



# Well-being and You:

## AN INTRODUCTION TO KEY CONCEPTS AND YOURSELF

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### LEARNING OBJECTIVES

- Assess your perceptions of physical fitness and your readiness to make behavior changes that will increase your well-being.
- Define well-being; list the dimensions of well-being; and explain the importance of balancing the dimensions of you for greater well-being.
- Identify and explain the determining factors that affect your and your patients or clients well-being.
- Explain how lifestyle choices impact well-being.
- Define "lifestyle medicine," and explain why it is an effective way to improve your patients' health and well-being.

# Find Your Path to Well-being

Your journey to better well-being should not start by memorizing scientific terms, facts, or research statistics. While this book offers scientific concepts that are important for the understanding of personal well-being and coaching well-being, the best starting point is **self-assessment**.

Self-assessment is learning how your attitudes and behaviors affect different parts of your life. Where are you now, and where do you want to go? Taking stock of who you are today, and how your current attitudes and behaviors affect your overall well-being is a crucial first step. You will need to help your patients take notice of the same factors. Going through the process yourself not only helps you personally, but it will give you first-hand experience with the behavior change process that you will use to guide your patients to a fulfilling life.

In *Coaching Healthy Lifestyle* online, you will find self-assessments that build a profile about a person you may not know as well as you think you do—yourself. To begin to develop your profile, you need to identify what drives you, pinpoint your likes and dislikes, and explore the circumstances in your life that may get in your way. Your profile will illuminate your “tendencies,” which influences how you live your life.

You should answer these self-assessments as accurately as possible. The right answer is an honest answer. Honest choices will provide you with feedback in your profile that reflects the truest view of yourself.

Knowing yourself is vital. Your personal well-being and fitness journey will require that you embrace positive behaviors and overcome barriers to make healthful choices. Following completion of the assessments, we will share your personal results with you. Be honest in your responses; you might find some things out about yourself that you never knew. Reviewing your profile results will make the introductory concepts covered in the remaining portion of this chapter more applicable.

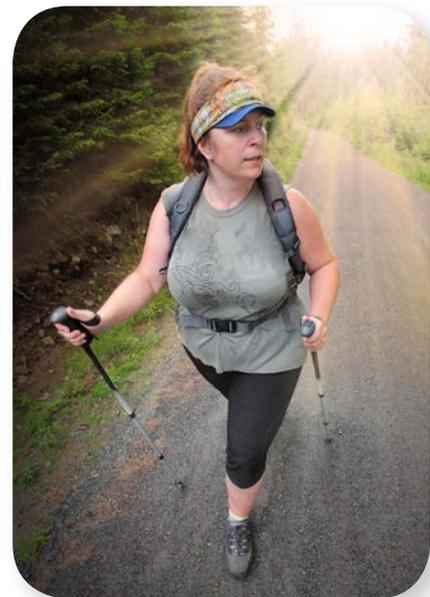
## How Physically Active Are You?

The “Set a SMART Goal for Exercise” assessments, which you can find online, will help you identify the dimension of wellbeing that you would like to promote by doing exercise—identify exercises to help you promote your well-being. Exercise is the act of doing something that brings about health improvements to the mind and body. Exercise includes brisk walking, jog-



**Figure 1.1:** The road to well-being is a personal journey that unfolds and reflects your daily choices.

**Figure 1.2:** Being physically active does not mean you have to go to the gym. Walking is great form of exercise.



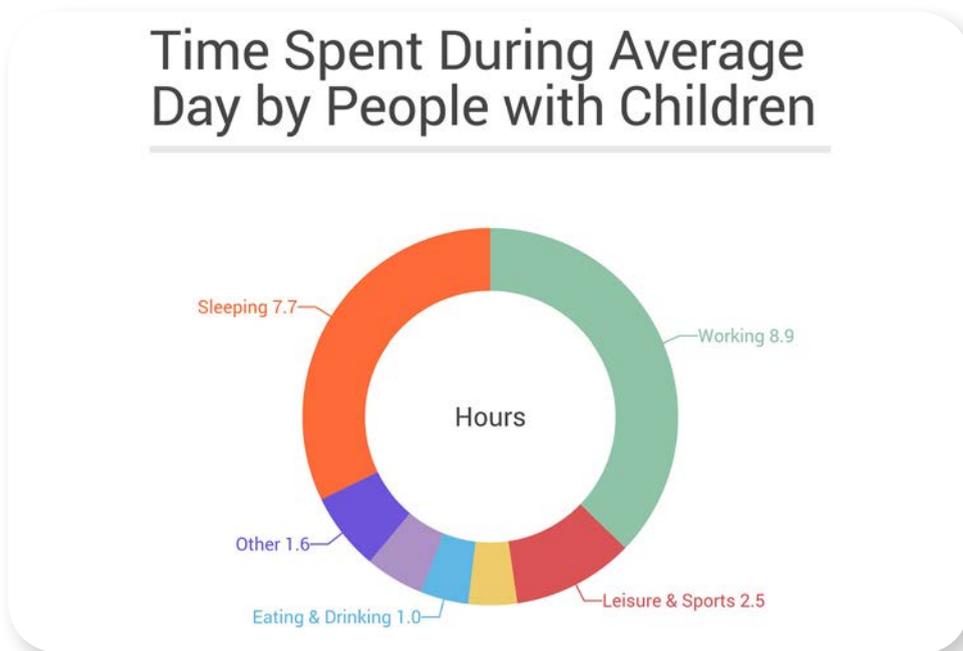
ging, swimming, aerobic dancing, biking, rowing, weight lifting, and so on. You can do physical activity in many different ways; you should find the activity that is best for you (Figure 1.2).

You may enjoy sedentary activities, like bowling or golfing with a cart, but do not count them as exercise. “Regular” exercise is defined as five days a week of 30+ minutes of moderate intensity exercise OR three or more days a week of vigorous intensity exercise totaling 75+ minutes OR an adequate combination of the two.<sup>1</sup>

### Complete Online [Set a SMART Goal for Exercise](#)

## Do You Make Time to Exercise?

Do you prefer to exercise with friends or alone? How do stressful life events, such as moving or starting school, affect whether you exercise or not? It is important to assess and understand the circumstances in which you are more likely to exercise and the circumstances in which you are less likely to exercise. Part two of the SMART goal assessment will help you look at your life and identify circumstances that may affect how much physical activity you are doing each week. Knowing yourself better this way will help you develop strategies and tactics for a regular exercise plan.



**Figure 1.3:** How do you choose to use your time?



**Figure 1.4:** Trying something for the first time can be scary, but you can build your confidence with practice and help from others.

## What Is Your Confidence Level?

Do you ever worry that you don't know the proper exercise techniques or that you won't be able to perform all the necessary movements? If so, you are not alone. For these and many other reasons, people don't feel confident in their ability to exercise, which is an integral component of well-being. Sun Tzu, a sixth-century military Chinese general said, "If you know the enemy and know yourself, you need not fear the result of a hundred battles." Facing personal fears and pinpointing the factors that affect your confidence level are important to understand your exercise and wellness deterrents (Figure 1.4). The SMART goal assessment online will help you understand your confidence level with regard to exercise.

## How Motivated Are You to Exercise?

Understanding your motivation towards exercise is just as important as identifying your confidence level. Recognize what drives you: aerobic exercise or resistance training, intrinsic or extrinsic motivators. It has been determined that *intrinsic motivation* (motivation influenced by internal awards) is more powerful than *extrinsic motivation* (motivation influenced by external rewards or punishment) for long-term adherence to regular exercise.<sup>2</sup>

The SMART goal assessment online will help you zero in on your motivators and motives for both aerobic exercise and resistance exercise. A motivator is someone or something that gives you a reason for acting. A motive is the reason you act. For example, you plan to go on a hiking trip with friends, so you start exercising more so that you can keep up with everyone on the trail. Your motivator for exercise is the hiking trip with your friends. Your motive is your wish to be physically fit so that you can hike at the same pace as your friends.



**Figure 1.5:** Push-ups are a form of resistance exercise.

*Aerobic exercise* elevates your heart rate and increases your use of oxygen for an extended period of time, at least 20 to 30 minutes, thereby improving your cardiorespiratory conditioning. These activities include: brisk walking, jogging, swimming, aerobic dancing, biking, and rowing.

*Resistance exercise* puts a load against the muscle and bone, causing the muscles to contract. Regular resistance exercise results in increase in muscle strength and endurance. These activities may include: lifting free weights, using resistance bands, weighted balls, weight machines, kettle bells, counteracting buoyancy in water, or using body weight (Figure 1.5).

## YOUR PERSONAL JOURNEY

# Overcoming a Crazy Busy Life

Tenzin Gyatso, the 14th Dalai Lama and spiritual leader of the people of Tibet, was once asked, "What thing about humanity surprises you the most?" He responded:

Man. Because he sacrifices his health in order to make money. Then he sacrifices money to recuperate his health. And then he is so anxious about the future that he does not enjoy the present; the result being that he does not live in the present or the future; he lives as if he is never going to die, and then dies having never really lived.

Finding balance to live a happy life challenges most of us. Embracing your **well-being** requires monitoring numerous dimensions of yourself, which the next section explains in detail. Well-being encompasses a purposeful, holistic lifestyle in order to fulfill the potential in all dimensions of your life.

## Your Profile and Key Well-being Concepts

The content in the remaining portion of this chapter is foundational to understanding well-being and fitness and intended to support your personal journey. Use this next section *after* you have completed and reflected on the self-assessments just offered. Before continuing, take time to reflect: Are the results surprising or confirmation of what you already knew?

## IDENTIFY YOUR DIMENSIONS OF WELL-BEING

**Well-being** is an active process of becoming aware of and making a more successful existence. No one formula exists for achieving well-being, as variables or factors change with time. The **core dimensions of well-being** are: physical, mental, emotional, intellectual, spiritual, and social.

These dimensions are fluid and echo off the other, they integrate and influence your daily life. A change in one dimension of well-being will inevitably affect the other dimensions of well-being. Well-being requires daily attention. Significant research that has found that the mind and body work as one. Regular physical activity, for example, improves cognitive function and mood, which are mental and emotional dimensions of well-being.<sup>3</sup>

The balance of these dimensions will determine your well-being and the overall quality of your life. "Quality of life" is *not* an objective evaluation of the dimensions from an outside perspective. Rather it is a deep, inner reflection of yourself. Innate ability has little to do with perceived quality. How you choose to think about and act upon your ability seems to be more important. This is the very reason why some people can have so much going for them and others so little and the outward embodiment seems the opposite.

In addition to these 6 core dimensions of well-being, there are an additional dimensions of well-being—occupational, environmental, and financial—that are significant fac-

tors to your life.<sup>3</sup> For example, money is a requirement for shelter, food, transportation, education, and entertainment. Yet money, or the lack of it, can be a significant constraint on your well-being, particularly if it limits access to health care, good education, safe environments, good foods, and so on.

## Well-being Requires Intentional Action

The demands of life are challenging: school, work, socializing, personal relationships, exercise, food choices, and other things compete for your time. Taking care of yourself—your mind and body—can be hard. Even in the pursuit of worthy accomplishments, such as attaining an advanced degree or working on an entrepreneurial venture, you can sacrifice your health. While there may not be a cure for your hectic, stressful life, you do still have a significant say in your well-being and fitness.

Ultimately, the path to wellness is about the intentional choices you make in your day-to-day living. Empirical research data indicates that regular, purposeful, physical activity and appropriate nutritional choices are paramount for reducing the risk of chronic disease and enhancing multiple components of well-being.<sup>4,5</sup> Research has estimated that smoking, sleep deprivation, inadequate exercise, and poor nutritional choices account for nearly 80 percent of all illnesses.<sup>5</sup> Recognize that healthful living is in your control. Even in the presence of sickness, accidents, and disease, proper lifestyle choices often mitigate the severity of deleterious outcomes.

## Well-being Requires Time

Many people wonder how well-being can happen. The answer may be as simple as it is complex. When your life choices are exposed, you accomplish what you schedule. The reason that work (occupational well-being) gets time devoted to it is, because the consequence of not going to work means losing a job and not getting paid. The reason that you attend parties, sporting events, weddings, religious services, school classes, or take vacations is because you schedule them into your life.

If you want to achieve greater physical well-being, you must schedule time for it. The journey to well-being is the accumulation of positive choices, which result from the appropriate and considered responses to life's positive and negative events. Aspects of well-being can be communal, but the heart of well-being is about individual quality of life. Choices towards well-being must be intentional and made lifelong.

## Modeling Well-being to Patients

As a health professional, you are in a position to model well-being more than many other individuals. How you choose to represent yourself through your attitudes, actions, speech, and appearance can influence your patients as much as your advice (Figure 1.6). You'll have more credibility if it is clear that you practice what you coach. You will never know the value of personifying well-being to your patients, since it is incalculable.

You will be busy as a professional. Recognize that scheduling well-being time becomes more difficult for those who score low on "confidence to exercise" and also for those who exercise for "extrinsic" motivational factors. Recognizing your tendencies in these areas is critical if you are ambitious about an intentional endeavor to model a lifestyle that most patients would benefit by emulating. Leverage your confidence and motivational sources to engage in exercise or healthful activities. You have to choose to make well-being happen by

placing it onto your schedule and your patients need to see you model well-being—“walk the walk” as they say.

## CONSIDER HOW YOUR PERSPECTIVE, ATTITUDES, AND LIFESTYLE IMPACT WELL-BEING

You must look yourself in the mirror and be honest—you have significant control over your health. Your patients do also. This is not to mitigate the fact that you cannot control all factors related to well-being, but it is an important reason to be a well-being role model. When patient self-care and lifestyle change is discussed, it may appear hypocritical to describe modifiable factors that you yourself do not choose to leverage.

The value of time management, and scheduling time for well-being, are essential. Scheduling time for well-being is about engaging in behaviors that reduce the lifestyle risk factors that may otherwise play in overall well-being. Below are important lifestyle factors that influence well-being and fitness.



**Figure 1.6:** Eating well while at work is a good way to model a healthy behavior to patients and colleagues.

Serving as a model of appropriate well-being choices can encourage well-being living in patients. People seldom improve when they have no other model but themselves to copy.

— Oliver Goldsmith, 18<sup>th</sup> Century Irish Novelist

## Mental Health Affects Well-being

A key component of mental health is self-image. A healthy *self-image*—the way you think about yourself, your abilities, or appearance<sup>6</sup>—is crucial to mental health. Moreover, mental health is a linchpin component of overall well-being. In its constitution, the World Health Organization (WHO) defines *mental health* as a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.

For instance, significant stressors, including the death of a loved one, a divorce, or a life-threatening illness, can cause distress and can be triggers for anxiety, depression, or relapse into unhealthy behavior.

Our society often idolizes people who achieve great wealth and fame with their talent, and it can be easy to assume that wealth and fame means that they are happier than the rest of us. But tragic breakdowns by public figures should remind us that success in one part of life can't compensate for problems in other dimensions of life. Amy Winehouse (Figure 1.7), a talented musician who died of alcohol poisoning at age 27, and NBA-star Lamar Odom, who survived a drug overdose, remind us that having a lot of money (financial well-being) or being professionally successful (occupational well-being) does not guarantee well-being in other parts of life.

In October 2015, the WHO hosted the mhGAP Forum. Attended by 40 member states,

the key theme of the forum was to promote awareness and dignity in public health. It said, “There is no health without mental health. In this positive sense, mental health is the foundation for well-being and effective functioning for an individual and for a community.”<sup>7</sup>

Your attitude and thoughts, gathered and generated by your surroundings, serve as a significant determinant to your mental health, which support or undermine healthy behaviors.

There is empirical evidence connecting physical activity with positive changes in self-esteem, self-efficacy, and cognitive functioning and negative changes in anxiety, stress, and depression.<sup>8</sup> In effect, these are all fortuitous outcomes. Moreover, there is evidence of the effectiveness of physical activity in mental health care plans for persons with serious mental illness—showing similar effects as psychotherapeutic intervention.<sup>9</sup>



**Figure 1.7:** Amy Winehouse was a successful musician whose life was cut short by alcohol abuse.

## Lifestyle Choices Affect Well-being

Lifestyle choices are the central determinants of well-being. They are the modifiable factors in your personal health and the care management process of your patients. Also, decision makers of public health policy and legislation focus on lifestyle choices to enact widespread influence to manage the burden of a chronic disease epidemic.

### *Physical Activity and Food Choices*

Regular physical activity and nutritional choices linked to anyone’s overall wellness has been hypothesized, funded, and available in volumes of scientific studies. Multiple sections of this book speak to these areas. However, you will need to encourage your clients and patients to remember the three key concepts listed below with regard to physical activity and food choices. And, you need to practice these concepts, as well, to be effective in your job.

### Recommendations for Daily Physical Activity<sup>1,4</sup>

The minimal recommendation for physical activity is 150 minutes of moderate intensity aerobic exercise each week (5 days of 30 minutes is often looked at as the default). An achievement of 75 minutes of vigorous intensity aerobic exercise, with a duration of 20 or more minutes each session is also adequate (usually, 3 days of 20 minutes or more accumulating to 75 minutes is viewed as the default). A combination of the two is also appropriate, such as walking the dog for 30 minutes 2 days a week (Figure 1.8) and a vigorous bike ride for 20 minutes 1 or 2 days a week.

Moreover, a flexibility and resistance training program targeting the major tendon and muscle groups of the body, respectively, needs to be performed twice weekly to meet minimum recommendation for health. The flexibility program stretches the major tendons, and the resistance training program strengthens the musculature. There are numerous health

complications that could improve or be mitigated from an attainment of more aerobic (namely cardiovascular!), flexibility (oddly, as an example, arterial stiffness!), and resistance (functional independence as we age!) training.

### Recommendations for Weight Loss and Maintenance<sup>1,4</sup>

The recommendation for weight maintenance and weight loss is above the minimum recommendation of 150 moderate (or 75 minutes of vigorous) exercise each week. A dose-response relationship exists up to about 300 minutes of moderate and 150 minutes of vigorous exercise for increases in fitness and greater control of unhealthy weight gain. It is important that patients recognize that 150 minutes of exercise each week is often not adequate for weight maintenance or weight. This understanding leads directly to the third recommendation just below.

### Recommendations for Eating Well<sup>10</sup>

It is extremely difficult to exercise your way out of the consequences of a poor diet. Speaking metaphorically, if you want your car to run well, you need to put the right kind of fuel and change the oil. If you do not do these things your car will not perform well, and it will begin to break down. And the consequences don't stop there. Repairs become more expensive and impede on your work-life priorities. What may have seemed to be an insignificant decision early on has now become a big expensive problem.

The human body is very much the same. Your food is your fuel. You need carbohydrates, proteins, and fats. The quantities vary. Over fueling with only one type of fuel can become problematic overtime. When you fail to eat a balanced and varied diet, the likelihood of inadequate intake of vitamins, minerals, and fiber, or the overconsumption of salt, fat, or simple sugars increases.

### Weight Control and Body Composition

One result of intentional, healthful living with regards to physical activity and food choices is an increased likelihood of long-term weight control. As physiologists and behavioral scientists, we can ensure you that weight control, and more importantly body composition, influences you and your patients' well-being through numerous mechanisms.

While weight provides you a simple metric (and may be used as one component to assess body mass index), body composition is a more useful metric. Research shows that higher levels of body fat are connected to changes in insulin resistance, C-reactive proteins, and inflammatory markers, just to name a few. As a facilitator of primary prevention healthcare strategies—not just secondary prevention—weight control should be discussed in line with body composition control as well.

There are simple ways in which you can assess body composition with your patients and clients. Skinfold assessments and bioelectrical impedance analysis provide percent body fat values with error ranges around 3 percent and with high validity compared to the gold standard of *hydrodensitometry* or *hydrostatic weighing* (i.e., underwater weighing).

### Sleep Quality

Sleep is an important well-being factor. According to Oxford Dictionary, *sleep* is, “A condition of body and mind such as that which typically recurs for several hours every night, in which the nervous system is relatively inactive, the eyes closed, the postural muscles



**Figure 1.8:** Walking a dog is physical activity and it counts towards the recommended amount of physical activity that you should do each day.

relaxed, and consciousness practically suspended.”<sup>11</sup> Sleep may be the single behavioral commonality that links every person in humanity.

Sleep quantity and quality can be influenced by many factors. Examples include: friends and family (“social”), mental anguish or financial stress (“psychological”), use of caffeine (“behavioral”), loud sounds (“environmental”), or chronic pain (“pathophysiological”). Investigate the factors that may disturb your patient or client’s sleep.

While the behavior of sleep is shared near daily by each person, science has yet to elucidate the underlying mechanisms that result in the need for sleep or how sleep interacts bi-directionally with health. Nevertheless, there is enough empirical evidence to know that sleep is restorative and vital.<sup>12</sup> In a systematic review and meta-analysis of prospective

studies, both short- and long-sleep durations have been associated with greater risk of death.<sup>13</sup> The operational definitions of normal sleep in these studies fell primarily between 7 to 8 hours. Lack of sleep can affect your performance in other areas of life (Figure 1.9).

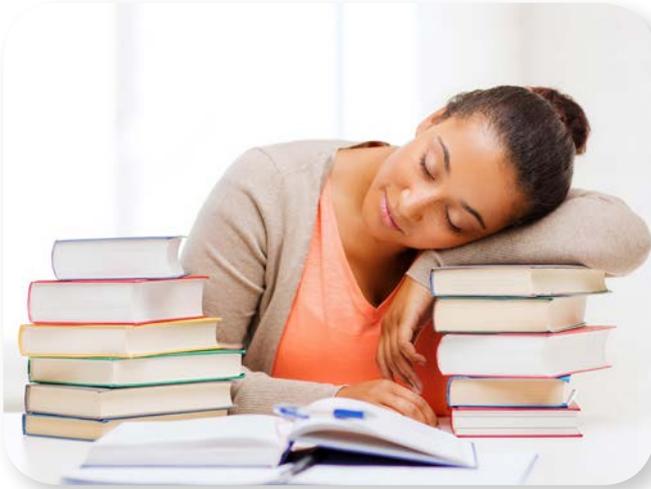
Original research has shown that hypertension, mortality rates from heart disease, cancer, and stroke are lowest when sleeping between 7 and 8 hours a night.<sup>13-16</sup> It is meaningful to note that these relationships might be lessened, but they still held true, when statistically adjusting for potential mediators and moderators (e.g., age, sex, race, economic status, physical health, smoking history, physical inactivity, alcohol consumption, weight status, caffeine consumption, insomnia symptoms, depression symptoms, sleep efficiency, and others—differ by study).

The discussion of sleep apnea, depression, endocrine function, and changes in inflammatory markers may very well be relevant topics within this section but they are beyond the scope of this book. As a practitioner, it should be very clear, the current and amassing evidence continues to illustrate the importance of sleep and the topic is worthy for inclusion when counseling patients and clients.

### *Stress Management*

Part of life is seeking opportunities for growth—you apply for admittance to a school, you seek employment for a competitive position, you train to run a 5-k race, and so on. You push yourself to be better or be your best. Intentionally taking on normal, positive stress – termed eustress – helps challenge you to reach accomplishments or realizations. Eustress is psychologically (e.g., personal aspirations accomplished) or physiologically (e.g., exercise training) beneficial to you. Proper choices help challenge you with eustress to live a full, engaged life.

On the other hand, *distress* is stress that jeopardizes psychological or physiological wellbeing. *Stressors* are those things (e.g., people, places, situations, conditions) that lead to distress (Figure 1.10).



**Figure 1.9:** It’s likely that you know what it’s like when you don’t get enough sleep at night. It can affect how well you do at school or at work.



**Figure 1.10:** If you feel overwhelmed by the daily demands of life, you are not alone. Scheduling time for fitness and well-being is vital, as a healthful lifestyle relies on intentional choices.

A 2015 publication among a cohort of more than 3,000 Pakistani medical students showed that exams (2,044; 67.2%), a hectic schedule (1,640; 53.9%), and long classes (1,000; 32.9%) were the three most commonly reported stressors. Interestingly, prayer (1,601; 52.6%), sleep (1,333; 43.8%), and listening to music (1,190; 39.1%) were the three most commonly reported coping methods.<sup>17</sup>

While cultural distinctions may be at play, as an allied health professional, you may experience some of these distressing issues or utilize the coping methods mentioned. If you can manage your own stress through responsible decision-making or behavioral change skills, you will have a personal platform on which to address and help patients or clients with their distresses.

For each phase of life (child, adolescents, college age, young adults, older adults), the eustress's and distresses are distinct. You should, as a preventative thinker, be cognizant that among the most distressing situations of adult life are death of a spouse or child, divorce, death of friend, and financial concerns. Among collegiate-age individuals, the commonly identified normal stressors include changes in sleeping habits and eating habits, increased workload, and new responsibilities.<sup>18</sup> Being aware of your patient or client's phase of life in relation to possible distresses may help him or her avoid engaging in risky behaviors (i.e., alcohol or other substances) as a means to cope.

### *Drug, Alcohol, and Tobacco Abuse*

Use of drugs, alcohol, and tobacco can increase the risk of chronic diseases including heart disease, stroke, lung cancer, and other cancers. Responsible use of legal substances and elimination of use of illegal substances is a *starting point* for curtailing the serious effects (morbidity, mortality, financial burden) attributable to use of these items.

Moreover, it is vital to inform your patients or clients even the use of legal substances is associated with dangerous consequences, and it is best to avoid or stop using the substances immediately. Medical professionals should start with primary prevention strategies, and seek out secondary prevention when deemed necessary by recommending counseling, rehabilitation, or other outside resources.

Globally, alcohol consumption is estimated to result in 3 to 8 percent of all deaths. Persons of all ages and demographics can be impacted by the addictive nature of alcohol, but the impact is strongest in the poor and marginalized (of their respective societies). The economic cost is estimated at 1 percent of the gross national product in high-income and middle-income countries.<sup>19</sup>

In the United States, there are approximately 14 million people dependent on alcohol. In addition, there are 60 million smokers and an estimated 14 million people who use illicit drugs.<sup>20</sup> In total, 25 percent of people over 15 years of age are physiological dependent on one or more addictive substance. Nearly 20 percent (446,000 lives lost) of all deaths annually in the United States are attributed to tobacco use and another 105,000 lives are lost to alcohol use.<sup>20</sup> With its recent regionally defined legalization, study of the impact of marijuana will begin to take shape in the next handful of years as well.

In combination, the illnesses, injuries, and deaths attributable to drugs, alcohol, and tobacco use create an overwhelming public health concern and economic burden (approximately \$400 billion every year). Counsel is vital for the patient themselves but also the



**Figure 1.11:** Smoking is a behavior with severe health consequences for the person who does it as well as the people who are exposed to the second-hand smoke.

family unit (namely children). Children of substance-abusing parents have increased likelihood of falling prey to addictive patterns of abuse as they age. The aggregated impact of drug, alcohol, and tobacco abuse is the single-greatest preventable factor in the discussion of well-being.

### *Economic/Financial Stability*

Living within your financial means contributes to your well-being. Financial stability is not making a certain quantity of money. For many people who have large salaries, life is nothing more than cashing larger checks and writing bigger ones as well. In the end, there may be little financial stability. Financial stability is about being about to manage cash flow, consider risks, and have monetary backing when unexpected costs arise. The dynamic flow of life means that financial stability can change over time.

A study of a quarter million European and American individuals showed that psychological well-being was connected in different ways to both macro (national) and microeconomic (personal) economic patterns.<sup>25</sup> On a personal level, diving into an occupation is also a financial decision. Job satisfaction and work environment serve as crucial factors for decisions regarding a work-life balance. You will spend a large portion of your adult life in a work setting. Taking note of your natural talents and personal preferences that help guide you to a fulfilling career.

Your career should not create disproportionate stress or “cause” you to choose risky coping behaviors (i.e., sedentary lifestyle, risky behaviors with alcohol, drugs, or sexual activity). On top of making a reasoned choice about your career and

workplace, monitoring your financial situation with a monthly budget can go a long way in helping you establish long-term financial security as well as enable you to afford to buy things that you want (Figure 1.1). Any good financial model should also include retirement savings in some form or fashion.



**Figure 1.12:** Financial well-being means having enough money to live a healthy lifestyle and achieve your financial goals. However, not having enough money for basic necessities, such as health care, increase health risks.

## Social Determinants of Well-being

We may not recognize the health disparities or inequalities that exist around you or that are created by the familial unit or neighborhood locale. Nevertheless, patients and clients’ well-being is affected by where they live, their family and friends, and the schools that they attend. They may face additional barriers or increased risk to their well-being because of their race, ethnicity, or neighborhood.

It is easy to overlook the social determinants of health. The Was defined the social determinants of health as, “The conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.”<sup>26</sup>

There are five key social determinants of health:

- economic stability (poverty, food security, housing stability)
- education (high school graduation, language and literacy)
- social and community context (social cohesion, perceptions of discrimination and

equity)

- health and health care (access to health care, health literacy)
- neighborhood and built environment (access to healthy foods, crime and violence).<sup>27</sup>

Being aware of an individual's social determinants in order to complete a true view of your patient or client. This will help you develop intervention strategies and recommendations that are more likely to meet with success.<sup>28</sup>

Knowing that your patient lives in a neighborhood where quality food sources are scarce or where it is unsafe to run, bike, or do other physical activity outside is important. That knowledge gives you the opportunity to help your patient overcome a barrier to well-being that for many can be significant. Air and water quality (Figure 1.13), economic opportunity, public transportation, and convenient access to health care are other examples of how the where an individual lives impacts well-being.



**Figure 1.13:** Pollution is an environmental factor that increases your health risk. While you have less control over your environment than you do your own behaviors, you should be aware of how you contribute impact the environment and how it impacts you.

The social determinants are important influences on well-being, and they contribute to the public health burden in a number of ways:

- The life expectancy of someone born in Sweden (80+ years) is greater than persons born in Brazil (approximately 72 years) and most African countries (multiple countries with life expectancy less than 50 years; Sierra Leone is 34 years).<sup>29</sup>
- In the U.S. in 2013, the cardiovascular disease mortality rate for blacks was 30 percent higher than whites.<sup>30</sup> Moreover, there is social determinant disparity evident in breast cancer statistics among black and white women. Although the latest reports indicate the black and white women have similar risk of developing cancer, black women are more likely to die from the disease (32.4 vs 23.4 per 100,000)<sup>31</sup> and they have lower 5 year survival rates as well (77% vs 90%).<sup>32</sup>
- Published in 2015, in the American Journal of Preventive Medicine, there was a call to begin incorporating aspects of the social determinants of health in Electronic Medical Records. This quote, taken from the brief by Gottlieb and colleagues is true: “When adequately leveraged, electronic platforms improve integration between medical and social service delivery.”<sup>33</sup> In the next few years, the collection of social determinants of health data may be widespread or mandated.

## LINK LIFESTYLE TO RISK OF DISEASES

Over the course of the last century, life expectancy has increased by more than two decades. Advances in medicine and technology have contributed to these changes. At the same time, the prevalence of chronic diseases, such as heart disease, cancer, and diabetes are now also increasing to alarming rates. Chronic diseases cannot be prevented by vaccine or cured by medication, nor do they just disappear. They are lifestyle diseases—diseases that in most cases are caused by behaviors, such as a lack of physical activity, poor eating habits, and tobacco use. These diseases cost people their function, overall quality, and, many times, their life. The Centers for Disease Control and Prevention notes that chronic diseases are responsible for 70 percent of deaths each year and treatment for these patients claims 86 percent of our nation’s health care costs.<sup>34</sup>

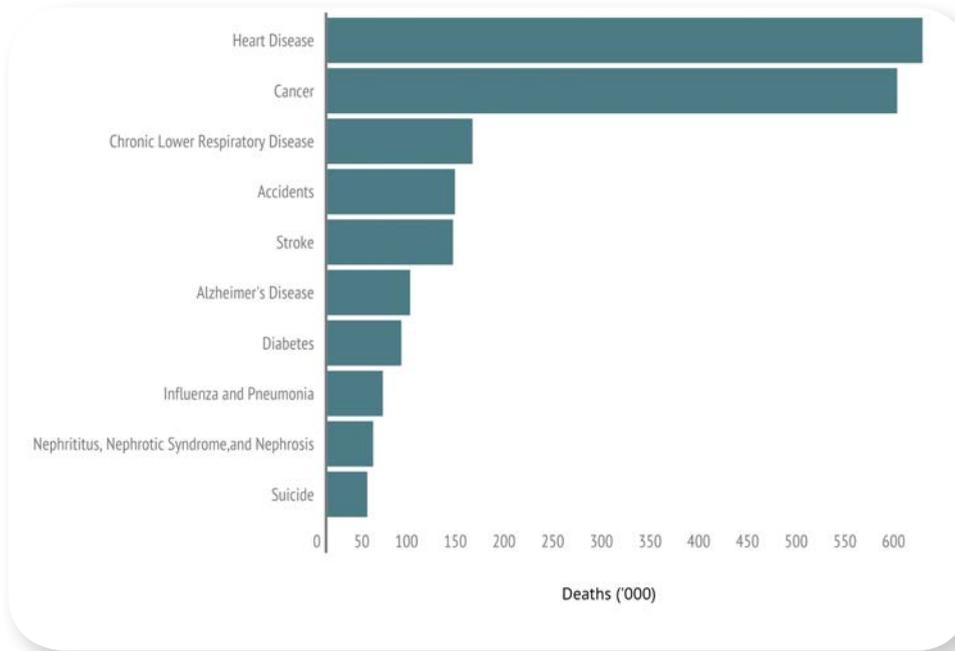
### The Leading Causes of Death

As an allied health professional, you will encounter individuals that deal with the consequences of chronic diseases, which are the leading causes of death in the United States (1.14). You will interact with patients or clients who suffer from heart disease (heart failure, coronary disease, myocardial infarction, strokes), cancer (lung, breast, prostate, colorectal, skin), and diabetes (mellitus type II) just to name a few from the myriad of others.

This book is *not* a resource to help you discover much about the chronic diseases, rather it is a resource to help guide you in personal health and help you assist your patient or client load through the behavior change skills necessary to prevent the diseases and manage conditions in those whom suffer (as a secondary need). Lifestyle is the strongest factor towards well-being and the choices that make up day-to-day living must be developed for the short- and long-term good.

Ideally, medical professionals would provide an individualized care model—inclusive of a multiplicity of care strategies—for their patients. The care strategies *cater to* lifestyle approaches for self-managing physical activity, food choices, and other behavioral choices.

It should never be overlooked that your attitude and the approach you take will directly impact how a patient receives information. As a person, if you struggle through and gain control of areas of your life (activity, food choices, smoking, etc.), your ability to counsel others through their struggles will be strengthened. Medical professionals who are comfortable and knowledgeable about behavior change strategies will serve more effectively in the management process of their patient load.



**Figure 1.14:** The leading causes of death in the United States.

## Genetics: “Shaper” not “Dictator”

Genetics, and specifically our genes, control the expression of our physical traits.<sup>6</sup> We are born with our genes; we inherit them from our parents. In this sense we can’t choose our genes, and undeniably, our genetic make-up is a health risk factor. They influence who we are and the attributes of our “achievement ceiling” in multiple dimensions of well-being.

Researchers often find links between family members and chronic disease (i.e., a disease is seen in multiple generations). For this reason, family history is a first line of investigation into genes. A family closely aligns with a person’s distinctive genetic makeup, and they tend to live within the same “created” environment with regard to daily choices. Despite this fact, in preventative medicine, you should challenge the thinking of your patients and clients who consider family history of disease as the looming (and near-certain) future for themselves. Even in the case of congenital issues, choices about physical activity and diet (among others) can influence the quality of well-being experienced.

As a health professional, family history becomes an important foundational base on which to leverage discussion with your patients or clients. You may ask them, “What challenges have you seen your parents face as a result of their chronic condition?” A follow-up question then becomes: “Could choices related to lifestyle [insert: physical activity, nutri-

tion, substance use, etc.] have lowered the risk of the disease or the severity of the complications?” In most cases, the answer is yes, even when the patient or client does not recognize, voice, or agree. Leaving the patient with a positive understanding is also key. “I am confident and glad to let you know that your daily choices can help you avoid [or insert: delay or decrease the severity of the complications of] this particular chronic disease.” Patients and clients need to know they have great control over who they are—they need to know that genes are “shapers” but not “dictators” of the future.

## LIFESTYLE MEDICINE: USE IT AND LIVE IT

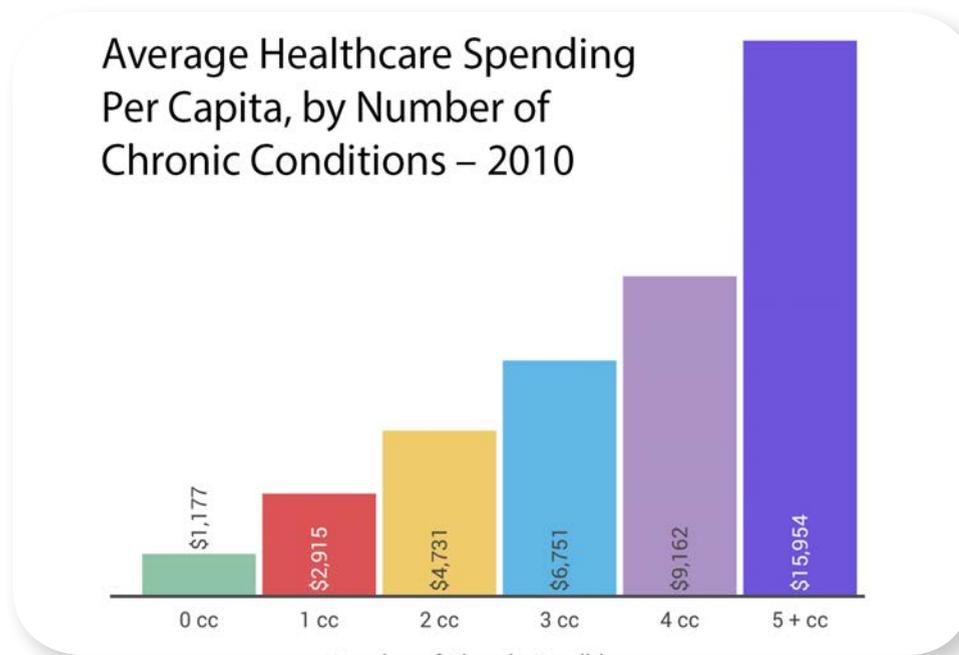
The United States health care system operates largely in “disease care.” This means that a large majority of the medical system is focused on treating disease, not preventing it. The Institute of Medicine has stated that increased morbidity and mortality and lower quality of life are consequences of inadequate disease prevention.<sup>35</sup> A need for skilled doctors and emerging technologies will always exist but an increase in proactive medicine is also needed. You see, while the United States medical system is renowned for the skill of its doctors, quality of research, and innovative technology, it is also the most expensive in the world. It is more expensive to treat a disease, than prevent it.

Overall, clinical preventive services are underutilized.<sup>5,36</sup> Apart from just recommending vaccination or scheduled screenings (mammogram, prostate, etc.), you can educate your patients to pay attention to workplace offerings (workplace wellness initiatives), nutritional labeling (at restaurants and supermarkets), legislation (smoking bans), and community services. Showing your patients that well-being can be found throughout their daily life may help them begin to find a personal locus of control. Preventive medicine is not just distributed in the clinic.

Even though medicine or surgery may cure or mitigate complications with a disease, in most cases, lifestyle changes address the underlying cause. Lifestyle diseases require lifestyle medication. Plain and simple, chronic choices related to poor physical activity, poor eating habits, and substance abuse are among the chief issues. Be sure to modify much of what wrecks overall well-being.

If the Centers for Disease Control and Prevention is correct in estimating that 70 percent of deaths each year (and 86 percent of our nation’s health care costs) are related to chronic diseases,<sup>34</sup> a societal goal of collective behavioral change could eviscerate the public health burden. Figure 1.15 shows how much chronic disease consumes health care costs. The difficult coupling of words in that last sentence is “collective behavioral change” – behavior change is not easy. But, behavior change is possible.

Earlier in this chapter, the series of assessment intended to give you insight into who you are with respect to one of the inseparable components of well-being: regular physical activity. The assessments provided you details about your current level of engagement, the motivators that drive you towards exercise, and your ability to overcome a challenging list of daily tasks to schedule exercise. If you intentionally focus on engaging in regular physical activity or you focus on behavior change for yourself in this area, you can go a great length in living a prudent, healthy lifestyle that your patients can emulate.



**Figure 1.15:** It is much less expensive to prevent disease than to treat it. Treatment and management of chronic disease makes up a majority of our health care costs.

Source: Agency for Health Care Research and Quality, Multiple Chronic Conditions Chart Book, 2010 Medical Expenditure Panel Survey Data

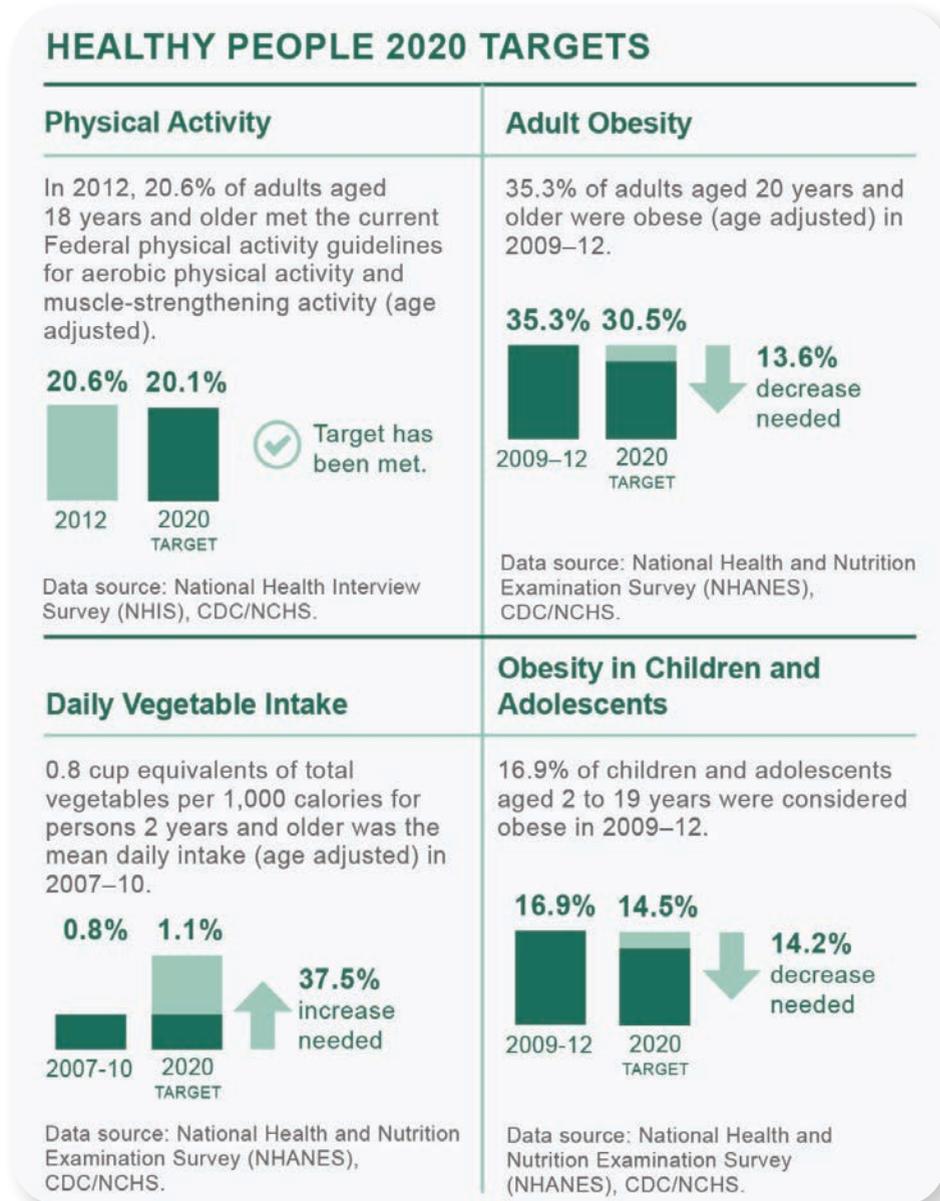
## THE HEALTHY PEOPLE INITIATIVE

The effort that you put towards personal well-being manifests in observable (how you look) and perceptible (how you feel and display vigor) manners but also unobservable (your blood pressure or inflammatory markers) ways. Your personal work reaps personal benefits. At the same time, your individual situation amasses with the status of others to create a national health scenario that must be managed under the national health care system. Our individual health status aggregates to either help or burden the government who, for numerous reasons, must manage the health of society.

There are recognizable distinctions from country to country in how health standards are funded, valued, established, and implemented for the best of society. In the United States, the national health standards, programming objectives, and programming strategies are found in the HealthyPeople program ([www.healthypeople.gov](http://www.healthypeople.gov)) now administrated by the United States Department of Health and Human Services (HHS).

Originally issued in 1979 by the Department of Health, Education and Welfare, the publication, “Healthy People,” was a landmark work from a national public health perspective. The report described health promotion and disease prevention ideals that aligned with 5 quantifiable goals for improving health of Americans. A year later, in 1980, a set of 226 specific, measurable objectives was established to set in motion a plan of action for reaching these goals. These objectives were viewed as a plan for the next 10 years and described as the 1990 health objectives.

By 1987, the Public Health Service began developing a new national health plan that was shaped to address continuing and emerging public health concerns. As might be sup-



**Figure 1.16:** The Healthy People 2020 goals for physical activity, diet, and obesity.

posed, the new plan—Promoting Health/Preventing Disease: Year 2000 Objectives for the Nation—was implemented in 1990. In the same sequence, a national plan has been unveiled each decade since 1980 for the upcoming 10 years.

Healthy People 2020 is the current HHS program for encouraging a comprehensive, health promotion, disease prevention strategy for all Americans. Healthy People 2020 is an evidenced-based program dedicated to setting and promoting realistic goals for reaching better overall societal well-being. Figure 1.16 shows the Healthy People 2020 goals for physical activity, diet, and obesity. In addition to predictable topics, such as nutrition and

physical activity, the desire for a healthier nation extends to all citizens and the Healthy People 2020 goals include:

- Preventing illness and disability related to blood disorders and the use of blood products.
- Reducing the morbidity and costs associated with, and maintaining or enhancing the quality of life for, persons with dementia, including Alzheimer’s disease.
- Improving health and preventing harm through valid and useful genomic tools in clinical and public health practices.
- Improving the health, safety, and well-being of lesbian, gay, bisexual, and transgender (LGBT) individuals.

As a health-care provider, you serve the Healthy People mission in personal life and through your practice. You can aid your community and nation through your personal choices leading to individual well-being. Moreover, you can model that well-being through action and speech, and assist patients and clients with their personal, positive choices.

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# GLOSSARY

## A

**Aerobic exercise:** Elevates heart rate and use of oxygen for an extended period of time, thereby improving cardiorespiratory conditioning.

## D

**Dimensions of well-being:** The parts of an individual's life that compose his or her overall well-being. The core dimensions of well-being are physical, mental, emotional, intellectual, spiritual, and social, but the dimensions of well-being also encompass occupation, financial, and environmental well-being.

**Distress:** Stress that jeopardizes psychological or physiological wellbeing.

## E

**Exercise:** The act of doing something that brings about health improvements to the mind and body.

**Extrinsic motivation:** Motivation influenced by external rewards or punishment)

## I

**Intrinsic motivation:** Motivation influenced by internal awards.

## M

**Mental health:** A state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.

**Motivator:** Someone or something that gives you a reason for acting.

**Motive:** A reason for taking action.

## R

**Resistance exercise:** Puts a load against the muscle and bone, causing the muscles to contract. Regular resistance exercise results in increase in muscle strength and endurance.

## S

**Self-assessment:** Learning how your attitudes and behaviors affect different parts of your life.

**Self-image:** The way you view yourself, including your appearance, attitudes, perceptions, behaviors, and abilities.

**Sleep:** A condition in which the nervous system is relatively inactive, the eyes closed, the muscles relaxed, and consciousness is suspended.

**Social determinants of health:** The conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems. (World Health Organization)

**Stress:** The body's response to a stressor—an external event or stimulus—that threatens homeostasis or allostasis.

**Stressors:** Things (e.g., people, places, situations, conditions) that lead to distress.

## W

**Well-being or wellness:** An active process of becoming aware of and making a more successful existence.