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## Social Environment

### Heart-Healthy and Stroke-Free Living



In a broad sense, the phrase “heart-healthy and stroke-free living” includes the entire content of this handbook. Our focus in this chapter will be on environmental changes that can encourage better nutrition, more physical activity, and smoking cessation. Specifically, we will focus on 1) food environments, 2) recreational environments, and 3) smoke-free environments.

First, we briefly explain the importance of considering geographic scale while assessing heart-healthy and stroke-free living. We then briefly review the contribution of food environments, recreational environments, and smoke-free environments to creating heart-healthy and stroke-free communities. Second, we list important questions about heart-healthy and stroke-free living that you can investigate in your community. These questions are organized into three tables on pages 34–36.

Next, we offer three sample worksheets to help you get started. The worksheets provide recommendations about practical methods, space for you to record your findings, and a summary table with space for you to record the assets, strengths, needs, and challenges your community faces. Identical blank worksheets that can be photocopied are on pages 83–85.

Finally, a sample community assessment of heart-healthy stroke-free living environments is included here. You will be able to see how we applied various practical methods to gather useful community information, and how we recorded and summarized the information we learned on the forms. Sample worksheets are on pages 37–39.

### **Why Consider Geographic Scale?**

Geographic scale, in the context of health promotion, refers to the specific spaces in which human activities occur. Some common examples of scales include

*Remember*  
*Geographic scale refers to the specific spaces in which human activities occur. Some common examples of scales include household, neighborhood, city, county, state, and nation.*

*household, neighborhood, city, county, state, and nation.* Small-scale environments include the household, school, workplace, and neighborhood. Intermediate-scale environments include towns, cities, and counties. Large-scale social environments include states, regions, nations, and global regions. The social environment influences human health at multiple geographic scales at the same time. Moreover, these multiple influences may be mutually contradictory. Therefore, it is very important to evaluate the influence of the social environment at multiple scales before planning and implementing new programs and policies.

For example, a family may have created healthy food, recreation, and smoke-free environments at the level of their own household. Similar positive influences at the level of the neighborhood and city may also exist. But if, at the scale of the school or worksite, the social environmental influences on health are negative, the positive influences present at other scales will have reduced impact. Similarly, a regional or national marketing campaign to sell cigarettes or high-fat snack foods has the potential to diminish the positive influences of smaller-scale social environments.

### **Physical Activity and Recreational Environments**

Regular moderate to vigorous physical activity can help prevent heart disease and stroke in several ways. First, inadequate physical activity is an independent risk factor for development of heart disease and stroke. Second, regular physical activity, combined with a heart-healthy diet, is very important in preventing overweight, obesity, high blood pressure, and diabetes. Third, for people who already suffer from high blood pressure, obesity, or diabetes, regular physical activity appears to lessen the negative health consequences of these conditions. Especially in the case of diabetes, regular physical activity can improve regulation of blood sugar and insulin and lessen the likelihood of common complications.

Unfortunately, despite the overwhelming evidence of the health benefits of regular physical activity, the majority of adults in the United States do not get enough exercise. We use the term “recreational environments” to encompass a wide range of social environmental conditions that may create barriers or opportunities for physical activity in a particular community.

Moreover, recreational environments exist at several different geographic scales. It is important to recognize and consider how these scales interact, because environmental influences at one scale may conflict with those at another. Refer to the table on page 34 for a detailed list of questions that you may consider asking about recreational environments in your local area.

### **Smoke-Free Environments**

Cigarette smoking has been scientifically well-established as an important risk factor for heart disease and stroke for many years. Cigarette smoke reduces the oxygen-carrying capacity of red blood cells and introduces numerous toxins and particulates into the bloodstream, which subsequently contribute to the development of atherosclerosis.





In recent years, the public health community has achieved tremendous progress in reducing the prevalence of cigarette smoking in the United States. However, a large number of children and adolescents still begin smoking each year. Moreover, social class and ethnic disparities in cigarette use have become more pronounced. “Smoke-free environments” encompass a wide range of social environmental conditions that create opportunities for smoke-free living. These include cultural, familial, institutional, and commercial policies and practices related to cigarette production, acquisition, and consumption.

Smoke-free environments exist at several different geographic scales. It is important to recognize and consider the ways in which these scales interact, because environmental influences at one scale may conflict with those at another. Refer to the table on page 35 for a detailed list of questions that you may

consider asking about smoke-free environments in your local area.

### **Food Environments**

A large body of scientific evidence supports the statement that a diet low in fat and sodium; moderate in calories, protein, and alcohol; high in fruits and vegetables, fiber, potassium, antioxidants, and other vitamins and minerals will help to prevent atherosclerosis, high blood pressure, and the development of heart disease and stroke. Despite this evidence, the majority of adults in the United States do not consume a heart-healthy diet every day. Numerous health education campaigns have been targeted to the public, yet the prevalence of obesity has continued to rise, and high blood pressure and high blood cholesterol continue to be significant public health problems.

We use the term “food environments” to encompass a wide range of social environmental conditions that may create barriers or opportunities for healthy diets. Food environments include cultural, familial, institutional, and commercial policies and practices for food production, acquisition, preparation, and consumption. Moreover, food environments exist at several different geographic scales. It is important to recognize and consider the ways these multiple scales may interact, because environmental influences at one scale may conflict with those at another. Refer to the table on page 36 for a detailed list of questions that you may consider asking about food environments in your local area.

## How to Use the Worksheets

We have designed a series of three worksheets to help you investigate food environments, recreational environments, and smoke-free environments in your community. These worksheets will help you to prioritize healthy-living needs that are identified by community members. Sample worksheets with data for a hypothetical community are provided on pages 37–39. The blank worksheets on pages 83–85 may be freely photocopied and distributed.

The first worksheet (see example on page 37) is the Planning Worksheet. Use this planning worksheet and the tables on pages 34–36 to help choose the most important questions for your community. Write each question in the left-hand column. Then, focus on one or more geographic scales. Next, choose one or more practical methods.

The second worksheet (see example on page 38) is the Results Worksheet, which you can use during and after your field work. Complete one Results Worksheet for each of the questions you identified on your Planning Worksheet. Write the question at the top of the worksheet. Then, for each practical method, record your findings under “Assets and Strengths” and “Needs and Challenges.”

The third worksheet (see example on page 39) is the Summary Worksheet, which you can use to summarize your findings for food environments, recreational environments, and smoke-free environments. Identify the most important strengths and challenges from your Results Worksheets and record them here.

## Further Reading

- Ambrose JA, Barua RS. The pathophysiology of cigarette smoking and cardiovascular disease: an update. *Journal of the American College of Cardiology* 2004;43:1731–1737.
- American Heart Association. *Heart and Stroke Statistical Update* Dallas, TX; 2005.
- Grundy SM, Benjamin IJ, Burke GL, Chait A, Eckel RH, Howard BV, et al. Diabetes and cardiovascular disease: a statement for healthcare professionals from the American Heart Association. *Circulation* 1999;100:1134–1146.
- Chahoud G, Aude YW, Mehta JL. Dietary recommendations in the prevention and treatment of coronary heart disease: do we have the ideal diet yet? *American Journal of Cardiology* 2004;94:1260–1267.
- Thompson PD, Buchner D, Piña IL, Balady GJ, Williams MA, Marcus BH, et al. Exercise and physical activity in the prevention and treatment of atherosclerotic cardiovascular disease. *Circulation* 2003;107:3109–3116.

<b>Geographic Scale</b>	<b>Recreational Environment Questions</b>
<b>Individual Memory</b>	What are remembered cultural and ethnic norms, values, and practices regarding physical activity and recreation? What are remembered childhood norms, values, and practices regarding physical activity and recreation?
<b>Households</b>	Is there space indoors for physical activity? Is there space outdoors for physical activity? Do household members support physical activity? Does the household budget support physical activity expenses (clothes, shoes, equipment, fees, transportation)? Does the family schedule permit time for regular physical activity and recreation?
<b>Schools</b>	Are exercise facilities available? Are exercise facilities affordable? Do class schedules allow for exercise and recreation? Are there locker room and shower facilities? Do students have a voice in available exercise resources? Do all students have the same choices? Is physical education a part of the curriculum?
<b>Worksites</b>	Are exercise facilities available? Are exercise facilities affordable? Do work schedules allow for exercise and recreation? Are there locker room and shower facilities? Do workers have a voice in available exercise resources? Do all workers have the same choices? Do working conditions produce fatigue, physical strain, or toxic exposures?
<b>Neighborhoods</b>	Are there community playgrounds? Are there outdoor recreational facilities (e.g., parks, basketball courts, tracks, pools)? Are there indoor facilities? Are facilities in good working order, well-lit, and safe? Are they public or private? Are there informal gathering places or hangouts? If so, what are they, and for whom?
<b>Towns and Cities</b>	Are urban planning and community development pedestrian-friendly? Are there special physical activity events (e.g., 5K races, awareness runs, or walks)? Are there safe, well-maintained, public spaces for recreation? What types of recreational resources are available to vulnerable populations, such as the elderly, the poor, and homeless people?
<b>Counties</b>	What are the characteristics of recreational environments in rural and remote areas of the county, outside of city limits? Are there parks in the county?
<b>States</b>	Does the state fund and support pedestrian-friendly transportation planning? Does the state fund special physical activity events (e.g., 5K races, awareness runs, or walks)?
<b>Regional Influences</b>	How do climate, location, tourism, industry, and transportation influence local recreational environments? How do pollution (air and water) and other environmental conditions influence local recreational environments?

<b>Geographic Scale</b>	<b>Smoke-Free Environment Questions</b>
<b>Individual Memory</b>	What are remembered cultural and ethnic norms, values, and practices regarding cigarette smoking and tobacco use? What are remembered childhood norms, values, and practices regarding cigarette smoking and tobacco use?
<b>Households</b>	Do household members smoke? Are children and teens discouraged from initiating tobacco use? Are household members exposed to cigarette advertising through magazines or direct mailings? Do household members support smoking cessation? Do the household budget and schedule support smoking cessation?
<b>Schools</b>	Are students permitted to smoke cigarettes either indoors or outdoors? Are schools located close to stores or vending machines where cigarettes are sold? Are students exposed to cigarette advertising through visible billboards, placards, or store signs? Are health education messages about nicotine addiction and cigarette smoking available to students of all ages? Are smoking cessation resources available to children and teens who already smoke?
<b>Worksites</b>	Are workers permitted to smoke cigarettes either indoors or outdoors? Are worksite anti-smoking policies strictly enforced? Are cigarettes sold in vending machines or stores at the worksite or in close proximity? Are workers exposed to cigarette advertising through visible billboards, placards, store signs, or magazines and other publications at the worksite? Are smoking cessation resources available?
<b>Neighborhoods</b>	Are community members exposed to cigarette advertising through billboards, placards, or store signs? Is smoking permitted indoors in businesses? Is smoking common in public areas such as parks and community centers?
<b>Towns and Cities</b>	Are there local or city taxes on cigarettes and other tobacco products? Do local or city ordinances regulate use of cigarettes and other tobacco products in public and commercial locations? Do local or city ordinances regulate advertising for cigarettes and other tobacco products? What types of smoking cessation resources are available to vulnerable populations, such as the elderly, the poor, and homeless people?
<b>Counties</b>	To what extent are smoke-free environments available in rural and remote areas of the county, outside of city limits?
<b>States</b>	What is the state tax on cigarettes and other tobacco products? What state laws and policies regulate tobacco advertising, sales, and use within the states? Does the state enforce no-sale-to-minor laws?
<b>Regional Influences</b>	How do tobacco agriculture and industry influence the availability of local smoke-free environments? How do national laws and policies influence local smoke-free environments?

<b>Geographic Scale</b>	<b>Food Environment Questions</b>
<b>Individual Memory</b>	What are remembered cultural and ethnic norms, values, and practices regarding food and eating? What are remembered childhood norms, values, and practices regarding food and eating?
<b>Households</b>	Are kitchen facilities and equipment adequate for preparation of heart-healthy meals? Do household members support heart-healthy diets? Do household budgets support the costs of a heart-healthy diet? Do family schedules permit time for regular healthy meal preparation?
<b>Schools</b>	Are heart-healthy foods available? Are healthy foods affordable? Do class schedules allow for meals? Do students have a voice in available food selections? Does the institution contract with a soft drink or fast food corporation?
<b>Worksites</b>	Are heart-healthy foods available? Are healthy foods affordable? Do work schedules allow for meals? Are there storage options for meals brought from home? Do workers have a voice in available food selections? Do all workers have the same choices? Does the institution contract with a soft drink or fast food corporation?
<b>Neighborhoods</b>	What types of restaurants are in the neighborhood and where are they located? Are there grocery stores? Where are grocery stores located? Is there a neighborhood garden? Are heart-healthy foods available in the neighborhood? Must people go outside their own neighborhoods to find heart-healthy foods? Are there ethnic food stores in the neighborhood that satisfy the local population?
<b>Towns and Cities</b>	Are grocery stores, speciality food stores, and restaurants adequate in number, quality, and availability of heart-healthy foods? What types of food and nutrition resources are available to vulnerable populations, such as the elderly, the poor, and homeless people? Are there community gardens or farmer's markets?
<b>Counties</b>	What are the characteristics of food environments in rural and remote areas of the county, outside of city limits?
<b>States</b>	Are food stamps, WIC, and other nutrition programs available and adequately funded?
<b>Regional Influences</b>	Do agricultural interests or specific food industries influence local food environments? Are food costs lower or higher than the national average? Are some types of heart-healthy food unavailable because of climate or location?



## Planning Worksheet for Heart-Healthy and Stroke-Free Living

### Choose Your Questions and Practical Methods

Use this planning worksheet and the tables on pages 34–36 to help choose the most important questions for your community. Write each question in the left-hand column. Then, focus on one or more geographic scales. Next, choose one or more practical methods. You can photocopy the blank planning worksheet on page 83.

### S A M P L E

<b>Heart-Healthy and Stroke-Free Living Questions</b>	<b>Geographic Scale</b> (circle all that apply)	<b>Practical Methods</b> (circle one or more you plan to use)	<b>Notes</b>
<p><b>Question 1:</b> <i>Are healthy foods available in schools?</i></p>	Individual memory <input checked="" type="checkbox"/> Household School Worksite Neighborhood Town or city Counties State Region	<input checked="" type="checkbox"/> Library research Internet search Newspapers <input checked="" type="checkbox"/> Direct observations Windshield surveys Photography Videography Key informant interviews	<i>Check online and in local newspapers for school menus.</i>
<p><b>Question 2:</b> <i>Are outdoor recreation facilities available?</i></p>	Individual memory Household School Worksite <input checked="" type="checkbox"/> Neighborhood <input checked="" type="checkbox"/> Town or city Counties State Region	<input checked="" type="checkbox"/> Library research <input checked="" type="checkbox"/> Internet search Newspapers Direct observations <input checked="" type="checkbox"/> Windshield surveys Photography Videography Key informant interviews	<i>Check to see where the recreational facilities are and try to determine how often they are actually used by the community.</i>
<p><b>Question 3:</b> <i>What state laws and policies regulate tobacco advertising, sales, and use within the state?</i></p>	Individual memory Household School Worksite Neighborhood Town or city Counties <input checked="" type="checkbox"/> State Region	<input checked="" type="checkbox"/> Library research <input checked="" type="checkbox"/> Internet search Newspapers Direct observations Windshield surveys Photography Videography <input checked="" type="checkbox"/> Key informant interviews	<i>Check on legislation passed at the state level.</i>

## Results Worksheet for Heart-Healthy and Stroke-Free Living Use During and After Your Fieldwork

Complete one Results Worksheet for each of your questions. Write the question at the top of the worksheet. Then, for each practical method, record your findings under “Assets and Strengths” and “Needs and Challenges.” You can photocopy the blank Results Worksheet on page 84.

### S A M P L E

<b>Question:</b> <i>What laws and policies regulate tobacco advertising, sales, and use?</i>			
<b>Practical Method</b> (circle one)	<b>Geographic Scale</b> (circle all that apply)	<b>Assets and Strengths</b>	<b>Needs and Challenges</b>
Library research Internet search Newspapers Direct observations Windshield surveys Photography Videography Key informant interviews	Individual memory Household School Worksite Neighborhood Town or city Counties State Region	<i>Local police departments update retailers regarding state controls on sale of tobacco.</i>  <i>City council seeks ban on smoking for public health reasons.</i>	<i>Certain establishments feel smoking ban is an infringement on rights.</i>  <i>Certain establishments are exempt from smoking ban.</i>
Library research Internet search Newspapers Direct observations Windshield surveys Photography Videography Key informant interviews	Individual memory Household School Worksite Neighborhood Town or city Counties State Region	<i>Laws to prohibit advertising on billboards and city buses.</i>  <i>Legislation to prevent access to tobacco by minors.</i>	<i>Courts striking down legislation to regulate tobacco as an addictive drug.</i>  <i>Minors' perception of tobacco use.</i>
Library research Internet search Newspapers Direct observations Windshield surveys Photography Videography Key informant interviews	Individual memory Household School Worksite Neighborhood Town or city Counties State Region	<i>No smoking signs on some buildings.</i>	<i>Easy access by minors to tobacco products via retail sales.</i>  <i>Tobacco retail shops located near daycare centers and schools.</i>

## Summary Worksheet for Heart-Healthy and Stroke-Free Living What Are Your Most Important Results?

Condense the findings recorded on your Results Worksheets to highlight the most important assets, strengths, needs, and challenges. Identify the most important geographic scales influencing heart-healthy living in your community. You can photocopy the blank Summary Worksheet on page 85.

### SAMPLE

Questions	Most Important Assets/Strengths	Most Important Needs/Challenges	Geographic Scales
<p><b>Food Environments</b></p> <p><i>Are heart-healthy foods available in schools?</i></p> <p><i>Do grocery stores, specialty food stores, and restaurants offer heart-healthy foods?</i></p>	<p><i>Free and reduced-cost lunches available at school.</i></p> <p><i>A variety of grocery stores in area.</i></p>	<p><i>Struggle with soft drink giant and distribution rights at schools.</i></p> <p><i>Lack of fresh produce at food stores.</i></p>	<p>Individual memory</p> <p>Household</p> <p>School</p> <p>Worksite</p> <p>Neighborhood</p> <p>Town or city</p> <p>Counties</p> <p>State</p> <p>Region</p>
<p><b>Recreational Environments</b></p> <p><i>Are there special physical activity events?</i></p> <p><i>Are exercise facilities available in schools and worksites?</i></p>	<p><i>Annual walk-a-thon activities.</i></p> <p><i>Health and fitness fairs to raise awareness.</i></p>	<p><i>School board plans to decrease PE programs within county.</i></p>	<p>Individual memory</p> <p>Household</p> <p>School</p> <p>Worksite</p> <p>Neighborhood</p> <p>Town or city</p> <p>Counties</p> <p>State</p> <p>Region</p>
<p><b>Smoke-Free Environments</b></p> <p><i>Do local or city ordinances regulate use of cigarettes and other tobacco products in public and commercial locations?</i></p>	<p><i>City council seeks ban on smoking in public places.</i></p>	<p><i>Some bars and restaurants are exempt from smoking ban.</i></p>	<p>Individual memory</p> <p>Household</p> <p>School</p> <p>Worksite</p> <p>Neighborhood</p> <p>Town or city</p> <p>Counties</p> <p>State</p> <p>Region</p>