PART 2

Health Promotion In Action

LEARNING OBJECTIVES

Upon completing this chapter, you will be able to:

1. Describe key aspects that define good physical health.
2. Discuss methods of removing or working with obstacles to client engagement.
3. Analyze different strategies for identifying and promoting health goals in an individual client.
4. Discuss six key questions to answer to help a client create a health promotion plan.
5. Identify factors that limit client ability to maintain health.
6. Analyze principal areas of concern stated in the Healthy People 2020 initiative.

KEY TERMS

Adaptability

Goals

Health disparities

Interventions

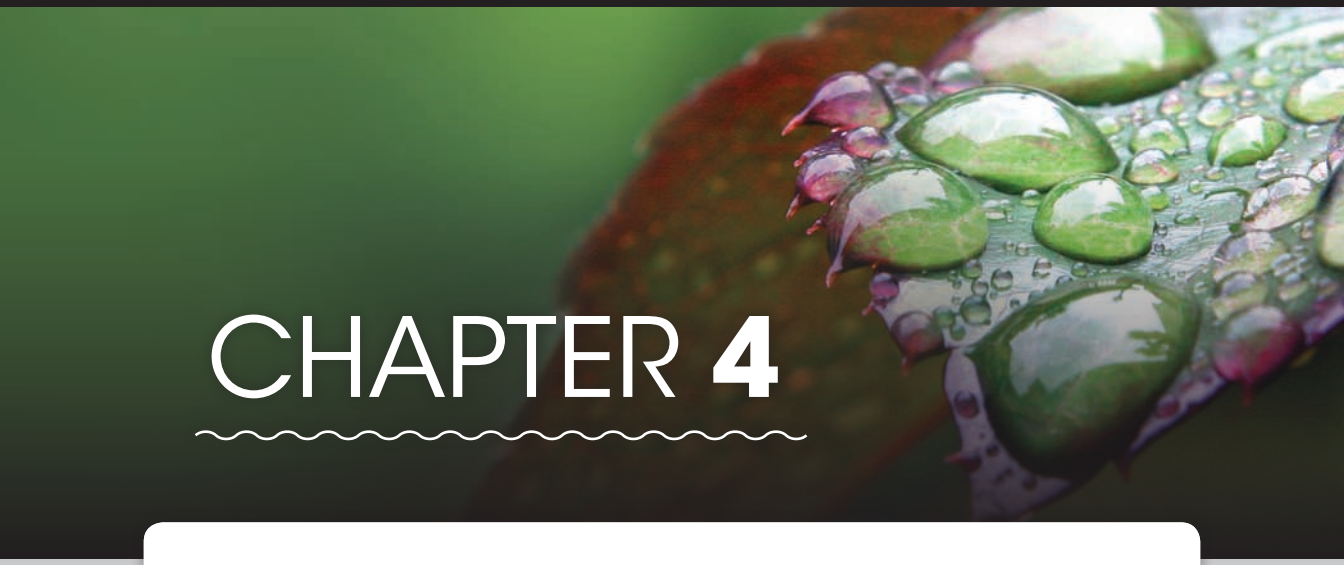
Motivational interviewing

Objectives

Physical health

Physiologic healing

Priorities



CHAPTER 4

Promoting Physical Health

- Introduction
- Physical Health and Well-Being In Individuals
- Topic Areas
- Summary

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Introduction

In a previous chapter, we defined *health* and *health promotion*, discussed some theories that explain how individuals learn new habits or behaviors, and talked about your role in guiding people to learn new health-related attitudes or habits. This section seeks to put into practice what was discussed in prior chapters. We will talk about the real-world situations in which you, as nurse, can facilitate health in clients.

Because health manifests itself across physical, mental/emotional, and familial/community dimensions, we need to address each dimension These are artificial distinctions, but for our purposes we will discuss them as if they occur independently—beginning with **physical health** in individuals, and continuing on to mental and family health. Keep in mind that these are factors that affect one another, so in the practice setting, try to assess all three factors at once.

Physical Health and Well-Being In Individuals

What constitutes a physically healthy person? There are a great many potential answers to that question, but certain aspects may be readily agreed upon. A physically healthy person is one who:

- Maintains bodily tissues, organs, and systems in a well-functioning state at both the cellular and macro level (that is, has no significant, long-term impairments to pulmonary function, nutrient absorption, endocrine/metabolic function, cardiovascular function, etc.)
- Eats, digests, and eliminates without impairment
- Is able to obtain sufficient oxygen, nutrients, fluids, and sleep to satisfy daily and long-term requirements without difficulty
- Has developmentally appropriate neurological function and transitions through developmental stages normally
- In general, experiences no significant pain or weakness upon moving muscles or limbs in a manner consistent with average activity levels, and heals quickly and thoroughly from occasional injuries or minor physical ailments
- Has the immunological responses necessary to meet the challenges posed by infectious agents, toxins, injuries, and other bodily harm that all individuals encounter during their lives
- Is capable of normal reproductive and sexual activity consistent with developmental stage and/or age

- Obtains and processes sensory input without significant impairment
- Has the ability to heal from or adapt to significant physical or psychological injuries

At minimum an individual needs to have a majority of these factors in place to be considered physically healthy. Individuals with some impairment (e.g., a person who is deaf or who has a food allergy) can still enjoy good overall physical health. **Adaptability**, or the ability to compensate for a loss of function in one area, can offset factors that might otherwise suggest or lead to poor health.

No one goes through life without obtaining wounds of some kind, whether physical or emotional. The ability to heal from these wounds—or to adapt physically and emotionally in the event that healing is not possible—is a key factor in maintaining health.

A prime example is found in the story of Aron Ralston, a hiker whose arm was trapped by a fallen boulder. Ralston was obliged to amputate his own arm in order to survive. Despite the loss of his arm—an injury from which he cannot fully heal—Ralston is today a physically healthy individual. He has obtained a prosthetic arm that partly restores some of his physical capacity, and having adapted to the loss of one arm to the greatest extent possible, continues to live his life in the manner he prefers without it (Ralston, 2010).

The other health problems that developed during his crisis—dehydration, blood loss, nutritional deficits—are all fully healed, and his body functions normally. His lost limb notwithstanding, an argument can be made that Ralston satisfies all categories listed previously—even the first one, because the sacrifice of his trapped arm was necessary to preserve the function of all remaining bodily tissues.

The effort needed to restore function after an injury is what we commonly refer to as **physiologic healing**. Maintaining a capacity for physiologic healing is one important aspect of physical health, but it is not the sole factor. A client whose physiologic healing mechanisms function appropriately can still suffer tremendous (physical) ill health if social, psychological, and even spiritual facets of existence are disturbed.

The Nurse's Role in Health Promotion: Working with Individual Clients

Many clients are not looking to necessarily obtain *good* physical health, but instead are seeking *better* physical health. Either of these **goals** is legitimate. Your job is to help clients reach the level of health they want to achieve.

Without their active participation, your efforts will only succeed in frustrating clients. Work with clients to assess their current general state of health and to identify the obstacles to health improvement. Find places where clients can make changes to improve health, and help them learn how to make those changes.

HEALTH PROMOTION CHALLENGE

Use the questions in the Motivational Interviewing section later in this chapter for ideas on how to motivate clients to change.

It is in this last arena that the variety of health-related theories and models can be put to practical use in developing a health promotion plan or program by addressing each of these key questions:

1. What are the key health issues?
2. What knowledge or understanding is needed to improve health status?
3. What is the client's capacity to learn or accept new ideas, habits, or methods ?
4. How motivated is the client to make changes for health promotion, and if motivation is absent or low, how can it be increased?
5. What forms of family and social support are available to the client to aid in health promotion activities?
6. What are the client's health goals?

Learning the answers to these questions requires you interview the client. But of all the questions on the list, the last question is by far the most crucial in working with an individual client. Client ideas about and goals for changing may differ radically from factors you consider important. For example, a person who is overweight and a smoker may regard losing weight as the more important issue to be addressed, and, based on this priority, may even refuse to consider smoking cessation options on the grounds that quitting smoking will cause further weight gain. The client's goal will always trump yours because the client is the person who must put the plan into action. Your challenge is to not only help address the weight problem, but also to help the client see that smoking cessation is equally important, if not more important, but only when the client is ready to discuss it.

Be open minded and nonjudgmental in guiding the client, and above all, use honest motivational tactics—manipulation, pressuring, and being dismissive of a client's decisions about her or his health goals will likely prove counterproductive.

Identifying Obstacles to Health Promotion

The primary obstacles to health promotion include:

- Lack of information, incorrect information, or lack of concern regarding the health condition being addressed
- Fear, anger, or other strong emotions about the diagnosis (includes having experienced or believing stigmas and stereotypes about the disease or condition)

- Physical inability to make necessary changes
- Psychological or cultural barriers to making necessary changes
- Low or absent motivation to make needed changes
- Low or absent familial/social support for making needed changes; may also include lack of personal control over health circumstances
- Reluctance to engage with the nurse in developing and implementing a health promotion plan

Motivational Interviewing

Motivational interviewing (see FIGURE 4-1) is a way of joining with clients to see their world, their fears, their accomplishments. It is a way to work with

Motivational interviewing includes:

1. *Empathy.* Talking about the world as the client sees it. "So, you're looking for a way to lose weight first. Let's talk about that because it's something I can help you with."
2. *Collaboration, not confrontation or forcing.* "Let's see how we can work together on your goal of losing weight."
3. *Drawing out the client to speak about goals, skills, and dreams.* Some questions to ask:
   - What will losing weight do for you and your lifestyle?
   - Let's talk about how you think losing weight will be helpful.
   - How have you tried to lose weight, and what experiences have you had?
   - Tell me some more about what you learned from your dieting experiences.
   - When you picture losing weight, what do you picture yourself doing?
4. *Encouraging autonomy.* "There is no single right way to lose weight, and I'm going to help you develop a menu of options for you to try."

This format can be used to help clients with any health promotion goal. Just change the words *losing weight* to *stop smoking, stop drinking,* or whatever the client's goal is. Work on one goal at a time. After the client has achieved success in one goal, you can move on to the client's next goal, but not until the client signals readiness.

A free and much more detailed article about motivation interviewing is available at http://www.stephenrollnick.com/index.php/all-commentary/69-motivational-interviewing-article-published-in-the-british-medical-journal

FIGURE 4-1 Motivational Interviewing to Help Clients Change

clients that was developed by Miller and Rollnick (2002) and Rollnick, Miller, & Butler (2008). At first, you focus on building a rapport with clients so trust can evolve. To do that, you have to be willing to listen to their thoughts and feelings and to acknowledge and encourage even the slightest movement toward health.

Everyone is resistant to change because it brings with it the unknown. By offering yourself as a person who can accompany clients on their journey and not force them to do something they're afraid of, resistance to change will decrease.

HEALTH PROMOTION CHALLENGE

Read Dr. Rollnick's article at the website mentioned in Figure 4-1 and role play a health promotion problem with another student who takes the role of nurse. Once you've worked through it as client, switch and take the role of nurse for another health promotion problem. Write up your findings and share them with your class.

Lack of Information

A variety of factors affecting physical health may be present, but the client may be unaware of them or lack understanding of their importance. Careful questioning of the client about pain, eating habits, sleeping habits, toilet habits, and other key physical indicators may help uncover the client's **priorities** for health. Use some of the motivational interviewing questions in Figure 4-1.

Some clients simply need guidance in assessing their health concerns and developing goals. Others may simply know too little about the health circumstances in which they find themselves to consider them worthy of attention. For example, a young woman diagnosed with HPV may not understand that it represents increased risk of cervical cancer. Here, your role is as much an educator as health promoter, yet you must avoid putting value judgments on the information that gets passed along. If a nurse starts lecturing about promiscuity, chances are good the information will be ignored; if, on the other hand, the nurse couches her advice in terms of long-term prevention, it may be better received.

Make an effort to be aware of your biases when passing on information to others. Engebretson and Headley (2009) noted that "recognition of personal cultural attitudes requires conscious effort; most people are unaware of their cultural beliefs because their beliefs are so integrated into their perception of the world" (p. 575).

Ask your best friend to tell you about your biases and be open to what you hear. Avoid stereotyping based on ethnicity, age, gender, or religion. Clients

recognize and resent the implications of stereotypes—and such negative evaluations by the client will spell the end of any success in your health promotion efforts.

Emotions, Judgments, and Stigma

Be cognizant of value judgments the client may put on the information being offered, particularly when it comes to diseases or conditions that are subject to stereotypes or social stigma. For example, despite many public health campaigns seeking to educate the public about HIV and AIDS, there is still considerable stigma and misinformation associated with the virus (Bunn, Solomon, Miller, & Forehand, 2007), both in rural communities where prevalence of the disease is relatively low (Groft, Robinson, & Vollman, 2007; Zukoski, Thorburn, & Stroud, 2011) and in urban areas where one might expect better dissemination of facts among a more deeply affected populace (Aggleton, Yankah, & Crewe, 2011; Gonzalez, Miller, Solomon, Bunn, & Cassidy, 2009; Saleh, Operario, Smith, Arnold, & Kegeles, 2011). The popular misperceptions that characterized the discovery of the virus in the 1980s are still expressed in certain sectors of society—that HIV/AIDS is a disease of gay men, drug users, and sexually promiscuous or deviant individuals; as well as the extreme views that HIV represents a punishment or judgment upon particular subgroups in society (Muturi & An, 2010). A new set of myths and misperceptions have developed, including the idea that confining the client to sexual partners of a race different than the client's own will help to avoid HIV infection (Millett et al., 2011). Barriers to undertaking HIV prevention and/or seeking care for HIV infection may vary depending on demographic factors (James et al., 2011; Moore, 2011). Clients receiving retroviral treatments may also experience physical changes that affect their view of their own bodies, which can further inhibit their motivation and attitudes regarding compliance with treatment protocols (Cabrero, Griffa, & Burgos, HIV Body Physical Changes Study Group, 2010).

HIV and AIDS do not, of course, target people based on sexual orientation, race, ethnicity, economic status, religion, age, or even moral character. Clients need to be aware of such truths to take the stigma—particularly that which is self-inflicted—out of their path to wellness (Sengupta, Banks, Jonas, Miles, & Smith, 2011). It is not uncommon for individuals with HIV to believe, or to have been told, that they caused their condition by virtue of risky behaviors or the choice of sexual partners or orientation. At the same time they receive and often believe messages laying the blame for their illness squarely on their own shoulders. They may be unable to locate accurate, judgment-free, practical information that they can use to help them maximize health. A client who feels defensive, victimized, guilty, angry, or frustrated is a client who may have difficulty hearing your recommendations, or indeed learning any means of

coping with the ramifications of the disease. Using motivational interviewing techniques, especially building rapport, may be helpful in these situations.

Physical Incapacity to Engage in Health Promotion Activities

It is not unusual that the very health problem for which a client wants a solution represents an obstacle to finding that solution. This is particularly true in relation to mobility issues. A client who has had a stroke and wants to relearn how to walk and write is hampered in doing so by the damage to the brain that reduced these skills. You will be challenged to identify methods and resources for this client that have a realistic chance of being successful. Try to ensure that the client's goals are reasonable—although it is worth keeping in mind that motivated people have managed to accomplish astonishing, "impossible" recoveries with the right support. Again, refer to motivational learning resources for assistance with this issue.

Psychological or Cultural Barriers to Undertaking Health-Promoting Actions

Client sociocultural and educational background and opinions about health can lead to resistance to taking steps that might otherwise promote health. An example would be a male client with back pain who hesitates to take up yoga because he believes it is not manly, despite being advised that yoga works well for relieving back pain, or a client who expresses an unwillingness to take recommended medication because of a preference for complementary therapies.

In either case, you have the option of either working to overcome the barrier or helping the client find more satisfactory alternatives. The male client who hesitates to try yoga might be more inclined to agree to a t'ai chi (martial arts) class or a Pilates class, or he may agree to try yoga if provided with a class taught by a male instructor that has other male students.

Low or Absent Motivation to Make Needed Changes

Bear in mind that motivation toward health is something not all clients have. Lack of motivation may be grounded in many things—poor self-esteem; a fatalistic outlook; denial that the health issue exists; the presence of other, seemingly higher priorities than health; or a thousand other possibilities. Your task is to make use of the concepts and models discussed in the earlier chapters to identify ways to increase motivation. Motivational interviewing is nearly always the best place to start.

☐ Low or Absent Familial or Social Support for Health Promotion Activities

It is very uncommon that a client lives and works in isolation from others; most people have some sort of social network and/or family members that they rely on. There are, of course, exceptions: A single adult who has just moved to a new city to take a job, an older adult who lives alone and has no family or friends nearby, and a young teenage runaway are examples of people who may lack these sorts of connections and support, or who may have only tenuous, unreliable community or family bonds.

Even where such bonds exist, though, the presence of family and friends in a client's life does not mean those people will be supportive and encouraging of health-related changes the client is trying to make. A man whose friends are his drinking buddies may get highly negative responses if he decides he wants to quit drinking, for instance. Some individuals may also lack personal control over their access to activities that will help with health circumstances they wish to change. For example, a wheelchair-bound person wishing to participate in physical therapy intended to help him strengthen and rehabilitate his injured legs or back may have difficulty finding transportation if his family members are not willing to drive. It is not unusual that family members simply lack interest in providing encouragement to a concern that is not a priority to them, even it if is a priority to the client. In such cases, you may be called upon to assist the client in finding alternate support for the client's health goal—whether it be locating support groups or sources of transportation, or simply helping the client to identify all the alternative sources of encouragement.

☐ Reluctance to Engage with the Nurse in Developing and Implementing a Health Promotion Plan

A client may be unwilling to work with you or may even be downright hostile. There can be a variety of reasons for this, including suspicion that you are a representative of someone else's agenda (e.g., "I'm here because my wife insisted, not because I think you can help."), a desire to maintain control (e.g., "I'm going to do this my way."), and a belief that you have nothing to offer the client (e.g., "There's nothing you can tell me I don't already know, so this is really a waste of my time.").

Maintaining a professional demeanor and attempting to engage with the client to determine, at the very least, whether the client's resistance can be decreased or diminished is your goal. The best way to accomplish it is to communicate the message that you are there to support the client, rather than to oppose, direct, or enforce behavior. Establishing the client's self-efficacy and ownership of the process is crucial. Some useful responses might be: "Well, this

is between me and you, not me and your wife. I'm here to help *you*; what do *you* want to accomplish?" or "That's fine, but can we talk about what it is you want to achieve, just so I know? It may be that I can give you some ideas about how to get there faster," or "I love having a well-informed client. But I'm a terrific organizer, so maybe we can put your time to good use by working together to develop a plan. Who knows? Maybe I can use your insights to help someone else."

For more useful ways around client resistance, refer to the section on Motivational Interviewing in this chapter.

Working with the Client: Respecting the Client's Assessments

Even when the client is not reluctant, make an effort to engage the client. It is all too easy to decide that you know what will be best for the client and present your decisions as the plan—only to find that the client is hesitant about participating. Asking, "What are your [the client's] key health issues?" requires you to take both an objective and subjective response simultaneously, because this question encompasses aspects of client beliefs and priorities.

Here is an example: Suppose you are working with a client who has been diagnosed with prediabetes, psoriasis, and atherosclerosis—all serious issues that affect quality of life and longevity. This client is aware of all of these diagnoses, but she may tell you that the most serious problem, in her view, is her poor sleep. She describes frequent waking, inability to get back to sleep on many occasions, tossing and turning for hours—she is exhausted, and she wants to do something about this problem more than any other. She believes that dealing with her frequent bouts of insomnia must come first because, she tells you, she is just too tired all the time to exercise, to shop for healthy foods, or to do any of the other things she has been told will help her fend off diabetes and heart disease. To the untrained eye, this seems bizarre; insomnia may be unpleasant, but is it life threatening?

In fact, the client may be correct about prioritizing her sleep issues above the other three. Not only is she accurate in her assessment that poor sleep acts as an inhibitor of the mental and emotional processes she needs to follow through on a plan of action; lack of good sleep can increase insulin resistance and promote susceptibility to diabetes (Darukhanavala et al., 2011). Factors that interrupt sleep—including obstructive sleep apnea—occur relatively more often in individuals with psoriasis (Gowda, Goldblum, McCall, & Feldman, 2010). Sleep apnea has been linked with systemic inflammation, which can promote all of the conditions for which the client is at risk: diabetes, autoimmune diseases such as psoriasis, and cardiovascular diseases (Ryan, Taylor, & McNicholas, 2009).

On paper, the disease processes might seem more important, but the client's self-identified issue is key. Referring her to a sleep study or teaching her

relaxation procedures with an eye toward solving her insomnia will not, of course, be the cure-all for every issue facing her, but doing so *is* an important facet of the overall health-promotion plan. Acting on the client's principal health consideration enhances trust, making it more likely she will continue to invest in the process as you seek to address her other health issues. Helping the client recover good quality of life by addressing the sleep issue sets the stage for subsequent efforts to address, for example, dietary changes necessary to support improvements in diabetes and cardiovascular risk.

Evidence-Based Recommendations

When developing a plan for a client or community, base your teaching strategies on research evidence about what works best for a given condition. An easy place to start is at www.pubmed.gov, which gives up-to-date research results. Just type in one or two terms—for example, *nutrition cancer*, or *exercise heart*—in the top Search box, and many studies will be listed. It's not necessary to type in conjunctions or prepositions such as *and* or *for* or to type *treatment*, which may result in fewer studies listed.

HEALTH PROMOTION CHALLENGE

Choose nutrition, cancer or exercise for one condition and see how many research studies you can find to help develop evidence-based recommendations for a client with that health issue.

Topic Areas

Although it is beyond the scope of this chapter to address health promotion procedures for specific physiologic conditions, there are particular areas of health that are of higher concern that we can discuss in general terms. These areas, identified as part of the *Healthy People 2020* initiative, have been noted as affecting large numbers of individuals in the United States. They are likely to be issues of concern in clients that you see in practice. Remember that different populations have differing priorities. Topic areas are listed in alphabetical order, recognizing that you may need to prioritize these topics depending on the communities you serve.

The topic areas are:

- Access to health services
- Adolescent health
- Arthritis, osteoporosis, and chronic back conditions
- Blood disorders and blood safety

- Cancer
- Chronic kidney disease
- Diabetes
- Disability and secondary conditions
- Early and middle childhood
- Environmental health
- Family planning
- Food safety
- Genomics
- Hearing and communication disorders
- Heart disease and stroke
- HIV
- Immunization and infectious diseases
- Injury and violence prevention
- Maternal and infant health
- Mental health disorders (physical impacts)
- Nutrition and weight status
- Older adults
- Oral health
- Physical activity and fitness
- Sexually transmitted diseases
- Substance abuse
- Tobacco use
- Vision

Topic Area: Access to Health Services

A key obstacle to health promotion is the lack of access to one or more of the following: health insurance, a usual primary care provider, and coverage for clinical preventive services (Kottke & Isham, 2010). Each or all of these factors contributes to an individual experiencing difficulty in, or delaying, obtaining necessary medical care, dental care, or prescription medicines. Each or all of them is also frequently (though not always) related to a combination of cost and local availability; many people may have hospitals, private practices, and teaching hospitals nearby but are unable to afford care from these providers, while some people who can afford the cost of health care still cannot get it because they are located far from areas that offer the specific care they need (for example, oncology or gastroenterology specialists). Access to evidence-based clinical preventive services and primary care providers is already limited in many nonurban communities, but a number of medical organizations have warned that a more widespread shortage of primary care providers is looming (Bodenheimer, 2006; American College of Physicians, 2006).

A client's ability to obtain services needed to assist with health promotion activities is a factor that needs your attention. Lack of physical activity

and fitness programs, nutrition guidance for weight issues, substance abuse programs, and community-based educational programs can affect health and health promotion efforts. Familiarity with the range of services available at the local, state, and national level is crucial if you hope to direct clients to resources that will assist them in obtaining needed services.

Clients who wish to start health promotion programs can do so without a building or community program. You can be instrumental in helping clients in these cases by using the information in this book to help them develop their own health promotion program.

The issue of access can affect acute care. For example, if an individual's hospital emergency department visit wait exceeds the recommended time frame, that can negatively affect the outcome of the acute health concern (Ackroyd-Stolarz, Guernsey, Mackinnon, & Kovacs, 2011; Bernstein et al., 2009; Guttman, Schull, Vermeulen, & Stukel, 2011). Working with an individual who has frequent episodes of acute health issues (for example, repeated acute episodes of obstructed breathing, as in asthma or COPD), but who lacks ready access to an uncrowded emergency facility in an acute health event, can be challenging. You can help the client to either find alternative services, recognize the onset of acute symptoms earlier, or, ideally, take actions that will prevent acute events and thereby limit the need for the acute-care services that are in short supply.

In the case of the asthma example, this may involve helping clients to determine the triggers for acute episodes and learn how to limit exposure to such triggers. Alternately, teaching clients to be aware of the initial signals of a crisis could be a key factor in helping them avoid the need to access critical care services.

Topic Area: Adolescent Health

It is not surprising that several of the Healthy People 2020 **objectives** for adolescents focus on adolescent sexuality. Two specific goals are to increase the percentage of adolescents who have been tested for HIV and increase the percentage of middle and high schools that prohibit harassment based on a student's sexual orientation or gender identity. Teen pregnancy and STD transmission continue to be of great concern, with the United States having the highest rates of teen pregnancy and STD infections among developed nations. The physical health of adolescents focuses on sexuality because the prospect for poor health is far greater in those individuals who are prone to engage in risky behaviors. Your work to educate teens and reduce their likelihood of taking sexual risks can greatly impact their physical health.

But as large as sexual issues loom in adolescents, they are not the sole cause of poor physical health in teens. Nutrition—or the lack of it—is a major health issue, particularly among teen girls, who may skip meals or eat poorly in order to address perceived or real considerations of excess weight, or as a product

of self-esteem or emotional issues. A tendency to skip breakfast is particularly correlated with the development of weight-related health issues (Deshmukh-Taskar et al., 2010).

It is no accident that the Healthy People 2020 objectives include expanding access of teens to school breakfast programs. Similarly, screen time (the amount of time teens spend watching television, using a computer, or using a video-game machine) has a direct impact on physical welfare. Teens who have a lot of screen time per day show a tendency to develop poor exercise habits and significant metabolic effects in insulin regulation, particularly among adolescent boys (Foltz et al., 2011; Hardy, Denney-Wilson, Thrift, Okely, & Baur, 2010). Providing teens with extracurricular activities that draw them away from computers and videos, promoting good nutrition plus regular exercise, and making connections between teens and a parent or other positive adult caregiver are central points to promoting adolescent health (Patrick et al., 2004).

Topic Area: Arthritis, Osteoporosis, and Chronic Back Conditions

Painful joints, backaches, and brittle bones are often viewed as inevitable hallmarks of aging. These misconceptions offer tremendous opportunity for health promotion. The following areas are prime targets for health promotion efforts:

- reducing the mean level of joint pain among adults with doctor-diagnosed arthritis;
- reducing the percentage of adults with arthritis who have difficulty in performing two or more personal care activities, thereby preserving independence;
- reducing the percentage of adults with osteoporosis (thus lowering the risk of debilitating hip fractures); and,
- reducing activity limitation due to chronic back conditions.

Key factors in addressing these conditions include (1) exercise and physical therapies that improve joint flexibility and strengthen bones (Chyu et al., 2011; Selfe & Innes 2009; Sinaki et al., 2010), (2) assessment and improvement of weight and nutrient status (Christensen et al., 2011; Garriguet, 2011; Riecke et al., 2010), and (3) reduction of inflammation, either in the joint or system-wide (Rai & Sandell, 2011).

Topic Area: Blood Disorders and Blood Safety

Because blood disorders and blood safety is a new topic area to the Healthy People initiative, so are most of the objectives. The Universal Data Collection

Project from the Centers for Disease Control and Prevention [CDC] and the Registry and Surveillance in Hemoglobinopathies within the National Institutes of Health and the CDC offer primary sources of data. One goal in this area is increasing the percentage of persons who donate blood. Research into factors that work both for and against blood donation—including the level of self-efficacy experienced by donors (Veldhuizen, Ferguson, de Kort, Donders, & Atsma, 2011) and anxiety related to the paraphernalia and context of donation (Clowes & Masser, 2011)—may prove helpful in addressing the behavioral factors that tip an individual's decision against donating.

Similarly, advances in screening donated blood for infectious diseases such as HIV, HCV, and other blood-borne diseases continue, with West Nile virus and others under investigation (Dodd, 2009; Goodnough, 2011). You may encounter concerns about blood safety in clients who require transfusions or who are scheduled for surgery, so keeping in touch with safety advances (as well as encouraging practices such as familial donation or autologous blood-banking prior to surgery) can help reassure clients. Other goals include:

- decreasing hospitalizations for sickle cell disease among children aged 9 years,
- the increased use of penicillin with sickle cell disease from 4 months to 5 years of age,
- reducing the incidence of venous thromboembolism, and
- increasing the rate of accurate diagnosis of such diseases as inherited bleeding disorders and von Willebrand's disease.

Multiple other objectives cover developmental milestones of those with hemoglobinopathies.

Topic Area: Cancer

Many of the objectives from the topic area of cancer focus on the continued reduction of site-specific cancer death rates, but include counseling about cancer prevention through mammograms, Pap tests, programs to educate about the risks associated with sunburn and sun exposure, and increased screening rates for colorectal, cervical, and breast cancers.

Prevention activities represent a key opportunity for health promotion. Assessing risk factors and educating clients about how to reduce risk may form the basis of many of your health promotion actions. Likewise, activities undertaken to address cancer survivors' quality of life, including decreasing the risk of recurrence of invasive colorectal, uterine, cervical, and late-stage breast cancers, offer many opportunities for health promotion. Providing information about the importance of exercise, nutrition, sunlight (or another source

of vitamin D), and stress reduction can also provide health promotion and disease prevention motivation for clients (Anzuini, Battistella, & Izzotti, 2011; Erinosho, Moser, Oh, Neberling & Yaroch, 2012; Krishnan, Trump, Johnson & Feldman, 2012; Tsai et al., 2012).

ASK YOURSELF

Suppose you have decided to become active in your community in the area of toxic environmental waste and its effect on health. How would you approach the topic and the institutions in your area? What role would you be interested in playing in this field?

Topic Area: Chronic Kidney Disease

Healthy People 2020 goals for chronic kidney disease include:

- reducing the rate of new cases of end-stage renal disease,
- reducing deaths in persons with end-stage renal disease,
- increasing the percentage of chronic kidney disease clients who receive care from a nephrologist at least 12 months before the start of renal treatment,
- increasing the percentage of dialysis clients < 70 years of age who are on a waiting list and/or who receive a donor kidney transplant within 1 year of being diagnosed with end-stage renal disease,
- ensuring that all clients on dialysis receive a transplant within 3 years of registration on a waiting list,
- decreasing kidney failure due to diabetes;
- increasing medical screening of persons with diabetes and chronic kidney disease;
- improving cardiovascular care in persons with chronic kidney disease; and,
- decreasing the percentage of the U.S. population with chronic kidney disease.

Kidney disease can stem from a number of issues, but its correlation to cardiovascular disease is clear, even in the absence of diabetes, with which kidney disorders are commonly associated (Ito, 2011). Vascular complications in turn have a significant impact on the microscopic blood vessels of the kidneys, setting up a vicious downward spiral where the cardiovascular disease reinforces kidney dysfunction and vice versa. Working to support good cardiovascular health in persons with kidney disease, whether diabetes related or not, is an essential aspect of health promotion.

Topic Area: Diabetes

Diabetes is a surprisingly complex topic area. On the one hand, diagnoses of all forms of diabetes are on the rise, with a variety of contributing factors involved in the increase—above and beyond the poor diet and sedentary lifestyle so commonly, and often inaccurately, cited in popular media as the principal culprits. Increased awareness of the risk factors and symptoms of diabetes has increased the rate of diabetes diagnoses and promoted early detection of this silent killer, helping to reduce the rate of diabetic complications such as lower extremity amputations.

Many people (and even some healthcare providers) do not grasp the nature of diabetes as a multifaceted disease in which genetic risk factors, unavoidable exposures, and modifiable lifestyle factors all contribute (Fradin & Bougnères, 2011; Morgan, 2011; Qi, Cornelis, Zhang, van Dam & Hu, 2009). This lack of knowledge can lead to considerable misinformation and even stigma in relation to a diabetes diagnosis.

Stigma related to obesity and weight bias also contribute. A common popular perception is that obese individuals who develop diabetes deserve their disease because of a perceived lack of self-control regarding food (Spero, 2006). Even more problematic, the client sometimes confronts weight bias—an attitude of condescension or disrespect for those who are overweight—in healthcare providers from whom the client is seeking care (Teixeira & Budd, 2010). The experience of stigma related to diabetes, obesity, or overweight often causes clients to avoid healthcare services, which can be detrimental to the effort to teach diabetic or prediabetic clients about diet, exercise, insulin regulation (through medications and/or injected insulin regimens), and glycemic control (Earnshaw & Quinn, 2011; Mold & Forbes, 2011).

These issues relate to a key aspect of diabetes management that differs from many disease interventions: Diabetes is explicitly a self-managed disease, yet learning to manage diabetes requires regular interaction with healthcare professionals. Because blood glucose levels must be monitored daily, with measurements taken every few hours (particularly in pediatric type 1 diabetes clients), it is not possible for a physician or nurse to be the primary caregiver. The client (or parents, in the case of children) must assume responsibility for the task of monitoring blood glucose and taking action to address high or low blood glucose values. Establishing a comfort level with self-managing the disease is a key factor in success—defined as maintaining normal overall glucose levels and limiting risk of long-term complications. At the same time, close contact with diabetes clinicians can assist the client in identifying and incorporating methods to reduce long-term blood glucose and HbA_{1c} values. Identifying other needs through the use of specific client-centered tools can enhance the success of an intervention.

Diabetic clients have a variety of barriers to maintaining good glycemic control that can be addressed through training, specific **interventions** (e.g., use of medications to improve insulin sensitivity or devices to monitor blood glucose levels), and screening exams. Education about how to reduce risk of long-term complications should focus on using complications as motivating factors promoting good glycemic control, instead of focusing on complications as something the client should expect to happen.

Topic Area: Disability and Secondary Conditions

Disability and secondary conditions cover a broad range of health issues. Most of the objectives in the *Healthy People 2020* document relate to mental health and access issues. For example, one objective is decreasing the percentage of children and adolescents with disabilities who are reported to be sad, unhappy, or depressed. A related objective is increasing emotional support and eliminating disparities, including decreasing environmental barriers, among people with disabilities and the wider community. A key aspect of this, in which health promotion activities can focus, is increasing the percentage of adults with disabilities who participate in social, recreational, community, and civic activities to the degree that they wish, as well as decreasing the number of those with disabilities in congregate care facilities (with 16 beds or more).

Topic Area: Early and Middle Childhood

The early and middle childhood topic area is new to the Healthy People initiative, and thus so are the objectives—five in all. They include decreasing the percentage of children who have poor quality of sleep, increasing the percentage of schools that require health education, increasing early intervention services in children up to age 2, and increasing the percentage of parents who use positive parenting and communicate this with their child's healthcare provider.

Topic Area: Environmental Health

Environmental health has moved to the forefront in recent years as the impact of pollutants and other environmental factors on human health has attracted greater interest from scientists and activists. Contamination of water and air in the home, workplace, school, and healthcare settings are all matters that affect an individual's physical health and well-being, sometimes in small ways (e.g., mild allergy symptoms related to an airborne contaminant such as dust) and sometimes in significant, even debilitating ways (e.g., carbon monoxide poisoning from a poorly maintained heating system). Exposure to excessive heat, cold, and damp conditions (which foster growth of molds and fungi that can trigger allergies) represents another form of environmental hazard that

may affect clients with health issues, particularly those who lack sufficient income to install heating/air conditioning systems or dehumidifiers. Toxic chemicals, radiation, and other environmental exposures that cause injury or illness are less widespread, but still common problems.

Water

Aging urban infrastructure and high use of agricultural pesticides are two culprits in concerns about safe drinking water and sanitation (Ritter et al., 2002), and objectives in the report include reducing waterborne disease outbreaks, pesticide exposures, and the number of housing units with moderate or severe physical problems. For individuals with health issues, especially those who live in older housing or older neighborhoods (that is, units constructed prior to the 1970s, when lead pipes were phased out of use), one facet of health promotion may be assessing the quality of tap water and drinking water to avoid heavy metal exposures or other contaminants. Concerns about chemicals leaching from plastics, especially estrogenic compounds such as bisphenol A and phthalates, among many others (Wagner & Oehlmann, 2011), are not to be disregarded, particularly in female clients who are at risk from estrogen-receptor positive breast and ovarian cancers. Women should avoid drinking from plastic water bottles labelled #1 or #7 (Gurd, 2007). Clients may need information about how to purify drinking water using filters or reverse osmosis systems, how to distill water, how to test for common well-water or water-system contaminants, and how to address contaminants if found.

Air

Air pollution has long represented a significant source of physical harm for Americans and is particularly relevant in relation to asthma and COPD; reducing the number of days the air quality index exceeds 100 and lowering overall toxic emissions into the air remain key goals in promoting general public health. On an individual level, exposure to airborne contaminants can range from household and occupational incidences of potentially lethal carbon monoxide poisoning (Graber, Macdonald, Kass, Smith, & Anderson, 2007) to industrial and transportation-related air pollution in urban centers, which has been linked to a variety of diseases ranging from asthma and COPD to cancer (Laumbach & Kipen, 2012; Wei, Davis, & Bina, 2011). Mitigating these health

effects is an important and increasingly common challenge to health promotion efforts. Medication is one obvious method, but strategies to help avoid exposures can be helpful as well; for instance, recommending a HEPA-filtered air purifier and teaching a client how to check local ozone levels and pollen counts can reduce the effects of allergic asthma.

Heat and Cold

National Weather Service statistics from the past decade indicate that on average, every year, 162 people die of heat-related complications—a number that does not take into account the many thousands of people who suffer such complications but do not die. The variability in heat-related deaths is quite significant, however; in particularly hot years, spikes of anywhere from several hundred to several thousand have been reported, including an extreme incidence of 14,800 deaths reported in France in the 2003 heat wave (Dhainaut, Claessens, Ginsburg, & Riou, 2004). Older adults and the very young are at greatest risk of adverse health conditions related to heat, particularly if they live in low economic circumstances and/or have preexisting health conditions.

Cold-related deaths outstrip this number by a considerable margin; the average annual number of deaths due to cold weather in the United States is estimated at 14,380, although incidence of cold-related fatalities is skewed toward northern latitudes (Deschenes & Moretti, 2007). Again, older adults and very young individuals living in impoverished conditions are at higher risk. At especially high risk are individuals with preexisting conditions and homeless persons.

Education on how to best cope with extreme temperatures is a principal focus of health promotion activities for at-risk individuals. Examples of simple but effective strategies include teaching clients how to choose more appropriate clothing for the extreme weather and helping the clients find financial aid resources to obtain heating fuel in winter, or offering guidance about maintaining adequate hydration and providing access to cooling stations during summer heat emergencies.

Damp Conditions and Fungal Contaminants

Buildings located in damp areas (e.g., near a wetland or low-lying area) or that are subject to wet conditions (e.g., high annual rainfall) may be prone to high interior humidity, which can promote the growth of molds, mildews, and fungal species. Many of these release toxins that cause allergic or immune responses in the buildings' inhabitants. Scientists studying sick building syndrome (SBS) have identified a variety of potential sources of the illness, including molds that produce mycotoxins, although the association between particular molds and symptoms of SBS is still unclear.

In clients who suffer from allergy symptoms related to fungal contamination of their home or work place, health promotion involves both treating the allergic response in the client *and* reducing the source of the problem by means of a variety of mold-remediation measures (Sauni et al., 2011).

Topic Area: Family Planning

Family planning encompasses the prevention of pregnancy in those who do not want children and supporting women who become pregnant (whether by choice or inadvertently). In both instances, aiding women in obtaining reproductive health services is a crucial factor, as well as providing pregnant women with supportive care so that they deliver a healthy baby and are well prepared to care for their infant (or, alternatively, have access to adoption agencies should they wish to give up an unwanted child).

Unintended pregnancies, particularly in people who do not want or are not emotionally/financially ready for children, are a complex and often emotionally difficult issue. Increasing a client's knowledge of and access to contraception (both standard and emergency methods) can be one important facet of health promotion activities in this area. Options for contraception, e.g. condoms, spermicides, intrauterine devices (IUDs), and hormone-based birth control pills, should be discussed with clients so that the client has a good knowledge of the pros and cons of each method. Where contraception is not acceptable to the client for religious or cultural reasons, educating both partners on identifying the woman's ovulatory cycle (in order to avoid sexual activity during the days on which her fertility is at its maximum) can be an appropriate alternative. Clients should be warned that natural contraception is not as effective as barrier methods or hormonal contraceptive pills.

Family planning services may include obtaining access to abortion, which (it should go without saying) is controversial and a difficult subject for both clients and nurses alike. It is a topic with which many people are uncomfortable, even those who do not have strong opinions on the subject. Abortions are sometimes medically necessary in women who have health issues that make supporting a pregnancy through two or even one trimester dangerous, and they are also frequently recommended for women whose fetuses are diagnosed with several specific defects that are incompatible with life or that have a high likelihood of death within days of birth (e.g., anencephaly) (Cook, Erdman, Hevia, & Dickens, 2008).

Medically necessary abortions are likely to be extremely traumatic for women whose pregnancy was planned, but even women pregnant unintentionally may have strong reactions to learning that an abortion is recommended. Depending on the state, abortions that are not medically necessary (elective abortions) may be subject to certain legal restrictions, such as waiting periods

of 1 to several days, denial of coverage for abortion for women on Medicaid, or requirements that parents be notified when the woman seeking the abortion is a minor (the age of majority can be defined differently in different states).

When working with a client who is seeking or considering an abortion, a nonjudgmental attitude and conscious effort to help the client reach her own decision are crucial. The client needs to reach a place of peace with her choice no matter what she decides, as she is the person who is most intimately connected (physically and emotionally) to the outcome of the decision. The physiologic sequelae of abortion should be explained to her as straightforwardly as possible.

Whether she decides to abort or retain a pregnancy, the client will need supportive services, whether they be postprocedure counseling (both mental health counseling and counseling about prevention of future pregnancy/safe sex may be required) or perinatal, obstetrical, and postpartum support if she decides otherwise. Postpartum support includes access to adoption agencies if the client chooses not to raise her infant. A woman who decides to continue the pregnancy and raise her infant may also need the services of a lactation consultant and parenting training, if she is a first-time mother.

Topic Area: Food Safety

Two key objectives pertaining to food safety in the Healthy People 2020 initiative are (1) to reduce severe allergic reactions to food among adults with a food allergy diagnosis and (2) to improve employee food preparation practices that directly relate to food-borne illnesses in retail food establishments.

Food Allergies

Allergic responses to food occur on a spectrum ranging from mild (e.g., symptoms of stomach upset, diarrhea, urticaria (hives), or sinusitis) to life-threatening (anaphylaxis). Common sources of allergic responses include wheat (gluten), dairy, egg, peanut/tree nut, soy, fish, or shellfish, but allergies to a wide range of other foods have been documented (Waserman & Watson, 2011). Identifying and mitigating (avoiding) foods that cause allergic responses, plus educating clients about how to identify and address symptoms of an allergic episode in case of accidental exposure, are important points in health promotion activities for food allergies.

Food-Borne Illnesses

Goals related to reducing food-borne infections focus on key pathogens transmitted through food (*Campylobacter* species, Shiga toxin-producing *Escherichia coli*, *Listeria* monocyte genes, and *Salmonella* species). A related factor

focuses attention on preventing an increase in percentage of *Salmonella* and *Campylobacter jejuni* isolates resulting from humans' resistance to antimicrobial drugs (quinolones, third-generation cephalosporin, gentamicin, ampicillin, and erythromycin). With regard to working with individuals, the key to health promotion in this area relies on education, specifically teaching clients to follow key food safety practices (called clean, separate, cook, and chill processes).

Clients need to be aware of the nature of contamination in specific food groups (beef, dairy, fruits/nuts, leafy vegetables, and poultry) so that they understand how to decrease exposures to contaminated meat, poultry, and vegetables.

Topic Area: Genomics

Genomics is discipline that is expanding rapidly. While genetic counseling for certain disease states has been available for some time (e.g., Huntington's disease, BRCA-related breast and ovarian cancers), testing for other conditions is new. The Healthy People 2020 initiative includes two new objectives based on testing advances. The first new objective is to increase the percentage of persons with newly diagnosed colorectal cancer who receive genetic testing to identify Lynch syndrome (or familial colorectal cancer syndromes). The second is to increase the percentage of women with a family history of breast/ovarian cancer who receive genetic counseling. In both instances, the goal is to encourage genetic testing to assess risk factors and identify ways to mitigate risk.

HOT TOPICS

Here are some topics to explore:

- Healthcare-associated infections
- Social support and health
- Quality of life and well-being
- Genomics
- Global health
- Health disparities
- Adult immunization
- MRSA
- School-sponsored physical activity
- Autism spectrum disorder
- Work-related stress
- Theory of planned behavior

With many clients, suggestion of genetic testing based on familial risk factors can be stressful. Some clients will state emphatically that they do not want to know their risk of developing a disease that is common in their family. Others may pursue testing eagerly, but express concerns about whether there will be financial ramifications (e.g., loss of insurance coverage) related to positive test results. The benefits and costs for genetic testing (including emotional costs) should be weighed carefully with each client.

Topic Area: Hearing and Other Sensory or Communication Disorders (Ear, Nose, Throat, Vision, Speech, and Language)

A wide variety of hearing and other sensory or communication disorders were included in the Healthy People 2020 recommendations, including:

- Decrease otitis media in children
- Decrease adult hearing loss
- Increase hearing screening and use of assistive devices, cochlear implants, and hearing protection
- Increase the percentage of newborns who are screened for hearing loss by no later than age 1 month, have audiologic evaluation by age 3 months, and are enrolled in appropriate intervention services by age 6 months
- Address problems of tinnitus, dizziness/balance problems, and potential adverse outcomes
- Address smell and taste disorders
- Address communication/speech problems and language delays

Health promotion in these areas centers around obtaining testing and medical care to identify the cause of a hearing, speech, or other disorder and determining appropriate therapies with the specialist and the client. Linking clients to rehabilitation services, device suppliers, supplemental insurance, etc., are additional aspects of health promotion for many of these conditions.

Topic Area: Heart Disease and Stroke

Hypertension, coronary heart disease, and stroke are three major killers of Americans. Happily, they are three conditions that respond well to behavioral changes, and the opportunities for health promotion activities in these areas are boundless. Important aspects of health promotion for individuals include:

- Increasing knowledge of the risk factors related to hypertension and heart disease, including smoking, family history, cholesterol levels, exercise levels, overweight/obesity, high stress levels, and diabetes/prediabetes. Raising awareness of early warning signs and symptoms of stroke

and heart attack and educating those at risk on what to do in the event of the onset of symptoms are also important points.
- Increasing adherence to medical and lifestyle approaches for reducing hypertension, high low-density lipoprotein levels, and recurrence rates in survivors of heart disease and stroke
- Supporting changes to diet and lifestyle to improve quality of life and reduce risk

RESEARCH BOX 4-1: A review of: Fruit/Vegetable Intake and Physical Activity among Adults with High Cholesterol

» PURPOSE: The Division for Heart Disease and Stroke Prevention, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia, undertook a study to determine whether hypercholesterolemic adults followed healthy eating habits and appropriate physical activity.

» METHODS: The researchers used the 2007 Behavioral Risk Factor Surveillance System and measured ≥ 5 servings of fruits and vegetables/day and Healthy People 2010 recommended physical activity.

» RESULTS: Of 363,667 adults ≥ 18 years, 37.3% had hypercholesterolemia. The percentages of healthy eating and physical activity were lower among those with hypercholesterolemia than among those without (23.8% versus 27.9% for healthy eating [$P < 0.001$], 43.1% versus 51.7% for physical activity [$P < 0.001$]).

» CONCLUSION: Hypercholesterolemic adults are less likely to practice healthy eating and to engage in physical activity than are those without hypercholesterolemia.

Source: Fang, J., Keenan, N. L., & Dai, S. (2011). Fruit/vegetable intake and physical activity among adults with high cholesterol. *American Journal of Health Behavior, 35*(6), 689–698.

HEALTH PROMOTION CHALLENGE

How could you use the findings of the hypercholesterolemia study to promote health in your work?

Topic Area: HIV

Individual health promotion related to HIV/AIDS focuses on two factors: reduction of risky behaviors (e.g., intravenous drug use, failure to use condoms during sexual activity) for those who are at risk for infection, and provision of medical treatment and emotional support to individuals diagnosed with the virus. The nature of such interventions may differ when addressing individuals from specific ethnic, racial, demographic, or religious groups, based on social and cultural perceptions about the disease. HIV is a highly charged topic for some individuals and (as discussed earlier) is often subject to significant stigma. The presence of substance abuse issues frequently complicates therapeutic efforts, even when intravenous drug use is not involved.

Identifying those at risk requires the nurse to look beyond popular myths and misconceptions. At minimum, assume that all sexually active persons who have had more than one partner (or whose partner has had prior partners) have some level of risk, irrespective of whether the client is heterosexual, homosexual, or bisexual. How high that risk might be depends on a variety of factors, including the number of partners and frequency with which partners change; the level of education about, and willingness to use, safe sex practices; and the use of illicit drugs, particularly intravenous drugs.

Health promotion activities for clients diagnosed with HIV center around supportive care for medical and emotional needs. Compliance with antiretroviral therapies and establishment of a support network for the client are two key goals in health promotion. Clients should also be encouraged to consider developing healthy eating, exercising, stress-reduction, and sleeping habits and learn methods of avoiding exposure to infectious agents that might exceed the capabilities of a compromised immune system.

Topic Area: Immunization and Infectious Diseases

The infectious disease topic area includes a number of different objectives. Some of these relate to the reduction of specific infectious agents, many of which have experienced a recent increase due to the development of resistance to antibiotics in certain strains (e.g., MRSA, tuberculosis, influenza viruses). Of particular concern are diseases for which vaccines exist, but which are increasing in incidence due to public refusal to vaccinate resulting from concerns, valid or otherwise, about vaccine safety and effectiveness (such as measles and whooping cough). Educating clients about excessive antibiotic use and increasing vaccination are activities that you may undertake, particularly with clients who have young children. You can also assist clients to assess risk factors for infection and help them to undertake basic measures to prevent disease transmission by improving hygiene (e.g., hand washing, maintaining clean

surfaces in kitchens and bathrooms, and regularly cleaning light switches and doorknobs to reduce the prevalence of infectious microbes).

Topic Area: Injury and Violence Prevention

Injury encompasses a wide range of areas. Included in the Healthy People 2020 objectives were such diverse goals as:

- A decrease in homicides and firearm-related deaths/injuries
- Review of children's deaths (those 17 and under) by a child fatality review team
- A decrease in pedestrian deaths/injuries
- An increase in safety belt use and vehicle restraint systems for small children
- An increase in the use of helmets and other safety equipment on recreational vehicles, including motorcycles, bicycles, and ATVs, as well as in sports such as skiing, snowboarding, and equestrian activities, with a related goal of decreasing incidence of traumatic brain injuries and/spinal cord morbidity and mortality
- Decreases in general sport and recreational injuries
- A decrease in residential fire deaths
- A decrease in poisoning and unintentional injury, suffocation deaths, nonfatal child maltreatment, and violence among intimate partners

While these objectives encompass a wide range of circumstances, the common thread among many of them is awareness. Prevention of most of these injuries hinge on individual awareness of risk and knowledge of risk mitigation strategies, including safety equipment, appropriate licensing and training, and precautionary habits to avoid risky circumstances. With respect to the majority of these goals, you can discuss the client's risk for such injuries as seems appropriate, and offer appropriate educational materials to assist with increasing risk mitigation knowledge. This can include training in firearm safety, conflict resolution strategies, anger management, and the use of devices and equipment that prevent injury.

Topic Area: Maternal, Infant, and Child Health

One area of health that the United States as a whole manages poorly is infant mortality. The most recently updated CIA Online Factbook page (n.d.) on infant mortality places the United States 175th of 222 on the list of countries

organized from highest to lowest rate of infant mortality, with an average rate of 6.06 infant deaths per 1,000 live births (estimated) for 2011. (Reverse the order so that the best rate is on top, and the United States ranks 47th.) This rate puts the United States well behind the level of other developed nations, which have considerably lower rates of infant deaths, and behind even much less wealthy countries like Cuba (4.9/1,000) and Greece (5.0/1,000). Maternal death rates per 100,000 live births are no better; the United States ranks 39th, equal with the former Yugoslavian province of Macedonia, with 17 deaths per 100,000 births (Hogan et al., 2010). Wide race-based disparities in access to care, lower maternal education levels, and presence of comorbidities such as HIV infection have been cited as factors that exacerbate infant and maternal mortality. A Congressional Budget Office assessment of the problem in 1992 pinpointed access to prenatal care, complications of low birth weight, and improved access to health care (particularly for minority women and younger, rural, and economically disadvantaged women) as key factors in reducing the rate of maternal and infant deaths. All of these factors are still in place; indeed, the disparity in care between white women and minority women, particularly African American women, has grown in the interim.

CULTURAL RESEARCH STUDY

A review of: Health Characteristics of American Indian or Alaska Native Adult Population: United States, 2004–2008

BACKGROUND: The ability to measure the success of Healthy People 2020 objectives requires baseline information to measure from. The following article provides such a baseline and is also relevant in its reporting of **health disparities** that exist for minority groups.

METHOD: This was a study comparing health status indicators, health behaviors, health care utilization, health conditions, immunizations, and HIV testing status for American Indian or Alaskan Native (AIAN) adults. The group was compared to white, black, Asian, and Hispanic adults. Data came from the 2004–2008 National Health Interview Surveys conducted by the CDC.

FINDINGS: The non-Hispanic AIAN community was found to have higher rates of risky health behaviors, poorer health status and conditions, and lower utilization of health services.

Source: Barnes, P. M., Adams, P. F., & Powell-Griner, E. (2010). Health characteristics of American Indian or Alaska Native adult population: United States, 2004–2008. *National Health Status Report, 9*(20), 1–22.

Pregnancy outcomes are greatly improved when women have early, consistent access to prenatal care (including prepregnancy healthcare that helps women achieve a more optimal health state before attempting to become pregnant). Health promotion opportunities in this area are abundant, but particular activities need to be tailored to demographic factors and risk factors affecting the client.

Also included are objectives to increase:

- the percentage of healthy, full-term infants who sleep on their backs;
- abstinence from alcohol, cigarettes, and illicit drugs in pregnant women;
- mothers who breastfeed; and
- access to a medical home and comprehensive coordinated systems for children with special needs.
- Reducing maternal illness and complications due to pregnancy, reducing the incidence of cesarean births among low-risk women, and addressing risk factors for preterm births are also important goals.

In terms of child health, many objectives focus on providing screening services and care for infants and young children in relation to conditions such as Down syndrome, sickle-cell disease, autism spectrum disorders, and other conditions that benefit from intensive early intervention.

Topic Area: Mental Health and Mental Disorders

The connections between physical health and mental health deserve mention in the context of physical health promotion. A client who suffers from untreated or poorly managed mental health issues, whether relatively mild ones such as seasonal affective disorder or severe functional illnesses such as schizophrenia, has a preexisting barrier to engaging in health promotion efforts aimed at physical health. This is especially true if the mental health condition is exacerbated by substance abuse, a not-uncommon circumstance. Working with a client to promote physical health is generally unsuccessful if existing mental health issues are not addressed either simultaneously with, or in advance of, physical health issues. The interrelationship between mental and physical health is such that serious emotional or mental health issues may manifest themselves in physical illness, so addressing the mental health problem helps resolve the physical illness. Certain health promotion activities focused on physical wellness can help reduce the severity of some mental health concerns; for example, encouraging a client who suffers from depression to participate in a mindful exercise program on a regular basis can improve both physical and mental health and wellness (Gill, Womack, & Safranek, 2010).

Topic Area: Nutrition and Weight Status

Nutrition and weight are significant factors affecting physical health and wellness for a large proportion of the American population. Goals of the Healthy People 2020 initiative include the following:

- Increase the percentage of adults who are at a healthy weight and reduce the percentage of adults who are obese (CDC statistics on 4/20/12 place this percentage at about 33.9% of the adult population)
- Reduce the percentage of children and adolescents who are overweight or obese
- Reduce iron deficiency among young children, females of childbearing age, and pregnant females
- Reduce the consumption of saturated fat and sodium in the population aged 2 years and older
- Increase the variety and contribution of fruits, vegetables, and whole grains to the diets of the population aged 2 years and older
- Increase the contribution of fruits to the diets of the population aged 2 years and older, the variety and contribution of vegetables to the diets of the population aged 2 years and older, the contribution of whole grains to the diets of the population aged 2 years and older
- Increase the consumption of calcium in the population aged 2 years and older
- Increase the percentage of work sites that offer nutrition or weight management classes or counseling
- Eliminate very low food security among children in U.S. households

Overweight and Obesity

Most people are by now aware that being overweight is an important risk factor for many diseases. While that concern may be among those driving a client's wish for weight loss, psychological and self-image factors may be as or more important than health as motivational factors for weight loss. Clients may have already attempted to lose weight using popular diet and/or exercise programs; in many cases, such clients either found that they could not adhere to the program they selected, that the program did not cause the expected weight loss, or that although they achieved success, they regained the weight shortly after completing the program. Such prior experiences tend to leave clients feeling frustrated, anxious, and lacking in self-efficacy.

Weight loss is not a one-size-fits-all prospect. No single mode of eating or exercising will work for all individuals (Dale et al., 2009). The standard of taking in fewer calories than you expend that most people use as the basis of weight loss efforts is unhelpful for those with long-term, entrenched weight problems. These include clients whose excess weight is a metabolic issue, or even a genetic one (Farooqi, 2011; Grimm, & Steinle, 2010; Kim, 2008; Lev–Ran, 2001; Walsh, 2010) rather than an imbalance between calorie input/utilization.

Some caloric restriction plans cause rapid weight loss initially, but trigger the body's starvation responses (e.g., slowdown of metabolic processes to conserve energy in the face of a perceived food stress) so that weight loss slows over time. When these dieters become frustrated and resume normal eating habits, they experience a rapid regain of weight as a consequence—even if still exercising regularly. Some research also suggests that it matters just as much where the calories come from (e.g., protein, fats, carbohydrate, etc.) as the total calorie count (Manninen, 2004).

The popular belief that weight gain and weight loss relate solely to energy exchange (where food = energy in and exercise = energy out) is a gross oversimplification of how the body's energetic system works. Poor sleep, stress, and genetic and metabolic factors all may promote weight gain or impair the efficacy of weight loss efforts (Foster et al., 2005; Spiegel, Tasali, Leproult, & Van Cauter, 2009). Nutritional deficits can also adversely affect metabolism (Chacko et al., 2011; Parra, Palou, & Serra, 2010; Shahar et al., 2010).

Even the concept of exercising for weight loss is oversimplified. Different types of exercise have different effects on metabolism. While most exercise programs focus on cardiovascular exercise to promote increased metabolic rate/caloric output, strength training to build muscle mass is also important, but often overlooked (Churilla, Magyari, Ford, Fitzhugh, & Johnson, 2011). The plateau that many people reach in using exercise for weight loss is well documented and results from a number of factors, but principally from using only aerobic exercise and not muscle-building methods. The body also adapts to consistent levels of exertion, so that if a client is doing the same type of exercise at the same rate all the time, metabolic processes become more efficient and use less energy (Fahey, 1998; Peterson, Pistilli, Haff, Hoffman, & Gordon, 2011). Interval training and alternating exercise methods—mixing it up by walking one day, doing weight training the next, and attending a yoga class the third day—can limit this adaptation. When a plateau is reached, continued weight loss requires continued progression to more intense/more frequent exercise levels.

A factor in success that weight-loss programs such as Jenny Craig and Weight Watchers have put to good use is social support. Clients who have a personal trainer, weight-loss buddy, or a group of peers supporting their efforts do better than people attempting to lose weight on their own. One study found that over a 2-year period, an inexpensive program providing nurse support was as effective as a more resource-intensive program for weight maintenance despite using diets of different macronutrient composition (Dale et al., 2009).

When working with clients to develop a weight-loss plan intended to provide safe, lasting weight loss, use motivation interviewing techniques with the client regarding all of the following factors:

1. The amounts and types of foods that are eaten over a 2-week period
2. Exercise habits and daily energy outputs

3. Family history of obesity/overweight or other weight-related conditions
4. Amount and distribution of body fat
5. Sleep and snack patterns
6. Current stress factors
7. Metabolic dysfunctions (e.g., hypothyroidism or insulin resistance) that may contribute to weight gain and impede weight loss
8. Other health issues (e.g., alcohol use, mental health issues) that may impede weight loss efforts
9. Amount of social support available for a weight-loss program

The information gained from the interview can be used in conjunction with the client to formulate a plan of dietary, exercise, and behavioral changes that can alter a multitude of factors affecting weight loss. Keep in mind that developing such a program may mean educating the client about the errors in some of his or her assumptions about weight. Aside from the very common mistake of believing that calorie counting is all that matters, clients may have unrealistic ideas about how much weight they can lose and how fast they can lose it; many may not appreciate the safety issues with too-rapid weight loss. Also, implementing a comprehensive plan all at once may be overwhelming for clients; instead, ask the client to set a reasonable timeline for achievement of specific goals.

For example, a client who needs to start exercising and change to a low-carb diet may be more successful if a goal is set that allows commitment to a half hour of exercise 3 days a week, with a deadline of 4 to 6 weeks to establish

RESEARCH BOX 4-2 Successful Weight Loss Maintenance

A study conducted at the Nutritional Epidemiology Program, National Institute of Health and Nutrition in Tokyo, Japan, examined behavioral factors related to successful weight maintenance.

Participants were 90 middle-aged participants who attended a weight loss program and were followed for 1 year.

» FINDINGS: Compared to unsuccessful weight maintainers (USWM), successful weight maintainers (SWM) showed a greater improvement in their regularity of eating, walked more, and felt less stress regarding their increased physical activity than the USWM. During the follow-up period, significantly more SWM participants had self-efficacy (for measuring weight, practicing dietary objectives, and assessing the practice and keeping records), actually kept records, and measured weight more than the USWM participants. In contrast, more USWM participants felt stress about measuring weight.

» CONCLUSIONS: The researchers concluded that an increased amount of physical activity, having a higher self-efficacy, and consistently keeping records of the client's activities, as well as regularly weighing themselves, may be important for successful weight maintenance.

Source: Nakade, M., Aiba, N., Morita, A., Miyachi, M., Sasaki, S., Watanabe, S. (2012). What behaviors are important for successful weight maintenance? *Journal of Obesity*. 2012:202037. doi: 10.1155/2012/202037

this exercise regimen as a regular pattern. Once the client has succeeded in reaching that commitment, a new goal—adding two or three more half-hour sessions a week within 4 weeks' time—is added. Upon reaching that goal, a dietary goal—perhaps eliminating white sugar and flour from the client's diet to help reduce carb intake—might be added, with another 4-week deadline for completing that change. Success in reaching a goal means formulating a more advanced goal. This allows the client to make changes gradually, yet also offers the client the reward of feeling success upon completion of each goal.

Suggest the client work with a significant other to provide support for a weight loss plan and identify alternative activities to eating and snacking. See FIGURE 4-2.

Food Composition and Nutrient Content Many of the goals in the *Healthy People 2020* document relate to uneven distribution of nutrition. Hunger and malnutrition are much more common in the United States than many realize; at the same time, there are some people who have plenty to eat, but are still lacking in the base nutrients needed for good health simply because they do not get a varied diet. The USDA food pyramid has been altered frequently

Share these activities with clients who hope to lose weight.

- Examine each food before eating it and ask, "Am I hungry now or am I tired, angry, lonely, or stressed?"
- Keep track of activities, exercise, and food intake in a daily diary.
- Review the diary with the nurse.
- Identify situations that promote eating and find alternative activities.
- Work with a significant other or a buddy who provides support for weight loss.
- Set rewards for changing eating behaviors, such as money, praise, prizes, a weekend trip, or whatever is rewarding to the client.
- Use imagery to picture the client as slim and happy.
- Role play with the nurse or buddy how to handle pressure to eat.
- Learn relaxation techniques or purchase a relaxation CD and use diversionary tactics, such as drinking a glass or two of water, taking a walk, or deep breathing, when eating urges occur.
- Don't eat while watching TV or doing some other activity; when eating, concentrate on the taste, the sensations of eating, and food smells.
- Cut way back on appetite stimulants such as coffee, spices, chocolate, sugar, sodas, and salt.

FIGURE 4-2 Activities That Can Help in Losing Weight

in recent years to reflect this, and was finally exchanged for a food plate in an attempt to give greater guidance to consumers and to offer advice about nutrition that is more tailored to particular demographic groups (Harmon, 2011; Haven, Burns, Herring, & Britten, 2006; Shelnutt, Bobroff, & Diehl, 2009).

Ensuring that clients have access to and an understanding of good basic nutrition is a foundation of health promotion efforts. A client with a poor diet, whether a result of not having access to enough food or having a diet composed of nonnutritious food or a limited variety of foods, is a client who either already lacks good health or who is on the road to poor health.

Clients may not recognize that food quality (fresh versus prepared) matters, and many may not know how to read labels and assess ingredient content (e.g., sodium, sugars, or additives), so basic training in identifying better options may be required to help teach clients what to buy. Clients who cannot cook or prepare food should be encouraged to learn so that they do not rely exclusively on prepared frozen, dried, or packaged foods, which sometimes have lower nutrient content and higher calories (even when the labeling suggests otherwise) (Urban et al., 2010).

Providing supplemental nutrition via vitamin and mineral supplements may be a short-term option to boost nutrient status in clients with clear-cut deficiencies (which should be identified by testing rather than assumed). For long-term wellness, changing dietary habits, educating clients on what constitutes a healthy diet, and improving client access to healthy foods are better routes to nutrient sufficiency.

Bear in mind that women may need to take calcium/magnesium supplements as they age, especially after menopause, when it is difficult to get the recommended 1,200–1,500 mg/day via food alone:

> After menopause, a woman's calcium needs go up to maintain bone health. Women 51 and older should get 1,200 milligrams (mg) of calcium each day. Vitamin D also is important to bone health. Women 51 to 70 should get 600 international units (IU) of vitamin D each day. Women ages 71 and older need 800 IU of vitamin D each day. (U.S. Department of Health and Human Services [DHHS], 2010)

Topic Area: Older Adults

There are a number of health challenges and life issues unique to older adults. Many of these are physical aspects associated with aging: declines in nutrition status (particularly protein intake) and muscle strength; bone loss and related fracture risk (osteoporosis); mobility issues; vision, hearing, and other sensory impairments; sleep disturbances; and neurological deterioration. Often, where such issues affect an older adult, there are social and mental health issues that exacerbate the condition, so that what would otherwise be a nuisance becomes a serious health problem. For example, many older adults experience an unmet

need for caregiver support services, particularly older adults with disabilities. Ironically, improvements in medical management of chronic illness that have resulted in a greater longevity have also created a critical shortage of facilities and support systems to assist older adults with one or more chronic health conditions. Unpaid caregivers, usually family members, sometimes subject elder relatives to maltreatment and neglect. The lack of assistance may cause an individual who would otherwise be reasonably independent and functional to experience worsening health, greater morbidity, and earlier death. Health promotion for older adult clients (and their caregivers) therefore hinges on identifying needs for assistance and support intended to help the older adult maintain independent functioning to the greatest extent possible.

Eating is often an issue with older adults when they have difficulty chewing or food doesn't taste the same any more. Certain medicines can make food tasteless. Encourage clients to ask their physician or nurse practitioner to prescribe a medicine that does not interfere with taste. Suggest clients use lemon juice and spices such as oregano, thyme, rosemary, turmeric (also called curcumin), and garlic to spice up their meals. Each of these also has healing qualities; for example, curcumin is known to inhibit cancer cells (Sundram, Chauhan, Ebeling, & Jaggi, 2012; Lee, Li, Tsao, Fong, & Tang, 2012).

HEALTH PROMOTION CHALLENGE

Go to www.pubmed.gov and look up studies that provide evidence that oregano, thyme, rosemary, cinnamon, clove, and garlic have healing qualities. Share your information with at least one classmate and trade references.

FIGURE 4-3 provides some tips to give older clients that may help them eat more nutritious food. Consider making a copy and providing it to older clients.

Topic Area: Oral Health

For many individuals, oral health is simply about having clean teeth, a bright smile, and avoiding bad breath. However, maintaining good oral health is an important factor in supporting overall health. Studies show that poor oral health, particularly loss of teeth, is a predictor of cardiovascular and respiratory disease mortality (Aida et al., 2011; Belstrøm, Damgaard, Nielsen, & Holmstrup, 2011; Holmlund, Holm, & Lind, 2010).

Chronic periodontal disease also correlates to Alzheimer's disease, possibly as a result of systemic inflammation (Watts, Crimmins, & Gatz, 2008). Individuals who get regular dental checkups are also more likely to have oral and pharyngeal cancer detected at the earliest stage.

- Eat many different colors and types of vegetables and fruits.
- Make sure at least half of your grains are whole grains.
- Eat only small amounts of solid fats, oils, and foods high in sugars. Limit saturated fat (found mostly in foods that come from animals) or *trans* fats (found in foods like some margarines, shortening, cookies, and crackers).
- Every day, eat the following foods and amounts:

  Fruits—1.5 to 2.5 cups
  What is the same as a half cup of cut-up fruit? One medium whole fruit or a quarter cup of dried fruit.
  Vegetables—2 to 3.5 cups
  What is the same as a cup of cut-up vegetables? Two cups of uncooked leafy vegetables.
  Grains—5–10 ounces
  What is the same as an ounce of grains? One roll; a small muffin; a slice of bread; 1 cup of flaked, ready-to-eat cereal; or a half cup of cooked rice, pasta, or cereal.
  Meat/beans—5–7 ounces
  What is the same as an ounce of meat, fish, or poultry? One egg, a quarter cup of cooked beans or tofu, a half ounce of nuts or seeds, or 1 tablespoon of peanut butter.
  Milk—3 cups of fat-free or low-fat milk
  What is the same as 1 cup of milk? One cup of yogurt or 1.5 to 2 ounces of cheese. One cup of cottage cheese is the same as a half cup of milk.
- Drink enough liquids so your urine is pale yellow, not dark yellow.
- It is better to get fiber from food than dietary supplements. Start adding more fiber slowly. That will help avoid unwanted gas. Here are some tips for adding fiber: Eat cooked dry beans, peas, and lentils often. Leave skins on your fruit and vegetables if possible. Choose whole fruit over fruit juice. Eat whole-grain breads and cereals. Drink plenty of liquids to help fiber move through your intestines.
- *Here's a tip:* Stay away from empty calories. These are foods and drinks with a lot of calories but not many nutrients—for example, chips, cookies, sodas, and alcohol.

FIGURE 4-3 Eating Tips for Older Adults
Source: http://www.nia.nih.gov/health/publication/healthy-eating-after-50

In addition to health issues related to teeth and gums, structural issues with the oral/craniofacial area can have a significant adverse impact on health. These include respiratory problems related to jaw malformation, micrognathia, temporomandibular joint (TMJ) dysfunction, and soft-tissue structural defects such as cleft lip or palate, many of which require surgical intervention or, in the case of TMJ, the use of dental appliances to relieve symptoms.

Objectives in the *Healthy People 2020* document pertaining to oral health are:

- Reduce the percentage of children and adolescents who have dental caries in their primary or permanent teeth, as well as the percentage of children, adolescents, and adults with untreated dental decay and periodontitis
- Increase the percentage of adults who have never had a permanent tooth extracted due to caries or disease
- Increase the percentage of children who have received dental sealants on their molar teeth
- Increase the percentage of long-term care residents who use the oral healthcare system each year
- Increase the number of school-based health centers with an oral health component
- Increase the number of local health departments and federally qualified health centers that have an oral health component
- Increase the percentage of referral of children with cleft lips and palates to craniofacial teams

Topic Area: Physical Activity and Fitness

Exercise was discussed at length in the section on weight loss, but fitness is about more than just weight maintenance. It relates to cardiovascular and pulmonary health, muscle strength, flexibility and joint function, and even neurologic function. Mental health benefits of physical activity are well documented. In sum, promoting fitness activities to individual clients generally will help with nearly every health concern; however, some clients will need their exercise programs tailored to suit physical limitations.

In the physical activity and fitness area, the objectives in *Healthy People 2020* include the following:

- Increasing the number of the nation's public and private schools that require daily physical education for all students, the percentage of adolescents who participate in daily school physical education, and the percentage of adolescents who spend at least 50% of school physical education class time being active
- Increasing the number of public and private schools that provide access to physical activity spaces and facilities for all persons outside of normal school hours
- Reducing the number of adults who engage in no leisure-time physical activity
- Increasing the percentage of adults and adolescents who meet current guidelines for aerobic physical activity and for muscle strength training
- Increasing the percentage of children and adolescents who meet guidelines for television viewing and computer use
- Increasing the percentage of employed adults who have access to and participate in employer-based exercise facilities
- Increasing the number of trips made by walking and bicycling
- Increasing the percentage of physician office visits for chronic health diseases or conditions that include counseling or education related to exercise

Use **FIGURE 4-4** to help clients increase their strength through exercise. Even small changes in muscle strength can make a real difference in getting up from a chair, climbing stairs, carrying groceries, opening jars, and playing with children. Lower-body strength exercises will improve balance.

- Use a 1-pound can of food or a 1-pound weight the first week, then gradually add more weight. Starting out with weights that are too heavy can cause injuries.
- It should feel somewhere between hard and very hard for you to lift or push the weight. It shouldn't feel very, very hard. If you can't lift or push a weight 8 times in a row, it's too heavy for you. Reduce the amount of weight.
- Take 3 seconds to lift or push a weight into place, hold the position for 1 second, and take another 3 seconds to return to your starting position. Don't let the weight drop; returning it slowly is very important.
- Try to do each exercise 10 to 15 repetitions. Think of this as a goal. If you can't do that many at first, do as many as you can. You may be able to build up to this goal over time.

FIGURE 4-4 Exercise Ideas to Enhance Strength

Source: http://www.nia.nih.gov/health/publication/exercise-physical-activity-your-everyday-guide-national-institute-aging/sample

- Want to be able to lift your carry-on bag into the overhead bin of the airplane or get in and out of the car more easily? Keep doing those strength exercises, and you'll get there.

Safety

- Talk with your doctor or nurse practitioner if you are unsure about doing a particular exercise. For example, if you've had hip or back surgery, talk about which exercises might be best for you.
- Don't hold your breath during strength exercises. Holding your breath while straining can cause changes in blood pressure. This is especially true for people with heart disease.
- Breathe regularly. Breathe in slowly through your nose and breathe out slowly through your mouth. If this is not comfortable or possible, breathe in and out through either your nose or mouth.
- Breathe out as you lift or push, and breathe in as you relax. For example, if you're doing leg lifts, breathe out as you lift your leg, and breathe in as you lower it. This may not feel natural at first, and you probably will have to think about it for a while as you do it.

Proper form and safety go hand in hand. For some exercises, you may want to start alternating arms and work your way up to using both arms at the same time. If it is difficult for you to hold hand weights, try using wrist weights.

- To prevent injury, don't jerk or thrust weights into position. Use smooth, steady movements.
- Avoid locking your arm and leg joints in a tightly straightened position. To straighten your knees, tighten your thigh muscles. This will lift your kneecaps and protect them.
- For many of the sample exercises in this guide, you will need to use a chair. Choose a sturdy chair that is stable enough to support your weight when seated or when holding on during the exercise.
- Muscle soreness lasting a few days and slight fatigue are normal after muscle-building exercises, at least at first. After doing these exercises for a few weeks, you will probably not be sore after your workout.

Progressing

Here's an example of how to progress gradually: Start out with a 1-pound weight that you can lift only 8 times. Keep using that weight until you become strong enough to lift it easily 10 to 15 times. When you can do 2 sets of 10 to 15 repetitions easily, add more weight so that, again, you can lift it only 8 times. Keep repeating until you reach your goal, and then maintain that level as long as you can.

FIGURE 4-4 (Continued)

- If you feel sick or have pain during or after exercise, you're doing too much.
- Exhaustion, sore joints, and painful muscle pulling mean you're overdoing it. None of the exercises should cause severe pain.
- Overexercising can cause injury, which may lead to quitting altogether. A steady rate of progress is the best approach.

Working with Weights

You don't have to go out and buy weights for strength exercises. Find something you can hold on to easily. For example, you can make your own weights from the following unbreakable household items:

- Fill a plastic milk jug with sand or water and tape the opening securely closed.
- Fill a sock with dried beans, and tie up the open end.
- Use common grocery items, such as bags of rice, vegetable or soup cans, or bottled water.

Hand grip

This simple exercise should help if you have trouble picking things up or holding on to them. It also will help you open things like that pickle jar more easily. You can even do this exercise while reading or watching TV.

1. Hold a tennis ball or other small rubber or foam ball in one hand.
2. Slowly squeeze the ball as hard as you can and hold it for 3–5 seconds.
3. Relax the squeeze slowly.
4. Repeat 10–15 times.
5. Repeat 10–15 times with other hand.
6. Repeat 10–15 times more with each hand.

Wrist curl

This exercise will strengthen your wrists. It also will help ensure good form and prevent injury when you do upper body strength exercises.

1. Rest your forearm on the arm of a sturdy chair with your hand over the edge.
2. Hold a weight with palm facing upward.
3. Slowly bend your wrist up and down.
4. Repeat 10–15 times.
5. Repeat with other hand 10–15 times.
6. Repeat 10–15 more times with each hand.

FIGURE 4-4 (Continued)

Overhead arm raise

This exercise will strengthen your shoulders and arms. It should make swimming and other activities such as lifting and carrying grandchildren easier.

1. You can do this exercise while standing or sitting in a sturdy, armless chair.
2. Keep your feet flat on the floor, shoulder-width apart.
3. Hold weights at your sides at shoulder height with palms facing forward. Breathe in slowly.
4. Slowly breathe out as you raise both arms up over your head keeping your elbows slightly bent.
5. Hold the position for 1 second.
6. Breathe in as you slowly lower your arms.
7. Repeat 10–15 times.
8. Rest; then repeat 10–15 more times.
9. As you progress, use a heavier weight and alternate arms until you can lift the weight comfortably with both arms.

Front arm raise

This exercise for your shoulders can help you put things up on a shelf or take them down more easily.

1. Stand with your feet shoulder-width apart.
2. Hold weights straight down at your sides, with palms facing backward.
3. Keeping your arms straight, breathe out as you raise both arms in front of you to shoulder height.
4. Hold the position for 1 second.
5. Breathe in as you slowly lower your arms.
6. Repeat 10–15 times.
7. Rest; then repeat 10–15 more times.

As you progress, use a heavier weight and alternate arms until you can lift the weight comfortably with both arms.

Side arm raise

This exercise will strengthen your shoulders and make lifting groceries easier.

1. You can do this exercise while standing or sitting in a sturdy, armless chair.
2. Keep your feet flat on the floor, shoulder-width apart.
3. Hold hand weights straight down at your sides with palms facing inward. Breathe in slowly.

FIGURE 4-4 (Continued)

4. Slowly breathe out as you raise both arms to the side, shoulder height.
5. Hold the position for 1 second.
6. Breathe in as you slowly lower your arms.
7. Repeat 10–15 times.
8. Rest; then repeat 10–15 more times.

As you progress, use a heavier weight and alternate arms until you can lift the weight comfortably with both arms.

Arm curl

After a few weeks of doing this exercise for your upper arm muscles, lifting that gallon of milk will be much easier.

1. Stand with your feet shoulder-width apart.
2. Hold the weights straight down at your sides, palms facing forward. Breathe in slowly.
3. Breathe out as you slowly bend your elbows and lift weights toward your chest. Keep your elbows at your sides.
4. Hold the position for 1 second.
5. Breathe in as you slowly lower your arms.
6. Repeat 10–15 times.
7. Rest; then repeat 10–15 more times.

As you progress, use a heavier weight and alternate arms until you can lift the weight comfortably with both arms.

Wall push-up

These push-ups will strengthen your arms, shoulders, and chest. Try this exercise during a TV commercial break.

1. Face a wall, standing a little farther than arm's length away, feet shoulder-width apart.
2. Lean your body forward and put your palms flat against the wall at shoulder height and shoulder-width apart.
3. Slowly breathe in as you bend your elbows and lower your upper body toward the wall in a slow, controlled motion. Keep your feet flat on the floor.
4. Hold the position for 1 second.
5. Breathe out and slowly push yourself back until your arms are straight.
6. Repeat 10–15 times.
7. Rest; then repeat 10–15 more times.

FIGURE 4-4 (Continued)

Elbow extension

This exercise will strengthen your upper arms. If your shoulders aren't flexible enough to do this exercise, try the chair dip.

1. You can do this exercise while standing or sitting in a sturdy, armless chair.
2. Keep your feet flat on the floor, shoulder-width apart.
3. Hold a weight in one hand with palm facing inward. Raise that arm toward the ceiling.
4. Support this arm below your elbow with your other hand. Breathe in slowly.
5. Slowly bend your raised arm at the elbow and bring the weight toward your shoulder.
6. Hold position for 1 second.
7. Breathe out and slowly straighten your arm over your head. Be careful not to lock your elbow.
8. Repeat 10–15 times.
9. Repeat 10–15 times with the other arm.
10. Repeat 10–15 more times with each arm.

If it's difficult for you to hold hand weights, try using wrist weights.

Chair dip

This pushing motion will strengthen your arm muscles even if you are not able to lift yourself up off the chair.

1. Sit in a sturdy chair with armrests with your feet flat on the floor, shoulder-width apart.
2. Lean slightly forward; keep your back and shoulders straight.
3. Grasp the arms of the chair with your hands next to you. Breathe in slowly.
4. Breathe out and use your arms to push your body slowly off the chair.
5. Hold the position for 1 second.
6. Breathe in as you slowly lower yourself back down.
7. Repeat 10–15 times.
8. Rest; then repeat 10–15 more times.

Back leg raise

This exercise strengthens your buttocks and lower back.

1. Stand behind a sturdy chair, holding on for balance. Breathe in slowly.
2. Breathe out and slowly lift one leg straight back without bending your knee or pointing your toes. Try not to lean forward. The leg you are standing on should be slightly bent.
3. Hold the position for 1 second.
4. Breathe in as you slowly lower your leg.

FIGURE 4-4 (Continued)

5. Repeat 10–15 times.
6. Repeat 10–15 times with the other leg.
7. Repeat 10–15 more times with each leg.

As you progress, you may want to add ankle weights.

Side leg raise

This exercise strengthens hips, thighs, and buttocks.

1. Stand behind a sturdy chair with your feet slightly apart, holding on for balance. Breathe in slowly.
2. Breathe out and slowly lift one leg out to the side. Keep your back straight and your toes facing forward. The leg you are standing on should be slightly bent.
3. Hold the position for 1 second.
4. Breathe in as you slowly lower your leg.
5. Repeat 10–15 times.
6. Repeat 10–15 times with the other leg.
7. Repeat 10–15 more times with each leg.

As you progress, you may want to add ankle weights.

Knee curl

Walking and climbing stairs are easier when you do both the knee curl and leg straightening exercises.

1. Stand behind a sturdy chair, holding on for balance. Lift one leg straight back without bending your knee or pointing your toes. Breathe in slowly.
2. Breathe out as you slowly bring your heel up toward your buttocks as far as possible. Bend only from your knee, and keep your hips still. The leg you are standing on should be slightly bent.
3. Hold the position for 1 second.
4. Breathe in as you slowly lower your foot to the floor.
5. Repeat 10–15 times.
6. Repeat 10–15 times with the other leg.
7. Repeat 10–15 more times with each leg.

As you progress, you may want to add ankle weights.

Leg straightening

This exercise strengthens your thighs and may reduce symptoms of arthritis of the knee.

1. Sit in a sturdy chair with your back supported by the chair. Only the balls of your feet and your toes should rest on the floor. Put a rolled bath towel at the edge of the chair under thighs for support. Breathe in slowly.

FIGURE 4-4 (Continued)

2. Breathe out and slowly extend one leg in front of you as straight as possible, but don't lock your knee.
3. Flex your foot to point your toes toward the ceiling. Hold the position for 1 second.
4. Breathe in as you slowly lower leg back down.
5. Repeat 10–15 times.
6. Repeat 10–15 times with the other leg.
7. Repeat 10–15 more times with each leg.

As you progress, you may want to add ankle weights.

Chair stand

This exercise, which strengthens your abdomen and thighs, will make it easier to get in and out of the car. If you have knee or back problems, talk with your doctor before trying this exercise.

1. Sit toward the front of a sturdy, armless chair with your knees bent and your feet flat on the floor, shoulder-width apart.
2. Lean back with your hands crossed over your chest. Keep your back and shoulders straight throughout the exercise. Breathe in slowly.
3. Breathe out and bring your upper body forward until sitting upright.
4. Extend your arms so they are parallel to the floor and slowly stand up.
5. Breathe in as you slowly sit down.
6. Repeat 10–15 times.
7. Rest; then repeat 10–15 more times.

People with back problems should start the exercise from the sitting upright position.

Toe stand

This exercise will help make walking easier by strengthening your calves and ankles, and as you progress, the exercise will help your balance.

1. Stand behind a sturdy chair, feet shoulder-width apart, holding on for balance. Breathe in slowly.
2. Breathe out and slowly stand on your tiptoes, as high as possible.
3. Hold the position for 1 second.
4. Breathe in as you slowly lower your heels to the floor.
5. Repeat 10–15 times.
6. Rest; then repeat 10–15 more times.

As you progress, try doing the exercise standing on one leg at a time for a total of 10–15 times on each leg.

FIGURE 4-4 (Continued)

Topic Area: Sexually Transmitted Diseases

The earlier discussion of HIV/AIDS touched upon a number of issues relevant here. Promotion of safe sex tactics and education of clients about the prevalence of STDs are key points to risk reduction. Many STDs will be unfamiliar to clients at risk for them, including pelvic inflammatory disease and congenital syphilis. Reduction of *Chlamydia*, gonorrhea, syphilis, genital herpes, and human papillomavirus infection are specific goals of the Healthy People 2020 initiative.

Topic Area: Substance Abuse

Substance abuse is a large and complex topic. Use of alcohol and illicit drugs and misuse of legally or illegally obtained prescription medications are all encompassed in this category. Individuals may have an addiction problem, or they may use drugs recreationally without awareness of the health impacts. Adolescent drug use may impair brain development (Winters, 2008). Health can be directly affected by conditions brought on by substance abuse, including liver damage, overdose, neurologic damage related to drug–drug and drug–alcohol interactions, withdrawal symptoms, and drug-related deaths. Indirect health effects include risks associated with driving while intoxicated (or riding with an intoxicated driver); transmission of HIV, hepatitis C virus, and other infectious diseases by intravenous drug users who share needles; vulnerability to violence while obtaining or using drugs; and heightened risk of sexual assault for intoxicated individuals. Drug or alcohol use may also significantly affect a client's ability to make changes or engage in health promotion activities related to other health issues. Addressing addiction problems is one key factor in helping the client move to greater health and wellness.

The objectives of Healthy People 2020 pertaining to substance abuse include:

- Increasing the number of those who need alcohol/drug treatment who actually receive treatment
- Increasing the number of those who are referred for follow-up care for alcohol problems, drug problems after diagnosis, or treatment for one of these conditions in a hospital emergency department
- Decreasing the number of adults who drank excessively in the previous 30 days
- Reducing nonmedical use of prescription drugs
- Reducing the rate of impaired driving

Topic Area: Tobacco Use

Tobacco use (cigarettes, cigars, and chewing and pipe tobacco) has become widely known as a major risk factor for a wide range of health concerns, most

particularly lung and oral cancers. Nevertheless, it continues to be widespread despite high-profile antismoking campaigns. Familial and peer behaviors tend to be strong influencing factors in an individual's decision to take up smoking, whether the addictive nature of tobacco (and the related health concerns) are known or not (Giovino, Henningfield, Tomar, Escobedo, & Slade, 1995; Kennedy, Tucker, Pollard, Go, & Green, 2011). Some of the same factors that motivate people to start can also motivate them to quit tobacco use, particularly when coupled with concern for health and sociocultural factors favoring nonsmoking (Bowen & Kurz, 2011).

Smoking cessation is difficult. Particularly in women, concerns about weight gain, nicotine cravings, irritability, insomnia, anxiety, and depression are frequently expressed or used as a rationale for not quitting (Allen, Allen, & Pomerleau, 2009; Perkins 2001; Perkins, Levine, Marcus, & Shiffman, 1997). Smokers who have attempted to quit and failed previously may be discouraged by past failure and reluctant to try again, not realizing that a majority of those who quit successfully usually must fail at least once, if not multiple times, before succeeding (American Lung Association, 2009). Using motivational interviewing (discussed earlier in this chapter) may be helpful, and **FIGURE 4-5** provides some tips for helping clients quit smoking.

1. Keep a notebook of current and past successes. Use the list as a reminder of your ability to succeed in new ventures.
2. Identify a personal reason for quitting, not something the client should do because it's bad for him or her.
3. Make a list of things that are personally pleasurable. Choose one as a reward (instead of a cigarette) when you are feeling uncomfortable or bored.
4. Make a list of reasons you began smoking and compare that with a list of current reasons for smoking.
5. Write down all the missed opportunities that you regret; choose one that is reachable and take action on it.
6. Keep a log of each cigarette lit, including purpose (to get up, get to work, to relax, to appear calm, to celebrate, to quell hunger, after sex, after eating, etc.), focus on smoking the cigarette and the sensations that occur during and after smoking.
7. Write a list of stress enhancers. Learn structure relaxation and stress reduction approaches or buy a stress reduction tape and listen to it at least twice a day (when you get up and when you go to bed) to deal with each stressor.

FIGURE 4-5 Quitting Smoking *(continues)*

8. When using cigarettes as an energizer, substitute six small high-protein meals, sufficient sleep, a glass of milk, a piece of fresh fruit, fruit or vegetable juice, exercise, or movement, or dance or listen to a relaxation CD.
9. End all meals with foods not associated with smoking; e.g., a glass of milk or half a grapefruit rather than a cup of coffee or a drink.
10. Switch to noncaffeinated coffee or a cereal beverage by mixing caffeinated coffee with either one and then gradually over a week or two, adding more decaffeinated beverage.
11. Eat a couple of sunflower seeds or chew licorice instead of having a cigarette.
12. Eat more foods that leave the body alkaline and reduce the urge to smoke, such as vegetables, seeds, and fruits.
13. Use affirmations, such as "I no longer smoke," "I can quit," "It's getting easier and easier to quit smoking," or "It's getting easier and easier to think about quitting smoking."
14. Use deep breathing (from the abdomen) when the urge for a cigarette occurs.
15. Work with a peer who can be called for positive feedback when the urge for a cigarette occurs. Ask that person to say the affirmations in No. 13 to you over and over until you believe them.
16. Stay away from friends who smoke and from places where people smoke.
17. Buy different brands of cigarettes and avoid smoking two packs of the same brand in a row.
18. Buy cigarettes only by the pack, not by the carton.
19. Smoke with the opposite hand from the one you usually use.
20. Brush your teeth right after eating.
21. Put your cigarettes in unfamiliar places.
22. Every time you reach for a cigarette, ask, "Do I really want this cigarette?" "Do I really need a cigarette?" "What can I do instead of smoking this cigarette?"
23. Develop and practice responses to peer pressure to smoke, including comments such as, "Come on, one won't hurt," "Smoking makes you independent, like an adult," "Here, have one," "Are you a sissy?"
24. Take an assertiveness course online or at a community center to develop the skill of saying, "No!"
25. Tell six people, "I quit smoking, and it was easy."

FIGURE 4-5 (Continued)

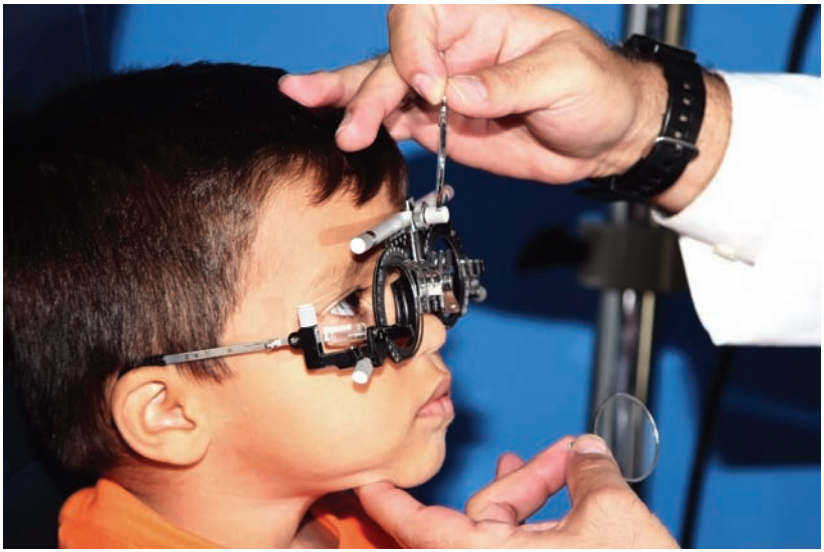
26. Ask friends and coworkers not to leave cigarettes around or offer them to you.
27. When the urge to smoke occurs, picture the word *STOP* in big red letters.
28. Ask for a hug instead of having a cigarette.
29. Choose a moment to quit smoking when peak mental or physical performance is not expected.
30. Write and sign a contract with a trusted person so continuing to smoke will prove embarrassing or will result in great loss.
31. Read articles and books by people who have successfully quit smoking or helped others to do so.
32. To prevent weight gain, switch to low-fat foods, and eat fresh fruit or a handful of raw nuts or a tablespoon of peanut butter for snacks.
33. When feeling depressed, talk with people who have successfully quit smoking and ask for information about why they are glad they quit.
34. Chew gum or suck on xylitol-sweetened mints to quell the urge to smoke.
35. Go to the morgue and look at someone who died from lung cancer.
36. Talk to someone in the hospital who has incurable lung cancer about the course of the disease; get to know what that individual is like as a person.

FIGURE 4-5 (Continued)

Topic Area: Vision

The final topic area is vision, with objectives in *Healthy People 2020* focusing on increasing the percentage of individuals who receive comprehensive vision screening, reducing blindness and visual impairment in children 17 and under, reducing occupational eye injuries by increasing the use of personal protective eyewear in recreational and home activities, and increasing vision rehabilitation. Other objectives seek reduction in uncorrected visual impairment due to refractive error and in visual impairment overall.

Many of these objectives are related to the need for regular eye care—something many people who do not require corrective lenses often do not get. While those who wear corrective contact lenses must get a vision exam in order to receive a prescription, individuals who choose glasses can go years without follow-up examinations, which can result in incorrect prescriptions if they continue to have eye changes but do not receive new lenses. But eye exams are not simply about making sure a nearsighted or farsighted person gets corrective lenses—they are also opportunities to detect conditions such as macular



degeneration, glaucoma, cataracts, or retinopathies that offer an acute threat to vision. Individuals who do not receive regular care may be at risk of these disorders without realizing it. Educating and encouraging clients to visit an optometrist annually are primary factors in promotion of vision health.

Summary

Good physical health can be defined in accordance with the correct functioning of organs and tissues as well as the ability of individuals to support this functioning. When promoting physical health, promote client engagement in identifying and developing health goals and respect client input.

Key questions you should answer to help a client create a physical health plan are:

1. What are the client's key health issues?
2. What knowledge or understanding is needed to help improve client health?
3. What is the client's capacity to learn or accept new ideas, habits, or methods for self-management of health?
4. How motivated is the client to make changes for health promotion, and if motivation is absent or low, how can it be increased?
5. What forms of family and social support are available to the client to aid in health promotion activities?
6. What are the client's health goals?

Identify factors that limit an individual's ability to maintain health so that obstacles to health promotion planning can be addressed. Such obstacles include lack of information, incorrect information, or lack of concern regarding the health condition being addressed; strong emotions about the diagnosis; experiencing or believing stigmas and stereotypes about the disease; physical inability to make necessary changes; psychological or cultural barriers to making necessary changes; low or absent motivation to make needed changes; lack of familial/social support for making needed changes; and reluctance to engage in developing and implementing a health promotion plan. Use motivational interviewing to help clients succeed with their health goals.

The Healthy People 2020 initiative identifies a number of areas of concern for health promotion efforts, including:

- Access to health services
- Adolescent health
- Arthritis, osteoporosis, and chronic back conditions
- Blood disorders and blood safety
- Cancer
- Chronic kidney disease
- Diabetes
- Disability and secondary conditions
- Early and middle childhood
- Environmental health
- Family planning
- Food safety
- Genomics
- Hearing and communication disorders
- Heart disease and stroke
- HIV
- Immunization and infectious diseases
- Injury and violence prevention
- Maternal and infant health
- Mental health disorders (physical impacts)
- Nutrition and weight status
- Older adults
- Oral health
- Physical activity and fitness
- Sexually transmitted diseases
- Substance abuse
- Tobacco use
- Vision

REVIEW QUESTIONS

1. Health disparities are
   a. Adverse effects on groups of people who have significantly greater obstacles for health than the general population
   b. The results of specific activities or outcomes to be achieved over a stated period of time; they are specific, measurable, and realistic
   c. Campaigns and services that promote individual and community health
2. Objectives are
   a. Adverse effects on groups of people who have significantly greater obstacles for health than the general population
   b. The results of specific activities or outcomes to be achieved over a stated period of time; they are specific, measurable, and realistic
   c. Campaigns and services that promote individual and community health
3. Health is
   a. An approach that covers measures not only to prevent occurrence of disease, but also to arrest its progress
   b. A condition of well-being, free of disease or infirmity, and a basic human right
   c. Alternatives ranked according to feasibility, value, and/or importance
4. One of the new topic areas for Healthy People 2020 is
   a. HIV
   b. Family planning
   c. Genomics
5. All of the following are overarching goals of Healthy People 2020 except
   a. Attain high quality, longer lives free of preventable disease, disability, injury, and premature death
   b. Create social and physical environments that promote good health for all
   c. Achieve access to preventive services for all Americans
6. Concepts included in the Healthy People 2010 conceptual map include
   a. Biology
   b. Physical environment
   c. Policies and interventions
   d. All of the above

EXERCISES

1. Conduct a literature review on the relationship between social support and health. Summarize what you find in a brief paper.
2. Contact the health department in your county and the local hospital about the types and incidence of healthcare-related infections. Present this information to your class.
3. Visit your local blood bank and ask them about input into the *Healthy People 2020* document. Summarize the current issues of concern for blood banks.
4. Select a focus area of the *Healthy People 2020* document that you are especially interested in. Investigate the progress in refining of objectives which has occurred for this area.

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