e., sense of purpose and life meaning). In examining how these influence QOL in older adults, they found that in English-speaking countries, life satisfaction levels tended to follow a U-shaped curve, with persons age 45–54 years having the lowest level and younger and older adults enjoying higher levels. Researchers generally agree that low levels of perceived well-being correlate with increased numbers of life stressors (e.g., child-rearing, work, family caregiving), which generally occur during mid-life. Older adults who transition into late life with few life stressors generally report positive levels of well-being.

Summary

The world population is growing and aging, creating new opportunities for healthcare professionals to support people in the second half of life. The large and growing proportion of older adults, offers many opportunities for older individuals and the communities in which they live. Population data confirms that age is only a number and does not directly translate to declining health, poor quality of life, and dissatisfaction with life. Rather, older adults are a heterogeneous group with many members experiencing good health, engaging in productive activities, and maintaining their social connections. Not only do older adults have more time to pursue leisure and enjoyable productive activities, they have the time and inclination to help others as caregivers. Many older adults are also remaining in the workforce, some because they feel financially unable to retire, and others because they genuinely enjoy or appreciate the work. A key factor in allowing older adults to remain vibrant and active is good health, which can be promoted through physical, social, and cognitive engagement. The more healthcare professionals can support positive health gains and supportive environments, the greater the potential is for older adults to live happier, more fulfilling lives.

CASE STUDIES

Case 1: Joram is a 67-year-old man living in a nation torn apart by civil war. Initially, his community wasn't directly affected, and although many people were on edge, their lives remained relatively normal. He worked as a cook in a small local restaurant during the week, and on the weekends he spent time with his 32-year-old daughter, Aya, her husband, and their young children. Before long, war spread to their part of the country and life became more dangerous. Concerned for the well-being of their children, Aya and her husband decided to flee the country. They wanted Joram to join them, but he felt that he would only slow them down, and didn't want to leave the village he had called home all his life. Aya's family managed to escape to a neighboring nation, along with thousands of other refugees fleeing the war. Within months, the population of Joram's village went from several thousand people to just a few hundred, as the war continued to rage on.

1. **How will the loss of so many residents likely impact Joram's village?**
2. **What challenges will the neighboring nation to which Aya and her family fled likely experience as migrants continue to flow in?**

Case 2: Sharon and Karen are twin 65-year-old sisters who were born and raised in Connecticut. Sharon has chronic obstructive pulmonary disease (COPD) as a result of a decades-long smoking habit, and she is married to Paul. Together, Sharon and Paul have a 35-year-old unmarried son who lives in California. Karen and her husband, Joe, work full-time and have three children with whom they are close—a 36-year-old married daughter with 8-year-old twin girls, a 32-year-old divorced son with a 2-year-old daughter, and a single 28-year-old daughter who has gone back to college

and lives with them, along with her 4-year-old son. A few months ago, Sharon and Paul retired and moved to Florida. They talked to Karen and Joe about moving south with them, but they decided not to. Today, Sharon and Paul are enjoying their new life in Florida, and are making the most of the warm weather and new friendships they have developed. The move has been beneficial for Sharon's health, even though she is still limited in what she can physically do. Karen and Joe are happy that they decided not to retire yet, and enjoy filling their days with productive activity alongside coworkers who are also friends. Although they miss one another, Karen and Sharon are both happy with the decisions they made.

1. **Explain why you think Sharon decided to move south to Florida.**
2. **What are some reasons Karen decided to stay in Connecticut?**
3. **Do you think Karen and Sharon are aging successfully? Why or why not?**

TEST YOUR KNOWLEDGE

Review Questions

1. The term _____refers to the length of time a person is alive whereas _____ refers to the level at which a person can perform.
   a. Life expectancy, life span
   b. Chronological age, functional age
   c. Functional age, life expectancy
   d. Life span, chronological age

2. By tracking fertility rates in a region, policy makers and service providers can better predict the needs of a population and prepare for change.
   a. True
   b. False

3. In 2016, adults age 65 and older made up approximately _____ of the U.S. population.
   a. 5%
   b. 15%
   c. 30%
   d. 52%

4. Implementation of the Older Americans Act in 1965 was part of an effort to provide older citizens with free health care and incomes for the remainder of their lives.
   a. True
   b. False

5. The term _____ caregivers applies to workers who are paid to provide care and _____ caregivers refers to people who provide care without compensation.
   a. Informal, formal
   b. Volunteer, respite
   c. Formal, informal
   d. Respite, informal

Learning Activities

1. How is the world population and the population of older adults expected to change in the coming years, and what three factors do demographers look to when predicting the age composition of a population?

2. How does a country's total fertility rate (TFR) change during wartime, and why? How does it change again when wartime ends, and why?
3. Obesity is becoming an epidemic health concern. Why is this particularly important when considering the population of older adults?
4. Imagine that you are the caregiver for an older person with dementia. What types of tasks would you be responsible for in this role?
5. Think about what aging successfully means to you, and what you will need to do in order to become an older adult that has aged successfully. Develop a list of five personal goals or indicators that you can revisit as an older adult to determine if you have aged successfully.

References

Administration on Aging. (2015). *A profile of older Americans*. Administration on Aging, Administration for Community Living, U.S. Department of Health and Human Services. Retrieved from https://www.acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2015-Profile.pdf

American Elder Care Research Organization. (2017). How to Pay for Nursing Home Care / Convalescent Care. Retrieved from https://www.payingforseniorcare.com/longtermcare/paying-for-nursing-homes.html#cost-table

Ardelt, M. (1997). Wisdom and life satisfaction in old age. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 52B*, P15–P27. doi:10.1093/geronb/52B.1.P15

Burtless, G. (2013). *The impact of population aging and delayed retirement on workforce productivity.* (CRR WP#2013-11). Chestnut Hill, MA: Center for Retirement Research.

Carstensen, L. L., Mikels, J. A. & Mather, M. (2006). Aging and the intersection of cognition, motivation, and emotion. In J. E. Birren & K.W. Schaie (Eds.), *Handbook of the psychology of aging* (pp. 343–362). Burlington, MA: Elsevier.

Centers for Disease Control and Prevention. (2017). HIV Basics. Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention. Retrieved from https://www.cdc.gov/hiv/basics/index.html

Central Intelligence Agency. (2016). World Fact Book. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/xx.html

Family Caregiving Alliance. (2016). *Caregiver statistics: Demographics*. Retrieved from https://www.caregiver.org/caregiver-statistics-demographics

Federal Interagency Forum on Aging-Related Statistics. (2016). *Older Americans 2016: Key indicators of well-being.* Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office. Retrieved from https://agingstats.gov/docs/LatestReport/Older-Americans-2016-Key-Indicators-of-WellBeing.pdf

Howe, N., Jackson, R., Nakashima, K. (2007). The aging of Korea: Demographics and retirement policy in the land of the morning calm. Global Aging Initiative (p. 52). Washington, DC: Center for Strategic and International Studies, Global Aging Initiative.

Klassen, T. (2010). South Korea: Ageing tiger. *Global Brief*. Retrieved from http://globalbrief.ca/blog/2010/01/12/south-korea-ageing-tiger/

Molzahn, A. E., Kalfoss, M., Makaroff, K. S., & Skevington, S. M. (2010). Comparing the importance of different aspects of quality of life to older adults across diverse cultures. *Age and Ageing, 40*, 192–199. doi:10.1093/ageing/afq156

Mills, E. J., Bärnighausen, T., & Negin, J. (2012). HIV and aging—preparing for the challenges ahead. *The New England Journal of Medicine, 366*, 1270–1273. doi:10.1056/NEJMp1113643

National Institute on Aging, National Institutes of Health, World Health Organization. (2011). *Global health and aging.* (NIH Publication no. 11-7737). Washington, DC: U.S. Government Printing Office. Retrieved from http://www.who.int/ageing/publications/global_health.pdf

OECD. (2017). *Obesity update 2017*. OECD Health Statistics. Retrieved from https://www.oecd.org/els/health-systems/Obesity-Update-2017.pdf

Pew Research Center. (2013). *Views on end-of-life medical treatments.* Retrieved from http://www.pewforum.org/2013/11/21/chapter-6-aging-and-quality-of-life/

Rowe, J. W., & Kahn, R. L. (1997). Successful aging. *The Gerontologist, 37*(4), 433–440. doi:10.1093/geront/37.4.433

Samper-Ternent, R., & Al Snih, S. (2012). Obesity in older adults: Epidemiology and implications for disability and disease. *Reviews in Clinical Gerontology, 22*(1), 10–34. doi:10.1017/S0959259811000190

Semega, J. L., Fontenot, K. R., & Kollar, M. A. (2017). *Income and poverty in the United States: 2016*. Report Number: P60-259. Washington, DC: U.S. Government Printing Office. Retrieved from https://www.census.gov/library/publications/2017/demo/p60-259.html

Statista. (2017). Median age of the U.S. population 2016, by state. Retrieved from https://www.statista.com/statistics/208048/median-age-of-population-in-the-usa-by-state/

Stepler, R. (2016). *Smaller share of women ages 65 and older are living alone: More are living with spouse or children*. Washington, DC: Pew Research Centers. Retrieved from http://www.pewsocialtrends.org/2016/02/18/smaller-share-of-women-ages-65-and-older-are-living-alone/

Steptoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *The Lancet, 385*(9968), 640–648. doi:10.1016/S0140-6736(13)61489-0

Tamburo, J. (2017). Issues, impacts, and implications of an aging workforce. American Society on Aging. Retrieved from http://www.asaging.org/blog/issues-impacts-and-implications-aging-workforce

Terry, D. F., Sebastiani, P., Andersen, S. L., & Perls, T. T. (2008). Disentangling the roles of disability and morbidity in survival to exceptional old age. *Archives of Internal Medicine, 168*(3), 277–283. doi:10.1001/archinternmed.2007.75

Tumen, S. (2016). The economic impact of Syrian refugees on host countries: Quasi-experimental evidence from Turkey. *American Economic Review, 106*(5), 456–460. doi:10.1257/aer.p20161065

United Nations, Department of Economic and Social Affairs. (2017). *World Population Prospects: The 2017 Revision, Key Findings and Advance Tables*. Working Paper No. ESA/P/WP/248.

United States Government Accountability Office. (2015). Retirement security: Most households approaching retirement have low savings. (GAO-15-419).Washington, DC: U.S. Government Printing Office. Retrieved from https://www.gao.gov/assets/680/670153.pdf

World Health Organization. (2017). Obesity and overweight. Fact Sheet. Retrieved from http://www.who.int/mediacentre/factsheets/fs311/en/

CHAPTER 2

Social Gerontology

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Walter C. Chop, MS, RRT

CHAPTER OUTLINE

BEHAVIORAL OBJECTIVES

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

1. Define gerontology and how it differs from geriatrics.
2. Define ageism and explain why it is harmful to the health and well-being of older adults.
3. Identify and describe some of the social roles adults might hold in later life.
4. Describe the importance and focus of social relationships in late life.
5. Define elder abuse and describe the general characteristics of victims and abusers.
6. Define mandated reporter and describe the signs of potential abuse.
7. Explain why some older adults choose to work in late life.

KEY TERMS

AARP
Activity theory
Adult Protective Services
Ageism
Biopsychosocial
Caregiver
Continuity theory
Convoy of support
Discrimination
Disengagement theory
Elder abuse
Fictive kin
Geriatrics
Gerontology
Grandfamilies
Infantilizing
Long-distance caregiver
Long-term care ombudsmen
Mandatory reporters
Older adults
Older Americans Act (OAA)
Polyvictimization
Sandwich generation
Skip-generation household
Self-neglect
Senior Service America (SSA)
Social roles
Social Security
Stereotypes
Trusted individual

Gerontology

The aging process begins the moment we are born. As we age, our bodies and minds grow, develop, and mature. During childhood, the course of our development is influenced by many factors, including our personal characteristics, our family background, how we are raised, where we grow up, and who raises us. Similarly, our development through adulthood continues to be influenced by our health, attitude, and behaviors and our interactions with family, friends, and the environment around us. Therefore, it is shortsighted to limit discussions about aging to matters of physical health and decline. Aging is a complex process influenced not only by health, but also by many other personal and social factors.

Gerontology is the scientific study of aging that examines the biological, psychological, and sociological (**biopsychosocial**) factors associated with old age and aging. The factors that affect how we age are broad in scope and diverse: biological factors include genetic background and physical health; psychological influences include level of cognition, mental health status, and general well-being; and sociological factors range from personal relationships to the cultures, policies, and infrastructure that organize society.

Although sometimes confused with the term gerontology, **geriatrics** is a medical term for the study, diagnosis, and treatment of diseases and health problems specific to **older adults**. Geriatricians (medical doctors who specialize in geriatrics) increasingly recognize

the importance of social and psychological influences when treating patients. In this chapter, key issues in gerontology are presented to facilitate your understanding about the lifestyles of older adults and how these may influence health status.

In the field of social sciences, the term older adults is used to describe people age 65 years and older and is the preferred term when speaking about older individuals. The term patient is medically oriented and can refer to a person of any age. The term elderly has the social connotation of being white haired and frail. Because many people age 65 and older do not have gray hair and live vibrant healthy lifestyles, the term older adult has a more positive connotation, and therefore is preferred and used in this chapter.

Historical Perspectives on Aging

Throughout history, older adults have been generally valued for the experience, insight, and wisdom they can share with others. Leadership is frequently bestowed upon older adults because of a social belief that wisdom and experience are acquired over time. However, conferring respect and responsibilities to older adults has not been consistent, and tends to occur more in preindustrial or agrarian societies where families are intergenerational and family members are dependent on one another for survival and support. For example, in 2004, hours before a tsunami in the Indian Ocean reached the shore, villagers from small fishing communities followed the leadership of their village elders and fled to safety. The suggestions of the elders were followed because the elders held the respect of the others and possessed the ability to interpret environmental cues that signaled impending danger, cues that were passed down to them from village elders long ago (Associated Press, 2004).

The image of the "wise old person" may be hard for those of us in the West to conceive, but in Eastern and indigenous cultures this is commonplace. West African teacher and author Malidoma Somé relayed the following description: "An elder is a repository for wisdom of the ancestors, the culture and the tribe. He or she is familiar with the various protocols for maintaining relationships with the other world and is keeper of the various 'recipes' that sustain the soul and spirit of the community. When elders are absent there is chaos and instability. The young are in charge but don't know where they are going" (Goodman, 2010, p. 415). Perhaps, we in the West can listen and learn from our elders as these other cultures do.

In industrial societies, older adults are generally less valued than they are in agrarian societies. During the 20th century, as industrialization in the United States expanded, family members became less dependent on each other for support, frequently leaving older adults to manage for themselves, which resulted in many older people living in poverty. In 1964, President Johnson launched the War on Poverty, which fought for institutionalizing civil rights, opportunities, and social services for all poor Americans to help lift them out of poverty. From that initiative, the **Older Americans Act (OAA)** of 1965 was passed into legislation. It specifically included language to address the needs and rights of older adults. The OAA is expected to be reauthorized indefinitely as one piece of legislation that represents the U.S. commitment to promoting the rights and welfare of older adults.

Theories About Aging

Theories are used to guide research and help us make sense of the world around us. By using theory, we can better understand why individual behaviors or actions occur. In the early 1960s, when gerontology was a new field of research, the first psychosocial science theory on aging called **disengagement theory** was

proposed by Cumming and Henry (1961). Guided by their observations of older adults in society, they proposed that older adults recognize that their health and abilities decline over time and their time as industrious citizens is limited before they die. In response, older adults intentionally remove themselves from their **social roles** and responsibilities to allow younger and healthier adults to take their place as productive members in society. At the time it was developed, the theory aligned well with social norms and social expectations of older adults. Society pressured adults to retire from the workplace at a preset age (e.g., mandatory retirement ages) and to relinquish their social responsibilities to younger people. However, the utility of disengagement theory was limited, because it did not it account for differences among individuals and did not accommodate the fact that if social norms were not enforced individuals would be less likely to disengage from life as the theory postulates.

In response to disengagement theory and to develop a better framework for examining old age, Havighurst (1961) attempted to explain aging through the use of **activity theory**. He posited that older adults are happier and healthier when they remain engaged in daily life and social interactions. He also suggested that as opportunities to be active change, older adults simply replace them with new ones to maintain their health and well-being. Although widely accepted as a positive view of aging, critics of activity theory suggest that it discriminates against individuals who do not have the resources to remain engaged or the interest in maintaining an active lifestyle.

The third major psychosocial theory used in gerontology is **continuity theory**. Originally proposed by Maddox (1965), it was further developed by Atchley (1989), who theorized that people remain consistent in how they live their life, manage their relationships, and exhibit their personalities even though they experience changes in their physical, mental, and social status. Continuity theory can be used to help us understand the process by which older adults make decisions throughout adulthood. However, critics of continuity theory suggest it is based upon a healthy, wealthy, and male-oriented social model, and as such does not adequately account for the implicit social constraints placed on women, the chronically ill, or the role of social welfare programs in the lives of impoverished and needy older adults.

Social and behavioral scientists continue to build upon the three core theories to gain a better understanding of aging. Using a biopsychosocial approach, they combine the theoretical frameworks from the fields of psychology, sociology, and biology. They may also examine an issue utilizing a nuanced perspective (e.g., life course, feminist) or lens (e.g., LGBT, immigrant), which can open a window into the experiences and needs of the unique and often hidden populations not identified in other research. Our understanding of social science theories has grown exponentially in the last 50 years and is expected to continue at a fast pace as our aging population grows.

Ageism

How we treat older adults is influenced by many social factors, including our own personal assumptions, expectations, and fears about growing older (Butler, 1969, 2008; Richeson & Shelton, 2006). Fears about aging are often based on our lack of understanding about the aging process. Unfortunately, many people believe that old age means being burdened with or suffering from physical disabilities, poor health, the inability to think clearly and quickly, and possessing a negative outlook on life. These inaccurate assumptions are examples of **ageism**, that is, the systematic labeling and **discrimination** against people who are old.

Ageism is based on **stereotypes**, myths about aging, and language that conjure up negative images of older adults. Ageism is to

old age as racism is to skin color and sexism is to gender. Ageist thinking is detrimental to society and can result in limited opportunities (e.g., employment and workplace discrimination) and reduced access to resources (e.g., healthcare discrimination) for older adults. In its worst form, ageism leads to **elder abuse**, mistreatment, and neglect (Butler, 2008).

Ageist Stereotypes

Ageist comments place older adults into set roles or categories called stereotypes. For example, older adults are sometimes characterized as senile, grumpy, set in their ways and mannerisms, and slow to accept new ideas and learn new skills (**FIGURE 2-1**). Similarly, older adults also may be portrayed as eccentric or overly happy about life, perceiving it as rosy and carefree. When young family members witness ageist stereotyping in their own families and communities, they are likely to engage in ageist practices and thoughts themselves, as it can lead them to believe that older adults are different and perhaps unworthy of respect and kindness. Similarly, older adults who are subjected to ageist stereotyping often begin to accept the stereotypes as true, which consequently compromises their health, well-being, and longevity (Levy, Slade, Kunkel, & Kasl, 2002).

FIGURE 2-1 Most older adults are active, productive, and enjoy their lives.

Ageist attitudes permeate all facets of society, especially when money is involved. Negative connotations about older adults being "greedy geezers" first surfaced in the March 1988 issue of the magazine *The New Republic*. In that issue, older adults were described as wealthy with financial and social advantages, yet eager to siphon public money (e.g., **Social Security**) that should be dedicated to poor and needy children (Tagliareni & Waters, 1995). However, it must be realized that older adults paid into Social Security their entire working lifetime, and thus expect and are owed remuneration. Over the last 50 years, there has been a gradual improvement in attitudes toward older adults in the United States, thanks to greater public education and awareness, the OAA, and increased media attention. This, however, has done little to reverse deep undercurrents that run below the surface of ageism, as some people continue to view older adults as drains on public resources.

Myths About Aging

Older adults are not a homogeneous group. Even though collectively they may represent the same ideals and have shared the same historical experiences, they do not all look, think, or act alike. Older adults are as unique as members in any other group of people. Therefore, making blanket assumptions and generalizations about older adults simply perpetuates myths. The following statements are examples of myths that promote ageism. Although the statements may be accurate for some individuals, they are not true for older adults as a cohesive group (Butler, 2008; Richeson & Shelton, 2006; Palmore, 1990):

Myth 1: Older adults are either very rich or very poor.

Myth 2: Older adults are senile (have defective memory or are disoriented or demented).

Myth 3: Older adults are neither interested in nor have the capacity for sexual relations.

Myth 4: Older adults are miserable and unhappy with the state of their lives.
Myth 5: Older adults are very religious.
Myth 6: Older adults are unable to adapt to change.
Myth 7: Older adults are unable to learn new things.
Myth 8: Older adults generally want to live in nursing homes.
Myth 9: Older adults urinate on their clothing.
Myth 10: Older adults tend to be pretty much alike.

Ageist Language

Ageist language is insensitive to older adults, because it is used without much thought or understanding of how ageist terms hurt and degrade the individual. Some ageist terms include:

Geezer
Hag
Q-tip
Boroi (Japanese slang for old and worn)
Old duffer
Dirty old man
Old coot
Biddy
Fossil
Blue hair/Q tip
Old buck/codger
Old battleax
Little (or dirty) old lady

Ageist phrases used in conversation also disparage older adults:

Over the hill
Old school
Out to pasture
Older than dirt
Gone senile
Set in their ways
One foot in the grave
Ol' man ____ (fill in name)

Ageist Attitudes of Healthcare Professionals

Unfortunately, healthcare professionals are not immune to promoting ageist attitudes when treating their older patients (Alliance for Aging Research, 2003; Simkins, 2007). Providers who view older adult patients sympathetically as "poor old dears," who can do little to care for themselves, are actually placing little value on their patients' abilities. Calling an older patient "honey" or "dear" may be socially acceptable in some cultures, but generally carries a negative connotation. **Infantilizing** older adults by talking to them as if they were children with limited understanding, immature, or weak actually encourages dependency, because it devalues personal autonomy and individuality and does not promote person-centered care.

Other ageist terms used by medical professionals in describing patients in conversation or in medical charts include (Anti-Ageism Task Force, 2006):

"The wheelchair (or the stroke, hip fracture, etc.) in room number. . . ."
MFP (measure for pine box)
VAC (vultures are circling)
Bed blocker
GOMER (get out of my emergency room)
TMB (too many birthdays)

Research has shown that healthcare professionals are significantly more negative in their attitudes toward older patients than they are toward younger patients (Simkins, 2007). Although not appropriate, their negative attitudes can be attributed to several reasons:

- A need to justify why the medical needs of their older patient were not addressed or met.
- Feelings of frustration about not being able to manage the demands of the job.
- Feelings of helplessness due to not being able to save or cure patients' medical problems.
- Increased awareness or reminder of one's own life and mortality.

Awareness is the first step in overcoming an ageist attitude. To avoid making ageist comments and remarks as a healthcare professional, it is important to recognize and explore your personal feelings and attitudes about growing older. Stopping the spread of ageism is everyone's responsibility and starts at home.

Media Stereotyping of Older Adults

The media regularly perpetuate the stereotypes of older adults through inaccurate and sometimes demeaning portrayals of older adults in print, advertising, and entertainment. This is puzzling considering that older adults have the ability to purchase the products supporting the media, and thus should be able to facilitate changing attitudes in the industry. Yet, limited efforts have been made to alter how older adults are depicted. Perhaps, as more members of the baby boom generation reach old age, positive changes will emerge.

The entertainment industry plays a major role in perpetuating stereotypes. More often than not, older adults are portrayed as comical, stubborn, eccentric, and foolish. They are also often depicted as narrow-minded, sickly, poor, sexually dissatisfied, and slow to respond (Hilt & Lipshultz, 2016). Movie scripts tend to feature older adult characters only when they are reclusive (*Finding Forrester*), offer some extraordinary skill (*Space Cowboys*), dying (*The Notebook*), or facing their own mortality (*The Bucket List*). It is uncommon to watch older adult characters on the big screen portraying everyday people (*Return to Me*) in a manner that does not romanticize their lives (*Cocoon*), portray them as behaving comically (*Grumpy Old Men*), or proliferate the expectation that most people will get dementia (*Nebraska, Iris, On Golden Pond*).

Television show scripting is no different. Although we do see older adults on special programming, it is unusual to see a realistic portrayal of an older person on a television show (Hilt & Lipshultz, 2016). Again, this network programming decision is puzzling, considering that television shows are targeted for specific demographic audiences who are apt to buy the sponsors' products. Older adults watch television more than any other age group and generally have the discretionary income to buy the products advertised during commercials (Hilt & Lipshultz, 2016). Yet, limited efforts have been made to accurately depict the lives of older adults on television, with the exception of selected actors such as Jane Fonda, Lily Tomlin, Judi Dench, Betty White, Maggie Smith, and a few noteworthy others.

Print and television advertisements also tend to portray older adults at their worst—when they have some kind of physical ailment or have the desire to look and feel younger. We see older actors in commercials for laxatives, skin moisturizers, gas elimination medications, analgesics, and hair coloring products, just to name a few. This would not be as detrimental to the image of the older adult if we also saw older adults in other types of commercials advertising general use products.

Social Roles in the Second Half of Life

Social roles are useful in identifying, defining, and validating each member of a society. A social role not only defines a position, but also supports social norms and expectations that dictate behaviors and attitudes within social groups such as families, workplaces, and communities. Some social roles remain with us throughout our lives (e.g., friend, cousin, daughter), whereas other roles change or transform as new levels of accomplishment or development are reached. For example, a person may transition from being a student to a teacher or from a worker to a retiree. In late life, social roles are more apt to remain constant (e.g., neighbor, club member, and community resident); however, the level of participation in those roles may fluctuate as changes in health, finances, and mobility occur. Nonetheless, older adults continue to participate in many of their social roles, even when faced with diminished capacities and capabilities (Ferraro, 2001). Three new roles often taken on in the second half of life include retiree, grandparent, and **caregiver**.

Retiree

For many retirees, adjusting to changes in social role and status that accompany leaving the workforce can be difficult. When they were employed, they were granted a status that provided them with respect and support from their colleagues, friends, and acquaintances. However, transitioning from a position of daily recognition and involvement to one with limited recognition and possible isolation from other individuals can be psychologically difficult (Wang, 2007). Although no single solution exists for making the social adjustment into retirement, it can be made easier with planning and preparation. Retirement planning advisors strongly suggest that in addition to financial planning, older workers plan their retirement routines, hobbies, habits, and social interactions, so that they can remain engaged and socially connected, which will enhance their quality of life. Additional information about retirement planning is provided in this chapter under the heading Employment and Civic Engagement.

Grandparent

Grandparenting is a social role that many adults look forward to once their children leave home and establish their own lives. Because people are living longer, it is not uncommon for older adults to take on the role of great-grandparent or even great-great-grandparent. The U.S. Census Bureau estimated that approximately one in four adults in the United States were grandparents in 2010 (MetLife Mature Market Institute, 2011).

Grandparents generally welcome interactions with their grandchildren as a chance to relive their early years without balancing the stresses and responsibilities of caring for their own children the first time around. Grandparenting also offers them the possibility for sharing their wisdom and lived experiences with their grandchildren. A new grandchild can also be like a booster shot for some older couples, reawakening early days of marriage and the enthusiasm of early parenting (Berkman & Breslow, 1983).

Not surprisingly, the role of a grandparent is as varied as any other social role. Grandparents share multiple roles and responsibilities within families, and as such can be described as one of five distinct types (Neugarten & Weinstein, 1964):

- Distance figures (live far away and visit infrequently)
- Fun seekers (provide and engage in exciting opportunities)
- Surrogate parents (take on a parenting role)
- Formal (as patriarch or matriarch of the family)
- Reservoirs of family wisdom (sources of knowledge and expertise)

Yet, the role of a grandparent is not static. The role of a grandparent today needs to be responsive to the needs of the extended family. In the United States, one of the most important roles of a grandparent is that of a caregiver (**FIGURE 2-2**). Grandparents can support grandchildren in the broadest sense by providing child care, paying educational costs, and sometimes providing the deposit for large expenses such as a new house. The toy industry, especially, likes grandparents because they purchase approximately

FIGURE 2-2 Grandparents often take on a surrogate parent role.