Chapter 2
Personal Health Prescription

“Personal Touch”

The personal health prescription is an opportunity for the individual to do something about his/her health. A health prescription is composed of health assessments results, health strategies, and the utilization of relevant resources. It is called a personal health prescription when designed by the very person who intends to promote his/her healthy behavior and improve overall health status. The HEAL 370 student should think of it as a health prescription with a “personal touch.” After the individual self-assesses personal health status and considers its determinants, he/she designs strategies for change. All the while the person will rely on available health resources in order to make the changes. Now let’s revisit the composite of the health prescription--but one with a “personal touch.”

![Figure 2.1: Health prescription model - prescription emphasized](image)

Personal Health Assessment

The first part of a personal health prescription is the health assessment. The health assessment is an attempt to determine all or some aspect of ones personal health status. In doing so, the individual should be able to identify determinants or contributory factors to ones state of health. If those determinants lean toward riskiness, exert of negative influence on health, they are referred to as risk factors and risky behaviors. To begin, the individual does not necessarily have to rely on a formal assessment to determine personal health status. Intuitively, he/she can tell when something is “not right inside.” But caution is advised during informal health status assessment since the person might not use the same assessment criteria as other people when performing the health assessment. So the individual might think he/she is okay because of his/her physical state of health. However, other people taking the same health assessment might think they’re in fine shape simply because of their emotional state. So if assessment criteria differ according to the person conducting the assessment, certain measurement difficulties would undermine health prescription efforts. In other words, “How can an individual try to improve personal health status if he/she is not sure if the measurement of health is accurate and dependable?” The answer is to rely on formal health assessments. Formal assessments contain a balance of subjective measurements, usually self-reported health practices, and objective measurements, usually results from health screenings. Related to assessments is a health screening, a clinical assessment of some aspect of personal physical health (e.g., blood chemistries and imagining scans) (Ware and Dewey, 2000).

An example of a formal health assessment that balances objective and subjective measures is the health risk appraisal. Its purpose is to ascertain health status while also identifying risk factors needing reduction and risky behaviors needing change. The personal health prescription project in HEAL 370 (see chapter 1) relies on the LifeScan® health risk appraisal to specify the risk factors and behaviors in need of personal attention.
A factor is an influence on the formulation and expression of health behavioral components. A related term is determinant, which would be any factor, whether event, characteristic, or other definable entity, that brings about change in a health condition, or in other defined characteristics (Last, 1989). Therefore, a determinant exhibits greater influence on health than a factor. Several determinants (or determinant factors) influence a person’s health-related behavior. Psychological factors involve internal and external sources of influence on individual thinking and behaving. These factors could affect how a person learns, what he/she believe, and how he/she is inclined to act. Sociological factors would be person-made features of the social environment that are experienced by groups of persons in the forms of expectations and acceptances. Examples of sociological factors are: a group’s generally accepted way or standard of living, a group’s expectations of member behavior, and a group’s behavior while spectating. Physical factors pertain to the conditions of bodily structure and function. Obviously, a person’s physical shape and its operations have weighted influences on his/her behavior.

There are other determinants of risky behaviors. Spiritual factors consist of the two dynamics of transcendence and interconnectedness. Meaning, spiritual behavior is a matter of how a person relates to a higher power or greater good (e.g., God) as well as how he/she relates to those who living around him/her. Environmental factors would be conditions in a person’s surroundings be them land, air, water or space. Heredity factors would involve chemical instructions within an individual’s genetic material that inadvertently cause or contribute to state of health. Some behaviors might appear to be the direct result of heredity but more likely a person might have inherited tendency to behave in certain ways and other factors combine with heredity influence behavior manifestation.

Interacting Determinant Factors

To say that factors act as determinants of health implies that each factor individually influences the state of health. Actually, the factors operate in respective systems of interacting components that strive toward balance. The systems are arranged hierarchically, and it is the combined influence of component interaction and system integration that exert noticeable influence on individual, group and global health. This notion is encompassed in eco-epidemiology, a model used on epidemiology which considers molecular, individual, organizational, and societal causes to disease or other departures from health (Susser and Susser, 1996).

Think of a determinant as being a neutral factor, potentially having either a positive or negative influence on health. When a determinant has a negative effect Those factors that not only influence behavior but pose statistically significant risk to health are known as risk factors. A risk factor is something that increases a person’s chance of developing a disease. Remember from the previous chapter, it is considered an internal or external influence that increases the possibility of illness or death. A risk factor can be a condition of the human self such as age or gender. Likewise it can be physical feature such as body dimension. Risk factors can be unhealthy conditions such elevated cholesterol levels or high blood pressure that have developed from a consequence of risky behaviors. A risky behavior is an unhealthy action of a person that increases the possibility of illness or death. Sometimes it is hard to distinguish a risk factor from a risky behavior. For clarity, the professional literature has identified common risk factors and risky behaviors to the leading causes of death (Healthy People 2010, 2000) (see table 2.1).

Some risk factors are a matter of heredity and the best that can be done is trying not to amplify their influence on personal health. For example, there’s not much an individual can do about his/her age, gender or race. Lifewise, family health history is not modifiable but a person
can reduce its influence. However, other risk factors are subject to modification. An individual can undertake strategies to change body size, regulate blood pressure and manage blood pressure. In fact these risk factors are directly tied to risky behaviors. Upon reviewing common risky behaviors (see Table 2.1), it is evident that all could be changed: quitting smoking, safer practices, eating nutritiously, being more physically active, etc.

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Risky Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Tobacco involvement</td>
</tr>
<tr>
<td>Age</td>
<td>Alcohol overuse</td>
</tr>
<tr>
<td>Race/origin</td>
<td>Drinking and driving</td>
</tr>
<tr>
<td>Height and weight</td>
<td>Unsafe driving</td>
</tr>
<tr>
<td>Body frame size</td>
<td>Not self-examining</td>
</tr>
<tr>
<td>Blood pressure</td>
<td>Not having screenings</td>
</tr>
<tr>
<td>Cholesterol level</td>
<td>Physical inactivity</td>
</tr>
<tr>
<td>Having diabetes</td>
<td>Overnutrition</td>
</tr>
<tr>
<td>Diabetes in family</td>
<td>Limited leisure time</td>
</tr>
<tr>
<td>Menarche age</td>
<td>Unsafe intimacy</td>
</tr>
</tbody>
</table>

Table 2.1 Common risk factors and risky behaviors

The health risk appraisal not only identifies these risk factors and behaviors but sets out to quantify their influence or effect on personal health status in terms of expected years of life and chances of dying within the next 10 years. More this will be explained in the next chapter.

There are plenty of other health assessments that help to ascertain some aspect of personal health status. Living Well® is a perfect example. In subsequent chapters, the HEAL 370 student will see section of Living Well® that represents specific assessments of physical fitness, nutrition, physical self-care (remember, this is considered a personal health strategy), drugs and driving, social environmental health, emotional awareness and control, intellectual health, occupational health, and spiritual health. The HEAL 370 will also see links to other online health assessments in moral reasoning (an indirect measure of spiritual health), risk of serious assault, nutritional profile, physical fitness, and others. All of these health assessments including the health risk appraisal can be used in a personal health prescription.

**Personal Health Strategies**

The objective of a health strategy is to address general and specific health determinants that have been identified through assessment. Some common health strategies that can be conducted by the person are:

- **Self-learning** is becoming informed about personal health through reading, talking with family, etc. in order to change behavior. Self-learning is an interesting strategy because essentially an individual selects a source of interesting and relevant information about his/her health. This information can be communicated via acquaintances (e.g., friend’s advice), the common media (e.g., newspapers), or professionals (e.g., health announcements). Following, the information is used during learning with eventual application to personal health behavior. In self-learning, the challenge is to seek, secure, and put to use health beneficial information. It is not so much that the individual obtains needed information as it is that the data are incorporated into a learning process (i.e., gains in knowledge, re-examination of beliefs and attitudes, etc.). Remember, as a person self-learns, there are corresponding efforts by professional to reach him/her through health communication.

- **Self-regulation** is using the body as a monitoring device for personal state of health as well as any effort to try to change that state of health. Self-monitoring is an intriguing personal
health strategy because it starts when a person detects “something is not right” physically. Accordingly, as the person tries to correct the way he/she feels physically the body can provide feedback. So self-monitoring is relying on the body as a gauge of any success toward improved personal health. In order for this strategy to work, a person must become educated about how his/her body works and what types of activities and influences can affect the body positively. It should be added that self-regulation is applicable to mental conditions as well. A person is able to describe, in part, his/her mental state by using physical signs and symptoms such as in the case of stress. As a person self-relates, he/she can be receptive to professional health education and promotion activities.

- **Self-management** is modifying selected personal behaviors in order to improve health. This personal health strategy can be formalized through such processes as behavioral modification. Many time, however, a person identifies a target behavior in need of change and commits him/herself to making the change. During the process, he/she realizes the factors that reinforce the positive change in behavior. Self-management is a strong strategy for promoting the health of the individual. It is apt to be used when a health problem or concern has arisen (e.g., smoking), and the individual is trying to “break the habit.”

- **Self-care** as a personal health strategy comes into play when the person realizes the importance of being involved in the early detection and treatment of personal health problems. Sometimes called medical self-care, the individual has to decide whether to self-assess or consult with a health professional. Likewise, he/she has to decide whether to self-treat or be counseled and treated by a health professional.

- **Self-help** is an important personal health strategy for a person who is recovering from a health concern or condition. He/she follows a stepwise procedure for addressing the concern and in the process shares personal experiences with other persons having a similar concern. Many time self-help is performed by persons recovering from behavioral health problems but it is also an effective strategy for other conditions that are in need of professional health care.

These strategies operate on health behavior theory. To understand how risky behavior can be changed to healthy behavior, the HEAL 370 student should be familiar with these common theories:

- **Educational Theory.** This theory explains how learning experiences influence behavioral components. So cognitive or “knowing” experiences influence our awareness and knowledge, affective or “feeling” experiences influence our beliefs and attitudes, and psychomotor or “doing” experiences influence our intentions and practices. This theory underpins the self-learning and self-regulation strategies.

- **Stimulus-Response Theory.** According to this theory, behavior is formed and changed as a response to a given stimulus. If we are repeatedly exposed to positive (encourages the behavior) or negative (discourages the behavior) stimuli, the result is a conditioned behavior. Stimulus-response theory is fundamental to the behavioral modification which is the formal version of the self-management strategy.

- **Health Belief Model.** This theory focuses on the belief component of behavior. So if a person believes he/she is vulnerable to threat posed by a risky behavior, and has weighed the pros and cons of changing the risky behavior, all that is needed is a cue to action. This model is relevant to self-regulation and self-care strategies.

- **Self-Efficacy Theory.** This theory posits that we can adopt a healthy behavior if we realize two conditions: (1) the behavior can result in a healthy outcome and (2) we are capable of performing the behavior. This theory is significant to self-management and self-care strategies.

- **Reasoned Action/Planned Behavior.** This theory describes behavior as the result of our
attitude toward the behavior as well as how others regard the same behavior. If we believe we can control the behavior, this should lead to our intent to behave accordingly. This theory is significant to self-management and self-care strategies.

- **Stages of Change Theory.** This theory presents the stages through which a person progresses toward behavioral change. At each stage there are respective self-learning, self-regulation, self-management, self-care and self-help strategies (McKenzie and Smeltzer, 2001).

### Personal Health Resources

While applying a health strategy, an individual might realize he/she needs additional resources from health promotion and disease prevention professionals. This would be information, services, and materials the person can use to change risky behaviors to healthy behaviors. With the personal health prescription, the individual takes it upon him/herself to seek, identify, secure and utilize resources from either the professional community or internet communities (studied in Chapter 5). This differs from the professional health prescription within which a health professional directs or supervises the selection and utilization of health resources (introduced in Chapter 7).

There are ways to judge or evaluate the reputability and utility of a selected health resource. Is the resource based on established research (e.g., professional literature, university based research centers, etc.)? The individual would need to answer the following questions. Is the resource acknowledged by reputable experts in the field? Has the resource been screened and approved by credentialed professionals? Is the resource recognized by professional associations and organizations?

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**Chapter Resources**

At the end of this chapter are web-based resources the HEAL 370 student could use while designing and implementing a personal health prescription. For instance, the Centers for Disease Control and Prevention (www.cdc.gov/) offers links to all of this federal agencies functions and services including access to resource information on various diseases. Dr. Everett Koop’s website (www.drkoop.com) is a privately operated by the former US Surgeon General has presents links to various health resources including health news, tests and assessments tools, and health information on specific topics, and a health encyclopedia. Healthy People 2010 (www.health.gov/healthypeople/) represents our Nation’s health policy in terms of reaching health goals and objectives by the year 2010. The University of Wisconsin at Stevens Point, Wellness Services (wellness.uwsp.edu/Health_Service/Services/stress.shtml) not only offers an online health risk appraisal and general wellness assessment, but also makes available a stress profile.

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### Improving Health Status

An effective personal health prescription should result in an improved health status. To ascertain if the personal health prescription was effective in improving health status, the individual would retake the health assessment. He/she is trying to see if there is a reduction in health risk, which is commonly measured through the health risk appraisal. He/she would also like to see an increase in overall well-being, which is commonly measured through quality of life assessments. Last, the person would like to see gains in functionality, which are also measured through quality of life assessments as well as through health status surveys.
Mini-Prescription for Fit Feet

If a HEAL 370 student wanted to improve his/her foot fitness, the following personal health prescription could be designed:

Health Assessment
The HEAL 370 student should visit the Foot Health Foundation of America’s website and complete the self-assessment quiz, How Fit Are Your Feet? [http://www.apma.org/selfassess.html](http://www.apma.org/selfassess.html)

(By the way there are other self-assessments on sore heels and arthritis at this site as well.)
The 12-item self assessment quiz will give you an idea of just how healthy your feet and ankles are. Given the fact that you stand at least four hours daily, you probably do not think much about your feet until they get sore. What is important to remember is that every day wear and tear can aggravate many foot and ankle problems, from bunions and heel pain to arthritis and shin splints. Foot and ankle health is important to overall health, well-being and mobility, and plays a major role in the pursuit of fitness.

Complete the quiz, add up your score and interpret your results in one of three categories: congratulations, pay attention, and caution! While doing so, see if you can spot risk factors (e.g., age, medical conditions) and risky behaviors (e.g., hours standings, footwear) to unfit feet and ankles. Try to speculate why they factors and behaviors exist -- the determinants of unfit lower extremities!

Health Strategies

The next step is to select and implement one or more appropriate personal health strategies for improving your foot/ankle fitness:

• **Self-learning** as a strategy relies on reading, talking with family, seeking information from professional sources, etc. This strategy puts you in direct connect with available health resources (see section below on Health Resources) on foot health and fitness. If the information is from a lay source (e.g., friends) be sure to compare and contrast it with information from a professional source. Still, it could be useful information in trying to reduce the influence of risk factors and to change risky behaviors to health ones. If the information gathered and learned by you is from a professionally recognized source, then you might be combining the self-learning strategy with the self-care strategy described below. What distinguishes self-learning, though, is that the onus is on you to identify, seek, gather, process and put to use, essential information for improving your foot fitness.

• **Self-regulation** means monitoring your feet and body to control risk factors and risky behaviors to poor foot health. In essence, you would be using your body as a barometer of foot health. Objectively, if you rely on objective and subjective indicators of unfit feet to determine if you are improving your foot/ankle health. Self-regulation probably has to be preceded by some self-learning because you need to know the signs and symptoms of unfit feet (see General Foot Disorders at the website). Plus you have to become knowledge of techniques for improving the state of health of feet and ankles (see as well “Sports Medicine for Foot Health at the website). But all the while, you will continually fall back on objective and subjective indicators as ways to condition your foot fitness.

• **Self-management** is represented by behavioral modification. You would have to look at the very determinants of your “foot behavior,” the positive and negative reinforcers, and stop doing the negative, replace the negative with a positive, or add more positive reinforcers in your “foot behavior.” The assessment will give you clues, here, but you will have to “dig deeper” to identify and understand the presence of risk factors and risky behaviors. For example, if you spend a lot of time daily on your feet - - - why? Is it really necessary? Can you find some time to get off your feet? Is it a matter of habit that you stand unnecessarily? Why might you be reluctant to sit rather than stand so much?
Usually health resources provide the “dos and don’ts” of health behavior and fail to explain how to “do the dos” and “avoid the don’ts”. So it is up to you to analyze your behavior and come up with the reasons for these reinforcers and then set-out a plan to offset these influences and get back on track with healthy feet.

- **Self-care** is usually in the form of medical self-care during your would take an active part in the assessment, care and recovery from poor foot health conditions and disorders. Through self-care, you would rely directly on resources and advice gathered from professional sources. You would, in fact, use this advice as a guide in your “educated” decision-making about the state of health of your feet and what should be done to take better care of them. A big decision to make upfront is whether or not you will proceed to take matters in your own hands or to refer yourself to the appropriate podiatric source of help. Self-care is a build from the preceding strategies, especially self-learning and self-regulation, in that you have to learn more about your condition and then monitoring the objectives and subjects signs of problems. If you do refer to podiatric care, you can still rely on self-care during recovery from foot and ankle care and rehabilitation.

- **Self-help** takes the form of attending meetings with others who are concerned about their foot and ankle health and fitness. Perhaps it is a stretch in this example to envision your attending a meeting that solely represents persons with foot crises in their lives. Still, self-help can be used as an effective strategy for addressing determinants, risk factors and risky behaviors affecting foot health. For example, perhaps the explanation of the foot disorder is congenital (e.g., born with a tendency toward arthritis, hammertoes, bunions). Although you could rely on other health strategies to improve your condition, in the process, what will you do regarding the distress caused by your disorder? To better accept your condition and the limitations its imposes of daily life activities, you could self-help yourself. That is, you could be in contact with others who possess similar conditions and restrictions and share your experiences. It is comforting to know that there are other who might be experiencing the same kind of distress that characterizes your condition. You might even learn how to better accommodate and contend with any limitations that accompany your foot disorder. In its truest format, self-help comprises step-work or graduated efforts at admitting to personal crisis and need for help, atoning for past misgivings, and striving toward personal goal achievement while helping others do likewise.

**Health Resources**
A good professional source of information, advice and referral to care is the American Podiatric Medical Association
http://www.apma.org/

**Health Status Improvement**
One way to check and see if your health status, more specially, your ankle and feet fitness, has improved is by readministering the self-assessment, How Fit Are Your Feet? You can also rely on professional screenings by a podiatrist as well as completing various functional assessments related to your ability to perform essential daily life activities requiring feet action.

**Summary**
In this chapter the HEAL 370 student learned about the personal health prescription which is meant to promote healthy behavior and improve health status. The personal health prescription is designed by an individual who want to make these changes. The prescription comprises personal health assessment results, strategies for change, and necessary resources. The health assessment identifies risk factors and behavior as well as provides a baseline assessment of the personal health status. Health strategies are used to reduce risk factors and change risky...
behaviors. Behavioral change must consider psycho-socio-physio determinants or factors. All the while, the person would utilize resources from the community and internet. To determine the success of the personal health prescription, the health assessment would be readministered to ascertain if their has been the promotion of health behavior and the improvement of health status. To better understand health behavior promotion we rely on theory. To ascertain health status improvement, we can measure health risk reduction, quality of life increases, and functionality gains.

References


Chapter Review

1. What is a personal health prescription and what makes it up?
2. What is a personal health assessment? What does it try to determining? What does it try to identify?
3. Can you distinguish between a factor, a risk factors, and a risky behavior? Can you provide examples?
4. What are the objectives of a personal health strategy? What are some commonly applied health strategies that can be conducted by the person? Can you describe them?
5. Can you explain how psychological, sociological, physical, spiritual, environmental, and heredity factors act as determinants of risky behaviors?
6. To understand how health behavior is promoted, we rely on which theories? Can you identify common used theories for prompting healthy behavior? Can you connect these theories to their respective personal health strategies?
7. To ascertain health status improvement, what do we measure?
8. If given an example of a personal health prescription for foot health and fitness, could you identify the parts of the prescription?
9. Can you identify examples of risk factors and risky behaviors that are being measured in the Chapter Activity - Living Well® - Physical Fitness?
10. Do you know definitions of terms in italicized print?

Website Resources

Centers for Disease Control and Prevention
http://www.cdc.gov/
Dr. Everett Koop’s website:
http://www.drkoop.com
Healthy People 2010
http://www.health.gov/healthypeople/
University of Wisconsin at Stevens Point, Wellness Services
http://wellness.uwsp.edu/Health_Service/Services/stress.shtml
Chapter Activity
Living Well® - Physical Fitness

As a part of the Personal Health Prescription project, each HEAL 370 student is expected to complete the Living Well® health assessment. Here is the first section of that health assessment,

Directions: Review each of the following ten items from the Physical Health section of Living Well® and then answer these questions:

- Did your response to any of the following items represent a risk factor or risky behavior? If yes, can you identify psycho-socio-physio determinants to these risk factors/risky behaviors?
- If you wanted to reduce the influence of any risk factor or change a risky behavior to a healthy behavior, which personal health strategy would you use: self-learning, self-regulation, self-management, self-care or self-help? Why? Please describe.
- Can you identify any personal health resources to help you while implementing your personal health strategy?

1. I exercise aerobically (continuous, vigorous exercise producing sweat for a minimum of thirty minutes) at least _____ per week.

2. My resting pulse rate is _____ beats per minute.

3. I avoid the extremes of too much or too little exercise.
4. I approach exercise in a relaxed manner.
5. I increase my exercise by walking or biking whenever possible.
6. I stretch before exercising.
7. I stretch after exercising.
8. I get an adequate amount of sleep.
9. My exercise program includes and adequate amount of each of the three major fitness components—endurance, strength and flexibility.
10. If I am not in shape, I avoid sporadic (once a week or less) strenuous exercise.