

2

Paint a Picture of Your Target Population: Assessing Assets and Problems

Key Terms: *quality of life, community capacity, morbidity, mortality, incidence, prevalence, predisposing factor, reinforcing factor, enabling factor, resources*

Dee's wellness committee has decided that it would like to take a look at the "big picture" of health in the community before it makes any decisions about what the school health program needs to address. The local health department representative on the committee thinks this is a great idea and offers to coordinate a review of the community's quality of life and health status. He has even offered to contribute some funds to the effort, because his office can use the information for its own planning. Jose agrees to assist with this effort, because his coalition may also benefit from the data that are gathered. Jose and the health department representative organize a work group to conduct this portion of the needs assessment. Two other members of the wellness committee join them and agree to recruit community members. They set up a meeting and agree to generate a set of questions that they think this portion of the needs assessment should answer.

The vision of Healthy People 2020 is to have "a society in which all people live long, healthy lives" (USDHHS, 2009). Improving health and quality of life requires the program planner to identify the strengths, problems, and challenges in the target population—what is already "good" and what needs to be better. Green and Kreuter (2005) emphasize that those planning health-related

programs need to take into account the effects of various systems on our ability to live long and healthy lives. Family, cultural, community, organizational, and environmental systems and their subsystems (e.g., health care system, public health system, and education system) are constantly changing and interacting with one another. In order to design effective programs to improve health and quality of life planners need to be able to “see” these systems and their effects. In other words, planners need to understand and consider the “immediate contexts” of the target population as well as the larger contexts that surround them.

Planning a program begins with a comprehensive needs assessment. The needs assessment allows program planners to “paint a picture” of the target population, its environments, and the systems affecting the target population’s health and quality of life in order to decide what the program should address, how to go about addressing it, and who should be involved. In essence, a needs assessment consists of a number of stages of increasingly narrow focus. Within each stage, members of the target population are involved and data are collected, organized, and analyzed in order to determine the priority factors that the subsequent stage then investigates. At the end of the needs assessment process there remains a set of concrete, supportable, measurable factors that are connected to one or more health priorities or desired goals of the target population. These factors may be connected because they will help and support positive changes or because they are contributing to the “problem.” Those factors that contribute to the problem or affect progress toward desired goals are the ones that program planners will address in the program that is eventually developed or adopted. Thus, program planners may be developing strategies to use and build assets already in place, change factors that contribute to health and health-related problems, or both.

This chapter outlines the stages of a needs assessment for health education and health promotion program development, focusing on the types of information that are necessary to consider within each stage. Data collection techniques are referred to in this chapter but are discussed in more detail in Chapter 3.

Getting Started

Green and Kreuter (2005) recommend beginning the process with a *social assessment and situational analysis* that will help program planners describe and understand the real and perceived interrelationships between health and social conditions. The social assessment—learning about the social environment in which the target population lives, works, and plays; how this group experiences it; and what perceptions about the social environment are shared by individuals and organizations—assists planners in making eventual decisions about program components by allowing connections to be made among social environment, perception, and health conditions. This process allows the target group to identify

common goals they want to pursue; illuminates how health status contributes to or hinders pursuit of those goals; identifies social factors that affect health; and increases participation and engagement. Community participation in every step of the process has become recognized as necessary for success (Israel et al., 2003; Minkler & Wallerstein, 2003a).

Bartholomew and colleagues (2001) point out the importance of assessing the target community's or population's abilities and current and future resources; together, these are often referred to as *community capacity* (CDC, 1997). The idea here is to get a sense of the community's ability to participate in the process in a meaningful way. It may be that the community needs resources, knowledge, and/or skills in order to be part of the process. Investigating the community's capacity to "participate" would be the first situational analysis. Minkler and Hancock (2003) suggest that a simple approach is to create a capacity inventory (p. 141). The capacity inventory is a written list of resources in the community and skills and talents of individuals who are part of the community. A thorough review of community newspapers, community Web sites, various directories combined with windshield and walking tour observations, and interviews can identify community resources. Surveys, focus groups, key informant interviews, Facebook pages, and surveys (paper and/or electronic) can be employed to document skills and talents of members of the community that both highlight positive assets and may be useful later.

Quality of Life and Health Status Assessment

A comprehensive needs assessment begins by looking at a group's quality of life (NACCHO, 2010b; Green & Kreuter, 2005). The health status of a group of people is really one part of its overall quality of life. Yet, because health educators are most interested in health, we need to be sure to make a detailed assessment of health status that is separate from an assessment of quality of life. Being able to link health problems and priorities to deficits in quality of life strengthens any argument for their need to be addressed and is the ultimate goal of health interventions (Clark, 2000; Green & Kreuter, 2005). The identification of a community's capacity and strengths (Box 2.1) can point towards intervention strategies that may be more successful or resources that can be used to address health problems (Bartholomew et al., 2001; NACCHO, 2010b). One should keep in mind two points about the notion of community. First, communities are not just geographically bound; they may comprise a group of people with shared interests, goals, and backgrounds. Second, the schools, worksites, health care facilities, and other smaller groups with which we may work or be responsible for exist in a larger geographic community and may be affected by the assets and problems of the larger community. The functionality of these schools, worksites, health care

Box 2.1 What is community capacity?

Together and separately, individuals in a community have particular strengths and skills that, now and in the future, may contribute to the quality of life of the entire community.* This is community capacity. Assessing and identifying community capacity should be part of a comprehensive health needs assessment. Community capacity building may need to be an early part of any health-related intervention. But what should be measured? The Vancouver Health Authority in Vancouver, Canada, identified five dimensions of community capacity. When applied to health, these can be thought of as follows:

1. Skills and knowledge needed for the effective planning and delivery of programs
2. Leadership that allows for the organization of the talent and skills present in the community to collectively address a health issue or problem
3. A sense of confidence within the community that it can effectively address its health-related problems
4. Existing social capital, trust, and connectedness within the community that will allow for collective health problem-solving
5. A cultural environment that supports the learning and consideration of new ideas and the trial of new approaches

*Centers for Disease Control and Prevention; Agency for Toxic Substances and Disease Registry, Committee on Community Engagement (1997). *Principles of community engagement*. Atlanta, GA: Public Health Practice Program Office. Retrieved from <http://www.cdc.gov/phppo/pce/index.htm>; Vancouver Coastal Health Authority (n.d.). *Community and public involvement*. Retrieved from <http://www.vcn.bc.ca/vrhb/SMCHTF/CommunityCapacity/CommunityCapacity.htm>.

and other “systems” also impacts the health and quality of life of the communities in which they exist.

What is quality of life? What information are we looking to gather when we do what Green and Kreuter (2005) call a social assessment? Quality of life is the sense of individuals and groups of having their needs met and being free from barriers to opportunities to become happy and fulfilled (Green & Kreuter, 2005); it describes how good their lives are (Raphael, Steinmetz & Renwick, 1998). But what makes a good life? Raphael, Steinmetz, and Renwick (1998) discuss three elements of quality of life: being, belonging, and becoming. Essentially, having a good life consists of having a combination of these three elements. It involves being psychologically, physically, and spiritually healthy and being able to be autonomous (being); feeling as if one is connected to other individuals, community resources and services, and the surrounding physical environment (belonging); and having available and engaging services and activities (in leisure time, education, or work) to achieve fulfillment and happiness (becoming).

Collecting existing information about various aspects of the community or group and finding out what the perceptions of the community or group members

are regarding their individual and community quality of life allows one to paint a picture of the quality of life and health status of the target group. Locating, compiling, and organizing existing data through document reviews is part of this process (Green & Kreuter, 2005). Primary data collection is used to measure perceptions of the target group members and stakeholders about quality of life, social needs, and assets. Listening to the target population members and engaging them in these tasks is vital. Painting the picture of your group's quality of life begins with reviewing its demographic information (Hodges, 1997). Population numbers and characteristics are easily attainable from US Census data and other state and local agencies, such as the Chamber of Commerce, local government offices, and local departments of labor. Gender, racial and ethnic characteristics, income levels, and education levels should also be obtained. It is useful to look at how these characteristics, and perhaps others, are distributed across your target population. For example, are some areas of the community wealthier and better educated than other areas? Are there clusters of cultural groups? This information may become important later on in the process when selecting priorities and developing interventions.

In order to build a community profile of assets and capacity, the existence of and participation in civic, cultural, religious, and social service organizations should be documented (Minkler & Wallerstein, 1997). The number and types of local financial organizations, child care organizations, hospitals, institutions of higher education, small and large businesses, public schools, libraries, voluntary and social organizations, and communications and media organizations should be noted. Community members' participation in and interactions with these organizations should also be noted. These organizations can be identified by looking in Web sites associated with the community, local telephone books, reading the classified and other advertisements in the local papers, contacting the Chamber of Commerce and other local organizations associated with institutions of interest, and asking community members. Compiling information about the amounts and locations of green space, the variety and conditions of housing, the availability of health resources, and the capacity and skills of the community will contribute to your picture. Gathering crime statistics, school and work absenteeism rates, discrimination levels, unemployment rates, voting rates, public assistance rates, and measures of crowding will also help to assess quality of life (Green & Kreuter, 2005). Taking windshield tours, reading local newspapers and online publications, reviewing existing documents, and conducting key informant and other types of interviews are often included in compiling this information.

Getting a sense of how, and how well, the various systems that surround your target population work is another piece of painting your picture (NACCHO, 2010b). How are the public health, school, local health care and/or various work-site systems set up? How is communication within and among these systems?

Are they easy to navigate and use for the target population members? These are some of the questions you might answer. Document reviews, key informant and other interviews, focus groups, and surveys or questionnaires may all be useful in collecting this information.

Coalition members, advisory groups, and their community representatives will be helpful in identifying documents to review, describing how to locate and access the documents, identifying subgroups to include in the process as sources of information, and securing access and permission to collect data from sources to reach groups. Some common sources of secondary data and primary data collection methods for this portion of the needs assessment are discussed subsequently. However, keep in mind that a thorough review of the professional literature will suggest data collection strategies that may be more specific to your situation.

Box 2.2 provides suggestions for questions to form the basis of a quality of life primary assessment (Raphael, Steinmetz & Renwick, 1998; NACCHO, 2010b). These questions have been used in focus groups, individual interviews, and community forums.

As you can see, these questions ask respondents to discuss what is good and not so good about their community and to identify any needs that could help improve the quality of life. These can be easily adapted for needs assessment use in worksites, schools, health care facilities, and other sites. Responses from these questions can then be looked at from the perspective of being, belonging, and becoming to make a determination about community members' perceptions of their quality of life. These questions, or others like them that are developed by your assessment planning group, can be used in the context of key informant interviews, focus groups, community forums, and surveys. In addition, photo novella/photo voice is a particularly good technique to use to foster target group participation and to include a wide variety of perspectives (Wang, 2003). Photo novella/photo voice is discussed in more detail in Chapter 3.

Checkpoint 2.1

You want to apply for an RWJF Communities Creating Healthy Environments grant and need to paint a picture of the potential target population that includes the demographics and the socioeconomic and political contexts of the community. List at least five types of data you will need to collect to paint this picture.

Document review will provide much of the other necessary data for the quality of life assessment. The planning group will need to determine what data are necessary, where they are located, and how to access and record the data. A systematic method to record and present your secondary data should be developed, such as is shown in Figure 2.1.

The Robert Wood Johnson Foundation's (RWJF) (2009) *Communities Creating Healthy Environments* (CCE) program provides grant funding to projects designed to prevent childhood obesity through increased access to healthy foods and safe places to play in communities of color. Part of the grant application

Box 2.2 Suggested questions for a primary quality of life assessment.**For Community Members:**

- What is it about your neighborhood and community that makes life less than good for you and the people you care about?
- What are some of the things in your neighborhood and community that help you and your family cope or manage when you or your family have problems?
- What would you like to see added to your neighborhood or community that would help you cope or manage when you have problems? Are there services you would like to see? What programs would you like to see?
- What is happening or might happen that affects the health of your community?
- What threats or opportunities do you see emerging if these events occur?

For Service Providers:

- What is it about this neighborhood or community that makes life good for people who live here?
- What are some of the problems that exist for people who live in this community?
- How do these issues relate to the mandate or mission of your agency (school or school district)?
- How does your agency/school attempt to improve the quality of life of community members?
- Can you give some examples of things your agency/school is doing that are working well? What is not working so well?
- What are some barriers that keep your agency/school from carrying out these efforts? What helps you carry out your efforts?
- What is happening or might happen that affects the health of your community?
- What threats or opportunities do you see emerging if these events occur?

For Elected Officials:

- What is it about this neighborhood or community that makes life good for people who live here?
- What are some of the problems that exist for people who live in this community?
- How do these issues relate to your role as an elected representative?
- How do you attempt to improve the quality of life of community members?
- Can you give some examples of things you have done for the community that have been successful? What has been unsuccessful?
- What are some barriers that keep you from carrying out these efforts? What helps you carry out these efforts? What is happening or might happen that affects the health of your community? What threats or opportunities do you see emerging if these events occur?

Source: Adapted from Raphael, D., Steinmetz, B. & Renwick, R. (1998). How to carry out a community quality of life project: A manual. Toronto, Canada: University of Toronto; National Association of County and City Health Officials [NACCHO] (2010b). Mobilizing for action through planning and partnerships: The Assessments. Retrieved from <http://www.naccho.org/topics/infrastructure/mapp/framework/phase3.cfm>

Indicator	Current local data	Current state data	Current national data	Healthy people 2020 goal
Registered voters who voted in last election				NA
Children receiving public assistance (%)				NA
Child care slots				
Mortality rates				
	Female Male	Female Male	Female Male	Female Male
Coronary heart disease				
Lung cancer				
Incidence rates				
	Female Male	Female Male	Female Male	Female Male
Coronary heart disease				
Lung cancer				
Stroke/cerebrovascular accident				

Figure 2.1 Example of a health data recording sheet. The type of rate (e.g., rate per 10,000) and the year represented by the data should be recorded.

includes painting a picture of the potential target population that includes the demographics and the socioeconomic and political contexts of the community. In addition, applicants for the funding must describe relationships among childhood obesity and other social problems. As we can see, conducting a thorough assessment at this stage that results in the ability to make these linkages in your situation may increase your chances for securing funding.

Epidemiological Assessment

What is the health status of your target population? Which health problems affect the most people? Which ones are on the rise? Which ones are decreasing in incidence and prevalence? How does your target population compare to state and national rates on various health problems? Is it healthier, on par, or worse? What health problems does your target population think are important to change? Do health problems appear at different rates among subgroups within your target population? On what health problems do your agency's or employer's funding source focus? Do your health data identify problems that have been selected as priorities in Healthy People 2020 (USDHHS, 2009) or a comparable

state or regional document? What health problems may be having a direct impact on quality of life issues? What is contributing to the health problems?

These are the major questions that the epidemiological portion of the needs assessment seeks to answer (Green & Kreuter, 2005). They may appear to be easy questions to answer, and they often are. However, the challenge of the health assessment is for the planning group to consider the answers to all these questions, along with the social assessment information, in order to identify priority health problems and their contributors.

Green and Kreuter (2005) think about this assessment step as identifying "specific health goals or problems that may contribute to, or interact with, the social goals or problems noted [earlier]" (pp. 10–11). They also point out that in the real world quality of life, health, lifestyle, behaviors, and environment are intertwined. Those conducting needs assessments need to plan to look at each of these components separately and as they relate to one another. For the purposes of clarity the next sections will talk about these components separately.

In many situations, the focus of the health assessment will be limited or defined by employers or funding sources. Health care agencies and organizations may only want to focus on particular types of health problems in a community, mandated curriculum areas of a school, or a narrow range of health problems at a worksite. As mentioned above RWJF (2009) provides grant monies for projects addressing childhood obesity through physical activity and dietary behaviors. Those preparing these grant applications need to provide data in the health assessment related to obesity. Once awarded the grant, one would revisit the health assessment information, perhaps adding to it, in order to more clearly define the health priorities to be addressed by the programs that will be developed.

Several types of epidemiologic data must be collected in order to assess health status (Green & Kreuter, 2005; Merrill, 2010). These data assist in the priority selection process by providing information about the existence of actual and potential health problems (CDC, n.d.) and their contributors. These data identify what the health problems are; who is at risk; why the problems exist; and which problems and contributors are, or have the potential to increase or decrease. These include data associated with health conditions: morbidity, mortality, disability, incidence, prevalence, functional level, intensity, distribution, and trends across recent time frames.

These data should be collected for the target population and at least one comparison population. Comparison populations can be groups similar to the target population, the state population that is home to the target population, or the population of the entire country. It is also important to collect the health data by subgroup (e.g., gender, racial or ethnic group, and geographic group) when available, as this may help to pinpoint specific targets of intervention. Incidence rates highlight new cases of a health problem in a population (Merrill, 2010). They

are the most common means to measure and compare the frequency of a health problem in a population. The higher the incidence rate, the greater the problem. Prevalence rates look at all the cases of a health problem in a population, new and old. Years of potential life lost (YPLL) rates look at premature deaths in a given population from specific health problems. A review of epidemiology is beyond the scope of this text; however, a brief review of those terms important for needs assessment can be found in Box 2.3.

Epidemiologic data for reportable conditions are relatively easy to locate. The CDC, through publications such as the *Morbidity and Mortality Weekly Report* (MMWR), the National Center for Health Statistics, and state and local health departments have a vast array of health status data available for use. Many voluntary agencies, such as the American Cancer Society and the American Heart

Box 2.3 Common epidemiology terms for needs assessments.

Morbidity rates describe the existence of or probability of occurrence of a health problem in a population.

Incidence rate:

$$\frac{\text{The number of new cases of a specific health problem reported during a given time frame} \times 10^n}{\text{Average population during the given time frame}}$$

Point prevalence rate:

$$\frac{\text{The number of (current new + old) cases of a specific health problem at a given point in time} \times 10^n}{\text{Estimated population at the same point in time}}$$

Period prevalence rate:

$$\frac{\text{The number of current (new + old) cases of a specific health problem over a given period of time} \times 10^n}{\text{Estimated population at midpoint of the given time frame}}$$

Mortality rates describe deaths in a population.

Crude:

$$\frac{\text{Deaths during a given time frame} \times 10^n}{\text{Size of the population among which the deaths occurred}}$$

Cause specific:

$$\frac{\text{Deaths from a specific cause} \times 10^5}{\text{Population at midpoint of the given time frame}}$$

Source: Centers for Disease Control and Prevention [CDC] (1992). *Principles of epidemiology* (2nd ed.). Atlanta, GA: Centers for Disease Control and Prevention, Public Health Practice Program Office.

Association, may also have some useful health status data. The challenge is to locate data that are most specific to your target population.

What the target population thinks are priority health problems must also be assessed and included in setting health priorities (NACCHO, 2010b). The target population and stakeholders should be asked what the health problems are as part of the primary data collection activities that concern quality of life or health status. Epidemiologic data may also be presented to community members and groups for comment, feedback, and participation in setting health priorities. Often, both strategies are employed. Key informant interviews, focus groups, community forums, and surveys can be used to obtain perceptions of health priorities.

Selecting Health Priorities

As mentioned previously, the selection of health priorities includes consideration of the quality of life assets and needs and the health data that were collected. Those involved in the process look at all the information in order to identify gaps between where the target group is and where it wants and needs to be with regard to health and quality of life. First, the data are organized and presented to those involved in the decision-making process. The data then are reviewed and considered in a systematic fashion in order to arrive at a list of health priorities. These priorities are then presented to the target population for feedback and validation and are adjusted as needed. Let us explore this in more detail.

The data that were collected should be organized and presented in ways that make the data easy to use and understand for those involved in the setting of priorities. Charts, graphs, summary tables, and other visual depictions of the data collected should be prepared for use in the decision-making process (NACCHO, 2010b).

The target population and the stakeholders must be involved in the selection of priorities. This may be accomplished through a coalition structure, by having community forums or other open communication methods, or by setting up ad hoc committees or working groups. Often, some form of systematic group process, such as a nominal group process, is used. Community-based participatory research (CBPR) takes the position that community members should participate equally with experts in all steps of the needs assessment process and decision-making process (Minkler & Wallerstein, 2003a).

What should be considered when making a decision about health priorities? Part of the decision-making process involves looking at how the target population data compare to the comparison population data that were collected.

Checkpoint 2.2

You are working in the infectious disease branch of a local health department. You need to do a health assessment. Identify three federal sources of epidemiologic data that would be appropriate to use to compare to your local data.

For example, let us say you are working for the American Cancer Society. Your data suggest that the breast cancer and lung cancer mortality and prevalence rates for your region are comparable and higher than other cancer rates. Upon further review of the data, it is apparent that the state and national prevalence rates for lung cancer for your group were higher than both the state and national overall rates for the past 3 years. Furthermore, the breast cancer rate was lower than either the state or national rates. With this information, it is likely that many would consider lung cancer to be a bigger priority than breast cancer. However, it is often not that simple. The decision-makers must look at all the data. Considering how trend data compare is also helpful. Have the breast and lung cancer rates been increasing or decreasing in the region? How do the trend data compare to the state or nation? How the health problems are related to quality of life issues must also be considered during priority selection. Are there any direct or indirect links? For example, are high asthma hospitalization rates contributing to school absenteeism rates? Are Medicare and Medicaid expenditures disproportionately high for particular conditions that are apparent in the community health data? Those health problems that can be linked to factors that have a negative impact on quality of life should be considered as priorities. Other questions to consider during this process are as follows (Green & Kreuter, 2005; NACCHO, 2010a):

- Which health problems have the greatest impact on such factors as days lost from work or school, permanent and temporary disability, cost of rehabilitation, family disorganization, educational attainment?
- Which health problems are disproportionately higher in your populations of interest compared to other similar communities, the state, or the nation?
- What are the perceptions of the target population and the stakeholders, and how do they compare to the other data that were collected?
- Are there disproportionate rates of health problems in certain subpopulations?
- What existing resources are available to address a problem?
- Does the community, agency, organization, school, or worksite have the capacity to address the problem?
- Which problems are more likely to get better with intervention?
- What are the consequences of *not* addressing the problem?
- Which problems are already being addressed by other local organizations and interventions? Are the efforts having an impact?
- Which problem(s), if addressed, would have the greatest potential for measurable improvement in the health and/or economic situations of the population of interest?

It is important to communicate the collected data and, when determined, the initial priorities to the target population and the community at large for validation, comment, and eventual acceptance (NACCHO, 2010a). Adjustments to the initial health priorities can be made based on the feedback. To some, conducting a quality of life assessment and a health assessment may seem unnecessary or a waste of time. Let us say you work for the American Cancer Society, you are a school health educator with a set curriculum, or you are a worksite wellness coordinator who is only concerned with the employees at your site. Why should the planning group take the time to look at quality of life or consider a variety of health problems? First of all, it is useful to validate and update what you already know. Which type of cancer is currently the biggest problem for your target group, or do different subgroups have different cancer priorities? What are the current or growing health problems in the community and school-age populations, and does your school health curriculum give sufficient attention to them and their causes? Are there health problems in the greater community that can impact the employees?

The answers to these questions can help you develop a program that is relevant to the target group. It is also important to find out if the perceptions of the target group and stakeholders are in line with the epidemiologic data. If this is not done, planners may develop a program that the target group and the stakeholders think is unnecessary, negatively impacting its success. Conducting the quality of life and health status assessment can also serve to motivate the stakeholders and the target population and contribute to the acceptance of the interventions that are developed. An investigation of quality of life, community or group capacity, and assets will assist the program planner in these situations in developing a program that is more relevant to the target group than one that would result without the additional data (Box 2.4).

The health assessment process, together with the quality of life assessment, identifies those health problems that need to be addressed in the immediate future. Once determined, health objectives should be developed. The subsequent parts of the needs assessment will attempt to explain why the priority health problems exist so that program planners can design interventions to improve the health status of the target population.

Jose's work group members put together a grid that identified each question they wanted to get answered, three potential secondary sources of information to answer each question, and a person responsible for getting the information. They would have liked to have conducted focus groups to collect some data about community member perceptions of quality of life, but they did not have the time or the funding. Instead, they conducted several key informant interviews.

Box 2.4

The coordinated school health model and quality of life assessment.

It is useful and informative to conduct a quality of life assessment of a community in which a particular school or school district exists; however, in many cases, the school health educator may want to look specifically at the quality of life within the school or its district. From the perspective of the coordinated school health model, we would want to also get perceptions of faculty and staff, students, and parents about being, belonging, and becoming within the school or district.

The CDC's School Health Index materials (available to download from <https://apps.nccd.cdc.gov/shi/default.aspx>)* provide a good basis for taking a look at the quality of life in schools from the coordinated school health perspective. Those working on particular worksites may also wish to assess the quality of the work environment for those employees.

*Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion (2009). *Welcome to the school health index*. Retrieved from <https://apps.nccd.cdc.gov/shi/default.aspx>

They reconvened after 6 weeks to share what they had collected. In order to assist with the priority setting, they constructed a chart that included pieces of information for the local area, comparison information, and state and local objectives. At this meeting, the group decided that it would conduct several focus groups and at least three community forums, run by the neighborhood associations, to get feedback from community members about the information the group had collected. Jose would also write a piece for the local paper outlining the community assets that were revealed as part of this process. Once the work group receives feedback from the community, it will conduct a group processing activity with the coalition to select health priorities and write health objectives.

Determining the Sources of Priority Health Problems

The coalition has determined that lung cancer, chronic obstructive pulmonary disease, and other respiratory problems are the highest priorities in the community. "Cigarette smoking!" exclaimed the coalition. However, Jose and Dee know that it is not that simple and that they need to take a more comprehensive look at what the contributors to the respiratory problems may be.

You have determined one or more priority health problems. But how do you combat the problem? What needs to be changed? The next step in the needs assessment process is to figure out what factors are contributing to the development of this health problem and to select those factors that your program will focus on improving or fostering in order to improve the health problem. These should be factors that directly contribute to the problem. A thorough review of the professional journals and other professional documents, such as health-related government documents, voluntary agency reports, and consensus reports from organizations that fund or publish health-related scientific research (e.g., Institute of Medicine and Carnegie Council for Adolescent Development), should be conducted. A comprehensive list, including both individual and group factors, should be developed (Green & Kreuter, 2005). See Table 2.1 for a list of factors that might be developed to explain West Nile virus (CDC, 2009c).

Once the list of factors has been made, it is useful to group them as behavioral or environmental (Green & Kreuter, 2005). Green and Kreuter (2005) suggest also noting genetic links to health problems such as where genes may directly cause the problem, predispose an individual to risk factors for the health problem, or interact with environmental factors to cause a health problem. Although not amenable to change through health promotion or health education, genetic factors should be taken into account when determining targets for the intervention activities.

Checkpoint 2.3

Identify three agencies, government organizations, or ongoing surveillance studies that could provide you with behavioral and environmental factors that contribute to respiratory diseases.

Table 2.1 Factors Contributing to West Nile Virus

- Not applying insect repellent containing DEET
- Climate that is conducive to mosquito breeding
- Geographic area that contains water for mosquito breeding
- Not wearing appropriate protective clothing
- Being outside at peak mosquito biting times (dawn and dusk)
- Not wearing long pants, long sleeves, and socks when outdoors
- Using insect repellent inappropriately
- No local mosquito control program
- Lots of locations for standing water to accumulate
- Not eliminating items and places that could hold standing water
- Not emptying standing water sites

Source: Centers for Disease Control and Prevention, Division of Vector-Borne Infectious Diseases (2009). *West Nile virus basics: Prevention: Avoid mosquito bites to avoid infection*. Retrieved <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>.

Behavioral factors are those actions that promote health, prevent a specific health problem, promote self-care, and control the development of more serious complications. Some common terms used to describe behaviors are compliance, consumption, coping, utilization, preventive actions, and risky actions (Green & Kreuter, 2005). Individual and collective behaviors may directly contribute to the health problem or indirectly contribute through their effects on environmental factors (Figure 2.2). It is important to note and to consider dimensions of behaviors such as quality, frequency, range, persistence, and promptness.

Environmental factors include social factors (including economic and organizational) and physical factors, such as social norms and living conditions, respectively. The dimensions of environmental factors that need to be noted and considered include equity (do all members of the population of interest experience the environment in an equal way?), access, and affordability (Green & Kreuter, 2005). Environmental factors may contribute to the health problem directly or through their effects on behavior, and they are often changeable through social action and policy.

Once a list of factors, categorized into groups, has been established the following must be determined: Which of the behavioral and environmental factors are present in the target population or community? To what degree are they present? What does the target population consider to be contributing to the health problem? As with the quality of life and the health assessment, begin by looking for existing data for the target group or community. Have others recently

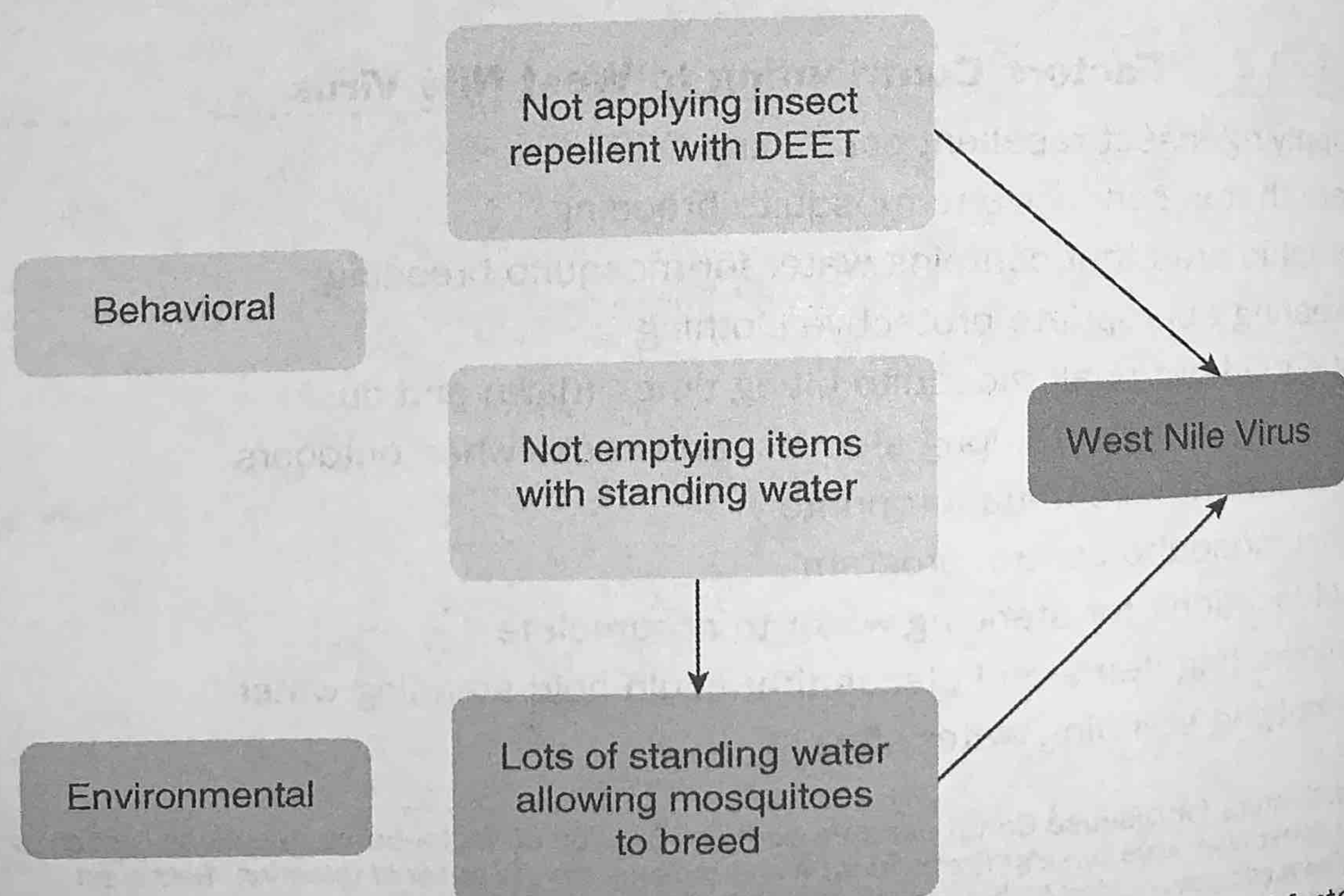


Figure 2.2 Example of the relationship between behavioral and environmental factors for West Nile virus.

measured the prevalence of behavioral and environmental factors in the group of interest? The coalition and advisory group will help in identifying what data may have already been collected and where these data can be found. The local United Way, local and regional voluntary organizations, school districts, agencies on aging, employee assistance programs, and the like may have recently collected data for their own purposes. Perhaps behavioral and environmental data were already collected and presented in existing documents that were reviewed earlier in the process. If so, revisit those documents. As you identify existing data, pay attention to how recent the data are, the similarity of the groups from which they were collected to your group, and whether proper data collection techniques were used (Melnick, 2000).

The initial list of factors is then reviewed, guided by the following questions: Can any of the behaviors be grouped together based on who engages in them, or can any of the environmental factors be grouped together by who can effect change in them (e.g., individuals at risk, health care providers, and politicians)? Can any of the behaviors be grouped together because they are part of a larger behavior? Do any of the behaviors need to be broken down into smaller behaviors? Let us return to the list of factors related to West Nile virus. The behaviors in this list include: not applying insect repellent containing DEET; not wearing long pants, long sleeves, and socks when outdoors; being outside at dawn or dusk; not wearing appropriate protective clothing; and not emptying standing water sites. Reviewing this list, one could devise the groupings shown in Table 2.2.

Table 2.2 Grouping of Factors Contributing to West Nile Virus

Behavioral

- Not wearing appropriate protective clothing
- Not wearing long pants, long sleeves, and socks when outdoors
- Being outside at dawn
- Being outside at dusk
- Not applying insect repellent containing DEET
- Using insect repellent inappropriately
- Not emptying standing water sites
- Not eliminating items and places that could hold standing water

Environmental

- No local mosquito control program
- Lots of locations for standing water to accumulate

Nonchangeable

- Climate that is conducive to mosquito breeding
- Geographic area that contains water for mosquito breeding

Take a look at the behavioral factors more closely. First, we can see both “not wearing appropriate protective clothing” and “not wearing long pants, long sleeves, and socks when outdoors.” The second factor more specifically indicates what is meant by “wearing appropriate protective clothing.” This is a much better statement of the behavioral factor than “not wearing protective clothing” and is potentially more measurable. Second, we see “using insect repellent inappropriately.” This may be an important factor, but we need to further break this behavior down. What is inappropriate use? We must go back to our professional sources to further delineate the behavior of inappropriate use. We can then more specifically describe the behavioral factor we initially identified (Figure 2.3).

To further specify the behavior and give program planners an indication of the targets of the eventual intervention, we must clearly identify the “who” associated with the behavior. Is it a behavior that is carried out by individuals, groups, communities, caregivers, or institutions? In our West Nile virus example, parents will need to appropriately apply insect repellent to their children and be sure that their children are dressed in long pants, long sleeves, and socks when appropriate. Homeowners and businesses can remove unnecessary items that can collect and hold standing water, and they can make sure that such items are otherwise emptied of water. Local government departments of public works can make sure that unnecessary items that could hold standing water are removed from public places and other water holders are emptied regularly. The list of behavioral factors must be as specific as possible with regard to what risk behavior is being engaged in and by whom. This enables you to collect data that will help you select the best priorities for your target population and eventually make the best program objectives you can.

The behavioral factor list will identify what behaviors you will need to measure in your target population. Your needs assessment work group will have to determine which data may have recently been measured and how to get access to them; what resources you have to conduct primary data collection; what data may need to be collected from the target population; and how and when the data will be collected. Self-report surveys, interviews, and observations can be used to collect data on behavioral factors.

Checkpoint 2.4

Why should the health educator be concerned about environmental factors?

Gathering primary and secondary data that are pertinent to your target population and comparison populations will help in selecting environmental priorities that are likely to have an impact if changed. If we look at our West Nile virus factors that are not behaviors we see climate, a geographic area that contains water, no local mosquito control program, lots of locations for standing water to accumulate, and the implication that mosquitoes come out most commonly at dawn and dusk. Climate, geography, and when mosquitoes come out cannot be altered. However, the lack of a local mosquito

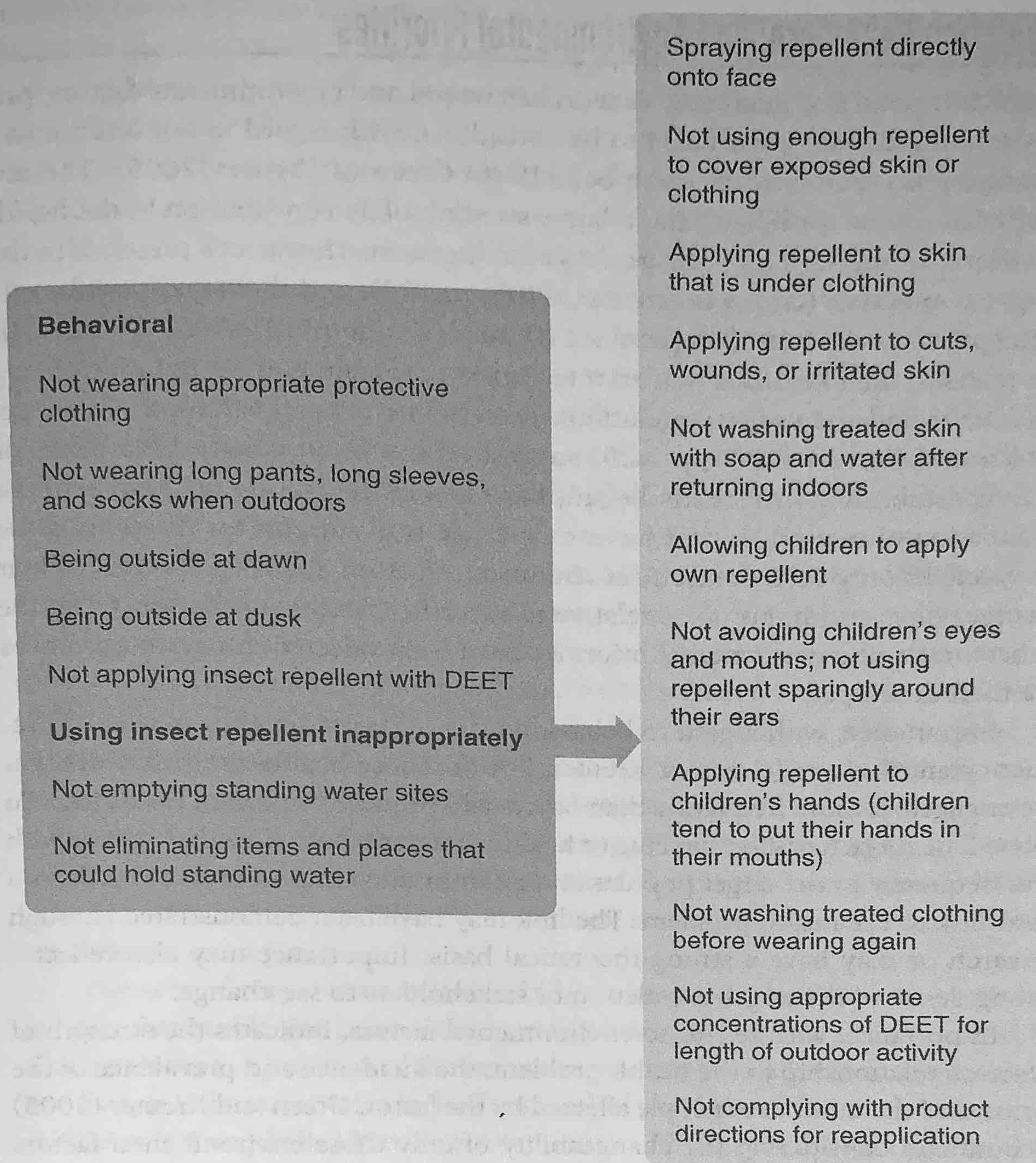


Figure 2.3 Further defining the inappropriate use of insect repellent.

control program for an area with many mosquitoes, and the number of locations where standing water can accumulate are potentially changeable. Identifying who may have responsibility for potentially altering the environmental factors (i.e., local government agencies, individuals, schools, and businesses) should also be identified. As with the behavioral factors, data from the target population must be collected to determine which environmental factors are present for this target group and which ones this target group perceives to be priorities. Observations, surveys, windshield tours, key informant interviews, and community forums can be used to collect this data.

Selecting Behavioral and Environmental Priorities

Once compiled and analyzed, data on behavioral and environmental factors, primary and secondary, will need to be considered with regard to importance and changeability (Gilmore & Campbell, 1996; Green & Kreuter, 2005). The importance of a factor reflects the relative strength of its contribution to the health problem, as supported by the professional literature, the factor's presence in the target population (Green & Kreuter, 2005, p. 123), and the target population's perceptions of the factor's importance (Gilmore & Campbell, 1996). Changeability refers to the likelihood that an intervention program will result in improving the factor and the target population's perceptions of the likelihood of change. Green and Kreuter (2005, p. 125) suggest reflecting on whether the behavior is long established or recently begun, has roots in the culture or lifestyle of the population of interest, and/or has strong theoretical support for its ability to be changed. Priority behavioral and environmental factors are selected based on their changeability and importance relative to the other factors on the list. Once the behavioral and environmental priorities have been selected, program objectives are then developed.

Importance, with regard to behavioral factors, represents the notions of frequency and linkage (Green & Kreuter, 2005). Those health-risk behaviors that are engaged in more frequently than others will be more important to address. So too will be those health-enhancing or health-protective behaviors that appear with low frequency in the target population or community. Importance also reflects a clear link to the health problem. The link may have been demonstrated through research or may have a strong theoretical basis. Importance may also reflect a strong desire of the target population or stakeholders to see change.

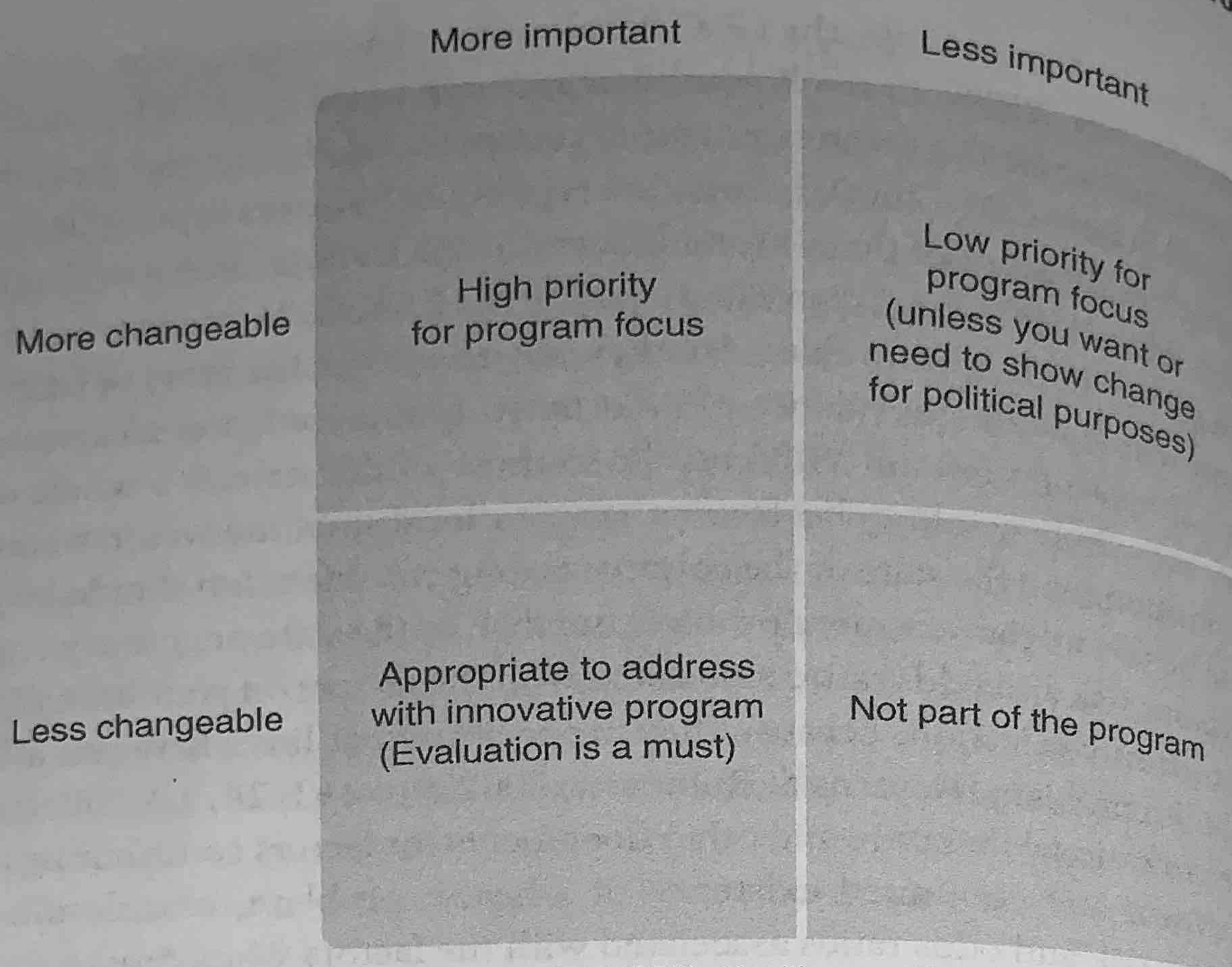
Importance, with regard to environmental factors, indicates the strength of a factor's relationship to the health problem, the incidence and prevalence of the factor, and the number of people affected by the factor. Green and Kreuter (2005) recommend considering the changeability of only those environmental factors that are considered important, because the changeability of these factors is a function of costs (economic and social) and politics. It is important to consult with your coalition members and advisory groups and, perhaps, a wider representation of the target population, given what is involved in effecting change in environmental factors. Percentages of the population already engaging in a behavior and percentages of new initiates to the behavior reflect the frequency of the behavior in a given population. It is sometimes difficult, however, to determine what level of prevalence or incidence is problematic for the purposes of determining priorities. One simple way is to consider the health-compromising behaviors with the highest prevalence or incidence to be most important. There are many health-related behaviors that are measured and monitored regularly on local, state, and

national levels. For example, the CDC developed and administers the Youth Risk Behavior Survey (YRBS) to track youth engagement in six types of behavior that are considered to be the greatest potential causes for morbidity and mortality in the United States (CDC, 2009a). These six types of behaviors are priorities in and of themselves, because of their strong links with the leading causes of death and disability. Many local school districts are part of the CDC YRBS process, and others use the survey in the community. Another way to look at the issue of frequency is to consider how the prevalence of your target group compares to some other group. Comparing the local YRBS results to those of the state as a whole or the country as a whole would indicate whether your local situation was in a better or worse position than the state or the country. Strong consideration should be given to those behaviors that are more problematic than in the state or country or both.

Relative risk and odds ratios associated with the factors on your list will assist in your priority selection, because they are measures of links between a factor and a health problem (Neutens & Robinson, 2002, pp. 243–247). While reviewing the professional literature and other documents for factors contributing to the development and continued existence of a health problem, one should note the relative risk and odds ratios associated with the factors when reported. Relative risk and odds ratios are measures of how much more at risk someone exposed to (or engaging in) a risk factor is to the health problem than someone not exposed to (or engaging in) the risk behavior. Those behavioral and environmental factors with high relative risk and odds ratios are more important to the development of the health problem than those with lower ratios. Relative risk and odds ratios may differ by subgroup, so it is important to note if there are differences by group.

The second major issue that should be considered when choosing priorities is how changeable the behavioral or environmental factor is considered to be. Changeability is a function of the resources you have available (i.e., time, money, and people), the success (or lack of success) of previous efforts to alter the factor (Gilmore & Campbell, 1996; Green & Kreuter, 2005), and the willingness of the target population to address the factor (Gilmore & Campbell, 1996). Once again, it is through the professional literature that one will determine how likely people are to respond to efforts to change a behavior. In general, the research indicates that health-risk behaviors that are being experimented with or are only newly adopted are easier to change than those deeply embedded in culture and lifestyle or those that have compulsive or addictive components.

How do you consider both importance and changeability in a systematic way? Many suggest constructing boxes based on those recommended by Green and Kreuter (2005) (Figure 2.4). Essentially, all the factors on your list will be placed in one of the four quadrants of the box. (Some use two boxes, one for behavioral factors and one for environmental factors.) Notice that placement



Source: Based on Green, L. W. & Kreuter, M. W. (1999). *Health promotion planning: An educational and ecological approach* (3rd ed.) (p. 138). Mountain View, CA: Mayfield.

Figure 2.4 Changeability and importance box.

is relative; factors are either more or less important or changeable. Most of the time, the priorities will be selected from the group deemed both more changeable and more important, but, as indicated in the figure, there may be situations when a factor from another quadrant is selected. Figure 2.5 presents an example of how some of the factors related to the West Nile virus example might be considered.

Other decision-making processes can be employed, such as various versions of individuals assigning weights (1 being the lowest priority and 5 being the highest priority) to each factor (or to a number of criteria for each factor) and selecting priorities based upon some predetermined cutoff (Witkin, 1984; Gilmore & Campbell, 1996). A nominal group process may also be used. No matter what decision-making process is used, the target population should be involved (Minkler & Wallerstein, 2003b; Green & Kreuter, 2005). The coalition or advisory group should be included in this decision-making process. However, the factors selected should be clearly linked to the needs assessment and should be supported by gatekeepers and target population members.

In the West Nile virus example, both behavioral and environmental factors may be considered to be at least somewhat important, but it is more difficult to determine changeability. Why? Decreasing community items that hold standing

	More important	Less important
More changeable	Not using insect repellent Not complying with product directions for reapplication Not emptying standing water sites	Not using appropriate concentrations of DEET for length of outdoor activity Not eliminating items and places that could hold standing water
Less changeable	Not wearing long pants, long sleeves, and socks when outdoors No mosquito control program	Being outside at dawn Being outside at dusk

Figure 2.5 Partial analysis of West Nile virus factors.

water (e.g., cleaning road drains) is relatively easy to accomplish politically and has some economic cost. However, changing this environmental factor would have less impact on the health problem than implementing a mosquito control program. A mosquito control program, however important, would have higher economic costs, could potentially involve some social costs (the need to stay indoors during spraying), and could be politically difficult to support. Perceptions of community members may be that spraying creates a high health risk itself, so the use of spraying to control mosquitoes would not be supported. Green and Kreuter (1999) remind us that many risk assessments do not reflect real risk levels. It may be necessary to explore the risk of addressing some environmental factors before final priorities are selected.

The selection of priority behavioral and environmental factors should be approached systematically. Do we always select priorities from both groups? It will depend on the specific situation. Behavior has been a large focus for the past few decades but the importance of the various environments' contributions to health-related behaviors is increasingly being noted. Resources, importance, and changeability all need to be considered as part of the decision-making process. However, whenever possible both should be addressed. What remains at the end of this process are the behavioral and/or environmental factors that will receive further analysis and about which program objectives will be written.

Identifying the Contributors to Priority Behavioral and Environmental Factors

Whether you think of it as conducting an educational and ecologic assessment (Green & Kreuter, 2005) or as describing why health-risk behaviors are happening and environmental factors continue to exist, this next portion of the needs assessment will identify for you those specific elements that the program will need to address.

As with the previous portion of the needs assessment, scour the professional literature to create an exhaustive list of factors that contribute to each priority behavioral and environmental factor; group like factors together; collect data from your target population with regard to these factors (resources permitting); and prioritize and select those factors that your program will address. Objectives will then be written about the selected factors. Let us take a closer look. Once again, the professional literature will help you create a list of the possible contributors to each of your priority behavioral and environmental factors. Literature reviews and research studies about the health problem and the priority behavioral and environmental factors will provide items for your list. Reviewing models and theories associated with health, health behavior, health education, health promotion, and the like will also provide factors for the list.

The Precede-Proceed model (Green & Kreuter, 2005) suggests grouping factors into three groups: predisposing, reinforcing, and enabling. The main benefit of these groupings for the program planner is that factors within each group lend themselves to change through similar types of intervention activities.

Predisposing factors include awareness, knowledge, values, beliefs, attitudes, perceived needs, and self-efficacy (Green & Kreuter, 2005). These factors exist prior to the engagement in a behavior and exist "in one's head." Direct communications including public media campaigns and educational activities is the most common type of intervention used to strengthen predisposing factors. Reinforcing factors reward the continued engagement in a behavior and may be physical and/or social. Reinforcing factors operate after the behavior has begun. It is useful to think of reinforcing factors as mostly the practices of other people and institutions that are important to those engaging in a behavior, such as family, peers, teachers, employers, health care providers, churches, and the government. The media can also play a part in reinforcing existing behaviors. Internal reinforcing factors, such as pain or pleasure derived from the behavior, may also contribute. Anticipated rewards supported by social norms as well as vicarious rewards are also considered reinforcing factors. Reinforcing factors respond to policy change and indirect communication interventions through "important others" such as peers, parents, clergy, teachers, community leaders. These might take form as facilitated role-modeling, social support, instrumental support, and the like, directed toward

those people and institutions that are important to the target population. Enabling factors allow a behavior to begin or to continue or allow an institution to act. These factors include the availability, accessibility, and cost of services and goods needed to engage in a behavior or to sustain an environmental factor. Also in this category are *new* skills that individuals, communities, or organizations need before a new behavior can be carried out or an environmental factor changed. Included are abilities to control personal risk factors for disease; skills in appropriately using medical care; skills in changing or controlling exposures to the environments. It is important during your assessment to note the skills required for each behavior identified as a priority. Community organization, political intervention, advocacy, regulation, organizational changes, and skills training are modes of intervention for this group of factors.

It is sometimes difficult to place a factor in only one category. It may depend on the specific situation in which it appears in the community or is discussed in the literature. One may also struggle with whether an item is an environmental factor or an enabling factor. Green and Kreuter (2005) suggest that it is appropriate to place an item in as many groups as is appropriate, as long as it receives sufficient scrutiny. It is useful to see if the factor can be described more specifically or in more than one way. The resulting information may make it easier to determine where best to place it.

Once the list of factors, categorized into three groups, has been completed, the factors that are present in the target population or community and the degree to which they are present must be determined. As in the previous step, begin by looking for existing data that describe the presence of the factors in the target group or community. Once you have gathered this information, you can determine which data will need to be collected, along with how best to collect them. It is very important at this point to determine if varying subgroups of your target population differ with regard to the presence of the factor. Different subgroups within the target population may have different factors that need to be strengthened to achieve behavioral, environmental, or organizational changes. Surveys, questionnaires, and tests are often used to collect data from the target population about predisposing factors. These tools can also be used to establish reinforcing factors. Skills tests, surveys, and observations are often used to measure enabling factors.

Once compiled and analyzed, data on predisposing, reinforcing, and enabling factors, primary and secondary, will need to be considered with regard to importance and changeability (Gilmore & Campbell, 1996; Green & Kreuter, 2005). The importance of a factor reflects the relative strength of its contribution to the behavioral or environmental priority, along with its presence in the population (Green & Kreuter, 2005). Changeability refers to the likelihood that an intervention program will result in improving the factor. Priority predisposing, reinforcing,

and enabling factors are selected based on their changeability and importance relative to the other factors within and across groups.

The mix of predisposing, reinforcing, and enabling factors that are selected for change through program activities will depend on the specific situation with regard to resources, mission, and support from the target population, stakeholders, gatekeepers, and supervisors. There may not be sufficient monies to increase the availability of a particular service, but increasing the adoption of new skills may be a possibility. The coalition, advisory board, or wellness team should be involved, as always, in determining the priorities. Once selected, objectives will need to be written about these factors.

Dee and Jose were glad they continued to assess the situation related to respiratory diseases. The coalition found out that air pollutants from the manufacturing plants a few miles away were higher in concentration than they were supposed to be, and that the worksite air conditions were not up to Occupational Safety and Health Administration (OSHA) regulations. The coalition realized that addressing this environmental factor would require community organizing. A new work group was formed to explore that avenue. Cigarette smoking was selected as the priority behavioral factor. After some long discussions, it was decided that Dee would focus her efforts on preventing smoking initiation in all grades, but she would also work to provide smoking cessation workshops for those at the secondary level who already smoke. Jose is going to focus on smoking cessation for adults. Once the factors contributing to smoking were determined and analyzed, it was decided that Jose needed to focus on decreasing those factors that were reinforcing smoking and to strengthen perceptions that emerged indicating that many people important to the adults, such as grandchildren, children, and coworkers, disapproved of the adults' smoking behavior. Jose has a rather long list of possible objectives to address with a rather large target population. Dee has a smaller target population, but she is thinking about some small, intensive smoking cessation programs. They must figure out what resources they have (or can get) and identify anything that might get in the way of putting their programs in place.

Administrative and Policy Assessment

Now that you have figured out the targets of change for your program and have written preliminary goals and objectives, you can move on to the intervention. But wait! Not so fast. It is useful and important to take a look at the resources for

and barriers to your program objectives and the program itself, both before and during its development. You must determine if you have the resources to (1) address all of your objectives in (2) the manner you have planned. You also must identify and remove, if possible, any barriers to implementing your program as planned (Green & Kreuter, 2005; NACCHO, 2010a).

Before beginning this part of the assessment you should look at your advisory board or planning committee to see if you need to add representatives from the settings where you will likely deliver all or part of your program. Of course, a lack of resources, in and of itself, would be a barrier. So let us begin with a resource assessment.

Checkpoint 2.5

What do we mean by resources?

Resource Assessment

Resources include time, money, and people. Time assessment involves determining whether sufficient time exists to meet your stated goals and objectives and whether this time has been planned for. It is also important to map out the program as it develops to see if objectives are being addressed in a time sequence that is consistent with their places in the objective hierarchy and in relation to one another. For example, an objective to increase knowledge related to a specific health problem and its causes would need to be addressed in a program before an objective related to new skill development. Both of these objectives would need to be addressed (and met to some extent) before behavior could change. Gantt charts are visual depictions of activities that are to occur across time that help us to see these relationships in graphic form. The objectives and their associated program activities are listed down the side of the chart, and a measure of time is listed across the top (in days, weeks, or months). Horizontal lines depict when specific program activities begin and end and how much time is devoted to each.

People resources largely include the level of availability and training of appropriate personnel (Green & Kreuter, 2005). Can the program be delivered with existing personnel? What percentage of their time will this program require? Are there people available who have the necessary skills to conduct various components of the program? Will you have to hire extra or outside personnel? Do you have or can you acquire the money to do so? What is the attitude of potential staff people toward the program's goals and objectives, and what is their involvement? It is important to remember to include support staff in this resource assessment.

The budget situation will also have to be assessed. The largest categories in a budget will be personnel (the largest), supplies, services, and travel (in some cases) (Green & Kreuter, 2005). Essentially, the amount of money needed is going to have to be estimated and compared to the budget the program has been given. Begin by estimating costs. Be as detailed as possible and estimate high. Use the highest prices you are quoted for supplies and services, for example. Once costs

have been estimated, available resources must be determined. Will the budget that was given to you by your school, worksite, agency, or organization be able to cover your estimated costs? If so, great! If not, how do you adjust? If you have not done so already, (1) go back and determine what appropriate materials are on hand and available for use with little or no adaptation, (2) recruit in-kind services from volunteers (who may need training), local college or university staff, college interns, and the like, and (3) recheck the cost estimates.

What if your resource needs cannot be met? Green and Kreuter (1999) recommend exploring the answers to the following questions:

- Do you know the minimum level of implementation needed to achieve your stated objectives? Check the evaluation literature.
- Are there parts of your intervention that are excessive and could be eliminated? In some instances, too much is not a good thing. Once again, be familiar with what the professional literature has to say about your strategies, methods, and targets of change.
- Is there a critical piece to the program that must happen in order for it to work, a piece to which most other pieces are linked (e.g., a provision of free screenings or an extended lunch break)? If you do not have the resources to support such a piece, then the program probably is not worth putting into place.
- Can you alter the objectives (e.g., focusing on subgroups rather than the entire target population or using a longer time frame to spread costs over budget years)?
- Can you exclude or delay addressing certain objectives?

Implementation Assessment

Before committing to implementing an intervention, take a look at factors that could support or prevent successful implementation (Green & Kreuter, 2005; NACCHO, 2010a). These factors include, but are not limited to, staff support of the program; the need for staff training time if new skills are required for the intervention; the availability of appropriate space for program delivery; gatekeeper and target population comfort levels; political circumstances; quality assurance systems; and the acceptance of the scope and speed of the program.

Policy Assessment

Program planners must compare the mission, policies, and regulations of your school, agency, organization, or worksite and the views of those involved in the intervention to identify whether they support and can facilitate the program's implementation or whether there are any conflicts with the intended program. You may have developed the best program or the most innovative activities, but they cannot produce changes if they cannot be initiated. Does the new tobacco

unit use demonstrations involving lit cigarettes and blowing smoke? It might not be able to use those activities in a smoke-free building. If conflicts are identified, the program plan must be adapted or the regulation or policy must be changed. The policies of your existing and potential collaborators also need to be considered to assess if they are aligned with and can support the potential program.

Checkpoint 2.6

Who would you check with, or where would you find the policies for a school district, a worksite, or health clinic?

Political forces at the national, regional, state, local, and organizational levels can affect your ability to implement your program and acquire resources (NACCHO, 2010a). For example, funding sources may direct monies toward initiatives that are politically popular and away from those that are politically unpopular. City councils and school boards may or may not approve your program or curricular initiative based on politics. Knowing ahead of time what is and is not politically supported will help program planners to decide how to proceed. Attempting to change the political viewpoint and clearing the way for your program efforts, perhaps through community organizing, may be tried. However, adapting the program may be necessary. It may be decided that the adapted program would result in a poor use of resources, making it necessary to move on. Or perhaps some advocacy work in support of the program can be done to change policy barriers.

Jose compared his projected budget to his resources and found out that he must narrow the scope of his program. He is going to take a look at the needs assessment and see what subgroups he can target. Dee found out that she cannot run smoking cessation groups during the school day. She will have to work on promoting them in such a way that they will be attractive as an extracurricular activity.

The Big Picture

1. Gather data about quality of life, including assets and problems. Be sure to include the target group in the process, and be sure to ask the target group what it thinks throughout the entire needs assessment process. Identify and use existing data.
2. Organize and analyze the data with the assistance of stakeholders and target group members.
3. Paint a picture of the quality of life. Identify the assets as well as the problems.
4. Gather health status data for the target population and one or more comparison populations. Be sure to ask the target population and stakeholders for their perceptions and priorities regarding health problems.

- 5.** Look at health-related activities and services that are provided at the local level.
- 6.** Communicate what has been found to the target population and stakeholders in an easily understandable manner. Provide a mechanism for comment.
- 7.** Consider steps 1–7 to determine health priorities. Focus on the gaps between reality and the target group's vision of where it wants to be; needs and available services; federal, state, and local objectives; and the current situation. Get a sense of political, economic, and technological trends, actions, and potential actions that could positively or negatively affect health status or the delivery of health services (NACCHO, 2010b).
- 8.** Gather information from professional sources on what factors contribute to the existence and development of the priority health problems. Group factors into behavioral and environmental factors.
- 9.** Collect data from the target population about relevant behavioral and environmental factors.
- 10.** Use a systematic decision-making process to select priority behavioral and environmental factors. Write objectives about them.
- 11.** Gather information from professional sources on what factors contribute to the existence of the priority behavioral and environmental factors. Group factors into predisposing, reinforcing, and enabling factors.
- 12.** Collect data from the target population about relevant predisposing, reinforcing, and enabling factors.
- 13.** Use a systematic decision-making process to select priority factors. Write objectives about them.
- 14.** Conduct a resource and policy assessment.

When Needs Assessment Resources Are Tight

If there is a long list of potential factors and relatively few resources, one may need to collect primary data from the target population or community, measuring only those factors that seem to be of the highest priorities, based on your review of the professional literature. Also to be considered are the informed perceptions of your coalition or advisory board members. How should you determine for which factors to collect primary data? One way is to go to the professional literature and look at the relative risk or odds ratios for the factors contributing to the health problem (Green & Kreuter, 1999). A relatively high relative risk or odds ratio points to a factor that should be investigated specifically with your population (Green & Kreuter, 1999). Another option is to collect data to try to validate the perceptions of your group members. You may also combine these options.

If resources exclude primary data collection, you will have to make choices based on the available information in the professional literature and any relevant existing documents. Those conducting the needs assessment must be exhaustive in the search for existing information. The Internet will assist you in locating and reviewing many pieces of secondary data. However, close scrutiny of information and data sources for legitimacy, timeliness, and applicability must be exercised. Depending on the size and location of the target group, it may be difficult to find existing information about the group. In that case, you will need to take a look at what is available for the “next biggest” group. For example, perhaps you are looking for existing information about some health-risk behaviors of adolescents in your school, but you cannot find any existing documents in your school that supply such information. You would next check with the school district to see if they have any recent data on adolescent health-risk behaviors. Have they recently administered the YRBS (CDC, 2009a)? Districts may administer the YRBS and only report the data by the entire district, not by individual school building. If there are no YRBS data from your district, check with your state health department. It will have the statewide YRBS data. Be sure to check that these data are from the most recent administration of the YRBS. If the most recent data are not available, it is useful to check with the CDC to see if any of the most recent data have been analyzed and use them as they become available.

Some General Reminders

The following should be kept in mind when reviewing existing documents for a needs assessment:

1. Look for and use data that are reported as rates. Rates allow us to compare groups of different sizes. Rates may be percentages or they may be reported as some number “per 10,000” (or other factor of 10). When collecting data to compare, be sure that the denominator of the rate recorded is the same. In other words, if you have a prevalence rate that is listed per 1,000 for one population, the comparison population’s prevalence rate should also be listed per 1,000.
2. Obtain and record the most recent data available. You may need to find out how frequently reportable statistics are collected and reported. For example, unemployment figures are published monthly, but they are also reported by year. Incidence and prevalence rates may be reported by month, by year, or by multiple years. Some pieces of “most recent” data may be very recent—only months old—while others may be a few years old. It will depend on the collection and reporting system. Data that may be part of a previous local assessment should be updated if necessary.

3. Try to get comparison data from the same year when possible. If not, get data as close in years as possible.
4. Read the fine print on tables and graphs. It will contain important information, such as the type of information being presented, the type of rate used, and important population information.
5. Pay attention to the source of the data (Melnick, 2000). Is it a government agency, an advocacy group, or a voluntary agency? Be alert to potential biases.
6. Always note the source of the data, so it can be referenced.

Summary

Gathering, considering, and analyzing a wide variety of data about a community in order to determine its assets and needs for the purpose of setting goals and objectives is needs assessment. Needs assessment is a narrowing process that begins by painting a picture of a target population's community, with the assistance of the target population, in order to determine a program's focus. Further investigation is done to look at micro-level factors that can be changed or channeled to reach the predetermined goal. Box 2.5 provides a checklist for your needs assessment.

Box 2.5 Painting a picture of your population: A checklist to be used for each phase.

- _____ Identify what information you need.
- _____ Determine a timeline.
- _____ Decide where, how, and from whom you will obtain the information.
 - ___ Read the professional literature.
 - ___ Identify the type of data:
 - ___ primary ___ quantitative
 - ___ secondary ___ qualitative
- _____ Determine who is responsible for obtaining the information.
- _____ Secure needed permissions to access information from people.
 - ___ Consult the review board if applicable.
 - ___ Make sure consent letters are developed, approved, and used.
- _____ Identify, obtain or develop, and test data collection instruments.
- _____ Collect your information.
- _____ Organize your information.
- _____ Analyze your information.
- _____ Review your analysis and set preliminary priorities.
- _____ Validate priorities with target population and stakeholders.
- _____ Reprioritize, if necessary.

QUESTIONS

1. Why is it important to assess the quality of life?
2. List and describe three different types of epidemiologic data that should be collected as part of a health assessment.
3. What does the term *community capacity* mean?
4. How might behavioral and environmental factors affect one another? What are some examples?
5. What are the differences between predisposing, reinforcing, and enabling factors? Why is it important to look at these factors as part of a needs assessment?
6. What is meant by the term *resources*?
7. Describe why a policy assessment should be performed.

EXERCISES

1. Go to the Web site of your state's health department. Look at the epidemiologic data for the chronic and communicable diseases in your county. Based on the data, what conditions should be considered priorities? Justify your selection in writing.
2. Identify five potential sources of quality of life information for your community. What types of social indicators or other information for a social assessment can each provide? Make a list.
3. Access the US Census data for your county. Write a paragraph or two describing the demographics of this potential target group.
4. Locate a survey or interview instrument that is used or could be adapted to collect quality of life information about a workplace. Bring it to class to discuss.
5. Write a paragraph describing the quality of life on your campus. Read it to the class and invite others' perspectives. Determine what the commonalities and differences of perceptions are.
6. Choose one of the professional journals (e.g., *American Journal of Health Education*, *International Electronic Journal of Health Education*, *Journal of School Health*, or *Health Education and Behavior*). Find and read an article that describes a program. From that description, list the personnel required and supplies that may be needed. Determine how much your supply budget would have to be.
7. Research the local school district policies that might impact the implementation of a coordinated school health program.

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