

An Invitation to

# Health

Hales | Tunks

Brief 12e



# An Invitation to Health Brief Edition

Dianne Hales and Lisa Tunks

12th Edition



Australia • Brazil • Canada • Mexico • Singapore • United Kingdom • United States

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**12th 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 often have long-term consequences and an effect 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 stream 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 make 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.

According to an international study, young Americans are less likely than their peers in other developed nations to survive until age 55. 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: Taking Charge of Your Health* 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* 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 "Taking Charge of Your Health" 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. 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. I look forward to working with you as you explore the dimensions of health and how they relate to your students' daily lives. I welcome feedback from any and all of you at [www.cengage.com/health](http://www.cengage.com/health).

Yours in Wellness,  
Lisa Tunks

# What's New in *An Invitation to Health, Brief*

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—and as an integrated process for discovering, using, and protecting all possible resources within the individual, family, community, and environment.

The theme of providing students with practical knowledge and tools they can apply immediately to take charge of their health threads through every chapter. 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 “What Do You Think?” questions to have the reader think about personal experience and knowledge with 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 answers to these questions may have changed after reading the chapter and follows the questions with a reflection that invites the reader to consider next steps to take, based on their reading.

Every chapter concludes with “Taking Charge of Your Health,” a checklist that students can use to assess their current status and work toward specific goals, whether by creating better relationships (Chapter 7), getting in better shape (Chapter 6), or taking charge of their alcohol and tobacco intake (Chapter 13). Chapter 4, Personal Nutrition, is updated with information on applying federal dietary guidelines and the benefits and risks of dietary supplements, Chapter 11, Consumer Health, contains updated information on the Affordable Care Act as well as ways to 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 relevant health issues including alcohol mixed with energy drinks, the dangers of vaping, the opioid epidemic, 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 5), and sexual experiences (Chapter 8). “Health Now!” presents practical, ready-to-use tips related to real-life issues such as recognizing substance abuse (Chapter 12) and making smarter fast-food choices (Chapter 4).

Other popular features that have been retained and updated include “Health on a Budget” and “Consumer Alert.” End-of-chapter resources include a “Self-Survey” and “Review Questions.” At the end of the book is a full Glossary. A complete list of chapter references appears in the MindTap and on the companion website.

Because health is an ever-evolving field, this edition includes many new topics, including insomnia's effect on quality of life; managing money to reduce financial stress; first-generation and minority students, student-athletes, and military veterans; coping techniques such as mindfulness; the impact of exercise on the brain, including mood, symptoms of depression and anxiety, and cognitive functioning at different ages; a new and expanded section titled “The Gender Spectrum,” including the LGBTQ+ community; vaccinations in children and the general population; and the impact of COVID-19 across the many dimensions of wellness.

All the chapters have been updated with the most current research and with 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* can serve as an owner's manual to their bodies and minds. By using this book and taking the 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

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

### Chapter 1: Taking Charge of Your Health

Updated statistics on health in America and on college students' health; new research on older students and health-care issues related to age, race, sex, and living arrangements; expanded discussion of LGBTQ+ objectives in *Healthy People 2030*; a new action-based SMART Goal Setting tool.

### Chapter 2: Emotional and Spiritual Well-Being

Latest findings from the science of subjective well-being; expanded coverage of student self-care; insomnia's effects on quality of life; sleep health on college campuses; latest research on student mental health; mental health disparities among college students of color; mental health issues for LGBTQ+ students; impact of depression on health; depression, anxiety, and attention disorders on campus; suicidal thoughts and behaviors among students; campus counseling after student deaths.

### Chapter 3: Stress Management

Updated statistics on student stress from the American College Health Association–National College Health Assessment; latest findings from the American Psychological Association's Stress in America survey; “Mental Health First Aid” resource for crisis management; discussion of COVID-19-related stressors; new “Reducing Video-Conferencing Fatigue” section; college students' mental health; available resources on campus.

### Chapter 4: Personal Nutrition

Recommendations for most recent dietary guidelines; updated research on college students' food choices and diets; expanded information about plant-based dietary choices; coverage of “food insecurity” on campus; impact of sugar-sweetened beverages; update on nutrition labels; update on use of dietary supplements.

### Chapter 5: Body Composition and Weight Management

New section and focus on healthy body weight; most recent statistics on overweight and obesity in the United States; updated research on the causes of obesity; updated statistics on college students' weights; new research on the efficacy of various diets, including intermittent fasting; updated coverage of body mass index.

## Chapter 6: Physical Activity and Fitness

New section on campus recreation programs; updated information about health-related fitness components; updated FITT-PV; findings on the impact of the pandemic on “screen time” and physical activity in college students; official definitions of types of recommended exercises; updates on latest research on the benefits of various levels of physical activity and exercise; new research on the impact of exercise on the brain, including mood, symptoms of depression and anxiety, and cognitive functioning at different ages; new section on technology and fitness trackers; new section on exercise addiction.

## Chapter 7: Communicating and Connecting

New information regarding communication during a pandemic; tips for communicating while wearing face masks; updated statistics on student loneliness, shyness, and social anxiety; new research on the digital life of college students; impact of social media during a pandemic; cyberbullying on college campuses; impact of problematic Internet/smartphone use on college students.

## Chapter 8: Sexual Health

Updated statistics on the sex lives of college students; expanded discussion about LGBTQ+ community; new sections on pansexuality and asexuality; updated section on “coming out”; updated terminology and inclusive language regarding gender, gender identity, and gender expression; latest statistics on STI incidence globally and nationally; newest recommendations for screening for STIs; updated section on STIs on campus; updated information regarding risks associated with oral sex; updated information regarding HPV vaccinations; updated data on intimate partner and sexual violence; discussion of sexual harassment and sexual violence on campus; disclosure and resources for sexual assault survivors.

## Chapter 9: Reproductive Options

New statistics on contraception on campus; update on Affordable Care Act coverage of birth control and related state legislations; latest CDC report on contraception in the United States; updates on risks and benefits of contraceptives; expanded coverage of reproductive choices.

## Chapter 10: Diseases and Disorders

Updated statistics on major diseases; updated statistics on college students diagnosed with various diseases; added figure illustrating the warning signs of stroke; importance of physical activity for the cardiometabolic health of young people; latest information on family history and heart disease; expanded socioeconomic risk factors for cardiometabolic diseases; expanded discussion of healthy diets and heart health; updated statistics on cancer in America, including cancer rates, survival, and deaths; updated risk factors for cancer between sexes. Updated statistics on infectious diseases in America; new section on COVID-19; new information regarding COVID-19 vaccinations in America; updated data on vaccinations of college students; latest recommendation for immunizations of various age groups and for adults in general; new section on the impact of social media on information regarding public health; coverage of controversy over vaccinating children.

## Chapter 11: Consumer Health

The most recent available status of the Affordable Care Act; additional coverage of health disparities; research on benefits of mHealth for consumers and patients; new section regarding technology

addiction; growth of interest in and use of complementary and alternative medicine.

## Chapter 12: Addictive Behaviors and Drugs

Updated statistics on drug use on campus; trends in drug use in America; caffeine and health; updated graphic regarding caffeine in common drinks; impact of medical marijuana legalization; new research on technology addiction; expanded section on CBD.

## Chapter 13: Alcohol and Tobacco

New Strategy for Change, “Sobering Up”; newest data on drinking in college; impact of social norms on student drinking; drinking behavior through the college years; new graphic for understanding blood-alcohol concentration; updated charts and graphics for better student comprehension; new section regarding driving safety. Latest statistics on smoking in America; update on smoking and vaping on campus; expanded discussion of e-cigarettes and vaping; dangers of e-cigarette smoke; patterns of e-cigarette use; college students’ beliefs about e-cigarettes; updates on smoking cessation options.

## Chapter 14: The Environment and Your Health

Updated sections on climate change and global warming; updated coverage of the impact of wildfires and air pollution; updated coverage of air pollution and its impact on health; expanded discussion on composting.

## Chapter 15: A Lifetime of Health

Updated statistics on longevity and life expectancy; new Strategy for Change, “What to Say When Someone is Grieving”; expanded information on children as caregivers; added information regarding death and dying; functional impairment and decline in middle age; impact of healthy behaviors on life expectancy.

## Supplemental Resources

### MindTap for *An Invitation to Health, Brief*

MindTap, today’s most innovative online learning platform, powers your students from memorization to mastery. MindTap gives you complete control of your course to provide engaging content, challenge every individual and build students’ confidence.

### 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 can also be accessed from the app dock in MindTap.

### Instructor Companion Site

Everything you need for your course in one place! This collection of product-specific lecture and class tools is available online via [www.cengage.com/login](http://www.cengage.com/login). Access and download PowerPoint presentations, images, instructors’ manual, and more.

## Test Bank with Cognero

Cengage Testing, powered by Cognero®, is a flexible, online system that allows you to import, edit, and manipulate content from the text's test bank or elsewhere, including your own favorite test questions; create multiple test versions in an instant; and deliver tests from your LMS, your classroom, or wherever you want.

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Lisa Tunks



# An Invitation to Health



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## Learning Objectives

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 sex 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** Evaluate health information for accuracy and reliability.
- 1.8** Explain the influences on behavior that support or impede healthy change.
- 1.9** Identify the stages of change.

## What Do You Think?

- What does “health” mean to you?
- How healthy are today’s college students?
- Is online health information generally accurate?
- Can people successfully change their health behaviors?

# 1

## Taking Charge of Your Health

Jordan 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 12), 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.<sup>1</sup>

"Maybe I'm not too young to start thinking about my health," Jordan 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.

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 choices you make and the habits you develop, you can take charge of your health and influence how well—and how long—you will live.

Simple changes in your lifestyle can add more than a decade to your life expectancy—and enhance your well-being through all the years of your life.<sup>2</sup>

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 (STI) 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. <



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

**health** State of complete well-being, including physical, emotional, spiritual, social, intellectual, and environmental dimensions.

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

# 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 your body, mind, spirit, family, community, and environment.

Health has many dimensions: physical, emotional, spiritual, social, intellectual, environmental, occupational, financial, and community. 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
- 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 choice 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; and
- 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

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?

**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 texts define 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 choices 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.

**Emotional Health** Like physical well-being, emotional health, discussed in Chapter 2, encompasses our psychological 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 7).

**Intellectual Health** Every day, you use your mind to gather, process, and act on information; think through your values; 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 the products you use—and working to preserve the environment itself (see Chapter 14).

**Occupational and Financial Health** Even a part-time job can have an impact on your health. College freshmen who work more than 10 hours a week are more likely to smoke and drink than those who aren't employed.<sup>3</sup> However, they may be gaining valuable experience in managing their time, setting priorities, and finding a healthy balance in their lives.

After graduation, 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.

**Community 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.”<sup>4</sup> 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.



Zoomar GmbH/Alamy Stock Photo

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

## 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 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. Although few Americans get a perfect health-habit score, a significant number report at least one healthy habit:

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

**health promotion** 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.

- 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.<sup>5</sup>

The life expectancy at birth in 2019 was 78.8 years for the total population. Life expectancy at birth in the United States for men was 76.3 years for men and 81.4 years for women. The 10 leading causes of death were found to be heart disease, cancer, unintentional injuries, chronic lower respiratory diseases, stroke, Alzheimer's disease, diabetes, kidney disease, influenza and pneumonia, and suicide. Certainly, life expectancy data will change due to the COVID-19 pandemic.<sup>6</sup> Major factors contributing to the decline in life expectancy among younger Americans are unintentional injury, including fatal drug overdoses, and suicide.<sup>7</sup>

The Americans experiencing the greatest health deficits and losing the most years to illness, disability, and premature death are not older adults 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.<sup>8</sup>

Quality of life matters as much as quantity. Rather than focusing solely on life expectancy, experts are calculating healthy life expectancy (HALE), based on years lived without disease or disability. The average HALE for Americans is considerably shorter than their life expectancy: about 78.9 years.<sup>9</sup>

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

## Healthy People 2030

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.<sup>10</sup> These include:

- 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.

✓ **Check-in** What are your personal health objectives?

## Health Disparities

Americans who are members of certain racial-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.<sup>11</sup>

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.<sup>12</sup> This may be changing for young Americans. The expected

## 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-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-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 through 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.

lifespan for those under age 20 is less affected by whether they are rich or poor now than in the past.<sup>13</sup>

If you are a member of a racial-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/omhd](http://www.cdc.gov/omhd)), 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-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<sup>14</sup>:

- 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 1 in 3 Hispanics has prediabetes; only about half of Hispanics with diabetes have it under control.<sup>15</sup>
- 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.<sup>16</sup> 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.

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



John Lund/Marc Romanelli/Getty Images

has widened for breast cancer in women and remained level for colorectal cancer in men.<sup>17</sup>

- 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-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.

**Cardiovascular Disease** Heart disease and stroke are the leading causes of death for all racial-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.

Heredity factors may increase the likelihood of this Akimel O'odham infant's risk of developing diabetes, but environmental factors also play a significant role.

**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.<sup>18</sup> The prevalence of dementia varies significantly among Americans of different racial and ethnic groups, with the highest rates among Blacks and American Indians/Alaska Natives and the lowest among Asian Americans. Hispanics and Whites have intermediate rates.<sup>19</sup>

**Infectious Disease** Asian Americans and Pacific Islanders have much higher rates of hepatitis B than other racial-ethnic 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-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.<sup>20</sup>

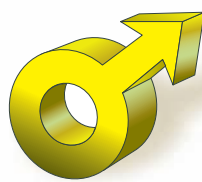

## Sex and Health

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. Chapter 8 provides a detailed discussion about gender identity.

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 have higher rates of cancer, heart disease, stroke, lung disease, kidney disease, liver disease, and HIV/AIDS.<sup>21</sup> Men 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

He:		She:	
	<ul style="list-style-type: none"><li>• averages 12 breaths a minute</li><li>• has lower core body temperature</li><li>• has a slower heart rate</li><li>• has more oxygen-rich hemoglobin in his blood</li><li>• is more sensitive to sound</li><li>• produces twice as much saliva</li><li>• has a 10 percent larger brain</li><li>• is 10 times more likely to have attention deficit disorder</li><li>• as a teen, has an attention span of 5 minutes</li><li>• is more likely to be physically active</li><li>• is more prone to lethal diseases, including heart attacks, cancer, and liver failure</li><li>• is five times more likely to become an alcoholic</li><li>• has a life expectancy of 76 years</li></ul>		<ul style="list-style-type: none"><li>• averages 9 breaths a minute</li><li>• has higher core body temperature</li><li>• has a faster heart rate</li><li>• has higher levels of protective immunoglobulin in her blood</li><li>• is more sensitive to light</li><li>• takes twice as long to process food</li><li>• has more neurons in certain brain regions</li><li>• is twice as likely to have an eating disorder</li><li>• as a teen, has an attention span of 20 minutes</li><li>• is more likely to be overweight</li><li>• is more vulnerable to chronic diseases, like arthritis and autoimmune disorders, and age-related conditions like osteoporosis</li><li>• is twice as likely to develop depression</li><li>• has a life expectancy of 81 years</li></ul>

**Figure 1.1** Some of the Many Ways Men and Women Are Different

about one-third of clinical trial subjects in cardiovascular research have been female.

- 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.

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✓ **Check-in** How do you think your sex affects your health?

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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. LGBTQIA (lesbian, gay, bisexual, transgender, queer or questioning, intersex, and asexual) individuals are more likely to encounter health disparities linked to social stigma, discrimination, and denial of their human and civil rights.<sup>22</sup> Sexual orientation discrimination increases the risk of psychiatric disorders, substance abuse, and suicide. On campus, transgender students may face similar issues, as well as particular stigma over so-called bathroom bills that require them to use public facilities corresponding with the sex designated on their birth certificates.<sup>23</sup> The *Healthy People 2030* initiative has made LGBTQIA+ health and safety a point of focus. Thirteen different objectives aimed at improving the health of LGBTQIA+ communities were added to the HP 2030 initiative, including bullying, health care, drug and alcohol use, and suicide prevention.

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## Health on Campus

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As one of an estimated 19.9 million college students in the United States, you are part of a remarkably diverse group. Today's

undergraduates come from every age group and social, racial-ethnic, economic, political, and religious background. Some 12 million are female; 9 million, male. You may have served in the military, started a family, or emigrated from another country. You might be enrolled in a two-year college, a four-year university, or a technical school. Your classrooms might be in a busy city or a small town—or they might exist solely as a virtual campus. Although the majority of undergraduates are “traditional” age (between 18 and 24 years), more of you than ever before—8 million—are over age 25.<sup>24</sup>

Today's college students are both similar to and different from previous generations in many ways. Among the unique characteristics of current traditional-age undergraduates are the following:

- They are the first generation of “digital natives,” who've grown up in a wired world.
- They are the most diverse in higher education history. About 15 percent are Black; an equal percentage are Hispanic.
- They are both more connected and more isolated than their predecessors, with a “tribe” of friends, family, and acquaintances in constant contact through social media but with weak interpersonal, communications, and problem-solving skills.
- More students are working, working longer hours, taking fewer credits, requiring more time to graduate, and leaving college with large student loan debts.
- They face a future in which the pace and scale of change will constantly accelerate.

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✓ **Check-in** A recent analysis of college students identified four types of undergraduates: dreamers, drifters, passengers, and planners. Here is some specific advice for each type:

- If you're a dreamer, seek guidance to fill in the details of your “big picture” goal for college.
  - If you're a drifter, focus on developing specific strategies to reach your educational goals.
  - If you're a passenger, find a mentor or advisor to help you interpret what you learn.
  - If you're a planner, look for help in applying the information you've gathered to your unique situation.<sup>25</sup>
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## College and Health

Although the words “college health” often appear together, they are, in fact, two different things that profoundly influence each other. College students who actively focus on healthy behaviors get better grades and are more likely to graduate. A college education boosts health status, income, and community engagement later in life.<sup>26</sup> Yet the transition from high school to college is considered an at-risk period for health and healthy behaviors.

As studies in both the United States and Europe have documented, from their final year of high school to the second year of college, students are likely to:

- Gain weight, generally an average of 6 pounds.
- Cut back on their participation in sports—perhaps because they move away from local teams or they lack free time.
- Decrease some sedentary behaviors, such as streaming videos and playing computer games, but increase others, such as social media and studying.
- Eat fewer fruits and vegetables.
- Consume more alcohol.<sup>27</sup>

Although healthier than individuals of the same age who are not attending college, undergraduates have significant health issues that can affect their overall well-being and ability to perform well in an academic environment<sup>28</sup>:

- More than half report common acute illnesses, such as colds and flus, that interfere with their studies.
- A significant proportion report symptoms of depression, anxiety, and other mental disorders.
- For many, poor sleep has an impact on academic performance.
- They are more likely to use alcohol and drugs than nonstudents their age.
- College students experience higher rates of interpersonal violence.
- On the positive side, college students are less likely to be overweight or obese, to smoke, to consume high-fat and low-fiber foods, to have high cholesterol levels, and to engage in high-risk sexual behavior than young adults who are not attending college.

College represents a rite of passage, when undergraduates typically engage in “adult” behaviors such as drinking, getting involved in intimate

relationships, and taking personal responsibility for health behaviors (e.g., sleep schedules and nutrition) that their parents may have previously supervised. Students cramming for a big exam may decide not to sleep and accept the short-term consequences on their health. Others, thinking ahead to future goals, may consciously choose to avoid behaviors, such as unsafe sex or drug use, that may jeopardize their plans.

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✓ **Check-in** Do you feel that today's undergraduates face unique pressures that can take a toll on physical and psychological health?  
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## How Healthy Are Today's Students?

In the American College Health Association's National College Health Assessment (ACHA-NCHA) survey, about half of college students—54.9 percent of men and 45 percent of women—rate their health as very good or excellent (see Snapshot: On Campus Now).<sup>29</sup> Here are some details about the health and habits of undergraduates:

- Forty percent of undergraduates have a body mass index (BMI) indicating they weigh more than is considered a healthy weight (see Chapter 6).<sup>30</sup>
- Fewer than half (46.2 percent) of undergraduates get the recommended amounts of physical activity (see Chapter 7).<sup>31</sup>
- Of those engaging in vaginal intercourse, about half of college men report having used a condom most of the time or always (see Chapter 9).<sup>32</sup>
- About half of students report drinking alcohol at least once in the previous month; twenty percent report having consumed five or more drinks in a single sitting at least once within the past 2 weeks (see Chapter 16).<sup>33</sup>
- About 5 percent smoked a cigarette at least once in the past month. A growing number are trying e-cigarettes, which they perceive as less risky and addictive than conventional cigarettes, but which increase the likelihood of cigarette smoking (see Chapter 17).
- One in five used marijuana in the previous month (see Chapter 15).<sup>34</sup>
- Many undergraduates use prescription stimulants because they believe the drugs can provide academic benefits, but longitudinal

# Snapshot: on Campus Now

## Student Health

Percentage of students who describe their health as good, very good, or excellent:

Men	Women	Average
84.9	81.2	81.8

Proportion of college students who reported being diagnosed or treated for these health problems in the past year.

Top Ten Health Problems	Percent
1. Allergies	18.9
2. Sinus infection	14.9
3. Back pain	13.2
4. Urinary tract infection	10.0
5. Strep throat	9.6
6. Migraine headache	9.5
7. Asthma	9.0
8. Ear infection	6.6
9. Broken bone/fracture/sprain	5.7
10. Bronchitis	5.0

Source: American College Health Association. *American College Health Association-National College Health Assessment II: Undergraduate Student Reference Group Executive Summary*. Hanover, MD; Spring 2019.

studies have found no detectable improvements in grades<sup>35</sup> (see Chapter 15).

- In a recent sample of college students, 9.5 percent reported misuse of prescription opioid drugs at some time in their lives, primarily to relieve physical or emotional pain, “feel good/get high,” or experiment<sup>36</sup> (see Chapter 15).
- Only 11 percent of students say they get enough sleep to feel rested in the morning 6 or more days a week; 12 percent never feel rested (see Chapter 2).
- College athletes have lower health-related quality of life than their same-age peers who did not or no longer play college sports.<sup>37</sup>

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✓ **Check-in** How do you think your current health behaviors may affect your future?  
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Colleges and universities have tried various interventions to improve students’ health choices and habits. Do they work? In a meta-analysis of 41 studies, most conducted in the United States, 34 yielded significant improvements in one of several key outcomes, including the following:

- **Physical activity:** more steps per day, more time in vigorous and/or moderate exercise, greater maximum oxygen consumption, and improved muscle strength, endurance, and flexibility.
- **Nutrition:** lower calorie intake, more fruits and vegetables, reduced fat consumption, more macronutrients, and better overall diet quality.
- **Weight:** improved weight, lower body fat, and healthier waist circumference and waist-to-hip ratio.

# Health Now!

## First Steps

- To lower your risk of heart disease, get your blood pressure and cholesterol checked. Don't smoke. Maintain a healthy weight. Exercise regularly.
- To lower your risks of major diseases, get regular check-ups. Make sure you are immunized against infectious illnesses.
- To lower your risks of substance abuse and related illnesses and injuries, don't drink, or limit how much you drink. Avoid illegal drugs.
- To lower your risk of sexually transmitted infections or unwanted pregnancy, abstain from sex. If you engage in sexual activities, protect yourself with contraceptives and contraceptives. Make regular Pap smears or breast or testicular exams part of your wellness plan.
- To prevent car accidents, stay off the road in hazardous circumstances, such as bad weather. Wear a seat belt when you drive, don't drive while distracted, and use defensive driving techniques.

Identify your top preventive health priority—lowering your risk of heart disease, for instance, or avoiding accidents. Write down a single action you can take this week that will reduce your health risks. As soon as you take this step, write a brief reflection in your online journal.

**social norm** Behavior or attitude that a particular group expects, values, and enforces.

**prevention** Information and support offered to help healthy people identify their health risks, reduce stressors, prevent potential medical problems, and enhance their well-being.

The most effective interventions spanned a semester or less, targeted only nutrition rather than multiple behaviors, and were imbedded within college courses. As the researchers noted, “Universities and colleges are an ideal setting for implementation of health promotion programs.” Why?

- They reach a large student population during a crucial life transition.
- They offer access to world-class facilities, technology, and highly educated staff in various health disciplines.
- They reach young adults at an age “where health behaviors that impact on health later in life can be provided.”<sup>38</sup>

## The Future Starts Now

The choices you make today have an immediate impact on how you feel as well as long-term consequences, including the following:

- Individuals who begin using tobacco or alcohol in their teens and 20s are more likely to continue to do so as they get older.
- Obese children often grow into obese adolescents and obese adults, with ever-increasing risks of diabetes and cardiovascular disease.
- People in their 20s who have even mildly elevated blood pressure face an increased risk of clogged heart arteries by middle age.
- Young adults who contract an STI may jeopardize both their future fertility and their health.

At any age, health risks are not inevitable. As recent research has shown, young adults with high aerobic fitness (discussed in Chapter 7) have a reduced risk of cardiovascular disease later in life.<sup>39</sup> Simple steps such as those listed in Health Now! can get you started in the right direction now!

## Student Health Norms

Psychologists use the term *norm*, or **social norm**, to refer to a behavior or an attitude that a particular group expects, values, and enforces. Norms influence a wide variety of human activities, including health habits. However, perceptions of social norms are often inaccurate. Only anonymous responses to a scientifically designed questionnaire can reveal what individuals really

do—the actual social norms—as compared to what they may say they do to gain social approval.

Undergraduates are particularly likely to misjudge what their peers are—and aren't—doing. In recent years, colleges have found that publicizing research data on behaviors such as drinking, smoking, and drug use helps students get a more accurate sense of the real health norms on campus.

The gap between students' misperceptions and accurate health norms can be enormous. For example, undergraduates in the ACHA survey estimate that only 13 percent of students had never smoked cigarettes. In fact, 70 percent never had. Students guessed that only 4 percent of their peers never drank alcohol. In reality, 21 percent never did.<sup>40</sup> Providing accurate information on drinking norms on campus has proven effective in changing students' perceptions and in reducing alcohol consumption by both men and women.

✓ **Check-in** Do you think your peers have better or worse health habits than you?

## The Power of Prevention

Although you may think you are too young to worry about serious health conditions, many chronic problems begin early in life:

- Two percent of college-age women already have osteoporosis, a bone-weakening disease; another 15 percent have osteopenia, a low bone density that puts them at risk of osteoporosis.
- Many college students have several risk factors for heart disease, including high blood pressure and high cholesterol. Others increase their risk by eating a high-fat diet and not exercising regularly.

No medical treatment, however successful or sophisticated, can compare with the power of **prevention**. Two out of every three deaths and 1 in 3 hospitalizations in the United States could be prevented by changes in six main risk factors: tobacco use, alcohol abuse, accidents, high blood pressure, obesity, and gaps in screening and primary health care.

Prevention remains the best weapon against cancer and heart disease. One of its greatest successes has come from the antismoking campaign, which in the past 40 years has prevented an estimated 8 million premature deaths in the United States, giving these ex-smokers an average of nearly 20 additional years of life.<sup>41</sup>

Protecting Yourself

There is a great deal of overlap between prevention and **protection**. Some people might think of immunizations as a way of preventing illness; others see them as a form of protection against dangerous diseases. Unfortunately, many adults are not getting the immunizations they need—and are putting their health in jeopardy as a result. (See Chapter 10 to find out which vaccinations you should receive.)

You can prevent STIs or unwanted pregnancy by abstaining from sex. But if you decide to engage in sexual activities, you can protect yourself with condoms and contraceptives. Similarly, you can prevent many automobile accidents by not driving when road conditions are hazardous. But if you do have to drive, you can protect yourself by wearing a seat belt and using defensive driving techniques.

✓ Check-in What steps are you taking to protect your health?

Informing Yourself

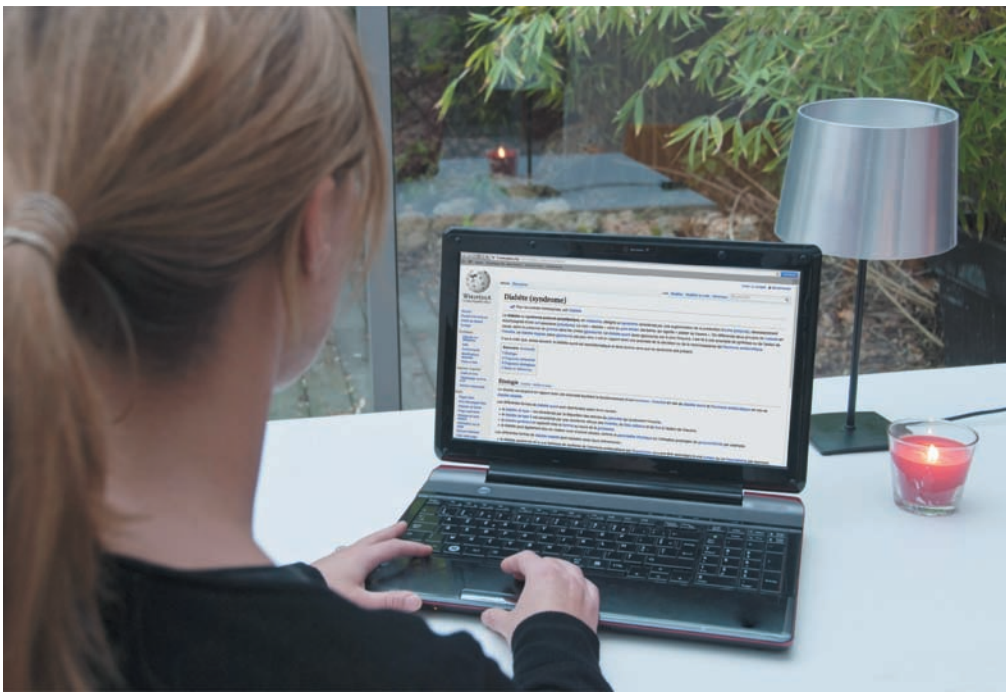
More than ever, consumers need clear, concise, and accurate information, not just on specific health conditions but also on factors such as the effectiveness of a particular treatment. By learning how to maintain your health, evaluate medical information, and spot early signs of a problem, you are more likely to get the best possible care.

✓ Check-in Where do you turn for health information? Which sources do you consider the most reliable?

Evaluating Online Health Information

Millions of Americans turn to the Internet to diagnose health problems. The availability of health-related information that is on the internet can be overwhelming. Recognizing reputable online sources and credible media outlets is important as consumers are turning to digital information sites. The Centers for Disease Control and Prevention (CDC) and National Institutes of Health (NIH) both have user-friendly websites that provide accurate facts as well as useful links regarding a variety of health-related topics. If you go online for medical information, here are some guidelines for evaluating websites:

- Check the creator. Websites are produced by health agencies, health support groups, school health programs, health product advertisers,



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health educators, and health education organizations. Read site headers and footers carefully to distinguish biased commercial advertisements from unbiased sites created by scientists and health agencies.

- If you are looking for the most recent research, check the date the page was created and last updated, as well as the links. Several nonworking links signal that the site isn't carefully maintained or updated.
- Check the references. As with other health education materials, Web documents should provide the reader with references. Unreferenced suggestions may be scientifically unsound and possibly unsafe.
- Consider the author. Is the author recognized in the field of health education or otherwise qualified to publish a health-information Web document? Is the author's occupation, experience, and education listed?
- Look for possible bias. Websites may attempt to provide health information to consumers, but they also may attempt to sell a product. Many sites are merely disguised advertisements. (See Table 1.1 for physician-endorsed websites.)

✓ Check-in Which websites have you used to find health information? Which ones do you trust? Which ones don't you trust?

Millions of Americans go online to learn about medical problems and treatments and to chat with others who have similar conditions.

**protection** Measures that an individual can take when participating in risky behavior to prevent injury or unwanted risks.

**Table 1.1** Doctor-Recommended Websites

<b>National Library of Medicine: MedlinePlus</b>	<b>(<a href="http://www.nlm.nih.gov/medlineplus/">www.nlm.nih.gov/medlineplus/</a>)</b>
MedlinePlus contains links to information on hundreds of health conditions and issues. The site also includes a medical dictionary, an encyclopedia with pictures and diagrams, and links to physician directories.	
<b>FDA Center for Drug Evaluation and Research</b>	<b>(<a href="http://www.fda.gov">www.fda.gov</a>)</b>
Click on Drugs@FDA for information on approved prescription drugs and some over-the-counter medications.	
<b>WebMD</b>	<b>(<a href="http://www.webmd.com">www.webmd.com</a>)</b>
WebMD is full of information to help you manage your health. The site's quizzes and calculators are a fun way to test your medical knowledge. Get diet tips, find information on drugs and herbs, and check out special sections on men's and women's health.	
<b>Mayo Clinic</b>	<b>(<a href="http://www.mayoclinic.com">www.mayoclinic.com</a>)</b>
The renowned Mayo Clinic offers a one-stop health resource website. Use the site's Health Decision Guides to make decisions about prevention and treatment. Learn more about complementary and alternative medicine, sports medicine, and senior health in the Healthy Living Centers.	
<b>Centers for Disease Control and Prevention</b>	<b>(<a href="http://www.cdc.gov">www.cdc.gov</a>)</b>
Stay up to date on the latest public health news and get the CDC's recommendations on travelers' health, vaccines and immunizations, and protecting your health in case of a disaster.	
<b>Medscape</b>	<b>(<a href="http://www.medscape.com">www.medscape.com</a>)</b>
Medscape delivers news and research specifically tailored to your medical interests. The site requires (free) registration.	

**Getting Medical Facts Straight** Cure! Breakthrough! Medical miracle! When you see headlines like these, keep in mind that although medical breakthroughs do occur, most scientific progress is made one small step at a time. Rather than trust the most recent report or the hottest trend, try to gather as much background information and as many opinions as you can.

When reading a newspaper or magazine story or listening to a radio or television report about a medical advance, look for answers to the following questions:

- Who are the researchers? Are they recognized, legitimate health professionals? What are their credentials? Are they affiliated with respected medical or scientific institutions? Be wary of individuals whose educational background is in a discipline related to the area of research reported.
- Where did the researchers report their findings? The best research is published in peer-reviewed professional journals, such as the *New England Journal of Medicine* and the *Journal of the American Medical Association*. Research findings also may be reported at meetings of professional societies.
- Is the information based on personal observations? Does the report include testimonials from cured patients or satisfied customers? If the answer to either question is yes, be wary.

- Does the article, report, or advertisement include words like *amazing*, *secret*, or *quick*? Does it claim to be something the public has never seen or been offered before? Such sensationalized language is often a tipoff that the treatment is dubious.
- Is someone trying to sell you something? Manufacturers that cite studies to sell a product may embellish the truth. Although they may sound scientific, direct-to-consumer advertisements for medications, treatments, hospitals, and health-care providers are well-packaged sales pitches.<sup>42</sup>
- Does the information defy all common sense? Be skeptical. If something sounds too good to be true, it probably is.

## Understanding Risky Behaviors

Today's students face different—and potentially deadlier—risks than undergraduates did a generation or two ago. The problem is not that students who engage in risky behavior feel invulnerable or do not know the danger. Young people, according to recent research, actually overestimate the risk of some outcomes. However, they also overestimate the benefit of immediate pleasure when, for instance, engaging in unsafe sex, and they underestimate the negative consequences, such as an STI.

# \$ Health on a Budget

## Invest in Yourself

Trying to save money in the short term by doing without needed health care can cost you a great deal—financially and physically—in the long term. Here are some ways to keep medical costs down without sacrificing your good health:

- **Stay healthy.** Use this book to learn the basics of a healthy lifestyle and then live accordingly. By eating nutritiously, exercising, getting enough sleep, not smoking, and getting regular immunizations, you'll reduce your risk of conditions that require expensive treatments.
- **Build a good relationship with a primary care physician.** Although your choices may be limited, try to schedule appointments with the same doctor. A physician who knows you, your history, and your concerns can give you the best advice on staying healthy.
- **Don't go to a specialist without consulting your primary care provider,** who can help you avoid overtesting and duplicate treatments.
- **If you need a prescription, ask if a generic form is available.** Brand names cost more, and most insurers charge higher co-payments for them.
- **Take medications as prescribed.** Skipping doses or cutting pills in two may seem like easy ways to save money, but you may end up spending more for additional care because the treatment won't be as effective.
- **Don't go to an emergency department unless absolutely necessary.** Call your doctor for advice or go to the student health service. Emergency departments are overburdened with caring for the very ill and for injured people, and their services are expensive.

College-age men are more likely than women to engage in risky behaviors—to use drugs and alcohol, to have unprotected sex, and to drive dangerously. Men are also more likely to be hospitalized for injuries and to commit suicide. Three-fourths of the deaths in the 15- to 24-year-old age range are men.

Drinking has long been part of college life and, despite efforts across U.S. college campuses to curb alcohol abuse, two out of five students engage in binge drinking—consumption of five or more drinks at a single session for men or four for women. Heavy drinking increases the likelihood of other risky behaviors, such as smoking cigarettes, using drugs, and having multiple sexual partners. New trends, such as drinking caffeinated alcoholic beverages and vaping (Chapter 12) and using dangerous stimulants called “bath salts” (Chapter 11), present new risks.

✓ **Check-in** What is the greatest health risk you've ever taken?

## Making Healthy Changes

If you would like to improve your health behavior, you have to realize that change isn't easy. Between 40 and 80 percent of those who try

to kick bad health habits lapse back into their unhealthy ways within six weeks (see Health on a Budget). Fortunately, our understanding of change has itself changed. Thanks to decades of research, we now know what sets the stage for change, the way change progresses, and the keys to lasting change. We also know that personal change is neither mysterious nor magical but rather a methodical science that anyone can master.

✓ **Check-in** What health-related change would you like to make?

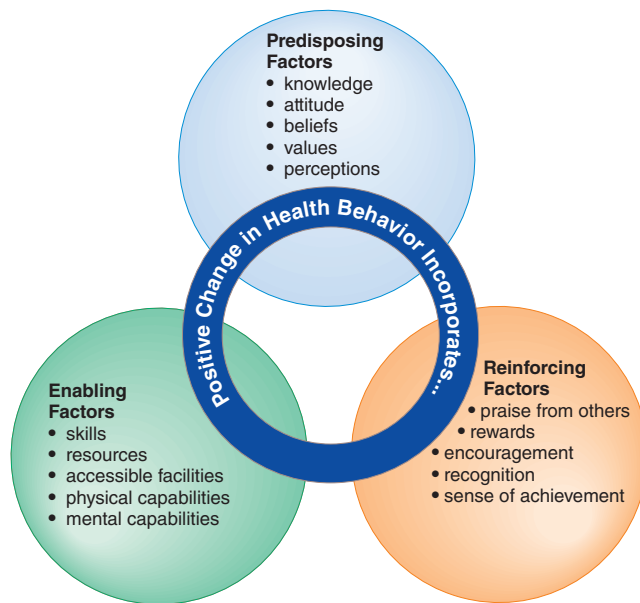
## Understanding Health Behavior

Three types of influences shape behavior: predisposing, enabling, and reinforcing factors (Figure 1.2).

**Predisposing Factors** **Predisposing factors** include knowledge, attitudes, beliefs, values, and perceptions. Unfortunately, knowledge isn't enough to cause most people to change their behavior; for example, people fully aware of the grim consequences of smoking often continue to puff away. Nor is attitude—one's likes and dislikes—sufficient; an individual may dislike the smell and taste of cigarettes but continue to smoke anyway.

Beliefs are more powerful than knowledge and attitudes, and researchers report that people

**predisposing factors** Beliefs, values, attitudes, knowledge, and perceptions that influence our behavior.



**Figure 1.2** Factors That Shape Positive Behavior

are most likely to change health behavior if they hold three beliefs:

- **Susceptibility.** They acknowledge that they are at risk for the negative consequences of their behavior.
- **Severity.** They believe that they may pay a very high price if they don't make a change.
- **Benefits.** They believe that the proposed change will be advantageous in some way. For example, they may quit smoking primarily for their health or for social acceptance, depending on their attitudes and self-esteem.<sup>43</sup>

**Enabling Factors** Enabling factors include skills, resources, accessible facilities, and physical and mental capacities. Before you initiate a change, assess the means available to reach your goal. No matter how motivated you are, you'll become frustrated if you keep encountering obstacles. Breaking down a task or goal into step-by-step strategies is very important in behavioral change.

**Reinforcing Factors** Reinforcing factors may be praise from family members and friends, rewards from teachers or parents, or encouragement and recognition for meeting a goal. Although these help a great deal in the short run, lasting change depends not on external rewards but on an internal commitment and sense of achievement. To make a difference, reinforcement must come from within.

**reinforcing factors** Rewards, encouragement, and recognition that influence our behavior in the short run.

**enabling factors** >Skills, resources, and physical and mental capabilities that shape our behavior.

A choice to change a health behavior should stem from a permanent, personal goal, not from a desire to please or impress someone else. If you lose weight for the homecoming dance, you're almost sure to regain pounds afterward. But if you shed extra pounds because you want to feel better about yourself or get into shape, you're far more likely to keep off the weight.

✓ **Check-in** What goal would motivate you to change?

## How People Change

Change can simply happen. You get older. You put on or lose weight. You have an accident. Intentional change is different: A person consciously, deliberately sets out either to change a negative behavior, such as chronic procrastination, or to initiate a healthy behavior, such as daily exercise. For decades, psychologists have studied how people intentionally change and have developed various models that reveal the anatomy of change.

In the *moral model*, you take responsibility for a problem (such as smoking) and its solution; success depends on adequate motivation, while failure is seen as a sign of character weakness. In the *enlightenment model*, you submit to strict discipline to correct a problem; this is the approach used in Alcoholics Anonymous. The *behavioral model* involves rewarding yourself when you make positive changes. The *medical model* sees the behavior as caused by forces beyond your control (e.g., a genetic predisposition to being overweight) and employs an expert to provide advice or treatment. For many people, the most effective approach is the *compensatory model*, which doesn't assign blame but puts responsibility on individuals to acquire whatever skills or power they need to overcome their problems.

**Health Belief Model** Psychologists developed the **health belief model (HBM)** about 50 years ago to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals. (Remember that your attitudes and beliefs are predisposing influences on your capacity for change.) According to this model, people will take a health-related action (e.g., use condoms) if they:

- Feel susceptible to a possible negative consequence (such as an STI).
- Perceive the consequence as serious or dangerous.

- Think that a particular action (using a condom) will reduce or eliminate the threat (of STIs).
- Feel that they can take the necessary action without difficulty or negative consequences.
- Believe that they can successfully do what's necessary (use condoms comfortably and confidently).

Readiness to act on health beliefs, in this model, depends on how vulnerable individuals feel, how severe they perceive the danger to be, the benefits they expect to gain, and the barriers they think they will encounter. Another key factor is self-efficacy, or confidence in their ability to take action.

In a study that tested the relationship between college students' health beliefs and cancer self-examinations, women were more likely to examine their breasts than men were to perform testicular exams. However, students of both sexes were more likely to do self-exams if they felt susceptible to developing cancer, if they felt comfortable and confident doing so, and if they were given a cue to action (such as a recommendation by a health professional).<sup>44</sup>

**Self-Determination Theory** This approach, developed several decades ago by psychologists Edward Deci and Richard Ryan, focuses on whether an individual lacks motivation, is externally motivated, or is intrinsically motivated. Someone who is “amotivated” does not value an activity, such as exercise, or does not believe it will lead to a desired outcome, such as more energy or lower weight. Individuals who are externally motivated may engage in an activity like exercise to gain a reward or avoid a negative consequence (such as a loved one's nagging). Some people are motivated by a desired outcome; for instance, they might exercise for the sake of better health or longer life. Behavior becomes self-determined when someone engages in it for its own sake, such as exercising because it's fun.

Numerous studies have evaluated self-determination as it relates to health behavior. In research on exercise, individuals with greater self-determined motivation are less likely to stop exercising; they have stronger intentions to continue exercise, higher physical self-worth, and lower social anxiety related to their physique.

**Motivational Interviewing** Health professionals, counselors, and coaches use motivational interviewing, developed by psychologists William Miller and Stephen Rollnick, to inspire individuals, regardless of their enthusiasm for change, to move toward improvements that could make their lives better. The U.S. Public Health Service, based on its assessment of current research, recommends motivational interviewing as an effective way to

## SMART Goal Setting

While visualizing your healthier self is an important step, setting a personal goal gives you a sense of focus and promotes new healthy behaviors. When you set a well-designed goal, in addition to creating a sense of self-mastery, you are giving yourself the highest probability of succeeding. If you are serious about achieving a personal goal, you can take active steps to increase the likelihood that you will succeed.

A SMART goal can help you define your desired outcome and is incredibly useful for students who are actively trying to adopt healthy lifestyles and behaviors (see Figure 1.3). SMART stands for:

- **Specific:** The goal is well stated and clearly defined and there is nothing ambiguous.
- **Measurable:** The goal is easily quantifiable; you can track your progress using objective tools and numbers.
- **Achievable:** Be sure to set a goal that is within your reach; consider your limitations and obstacles to success.
- **Relevant (or Realistic):** There is an intrinsic value to you; the goal is within reach; you recognize the importance of achieving the goal
- **Time bound:** Set a definitive time frame for accomplishing the goal; create a beginning and end point; consider the outside events that may overlap the timeline for the goal.



Figure 1.3 SMART Goal

increase all tobacco users' willingness to quit. Building a collaborative partnership, the therapist does not persuade directly but uses empathy and respect for the patient's perspective to evoke recognition of the desirability of change.

**Self-Affirmation Theory** Affirmations, discussed in Chapter 2, can improve integrity, problem solving, self-worth, and self-regulation. They are also effective in encouraging behavioral change. According to self-affirmation theory, thinking about core personal values, important personal strengths, or valued relationships can provide reassurance and reinforce self-worth. Repeating an affirmation is one of the fastest ways to restructure thought patterns, develop new pathways in the brain, and make individuals less defensive about changing health behaviors.<sup>45</sup>

Recent neuroimaging studies have revealed how self-affirmations may increase the effectiveness of many health interventions. Using

**health belief model (HBM)** Model of behavioral change that focuses on an individual's attitudes and beliefs.



SelectStock/Getty Images

Your stated knowledge-based belief may be that distracted driving can cause accidents. Your actual belief is that it won't happen to you.

functional magnetic resonance imaging (fMRI), scientists were able to visualize changes in the brains of volunteers as they were reciting affirmations in their minds. These internal messages produced more activity in a region of the brain associated with positive responses.<sup>46</sup>

.....  
✓ **Check-in** Some common self-affirmations are "I am strong" and "I can handle this challenge." What would you say to yourself to encourage a behavioral change?  
.....

**Transtheoretical Model** Psychologist James Prochaska and his colleagues, by tracking what they considered to be universal stages in the successful recovery of those addicted to drugs and alcohol, developed a way of thinking about change that cuts across psychological theories. Their **transtheoretical model** focuses on universal aspects of an individual's decision-making process rather than on social or biological influences on behavior.

The transtheoretical model has become the foundation of programs for smoking, alcohol, and drug use cessation; exercise; healthy food choices; weight control; condom use; mammography screening; and stress management. Recent studies have demonstrated that it is more effective in encouraging weight loss than physical activity.<sup>47</sup>

The following sections describe these key components of the transtheoretical model:

- **Stages of change**—a sequence of stages to make a change.
- **Processes of change**—cognitive and behavioral activities that facilitate change.

**transtheoretical model** Model of behavioral change that focuses on an individual's decision making; it states that an individual progresses through a sequence of six stages while making a change in behavior.

- **Self-efficacy and locus of control**—the confidence people have in their ability to cope with challenge.

**The Stages of Change.** According to the transtheoretical model of change, individuals progress through a sequence of stages as they make a change (Figure 1.4). No one stage is more important than another, and people often move back and forth between them. Most people "spiral" from stage to stage, slipping from maintenance to contemplation or from action to precontemplation, before moving forward again.

People usually cycle and recycle through the stages several times. Smokers, for instance, report making three or four serious efforts to quit before they succeed.

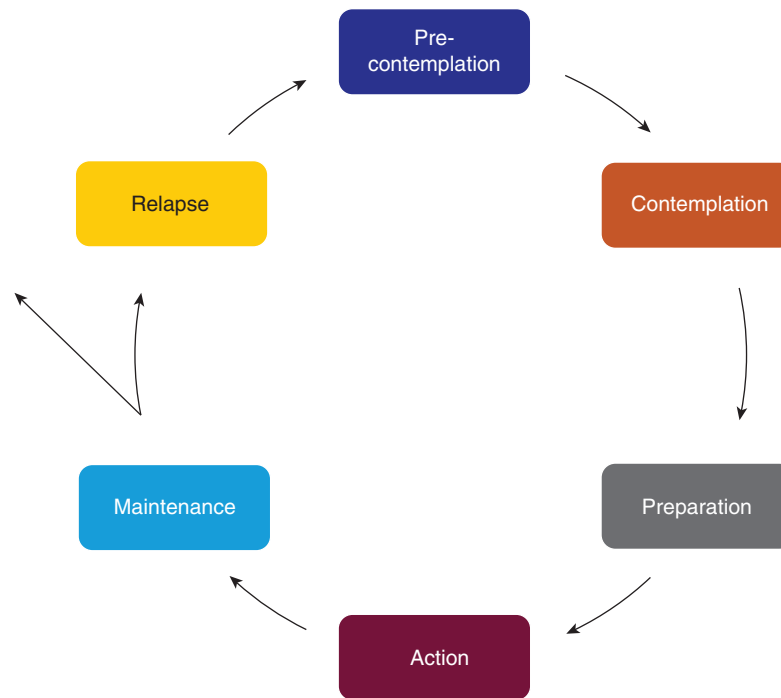
The six stages of change are as follows:

1. **Precontemplation.** You are at this stage if you, as yet, have no intention of making a change. You are vaguely uncomfortable, but this is where your grasp of what is going on ends. You may never think about exercise, for instance, until you notice that it's harder to zip up your jeans or that you get winded walking up stairs. Still, you don't quite register the need to do anything about it.  
During precontemplation, change remains hypothetical, distant, and vague. Yet you may speak of something bugging you and wish that things were somehow different.
2. **Contemplation.** In this stage, you still prefer not to have to change, but you start to realize that you can't avoid reality. Maybe none of your jeans fit anymore, or you feel sluggish and listless. In this stage, you may alternate between wanting to take action and resisting it.

.....  
✓ **Check-in** Are you contemplating change?  
.....

You may be if you find yourself thinking

- "I wish that I could..."
  - "I should..."
  - "Maybe I'll do it someday—not tomorrow, but someday."
3. **Preparation.** At some point, you stop waffling, make a clear decision, and feel a burst of energy. This decision heralds the preparation stage. You gather information, make phone calls, do research online, and look into exercise classes at the gym. You begin to think and act with change specifically in mind. If you were to eavesdrop on what you're saying to yourself, you would hear statements such as, "I am going to do this."



**Figure 1.4** The Stages of Change

4. **Action.** You are actively modifying your behavior according to your plan. Your resolve is strong, and you know you're on your way to a better you. You may be getting up 15 minutes earlier to make time for a healthy breakfast or to walk to class rather than take the shuttle. In a relatively short time, you acquire a sense of comfort and ease with the change in your life.
5. **Maintenance.** This stabilizing stage, which follows the flurry of specific steps taken in the action stage, is absolutely necessary to retain what you've worked for and to make change permanent. In this stage, you strengthen, enhance, and extend the changes you've initiated. Among college students, those in the maintenance stage of an exercise program display greater self-motivation to work out and a greater engagement in the experience.<sup>48</sup>
6. **Relapse.** It's not unusual for people to slip backward at any stage. However, a relapse is simply a pause, an opportunity to regroup and regain your footing so you can keep moving forward. After about two to five years, a behavior becomes so deeply ingrained that you can't imagine abandoning it.

Research on college students has shown that attitudes and feelings are related to stages of change. Smokers who believe that continuing to smoke would have only a minor or no impact on their health remain in the precontemplation

stage; those with respiratory symptoms move on to contemplation and preparation.

.....  
 ✓ **Check-in** Do you want to change a health behavior? If so, what stage of change are you in?  
 .....

**The Processes of Change.** Anything you do to modify your thinking, feeling, or behavior can be called a *change process*. The processes of change included in the transtheoretical model are as follows:

- **Consciousness-raising.** This most widely used change process involves increasing knowledge about yourself or the nature of your problem. As you learn more, you gain understanding and feedback about your behavior.  
**Example:** Reading Chapter 5 on making healthy food choices.
- **Social liberation.** In this process, you take advantage of alternatives in the external environment that can help you begin or continue your efforts to change.  
**Example:** Spending as much time as possible in nonsmoking areas.
- **Emotional arousal.** This process, also known as dramatic relief, works on a deeper level than consciousness-raising and is equally



Mangostar/Shutterstock.com

Do you picture yourself as master of your own destiny? You are more likely to achieve your health goals if you do.

important in the early stages of change. Emotional arousal means experiencing and expressing feelings about a problem behavior and its potential solutions.

**Example:** Resolving never to drink and drive after the death of a friend in a car accident.

- **Self-reevaluation.** This process requires a thoughtful reappraisal of your problem, including an assessment of the person you might be once you have changed the behavior.

**Example:** Recognizing that you have a gambling problem and imagining yourself as a nongambler.

- **Commitment.** In this process, you acknowledge—first privately and then publicly—that you are responsible for your behavior and are the only one who can change it.

**Example:** Joining a self-help or support group.

- **Rewards.** In this process, you reinforce positive behavioral changes with self-praise or small gifts.

**Example:** Getting a massage after a month of consistent exercise.

- **Countering.** Countering, or counterconditioning, involves substituting healthy behaviors for unhealthy ones.

**Example:** Chewing gum rather than smoking.

- **Environmental control.** This is an action-oriented process in which you restructure your environment so you are less likely to engage in a problem behavior.

**self-efficacy** Belief in one's ability to accomplish a goal or change a behavior.

**locus of control** Belief about the sources of power and influence over an individual's life.

**Example:** Getting rid of your stash of sweets.

- **Helping relationships.** In this process, you recruit individuals—family, friends, therapist, coach—to provide support, caring, understanding, and acceptance.

**Example:** Finding an exercise buddy.

**Self-Efficacy and Locus of Control.** Do you see yourself as master of your fate, asserting control over your destiny? Or do so many things happen in your life that you just hang on and hope for the best? The answers to these questions reveal two important characteristics that affect your health: your sense of **self-efficacy** (the belief in your ability to change and to reach a goal) and your **locus of control** (the sense of being in control of your life).

Your confidence in your ability to cope with challenge can determine whether you can and will succeed in making a change. In his research on self-efficacy, psychologist Albert Bandura of Stanford University found that the individuals most likely to reach a goal are those who believe they can. The stronger their faith in themselves, the more energy and persistence they put into making a change. The opposite is also true, especially for health behaviors: Among people who begin an exercise program, those with lower self-efficacy are more likely to drop out.

✓ **Check-in** How “internal” or “external” do you rate your locus of control?

If you believe that your actions will make a difference in your health, your locus of control is internal. If you believe that external forces or factors play a greater role, your locus of control is external. Hundreds of studies have compared people who have these different perceptions of control.

- “Internals,” who believe that their actions largely determine what happens to them, act more independently, enjoy better health, are more optimistic about their future, and have lower mortality rates.
- “Externals,” who perceive that chance or outside forces determine their fate, find it harder to cope with stress and feel increasingly helpless over time. When it comes to weight, for instance, they see themselves as destined to be fat. However, social support has proven effective in helping students meet physical activity guidelines, particularly for muscle-strengthening workouts.<sup>49</sup>

## What Did You Decide?

- What does “health” mean to you?
- How healthy are today’s college students?
- Can you believe health information you find online?
- Can people successfully change their health behaviors?

### Reflection

Consider how your answers changed after reading this chapter. Identify one way you might apply what you’ve learned about health in your daily life—starting now.

## Taking Charge of your Health

### Making Healthy Changes

Ultimately, you have more control over your health than anyone else. Use this course as an opportunity to zero in on at least one less-than-healthy behavior and improve it. Here are some suggestions for small steps that can have a big payoff. Check those that you commit to making today, this week, this month, or this term by indicating *t*, *w*, *m*, or *term*, and repeat this self-evaluation throughout the course.

- \_\_\_\_\_ **Use seat belts.** In the past decade, seat belts have saved more than 40,000 lives and prevented millions of injuries.
- \_\_\_\_\_ **Eat an extra fruit or vegetable every day.** Adding more fruits and vegetables to your diet can improve your digestion and lower your risk of several cancers.
- \_\_\_\_\_ **Get enough sleep.** A good night’s rest helps you recharge to make it through the following day.
- \_\_\_\_\_ **Take regular stress breaks.** A few quiet minutes spent stretching, looking out the window, or simply letting yourself unwind are good for body and mind.

- \_\_\_\_\_ **If you’re a woman, examine your breasts regularly.** Get in the habit of performing a breast self-examination every month after your period (when breasts are least swollen or tender).
- \_\_\_\_\_ **If you’re a man, examine your testicles regularly.** These simple self-exams can help you spot signs of cancer early, when it is most likely to be cured.
- \_\_\_\_\_ **Be active.** Just a little exercise will do some good. A regular workout schedule will be good for your heart, lungs, muscles, and bones—even your mood.
- \_\_\_\_\_ **Drink enough water.** You need eight glasses a day to replenish lost fluids, prevent constipation, and keep your digestive system working efficiently.
- \_\_\_\_\_ **Do a good deed.** Caring for others is a wonderful way to connect with others in your community.

## Self-Survey

### Are You in Control of Your Health?

To test whether you are the master of your fate, asserting control over your destiny, or just hanging on, hoping for the best, take the following test. Depending on which statement you agree with, check either (a) or (b).

- Many of the unhappy things in people’s lives are partly due to bad luck. \_\_\_\_\_
  - People’s misfortunes result from mistakes they make. \_\_\_\_\_
- One of the major reasons why we have wars is that people don’t take enough interest in politics. \_\_\_\_\_
  - There will always be wars, no matter how hard people try to prevent them. \_\_\_\_\_
- In the long run, people get the respect they deserve in this world. \_\_\_\_\_
  - Unfortunately, an individual’s worth often passes unrecognized no matter how hard the person tries. \_\_\_\_\_
- The idea that teachers are unfair to students is nonsense. \_\_\_\_\_
  - Most students don’t realize the extent to which their grades are influenced by accidental happenings. \_\_\_\_\_
- Without the right breaks, one cannot be an effective leader. \_\_\_\_\_
  - Capable people who fail to become leaders have not taken advantage of their opportunities. \_\_\_\_\_

6. a. No matter how hard you try, some people just don't like you. \_\_\_\_\_  
b. People who can't get others to like them don't understand how to get along with others. \_\_\_\_\_
7. a. I have often found that what is going to happen will happen. \_\_\_\_\_  
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. \_\_\_\_\_
8. a. In the case of the well-prepared student, there is rarely, if ever, such a thing as an unfair test. \_\_\_\_\_  
b. Oftentimes exam questions tend to be so unrelated to coursework that studying is really useless. \_\_\_\_\_
9. a. Becoming a success is a matter of hard work; luck has little or nothing to do with it. \_\_\_\_\_  
b. Getting a good job depends mainly on being in the right place at the right time. \_\_\_\_\_
10. a. The average citizen can have influence in government decisions. \_\_\_\_\_  
b. This world is run by the few people in power, and there is not much the little guy can do about it. \_\_\_\_\_
11. a. When I make plans, I am almost certain that I can make them work. \_\_\_\_\_  
b. It is not always wise to plan too far ahead because many things turn out to be a matter of luck anyway. \_\_\_\_\_
12. a. In my case, getting what I want has little or nothing to do with luck. \_\_\_\_\_  
b. Oftentimes, we might just as well decide what to do by flipping a coin. \_\_\_\_\_
13. a. What happens to me is my own doing. \_\_\_\_\_  
b. Sometimes I feel that I don't have enough control over the direction my life is taking. \_\_\_\_\_

## Scoring

Give yourself 1 point for each of the following answers:

1a, 2b, 3b, 4b, 5a, 6a, 7a, 8b, 9b, 10b, 11b, 12b, 13b

You do not get any points for other choices.

**Add up the totals.** Scores can range from 0 to 13. A high score indicates an external locus of control, the belief that forces outside yourself control your destiny. A low score indicates an internal locus of control, a belief in your ability to take charge of your life.

Source: Based on Rotter JB. Generalized expectancies for internal versus external control of reinforcement. *Psychol Monogr.* 1966;80(609).

If you turned out to be external on this self-assessment quiz, don't accept your current score as a given for life. If you want to shift your perspective, you can. People are not internal or external in every situation. At home you may go along with your parents' or roommates' preferences and let them call the shots. In class you might feel confident and participate without hesitation.

Take inventory of the situations in which you feel most and least in control. Are you bold on the basketball court but hesitant on a date? Do you feel confident that you can resolve a dispute with your friends but throw up your hands when a landlord refuses to refund your security deposit? Look for ways to exert more influence in situations in which you once yielded to external influences. See what a difference you can make.

## Review Questions

- (LO 1.1) 1. The World Health Organization defines *health* as \_\_\_\_\_.  
a. access to appropriate medicines  
b. the absence of disease or infirmity  
c. whatever brings personal satisfaction  
d. a state of complete physical, mental, and social well-being
- (LO 1.2) 2. Learning from life experience and the capacity to question and evaluate information requires \_\_\_\_\_ health.  
a. emotional  
b. intellectual  
c. social  
d. spiritual

- (LO 1.3) 3. Which age group of Americans experiences the greatest health deficits?  
a. Children  
b. Teenagers  
c. Young adults  
d. Older adults
- (LO 1.4) 4. Which of the following statements is true of the health differences between gender and/or race?  
a. Women are more likely than men to not smoke and to eat a healthy diet, but less likely to have adequate physical activity levels.  
b. As a young American, your probability of reaching your 50th birthday is higher than in almost every other high-income nation.

- c. About 1 in 6 Hispanics has prediabetes; most Hispanics with diabetes have it under control.
  - d. Overall, Black Americans are less likely to develop cancer than persons of any other racial-ethnic group.
- (LO 1.5) 5. Which of the following is one of the health issues that undergraduate college students in particular experience? Athletes have higher health-related quality of life than their same-age peers who do not or no longer play college sports.
- e. They are less likely to use alcohol and drugs than nonstudents their age.
  - f. A significant proportion report symptoms of depression, anxiety, and other mental disorders.
  - g. Undergraduates typically lose weight.
- (LO 1.6) 6. Which of the following statements is true about the impact of unhealthy choices on young Americans?
- a. Obese children often grow into obese adults, with risks of diabetes and cardiovascular disease.
  - b. A mild rise in blood pressure during young adulthood does not increase the risk of clogged heart arteries by middle age.
  - c. Young adults who begin using tobacco or alcohol in their teens and 20s are less likely to continue to do so as they get older.
  - d. Aerobic fitness has little impact on the cardiovascular health of individuals in later years.
- (LO 1.7) 7. In searching the Internet for information about a question you have regarding your health, which one of these is NOT a key concern?
- a. Potential author bias
  - b. Researcher credentials
  - c. Date the page was created and/or updated
  - d. The web browser used
- (LO 1.8) 8. Factors that influence health behavior that include knowledge, attitudes, beliefs, values, and perceptions are \_\_\_\_\_ factors.
- a. predisposing
  - b. enabling
  - c. risk
  - d. reinforcing
- (LO 1.9) 9. According to which theory or model of personal change do people take a health-related action if they feel susceptible to a possible negative consequence?
- a. Moral
  - b. Behavioral
  - c. Compensatory
  - d. Health belief

Answers to these questions can be found on page 504.



## Learning Objectives

After reading this chapter, you should be able to:

- 2.1** Identify the components of emotional health.
- 2.2** Discuss the ways in which positive psychology enhances quality of life.
- 2.3** Review the relationship between sleep and health.
- 2.4** Describe the key factors related to depressive disorders, their symptoms, and treatments.
- 2.5** Summarize four categories of anxiety disorders.
- 2.6** Outline the patterns of attempting or committing suicide among Americans.
- 2.7** List treatment options available for mental disorders.

## What Do You Think?

- How do depression and anxiety affect students?
- What are the keys to a happy, satisfying, and meaningful life?
- What are some of the reasons that college students commit suicide?
- How important is a good night's sleep?

# 2

## Emotional and Spiritual Well-Being

Chris never considered himself a spiritual person until he enrolled in a class on the science of personal well-being. For a homework assignment, he had to pursue different paths to happiness. As part of his experiment, he went to a Mardi Gras celebration and partied all night to see if having fun made him happier. To test whether doing good makes a person happy, Chris volunteered to help build a house for a homeless family. “I can’t remember the name of a single person I met at the Mardi Gras party,” he says. “But I’ll never forget the look on the family’s faces when we handed them the keys to their new home.”

The quest for a more fulfilling and meaningful life is attracting more people of all ages. The reason? As the burgeoning field of positive psychology has resoundingly proved, people who achieve emotional and spiritual health are more creative and productive, earn more money, attract more friends, enjoy better

marriages, develop fewer illnesses, and live longer.

This chapter reports the latest findings on making the most of psychological strengths, enhancing happiness, and developing the spiritual dimension of your health and your life.<

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### Emotional and Mental Well-Being

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“A sound mind in a sound body” was, according to the ancient Roman poet Juvenal, something all should strive for. This timeless advice still holds. Almost 2,000 years later, we understand on a much more scientific level that physical and mental health are interconnected in complex and vital ways.

Over the past two decades research has produced more than 170,000 articles and books, as

well as new terms to identify specific aspects of emotional and psychological health. These include:

- **Well-being:** a general term for how well individuals are doing in life, including social, physical, financial, and subjective (self-evaluated) dimensions
- **Subjective well-being:** the various ways individuals evaluate their lives, including thoughtful analysis and psychological feelings
- **Psychological well-being:** a combination of desirable psychological characteristics and positive social relationships
- **Emotional well-being:** high levels of positive moods and emotions as well as low levels of

negative moods and emotions, reflecting not only momentary enjoyment but also resilience after bad events, movement toward significant goals, and ability to express emotions appropriate to various situations

- **Life satisfaction:** people's explicit and conscious evaluations of their lives, often based on factors that each individual deems relevant
- **Happiness:** a commonly used word that can be confusing because it means different things to different people (see discussion on page 28).<sup>1</sup>

✓ **Check-in** How would you describe your subjective well-being?

Unlike physical health, psychological well-being cannot be measured, tested, x-rayed, or dissected. Yet psychologically healthy people generally share certain characteristics:

- They value themselves and strive toward happiness and fulfillment.
- They establish and maintain close relationships with others.
- They accept the limitations as well as the possibilities that life has to offer.
- They feel a sense of meaning and purpose that makes the gestures of living worth the effort required.

✓ **Check-in** How many of these characteristics do you have?

**Emotional health** generally refers to feelings and moods, both of which are discussed later in this chapter. Characteristics of emotionally healthy persons include the following:

- Determination and effort to be healthy
- Flexibility and adaptability to a variety of circumstances
- Development of a sense of meaning and affirmation of life
- Understanding that the self is not the center of the universe
- Compassion for others
- Ability to be unselfish in serving or relating to others
- Increased depth and satisfaction in intimate relationships
- Sense of control over the mind and body that enables the person to make health-enhancing choices and decisions.

**emotional health** Ability to express and acknowledge one's feelings and moods and exhibit adaptability and compassion for others.

**mental health** Ability to perceive reality as it is, respond to its challenges, and develop rational strategies for living.

**culture** Set of shared attitudes, values, goals, and practices of a group that are internalized by an individual within the group.

**Mental health** describes our ability to perceive reality as it is, to respond to its challenges, and to develop rational strategies for living. A mentally healthy person doesn't try to avoid conflicts and distress but can cope with life's transitions, traumas, and losses in a way that allows for emotional stability and growth. The characteristics of mental health include:

- Ability to function and carry out responsibilities
- Ability to form relationships
- Realistic perceptions of the motivations of others
- Rational, logical thought processes
- Ability to adapt to change and to cope with adversity.

✓ **Check-in** How would you assess yourself on each of these characteristics?

**Culture** is an integral part of emotional health. In one culture, individuals may express feelings with great intensity, shouting in joy or wailing in grief, while in another culture, such behavior might be considered abnormal or unhealthy. Differences in culture extend far into health practices and may influence how people recognize illness, seek treatment, and view overall well-being. Just as importantly, cultural rituals help bring people together, strengthen their bonds, reinforce the values and beliefs they share, and provide a sense of belonging, meaning, and purpose.

To find out where you are on the emotional well-being scale, take the Self-Survey: How Satisfied Are You with Your Life? at the end of this chapter.

## The Lessons of Positive Psychology

Positive psychology (the scientific study of ordinary human strengths and virtues) and positive psychiatry (which promotes positive psychosocial development in those with or at high risk of mental or physical illness) focus on the aspects of human experience that lead to happiness and fulfillment—in other words, on what makes life worthwhile.<sup>2</sup> This perspective has expanded the definition of psychological well-being.

According to psychologist Martin Seligman, who popularized the positive psychology movement, everyone, regardless of genes or fate, can achieve a happy, gratifying, meaningful life. The goal is not simply to feel good momentarily or to avoid bad experiences but to build positive strengths and virtues that enable us to find meaning and purpose in life. The core philosophy is to add a “build what’s strong” approach to the “fix what’s wrong” focus of traditional psychotherapy.<sup>3</sup>

Among the positive psychology interventions that have proven effective in enhancing emotional, cognitive, and physical well-being; easing depression; lessening disease and disability; and even increasing longevity are:

- Counting one’s blessings
- Savoring experiences
- Practicing kindness
- Pursuing meaning
- Setting personal goals
- Expressing gratitude
- Building compassion for oneself and for others
- Identifying and using one’s strengths (which may include traits such as kindness or perseverance)
- Visualizing and writing about one’s best possible self at a time in the future.<sup>4</sup>

Neuroscientists, using sophisticated imaging techniques, have been able to identify specific areas in the brain associated with positive emotions, such as love, hope, and enthusiasm. As people age, the processing of emotions in the brain appears to change, with older adults responding more to positive information and filtering out irrelevant negative stimuli.

#### ✓ Check-in Practice positive psychology:

- The next time you think, “I’ve never tried that before,” also say to yourself, “This is an opportunity to learn something new.”
- When something seems too complicated, remind yourself to tackle it from another angle.

If you get discouraged and feel that you’re never going to get better at some new skill, tell yourself to give it another try. (See [Health Now!](#) for more suggestions.)

## Develop Self-Compassion

**Self-compassion** is a healthy form of self-acceptance and self-care that enhances wellness and strengthens resilience.<sup>5</sup> Some psychologists



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describe it as being kind to yourself in the face of suffering and practicing a “reciprocal golden rule,” in which you treat yourself with the kindness usually reserved for others.

Individuals high in self-compassion tend to:

- Be understanding toward themselves when they make mistakes.
- Recognize that all humans are imperfect.
- Not dwell on their errors in judgment or behavior.
- When feeling inadequate, engage in soothing and positive self-talk.
- Not exaggerate the significance of painful thoughts (though they’re mindful of them).
- Manage frustration by checking self-pity and melodrama.
- Accept their weaknesses and differences.
- Let go of regrets, illusions, and disappointments.
- Seek psychological help when needed.<sup>6</sup>
- Take responsibility for actions that may have harmed others without feeling a need to punish themselves.<sup>7</sup>

In contrast, individuals low in self-compassion are extremely critical of themselves, believe they are unique in their imperfection, and obsessively fixate on their mistakes.

After a traumatic life event, self-compassion may help individuals recognize the need to care for themselves, reach out for social support, engage in less self-blame and self-criticism, and

Compassion, or caring about others, is a characteristic of an emotionally healthy person.

**self-compassion** Healthy form of self-acceptance in the face of perceived inadequacy or failure.

# Health Now!

## Give Thanks

Gratitude has proven as effective in brightening mood and boosting energy as the standard, well-studied techniques used in psychotherapy. The following are some simple steps to cultivate and express gratitude.

- Every day, write down 10 new things for which you are grateful. You can start with this list and keep adding to it: your bed, your cell phone and every person whose efforts led to its development, every road you take, your toothbrush, your toes, the sky, ice cream, etc.
- Record the ways you express gratitude. How do you feel when doing so?
- Create a daily practice of appreciation. This may be as simple as saying a few words of thanks before each meal (if only to yourself) or writing down your feelings of gratitude.
- Make a list of 10 people—teachers, coaches, neighbors, and friends—to whom you owe a debt of gratitude. Write a one- to two-page letter to each of them, stating your appreciation of what they have contributed to you and your well-being. You do not have to send the letters. What is important is that you focus deeply on the contribution of each person and allow feelings of gratitude to come as they may.

**emotional intelligence** Ability to monitor and use emotions to guide thinking and actions.

**self-actualization** State of wellness and fulfillment that can be achieved once certain human needs are satisfied; living to one's full potential.

look back on the time as an emotionally difficult event rather than as an experience that defines or changes them.<sup>8</sup> Therapists have developed specific cognitive treatments that can increase the attributes of compassion for self and others and alleviate feelings of anxiety and depression.

✓ **Check-in** How do you practice self-compassion?

## Boost Emotional Intelligence

A person's intelligence quotient (IQ) was once considered the leading predictor of achievement. However, psychologists have determined that another "way of knowing," dubbed **emotional intelligence**, makes an even greater difference in personal and professional success.

Emotional quotient (EQ) is the ability to monitor and use emotions to guide thinking and actions. Neuroscientists have mapped the brain regions involved in emotional intelligence, which overlap significantly with those involved in general intelligence. Among the emotional competencies that most benefit students are focusing on clear, manageable goals and identifying and understanding emotions rather than relying on "gut" feelings.

✓ **Check-in** How emotionally intelligent do you think you are?

People with high EQ are more likely to enjoy good mental and physical health and are more productive at work and happier at home. They're also less prone to stress, depression, and anxiety, and they bounce back more quickly from serious illnesses.

## Meet Your Needs

Newborns are unable to survive on their own. They depend on others for the satisfaction of their physical needs for food, shelter, warmth, and protection, as well as their less tangible emotional needs. In growing to maturity, children take on more responsibility and become more independent.

As adults, we easily recognize our basic physical needs, but we often fail to acknowledge our emotional needs. Yet they, too, must be met if we are to be as fulfilled as possible.

Humanist theorist Abraham Maslow believed that human needs are the motivating factors in personality development. First, we must satisfy basic physiological needs, such as those for food, shelter, and sleep. Only then can we pursue

fulfillment of our higher needs—for safety and security, love and affection, and self-esteem. Few individuals reach the state of **self-actualization**, in which they function at the highest possible level and derive the greatest possible satisfaction from life (Figure 2.1).

## Pursue Happiness

"Imagine a drug that causes you to live eight or nine years longer, to make \$15,000 more a year, to be less likely to get divorced," says Seligman, the "father" of positive psychology. "Happiness seems to be that drug." As a meta-analysis of long-term studies has shown, happiness even reduces the risk of dying—both in healthy people and in those with diagnosed diseases. But even if just about everyone might benefit from smiling more and scowling less, can almost anyone learn to live on the brighter side of life?

Skeptics who dismiss "happichondria" as the latest feel-good fad are dubious. However, happiness researchers, backed by thousands of scientific studies, cite mounting evidence suggesting that happiness is, to a significant degree, something anyone can nurture. (See Health on a Budget.) Among 5,000 students in 280 countries around the world who completed a massive online open course (MOOC) on happiness, positive feelings kept going up as the course progressed. The students registered progressively less sadness, anger, and increasing fear and more amusement, enthusiasm, and affection.<sup>9</sup>

**The Roots of Happiness** Psychological research has identified several factors that contribute to a sense of well-being:

- Your happiness set point—a genetic component that contributes about 50 percent to individual differences in contentment.
- Life circumstances such as income or marital status, which account for about 10 percent.
- Thoughts, behaviors, beliefs, and goal-based activities, which may account for up to 40 percent of individual variations.<sup>10</sup>
- In addition to genes and personal beliefs and experiences, happiness is also influenced by social and cultural factors, including living in a country that ensures its citizens' safety and human rights.<sup>11</sup>

Education may protect against mental disorders, but it doesn't guarantee happiness. Asked if they were "feeling good and functioning well," people with varying levels of education

# \$ Health on a Budget

## Happiness for Free!

Money can't buy happiness. As long as you have enough money to cover the basics, you don't need more wealth or more possessions for greater joy. Even people who win a fortune in a lottery return to their baseline of happiness within months. So rather than spend money on lottery tickets, try these ways to put a smile on your face:

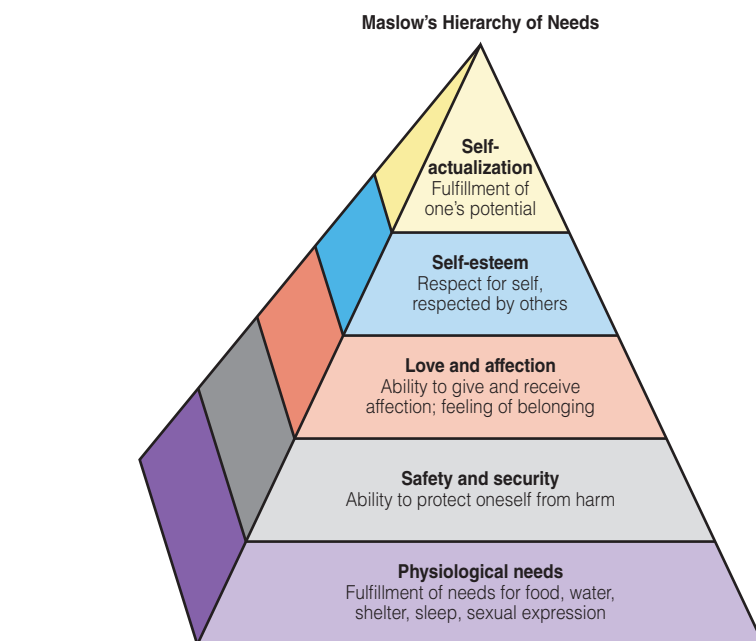
- **Make time for yourself.** It's impossible to meet the needs of others without recognizing and fulfilling your own.
- **Boost your appreciation quotient.** Regularly take stock of all the things for which you are grateful. To deepen the impact, write a letter of gratitude to someone who's helped you along the way.
- **String beads.** Think of every positive experience during the day as a bead on a necklace. This simple exercise focuses you on positive experiences, such as a cheery greeting from a cashier or a funny e-mail from a friend and encourages you to act kinder toward others.
- **Create a virtual movie.** Visualize several of your happiest memories in as much detail as possible. Smell the air. Feel the sun. Hear the sea. Play this video in your mind when your spirits slump.
- **Fortify optimism.** Whenever possible, see the glass as half-full. Keep track of what's going right in your life. Imagine and write down your vision for your best possible future and track your progress toward it.
- **Immerse yourself.** Find activities that delight and engage you so much that you lose track of time. Experiment with creative outlets. Look for ways to build these passions into your life.
- **Seize the moment.** Rather than wait to celebrate big birthday-cake moments, savor a bite of cupcake every day. Delight in a child's cuddle, a glorious sunset, a lively conversation. Cry at the movies. Cheer at football games. This life is your gift to yourself. Open it!

had similar odds of high levels of emotional well-being.<sup>12</sup> As studies with apps to monitor activity have shown, individuals who are more physically active are happier in general—and feel even happier when they are physically active.<sup>13</sup>

Intelligence, sex, and race do not matter much for happiness. Men and women in global surveys report similar levels of life satisfaction and happiness.<sup>14</sup> Health has a greater impact on happiness than income, but pain and anxiety take an even greater toll. People seem to be less able to adapt to the unpredictability of certain health conditions than they are to others. The well-being of individuals who can no longer walk after an accident, for example, typically returns to its pre-accident levels, while many diagnosed with epilepsy face a lifetime of uncertainty about the occurrence of seizures. Surveys of various nations indicate that happiness levels remain stable through most of the lifespan, although the sense of well-being typically decreases in the period of decline before death.<sup>15</sup>

### What Does and Doesn't Make Us Happy

Many people assume that they can't be happy unless they get into a certain school, earn a certain grade, get a certain job, make a certain income, find a perfect mate, or look a certain way. But according to psychologist Sonja Lyubomirsky, author of *The Myths of Happiness*, such notions are false. "People find a way to be happy in spite of unwanted life



**Figure 2.1** Maslow's Hierarchy of Needs

To attain the highest level of psychological health, you must first satisfy your needs for safety and security, love and affection, and self-esteem.

Source: Maslow AH, Frager RD, Fadiman J. *Motivation and Personality*. 3rd ed. © 1987. Reprinted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

circumstances," she notes, "and many people who are blessed by wealth and good fortune aren't any happier than those who lack these

Positive activities, such as reading to children, can enhance happiness and self-esteem.



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## The Benefits of Happiness

Two decades of research on happy people have found that they:

- Tend to be healthier and live longer.
- Have stronger immune systems and better cardiovascular health.
- Practice healthier behaviors, such as wearing seat belts and using sunscreen.
- Report better social relationships and more friends.
- Are more likely to marry and remain married.
- Rate their marriages as better than those of less happy individuals.
- Are more involved in groups, organizations, and other social networks.
- Are more successful at work.<sup>22</sup>

✓ **Check-in** What are the greatest sources of happiness in your life?

## Become Optimistic

Mental health professionals define **optimism** as the “extent to which individuals expect favorable outcomes to occur.” Studies have established “significant relationships” between optimism and cardiovascular health, recovery from heart attack,<sup>23</sup> stroke risk, immune function, cancer prognoses, physical symptoms, pain, and mortality rates.<sup>24</sup> As a recent review concluded, “individuals with greater optimism and hope seek to engage in healthier behaviors”—which can protect from disease and aid in recovery.<sup>25</sup>

For various reasons optimists expect positive experiences from life. When bad things happen, they tend to see setbacks or losses as specific, temporary incidents, which fortifies their resilience.<sup>26</sup> In their eyes, a disappointment is “one of those things” that happens every once in a while rather than the latest in a long string of disasters. Even when depressed, individuals able to envision a brighter future are more optimistic and regain optimism more quickly over time.<sup>27</sup>

In terms of health, optimists not only expect good outcomes—for instance, that a surgery will be successful—but also take steps to increase this likelihood. Pessimists, expecting the worst, are more likely to deny or avoid a problem, sometimes through self-destructive behaviors. In a longitudinal study of more than 70,000

for-tunes.”<sup>16</sup> Individuals with enough cash in their checking and savings accounts so they don’t have to worry about money report more positive perceptions of their financial well-being and overall life satisfaction.

People are generally happier in richer countries than poor ones, although this may reflect factors such as safety and stability as well as income.<sup>17</sup> In a global study, happiness peaked at an income of the equivalent of about \$100,000 and began to reverse above \$250,000.<sup>18</sup>

What does make us happier? According to recent research:

- Focusing on time leads to greater happiness than focusing on money.
- Spending time and money on others rather than oneself increases happiness.
- Spending time and money to acquire experiences rather than possessions boosts happiness.<sup>19</sup>
- Moral judgments influence self-assessments of happiness.<sup>20</sup> Simply put, doing good makes us feel good.
- Having a happy partner may enhance health as much as striving to being happy oneself.<sup>21</sup>

**optimism** Tendency to seek out, remember, and expect pleasurable experiences.

women, those who ranked highest in optimism were at much lower risk of dying of cancer, heart disease, stroke, infection, respiratory disease, or other causes than those who ranked the lowest.<sup>28</sup>

Individuals aren't born optimistic or pessimistic. Researchers have documented changes over time in the ways that individuals view the world and what they expect to experience in the future.<sup>29</sup> Cognitive-behavioral techniques (discussed later in this chapter) have proven effective in helping pessimists become more positive.

✓ **Check-in** Do you usually anticipate the best or the worst possible outcome?

## Manage Your Moods

Feelings come and go within minutes. A **mood** is a more sustained emotional state that colors our view of the world for hours or days. Most people experience a range of moods but respond to them differently. When struggling with a bad mood, men typically try to distract themselves (a partially successful strategy) or use alcohol or drugs (an ineffective tactic). Women are more likely to talk to someone (which can help) or to dwell on why they feel bad (which doesn't help).

The most effective way to banish a sad or bad mood is by changing what caused it in the first place—if you can figure out what made you upset and why. The questions to ask are: What can I do to fix the situation? What can I do to remedy the loss? Is there anything under my control that I can change? If there is, take action and solve it. Ask to take a makeup exam. Apologize to the friend whose feelings you hurt. Tell your parents you feel bad about the argument you had. If there's nothing you can do, accept what happened and focus on doing things differently next time. As studies have shown, resolving to try harder can be as effective in improving mood as taking specific actions.<sup>30</sup>

Learning effective mood-boosting, mood-regulating strategies can help pull you out of an emotional slump. You can also try to think about what happened in a different way and put a positive spin on it. This technique, known as *cognitive reappraisal*, or *reframing*, helps you look at a setback in a new light: What lessons did it teach you? What would you have done differently? Could there be a silver lining or hidden benefit?

✓ **Check-in** Track your moods



Fear



Enthusiasm



Anger



Affection



Sadness



Amusement

Every day, rate how much each emoji matches how you have been feeling on a scale of 1 to 10. At the end of the week, average your daily ratings into a collective score. Track how your feelings change throughout the term.

## Spiritual Health

Whatever your faith, whether or not you belong to any formal religion, you are more than a body of a certain height and weight occupying space on the planet. You have a mind that equips you to learn and question. And you have a spirit that animates everything you say and do. **Spiritual health** refers to this spark and to our ability to identify our basic purpose in life and experience the fulfillment of achieving our full potential. Spiritual readings or practices can increase calmness, inner strength, and meaning; improve self-awareness; and enhance your sense of well-being. Finding the support from those who share your values has also been shown to help lower depression and increase life satisfaction beyond the benefits of social support from friends and family.

**Spirituality** can be a holistic belief in the connection to yourself and others, in someone or something that transcends the boundaries of self. It gives rise to a strong sense of purpose, values, morals, and ethics. Throughout life you make choices and decide to behave in one way rather than another because your spirituality serves as both a compass and a guide.

The terms *religiosity* and *religiousness* refer to various spiritual practices. That definition may seem vague, but one thing is clear. According to thousands of studies on the relationship between religious beliefs and practices and health, religious individuals are less depressed, less anxious, and better able to cope with crises such as

**mood** Temporary feeling or state of mind.

**spiritual health** Ability to identify one's basic purpose in life and to achieve one's full potential.

**spirituality** Belief in someone or something that transcends the boundaries of self.



Jose Luis Pelaez Inc./DigitalVision/Getty Images

Like these students serving meals at a shelter for the homeless, you can enrich your spiritual life by giving of yourself.

illness or divorce than are nonreligious ones. It doesn't matter if their beliefs are centered in one established religious doctrine, the more that believers incorporate spiritual practices—such as prayer or meditation—into daily life, the less likely they are to experience symptoms of mental disorders, anxiety, and stress.<sup>31</sup>

Religious beliefs and practices are generally passed from parents to children. In research on Catholic, Christian, Jewish, and Muslim families, about 60 percent of parents who attend religious services at least weekly have children who continue to participate frequently in religious services as adults.<sup>32</sup>

Did you grow up in a religious family? If so, you may benefit in various ways. In a recent study that followed teenagers through young adulthood, those who had attended religious services regularly reported greater life satisfaction, fewer symptoms of depression, more positive emotions and character strengths, lower rates of smoking or use of illicit drugs, later age at sexual initiation, and fewer lifetime sexual partners than those who did not attend these services.<sup>33</sup>

.....  
✓ **Check-in** How would you describe your spiritual self?  
.....

**spiritual intelligence** Capacity to sense, understand, and tap into ourselves, others, and the world around us.

**values** Criteria by which one makes choices about one's thoughts, actions, goals, and ideals.

**Spirituality and Physical Health**

A growing body of scientific evidence indicates that faith and spirituality can enhance health—and perhaps even extend life. Individuals<sup>34</sup> who self-report spiritual well-being consistently describe themselves as enjoying greater psychological and overall well-being. Various studies have found

that regular religious practice reduces alcohol use disorders,<sup>35</sup> binge drinking,<sup>36</sup> vulnerability to eating disorders, and symptoms of depression.

**Deepen Your Spiritual Intelligence**

Mental health professionals have recognized the power of **spiritual intelligence**, which some define as “the capacity to sense, understand, and tap into the highest parts of ourselves, others, and the world around us.” Spiritual intelligence, unlike spirituality, does not center on the worship of a God above, but on the discovery of a wisdom within.

All of us are born with the potential to develop spiritual intelligence, but most of us aren't even aware of it—and do little or nothing to nurture it. Part of the reason is that we confuse spiritual intelligence with religion, dogma, or old-fashioned morality. “You don't have to go to church to be spiritually intelligent; you don't even have to believe in God,” says Rev. Paul Edwards, a retired Episcopal priest and therapist. “It is a scientific fact that when you are feeling secure, at peace, loved, and happy, you see, hear, and act differently than when you're feeling insecure, unhappy, and unloved. Spiritual intelligence allows you to use the wisdom you have when you're in a state of inner peace. And you get there by changing the way you think, basically by listening less to what's in your head and more to what's in your heart.”<sup>37</sup>

**Clarify Your Values**

Your **values** are the criteria by which you evaluate things, people, events, and yourself; they represent what's most important to you. In a world of almost dizzying complexity, values can provide guidelines for making decisions that are right for you. If understood and applied, they help give life meaning and structure.

When you confront a situation in which you must choose different paths or behaviors, follow these steps:

- 1. Carefully consider the consequences of each choice.
- 2. Choose freely from among all the options.
- 3. Publicly affirm your values by sharing them with others.
- 4. Act out your values.

Values clarification is not a once-in-a-lifetime task but an ongoing process of sorting out what matters most to you. Values are more than ideals we'd like to attain; they should be reflected in the way we live day by day.

✓ **Check-in** Do you put your values into action? Do you believe in protecting the environment? For instance, do you shut off lights or walk rather than drive in order to conserve energy? Do you recycle newspapers, bottles, and cans?

## Enrich Your Spiritual Life

No matter where you are in your spiritual wellness journey, you have the capacity for deep, meaningful spiritual experiences that can add great meaning to everyday existence. You don't need to enroll in theology classes or commit to a certain religious preference. The following simple steps can start you on an inner journey to a new level of understanding:

- **Sit quietly.** The process of cultivating spiritual intelligence begins in solitude and silence. "There is an inner wisdom," says Dr. Dean Ornish, the pioneering cardiologist who incorporates spiritual health into his mind-body therapies, "but it speaks very, very softly."<sup>38</sup> To tune in to its whisper, turn down the volume in your busy, noisy, complicated life and force yourself to do nothing at all. This may sound easy; it's anything but.
- **Start small.** Create pockets of silence in your day. Don't reach for the radio dial as soon as you get in the car. Leave your ear buds on as you walk across campus but turn off the music. Shut the door to your room, take a few huge deep breaths, and let them out very, very slowly. Don't worry if you're too busy to carve out half an hour for quiet contemplation. Even 10 minutes every day can make a difference.
- **Step outside.** For many people, nature sets their spirit free. Being outdoors, walking by the ocean, or looking at the hills puts the little hassles of daily living into perspective. As you wait for the bus or for a traffic light to change, let your gaze linger on silvery ice glazing a branch or an azalea bush in wild bloom. Follow the flight of a bird; watch clouds float overhead.
- **Use activity to tune in to your spirit.** As a student, you devote much of your day to mental labor. To tap into your spirit, try a less cerebral activity, such as singing, chanting, dancing, or drumming. Alternative ways of quieting your mind and tuning into your spirit include gardening, walking, arranging flowers, listening to music that touches your soul, or immersing yourself in a simple process like preparing a meal.



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- **Ask questions of yourself.** Some people use their contemplative time to focus on a line of scripture, poetry, or the lyrics of a song. Others ask open-ended questions, such as: What am I feeling? What are my choices? Where am I heading?
- **Trust your spirit.** While most of us rely on gut feelings to alert us to danger, our inner spirits usually nudge us not away from but toward some action that will somehow lead to a greater good—even if we can't see it at the time. You may suddenly feel the urge to call or e-mail a friend you've lost touch with—trust the instinct to connect with others.
- **Develop a spiritual practice:**
  - If you are religious, deepen your spiritual commitment through prayer, more frequent church attendance, or participation in a religious study group.
  - Try meditation or relaxation training. Focusing the mind on a single sound or image can slow heart rate, respiration, and brain waves; relax muscles; and lower stress-related hormones.
  - Add reflective time into your daily or weekly practice. Journaling, drawing, music, and dance all provide moments of intimacy with ourselves.

Simply taking a few moments to stop and enjoy the day can help quiet your mind and soothe your spirit.

✓ **Check-in** How do you connect to yourself? To others?

## Cultivate Gratitude

A grateful spirit brightens mood, boosts energy, and infuses daily living with a sense of glad abundance. Although giving thanks is an ancient virtue,