



DIANNE HALES

An Invitation to Health

THE POWER OF NOW | BRIEF EDITION

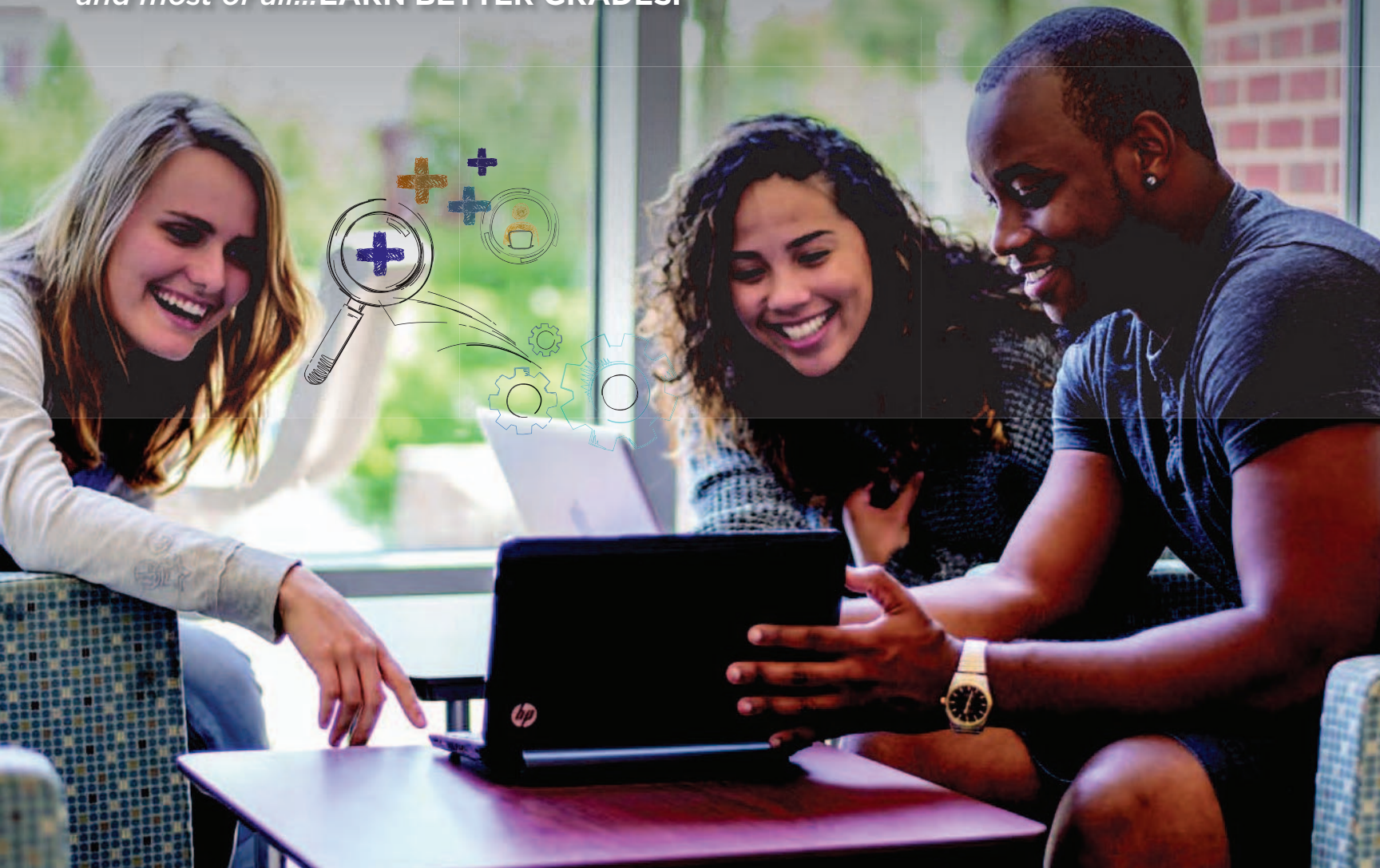
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An Invitation to Health *The Power of Now,* Brief Edition

Dianne Hales

10th Edition



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Preface

To the Student: Starting Now

College prepares you for the future. But when it comes to health, your future starts *now*! Every day you make choices and take actions that may or may not have long-term consequences in the future. Yet they do have immediate effects on how you feel now. Here are some examples:

- You stay up late and get less than 5 hours' sleep. The next day you feel groggy, your reflexes are off, and you find it harder to concentrate.
- You scarf down a double cheeseburger with bacon, a supersized side of fries, and a milkshake. By the time you're done with your meal, harmful fats are coursing through your bloodstream.
- You chug a combo of Red Bull and vodka and keep partying for hours. Even before you finish your first drink, your heart is racing and your blood pressure is rising. If you keep drinking, you'll reach dangerous levels of intoxication—probably without realizing how inebriated you are.
- Too tired to head to the gym, you binge-watch streaming videos for hours. Your metabolism slows; your unexercised muscles weaken.
- Just this once, you have sex without a condom. You wake up the next morning worrying about a sexually transmitted infection (STI) or a possible pregnancy.
- You don't have time to get to the student health center for a flu shot. Then your roommate comes down with the flu.
- You text while driving—and don't notice that the traffic light is changing.

There are countless other little things that can have very big consequences on your life today as well as through all the years to come. But they don't have to be negative. Consider these alternatives:

- Get a solid night's sleep after studying, and you'll remember more course material and probably score higher on a test.
- Eat a meal of a low-fat protein, vegetables, and grains, and you'll feel energized.
- Limit your alcohol intake, and you'll enjoy the evening and feel better the morning after.
- Go for a 10-minute walk or bike ride, and you'll feel less stressed and weary.
- Consistently practice safe sex, and you won't have to wonder if you've jeopardized your sexual health.
- Keep up with your vaccinations, and you lower your odds of serious illnesses.
- Pay attention to the road when you drive, and you can avoid accidents.

In addition to their immediate effects, the impact of health behaviors continues for years and decades to come. Consider these facts:

- More than 40 percent of college students are already overweight or obese.

- One in four college students may have at least one risk factor for cardiovascular disease.
- Nine in 10 college students report feeling stressed.
- One in three college students reports binge drinking at least once in the previous 2 weeks.

Such risky behaviors take a toll. According to an international study, young Americans are less likely to survive until age 55 than their peers in other developed nations. Those who do live to middle age and beyond are more likely to suffer serious chronic diseases and disabilities.

You do not have to be among them. *An Invitation to Health: The Power of Now* shows you how to start living a healthier, happier, and fuller life now and in the years to come.

To the Instructor

You talk to your students about their future because it matters. But in the whirl of undergraduates' busy lives, today matters more.

As recent research has documented, payoffs in the present are more powerful motivators for healthful behaviors than future rewards. Individuals exercise more, choose healthier foods, quit smoking, and make positive changes when immediate actions yield short-term as well as long-term benefits.

An Invitation to Health: The Power of Now incorporates this underlying philosophy throughout its chapters. As you can see in the Preface for students, we consistently point out the impact that everyday choices have on their health now and in the future. Each chapter highlights specific, practical steps that make a difference in how students feel and function. The "Health Now!" feature gives students step-by-step guidance on how to apply what they're learning in their daily lives. "The Power of Now!" checklist at each chapter's end reinforces key behavioral changes that can enhance and safeguard health.

Each chapter's "check-in" feature engages students as they read by posing questions that relate directly to their lives, experiences, and perspectives. After the definitions of wellness in Chapter 1, for instance, a "check-in" asks "What does wellness mean to you?" In the section on healthy habits, another "check-in" instructs students to rate their own health habits. As they learn about behavioral changes, this feature prompts them to identify a health-related change they want to make and their stage of readiness for change.

As an instructor, you can utilize the "check-in" features in different ways. For instance, you might suggest that students use them to test their comprehension of the material in the chapter. You might assign them to write a brief reflection on one or more "check-ins." Or you might draw on the "check-ins" to spark classroom discussion and increase student engagement.

This textbook is an invitation to you as an instructor. I invite you to share your passion for education and to enter into a partnership with the editorial team at Cengage Learning. We welcome your feedback and suggestions. Please let us hear from you at www.cengage.com/health. I personally look forward to working with you toward our shared goal of preparing a new generation for a healthful future.

What's New in *An Invitation to Health, Brief: The Power of Now*

Some things don't change: as always, this *Invitation* presents up-to-date, concise, research-based coverage of all the dimensions of health. It also continues to define health in the broadest sense of the word—not as an entity in itself, but as an integrated process for discovering, using, and protecting all possible resources within the individual, family, community, and environment.

What is new is the theme that threads through every chapter: providing students with practical knowledge and tools they can apply immediately to improve their health and their lives. One of the keys to doing so is behavioral change, which has always been fundamental to *An Invitation to Health*. The one feature that has appeared in every edition—and that remains the most popular—is “Your Strategies for Change.”

Each chapter begins with a new feature, “What Do You Think?” questions to have the reader think about his or her personal experience and knowledge in regard to concepts in the chapter. At the end of the chapter the “What Did You Decide?” questions ask the reader to reflect on how his or her answers to these questions may have changed after reading the chapter.

Every chapter concludes with “The Power of Now!”, a checklist that students can use to assess their current status and work toward specific goals, whether by creating better relationships (Chapter 4), getting in better shape (Chapter 7), or taking charge of their alcohol and tobacco intake (Chapter 12). Chapter 5, Personal Nutrition, is updated with information on the *Dietary Guidelines for Americans 2015–2020*. Chapter 13, Consumer Health, contains updated information on the Affordable Care Act as well as ways to evaluate health information, prepare for a medical exam, get quality traditional and alternative health care, and navigate the health-care system.

Throughout this edition, the focus is on students, with real-life examples, the latest statistics on undergraduate behaviors and attitudes, and coverage of new campus health risks, including alcohol mixed with energy drinks (AmEDs), electronic cigarettes and vaping, hookah (water pipe) smoking, the combination of binge drinking and disordered drinking, polysubstance abuse, “bath salts,” and cyberbullying.

An interactive feature, “On Campus Now,” showcases the latest research on student behavior, including their sleep habits (Chapter 2), stress levels (Chapter 3), weight (Chapter 6), and sexual experiences (Chapter 8). “Health Now!” presents practical, ready-to-use tips related to real-life issues such as recognizing substance abuse (Chapter 11) and how to avoid date rape (Chapter 14).

Other popular features that have been retained and updated include “Health on a Budget” and “Consumer Alert.” A “Self Survey” for each chapter can be found within MindTap. End-of-chapter resources include “Review Questions,” “Critical Thinking Questions,” and “Key Terms.” At the end of the book is a full Glossary as well as complete chapter references.

Because health is an ever-evolving field, this edition includes many new topics, including the latest reports on dietary guidelines for Americans, students' mental health, emerging tobacco products, the impact of stress, campus hookups, same-sex marriage, self-injury, suicide prevention, vitamin supplements, exercise guidelines, sexually transmitted infections, gun violence, attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder, caffeinated alcoholic beverages, binge drinking, weight management, metabolic syndromes, myalgic

encephalomyelitis/chronic fatigue syndrome (ME/CFS), Zika virus, and the latest recommendations for prevention and treatment of infectious illnesses.

All the chapters have been updated with the most current research, including many citations published in 2016, and incorporating the latest available statistics. The majority come from primary sources, including professional books; medical, health, and mental health journals; health education periodicals; scientific meetings, federal agencies, and consensus panels; publications from research laboratories and universities; and personal interviews with specialists in a number of fields. In addition, “What's Online” presents reliable Internet addresses where students can turn for additional information.

As I tell students, *An Invitation to Health, Brief: The Power of Now* can serve as an owner's manual to their bodies and minds. By using this book and taking their course, they can acquire a special type of power—the power to make good decisions, to assume responsibility, and to create and follow a healthy lifestyle. This textbook is our invitation to them to live what they learn and make the most of their health—now and in the future.

An Overview of Changes and Updates

Following is a chapter-by-chapter listing of some of the key topics that have been added, expanded, or revised for this edition.

Chapter 1: The Power of Now

College and health; occupational and financial health; health in America; the dimensions of health; student health norms; self-affirmation theory; and health belief model (HBM)

Chapter 2: Your Psychological and Spiritual Well-Being

Positive psychology and positive psychiatry; most effective positive psychology interventions; sleep and health; treating sleep disorders; the toll on students; and major depressive disorder

Chapter 3: Stress Management

Neustress; stress in America; stress on campus; discrimination stress; acculturative stress; financial and occupational stress; and stress-management apps

Chapter 4: Social Health

Loneliness; cyberbullying; Facebook; college students' cell phone use; the brain in love; trends in sexual relationships; hookup culture; intimate partner violence; same-sex marriage; and divorce

Chapter 5: Personal Nutrition

Dietary Guidelines for Americans 2015–2020; protein; vitamin D; sodium; eating patterns in the United States and worldwide; student use of dietary supplements; food allergies; Mediterranean diet; nutrition labels; choosing healthful snacks; and dietary supplements

Chapter 6: Weight Management

Weighing in; weight on campus; body mass index (BMI); evaluating weight-loss programs; obesity surgery; and emotional eating

Chapter 7: Physical Activity and Fitness

Exercise Is Medicine; countering dangers of sedentary living, your exercise prescription; exercise apps, trackers, and monitors; and buying athletic shoes

Chapter 8: Sexual Health

Premenstrual syndrome treatments; sexual behavior; sex on campus; hooking up; choosing sexual partners; ethnic variations affect sexual behaviors; sexual diversity; LGBT health disparities; pornography; female ejaculation; Zika virus; and HIV testing and college students

Chapter 9: Reproductive Options

Reproductive responsibility; prolonged sitting; healthy diet; Contraceptive information sources for young adults; Zika virus; long-acting reversible contraceptives (LARCs); male condoms; and abortion

Chapter 10: Major Diseases

Physical inactivity; prolonged sitting; healthy diet; risk of metabolic syndrome; risk of diabetes mellitus; hypertension in the young; reducing sodium; cardiovascular (heart) disease; psychological risk factors for heart disease; impact of stress; cancer in America; screening for breast cancer; Zika virus; and Bourbon virus

Chapter 11: Addictions

Changing drug scene across America; understanding addiction; preventing addictions; caffeine-containing energy drinks (CCEDs); drugs and alcohol; prescription drug abuse; prescription stimulants; marijuana's effects on health; legalized marijuana; artificial reproductive technology; GHB and GBL; and Fentanyl

Chapter 12: Alcohol and Tobacco

Drinking in America; drinking on campus; toll of alcohol; sexual orientation and drinking; alcohol mixed with energy drinks (AmEDs); fetal alcohol spectrum disorder; alcoholism treatments; tobacco use on campus; emerging tobacco products; electronic cigarettes; and vaping

Chapter 13: Consumer Health

Update on the Affordable Care Act (Obamacare); consumer-driven health care; mobile health apps and monitors; privacy of personal health information; trends in plastic surgery; and complementary and alternative medicine use in America and on college campuses

Chapter 14: Protecting Yourself and Your Environment

Safety on the road; microaggressions; sexting; social or intimate violence; sexual assault on campus; "It's On Us" campaign; pollution's health impact; lead-contaminated water; and cell phone dangers

Chapter 15: A Lifetime of Health

Health problems of seniors; impact of feeling younger than actual age; Mediterranean diet and longevity; Alzheimer's disease and prescription drugs; disabilities in older Americans; and death literacy and education

Supplemental Resources

Health MindTap for *An Invitation to Health, Brief: The Power of Now*

A new approach to highly personalized online learning. Beyond an eBook, homework solution, digital supplement, or premium website, MindTap is a digital learning platform that works alongside your campus LMS to deliver course curriculum across the range of electronic devices in your life. MindTap is built on an "app" model allowing enhanced digital collaboration and delivery of engaging content across a spectrum of Cengage and non-Cengage resources.

Diet & Wellness Plus

Diet & Wellness Plus helps you understand how nutrition relates to your personal health goals. Track your diet and activity, generate reports, and analyze the nutritional value of the food you eat. Diet & Wellness Plus includes over 75,000 foods as well as custom food and recipe features. The Behavior Change Planner helps you identify risks in your life and guides you through the key steps to make positive changes. Diet & Wellness Plus is also available as an app that can be accessed from the app dock in MindTap.

Instructor Companion Site

Everything you need for your course in one place! This collection of book-specific lecture and class tools is available online via www.cengage.com/login. Access and download PowerPoint presentations, images, instructor's manual, videos, and more.

Global Health Watch

Bring currency to the classroom with Global Health Watch from Cengage Learning. This user-friendly website provides convenient access to thousands of trusted sources—including academic journals, newspapers, videos, and podcasts—for you to use for research projects or classroom discussion. Global Health Watch is updated daily to offer the most current news about topics related to nutrition.

Cengage Learning Testing Powered by Cognero

This flexible online system allows the instructor to author, edit, and manage test bank content from multiple Cengage Learning solutions; create multiple test versions in an instant; and deliver tests from an LMS, a classroom, or wherever the instructor wants.

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About the Author

Dianne Hales is a widely published and honored author and journalist. She is the author of 15 trade books, including the *New York Times* bestseller *La Bella Lingua*; *Mona Lisa: A Life Discovered*; *Just Like a Woman*; *Think Thin, Be Thin*; and *Caring for the Mind*, with translations into Chinese, Japanese, Italian, French, Spanish, Portuguese, German, Dutch, Swedish, Danish, Polish, and Korean.

Hales has received the highest honor the government of Italy can bestow on a foreigner, an honorary knighthood, with the title *Cavaliere dell' Ordine della Stella della Solidarietà Italiana* (Knight of the Order of the Star of Italian Solidarity) in recognition of her book *La Bella Lingua: My Love Affair with Italian, the World's Most Enchanting Language*, as "an invaluable tool for promoting the Italian language."

Hales is a former contributing editor for *Parade*, *Ladies' Home Journal*, *Working Mother*, and *American Health* and has written more than 1,000 articles for publications including *Family Circle*, *Glamour*, *Good Housekeeping*, *Health*, the *New York Times*, *Reader's Digest*, the *Washington Post*, *Woman's Day*, and *World Book Encyclopedia*.

Hales has received writing awards from the American Psychiatric Association and the American Psychological Association, an EMMA (Exceptional Media Merit Award) for health reporting from the National Women's Political Caucus and Radcliffe College, three EDI (Equality, Dignity, Independence) awards for print journalism from the National Easter Seal Society, the National Mature Media Award, and awards from the Arthritis Foundation, California Psychiatric Society, CHADD (Children and Adults with Attention-Deficit/Hyperactivity Disorder), Council for the Advancement of Scientific Education, and New York City Public Library.





WHAT DO YOU THINK?

- What does “health” mean to you?
- How healthy are today’s college students?
- Do race and gender affect health?
- Can people successfully change their health behaviors?

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1

The Power of Now

Keisha always thought of health as something you worry about when you get older. Then her twin brother developed a health problem she'd never heard of: prediabetes (discussed in Chapter 10), which increased his risk of diabetes and heart disease. At a health fair on campus, she found out that her blood pressure was higher than normal. She also learned that young adults with high blood pressure could be at greater risk of heart problems in the future.¹

"Maybe I'm not too young to start thinking about my health," Keisha concluded. Neither are you, whether you're a traditional-age college student or, like an ever-increasing number of undergraduates, years older.

An Invitation to Health is both *about* and *for* you; it asks you to go beyond thinking about your health to

taking charge and making healthy choices for yourself and your future. This book includes material on your mind and your body, your spirit and your social ties, your needs and your wants, your past and your potential. It will help you explore options, discover possibilities, and find new ways to make your life worthwhile.

After reading this chapter, you should be able to:

- 1.1 Define health and wellness.
- 1.2 Outline the dimensions of health.
- 1.3 Assess the current health status of Americans.
- 1.4 Discuss health disparities based on gender and race.
- 1.5 Evaluate the health behaviors of undergraduates.
- 1.6 Describe the impact of habits formed in college on future health.
- 1.7 Explain the influences on behavior that support or impede healthy change.
- 1.8 Identify the stages of change.



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What you learn from this book and in this course depends on you. You have more control over your life and well-being than anything or anyone else does. Through the decisions you make and the habits you develop, you can influence how well—and perhaps how long—you will live.

The time to start is *now*. Every day you make choices that have short- and long-term consequences for your health. Eat a high-fat meal, and your blood chemistry changes. Spend a few hours slumped in front of the television, and your metabolism slows. Chug a high-caffeine energy drink, and your heart races. Have yet another beer, and your reflexes slow. Text while driving, and you may weave into another lane. Don't bother with a condom, and your risk of sexually transmitted infection (STD) skyrockets.

Sometimes making the best choices demands making healthy changes in your life. This chapter shows you how—and how to live more fully, more happily, and more healthfully. This is an offer that you literally cannot afford to refuse. Your life may depend on it—starting now.

- Supportive friends and family and a nurturing intimate relationship with someone you love
- A personally satisfying job or intellectual endeavor
- A clean, healthful environment

✓ **check-in** How would you define *health*?

Wellness can be defined as purposeful, enjoyable living or, more specifically, a deliberate lifestyle choice characterized by personal responsibility and optimal enhancement of physical, mental, and spiritual health. In the broadest sense, wellness is:

- A decision you make to move toward optimal health
- A way of life you design to achieve your highest potential
- A process of developing awareness that health and happiness are possible in the present
- The integration of body, mind, and spirit
- The belief that everything you do, think, and feel has an impact on your state of health and the health of the world

✓ **check-in** What does *wellness* mean to you?

The Dimensions of Health

Scientists are discovering that various dimensions and the interplay among them can affect us at a molecular level. For instance, a lack of education—an indicator of poor intellectual health—has long been linked with poor physical health and relatively early death. However, other factors—such as having meaningful relationships with others (part of social health) and a sense of meaning and purpose in life (an indicator of spiritual health)—can overcome the disadvantages associated with poverty or minimal schooling.

By learning more about the dimensions of health, you gain insight into the complex interplay of factors that determine your level of wellness. The following are the most commonly recognized dimensions of health and wellness, but some models treat emotional, cultural, or financial health as separate categories rather than aspects of psychological, social, or occupational health.

✓ **check-in** What do you consider the most important or relevant dimensions of health?

Health is the process of discovering, using, and protecting all the resources within our bodies, minds, spirits, families, communities, and environment.

Health and Wellness

By simplest definition, **health** means being sound in body, mind, and spirit. The World Health Organization defines *health* as “not merely the absence of disease or infirmity” but “a state of complete physical, mental, and social well-being.” Health involves discovering, using, and protecting all the resources within our bodies, minds, spirits, families, communities, and environment.

Health has many dimensions: physical, psychological, spiritual, social, intellectual, environmental, occupational, and financial. This book integrates these aspects into a *holistic* approach that looks at health and the individual as a whole rather than part by part.

Your own definition of health may include different elements, but chances are you and your classmates would include at least some of the following:

- A positive, optimistic outlook
- A sense of control over stress and worries, time to relax
- Energy and vitality, freedom from pain or serious illness

health A state of complete well-being, including physical, psychological, spiritual, social, intellectual, and environmental dimensions.

wellness A deliberate lifestyle choice characterized by personal responsibility and optimal enhancement of physical, mental, and spiritual health.

Physical Health The 1913 *Webster's Dictionary* defined *health* as “the state of being hale, sound, or whole, in body, mind, or soul, especially the state of being free from physical disease or pain.” More recent definitions conceive physical health as an optimal state of well-being, not merely the absence of disease or infirmity. Health is not a static state but a process that depends on the decisions we make and the behaviors we practice every day. To ensure optimal physical health, we must feed our bodies nutritiously, exercise them regularly, avoid harmful behaviors and substances, watch for early signs of sickness, and protect ourselves from accidents.

Psychological Health Like physical well-being, psychological health, discussed in Chapter 2, encompasses our emotional and mental states—that is, our feelings and our thoughts. It involves awareness and acceptance of a wide range of feelings in oneself and others, as well as the ability to express emotions, to function independently, and to cope with the challenges of daily stressors.

Spiritual Health Spiritually healthy individuals identify their own basic purpose in life; learn how to experience love, joy, peace, and fulfillment; and help themselves and others achieve their full potential. As they devote themselves to others’ needs more than their own, their spiritual development produces a sense of greater meaning in their lives.

Social Health Social health refers to the ability to interact effectively with other people and the social environment, to develop satisfying interpersonal relationships, and to fulfill social roles. It involves participating in and contributing to your community, living in harmony with fellow human beings, developing positive interdependent relationships, and practicing healthy sexual behaviors. (See Chapter 4.)

Intellectual Health Every day you use your mind to gather, process, and act on information; to think through your values; to make decisions, set goals, and figure out how to handle a problem or challenge. Intellectual health refers to your ability to think and learn from life experience, your openness to new ideas, and your capacity to question and evaluate information. Throughout your life, you’ll use your critical thinking skills, including your ability to evaluate health information, to safeguard your well-being.

Environmental Health You live in a physical and social setting that can affect every aspect of your health. Environmental health refers to

the impact your world has on your well-being. It involves protecting yourself from dangers in the air, water, and soil, as well as in products you use—and working to preserve the environment itself. (See Chapter 14.)

Occupational and Financial Health In the coming decades, you will devote much of your time and energy to your career. Ideally, you will contribute your unique talents and skills to work that is rewarding in many ways—intellectually, emotionally, creatively, and financially. College provides the opportunity for you to choose and prepare for a career that is consistent with your personal values and beliefs and to learn how to manage your money and safeguard your financial well-being.

Health educators have expanded the traditional individualistic concept of health to include the complex interrelationships between one person’s health and the health of the community and environment. This change in perspective has given rise to a new emphasis on **health promotion**, which educators define as “any planned combination of educational, political, regulatory, and organizational supports for actions and conditions of living conducive to the health of individuals, groups, or communities.” Examples on campus include establishing smoke-free policies for all college buildings, residences, and dining areas; prohibiting tobacco advertising and sponsorship of campus social events; ensuring safety at parties; and enforcing alcohol laws and policies.

Health in America

.....
✓ **check-in** Do you exercise regularly?
Eat nutritious meals? Maintain a healthy
weight? Avoid smoking? If you answer yes
to all four questions, you’re among the
2.7 percent of Americans who do so.
.....

According to a recent national survey of more than 4,700 people, 97.3 percent get a failing grade in healthy lifestyle habits. For the minority who do adapt these health guidelines, the payoff includes a lower risk of many health problems, including type 2 diabetes, heart disease, and cancer. A higher percentage report at least one healthy habit:

- 71 percent do not smoke
- 46 percent get sufficient amounts of physical activity

health promotion A combination of educational, political, regulatory, and organizational supports to improve the well-being of individuals, groups, or communities.



Zoonar GmbH/Alamy Stock Photo

Your choices and behaviors during your college years can influence how healthy you will be in the future.

- 38 percent eat a healthy diet
- 10 percent have a normal body fat percentage (see Chapter 6)

Women are more likely than men to not smoke and to eat a healthy diet but less likely to have adequate physical activity levels. Mexican Americans are more likely to eat a healthy diet than blacks or whites.²

Life expectancy at birth in the United States has increased to an all-time high of 76.4 years for men and 81.2 years for women, but citizens of other affluent nations, such as Japan and Switzerland, live significantly longer.³ If you are under age 50, you may think this doesn't apply to you. Think again. The Americans experiencing the greatest health deficits and losing the most years to illness, disability, and premature death are not the elderly but young adults. As a young American, your probability of reaching your 50th birthday is lower than in almost every other high-income nation. The main reasons for the gap in life discrepancy between the United States and 12 comparable countries are motor

vehicle accidents, firearm-related injuries, and drug poisonings and overdoses.⁴

Rather than focus solely on life expectancy, experts are calculating healthy life expectancy (HALE), based on years lived without disease or disability. On average, life expectancy at birth for Americans averages about age 79, but the average HALE is considerably shorter: about 68 years.⁵

✓ **check-in** How do you think your life expectancy and your healthy life expectancy (HALE) compare?

Healthy People 2020

Every decade since 1980, the U.S. Department of Health and Human Services (HHS) has published a comprehensive set of national public health objectives as part of the Healthy People Initiative. The government's vision is to create a society in which all people can live long, healthy lives. Its mission includes identifying nationwide health improvement priorities, increasing public awareness of health issues, and providing measurable objectives and goals.⁶

The overarching goals for *Healthy People 2020* are as follows:

- Eliminate 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 healthy development and healthy behaviors across every stage of life.

Here are examples of specific new recommendations that have been added to the national health agenda for 2020:

- **Nutrition and weight status:** Prevent inappropriate weight gain in youths and adults.
- **Tobacco use:** Increase smoking-cessation success by adult smokers.
- **Sexually transmitted infections:** Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if sexually active.
- **Substance abuse:** Reduce misuse of prescription drugs.
- **Heart disease and stroke:** Increase overall cardiovascular health in the U.S. population.
- **Injury and violence prevention:** Reduce sports and recreation injuries.

✓ **check-in** If you were setting personal health objectives to attain by 2020, what would they be?

Health Disparities

Despite improvements in the overall health of the nation, Americans who are members of certain racial and ethnic groups—including African Americans, American Indians, Alaska Natives, Asian Americans, Hispanics, Latinos, and Pacific Islanders—are more likely than whites to suffer disease and disability, including major depression, poor physical health, functional limitations, and premature death. However, there has been progress in some important areas, including less racial discrepancy in infant death rates, cesarean birth rates, and smoking among women.⁷

Genetic variations, environmental influences, and specific health behaviors contribute to health disparities, but poverty may be a more significant factor. A much higher percentage of blacks (26 percent) than non-Hispanic whites (10 percent) live below the federal poverty level and may be unable to get needed medical treatment.⁸ This may be changing for young Americans. The expected lifespan for those under age 20 is less affected by whether they are rich or poor now than in the past.⁹

If you are a member of a racial or ethnic minority, you need to educate yourself about your health risks, take responsibility for those within your control, and become a savvy, assertive consumer of health-care services. The federal Office of Minority Health and Health Disparities (www.cdc.gov/ombd), which provides general information and the latest research and recommendations, is a good place to start.

✓ **check-in** Are you a member of a racial or ethnic minority? If so, do you think this status affects your health or health care?

Why Race Matters If, like many other Americans, you come from a racially mixed background, your health profile may be complex. Here are just some of the differences race makes:¹⁰

- Black Americans lose substantially more years of potential life to homicide (nine times as many), stroke (three times as many), and diabetes (three times as many) as whites.
- About one in three Hispanics has prediabetes; only about half of Hispanics with diabetes have it under control.¹¹

YOUR STRATEGIES FOR PREVENTION

If You Are at Risk

Certain health risks may be genetic, but behavior influences their impact. Here are specific steps you can take to protect your health:

- **Ask if you are at risk for any medical conditions or disorders based on your family history or racial or ethnic background.**
- **Find out if there are tests that could determine your risks.** Discuss the advantages and disadvantages of such testing with your doctor.
- **If you or a family member requires treatment for a chronic illness, ask your doctor whether any medications have proved particularly effective for your racial or ethnic background.**
- **If you are African American, you are significantly more likely to develop high blood pressure, diabetes, and kidney disease.** Being overweight or obese adds to the danger. The information in Chapters 6–8 can help you lower your risk by keeping in shape, making healthy food choices, and managing your weight.
- **Hispanics and Latinos have disproportionately high rates of respiratory problems, such as asthma, chronic obstructive lung disease, and tuberculosis.** To protect your lungs, stop smoking and avoid secondary smoke. Learn as much as you can about the factors that can trigger or worsen lung diseases.

- Caucasians are prone to osteoporosis (progressive weakening of bone tissue); cystic fibrosis; skin cancer; and phenylketonuria (PKU), a metabolic disorder that can lead to cognitive impairment.
- Native Americans, including those indigenous to Alaska, are more likely to die young than the population as a whole, primarily as a result of accidental injuries, cirrhosis of the liver, homicide, pneumonia, and complications of diabetes.
- The suicide rate among American Indians and Alaska Natives is 50 percent higher than the national rate. The rates of co-occurring mental illness and substance abuse (especially alcohol abuse) are also higher among Native American youth and adults.

Cancer Overall, black Americans are more likely to develop cancer than persons of any other racial or ethnic group. As discussed in Chapter 10, medical scientists have debated whether the reason might be that treatments are less effective in blacks or whether many are not diagnosed early enough or treated rigorously enough.



John Lund/Marc Romanelli/Getty Images

Heredity places this Pima Indian infant at higher risk of developing disease, but environmental factors also play a role.

Although blacks continue to have higher cancer death rates than whites, the disparity has narrowed for all cancers combined in men and women and for lung and prostate cancers in men. However, the racial gap in death rates has widened for breast cancer in women and remained level for colorectal cancer in men.¹²

- African American women are more than twice as likely to die of cervical cancer as are white women and are more likely to die of breast cancer than are women of any racial or ethnic group except Native Hawaiians.
- Native Hawaiian women have the highest rates of breast cancer. Women from many racial minorities, including those of Filipino, Pakistani, Mexican, and Puerto Rican descent, are more likely to be diagnosed with late-stage breast cancer than white women.
- Cancer has surpassed heart disease as the leading cause of death among Hispanics in the United States, with an overall prevalence rate of 4 percent.¹³

Cardiovascular Disease Heart disease and stroke are the leading causes of death for all racial and ethnic groups in the United States, but mortality rates of death from these diseases are higher among African American adults than among white adults. African Americans also have higher rates of high blood pressure (hypertension), develop this problem earlier in life, suffer more severe hypertension, and have higher rates of stroke.

Diabetes American Indians and Alaska Natives, African Americans, and Hispanics are twice as likely to be diagnosed with diabetes as are non-Hispanic whites.

Infant Mortality African American, American Indian, and Puerto Rican infants have higher death rates than white infants.

Mental Health American Indians and Alaska Natives suffer disproportionately from depression and substance abuse. Minorities have less access to mental health services and are less likely to receive needed high-quality mental health services. The prevalence of dementia varies significantly among Americans of different racial and ethnic groups, with the highest rates among blacks and American Indians/Alaskan Natives and the lowest among Asian Americans. Hispanics and whites have intermediate rates.¹⁴

Infectious Disease Asian Americans and Pacific Islanders have much higher rates of hepatitis B than other racial groups. Black teenagers and young adults become infected with hepatitis B three to four times more often than those who are white. Black people also have a higher incidence of hepatitis C infection than white people. Almost 80 percent of reported cases affect racial and ethnic minorities.

HIV and Sexually Transmitted Infections Although African Americans and Hispanics represent only about one-quarter of the U.S. population, they account for about two-thirds of adult AIDS cases and more than 80 percent of pediatric AIDS cases.¹⁵

Sex, Gender, and Health

Medical scientists define sex as a classification, generally as male or female, according to the reproductive organs and functions that derive from the chromosomal complement. *Gender* refers to a person's self-representation as male or female or how social institutions respond to a person, on the basis of the individual's gender presentation. Gender is rooted in biology and shaped by environment and experience.

He:



- averages 12 breaths a minute
- has lower core body temperature
- has a slower heart rate
- has more oxygen-rich hemoglobin in his blood
- is more sensitive to sound
- produces twice as much saliva
- has a 10 percent larger brain
- is 10 times more likely to have attention deficit disorder
- as a teen, has an attention span of 5 minutes
- is more likely to be physically active
- is more prone to lethal diseases, including heart attacks, cancer, and liver failure
- is five times more likely to become an alcoholic
- has a life expectancy of 76.2 years

She:



- averages 9 breaths a minute
- has higher core body temperature
- has a faster heart rate
- has higher levels of protective immunoglobulin in her blood
- is more sensitive to light
- takes twice as long to process food
- has more neurons in certain brain regions
- is twice as likely to have an eating disorder
- as a teen, has an attention span of 20 minutes
- is more likely to be overweight
- is more vulnerable to chronic diseases, like arthritis and autoimmune disorders, and age-related conditions like osteoporosis
- is twice as likely to develop depression
- has a life expectancy of 81.1 years

FIGURE 1.1 Some of the Many Ways Men and Women Are Different

The experience of being male or female in a particular culture and society can and does have an effect on physical and psychological well-being. In fact, sex and gender may have a greater impact than any other variable on how our bodies function, how long we live, and the symptoms, course, and treatment of the diseases that strike us. (See Figure 1.1.)

Here are some health differences between men and women:

- Boys are more likely to be born prematurely, to suffer birth-related injuries, and to die before their first birthdays than girls.
- Men around the world have shorter lifespans than women and higher rates of cancer, heart disease, stroke, lung disease, kidney disease, liver disease, and HIV/AIDS.¹⁶ They are four times more likely to take their own lives or to be murdered than women.
- Cardiovascular disease is the leading cause of death for women in the United States, yet only about one-third of clinical trial subjects in cardiovascular research have been female.¹⁷
- Lung cancer is the leading cause of cancer death among women, with increased rates particularly among young female nonsmokers.
- Women are 70 percent more likely than men to suffer from depression over the course of their lifetimes.

✓ **check-in** How do you think your gender affects your health?

Among the reasons that may contribute to the health and longevity gap between the sexes are the following:

- **Biological factors.** For example, women have two X chromosomes and men only one, and men and women have different levels of sex hormones (particularly testosterone and estrogen).
- **Social factors.** These include work stress, hostility levels, and social networks and supports.
- **Behavioral factors.** Men and women differ in risky behavior, aggression, violence, smoking, and substance abuse.
- **Health habits.** The sexes vary in terms of regular screenings, preventive care, and minimizing symptoms.

Sexual orientation can also affect health. Lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals are more likely to encounter health disparities linked to social stigma, discrimination, and denial of their human and civil rights. Such discrimination has been implicated as a cause of high rates of psychiatric disorders, substance abuse, and suicide. The *Healthy People 2020* initiative has made improvements in LGBTQ health one of its new goals.