

Thirteenth Edition | Brief

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CONNECT CORE CONCEPTS IN HEALTH, BRIEF, LOOSE-LEAF EDITION, THIRTEEN

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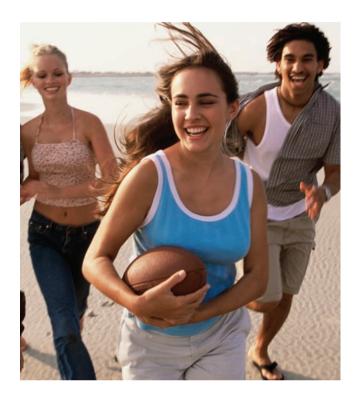
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Note: The health issues and conditions listed here include those that disproportionately influence or affect women or men. For more information, see the Index under gender, women, men, and any of the special topics listed here.

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Note: The health issues and conditions listed here include those that disproportionately influence or affect specific U.S. ethnic groups or for which patterns may appear along ethnic lines. For more information, see the Index under ethnicity, culture, names of specific population groups, and any of the topics listed here.

THE CORE CONCEPTS IN HEALTH LEARNING SYSTEMS

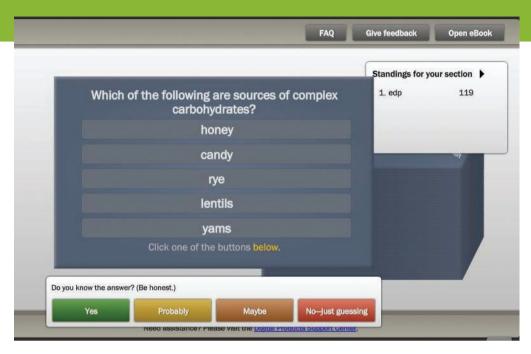
Connect Core Concepts in Health is an integrated program designed to personalize the science of personal health and to motivate students to build research skills, critical thinking skills, and behavior change skills for lifelong health. The new edition of Connect Core Concepts in Health combines the expert content you've come to expect with an increased focus on behavior change and personalization—personal learning styles, personal motivation, and personal responsibility. Highlights of the 13th edition include

- The LearnSmart adaptive testing program, which creates individualized study plans for each student, helping to build a strong foundation of knowledge.
- The latest scientific findings, data, and statistics, with up-to-date coverage of topics ranging from the government's MyPlate food guidance system to the potential positive and negative effects of digital communication technologies to the latest physical activity recommendations.
- A new "Wellness on Campus" feature in every chapter that explores specific health and wellness issues as they pertain to college students.
- A new media bank in Connect, offering easy access to all of the video content available with Connect Core Concepts in Health.



A PERSONAL PLAN FOR LEARNING

McGraw-Hill's LearnSmart is an adaptive learning system designed to help students learn faster, study more efficiently, and retain knowledge for greater success. Through a series of adaptive questions, LearnSmart continually measures and monitors each student's progress. LearnSmart provides each student with a unique, individualized learning path to help him or her increase knowledge and competencies while helping to make class time more interactive and productive.





WELLNESS ON CAMPLIS

Deliberate Self-Harm

In general, people want to be well and healthy, protect themselves from harm, and try to make use of the guidance that this book gives. But surprisingly, there are individuals—predominantly in their teens and adolescence—who deliberately harm themselves, although in a nonfatal way. One common method is to cut or burn their skin, leaving scars that may serve as visible representation of emotional pain that they shamefully hide beneath their clothes.

Self-cutting and other self-injurious behaviors are not aesthetically motivated. Many report seeking the physical sensations (including pain) produced by a self-inflected injury, which may temporarily relieve feelings of tension, perhaps through a release of endorphins.

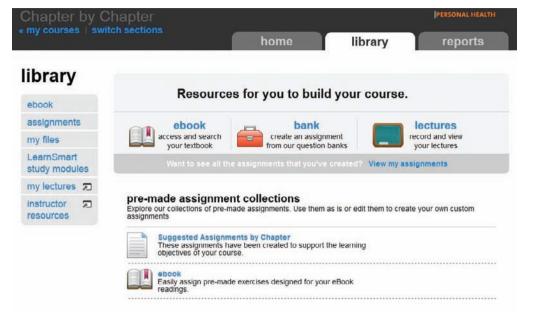
In 2011 a research group led by Alicia Meuret, an associate professor of psychology at Southern Methodist University, conductave surveys on more than 550 college students and found that over 20% had engaged in self-injury at some point, which is consistent with prevalence estimates in other studies on college populations. In examining differences between self-injurers and non-injurers, individuals that had recently engaged in self-harm were significantly more depressed, anxious, and disgusted with themselves. Compared to non-injurers, self-injurers were roughly 4 times more likely to report a history of physical abuse and 11 times more likely to report a history of self-injurers and 11 times more likely to report a history of sevant abuse.

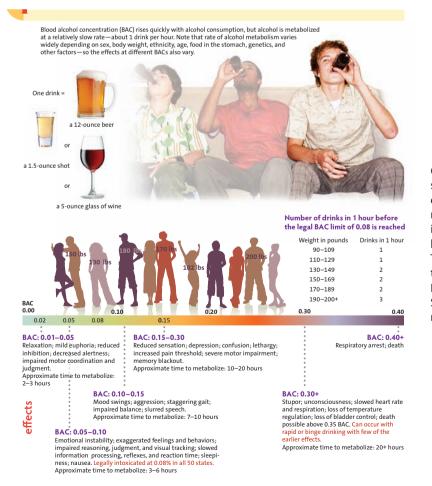


Self-injury is not the same as a suicide attempt, but individuals who repeatedly hurt themselves are more likely to commit suicide than the general population. In any case, self-injury should be taken seriously. If you do it, talk to a counselor. If someone you know does it, try to convince him or her to talk to a counselor.

NEW "Wellness on Campus" features highlight health and wellness issues that are of particular relevance to college students. Topics include alcoholic energy drinks, eating well while on campus, and protecting against STDs.

Connect Core Concepts in Health gives students access to a wealth of interactive online content, including fitness labs and selfassessments, video activities, a fitness and nutrition journal, a behavior change workbook, and practice guizzes with immediate feedback. Additionally, the media-rich eBook available with Connect Plus contains embedded video clips, full-color images, links to discipline-specific sites, key terms and definitions, and behavior change tools.



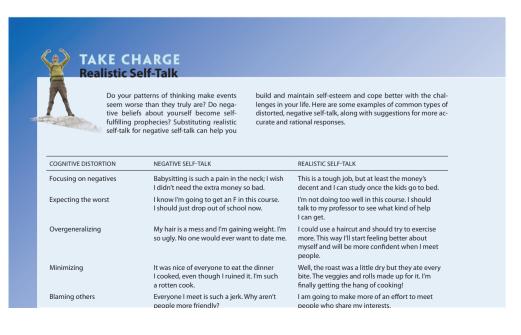


Connect Core Concepts in Health supports student learning with a wealth of print and online features. In addition to the rich set of resources available in Connect, feature boxes in the text highlight issues related to diversity, behavior change, and consumer awareness. The 13th edition features two vibrant transparency sections called "Touring Lifestyle Behaviors" and "Touring the Cardiorespiratory System" designed to engage students and reinforce learning, especially for visual learners.

A PERSONAL APPROACH TO BEHAVIOR CHANGE

An extensive program of Wellness Worksheets help students to evaluate and assess their own health-related behaviors, and to chart their progress in meeting personal health goals. These Wellness Worksheets are available online, where they can be assigned, submitted, and stored electronically.

i uie iiii	formatio	0.11011.0	nter in this exercise will be saved when you exit.				
		1. Francisco					
	t may in wing list		both cancer fighters and cancer promoters, Trac	k your o	diet for	3 days	and select which day you ate any food on one o
Poten	tial Car	icer Fi	ighters	Day1	Day2	Day3	
Orang	e and y	ellow v	regetables and (some) fruits				whole grains (whole-grain bread, cereal, and pasta; brown rice; etc.)
Day1	Day2	Day3	apricots				legumes (peas, lentils, and beans, including fava, navy, kidney, pinto, black, and lima beans
			cantaloupe				apples
			carrots				asparagus
			mangoes				berries (strawberries, raspberries, blueberries)
			papaya				chili peppers
			pumpkin				grapes
		[6]	red and yellow peppers	\Box			green peppers
			sweet potatoes (yams)				honeydew melon
			winter squash (acom, butternut, banana, etc.)				kiwi fruit
			other:				onions, garlic, leeks
							radishes
NAME OF TAXABLE PARTY.			getables				soy products (tofu, tempeh, soy milk, miso, soybeans, etc.)
Day1	Day2	Day3	beet greens				sprouts (alfalfa, broccoli)
		1991	broccoli rabe				tomatoes
		Total Control	chard				watermelon
			collard greens				other:



"Embracing Wellness," "Ask Yourself," and "Take Charge" sections encourage students to relate material to their own lives, to examine their healthrelated behaviors, and to take responsibility for those behaviors and change them when necessary. Many of these sections are paired with assignable and assessable activities in Connect. Effective and lasting behavior change is given even greater emphasis in the 13th edition, with a streamlined pedagogical program focusing on actions student can take now and in the future, a new box program ("Wellness on Campus") focusing on the health and well-being of college students, and a new "Behavior Change Contract" in Chapter 1.

BEHAVIOR CHANGE STRATEGY

Dealing with Social Anxiety

Shyness is often the result of both high anxiety levels and lack of key social skills. To help overcome shyness, you need to learn to manage your fear of social situations and to develop social skills such as appropriate eye contact, initiating topics in conversations, and maintaining the flow of conversations by asking questions and making appropriate responses.

As described in the chapter, repeated exposure to the source of one's fear—in this case social situations—is the best method for reducing anxiety. When you practice new behaviors, they gradually become easier and you experience less anxiety.

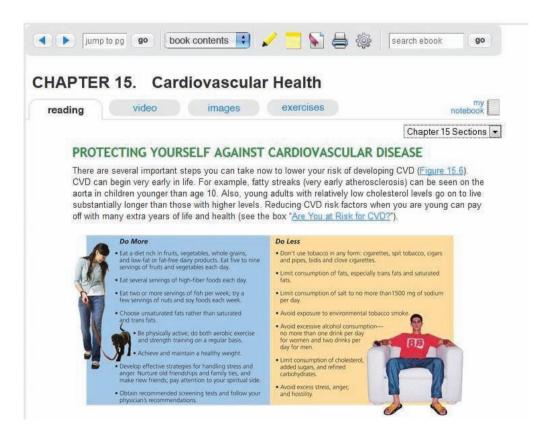
A counterproductive strategy is avoiding situations that make you anxious. Although this approach works in the short term—you eliminate your anxiety because you escape the situation—it keeps you from meeting new people and having new experiences. Another counterproductive strategy is self-medicating with alcohol or drugs. Being under their influence actually prevents you from learning new social skills and new ways to handle your anxiety.

- Watch your interpretations. Having a stress reaction doesn't mean that you don't belong in the group, that you're unattractive or unworthy, or that the situation is too much for you. Try thinking of yourself as excited or highly alert instead of anxious.
- Avoid cognitive distortions and practice realistic self-talk. Replace your self-critical thoughts with more supportive ones: "No one else is perfect, and I don't have to be either?" "It would have been good if I had a funny story to tell, but the conversation was interesting anyway."
- Give yourself a reality check: Ask if you're really in a life-threatening situation (or just at a party), if the outcome you're imagining is really likely (or the worst thing that could possibly happen), or if you're the only one who feels nervous (or if many other people might feel the same way).
- Don't think of conversations as evaluations. Remind yourself that you don't

life—a course you're taking or a hobby you have—to something in the other person's life. Match selfdisclosure with self-disclosure.

- Have something to say. Expand your mind and become knowledgeable about current events and local or campus news. If you have specialized knowledge about a topic, practice discussing it in ways that both beginners and experts can understand and appreciate.
- If you get stuck for something to say, try giving a compliment ("Great presentation!" or "I love your earrings.") or performing a social grace (pass the chips or get someone a drink).
- Be an active listener. Reward the other person with your full attention and with regular responses. Make frequent eye contact and maintain a relaxed but alert posture. (See Chapter 4 for more on being an active listener.)

At first, your new behaviors will likely make



With the Connect Plus interactive e-Book, students can access Connect Core Concepts in Health anywhere, anytime. Among its features are the ability to highlight, take notes, and bookmark key content, providing one place for simple, comprehensive review.

KEY FEATURES AND LEARNING AIDS

The streamlined pedagogical program for the 13th edition maintains important features discussing diversity, behavior change, and personal reflection, while integrating some key material into the body of the chapter. All features that appear with a Connect icon offer a linked Connect activity.



Diversity Matters features address the ways that our personal backgrounds influence our health strengths, risks, and behaviors.



Embracing Wellness boxes outline ways that physical health is influenced by *all* of the dimensions of wellness and provide strategies for improvement.



Critical Consumer sections help students to navigate the numerous and diverse set of health-related products currently available.



Take Charge boxes challenge students to take meaningful action toward personal improvement.

Behavior Change Strategy sections offer specific behavior management/modification plans related to the chapter topics.

Quick Stat sections focus attention on particularly striking statistics related to the chapter content.

Ask Yourself (Questions for Critical Thinking) sections encourage critical reflection on students' own health-related behaviors.

Tips for Today and the Future end each chapter with a quick, bulleted list of concrete actions readers can take now and in the near future.

Connect to Your Choices sections challenge students to explore their inner motivations for their health choices and to explore ways of translating this awareness into action.

CHAPTER-BY-CHAPTER CHANGES

Chapter 1

- The discussion of the dimensions of wellness has been thoroughly updated, with the addition of financial wellness, and refined explanations of emotional, interpersonal, and occupation wellness
- All of the chapter's statistical material has been updated to reflect the latest information on morbidity, mortality, and measures of quality of life
- The discussion of Healthy People 2020 has been updated with the newest round of objectives and the latest statistics on Americans' progress toward meeting these goals
- A new Wellness Matters box, "Wellness Matters for College Students," introduces students to the wellness issues most relevant to their age and circumstances
- A new blank Behavior Change Contract provides a vital tool for tracking and achieving meaningful behavior change

Chapter 2

- Statistics on stress have been updated throughout, with data from the 2011 American Psychological Association's "Stress in America" survey
- A new Wellness Matters box, "Coping with News of Traumatic Events," helps students deal with troubling news, whether it be about local, nation, or international events
- An expanded discussion of the role of spirituality in managing stress includes spiritual engagement beyond the traditional definition of organized religion

Chapter 3

- A new section on becoming resilient defines psychological resilience and provides tips on building personal resiliency
- All of the chapter's statistical material has been updated to reflect the latest information on the prevalence of psychological disorders among Americans
- A new Wellness Matters box, "Deliberate Self-harm," addresses the prevalence of and treatment for deliberate self injury
- Updated coverage on pharmacological therapy includes the latest drug therapies for depression, psychosis, and ADHD; discussion of the criticisms of drug therapy has been expanded

Chapter 4

- Self-acceptance added to the discussion of self-concept and self-esteem, including the role adults play in nurturing self-acceptance in children
- A new section explores the role that emotional intelligence plays in developing and maintaining meaningful relationships; tips included on enhancing one's own emotional intelligence
- The discussion on ending a relationship has been expanded to include "rebound relationships"
- A new section addresses the potential positive and negative effects that digital communication has on human relationships
- The discussion of same-sex marriage has been updated to include the latest state and national legislature
- Demographic statistics have been updated throughout, with data from the U.S. Census Bureau, the National Center for Health Statistics, and others

Chapter 5

- A new table on reproductive aging in women outlines the changes that occur in the female reproductive system from puberty to postmenopause
- A new Wellness Matters box, "Questions to Ask Before Getting Involved in a Sexual Relationship" prompts readers to consider their sexual beliefs, interest, and boundaries before entering a sexual relationship
- Statistics on Americans' sexual attitudes and behaviors have been thoroughly updated
- The sections on infertility and infertility treatments have been updated with the latest statistics and medical considerations
- New information on the causes and survival rates of preterm birth now included in the section on complications of pregnancy

Chapter 6

- A new Wellness Matters box "Contraception Use and Pregnancy Among College Students" provides the most up-to-date statistics on college-aged populations, including differences among races and ethnicities
- Sections on the contraceptive ring, contraceptive implants, injectable contraceptives, and IUDS have been updated

- with the latest information on effectiveness and potential side effects
- Statistics on the popularity and effectiveness of available contraceptive methods have been updated throughout
- Information on the current legal status of abortion has been updated to include the latest laws and restrictions
- The most current statistics on abortion rates and methods have been integrated throughout the chapter

Chapter 7

- A new section addresses the rise of synthetic recreational drugs, including "bath salts"
- A new Wellness Matters box, "Drug Use Among College Students," contains the latest statistics and data
- Information on gender differences and drug use has been significantly revised
- The section on the legal consequences of drug use has been updated and expanded

Chapter 8

- A new Wellness Matters box on alcoholic energy drinks details the usage and dangers of these increasingly popular beverages
- The newest data on binge drinking is included, along with discussion of the potentially harmful consequences of the practice
- Material on gender differences and alcohol use has been integrated throughout the chapter
- Statistics on tobacco use updated, with data from the National Survey on Drug Use and Health, the Youth Risk Behavior Strategy, the American Cancer Society, and others
- Updated content on e-cigarettes addresses their composition and the validity of their marketing claims

Chapter 9

- Coverage of U.S. food guidance systems has been updated to reflect new 2010 Dietary Guidelines for Americans
- · Coverage of the USDA's new MyPlate added
- The recommended Daily Allowances for calcium and vitamin D have been updated to reflect 2011 revisions to the Dietary Reference Intakes (DRIs) by the Food and Nutrition Board of the Institute of Medicine
- New content on the 2011 Food Safety Modernization Act appears

Chapter 10

- A new, more detailed definition of physical fitness opens the chapter
- All exercise guidelines have been updated to reflect the 2011 statement of the ACSM

- A new section on responders vs. nonresponders to exercise addresses the variety of individual response to any particular exercise program
- A new section describes how to use a heart rate monitor to measure the intensity of exercise

Chapter 11

- Statistics on overweight and obesity in the United States updated, including breakdown by gender and race/ethnicity; all statistics reflect the latest numbers available from the CDC
- Results of the latest research on overweight and obesity addressed throughout the chapter
- Material from the 2010 Dietary Guidelines for Americans on overweight and obesity added, including information on obesogenic environments
- A new Wellness Matters box, "The Freshman 15: Fact or Myth?", addresses the true amount of typical college weight gain and provides tips for maintaining a healthy weight in college

Chapter 12

- · Statistics on heart disease updated throughout
- New information appears on optimal cholesterol and LDL levels
- New content addresses the use of statins to reduce the risk of CVD
- A new figure (16.1) provides data on cancer deaths attributable to cigarette smoking
- A new section describes the link between the BRCA gene and breast cancer
- Expanded coverage addresses environmental and industrial pollution as a cause of cancer
- Information on screening and treatment for prostate cancer and ovarian cancer has been updated with the latest medical recommendations
- · New information appears on the treatment of melanoma

Chapter 13

- Statistics on top infectious diseases nationwide and worldwide updated with data from the CDC and the WHO
- A new Wellness on Campus box "Meningococcal Meningitis and College Students" provides information on the disease along with vaccination recommendations from the CDC and the American College
- A new section provides coverage of the 2011–2012 controversy over suppression of influenza research
- Statistics on the prevalence of HIV/AIDS and other STDs in the United States and worldwide have been

- updated throughout, with breakdown by gender, ethnicity/race, sexual orientation, and sexual behavior; latest numbers available from the CDC, the WHO, and UN-AIDS included
- Content updates address the latest research on HIV/ AIDS and other STDs
- The new U.S. Preventive Services Task Force and American Cancer Society recommendations for Pap test and HPV test are included
- New coverage addresses the STD lymphogranuloma venereum

Chapter 14

- Updated coverage of global warming provides the latest scientific information on the problem and potential solutions
- Information on renewable energy sources has been significantly updated with the latest usage statistics and technologies
- A new section addresses the risk and risks of extreme energy sources
- All statistics have been updated throughout the chapter

Chapter 15

 A new section on pharmaceuticals and the placebo effect integrates this coverage into the chapter • A new Wellness on Campus box guides students through the process of creating a personal health record

Chapter 16

- Update information on the dangers of distracted driving, including coverage of recent state legislation and the NTSB's recommended ban on the use of portable electronic devises while driving
- Statistics updated throughout with data from the National Safety Council, Federal Bureau of Investigation, CDC, WHO, and others

Chapter 17

- A new section on sexual functioning in older adults describes changes that typically occur as we age
- Expanded information on dementia discusses the latest Alzheimer's research, as well as other common causes of dementia
- The section on end-of-life care has been considerably revised, including a significantly expanded section on hospice care
- Material on funeral procedures has been updated to reflect the rising prevalence of cremation in the United States

TEACHING AND LEARNING WITH CORE CONCEPTS IN HEALTH



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Find materials you need to get your course up and running on **www.mhhe.com/Inselbrief13e.** There, you will find:

- Course Integrator guide
- Test bank
- PowerPoint slides
- Transparency masters and student handouts
- Health and wellness related weblinks

ACKNOWLEDGEMENTS

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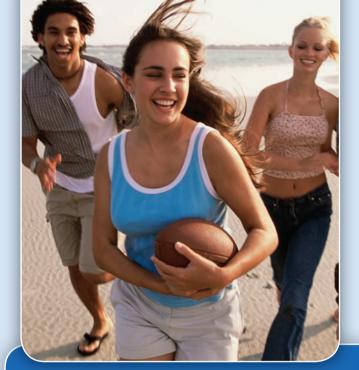
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LOOKING AHEAD...

After reading this chapter, you should be able to

- Describe the dimensions of wellness
- Identify major health problems in the United States today
- Describe the influence of gender, ethnicity, income, disability, family history, and environment on health
- Explain the importance of personal decision making and behavior change in achieving wellness
- List some available sources of health information and explain how to think critically about them
- Describe the steps in creating a behavior management plan to change a health-related behavior

Taking Charge of Your Health

1

ow are you?"

"Fine. And you?"

"Fine."

How many times have you had this brief conversation this week—or even today? And how many times have you told someone you were "fine" when in fact you were feeling no better than just all right or even downright miserable? Instead of merely telling people we are "fine," what if we strove to truly feel good—not merely to be free of major illness, but to live life actively, energetically, and fully in a state of optimal personal, interpersonal, and environmental well-being? What if we each took charge of our personal health and wellness? What would it mean to meet a friend in passing and honestly be able to say, "I'm feeling great"?

WELLNESS: NEW HEALTH GOALS

Generations of people have viewed good health simply as the absence of disease, and that view largely prevails today. The word health typically refers to the overall condition of a person's body or mind and to the presence or absence of illness or injury. Wellness, a relatively new concept, expands our idea of good health to include living rich, meaningful, and energetic life. Beyond the simple presence or absence of disease, wellness can refer to optimal health and vitality—to living life to its fullest.

Wellness involves our making conscious decisions that affect **risk factors** that contribute to disease or injury. Although age and family history are risk factors we cannot control, behaviors such as smoking, exercising, and eating a healthful diet are well within our control.

The Dimensions of Wellness

Experts have defined seven dimensions of wellness, which are listed in Table 1.1, along with some of the qualities and behaviors associated with each dimension.

These dimensions are interrelated. Each one has an effect on the others. Further, the process of achieving wellness is continuing and dynamic (Figure 1.1), involving change and growth. Wellness is not static. Ignoring any dimension of wellness can be harmful. But the encouraging aspect of wellness is that you can actively pursue it.

Physical Wellness Your physical wellness includes not just your body's overall condition and the absence of disease, but your fitness level and your ability to care for yourself. The higher your fitness level is, the higher your level of physical wellness will be. Similarly, as you develop the ability to take care of your own physical needs, you ensure greater physical wellness. To achieve optimum physical wellness, you need to make choices that will help you avoid illnesses and injuries.

Table 1.1

Examples of Qualities and Behaviors Associated with the Dimensions of Wellness

PHYSICAL

- Eating well
- Exercising
- Avoiding harmful habits
- Practicing safe
- Recognizing symptoms of disease
- Getting regular checkups
- Avoiding injuries

EMOTIONAL

- Optimism
- Trust
- Self-esteem
- Self-acceptance
- Self-confidence ■ Ability to under-

stand and accept

- one's feelings ■ Ability to share
- feelings with others

INTELLECTUAL

- Openness to new ideas
- Capacity to question
- Ability to think critically ■ Motivation to
- master new skills
- Sense of humor Creativity
- Curiosity
- Lifelong learning

TERMS

INTERPERSONAL

- Communication skills
- Capacity for intimacy
- Ability to establish and maintain satisfying relationships
- Ability to cultivate support system of friends and family

- **SPIRITUAL**
- Capacity for love Having
- Compassion
- Forgiveness Altruism
- Tov
- Fulfillment
- Caring for others
- Sense of meaning and purpose
- Sense of belonging to something greater

than oneself

ENVIRONMENTAL

- abundant, clean natural resources
- Maintaining sustainable development
- whenever possible

■ Recycling

Reducing pollution and waste

FINANCIAL

- Basic understanding of how money works
- Living within one's means
- Avoiding debt, especially for unnecessary items
- Save for the future and for potential emergencies

Emotional Wellness Trust, self-confidence, optimism, satisfying relationships, and self-esteem are some of the qualities of emotional wellness. Emotional wellness is dynamic, and involves the ups and downs of living. No one can achieve an emotional "high" all the time. Emotional wellness fluctuates with your intellectual, physical, spiritual, social, and interpersonal health. Maintaining emotional wellness requires exploring thoughts and feelings. One of the best ways to achieve emotional wellness is to share your emotional problems with others. If it's a risk, it's a risk worth taking. Achieving

health The overall condition of body or mind and the presence or absence of illness or injury.

wellness Optimal health and vitality, encompassing all the dimensions of well-being.

risk factor A condition that increases one's chances of disease or injury.

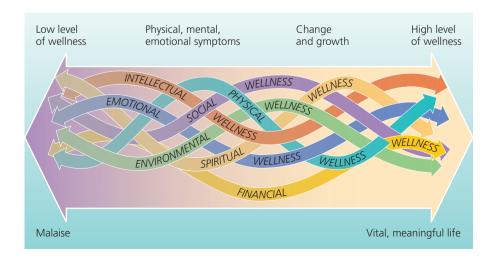
emotional wellness means finding solutions to emotional problems, with professional help if necessary.

Intellectual Wellness Those who enjoy intellectual wellness constantly challenge their minds. An active mind is essential to wellness because it detects problems, finds solutions, and directs behavior. Throughout their lifetimes people who enjoy intellectual wellness never stop learning. They not only seek and relish new experiences and challenges but often discover new things about themselves.

Interpersonal Wellness Satisfying and supportive relationships are important to physical and emotional wellness. Learning good communication skills, developing the capacity for intimacy, and cultivating a supportive network are all important to interpersonal (or social) wellness. Social wellness requires participating in and contributing to your community and to society.

FIGURE 1.1 The wellness continuum. The concept of wellness includes vitality in seven interrelated dimensions, all of which

contribute to overall wellness.



Spiritual Wellness To enjoy spiritual wellness is to possess a set of guiding beliefs, principles, or values that give meaning and purpose to your life, especially in difficult times. The spiritually well person focuses on the positive aspects of life and finds spirituality to be an antidote for negative feelings such as cynicism, anger, and pessimism. Organized religions help many people develop spiritual health. Religion, however, is not the only source or form of spiritual wellness. Many people find meaning and purpose in their lives on their own—through nature, art, meditation, or good works—or with their loved ones.

Environmental Wellness Your environmental wellness is defined by the livability of your surroundings. Personal health depends on the health of the planet—from the safety of the food supply to the degree of violence in society. Your physical environment can support your wellness or diminish it. To improve your environmental wellness, you can learn about and protect yourself against hazards in your surroundings and work to make your world a cleaner and safer place.

Financial Wellness Financial wellness refers to your ability to live within your means and manage your money in a way that gives you peace of mind. It includes balanc-

QUICK

72% of American

men are overweight.

STATS

—NIH, 2011

ing your income and expenses, staying out of debt, saving for the future, and understanding your emotions about money. For more on this topic, see the "Financial Wellness" box.

Other Aspects of Wellness Many experts consider occupational wellness to be

an additional important dimension of wellness. Occupational wellness refers to the level of happiness and fulfillment you gain through your work. An occupationally well person enjoys his or her work, feels a connection with others in the workplace, and takes advantage of the opportunities to learn and be challenged. To achieve occupational wellness, set career goals that reflect your personal values.

New Opportunities for Taking Charge

Wellness is a fairly new concept. A century ago, Americans considered themselves lucky just to survive to adulthood. A child born in 1900, for example, could expect to live only about 47 years. Morbidity and mortality rates (rates of illness and death, respectively) from common infectious diseases (such as pneumonia, tuberculosis, and diarrhea) were much higher than Americans experience today.

Since 1900, life expectancy has nearly doubled, due largely to the development of vaccines and antibiotics to fight infections, and to public health measures such as water purification and sewage treatment to improve living conditions. But even though life expectancy has increased, poor

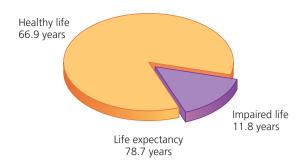


FIGURE 1.2 Quantity of life versus quality of life. Years of healthy life as a proportion of life expectancy in the U.S. population. **SOURCE**: National Center for Health Statistics. 2012. Deaths: Preliminary data for 2010 (data release). National Vital Statistics Report 60(4).

health will limit most Americans' activities during the last 15% of their lives, resulting in some sort of impaired life (Figure 1.2). Today a different set of diseases has emerged as our major health threat, and heart disease, cancer, and stroke are now the three leading causes of death for Americans (Table 1.2). Treating such chronic diseases is costly and difficult.

The good news is that people have some control over whether they develop chronic diseases. People make

choices every day that increase or decrease their risks for such diseases. Each of us can take personal responsibility for lifestyle choices that include behaviors such as smoking, diet, exercise, and alcohol use. As Table 1.3 makes clear, lifestyle factors contribute to many deaths in the United States, and people can influence their own health risks.

The need to make good choices is especially true for teens and young adults. For Americans aged 15-24, for example, the top three causes of death are unintentional injuries (acci-

dents), homicide, and suicide (Table 1.4).

morbidity rate The relative incidence of disease among a population.

TERMS

mortality rate The number of deaths in a population in a given period of time; usually expressed as a ratio, such as 75 deaths per 1000 members of the population.

infectious disease A disease that can spread from person to person, caused by microorganisms such as bacteria and viruses.

life expectancy The period of time a member of a given population is expected to live.

impaired life The period of a person's life when he or she may not be able to function fully due to disease or disability.

chronic disease A disease that develops and continues over a long period of time, such as heart disease or cancer.

lifestyle choice A conscious behavior that can increase or decrease a person's risk of disease or injury; such behaviors include smoking, exercising, eating a healthful diet, and others.



With the news full of stories of home foreclosures, credit card debt, and personal bankruptcies, it has become painfully clear that many Americans do not know how to manage their finances. You can avoid such stress—and gain financial peace of mind by developing skills that contribute to fi-

nancial wellness.

Financial wellness means having a healthy relationship with money. It involves knowing how to manage your money, using self-discipline to live within your means, using credit cards wisely, staying out of debt, meeting your financial obligations, having a long-range financial plan, and saving.

Learn to Budget

Although the word *budget* may conjure up thoughts of deprivation, a budget is really just a way of tracking where your money goes and making sure you're spending it on the things that are most important to you. To start one, list your monthly income and your expenditures. If you aren't sure where you spend your money, track your expenses for a few weeks or a month. Then organize them into categories, such as housing, food, transportation, entertainment, services, personal care, clothes, books and school supplies, health care, credit card and loan payments, and miscellaneous. Use categories that reflect the way you actually spend your money. Knowing where your money goes is the first step in gaining control of it.

Now total your income and expenditures. Are you taking in more than you spend, or vice versa? Are you surprised by your spending patterns? Use this information to set guidelines and goals for yourself. If your expenses exceed your income, identify ways to make some cuts. If you have both a cell phone and a land line, for example, consider whether you can give one up. If you spend money on movies and restaurants, consider less expensive options like having a weekly game night with friends or organizing an occasional potluck.

Be Wary of Credit Cards

College students are prime targets for credit card companies, and most undergraduates have at least one card. In fact, many college students use credit cards to live beyond their means, not just for convenience. According a recent report, half of all students have four or more cards, and the average outstanding balance on undergraduate credit cards is over \$3000.

The best way to avoid credit card debt is to have just one card, to use it only when necessary, and to pay off the entire balance every month. Make sure you understand terms like *APR* (annual percentage rate—the interest you're charged on your balance),

credit limit (the maximum amount you can borrow), minimum monthly payment (the smallest payment your creditor will accept each month), grace period (the number of days you have to pay your bill before interest or penalties are charged), and over-the-limit and late fees (the amount you'll be charged if your payment is late or if you go over your credit limit).

Get Out of Debt

If you have credit card debt, stop using your cards and start paying them off. If you can't pay the whole balance, at least try to pay more than the minimum payment each month. It can take a very long time to pay off a loan by making only the minimum payments. For example, paying off a credit card balance of \$2000 at 10% interest with monthly payments of \$20 would take 203 months—17 years. To see for yourself, check out an online credit card calculator like http://cgi.money.cnn.com/tools/debtplanner/debtplanner.jsp. And remember: By carrying a balance and incurring finance charges, you are also paying back much more than your initial loan.

Start Saving

The same miracle of compound interest that locks you into years of credit card debt can work to your benefit if you start saving early (for an online compound interest calculator, visit http://www.interestcalc.org). Experts recommend "paying yourself first" every month—that is, putting some money into savings before you start paying your bills, depending on what your budget allows. You may want to save for a large purchase, or you may even be looking ahead to retirement. If you work for a company with a 401(k) retirement plan, contribute as much as you can every pay period.

Become Financially Literate

Although modern life requires financial literacy, most Americans have not received any kind of basic financial training. For this reason, the U.S. government has established the Financial Literacy and Education Commission (www.MyMoney.gov) to help Americans develop financial literacy and learn how to save, invest, and manage their money better. The consensus is that developing lifelong financial skills should begin in early adulthood, during the college years, if not earlier.

sources: Federal Deposit Insurance Corporation. 2010. *Money Smart: A Financial Education Program* (http://www.fdic.gov/consumers/consumer/moneysmart/young.html); Plymouth State University. 2012. *Student Monetary Awareness and Responsibility Today!* (http://www.plymouth.edu/office/financial-aid/smart/); U.S. Financial Literacy and Education Commission. 2012. *MyMoney.gov* (http://www.mymoney.gov).



RANK	CAUSE OF DEATH	NUMBER OF DEATHS	PERCENTAGE OF TOTAL DEATHS*	DEATH RATE [†]	LIFESTYLE FACTORS
	All causes	2,465,932	100.0	798.7	
1	Heart disease	599,444	24.3	192.9	DIS
2	Cancer	573,855	23.3	185.9	DIS
3	Chronic lower respiratory diseases	137,789	5.6	44.6	S
4	Stroke	129,180	5.2	41.8	DIS
5	Unintentional injuries (accidents)	118,043	4.9	38.2	IS
6	Alzheimer's disease	83,308	3.8	27.0	
7	Diabetes mellitus	68,905	2.8	22.3	DIS
8	Kidney disease	50,472	2.1	16.3	DIS
9	Influenza and pneumonia	50,003	2.0	16.2	S
10	Intentional self-harm (suicide)	37,793	1.5	12.2.9	
.1	Septicemia (systemic blood infection)	34,843	1.4	11.3	
.2	Chronic liver disease and cirrhosis	31,802	1.3	10.34	
13	Hypertension (high blood pressure)	26,577	1.1	8.6	DIS
.4	Parkinson's disease	21,963	0.8	7.1	
15	Pneumonitis due to solids and liquids	17,001	0.7	5.5	
	All other causes	488,954	19.0	158.5	
Key	Diet plays a part.Inactive lifestyle plays a part.	S	Smoking plays a part. Excessive alcohol use p	lays a part.	

NOTE: Although not among the overall top 15 causes of death, HIV/AIDS (8,352 deaths in 2010) is a major killer. In 2010 HIV/AIDS was the 11th leading cause of death for Americans aged 15–24 years and the 7th leading cause of death for those aged 25–44 years.

SOURCE: National Center for Health Statistics. 2012. Deaths: Preliminary data for 2010 (data release). National Vital Statistics Report 60(4).

Promoting Health and Preventing Disease

People are a nation's most important resource. The creativity, vitality, and prosperity of a country depend on the health of its people. Governments as well as communities find it in their long-term interests to promote health and prevent disease. The World Health Organization (WHO) defines health promotion as "the process of enabling people to increase control over their health and its determinants, and thereby improve their health." The primary means of promoting health are public health policies and agencies that identify and discourage unhealthy and high-risk behaviors and that encourage and provide incentives for judicious health behaviors. Many college campuses have health promotion programs or activities.

In the United States, the National Insitutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) are federal agencies charged with promoting the public's health. NIH is the primary federal agency for conducting

and supporting medical research. NIH scientists investigate ways to prevent disease as well as the causes, treatments, and cures for common and rare diseases. Composed of 27 institutes and centers, the NIH provides leadership and financial support to researchers in every state as well as around the world. The NIH translates research results into interventions and communicates research findings to patients, health care providers, and the public.

Disease prevention is a major focus of public health promotion. Working at disease prevention, the CDC collaborates

health promotion The process of enabling people to increase control over their health and its determinants, and thereby improve their health.

TERMS

disease prevention The process of providing tools that people and communities need to protect their health by reducing risks; promoting health; preventing disease, injury, and disability; and preparing for new health threats.

^{*}Percentages may not sum to 100% due to rounding.

[†] Age-adjusted death rate per 100,000 persons.

VITAL STATISTICS

Table 1.3

Key Contributors to Death among Americans

	NUMBER OF DEATHS PER YEAR	PERCENTAGE OF TOTAL DEATHS PER YEAR
Tobacco	443,000	18.0
Obesity*	111,909	4.5
Alcohol consumption	25,440	1.0
Microbial agents	50,003	2.0
Toxic agents	55,000	2.3
Motor vehicles	35,080	1.4
Firearms	11,015	0.5
Sexually transmitted diseases	20,000	0.8
Illicit drug use	37,792	1.5

NOTE: The factors listed here are defined as lifestyle and environmental factors that contribute to the leading killers of Americans. Microbial agents include bacterial and viral infections like influenza and pneumonia; toxic agents include environmental pollutants and chemical agents such as asbestos.

*The number of deaths due to obesity is an area of ongoing controversy and research. Recent estimates have ranged from 112,000 to 365,000.

sources: Centers for Disease Control and Prevention. 2008. Smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 2000–2004. *Morbidity and Mortality Weekly Report* 57(45): 1226–1228; Flegal, K. M. 2010. *Supplemental Analyses for Estimates of Excess Deaths Associated with Underweight, Overweight, and Obesity in the U.S. Population* (http://www.cdc.gov/nchs/data/hestat/excess_deaths/excess_deaths.htm); National Center for Health Statistics. 2012. Deaths: final data for 2009 (data release). *National Vital Statistics Report* 60(3).; National Center for Health Statistics. 2012. Deaths: Preliminary data for 2010 (data release). *National Vital Statistics Report* 60(4).

with partners throughout the nation and the world to provide tools that people and communities need to protect their health through health promotion; prevention of disease, injury, and disability; and preparedness for new health threats. Prevention research focuses on identifying risk factors and protective factors for diseases, disorders, and injuries; identifying highrisk behaviors; and developing, managing, and evaluating preventive interventions.

The Healthy People Initiative

The national Healthy People initiative aims to prevent disease and improve Americans' quality of life. Healthy People reports, published each decade since 1980, set national health goals based on 10-year agendas. The initiative's most recent iteration, Healthy People 2020, was developed in 2008–2009 and released to the public in 2010. Healthy People 2020 envisions "a society in which all people live long, healthy lives" and proposes the eventual achievement of the following broad national health objectives:

- Eliminate preventable disease, disability, injury, and premature death. This objective involves activities such as taking more concrete steps to prevent diseases and injuries among individuals and groups, promoting healthy lifestyle choices, improving the nation's preparedness for emergencies, and strengthening the public health infrastructure.
- Achieve health equity, eliminate disparities, and improve the health of all groups. This objective involves identifying, measuring, and addressing health differences between individuals or groups that result from a social or economic disadvantage.
- Create social and physical environments that promote good health for all. This objective involves the use of health interventions at many different levels (such as anti-smoking campaigns by schools, workplaces, and local agencies), improving the situation of undereducated and poor Americans by providing a broader array of educational and job opportunities, and actively developing healthier living and natural environments for everyone.
- Promote healthy development and healthy behaviors across every stage of life. This objective involves taking a cradle-to-grave approach to health promotion by encouraging disease prevention and healthy behaviors in Americans of all ages.

In a shift from the past, *Healthy People 2020* emphasizes the importance of health determinants—factors that affect the health of individuals, demographic groups, or entire

			VITAL STATISTICS
Table 1.4	Leading Causes of D	eath among Americans Aged 1	5–24
RANK	CAUSE OF DEATH	NUMBER OF DEATHS	PERCENTAGE OF TOTAL DEATHS
1	Accidents:	12,015	40.7
	Transport	7,209	24.4
	Nontransport	4,806	16.3
2	Homicide	4,651	15.8
3	Suicide	4,559	15.5
4	Cancer	1,594	5.4
5	Heart disease	984	3.3
	All causes	29,504	
SOURCE: National Center for Health Statistics. 2012. Deaths: Preliminary data for 2010. <i>National Vital Statistics Report</i> 60(4).			

Table 1.5	Selected Healthy People 2020 Objectives		
OBJECTIVE		ESTIMATE OF CURRENT STATUS (%)	GOAL (%)
Reduce the proportion	n of adults who are sedentary and engage in no leisure-time physical activity.	36.2	32.6
Increase the proportio	n of adults who are at a healthy weight.	30.8	33.9
Increase the proportion of adults with mental health disorders who receive treatment.		58.7	64.6
Reduce the proportion of adults who use cigarettes.		20.6	12.0
Increase the proportion of adults who get sufficient sleep.		69.6	70.9
Reduce the proportion	n of adults with hypertension.	29.9	26.9
Reduce the proportion of adults who drank excessively in the previous 30 days.		28.1	25.3
Increase the proportion of persons who use the Internet to communicate with their health care providers.		13	15
1 1	n of persons with health insurance.	83	100

populations. Health determinants are social (including factors such as ethnicity, education level, or economic status) and environmental (including natural and human-made environments). Thus one goal is to improve living conditions in ways that reduce the impact of negative health determinants.

Examples of individual health promotion goals from *Healthy People 2020*, along with estimates of how well Americans are tracking toward achieving those goals, appear in Table 1.5.

Health Issues for Diverse Populations

Americans are a diverse people. Our ancestry is European, African, Asian, Pacific Islander, Latin American, and Native American. We live in cities, suburbs, and rural areas and work in every imaginable occupation.

When it comes to health, most differences among people are insignificant; most health issues concern us all equally.

We all need to eat well, exercise, manage stress, and cultivate satisfying personal relationships. We need to know how to protect ourselves from heart disease, cancer, sexually transmitted diseases, and injuries. We need to know how to use the health care system.

But some of our differences, as individuals and as members of groups, have important implications for health. Some of us, for example, have a genetic predisposition for

developing certain health problems, such as high cholesterol. Some of us have grown up eating foods that raise our risk of heart disease or obesity. Some of us live in an environment that increases the chance that we will smoke cigarettes or abuse alcohol. These health-related differences among individuals and groups can be biological—that is, determined genetically—or cultural—acquired as patterns of behavior through daily interactions with our families, communities, and society. Many health conditions are a function of biology and culture combined. A person can have a genetic predisposition for a disease, for example, but won't actually develop the disease itself unless certain lifestyle factors are present, such as tobacco use or a poor diet.

Health-related differences among groups can be identified and described in the context of several different dimensions. Those highlighted by the Healthy People initiative are gender, ethnicity, income and education, disability, geographic location, and sexual orientation.

Sex and Gender Sex and gender profoundly influence wellness. The WHO defines **sex** as the biological and physiological characteristics that define men and women. These characteristics are related to chromosomes and their effects on reproductive organs and the functioning of the body. Menstruation in women and the presence of testicles in men are examples of sex-related characteristics.

Gender is defined as roles, behaviors, activities, and attributes that a given society considers appropriate for men and women. A person's gender is rooted in biology and physiology, but it is shaped by experience and environment—how society

responds to individuals based on their sex. Examples of gender-related characteristics that affect wellness include higher rates of smoking and drinking among men and lower earnings among women (compared with men doing similar work).

Both sex and gender have important effects on wellness, but they can be difficult to separate (see Table 1.6). For example, in the early 20th century, more women began smoking

with changes in culturally defined ideas about women's behavior (a gender issue). Because women are more vulnerable to the toxins in tobacco smoke (a sex issue), their cancer rates also increased. Although men are more biologically likely than women to suffer from certain diseases (a sex issue), men are less likely to visit their physicians for regular exams (a gender issue). As a

wellness, personal responsibility can make the difference.

When it comes to

sex The biological and physiological characteristics that define men and women.

. ...

TERMS

gender The roles, behaviors, activities, and attributes that a given society considers appropriate for men and women.

Table 1.6	Women's Health, Men's Health	
HEALTH ISSUES	WOMEN	MEN
Life expectancy	On average, live about five years longer but have higher rates of disabling health problems such as arthritis, osteoporosis, and Alzheimer's disease.	Have a shorter life expectancy but lower rates of disabling health problems.
Height and weight	Shorter on average, with a lower proportion of muscle; tend to have a "pear" shape with excess body fat stored in the hips; obesity is more common in women than men.	Taller on average, with a higher proportion of muscle; tend to have an "apple" shape with excess body fat stored in the abdomen.
Skills and fluencies	Score better on tests of verbal fluency, speech production, fine motor skills, and visual and working memory.	Score better on tests of visual-spatial ability (such as the ability to imagine the relationships between shapes and objects when rotated in space).
Heart attacks	Experience heart attacks about 10 years later than men, on average, with a poorer 1-year survival rate; more likely to experience atypical heart attack symptoms (such as fatigue and difficulty breathing) or "silent" heart attacks that occur without chest pain.	Experience heart attacks about 10 years earlier than women, on average, with a better 1-year survival rate; more likely to have "classic" heart attack symptoms (such as chest pain).
Stroke	More likely to have a stroke or die from one, but also more likely to recover language ability after a stroke that affects the left side of the brain.	Less likely to die from a stroke, but also more likely to suffer permanent loss of language ability after a stroke that affects the left side of the brain.
Immune response	Stronger immune systems; less susceptible to infection by certain bacteria and viruses, but more likely to develop autoimmune diseases such as lupus.	Weaker immune systems; more susceptible to infection by certain bacteria and viruses, but less likely to develop autoimmune diseases.
Smoking	Lower rates of smoking than men, but higher risk of lung cancer at a given level of exposure to smoke.	Higher rates of smoking and spit tobacco use.
Alcohol	Become more intoxicated at a given level of alcohol intake.	Become less intoxicated at a given level of alcohol intake, but are more likely to use or abuse alcohol or to develop alcoholism.
Stress	More likely to react to stress with a "tend-and-befriend" response that involves social support; may have a longevity advantage because of a reduced risk of stress-related disorders.	More likely to react to stress with aggression or hostility; this pattern may increase the rate of stress-related disorders.
Depression	More likely to suffer from depression and to attempt suicide.	Lower rates of depression than women and less likely to attempt suicide, but four times more likely to succeed at suicide.
Headaches	More commonly suffer migraines and chronic tension headaches.	More likely to suffer from cluster headaches.
Sexually transmit- ted diseases (STDs)	More likely to be infected with an STD during a heterosexual encounter; more likely to suffer severe, long-term effects from STDs, such as chronic infection and infertility.	Less likely to be infected with an STD during a heterosexual encounter.

result, 55% of American men have not seen their doctors for checkups in the past year, and 29% of men say they wait as long as possible before seeing a doctor—even when they are sick. About one in three American men don't have a regular health care provider, compared to about one in five American women.

Ethnicity Compared with the U.S. population as a whole, American ethnic minorities have higher rates of death and disability from many causes. These disparities result

from a complex mix of genetic variations, environmental factors, and health behaviors.

Some diseases are concentrated in certain gene pools, the result of each ethnic group's relatively distinct history. Sicklecell disease is most common among people of African ancestry. Tay-Sachs disease afflicts people of Eastern European Jewish

One in three

American men and one in five

American women have no regular health care provider.

heritage and French Canadian heritage. Cystic fibrosis is more common among Northern Europeans. In addition to biological differences, many cultural differences occur along ethnic lines. Ethnic groups may vary in their traditional diets; their family and interpersonal relationships; their attitudes toward tobacco, alcohol, and other drugs; and their health beliefs and practices. All of these factors have implications for wellness (see the "Health Disparities among Ethnic Americans" box for more information).

The federal government collects population and health information on five broad ethnic minority groups in American society. Each group has some specific health concerns:

 Latinos are a diverse group, with roots in Mexico, Puerto Rico, Cuba, and South and Central America. Many

DIVERSITY MATTERS

Health Disparities among Ethnic Minorities



Among America's ethnic groups, striking disparities exist in health status, access to and quality of health care, and life expectancy.

For example, the estimated life expectancy of black Americans (75.1) is about four years shorter than that of whites (79.0). Blacks also have the highest age-adjusted death rate (898 deaths per 100,000 population) of any ethnic group. Whites have the second-highest death rate (741), followed by Native Americans/Alaska Natives (626), Hispanics (558), and Asian Americans/Pacific Islanders (424).

In studying and attempting to understand the underlying causes of health disparities, it is often helpful to separate the many potential contributing factors.

Income and Education As noted in the chapter, poverty and low educational attainment are the most important factors underlying health disparities. However, when groups with similar incomes and levels of education are compared, ethnic disparities persist. Consider the following examples:

- Overall health. People living in poverty report worse health than people with higher incomes. Within the latter group, however, African Americans and Latinos rate their health as "bad" more frequently than do whites.
- Infant mortality. Rates of infant deaths go down as the education level of mothers goes up. Among mothers who are college graduates, however, African Americans have significantly higher rates of infant mortality than whites, Latinos, and Asian Americans. Overall, the rate of infant mortality among blacks is more than double that of whites, Asian Americans, or Hispanics.

Access to Appropriate Health Care The health care reform bill passed by Congress in 2010 mandated insurance coverage for 32 million Americans without



insurance. Major coverage expansion begins in 2014. The legislation should reduce the number of people without access to health care and without information about services and preventive care.

Although people with low incomes have tended to receive poorer-quality health care, disparities among ethnic minorities persist even at higher income levels. For example, among nonpoor Americans, many more Latinos than whites or African Americans report no usual source of health care and no health care visits within the past year. Ongoing studies continually find that racial minorities have less access to better health care (such as complex surgery at high-volume hospitals) and receive lower-quality care than whites.

Factors affecting such disparities may include the following:

- Local differences in the availability of high-tech health care and specialists. Minorities, regardless of income, may be more likely to live in medically underserved areas.
- Problems with communication and trust. People whose primary language is not English are more likely to be uninsured and to have trouble communicating with health care providers. They may also have problems interpreting health information from public health education campaigns. Language and cultural barriers may be compounded by an underrepresentation of minorities in the health professions.

• Cultural preferences relating to health care. Groups may vary in their assessment of when it is appropriate to seek medical care and what types of treatments are acceptable.

Culture and Lifestyle As described in the chapter, ethnic groups may vary in health-related behaviors such as diet, to-bacco and alcohol use, coping strategies, and health practices—and these behaviors can have important implications for wellness, both positive and negative. For example, African Americans are more likely to report consuming five or more servings of fruits and vegetables per day than people from other ethnic groups. American Indians report high rates of smoking and smoking-related health problems.

Cultural background can be an important protective factor. For example, poverty is strongly associated with increased rates of depression, but some groups, including Americans born in Mexico or Puerto Rico, have lower rates of mental disorders at a given level of income and appear to have coping strategies that provide special resilience.

Discrimination Racism and discrimination are stressful events that can cause psychological distress and increase the risk of physical and psychological problems. Discrimination can contribute to lower socioeconomic status and its associated risks. Bias in medical care can directly affect treatment and health outcomes.

Conversely, research shows that better health care results when doctors ask patients detailed questions about their ethnicity. (Most medical questionnaires ask patients to put themselves in a vague racial or ethnic category, such as Asian or Caucasian.) Armed with more information about patients' backgrounds, medical professionals may find it easier to detect some genetic diseases or to overcome language or cultural barriers.

