Teague • Mackenzie • Rosenthal

Your Health Today
Choices in a Changing Society

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Your Health Today
Choices in a Changing Society

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YOUR HEALTH TODAY: CHOICES IN A CHANGING SOCIETY, SIXTH EDITION

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Dear Readers,

The story of this book began 12 years ago when three friends—a health educator, a family physician, and a family therapist—had a conversation about their beliefs about teaching health. While our clinical and academic paths differed, we found that we shared a fundamental belief that, while the individual plays a role in the wellness process, society has a responsibility to promote the well-being of all individuals. Many personal health books at the time focused on personal responsibility for health. While it is indeed a major part of health, we wanted to emphasize a model where individuals make health decisions within the context of their relationships, cultures, communities, policies, and physical surroundings. What eventually came of that conversation was the decision to create a book that emphasizes putting personal health in context.

Since we started working on the first edition of what became *Your Health Today,* we have visited health educators across the county and learned from their many different approaches to teaching personal health. We have tried to incorporate a range of those strategies and resources into our revisions and our own personal health courses.

Like instructors who use our book, we too have been challenged through the years by the dynamic nature of health. The world is changing—interpersonally, financially, politically, and environmentally—so, what does that mean to personal health? How do students of the 21st century learn best, and where does their current understanding of personal health come from? What will be the health priorities of the future? What skills will today's students need 20 years from now to maintain a healthy lifestyle? Examining history and our own beliefs about those questions encouraged us to incorporate several health topics that are not traditionally covered (or covered only briefly) in other personal health books. As learners, we also believe that today's students generally do not need to memorize facts so much as learn how to access and assess health information, critically consider implications, and respond. In essence, our program fills the need for an approach to personal health that balances individual and cultural responsibility.

Our mission and passion for this endeavor has remained true years later. We continue to learn how to create small change in personal, professional, and community lives in an attempt to improve the health outcomes for all future generations. We hope that the sixth edition will challenge students to think of themselves as agents of change. Students can make personal changes in lifestyle behaviors that affect their own health, and they can also influence communities to make changes in response to social, political, and economic factors that affect the health of broader segments of the population.

Michael Teague
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Features of Your Health Today

Your Health Today teaches personal health from a truly inclusive and socially responsible perspective. While each of us has a unique set of individual characteristics that shape our health, environmental factors have an impact on our well-being, too. *Your Health Today* incorporates the individual, interpersonal, and broader social factors that affect our health, acting as a guide for healthy living in college and beyond.

The student-focused features in the sixth edition of *Your Health Today* highlight current topics, illustrate concepts with new photos and graphs, and invite dialogues among personal health students. These features serve as entry points to classroom discussion, critical thought, and practical application of health concepts to students' lives. Many also have accompanying assignable online activities within Connect.

Action Skill-Builders present manageable first steps in making meaningful behavior changes and show that a small change can make a big difference. Topics include improving body image, getting a better night's sleep, and overcoming barriers to physical activity.

Consumer Clipboards show students how to weigh information, evaluate product claims, and make savvy health-related choices in a world full of misinformation and gimmicks. Topics include developing media literacy in relation to body image, how to evaluate health information online, and how to select a pair of running shoes.

Public Health Is Personal boxes highlight the institutions of health and show how policies that might seem remote—free public early childhood education, community-sponsored needle-exchange programs, or the taxation of unhealthy foods—can have a profound impact on students' individual health choices and priorities.

Who's at Risk? boxes highlight data that show health outcomes and trends among diverse groups of people: for example, drinking problems by gender, obesity levels by region and ethnicity, or illicit drug use by geographical region. Featuring graphs and visuals, these boxes invite students to think about and discuss the reasons for these trends in an informed way.

Life Stories boxes feature lively and relatable stories that personalize chapter concepts and show how topics play out in real life. Among the topics covered are cohabitation, unintended pregnancy, exercise addiction, eating disorders, and sexual assault.

Starting the Conversation boxes are designed to invite meaningful classroom discussion. Each box poses a question, presents information to inform the discussion, and ends with two critical thinking questions. Topics in the sixth edition include the role of voting in affecting public policy, free condom distribution on college campuses, and lowering the legal limit for driving under the influence.

You Make the Call features present the facts behind a contentious social issue, followed by the pros and cons of two opposing positions. Topics include marijuana legalization, vaccination requirements for college students, mandatory calorie counts on menus, and digital connectivity.

Personal Health Portfolio self-assessment activities that can be completed on paper or online guide students in exploring their personal health strengths and challenges. Activities include assessments of heart health and body image and evaluation of current physical activity, diet, and sleep habits. Students are able to see how their own family history, community, and culture affect their personal health decisions.

Chapter-by-Chapter Changes—Informed by Student Data

Changes to the sixth edition include new research findings, updated statistics, and current hot topics that affect students' health choices and challenges. Revisions to the sixth edition were also guided by student performance data anonymously collected from the thousands of students who have used Learn-Smart with *Your Health Today.* Because virtually every text paragraph is tied to several questions that students answer while using LearnSmart, the specific concepts with which students are having the most difficulty can be pinpointed through empirical data.

Chapter 1: Self, Family, and Community
- The chapter has been reorganized so that the discussion of health disparities immediately follows the presentation of the socioecological model at the beginning of the chapter. "Your Health in Context" is then followed by "Your Health and Your Community's Health," which discusses public health. Next is "Your Personal Health Choices" about behavioral choices and stages of change. "Your Health and Your Family History," about heredity and creating a family health tree, is now the last section of the chapter.
- Updated discussion of health disparities, with international comparison.
- New figure clarifying the stages of change.

Chapter 2: Mental Health and Stress
- Expanded discussion of the developing adolescent brain.
- New discussion of neurodevelopmental disorders, such as ADHD and the autism spectrum.
- Updated and expanded discussion of PTSD.

Chapter 3: Social Connections
- Updated discussion of gay and lesbian partnerships to reflect the Supreme Court decision legalizing gay marriage.
- Updated "Who's at Risk" box now looks at divorce rates not only by ethnicity, but also by gender and education.
- New "Starting the Conversation" box addresses voting as a way to influence public policy.

Chapter 4: Sleep
- Expanded discussion of the physiological effects of sleep and sleep deprivation on the brain.
- "Taking a Break from Technology" provides a greatly expanded discussion about the effects of using screen technologies close to bedtime and suggestions for filtering out sleep-impeding blue light.
- A new "Life Stories" box illustrates sleep-wake disorder.
- New coverage addresses sleep apps, including a new "Consumer Clipboard" box about sleep trackers.

Chapter 5: Nutrition
- The chapter has been updated throughout to reflect the *2015–2020 Dietary Guidelines for Americans.*
- A new discussion addresses types of sugars.
- Expanded coverage of the health effects of soft drinks.
- A new "Action Skill-Builder" box looks at enhanced-protein bars and shakes.
- A new "Public Health Is Personal" box asks readers to consider whether unhealthy foods should be taxed.
- A new "You Make the Call" box explores the pros and cons of menu labeling.

Chapter 6: Fitness
- The "Who's at Risk" box now looks at the percentages of college students meeting aerobic-activity recommendations.
- Expanded coverage of the cognitive benefits of exercise.
- Expanded discussion of body composition in terms of body fat and lean body mass.
- New discussion, "Falling Out of Shape," on how the consequences of skipping workouts for a week or more.
- New discussion on getting the most from cardio exercise equipment.
- New discussion of fitness trends.
- Stress fractures discussion added to "Soft-Tissue and Overuse Injuries."

Chapter 7: Body Weight and Body Composition
- Updated and expanded discussion of genes' multifactorial effect on BMI and obesity.
- Revised approach to types of diets that emphasizes critical thinking about characteristics of different types of diets and individual dieting goals.
- New socioecological discussion about achieving a healthy body weight, "Evaluate the Support and Obstacles in Your Environment."
- New "Public Health Is Personal" box about walkable communities.

Chapter 8: Body Image

- Updated and expanded discussion of effects of puberty on body image.

- Revised figure of eating-disorder continuum identifying risk and resiliency factors.

- Differentiation between disordered eating and eating disorders.

Chapter 9: Alcohol and Tobacco

- Flavored alcohol and powdered alcohol added to discussion of drinking on college campuses.

- New socioecological figure of the NIAAA's 3-in-1 Framework for addressing college drinking.

- New "Starting the Conversation" box about lowering the legal BAC limit for driving under the influence.

- Updated discussion of e-cigarettes.

- New "Public Health Is Personal" box about raising the minimum age for buying tobacco products.

- New "You Make the Call" box and e-cigarettes and campus tobacco-free policies.

Chapter 10: Drugs

- Updated "Commonly Abused Drugs" table.

- Addition of synthetic cannabinoids to "Emerging Drugs of Abuse."

- Updated discussion of marijuana legalization.

Chapter 11: Sexual Health

- New discussion of pros and cons of circumcision.

- Clarified difference between atypical sexual behaviors and paraphilias.

- New discussion of sexual discrepancy.

- New discussion of Addyi, the "female Viagra."

- New coverage of pre-exposure prophylaxis (PrEP).

- New "Public Health Is Personal" box about the Gates Foundation's challenge to scientists to develop a new generation of condoms.

- New discussion and "Starting the Conversation" box about condom accessibility on college campuses.

- New "You Make the Call" box about sex technology and human interaction.

Chapter 12: Reproductive Choices

- The "Starting the Conversation" box now covers LARCs rather than just IUDs.

- Updated discussion of emergency contraception.

Chapter 13: Infectious Diseases

- Updated discussion of food-related pathogens, including the outbreaks at Chipotle restaurants.

- New "Starting the Conversation" box about the Zika virus and the risk for pregnant women.

- Updated figure about adult immunization schedule.

- Updated, expanded discussion of antibiotic resistance in both the chapter and the "Public Health Is Personal" box.

- Updated discussion of HIV testing.

- Updated screening recommendations for bacterial STIs.

- Updated discussions of viral STIs.

Chapter 14: Cardiovascular Disease, Diabetes, and Chronic Lung Diseases

- Updated discussion of aspirin therapy in "Consumer Clipboard" box.

- "Promoting Cardiovascular Health" reorganized into health behaviors, major measurable factors (e.g., blood pressure, cholesterol), and contributing factors (e.g., triglycerides, sleep, socioeconomic status, age).

- Expanded discussion of types of tests for heart disease.

- Expanded discussion of prevention of diabetes.

- New table comparing chronic lung diseases.

Chapter 15: Cancer

- The "Cancer Screening" section includes a new "Public Health Is Personal" box about research-based changes in screening recommendations, including self-exams for breast cancer and age for mammograms, self-exams for testicular cancer, and age for Pap tests.

- The discussion of each type of cancer now includes "Risk Factors," "Signs and Symptoms," "Screening and Detection," and "Treatment." The chapter has been reorganized so that risk factors, screening, and treatment are discussed in general before the specific types of cancers are presented.

Chapter 16: Injury and Violence

- New discussion of black boxes in cars.

- Updated coverage of motorcycle and bicycle safety and the effect of helmets.

- New discussion of recreational use of drones and the move toward regulations.

- Expanded discussion of concussions and traumatic brain injuries.

- Expanded and updated discussion of sexual violence on campuses, including affirmative consent, a new "Who's at Risk" box and a new "You Make the Call" box.

- New discussion of cyberharassment and cyberbullying.

SUPPLEMENTAL E-BOOK CHAPTERS AVAILABLE IN CONNECT

Chapter 17: Complementary and Integrative Medicine

- Revision throughout chapter to reflect the National Center for Complementary and Alternative Medicine's name change to the National Center for Complementary and Integrative Health; *Complementary and alternative medicine* (CAM) is no longer a current term.

- Reorganization of the chapter so that the two aspects of complementary medicine—natural products and mind and body practices—are followed by the discussion of alternative medical systems

Chapter 18: Environmental Issues

- Expanded discussion of potential solutions for water shortages.

- Updated coverage of the international climate change conferences to include the Paris conference in late 2015.

- Expanded coverage of e-waste disposal.

- New discussion of biodegradable alternatives to plastic.

- New "Starting the Conversation" box about the risks of nuclear power.

- New "You Make the Call" box about whether the United States should use offshore and onshore drilling to become energy independent.

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Instructor Resources

Instructor resources available through Connect for *Your Health Today* include a Course Integrator Guide, Test Bank, Image Bank, and PowerPoint presentations for each chapter

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Self, Family, and Community

Ever Wonder...

- why it's so hard to break a bad habit?
- how much your parents' health predicts your own?
- how your neighborhood influences your health?

As individuals, we are all responsible for our own health. Each of us makes choices about how we live—about whether to be physically active, whether to eat a healthy diet, whether to get enough sleep, whether to see a doctor when we need to. And yet to talk about health only as a matter of individual choice assumes that we are always aware of the choices we are making and that we are always "free" to make them. The truth is that there are differences in how we live and the contexts in which we make decisions.

In this book, we explore personal health within the context of our social, cultural, and physical environment. We recognize that individuals are ultimately responsible for their own health, but we also know that people make healthier choices when their environment supports those choices. Our goal is to challenge and empower individuals to enact personal and collective change to improve health.

YOUR HEALTH IN CONTEXT

To begin, we consider the difference between the terms *health* and *wellness,* and then we explore the personal and environmental factors that shape and influence our personal health.

health
State of complete physical, mental, social, and spiritual well-being.

wellness
Process of adopting patterns of behavior that can lead to improved health and heightened life satisfaction; wellness has several domains and can be conceptualized as a continuum.

Health and Wellness

Traditionally, people were considered "healthy" if they did not have symptoms of disease. In 1947, the World Health Organization (WHO) broke new ground with its positive definition of **health** as a state of complete physical, mental, and social well-being, not merely the absence of disease and infirmity. *Physical health* refers to the biological integrity of the individual. *Mental health* includes emotional and intellectual capabilities, or the individual's subjective sense of well-being. *Social health* means the ability of the individual to interact effectively with other people and the social environment.[1]

More recently, a *spiritual domain* has been added to the WHO definition, reflecting the idea that people's value systems or beliefs have an impact on their overall health. Spiritual health does not require participation in a particular organized religion but suggests a belief in (or a search for) some type of greater or higher power that gives meaning and purpose to life. Spiritual health involves a connectedness to self, to significant others, and to the community.

Wellness is a slightly different concept from health. It is generally defined as an active process of adopting patterns of behavior that can lead to improved health and heightened life satisfaction. Like health, wellness encompasses multiple dimensions (note that wellness includes more dimensions than health does):

- Physical
- Emotional
- Intellectual
- Spiritual
- Interpersonal or social
- Environmental
- Occupational

Wellness may also be conceptualized as a continuum. At one end is extreme illness and premature death; at the other is wellness and optimal health (see Figure 1.1). Historically, Western medicine has focused on the illness side of the continuum, treating people with symptoms of disease. More recently, approaches to health have focused on the wellness side of the continuum, seeking ways to help people live their lives fully, with vitality and meaning. For example, in the approach called *salutogenesis,* individuals (or communities) are encouraged to assess their current situation, culture, life stress, and assets in order to find reasons to move in a health-promoting direction, and then develop the capacity to do it.[2]

How do you know if you are healthy? Does your body physically do what you want it to do? Can you actively participate in daily life? Are your physical needs for food and shelter met? Do you awake feeling rested? Mentally

| Premature death | Terminal illness | Chronic disease | Minor illness | Physical, mental, social, and spiritual health | Sense of vitality | Wellness |

figure 1.1   **The wellness continuum.**
Source: Adapted from "Definition of Health Promotion," by M. P. O'Donnell, *American Journal of Health Promotion, 1* (5), premier issue, 1986.

The answers to these kinds of questions depend not only on your personal health decisions, but also on the context in which you live your life. Your environment can promote or deter your capacity for good health.

The Socioecological Model of Health and Wellness

Although there are many theories about health behavior and decision making, one of the most useful is the **socioecological model of health and wellness**. As shown in Figure 1.2, the model addresses the interrelationships between individuals and their environment, taking into account all the factors that influence individuals' choices. It recognizes that we each have a unique set of characteristics—our genetics, age, and sex, along with our knowledge, beliefs, values, and skills—that guide our decisions about how to live our life. We also live within an environment, which in this model is defined very broadly as anything external to us. The environment encompasses our relationships with other people, our community's resources, the physical and built environment, and public policies that

socioecological model of health and wellness
A framework that recognizes the inter-relationship between individuals and their environment; emphasizes that where we live, work, and play strongly influences our health.

■ Qualities associated with wellness include self-confidence, optimism, a sense of humor, an active mind, vitality, and joy in life. (© Stockbyte/PlctureQuest)

sharp? Calm and peaceful? Do you have a network of supportive family, friends, and colleagues? Are you active in your community? Does your life have meaning and purpose? Answers to these questions can help guide your sense of personal health and well-being and suggest areas of focus.

figure 1.2   **The socioecological model of health and wellness.**
Our health is shaped both by our unique set of individual characteristics and the context in which we live. (© BJI/Blue Jean Images/Getty Images)
Source: Adapted from *Health in All Policies: A Guide for State and Local Governments* by L. Rudolph, J. Caplan, K. Ben-Moshe, and L. Dillon, 2013, Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute.

affect each of these. Our communities create a context with norms, values, opportunities, and sanctions.

According to the socioecological model, friends, family, community norms, economic, social, and public policy, and even global events affect your health opportunities. In addition, societies' practices can shape your environment in ways that increase or decrease your opportunities for making healthy or unhealthy choices. For example, if your neighborhood has sidewalks and safe parks, you are more likely to get out and walk. The complex external factors that influence an individual's and a population's health are known as the **social determinants of health**. This term highlights the fact that the conditions in which you are born, grow, live, work, and age influence the options you have and the choices you make. Social determinants of health include income, socioeconomic status, educational attainment, literacy, employment status, working conditions, housing, transportation, social support networks, and access to health care services.[3–5]

Your health is also affected by your physical environment. Factors in the *built* physical environment—such as kinds of housing, streets, schools, and sanitation and transportation systems—and factors in the *natural* physical environment—such as air and water quality, proximity to environmental hazards, and access to parks and natural settings—all affect your health.

How does the socioecological model play out in your life? As an example, let's say you decide you want to have a healthier diet. What influences your ability to achieve this goal, according to the socioecological model? First, consider your knowledge, attitudes, and skills—knowledge about what constitutes a healthy diet, attitudes toward different foods and diets, and cooking skills. In addition, depending on your genetic predisposition, age, and health conditions, you may need to pay attention to certain components of your diet, such as salt if you have high blood pressure.

Next, consider how your family, friends, coworkers, and peers influence your eating patterns. As you were growing up, you became familiar with the foods your family ate. In turn, your family's food preferences were influenced by their cultural background and geographic location. You may still prefer those foods. Your friends may like to eat out at fast-food restaurants, and you may go with them. Or your friends may be vegetarian, so you find yourself eating more vegetarian foods. If your friends are overweight or if they gain weight, it's likely that you will find weight gain more acceptable for yourself.[6,7]

social determinants of health
Societal conditions that affect health and can potentially be altered by social and health policies and programs.

demographics
The statistical characteristics of a population in terms of such categories as age, gender, ethnicity and race, income, disability, geographical location, migration patterns.

population health
The health outcomes of a group of individuals, including the distribution of those outcomes within the group.

Your decisions about what to eat also take place in the context of where you live, work, learn, and play. Your dining hall may have unlimited soda refills and fried foods, or your church may serve donuts after services. In your community, you may have opportunities to buy local fresh fruits and vegetables, or the corner store may have only candy and liquor. Your income can also significantly affect your diet because fast foods and packaged and processed foods are less expensive than fresh fruits, vegetables, meats, and nuts. Finally, local, state, and national laws influence the safety of the food you eat, its nutritional labeling, and its cost. When all these factors are taken into account, it is clear that a healthy diet is not just a matter of your individual choices—though the choices you make within the context of your environment are critical. Promoting healthful eating options in your community can also help you have a healthy diet.

Population Health

How long on average can you expect to live? **Demographics**, statistical data about populations or groups of people, allow us to start answering this question. In the United States, the average life span increased from 47 years in 1900 to 78.8 years in 2013.[8] You may be pleased about this trend. However, if you compare the average U.S. life span to that of other countries, you may be surprised. Life expectancy has increased faster in other developed countries, and we have fallen behind. If there had been a Health Olympics 2014, the United States would have placed 35th for life expectancy, behind most other developed countries (Figure 1.3). In order to address this growing disadvantage, we must recognize population differences and consider how they affect health.

Population health involves looking at health outcomes in or between groups of individuals.[5,9] The population (or group of individuals) of interest might be college students or racial/ethnic groups in the United States or urban and rural populations within a country or people living in different countries. Other demographics that researchers consider include gender, age, sexual orientation, ability or disability, educational attainment, socioeconomic status, and geographical location. As an individual, you belong to many different populations, and your choices and decisions are influenced by and influence their health. Measuring differences in health outcomes between populations allows us to document and investigate why health gains are not equally shared.

Health Disparities

Over the past 100 years, advances in medical technology, living conditions, and environmental protections have produced significant health gains around the world. These advances, however, have not produced equal health benefits for all. Health disparities result from systemic and avoidable social and economic practices and policies that create barriers to opportunity for some groups. We can look at health disparities according to many different demographics, including gender, sexual orientation, and educational

Health Olympics 2014

UN human development report 2014
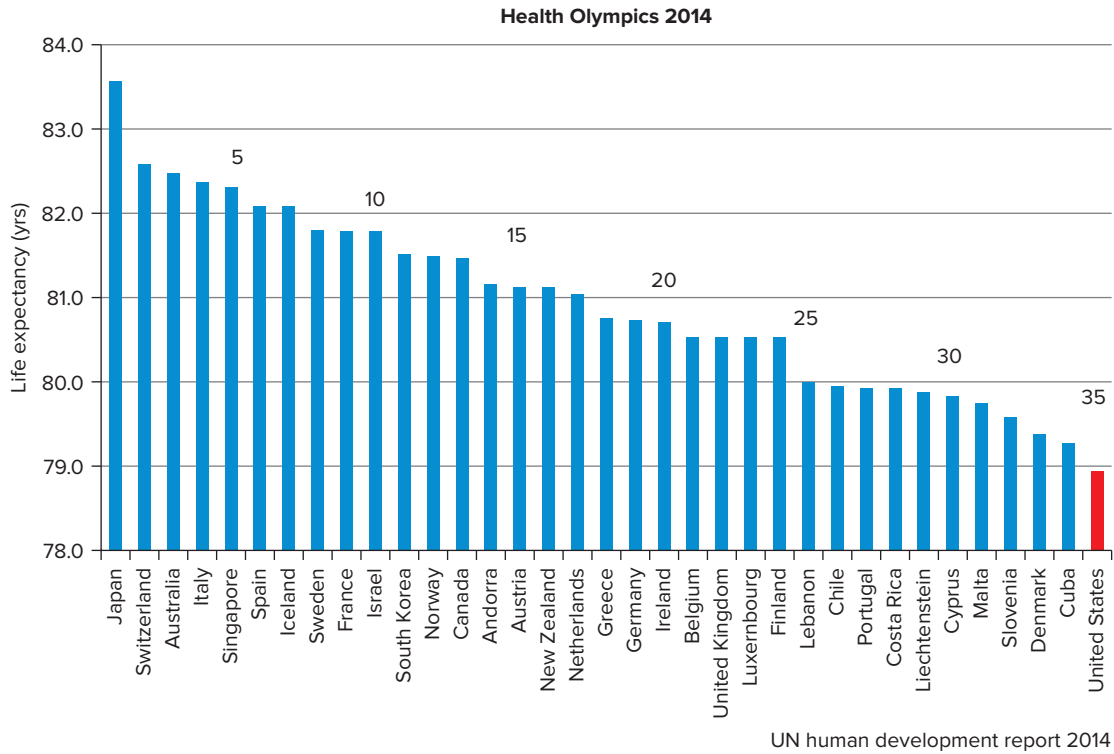
figure 1.3   **Health Olympics 2014, life expectancy in 35 countries.**
Source: Population Health Forum, by School of Public Health, University of Washington, http://depts.washington.edu/eqhlth/ (based on Human Development Report 2015, by United Nations Development Program, Table 1, http://hdr.undp.org/sites/default/files/hdr_2015_statistical_annex.pdf).

attainment. Here, let's consider the demographics of geography, ethnicity and race, socioeconomic status, and age.

Geography Life expectancy is not the only measure in which the United States has fallen behind peer countries. In comparison to 16 other high-income countries (Australia, Austria, Canada, Denmark, Finland, France, Germany, Italy, Japan, Norway, Portugal, Spain, Sweden, Switzerland, the Netherlands, and the United Kingdom):

- U.S. children are more likely to die at birth and less likely to live to age 5.

- U.S. adolescents are more likely to die from homicide and motor vehicle crashes and have higher rates of unplanned pregnancy and sexually transmitted infections.

- Americans lose more years to alcohol and drug addiction.

- U.S. adults have the highest rates of obesity and diabetes.

Overall, Americans have the lowest probability of surviving to age 50 among these peer countries. If they do survive to age 50, they have higher rates of lung disease, cardiovascular disease, and disability.[10]

Within the United States, there are also health disparities. The southeastern states have the lowest life expectancy and higher rates of obesity, diabetes, and other chronic diseases. People in urban areas have two years longer life expectancy than people in rural areas. Rural areas have higher rates of tobacco use, unemployment, heart disease, and lung

cancer.[11] Approximately 82 percent of the U.S. population now live in urban centers. But since 2000, the Hispanic population has grown in nonmetropolitan areas, and immigrants in general are dispersing throughout rural areas. Speaking English as a second language may further amplify health disparities. Analysis by zip code also shows significant differences. Neighboring residential areas differ in opportunities for employment, education, safety, and public service.[11]

Ethnicity and Race The United States has always been a melting pot of different races and ethnic groups, and it will become even more diverse as the 21st century unfolds. Immigration currently accounts for approximately 50 percent of growth in the United States. According to the U.S. Census Bureau, the primary racial/ethnic groups in the country are Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, and White. Hispanic origin is treated as a separate category because people of Hispanic origin may be of any race or ethnic group. Within each group, there is tremendous diversity: Asian Americans, for example, include people from China, Japan, Korea, Vietnam, Laos, Cambodia, the Philippines, and many other countries. In 2014, approximately 38 percent of the population consisted of members of racial or ethnic minority groups. In Hawaii, California, New Mexico, Texas, the District of Columbia, and other cities, minorities are the new majority—that is, non-Hispanic Whites now make up less than 50 percent of the population.[12]

Who's at Risk?

Variations in Causes of Death Among Americans

Causes of death for Americans vary across racial/ethnic groups and gender. Here are a few examples:

- The rates of premature death (death before age 75) from **stroke and coronary heart disease** were higher among non-Hispanic Blacks than among Whites.

- Rates from **drug-induced deaths** were highest among American Indian/Alaska Natives and non-Hispanic Whites.

- The **infant mortality** rate for non-Hispanic Black women was more than double that for non-Hispanic White women in 2005 and 2008.

- In 2009, **homicide** rates were 263 percent higher among males than females and 665 percent higher among non-Hispanic Blacks than among non-Hispanic Whites. Homicide

rates for American Indian/Alaska Natives and Hispanics also far exceeded those of non-Hispanic Whites.

- The **motor vehicle–related death** rate for men is approximately 2.5 times that for women, and 2–5 times higher for American Indian/Alaska Natives than for other races/ethnicities.

- **Suicide** rates were higher for non-Hispanic Whites and American Indian/Alaska Natives compared with non-Hispanic Blacks, Asian/Pacific Islanders, and people of Hispanic ethnicity.

Can you hypothesize factors that may be contributing to these differences? What social, economic, or cultural components may be involved?

Source: CDC Health Disparities and Inequalities Report—U.S. 2013, MMWR Supplement 62 (3), November 22, 2013.

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ethnicity
The sense of identity an individual draws from national, religious, tribal, language, and cultural origins.

race
Term used in the social sciences to describe ethnic groups based on physical characteristics; race does not exist as a biological reality.

Ethnicity refers to the sense of identity individuals draw from a common ancestry, as well as from common national, religious, tribal, language, and cultural origins. Ethnic identity nurtures a sense of social belonging, helping to shape how we think, feel, and behave both within and outside our group. Ethnicity is often confused with **race**, a term used to describe ethnic groups based on physical characteristics such as skin color or facial features. Although classifying people by race has been a common practice, the fact is that biologically distinct and separate races do not exist within the human species. Genetic traits are inherited individually, not in groups, or "races." Thus, it is more accurate to view race as a social category rather than a biological one and to think of similarities or differences among people as a matter of culture or ethnicity.

When we look at rates of illness and death for ethnic and racial minority populations, we clearly see that health improvements are not shared equally. For example, in the United States, Whites at birth have a life expectancy of 79.1 years and Blacks have a life expectancy of 75.5 years. Many minorities have higher rates of cancer, diabetes, cardiovascular disease, infant

mortality, alcoholism, drug abuse, unintentional injury, and premature death than the general population does (see the box, "Variations in Causes of Death Among Americans"). Many also have significantly higher lifestyle risk factors, such as high-fat diets, lack of exercise, and more exposure to carcinogens and other environmental toxins.[10,11]

Socioeconomic Status Complicating, or perhaps explaining, geographic and racial/ethnic differences is socioeconomic status. It has possibly the most significant impact on health outcomes, with poorer health status associated with

Health disparities between racial and ethnic groups are largely attributable to social and economic conditions. A poor neighborhood does not provide the same opportunities for a healthy life as a more affluent neighborhood. *(© Comstock Images/Getty Images)*

low socioeconomic status. This is particularly disconcerting in the United States because we are experiencing increasing income inequality. Poverty creates a vicious cycle as it limits access to education, job opportunities, safe housing, food, and transportation. Low socioeconomic status leaves people more vulnerable if something goes wrong. For example, unexpected medical expenses contribute to economic hardship and remain a leading cause of bankruptcy in the United States.[10,13]

Age A life-course approach to health is important as our health trajectory plays out over our life span and even across generations. Because higher rates of chronic illness are expected in older populations in comparison to younger populations, awareness of the age distribution in a population is important to health and community planning. If we look at the overall leading causes of death for all ages, we see that the major health concerns are chronic diseases—heart disease, cancer, stroke, diabetes, chronic respiratory diseases—and the lifestyle behaviors that contribute to them. The overall makeup of the U.S. population is changing in terms of age. With the baby boomer generation (those born between 1946 and 1964) reaching retirement age, the nation is aging. This profile places complex new pressures on society and the economy as the number of people in retirement facilities increases quickly while the number of people in the workforce decreases.

In consideration of the relationship between age and health, perhaps the more important concept in a life course approach is recognizing that there are critical phases in your life in which healthy or harmful environments have the potential for a greater impact. The United States has more children growing up in poverty and less social mobility than our peer countries. Poverty and stress during early childhood lead to adverse events over a life span. Children raised in poverty experience higher rates of poor nutrition, greater exposure to toxins, and less educational opportunity. Adolescence is another critical transitional period as completion of high school, college education, and healthy behaviors can improve life course trajectory.[10]

YOUR HEALTH AND YOUR COMMUNITY'S HEALTH

Because this is a personal health book, we will be focusing on the personal, but we also will look at how environmental factors affect your personal choices and actions. Your community influences you, and you will have opportunities to influence aspects of your community. Responsibility for health and wellness extends beyond the individual to public health policies.

Public Health

Your health is inherently linked to the health of the people around you. **Public health** is a discipline that focuses on the health of populations of people (whereas the discipline of medicine focuses on the health of individuals). Public health efforts include both health promotion and disease prevention. **Health promotion** focuses on actions designed to maintain a current health state or encourage a more desirable state of health (such as campaigns to promote physical activity). **Disease prevention** focuses on defensive actions to ward off specific diseases and their consequences (such as food and water safety standards or flu shot campaigns). Public health measures can improve the health of populations through education, engineering, and enforcement (see the box, "What Is Public Health?"). Public health initiatives must balance the needs and rights of individuals against the needs and rights of other members of the population.

Community Health

Public health agencies are often part of the national governments (one responsibility of government is to ensure the safety of society). In the United States, nationwide government-sponsored public health initiatives are conducted by the Public Health Service, led by the Surgeon General and the Centers for Disease Control and Prevention (CDC)

public health
The study and practice of health promotion and disease prevention at the population level.

health promotion
Public health–related actions designed to maintain a current healthy state or advance to a more desirable state.

disease prevention
Public health–related actions designed to ward off or protect against specific diseases.

■ Natural disasters affect whole populations. Forest fires can necessitate the evacuation of entire communities. Caring for their needs falls into the domain of public health. *(© Elmer Frederick Fischer/Corbis)*

Public Health Is Personal

What Is Public Health?

The benefits of public health are all around you, reducing your risk for disease and injury and helping you live a healthier life.

When you get up in the morning, you brush your teeth with the water from your tap. You don't have to worry about contracting an infectious disease because tap water in the United States is safe to drink and presents a minimal risk of infectious disease. You have had fewer cavities and dental problems than people did a century ago because the tap water you drink contains fluoride, which strengthened your teeth when you were younger.

If you drive to campus, you buckle your seat belt out of habit. Your state has seat belt laws in place to reduce traffic fatalities, and even if you would prefer not to buckle up, you do not want to get a ticket. If you bike to campus, you can avoid dodging cars by taking the bike lane, which has been put in place to protect bicyclists. You meet a friend for a bagel and cream cheese before class. You don't worry about eating the food from a coffee shop because sanitation inspectors ensure that all restaurants follow regulations that reduce incidences of foodborne illness.

After breakfast, you continue your commute to school, past "clean buses" that run on emissions-controlled diesel as part of your city's green energy campaign. A road worker directs you around a lane closure, where construction workers are wearing helmets and hearing protection, following occupational safety and health laws.

You enter your class building, where the air you breathe is fresh and smoke-free. Because tobacco smoke has been recognized as a health hazard, your campus follows regulations that prohibit smoking within 25 feet of public buildings.

After class, you head to the campus health center to pick up a month's worth of contraceptive supplies. You and your partner are not ready for pregnancy; you're planning to delay starting a family until after you finish school. While at the center, you pass signs promoting HIV/AIDS awareness and a supply of free condoms. Free vaccinations are available as part of a campaign to reduce students' risk of illness during the approaching flu season.

Later in the day, you go for a run on a trail in a city park near your home. People are out walking their dogs and obeying the signs to clean up after them in compliance with local ordinances. On your way home, you stop at a local grocery store to pick up some fruit and packaged foods for dinner. You assume the ingredients list printed on the packaged foods accurately reflects what is in them because food-labeling laws have been in place your whole life. When you get home, you know you need to wash the fruit you bought, just as you know you should wash your hands frequently. The wealth of information you have about keeping yourself well and safe comes from the health education you have received in your schools and community.

Ten great public health achievements in the past century include vaccination, motor vehicle safety, safer workplaces, control of infectious diseases, safer and healthier foods, healthier mothers and babies, family planning, fluoridation of drinking water, the recognition of tobacco as a health hazard, and reduced deaths from heart attacks and stroke. Beyond these achievements, innumerable other developments and advances have contributed to your health, including health education initiatives and campaigns. In this book, you can learn more about public health from the "Public Health Is Personal" boxes that appear in each chapter and draw your attention to the different ways that your personal health depends on public health.

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in Atlanta, Georgia. There are also state, county, and city health departments, and many public health actions take place at the local, or community, level.

Nongovernmental organizations also promote population health through work in politics, education, and research advocating for a range of health-related issues, including environmental rights, women's health, economic development, health care, and cancer research. An increasing need for work by agencies and organizations not traditionally considered "health" related has arisen due to the vital role of social determinants in health.[3] For example, city planners may not consider themselves in a health-related field, but parks and community walkability directly influence citizens' health and are determined by zoning and planning.

Community implies an interdependence of people and organizations within a defined region. A community has historically been defined by geographic boundaries rather than people with shared characteristics, and it specifically recognizes ties and connections within the community. **Community health** refers to activities directed toward improving the health of those people or activities employing resources shared by the members of the community. For example, the health department in a town (the community) with a large immigrant population may decide as part of its emergency preparedness planning that it needs to design messages in different languages in order to reach all members of the community. Ideally, the health department would create partnerships with members of the various groups within

community health
Issues, events, and activities related to the health of a whole community, as well as activities directed toward bettering the health of the public and/or activities employing resources available in common to members of the community.

the town to ensure cultural sensitivity, relevance, and engagement. Research suggests that a healthy community is one that meets the basic needs of all its citizens, offering adequate housing; transportation; access to quality schools, health care, healthy foods, and parks; job opportunities and living wages; and opportunities for civic engagement and social cohesion free from violence.[3]

Understanding population trends (demographics) enables improved planning for services—for example, the increased Hispanic population growth in nonmetropolitan areas suggests that services in rural areas increasingly need to be bilingual or multilingual.[13] Knowing the composition of communities helps community members address the needs of all.

■ A healthy community provides services that support the health and wellness of community members. As an example, community pedestrian and bike trails encourage physical activity and decrease the need for automobiles. *(© Tyler Olson/Shutterstock)*

The Healthy People Initiative

Another example of government interest in the health of the population is the Healthy People Initiative, an effort among federal, state, and territorial governments and community partners (private and public) to set health objectives for the nation. The objectives identify the significant preventable threats to health and establish goals for improving the quality of life for all Americans.[14] The U.S. government issued the first *Healthy People* report in 1980 and has issued revised reports every 10 years since.

The initiative's most recent version, *Healthy People 2020,* envisions "a society in which all people live long, healthy lives" and sets the following broad national health goals:[14]

- Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.

- Achieve health equity, eliminate disparities, and improve the health of all groups.

- Create social and physical environments that promote good health for all.

- Promote quality of life, healthy development and healthy behaviors across every stage of life.

In a shift from the previous versions, *Healthy People 2020* increases emphasis on "health determinants"—factors that affect the health of individuals, communities, or entire populations. Using the same concepts as the socioecological model, the report focuses on the range of personal, social, economic, and environmental factors that affect health. It also takes a life stages focus—recognizing that risk factors are different at different life stages, so interventions are most effective at different critical moments. The report emphasizes the importance of reducing health disparities—differences in health outcomes between populations. Recognize again that race or ethnicity, socioeconomic status, gender, sexual identity, age, and geographic location can all contribute to differences in health outcomes.

The Healthy People Initiative further identifies the nation's "leading health indicators"—a set of priority public health issues that can be targeted and measured. In *Healthy People 2020,* the initiative reported the leading health indicators as follows:

- Nutrition, physical activity and obesity.

- Maternal, infant, and child health.

- Tobacco.

- Substance abuse.

- Reproductive and sexual health.

- Mental health.

- Injury and violence.

- Environmental quality.

- Clinical preventive services (such as immunizations).

- Access to health care.

- Oral health.

- Social determinants of health.[15]

The indicators are intended to motivate individuals and communities to action by helping to determine where action is necessary.